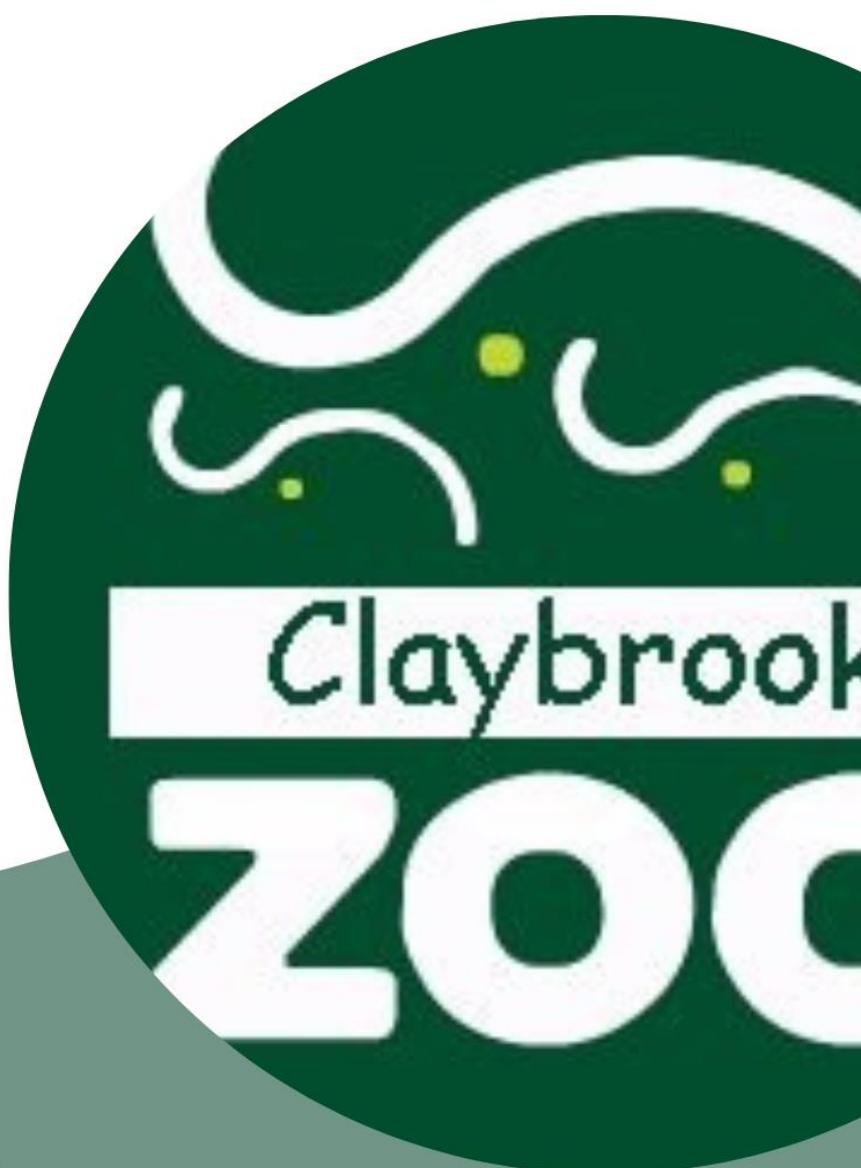


Claybrook Zoo Solution Report



Prepared by
Group 8

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1 Introduction

1.1 Project Background

Claybrook Zoo, located at 45 Zoo Lane, Westlands, North Yorkshire, is a distinguished institution dedicated to wildlife conservation and education. Despite its esteemed reputation and critical role in ecological preservation, the zoo has encountered a marked decrease in visitation, particularly among the younger demographic, a trend that has been exacerbated by the global pandemic and advancing technological expectations.

The persistence in utilizing outdated, paper-based systems for record-keeping has led to operational inefficiencies and security concerns. The physical nature of these documents presents risks of loss, damage, and unauthorized access, which are further compounded by environmental implications due to paper consumption.

Compounding these challenges is the zoo's nonexistence in the digital realm. The lack of an official website and social media presence has placed Claybrook Zoo at a severe disadvantage. The digital deficit hinders the zoo's ability to disseminate information, engage with potential visitors, and leverage critical marketing and fundraising opportunities.

In response to this exigent situation, Matthew, a principal stakeholder at Claybrook Zoo, has proposed the initiation of a comprehensive digital transformation project. The project's objective is to develop a suite of software solutions encompassing a customer-oriented website, an internal visitor information system, and an advanced records management system. This initiative is anticipated to not only streamline zoo operations but also revitalize its appeal, especially to the technologically savvy younger generation, securing the institution's financial sustainability and its mission for future endeavours.

1.2 Project Aims and Objectives

Strategic Goals and Milestones

Vision Realization

Our vision is to create a cohesive digital ecosystem that is reflective of Claybrook Zoo's mission to educate, conserve, and inspire. This ecosystem will be built on a foundation of tailored software solutions that are robust, user-friendly, and future-ready.

Digital Transformation Pillars

1. Customized Software Ecosystem Development:
 - Forge a versatile digital infrastructure that adapts to the evolving needs of Claybrook Zoo.
 - Prioritize high-performance software with an emphasis on scalability and seamless user experiences.
2. Benchmarking and Systems Compatibility Analysis:
 - Conduct comparative analysis with cutting-edge digital solutions in the zoo and conservation sector.

- Assess current technological assets to ensure compatibility and seamless integration of new systems.
3. Youth Engagement Through Technology:
- Innovate engagement strategies that resonate with younger demographics, integrating interactive technologies into the zoo experience.
 - Foster educational connections between the zoo's wildlife and the digital-native generation.
4. Compliance and Governance Framework Alignment:
- Rigorously align software development with the latest regulatory standards, focusing on compliance within the zoo's operational framework.
 - Ensure data management adheres to privacy laws and ethical guidelines.
5. Design Diversification and Client Participation:
- Offer a spectrum of design options for all digital assets, empowering Claybrook Zoo to select solutions that best encapsulate their identity.
 - Collaborate with the client at each design milestone, ensuring a product that resonates with the zoo's ethos.
6. Sponsorship Enhancement and Digital Integration:
- Create dynamic digital sponsorship packages, maximizing visibility and engagement opportunities for partners.
 - Develop a sponsorship portal within the digital offerings to streamline interactions and provide value-added experiences.

Targeted Objectives for Key Digital Assets

- For the Record Management System (RMS):
 - Implement a secure, expansive RMS to house the diverse data sets of the zoo's operations.
 - Integrate advanced search algorithms to ensure quick data retrieval and update capabilities.
- For the Zoo's Website:
 - Elevate the zoo's digital presence with a state-of-the-art website that serves as a comprehensive information and interaction hub.
 - Optimize website design for swift navigation, ensuring a vibrant and user-friendly interface.
- For the Interactive Kiosk System:
 - Deploy a network of interactive kiosks throughout the zoo to offer digital ticketing and provide visitors with a rich animal catalogue.
 - Design the kiosks to be accessible and engaging, with educational content that enhances the visitor experience and promotes conservation awareness.

Through the implementation of these strategic goals, Claybrook Zoo will not only enhance its digital interface but also fortify its commitment to conservation education and visitor engagement through innovative on-site technology.

1.3 Project Development Methodology

Overview

The methodology section presents a structured approach to achieving the project's objectives, focusing on a series of steps to collect data, engage stakeholders, and tailor technological solutions to meet the strategic goals of Claybrook Zoo. These activities provide detailed methods for data collection, stakeholder engagement, and the development of systems that align with the needs and expectations of all parties involved.

Detailed Activities

Understanding Stakeholder Requirements and Conducting Comparative Analysis

- Stakeholder Interviews and Surveys: In-depth interviews will be conducted with stakeholders such as zoo administrators, staff, visitors, and sponsors to understand their experiences with the current system and their expectations for the new digital assets. This will involve identifying key user groups and customizing survey tools to capture specific feedback.
- Benchmarking: Analyse user feedback on similar digital deployments in related industries to gather insights that will inform our design and functionality decisions.

Review and Enhancement of Current Systems

- Current Systems Audit: Through group discussions and technical evaluations, the existing digital infrastructure at Claybrook Zoo will be audited to identify inefficiencies, areas for improvement, and technological upgrade opportunities.
- Visitor Experience Workshops: Workshops and focus groups with visitors will provide understanding about their interaction with current technologies and suggestions for the kiosk system. Questionnaires will supplement interview findings with quantitative data.

Engaging Future Generations and Ensuring Regulatory Compliance

- Youth Engagement Sessions: Interactive sessions with school groups and youth organizations will be held to gain insights on engaging younger demographics. This feedback will inform the design and content of the interactive kiosk system.
- Legal and Ethical Standards Review: Legal experts will be consulted to ensure the kiosk system and other digital assets comply with data protection laws, accessibility standards, and ethical considerations.

Design Selection and Sponsorship Optimization

- Design Prototyping: Multiple design prototypes for kiosk interfaces and digital assets will be created to reflect the zoo's aesthetic and functional requirements. UX testing will refine these designs based on stakeholder feedback.
- Sponsor Engagement: Interviews with current and potential sponsors will inform the design of customizable digital sponsorship packages for integration into the kiosk system and other digital platforms.

Development of Record Management System (RMS)

- RMS Development Workshops: Workshops with administrative staff will define the RMS requirements, including the types of records to be managed, the desired functionalities, and security measures.

Website Development

- Website Design and Architecture: The development of the zoo's website will be informed by visitor feedback on their online behaviours and preferences, guiding the website's layout and interactive features.

Execution Phases

The methodology will be carried out in distinct phases:

1. Discovery Phase: Stakeholder engagement to gather comprehensive requirements and current systems review.
2. Design Phase: Development and testing of design prototypes to meet identified requirements and user-centric design principles.
3. Development Phase: Construction of the kiosk system and RMS, and website development based on approved designs and functional specifications.
4. Implementation Phase: Deployment of the new systems, exhaustive testing, and staff training.
5. Evaluation Phase: Monitoring system performance, collecting user feedback, and making iterative improvements.

Regular progress meetings with Claybrook Zoo representatives will ensure the project remains aligned with its vision and objectives, with stakeholder feedback continuously integrated to refine the outcomes for an enhanced Claybrook Zoo experience.

2 Requirements Engineering

2.1 Elicitation Activities

As we embarked on the development of the Claybrook Zoo's digital platform, it became clear that understanding the intricacies of the problem domain was paramount. To ensure a thorough comprehension, we established a problem domain table, a structured approach that would guide our elicitation activities effectively. This table delineates the entities within the problem domain and aligns them with tailored elicitation strategies, designed to gather the rich, detailed information necessary to inform our development process. The aim was not only to identify the entities but also to understand their needs, constraints, and the context in which they operate. This early investigative work was crucial in laying the groundwork for a system that is both responsive to the needs of its stakeholders and aligned with the strategic goals of the zoo.

Identified Problem Domain Entities and Suggested Elicitation Strategy

Problem Domain Entities (e.g. what entities would you need to collect information about, in-order to fully understand the problem)	Elicitation Strategy (e.g. what information would you need to collect from this entity and how you would go about this collection process)
Matthew Jones (The company management – AKA Key stakeholder)	<ul style="list-style-type: none">• The motivation for the new development, the budget for the development, the timescales for the development.• Demand checks and competitors.• Expectations from us on this project.• More information on programming language choices. ■ Interview
Jonathan Rodgers (A company administrator)	■ Interview

	<p>How many employees currently working, and role play and handpicking each personal skill set. Survey feedback from administrator.</p>
Thomas Smith (A representative of the visitor user group)	<ul style="list-style-type: none"> ■ Background research. <p>Questionnaires.</p>
Phil Brown (A representative of the sponsor's user group)	<ul style="list-style-type: none"> ■ Interview <p>Sponsors take on the improvement of the project, aspiration, and better view he needs to see.</p>
Comparable Systems (Records Management Systems)	<ul style="list-style-type: none"> ■ Background Research <p>Integration into website usage and security measure used in database management.</p>
Functional and Performance Requirement.	<ul style="list-style-type: none"> ■ Interviews. <p>Functional Requirement describing what a system must do and Performance requirement specify how well it must be done.</p> <p>Discussions with stakeholders to gather information about the desired system functionality, expectations, and essential features.</p>
Comparable Systems (Zoo websites).	Comprising of website securities and user ability friendly.
Comparable Systems (Digital information systems).	<ul style="list-style-type: none"> ■ Survey and Questionnaire. <p>Using of structured surveys or questionnaires to audience and getting quantitative feedback, such as user preferences, satisfaction, and opinions.</p>
Legislation – Laws that potentially have an impact on development. (GDPR, equality, etc.).	<ul style="list-style-type: none"> ■ Background Research <p>Gathering of information's such as requirements, rules and regulations that will impact the project.</p>
Wireframes.	<ul style="list-style-type: none"> ■ Interviews <p>Discussion with stakeholders and users to gather input on desired layout and features.</p> <p>To understand user needs, requirements, and preferences for the interface.</p>

Detailed Static system design	Analysing the proposed solution, which enables us to understand the different classes, methods, and attributes the solution has and how the classes interact with each other. This also assists programmers to understand the required objects in the solution and enables them to find an efficient way of programming the project.
Mock-ups	Gathering detailed design specifications, visual elements and interactive features that allow stakeholders to experience the flow and functionality of the mock-ups.
Larger scale visitor and staff investigation	<ul style="list-style-type: none"> ■ Questionnaire – distribution. <p>Gathering the information directly from the future users of the system enables us to see their perspective and capture any ideas or features they would like to see in the proposed solution.</p>

The problem domain table served as a vital tool in our quest to capture the essence of the zoo's operational needs and the expectations of its diverse user groups. Through careful consideration of each entity and the application of targeted elicitation strategies, we gathered a wealth of information that has been instrumental in shaping the project's trajectory. This meticulous approach provided clarity and direction, enabling us to move forward with a nuanced understanding of the zoo's ecosystem. The insights garnered from this early phase of analysis have been invaluable, ensuring that the foundation upon which we build is solid, insightful, and attuned to the multifaceted nature of the zoo's digital transformation journey.

2.1.1 Interview plans

In the quest to develop a comprehensive software suite for Claybrook Zoo, a key component of our approach is to understand the nuanced requirements and expectations of all stakeholders involved. The elicitation activities, particularly the interview plans, form the cornerstone of our requirements engineering process. This phase is aimed at uncovering the depths of the zoo's operational needs, capturing the essence of the user experience, and distilling the aspirations of the zoo's management and patrons into actionable software features.

To this end, we have meticulously outlined a series of structured interviews with a diverse group of stakeholders, each bringing a unique perspective to the zoological tableau. These interviews are designed to probe into the existing systems and reveal the latent potential of technological solutions that can revitalize the zoo's interaction with its visitors, enhance animal record management, and elevate the overall visitor experience.

Projected to unfold over the span of two weeks, these interviews will engage the key stakeholders from Claybrook Zoo, sponsors, and visitors, orchestrated by the adept team from Swiftech. Through a mix of open-ended and targeted questions, we aim to extract rich, qualitative data that will inform the development of a software suite that is not only intuitive and user-friendly but also robust and comprehensive in its scope.

Projected Interview Dates

27th October, 2023 (Matthew Jones & Jonathan Rodgers)

3rd November 2023 (Philip Brown & Thomas Smith)

Planned Attendees

- Alli Abdulazeez (Swiftech Representative)
- Abdullah Abdullah (Swiftech Representative)
- Emmanuel Omobude (Swiftech Representative)
- Nuel Umeh (Swiftech Representative)
- Sean Ndoro (Swiftech Representative)
- Group 9 Representatives
- Group 10 Representatives

Expected Interviewees

Matthew Jones (Key Stakeholder, Claybrook Zoo):

Purpose:

- To understand the zoo's goals, objectives, and challenges for the software suite.
- To gather information about the zoo's technical requirements and preferences.

Jonathan Rodgers (Company Administrator, Claybrook Zoo):

Purpose:

- To learn about the zoo's current data management practices and plans.
- To discuss the zoo's needs for reporting and analytics.

Philip Brown (Zoo Sponsor):

Purpose:

- To understand sponsors' motivations for sponsoring the zoo and their expectations for their sponsorships.
- To gather information about sponsors' businesses and their marketing goals.

Thomas Smith (Zoo Visitor):

Purpose:

- To learn about visitor experiences and their suggestions for improvements.
- To gather information about visitor expectations for the zoo's website and other digital offerings.

Prepared Interview Questions

Matthew Jones (Key Stakeholder)

1. Can you describe the specific problems/challenges you are facing that this project aims to address?
2. What are the main goals and objectives of developing a new zoo website?
3. Could you tell me about the technologies and programming languages that you would consider using to develop the zoo's content management system?
4. What are the key indicators that you will use to evaluate the success of this project?
5. Do you have any plans for the special features that are unique for the stakeholders?
6. Are there any performance features that are crucial to the success of your website?
7. Could you provide insights into the financial parameters and resource availability associated with this project?
8. Are there any security or compliance requirements that need to be considered in the development of the new system?
9. Do you have any similar software solution that you would like to emulate?
10. What inspired him to want this new project in his business?

Jonathan Rodgers (Company Administrator)

1. What are the various teams that are currently working at the zoo, what are their roles and responsibilities?
2. How do you store the data?
3. I heard you are responsible for running the animal sponsorship program, could you enlighten me on which animal are currently part of this sponsorship?
4. How is data processed and stored now, do you wish to move it all an electronic storage or keep doing the way you already are?
5. Could you explain the benefits of advertising certain animals on the website?
6. Do you have a record of data of the employees and their skill sets? Will they require training?
7. What types of content will the website need to display?
8. From your perspective, what are the strengths and weaknesses of the current animal sponsorship scheme?
9. How would you advertise animals that have recently been taken in by the zoo?
10. Any suggestions of ways we can keep the software suite adaptable to future changes, situations, and uncertainties?

Philip Brown (Zoo Sponsor):

1. "What inspired you to sign up for the zoo's animal sponsorship programme, and how well-known is it to you?"
2. "What specific benefits or returns are you expecting from the animal sponsorship scheme, especially in terms of advertising and publicity for your business?"
3. "Would you appreciate a feature on the zoo's website that highlights your business as a sponsor? If so, what specific information or links would you like to be included in this feature?"
3.5. "How would you like your brand or products to be represented on the zoo's website?"(follow up in case specifics are needed)
4. "Are there any specific branding guidelines or logos that should be included?"
5. "Which aspects of the animal sponsorship scheme appeal to you the most in terms of promotion and beneficial publicity for your company?"
5.5." Do you have any concerns about the current sponsorship scheme, anything that you do not like?"
6. "What would be the things you'd investigate before getting on with sponsorship? What is the criterion?"

Thomas Smith (Zoo Visitor)

1. What feature would you like to see on the zoo's customer-facing website that would enhance your experience or make your visits more convenient?
2. What software features do you think visitors would find easier and more engaging to use when accessing the zoo's new upcoming website and database? Are there specific features visitors would love to have in the new system to enhance their experience?
3. In your ideal scenario, what digital features or improvements would make your zoo visits more enjoyable, for example such as accessibility features such as hearing aid?
4. What is your proposition on how the zoo can better accommodate the needs of different age groups and demographics among visitors.
5. What your take on the current administration system in terms of ticketing, or any other administrative procedures during your visits?
6. Are there any pressing concerns that you believe need to be addressed when it comes to the visitors' user experience soon?
7. Can you share any difficulties you have faced with the current way things are done at the zoo, and how can the new system make their experience smoother?

Interview Process

- Interviews will be conducted in person at Claybrook Zoo.
- Each interview will last approximately 60 minutes.
- Interviews will be recorded with the permission of the interviewee.

- Interviewees will be provided with a copy of the interview transcript for review if requested.

Deliverables

- A report summarizing the key findings from the interviews.
- A list of recommendations for the development of the new software suite.

Timeline

- Interviews will be conducted between 27th October and November 3rd, 2023.
- The report will be completed by January 21st, 2024.

Budget

- The total budget for this project is £0.

Next Steps

- Contact the interviewees to schedule interviews.
- Prepare interview questions.
- Conduct interviews.
- Analyse interview data.
- Draft the report.
- Present the report to the client.

Additional Notes

- The interview plan may be subject to change based on the availability of the interviewees and other unforeseen circumstances.
- The budget may also be subject to change based on the actual costs of conducting the interviews and preparing the report.
- If we need extra information not received after the interview, the questions will be asked via the provided emails of the interviewees.

2.1.2 Interview findings

2.1.2.1 Interview Findings (Matthew Jones)

Our journey to create a bespoke software suite for Claybrook Zoo began with an interview with key stakeholder, Mr. Matthew Jones, on October 26th, 2023. Through a rigorous and methodical process, we gained insight into the zoo's goals and challenges to guide our technology strategy. This section outlines the key outcomes of our conversation, and how it aligns with Swiftech's capabilities. Other representatives from

Groups 9 and 10 were present in the discussion, to gain a comprehensive understanding of the zoo's current state and future.

Interview Date: 26th October 2023

Duration: 1 hour

Persons in attendance:

- Matthew Jones (Key Stakeholder)
- Alli Abdulazeez (Swiftech Representative)
- Abdullah Abdullah
- Group 9 Representative
- Group 10 Representative

The questions are sequenced based on their level of importance to us, reflecting the criteria that guided our inquiry formulation, rather than a division into separate topics.

The questions and respective answers for this interview are detailed in the table below.

Interviewer	Question Number	Question and Client Response
Alli Abdulazeez	001	<p>What are the key indicators that you will use to evaluate the success of this project?</p> <p>Answer:</p> <ul style="list-style-type: none">● Project success criteria: Increase income, enhance visitor experience, improve marketing, boost efficiency in ticket sales and advertising.● Financial situation: Income has fallen short due to COVID; Claybrook Zoo needs 25 million, but only 23 million is coming from ticket sales, sponsorships, merchandise, and food sales.● Reserves: 3 years' worth of reserves available.● Technology: Current technology is outdated and needs improvement.● Areas for improvement: Visitor experience and marketing need enhancement; no official website or social media presence.● Goals: Increase the number of visitors and improve customer experience.● Key revenue improvement goals: Boost ticket sales and enhance advertising. <p>NOTE:</p> <p>These are the key factors to consider while developing the software suite. They should form the criteria that the software should aim to achieve.</p>
Alli Abdulazeez	002	<p>What inspired him to want this new project in his business?</p> <p>Answer:</p> <p>Zoo goals:</p> <ul style="list-style-type: none">● Bring nature experience to the Northwest of England.● Showcase the beauty of the world.

Interviewer	Question Number	Question and Client Response
		<ul style="list-style-type: none"> Bring the zoo experience closer to locals, as competitors are farther away. <p>Visitor experience:</p> <ul style="list-style-type: none"> Interact with wildlife and nature. Family-friendly atmosphere. Provide rich information to visitors. Offer educational services. <p>Revenue sources:</p> <ul style="list-style-type: none"> Ticket sales. School visits with discounts, packages, and curriculum-tied activities. Technology focus: Refocus on delivering services using technology. <p>NOTE:</p> <p>Answered as part of Group 10's questions.</p>
Alli Abdulazeez	003	<p>What are the main goals and objectives of developing a new zoo website?</p> <p>Answer:</p> <ul style="list-style-type: none"> New zoo website goals: Enhance sponsor support, improve process efficiency, increase customer satisfaction; rebrand Claybrook Zoo, and replace physical signage with digital signage. Software suite users: Sponsors seeking charity support or marketing benefits, who are lacking a clear success indicator for their sponsorship. Current issues: Poor sponsorship information, slow paperwork processing, customer dissatisfaction, and potential sponsor loss. Rebranding efforts: new colour scheme, consultancy, design alignment with other zoos in the area; no noticeable change in visitor numbers. Website features: High quality, engaging, games for younger audiences, on-site amenities like mini trains and carousels. Suggestions for new features: Mobile apps, QR codes, information kiosks, game kiosks, replacement of physical signage with digital signage. <p>NOTE:</p> <p>The client encourages recommendations for the best approach. The question was answered through Group 9's question.</p>
Alli Abdulazeez	004	<p>Could you tell me about the technologies and programming languages that you would consider using to develop Claybrook Zoo's content management system?</p> <p>Answer:</p>

Interviewer	Question Number	Question and Client Response
		<p>This question was indirectly answered through other inquiries. Claybrook Zoo is open to our suggestions regarding the technologies to be adopted and the features that would best serve their needs.</p> <p>NOTE: See question number 006</p>
Alli Abdulazeez	005	<p>Do you have any plans for the special features that are unique for the other stakeholders?</p> <p>Answer:</p> <ul style="list-style-type: none"> • Special features for stakeholders: Improved sponsorship scheme, promotion offers, online account management, and digital signage. • Stakeholder dissatisfaction: The main issue for stakeholders is the inefficiency of the paper-based system rather than the fees or the process itself. • Sponsor benefits, like Amazon: View orders, purchases, fees, receive renewal reminders and emails; convert paper to electronic format. • Animal sponsorship advertising: Animals not sponsored can be advertised on platforms like Facebook and Instagram. • Visitor awareness: Claybrook Zoo needs to inform visitors about the sponsorship scheme. • Signage issues: Current signage is expensive and not easily changed; electronic signage preferred for dynamic and easy updates. • Sponsorship process details: Key dates for events, procedures for sponsorship renewal and recruitment. <p>NOTE:</p> <p>The question was answered extensively, but another question needs to be asked to ascertain whether Claybrook Zoo has other stakeholders apart from Matthew Rogers, who is the key stakeholder. Jonathan Rodgers pitched in to give the key Dates and Events with the sponsorship process. See Appendix 13 for the key date's documents.</p>

Abdullah Abdullah	006	<p>Are there any performance features that are crucial to the success of your website?</p> <p>Answer:</p> <p>Key performance features for zoo website success:</p> <ul style="list-style-type: none"> • Attractive homepage/landing page. • Contact page. • Zoo background information. • Family-friendly design. • Educational content. • Online ticket purchasing and price display. • Newsletter subscription. • Event advertising with annual calendars. • Teaser display of zoo animals. <p>Additional features:</p> <ul style="list-style-type: none"> • Weekly changing "Animals of the week." • Visitor area for memberships and renewals. • Members and sponsors areas with contract viewing renewal, benefits, and sponsored animal advertising. • Feedback and testimonials section. • Fun website areas. <p>Website management:</p> <ul style="list-style-type: none"> • User-friendly content management software for updates by new employees, IT specialists, or management administrators. <p>NOTE: These are the minimum features Claybrook Zoo wants to see on the website, with the possibility of adding and subtracting features as needed. The question was answered through Group 10's question. See Appendix 14 for the list of mandatory website and system requirements.</p>
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Interviewer	Question Number	Question and Client Response
Abdullah Abdullah	007	<p>Could you provide insights into the financial parameters and resource availability associated with this project?</p> <p>Answer:</p> <p>Financial constraints:</p> <ul style="list-style-type: none"> • Emergency fund of 6 million lasting 3 years. • Plan to use some but not all the funds. • Seeking the best price, open to negotiation. <p>Timescales:</p> <ul style="list-style-type: none"> • Draft designs expected January 2024. • System production by winning organization from April to May. • Priority of the software suite: • Records Management System. • Website. • Internal Information System. <p>Current technology status:</p> <ul style="list-style-type: none"> • Minimal viable technology, few machines for letters and spreadsheets. • Old printers, no hosted website. • No wireless internet in Claybrook Zoo. <p>Recommendations:</p> <ul style="list-style-type: none"> • Open to technology recommendations for the system to be built. <p>NOTE:</p> <p>The question was answered through one of Group 9's and Group 10's questions.</p>
Abdullah Abdullah	008	<p>Do you have any similar software solution that you would like to emulate? Or is there something you have observed from the competitors you would like to implement?</p> <p>Answer:</p> <p>Interest in competitor features:</p> <ul style="list-style-type: none"> • Claybrook Zoo wants to emulate features from competitor websites. • Features from competitors are considered a minimum threshold. <p>Open to unique selling points:</p> <ul style="list-style-type: none"> • Open to recommendations for unique selling points on the website. • Committed to improvement and considers provided suggestions.

Interviewer	Question Number	Question and Client Response
		<p>Visitor survey recommendation:</p> <ul style="list-style-type: none"> Suggests conducting a visitor survey for detailed information. <p>NOTE: The question was answered through a combination of a question from Group 9 and a discussion on the unique features observed from other zoos. As a follow-up, Group 9 suggested a review section and referred to an upcoming interview with visitor Thomas Smith.</p>
Abdullah Abdullah	009	<p>Can you describe the specific problems/challenges you are facing that this project aims to address?</p> <p>Answer:</p> <ul style="list-style-type: none"> The specific problems and challenges that this project aims to address were indirectly answered through other questions. These provide an overview of Claybrook Zoo's current position and the issues it is facing. The problems and challenges faced by Claybrook Zoo were detailed in the responses to questions 001, 002, 003, and 007. These responses provide an extensive overview of the issues that Claybrook Zoo is currently facing and that this project aims to address. <p>NOTE: For a comprehensive understanding of the specific problems and challenges, refer to the responses to questions 001, 002, 003, and 007.</p>
Another Group's representative	010	<p>Are there any legal considerations we should consider while developing the solution?</p> <p>Answer:</p> <ul style="list-style-type: none"> The project must adhere to legal requirements, including data protection laws, and provisions of the Equality Act. Claybrook Zoo is relying on us to provide guidance on the legal requirements they need to follow. <p>The project must comply with all relevant legal requirements:</p> <ul style="list-style-type: none"> Protect the information about living people, including membership details. Cater to people with disabilities as per the Equality Act. Claybrook Zoo already provides ticket service for disabled people and audio loop facilities for blind visitors. The client has emphasised that they are not familiar with the specific laws and rely on us to make them aware of the legal requirements they need to follow. <p>NOTE: Background research needs to be done to understand what laws are applicable to</p>

Interviewer	Question Number	Question and Client Response
		<p>Claybrook Zoo's new software suite. Claybrook Zoo is relying on us to suggest the legal requirements to follow.</p>
Another Group's representative	011	<p>Give us an idea of visitors they had last year and what they are expecting?</p> <p>Answer:</p> <p>Visitor numbers:</p> <ul style="list-style-type: none"> • Average of 1.8 million visitors annually for the past three years (see appendix 15) • Seasonal variations, ranging from a few hundred to several thousand visitors. • Maximum capacity for health and safety is 25,000 people. <p>Target demographics:</p> <ul style="list-style-type: none"> • Families with young children. • Single parents. • Some teenagers and teenage couples. • Educational market through schools. <p>Design considerations:</p> <ul style="list-style-type: none"> • Games. • Appealing text and fonts. • Alignment with corporate branding. • Youthful feel. • Fun and interactive, not intellectual, or highbrow. <p>NOTE:</p> <p>This question was also answered by another question from 316 Solution is, which asked about the target market Claybrook Zoo wants to attract.</p> <p>See appendix 15 for the visitor details and capacity.</p>
Another Group's representative	012	<p>Would you be open to implementing an RFID system in Claybrook Zoo?</p> <p>Answer:</p> <p>RFID system consideration:</p> <ul style="list-style-type: none"> • Open to implementing RFID system, with no harm to animals as a condition. • Interested in understanding the benefits, given animals' predictable locations and no history of harmful escapes. • Low-risk benefit perception, as it is not a required feature. <p>Animal feeding program automation:</p> <ul style="list-style-type: none"> • Open to automation if it improves staff working conditions. • Emphasis on maintaining personal interactions between zookeepers and animals. <p>NOTE:</p> <p>This was asked as a follow-up question by the group.</p>

Interviewer	Question Number	Question and Client Response
		<ul style="list-style-type: none"> • In a similar vein, Claybrook Zoo would be open to automating the animal feeding program, but they do not want to lay off employees. They still want to maintain the personal touch. • The main goal of the software suite is to improve the staff's working conditions by removing paper and helping them with technology while maintaining zookeeper's interaction with animals.
Another Group's representative	013	<p>Reports and Sales and timelines?</p> <p>Answer:</p> <p>Reporting priorities:</p> <ul style="list-style-type: none"> • Emphasis on recent and important reports, with a focus on daily ticket sales. • Priority on automating reports in the software suite. <p>Data collation process:</p> <ul style="list-style-type: none"> • Claybrook Zoo to determine important data, starting with the most recent. • Previous data is not a priority. <p>Documentation:</p> <ul style="list-style-type: none"> • Zoo will send a document specifying the identified important reports. <p>Key report:</p> <ul style="list-style-type: none"> • Daily ticket sales, with a match to funds received for revenue verification. <p>Automation preference:</p> <ul style="list-style-type: none"> • Desire to automate important reports in the software suite. <p>NOTE: The document with the report outlines is in Appendix 3. This will provide further details on the reports, sales, and timelines required by Claybrook Zoo.</p>

In conclusion, the interview with Mr. Matthew Jones was instrumental in defining the scope and direction for Claybrook Zoo's software suite. His responses have illuminated the critical success factors for the project, including the enhancement of visitor experience, marketing, revenue generation, and operational efficiency. With a clear understanding of the zoo's financial constraints and aspirations, we are poised to craft a software solution that not only meets but exceeds the expectations laid out by the zoo management.

The discussions revealed a willingness to embrace new technologies and innovative features to reinvigorate the zoo's digital presence and streamline its operations. From the enhancement of the sponsorship scheme to the integration of RFID systems, the interview has provided a rich tapestry of requirements that will inform our development process. As we process the wealth of information garnered from Mr. Jones, we move forward

with a renewed focus on creating a user-friendly, engaging, and efficient software suite that will propel Claybrook Zoo into a new era of technological empowerment.

2.1.2.2 Interview Findings (Jonathan Rodgers)

Following our insightful session with Matthew Jones, we turned our attention to Jonathan Rodgers, a senior administrator at the zoo, for further elucidation on the intricacies of Claybrook Zoo's operational dynamics. The interview conducted on the 26th of October 2023, spanning two productive hours, sought to delve into the administrative and logistical frameworks underpinning the zoo's daily activities. With representatives from Swiftech and Groups 9 and 10 in attendance, we embarked on a detailed questioning route to extract critical data that would influence the design and functionality of the proposed software suite.

The discussion aimed to dissect the current state of the zoo's animal sponsorship scheme, ascertain the data management practices, and explore the expectations for the new records management software. By understanding the various teams' roles and the level of complexity required for the software, we aim to develop a system that enhances the zoo's efficiency and aligns with its strategic objectives.

Interview Date: 26th October 2023

Duration: 2 hours

Persons in attendance:

- Alli
- Ryan
- Abdullah
- Sean
- Group 9 representatives
- Group 10 representatives

The questions are sequenced based on their level of importance to us, reflecting the criteria we used to formulate our inquiries rather than being divided into distinct topics.

The questions and respective answers for this interview are detailed in the table below.

Interviewer	Question Number	Question and Client Response
Ryan	014	<p>From your perspective, what are the strengths and weaknesses of the current animal sponsorship scheme?</p> <p>Answer:</p> <p>Strengths are:</p> <ul style="list-style-type: none">• It generates lots of revenue.• Total there are 3000 sponsorable animals, 90-95% are already sponsored, there are 5 bands A to E appendix 7 show how much animals of each band get sponsored. <p>Weaknesses are:</p> <ul style="list-style-type: none">• Signage on which the advertisement is printed, which will be put outside the enclosure once it is created it stays same for a whole year.

Interviewer	Question Number	Question and Client Response
		<ul style="list-style-type: none"> • Documents all being handwritten. <p>NOTE: See appendix 7 for the animal and the band rates</p> <p>Matthew pitched in and provided information on revenue streams particularly the revenue from sponsorships see appendix 15.</p> <p>He also showed the documentation for the sponsorship agreement, the signage details and explained the sponsorship process. See appendix.</p>
Sean	015	<p>Will the records management software be used by all employees or only by a select number of employees? What level of complexity is required?</p> <p>REWARDED TO:</p> <p>4 levels of access:</p> <ol style="list-style-type: none"> 1- System administrator: general access to create and edit anything on website. 2- Zoo administrator can create and edit any record of animal. 3- Zookeeper: access to all data but only able to edit certain things such as the animal record, like medical record and treatments. 4- Visitor: just view website and interact in general <p>NOTE: See appendix 17 for the access levels details.</p>
Another Group's representative	016	<p>What are the various teams that are currently working at Claybrook Zoo, what are their roles and responsibilities?</p> <p>Question was not asked.</p> <p>But an answer was received indirectly through other questions one from Group 9 and one from The departments in Claybrook Zoo are:</p> <ul style="list-style-type: none"> • Finance: This department was not deeply discussed • Zoo Keeping: They oversee feeding the animals ensuring the animals are well taken care of, also to ensure they are treated if unwell, they also take the records of the live animals' details and procedures done. • Human Resources (HR): This department was not deeply discussed. • Administration: They oversee of the paperwork preparing the reports, creating, and sending out the sponsorship renewal letters etc.

Interviewer	Question Number	Question and Client Response
		<p>NOTE:</p> <p>These answers were provided by Matthew Rodgers Matthew provided us with examples of Job advertisement to show the skills that Claybrook Zoo looks at for its employees (see appendix 9 and 12).</p>
Another Group's representative	017	<p>Do you have a record of data of the employees and their skill sets?</p> <p>NOTE: Question was asked but the answer was given vaguely, information will be provided in future through HR See appendix 16 for Zoo records details.</p>
Another Group's representative	018	<p>What types of data and information are currently being recorded and managed, and how is this information stored and accessed?</p> <p>NOTE: Similar question asked by other group and the answer is,</p> <ul style="list-style-type: none"> • Data, such as animal record and all other documents are currently being recorded on paper. • This makes the work longer, slower, and less efficient because it is easy to make mistakes and easy to lose paper documents as well. • Everything is stored in one location, so it is hard to find the exact people you need and every time you must walk to that location. <p>NOTE: Animal records document attached at the end.</p>
Sean	019	<p>What are the Main administrative features you would like to be integrated or digitalized into the software suite? e.g.: tracking employees' tasks, or record keeping etc.?</p> <p>Answer:</p> <ul style="list-style-type: none"> • Not turn every task digital, as they want to keep their employees, • Important parts to add to their website are: <ul style="list-style-type: none"> • Announcements (of future event or any discount/memberships), • Zoo and animal records digitalised (for the animal only the ones that are currently alive, not the ones that have already died) • Ticket sales. • Sponsorship document being automatically sent to them, on

Interviewer	Question Number	Question and Client Response
		<ul style="list-style-type: none"> • 1st October and renewal documents to be sent between 1st August and 15th September.
Another Group's representative	020	<p>Any suggestions of ways we can keep the software suite adaptable to future changes, situations, and uncertainties? What is the ideal accessibility for the teams?</p> <ul style="list-style-type: none"> • The client is open to hiring people to manage the software suite and updated. <p>NOTE:</p> <p>Matthew pitched in and gave more detailed answers. A new department will be created to manage and use the system Access limited to their specific roles The administrator should be able to apply privileges to different people and give access to different people for different roles. Referred back to the access details document (see appendix 17)</p>
Another Group's representative	021	<p>How would you like to track the performance of the new zoo website? e.g.: website users?</p> <ul style="list-style-type: none"> • Question not asked.
Abdullah Abdullah	022	<p>Which animals are currently part of the sponsorship? Do you want specific animals to be prioritized?</p> <ul style="list-style-type: none"> • Animal are ranked in 4 bands A to E • Higher the band the more money the sponsors give. • The animals in band A are the ones that would attract the most visitors. • Higher bands animals are all sponsored. • The lower bands are the ones that should be prioritised more. • They are open to marketing unsponsored animals to get more eyes on them. <p>NOTE:</p> <p>See appendix 7 for the animals and the band rates.</p>

The dialogue with Jonathan Rodgers provided a wealth of insights that will prove invaluable in shaping the development of the records management software and other digital tools for Claybrook Zoo. The strengths and weaknesses of the current animal sponsorship scheme, as highlighted by Rodgers, underscore the need

for an enhanced digital solution that addresses both the logistical bottlenecks and the opportunities for increased revenue.

With the detailed input on the desired administrative features for digital integration and the clear delineation of access levels among different employee roles, we are well-equipped to design a user-centric system that caters to the zoo's diverse needs. The information about the current data recording practices and the eagerness to prioritize digitization in key areas further solidifies our understanding of the requirements for a successful software suite.

Moving forward, the groundwork laid by this interview will serve as a blueprint for the digital transformation of Claybrook Zoo's operations. We are set to chart a course towards a future-proof, adaptable system that supports the zoo's mission, facilitates its growth, and captivates the interest of visitors and sponsors alike.

2.1.2.3 Interview Findings (Thomas Smith)

On the 2nd of November 2023, we engaged with Thomas Smith, a visitor representative, to gain a visitor-centric perspective on the proposed enhancements for Claybrook Zoo. The session, lasting an hour, was critical to capturing the voice of the zoo's most asset—its visitors. With valuable insights from Mr. Smith, along with Swiftech and other group representatives, we directed our questions to uncover the tangible elements that could elevate the visitor experience.

The aim was to identify actionable digital features that could be integrated into Claybrook Zoo's customer-facing website and other visitor information systems. By focusing on the visitor's journey, from online interaction to the physical experience within the zoo, we sought to pinpoint opportunities for technological interventions that would not only simplify but also enrich each visit.

Interview Date: 02/11/2023.

Duration: 1 hour

Persons in attendance:

- Thomas Smith (Visitor representative)
- Nuel Umeh (Swiftech Representative)
- Group 9 Representative
- Group 10 Representative

The questions are sequenced based on their level of importance to us, reflecting the criteria we used to formulate our inquiries rather than being divided into distinct topics.

The questions and respective answers for this interview are detailed in the table below.

Interviewer	Question Number	Question And Client Response
Nuel Umeh	023	<p>What features would you like to see on Claybrook Zoo's Customer facing website to enhance your experience?</p> <p>Answer:</p> <p>Website</p> <ul style="list-style-type: none">• The website should reflect the company's logo and branding as well as lot of graphics and colours to attract younger generations.

Interviewer	Question Number	Question And Client Response
		<ul style="list-style-type: none"> • Online Ticket Facilities • Games for the young Generation to keep them engaged. • A profile area where visitors Can sign up and manage their accounts and memberships. • Improved Record management system • Visitor information system <p>NOTE:</p> <p>See appendix 13 for details on the website features.</p>
Another Group's representative	024	<p>What are the Strengths (Unique selling points) of Claybrook Zoo?</p> <p>Answer:</p> <ul style="list-style-type: none"> • Educational Support that Claybrook Zoo gives about the animals. • The quality of the Staff (They are Knowledgeable and supportive) • An excellent Humanitarian care for the animals • The Re-innovation of Claybrook Zoo's structure colour coded with the map of Claybrook Zoo • Good Value for money and a competitive price <p>Note:</p> <p>This question was asked by another group, and it was not on our list of questions but was found important.</p>
Nuel Umeh	025	<p><i>In your ideal scenario, what digital features or improvements would make your zoo visits more convenient, for example such as accessibility features.</i></p> <p>Answer:</p> <ul style="list-style-type: none"> • <i>The use of Mobile applications and technology for information during visit. E.g. features like interactive maps, Exhibit information, Animal facts, multimedia guide, sound, videos, or diagrams.</i> • Interactive kiosk • The use of technology to recognise a visitor's location that will trigger the display of information to support their location at Claybrook Zoo. • The use of social media.
Nuel Umeh	026	<p>What's your proposition on how Claybrook Zoo can better accommodate the needs of different age groups and demographics among visitors.</p> <p>Answer:</p> <ul style="list-style-type: none"> • The most prevalent demographics (around 70%) will be young families with children around their teens or earlier. These are the groups that deserve strong visitor experience.

Interviewer	Question Number	Question And Client Response
		<ul style="list-style-type: none"> • Installations of interactive technology to get the young age group involved e.g., Fun zone on the website where fun activities, quizzes, games can be used to engage the young generations.
Nuel Umeh	027	<p><i>Can you share any difficulties you have faced with the current way things are done at Claybrook Zoo, and how can the new system make their experience smoother?</i></p> <p>Answer:</p> <ul style="list-style-type: none"> • Queuing and lack of online Tickets • Signage is static. • Poor Advertisement of promotions • Engagement Issues with younger generations • Change in Exhibits in Claybrook Zoo • Lack of Membership Information • Lack of social media and lack of website
Another Group's representative	028	<p>How will you compare your experience between Claybrook Zoo and other zoos you have visited.</p> <p>Answer:</p> <ul style="list-style-type: none"> • Some of the other zoo's already have technology that attracted more people although they do not have many animals. <p>Note: This question was asked by another group</p>

The conversation with Thomas Smith proved to be an invaluable source of feedback, highlighting the current gaps in visitor engagement and the potential for digital transformation at Claybrook Zoo. Mr. Smith's responses have emphasized the importance of a vibrant and interactive customer-facing website, replete with features that resonate with younger audiences and families—the zoo's primary demographic.

The difficulties faced by visitors, such as queuing for tickets, static signage, and lack of promotion awareness, underscore the need for a new system that addresses these pain points effectively. The integration of mobile applications, interactive kiosks, and a dynamic online presence are among the improvements that could significantly enhance the visitor experience, as suggested by Mr. Smith. Furthermore, the comparison with other zoos where technology plays a central role in attracting visitors reinforces the necessity for Claybrook Zoo to advance its digital capabilities.

As we assimilate these findings, we are prepared to take concrete steps towards designing a software suite that not only simplifies operational aspects for the zoo but also transforms the visit into an engaging, informative, and seamless experience for all age groups. The insights from this interview will be a guiding force in our endeavours to innovate and revitalize Claybrook Zoo's interaction with its patrons.

2.1.2.4 Interview Findings (Phil Brown)

On November 2nd, 2023, we sat down with Philip Brown, a dedicated sponsor of Claybrook Zoo, to explore his motivations and expectations regarding the zoo's animal sponsorship program. This session, lasting an hour, was crucial to understand the sponsorship dynamics from a patron's viewpoint. With Swiftech representatives and members of Groups 9 and 10, we aimed to capture the essence of the sponsorship experience and gather suggestions for enhancing the program's visibility and effectiveness.

The engagement with Mr. Brown was structured to uncover the relational nuances between his business interests and the zoo's conservation efforts. We concentrated on identifying the benefits he anticipates in return for his support, his perspective on the zoo's digital representation of sponsors, and his insights into potential improvements for the sponsorship scheme.

Interview Date: 02/11/2023

Duration: 1 hour

Persons in attendance:

- Abdullah Abdullah (Swiftech representative)
- Emmanuel Omobude (Swiftech Representative)
- Group 9 Representative
- Group 10 Representative

The questions are sequenced based on their level of importance to us, reflecting the criteria we used to formulate our inquiries rather than being divided into distinct topics.

The questions and respective answers for this interview are detailed in the table below.

Interviewer	Question Number	Question And Client Response
Emmanuel Omobude	029	<p>What inspired you to sign up for Claybrook Zoo's animal sponsorship programme, and how well-known is it to you?</p> <p>Answer:</p> <p>I was inspired to join Claybrook Zoo's animal sponsorship program after learning about Claybrook Zoo's financial difficulties from a friend.</p> <p>The program appealed to him as a meaningful way to contribute to conservation and support the well-being of animals in need. While he was not initially familiar with the program, his friend's recommendation and his passion for wildlife conservation prompted me to get involved.</p>
Emmanuel Omobude	030	<p>What specific benefits or returns are you expecting from the animal sponsorship scheme, especially in terms of advertising and publicity for your business?</p> <p>Answer:</p> <ul style="list-style-type: none">• I was concerned about Claybrook Zoo becoming commercialized, but soon understood the benefits of the program.• Commercial pressures may lead to an overemphasis on popular or charismatic species, potentially neglecting the conservation needs of less well-known or endangered species.

Interviewer	Question Number	Question And Client Response
Emmanuel Omobude	031	<p>Would you appreciate a feature on Claybrook Zoo's website that highlights your business as a sponsor? If so, what specific information or links would you like to be included in this feature?</p> <p>Answer:</p> <p>I would appreciate a feature on Claybrook Zoo's website highlighting my business as a sponsor and suggests 1/8 of the total signage for sponsorship, provided it aligns with Claybrook Zoo's rules.</p> <p>See appendix 6 for the signage details.</p>
Emmanuel Omobude	032	<p>How would you like your brand or products to be represented on Claybrook Zoo's website?</p> <p>Answer:</p> <p>This question matches the question number 003 so does the answer it is supposed to be.</p> <p>NOTE:</p> <p>Follow up in case specifics is required</p>
Abdullah Abdullah	033	<p>What countries is the system to be available to? Please state if there are multiple. Will there be a need for different language content?</p> <p>Answer:</p> <p>Question not asked</p>
Abdullah Abdullah	034	<p>Are there any specific branding guidelines or logos that should be included?</p> <p>Answer:</p> <ul style="list-style-type: none"> • I would like the static signage and suggested dynamic digital signage. I believe that business would like to advertise during downtimes or uptimes to take advantage of the demand during those times. • Commercial pressures may lead to an overemphasis on popular or charismatic species, potentially neglecting the conservation needs of less well-known or endangered species. • Activities, such as animal performances, can raise ethical concerns if they prioritize entertainment over the well-being of animals. • Some zoos may prioritize creating visually appealing exhibits for visitors over providing the best possible environment for the animals. • Unregulated commercialization may lead to exploitative practices, such as the mistreatment of animals for the sake of attracting visitors.

Interviewer	Question Number	Question And Client Response
Emmanuel Omobude	035	<p>Which aspects of the animal sponsorship scheme appeal to you the most in terms of promotion and beneficial publicity for your company?</p> <p>Answer:</p> <ul style="list-style-type: none"> • I believe digital solutions can significantly improve engagement. I suggest embedding information into mobile apps, using QR codes, and incorporating interactive technology. • I also recommend the implementation of kiosks and a system to track referral sources. I advise using analytics to track interactions with the sponsorship scheme through the website or mobile app.
Abdullah Abdullah	036	<p>Do you have any concerns about the current sponsorship scheme, anything that you do not like?</p> <p>Answer:</p> <ul style="list-style-type: none"> • My target expectation from the sponsorship scheme is to break even, targeting at least 4 to 5 customers. The sponsorship scheme is not well advertised and suggests creating a section on the website dedicated to sponsorship information and using social media advertising. • He feels that there is some improvement needed in terms of technology, which could lead the increase in visitor number he somehow is so much convinced to the technology improvement aspect.
Abdullah Abdullah	037	<p>What would be the things you would investigate before getting on with sponsorship? What is the criterion?</p> <p>Answer:</p> <ul style="list-style-type: none"> • I recommend discreet but effective ways of displaying sponsor information through interactive kiosks and redirecting customers from Claybrook Zoo's website to the sponsor's website. • I also recommend collecting data through technology to understand how people are engaging with the sponsors. I want a genuine interaction and pure support from Claybrook Zoo, creating a win-win situation. My brand should be family-friendly and 1/8 of the space on the signage would be for the logo and details. • he wanted to make sure that all the data collected should be helpful and working he was expecting in so much with the system. He also wanted to give it some space as he allocated so much space to the program.

The dialogue with Philip Brown provided a sponsor's eye view of the animal sponsorship program at Claybrook Zoo, highlighting areas of potential enhancement and the delicate balance between commercial interests and ethical considerations. Mr. Brown's participation underscored the significance of effective marketing and the necessity for technological advancements to boost the interaction between the zoo and its sponsors.

His feedback points to a clear opportunity for Claybrook Zoo to optimize its sponsorship program by leveraging digital mediums, such as a dedicated website section, social media advertising, and interactive kiosks. Furthermore, the consideration of ethical concerns and the importance of creating a respectful and mutually beneficial relationship between the zoo and its sponsors cannot be overstated.

Incorporating Mr. Brown's suggestions will not only improve sponsor satisfaction but also potentially attract new patrons. As we proceed with the development of the software suite, these findings will be instrumental in ensuring that the system supports the zoo's commercial objectives while maintaining its commitment to conservation and visitor engagement.

2.1.3 Other problem domain research

2.1.3.1 Comparable Software System Review

2.1.3.1.1 Records Management Systems

In the pursuit of developing an optimal Records Management System (RMS) for Claybrook Zoo, we conducted a comprehensive analysis of existing software solutions in the market. One such system that stands out is the Animal Welfare App by OERCA, a web-based platform tailored for a range of wildlife-focused organizations. This analysis aims to scrutinize both the advantages and limitations of the OERCA system as a benchmark for our development. By dissecting the features and performance of established systems, we can glean critical insights and best practices that will inform the design and implementation of Claybrook Zoo's RMS.

The OERCA platform is notable for its advanced functionalities and user-centric design, aimed at simplifying the complex data management needs of zoological and wildlife institutions. As we delve into the details of OERCA's offerings, we consider the system's ease of use, configurability, and support services against the backdrop of its functional limitations and areas where improvements are desired.

Oerca Software:

The Animal Welfare App by OERCA is an advanced web-based electronic record management and communication system designed for zoological institutions, wildlife management, research centres, rescue centres, and field operations. It eliminates the need for IT expertise or additional infrastructure. The app features a companion smartphone Progressive Web App for both Animal and Dive Management. The existing system is comprehensive, easily configurable, and can be customized to specific requirements.

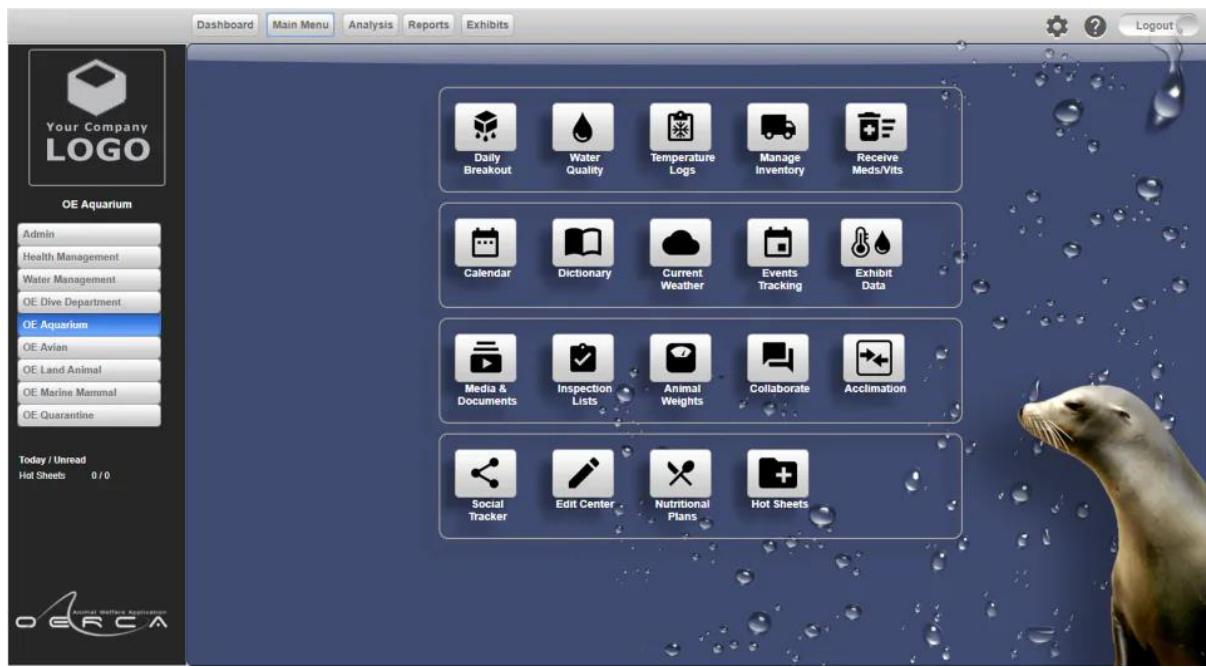


Figure 1

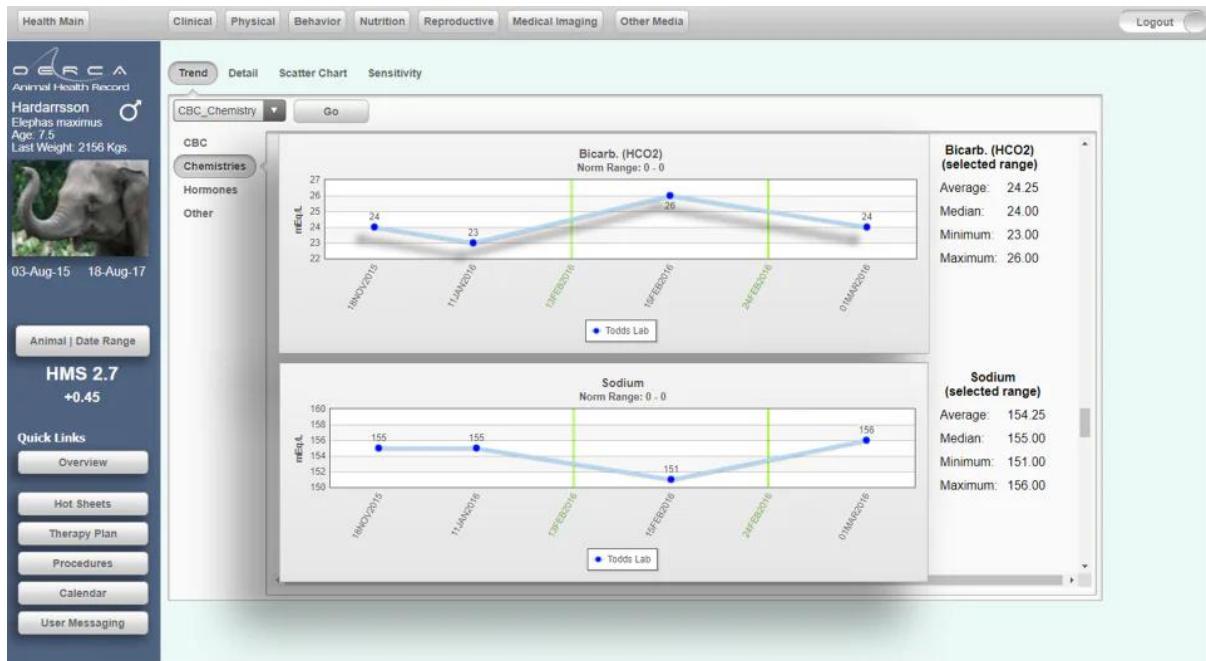


Figure 2

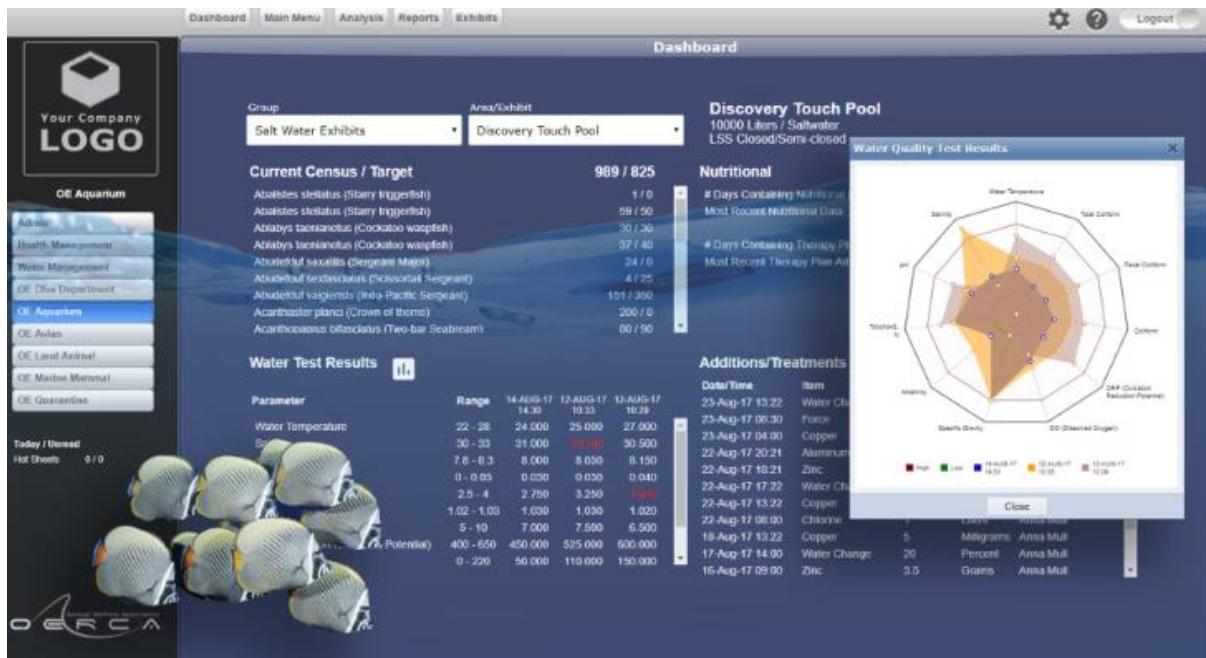


Figure 3

Positive Aspects	Negative Aspects
<ul style="list-style-type: none"> Outstanding assistance tailored for individuals with limited technical expertise. user-friendly design It also can track trends and alert you when something appears to be off in terms of exhibit parameters. 	<ul style="list-style-type: none"> not all features are functional. ability to customize is a bit tedious Some features seem outdated. May exhibit minimal bugs in certain areas.

Our examination of the OERCA software reveals a sophisticated tool that possesses many attributes desired in a state-of-the-art RMS, including user-friendly interfaces and robust support structures for non-technical users. The system's ability to monitor trends and provide alerts is particularly commendable, enhancing the proactive management of exhibit parameters.

However, this analysis also brings to light certain drawbacks, such as the cumbersome customization process, the presence of outdated features, and occasional bugs. These negative aspects underscore the importance of ongoing system updates, user feedback incorporation, and rigorous quality assurance testing.

In conclusion, while OERCA serves as a valuable point of reference, Claybrook Zoo's RMS must strive to amalgamate the positive facets of such existing systems with enhancements that address their shortcomings. Through iterative development and a focus on technological relevance, we are poised to create a bespoke RMS that is not only intuitive and robust but also evolves with the zoo's growing needs and the ever-changing landscape of animal welfare technology.

2.1.3.1.2 Zoo Websites

In the digital age, a zoo's online presence is as crucial as its physical one in attracting and educating visitors, engaging with the community, and promoting conservation efforts. To enhance the development of Claybrook Zoo's online platform, we have embarked on an analysis of comparable systems from respected zoos across the United Kingdom. This comparative study examines the websites of Blackpool Zoo, Chester Zoo, Edinburgh Zoo, and London Zoo, evaluating their strengths and weaknesses in various aspects such as online ticket booking, event information, interactive games, sponsorship opportunities, and overall user experience.

Each website offers a unique digital window into the zoo's world, catering to different user needs, from the casual visitor looking to book tickets to the avid conservationist seeking to support animal welfare. By dissecting the features of these websites, we aim to distil best practices and pinpoint areas where Claybrook Zoo can innovate to provide an exceptional online experience for its visitors and supporters.

Blackpool Zoo

"blackpoolzoo.org.uk" is a website representing their animals' information and customer services for whom may it concern. Their website is designed for users to discover their features including booking tickets, prices, opening hours, adoption animals, education, researching, programmes, navigation, and conservation statement. We are evaluating this website for the referenced purpose to take its pros features and avoid the cons.

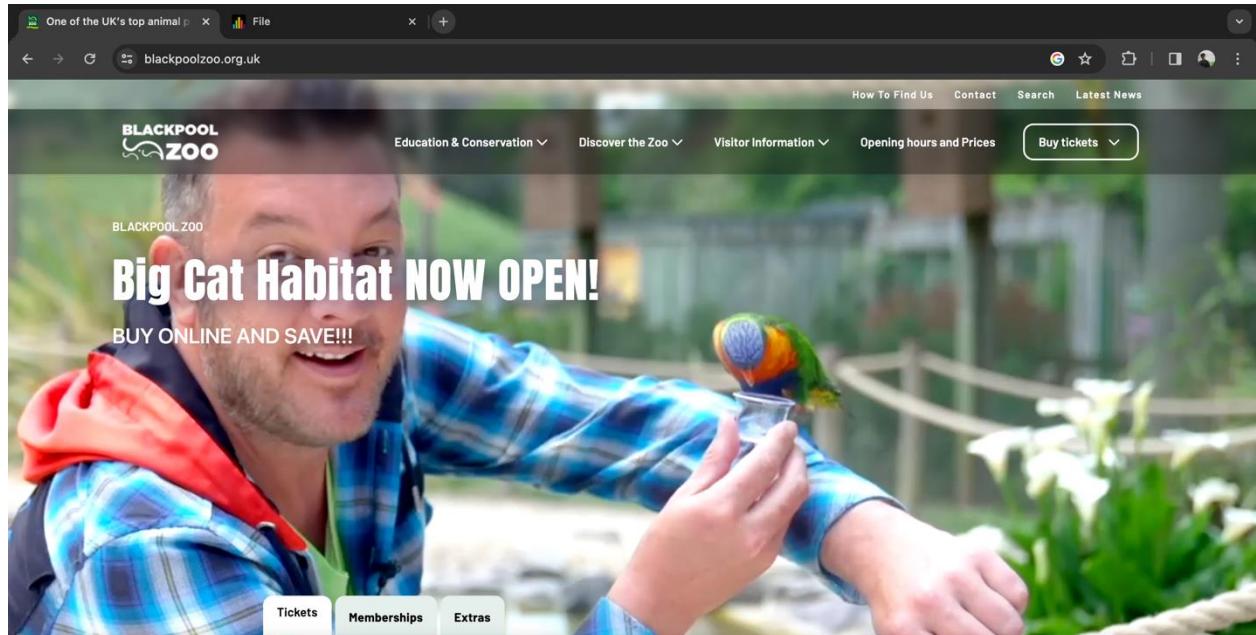


Figure 4

Positive Aspects	Negative Aspects
<ul style="list-style-type: none"> The booking feature of this website classifies obviously types of tickets; thus, it is effortless for the client to choose their ticket. In addition, the website also integrates <i>meal deals</i> to attract customers. Recently, they had a Halloween event. They had updated that event on their website in the <u>Latest News</u> feature several days before the event occurred. In this part, <i>the website has shown a clear announcement to customers.</i> They designed a page for animal adoptions which means with an amount of money, the sponsor has helped Blackpool Zoo maintain high standards of animal welfare → <i>The clients can adopt their favourite animal without concern for looking after them.</i> The usability of the website has performed smoothly. After hundreds of interactions, the website still maintains the best performance that brings customers' pleasure. The layout of the website was designed attractively. It looks simple but still contains full information for clients. The navigation of the website was designed intelligently. It allows users to filter into 4 main types of locations where they want to go. The website has the Zoo Sustainability page which is like the support session. The content was written simply but still lists the key to sustainability. Furthermore, the website has shown links, which contain full information about the zoo's sustainability programmes, below the overall content for those who want to research more deeply → <i>the clients can easily find what they want to research.</i> 	<ul style="list-style-type: none"> Meal deals in the booking feature are not varied, only 2 meals, which may cause lost client satisfaction. The website doesn't have any games for customers. Although the website has Animal Adoptions page, it just contains content about the adoption program without any register form for the sponsor. Some pages have some large blank spaces on both sides next to the content. <p>Rarely but still existing, the Zoo's map has a bug that cannot move within the map.</p>

Chester zoo

The zoo's website includes practical features for various user interactions. Users can book visits, access detailed information about animals, and participate in donation or adoption processes. The website dedicates a separate page for corporate inquiries, emphasizing a business-centric approach. A blog is available for updates and informational content, while a souvenir e-shop caters to those interested in purchasing zoo-related items. These elements collectively provide a functional and diverse online experience for visitors.

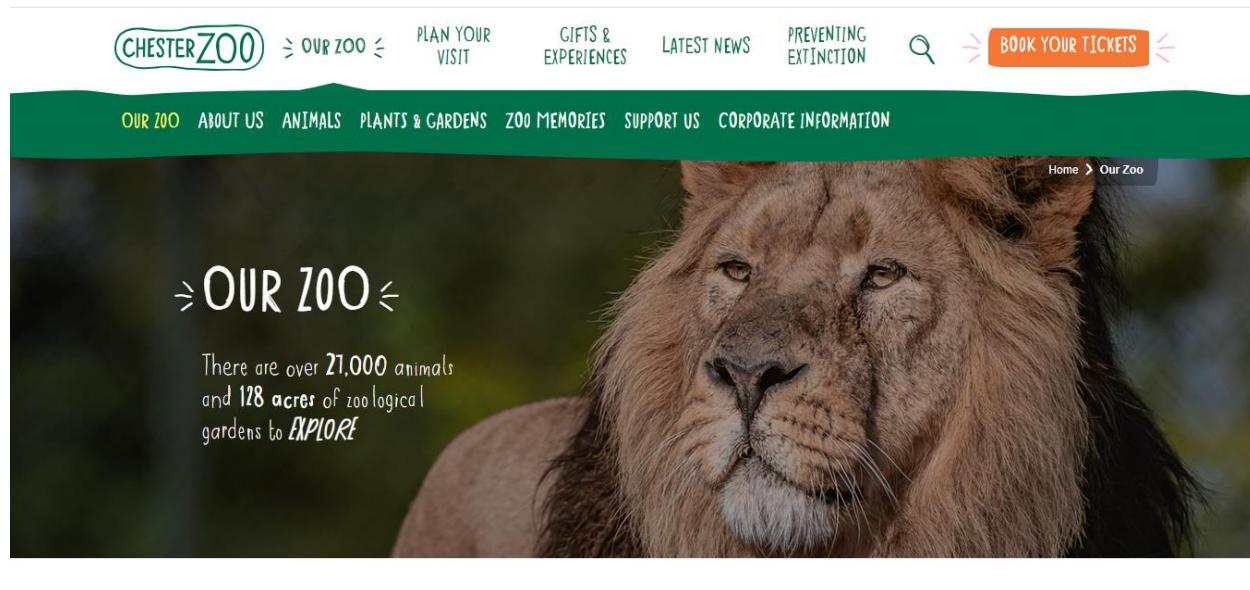


Figure 5

Positive Aspects	Negative Aspects
<ul style="list-style-type: none"> Interactive and visually appealing Catchy design and engaging features Fascinating font for a regular user Seamless integration with social media platforms for enhanced user engagement and sharing. Regularly updated content, event calendars, and news sections to keep visitors 	<ul style="list-style-type: none"> Lack of accessibility for people with disabilities Pop-up options directing to different pages can be time-consuming to load. Potential difficulty for users with ADHD due to font intensity Frequent prompts for upsells during the payment process may create a pushy or intrusive atmosphere. Repeated requests for donations (donation fatigue).

Edinburgh Zoo

The website of the Edinburgh Zoo acts as a virtual entry point, providing a thorough understanding of the fascinating world of wildlife. A gateway is offered to visitors so they can view attractions that have been carefully chosen which feature a variety of fascinating animals from all around the world. The website, which has a smooth and user-friendly interface for simple navigation, goes beyond just a simple presentation and instead represents the zoo's dedication to conservation and education. Through live streaming, researchers can get an intimate look into the life of the zoo's animal residents, access age-appropriate teaching materials, and be informed about forthcoming events. The Edinburgh Zoo hopes to create a connection between people and nature and wildlife that goes beyond boundaries by providing researchers with access to the wonder of its attractions through its website.

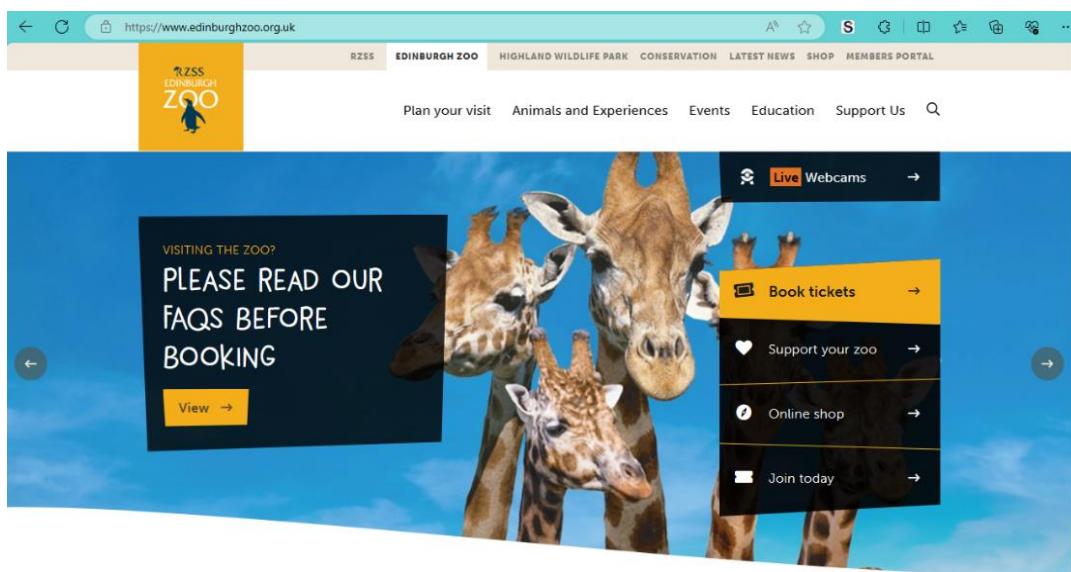


Figure 6

Positive Aspects	Negative Aspects
<ul style="list-style-type: none">The website of the Edinburgh Zoo is easy to use and provides visitors with a straightforward way to find out about events, exhibitions, and conservation initiatives.To improve the experience of visitors, the website undoubtedly contains educational content about the zoo's animals, conservation efforts, and the significance of wildlife preservation.Information on forthcoming events, educational courses, and unique displays is	<ul style="list-style-type: none">The website may lose out on chances to interact with a larger audience and disseminate news and events as it is not integrated with social media platforms in an effective manner.Another drawback on the zoo website is related to the ticket system as occasionally there may be technical issues with online services, which might irritate customers who are attempting to buy tickets online.The website's design is becoming obsolete, and in the future, it might discourage tech-savvy users and have a detrimental effect

<p>provided, which assists in attracting customers and promotes further visits.</p> <ul style="list-style-type: none"> • Including a sponsored animals area highlights the zoo's dedication to conservation and enables guests to actively support animals, encouraging a sense of involvement and connection. • An easy-to-navigate website ensures that users can access information, tickets, and resources quickly, which enhances the user experience in general. • A well-designed layout improves the visual attractiveness of the website, making it simple to use and enticing users to explore different areas of the site. • Having comprehensive maps and guides makes it easier for guests to find displays, organise their stay, and learn about the zoo's layout—all of which enhance their overall experience while they are there. • To encourage community involvement in conservation activities, a thorough "Support Us" section is crucial for fundraising and the zoo has provided that on the website and clear information on memberships, donations, and sponsorships is given. • Visitors can enjoy greater convenience and shorter waits at the entrance thanks to an effective online ticket booking system that streamlines the ticketing process. 	<p>on user experience. Therefore, Zoo management needs to think about what more they may include on their website.</p> <ul style="list-style-type: none"> • Another huge drawback of the website is that they have made it difficult for people with disabilities to properly access content if it does not prioritise accessibility elements like alt text for pictures or appropriate heading structures. • A gaming section is frequently included to draw in and amuse younger customers. In the absence of such a section, kids and students who would find engaging and instructive games appealing may find it difficult to stay on the website.
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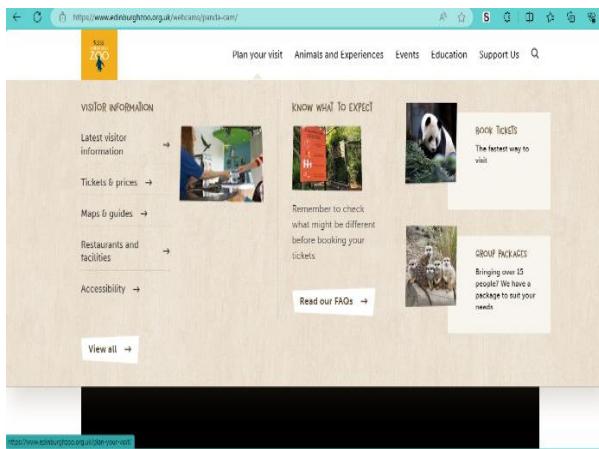


Figure 7

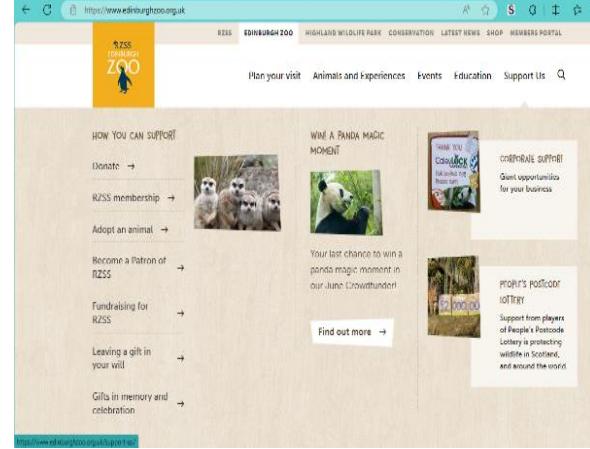


Figure 8

London Zoo

Located in London, LONDON ZOO offers a diverse range of animal exhibits, educational programs, and interactive experiences. The website features numerous interactive wizards that correspond to unique aspects. However, the primary purpose of the website is online ticket sales and informing the audience about upcoming events. Additionally, there is a section labelled "education," indicating the website's coverage of educational aspects related to the zoo and animals, which I find commendable.

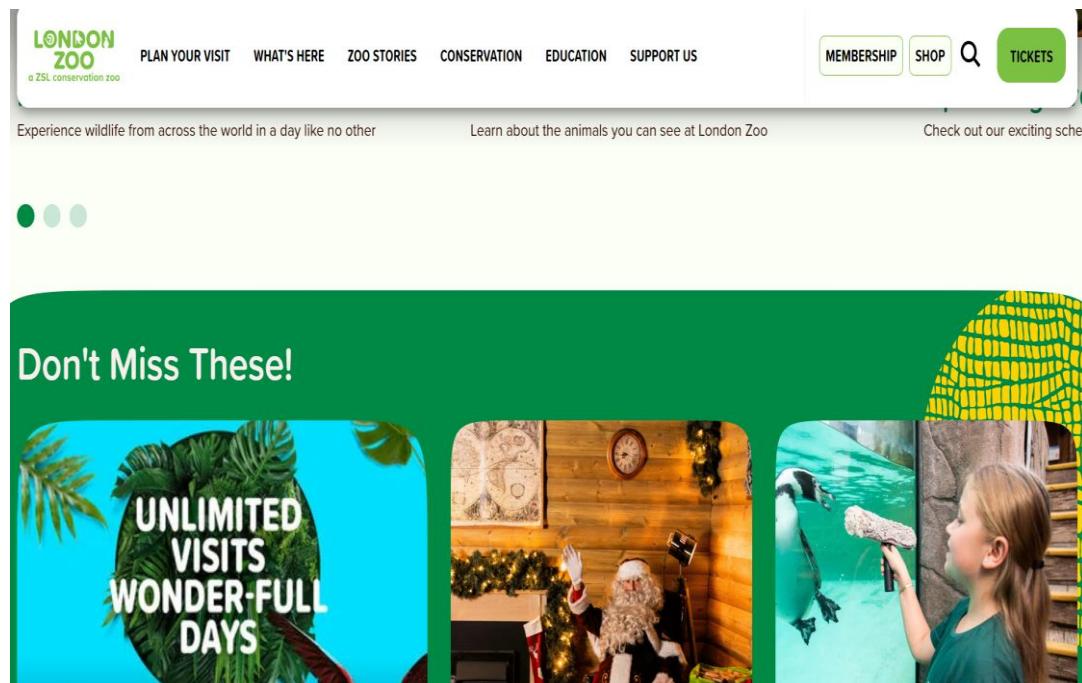


Figure 9

Positive Aspects	Negative Aspects
<ul style="list-style-type: none">• Animated Videos: Upon entering the website, a video plays in the background, accompanied by wizards, depicting children interacting with various animals. This approach effectively attracts crowds. However, I suggest enhancing this feature by incorporating multiple animated videos into the website background. This would keep users engaged and prevent boredom during repeated use.• Built-in Maps for Different Commutes: The website includes a wizard labelled "plan your visit." When accessed, it prompts users to input their mode of transportation and suggests the best route to the zoo accordingly. This feature can be especially helpful for first-time visitors who may be confused about navigation. (refer to figure 9).	<ul style="list-style-type: none">• Misleading Buttons: There are some misleading buttons on the website; when pressed, they redirect you to the content of other buttons. For instance, a button labelled "Car Parking" might navigate you to the opening hours of the zoo. This can be confusing and is not an ideal user experience.• Website Interface Rating: On a scale of zero to 10, I would rate the website interface no higher than 6. This rating is attributed to issues such as a rectangular box containing buttons that persistently follows you as you scroll through the website. Consequently, this feature obstructs the user's view of the actual content on the website, leading to a less-than-optimal browsing experience.• Extra button for library: When exploring through website you will notice two different buttons for same things. For

<ul style="list-style-type: none"> • Accessibility: There is an accessibility button on the website that opens into comprehensive guides for disabled individuals. This includes information on audio-described tours around the zoo, rules regarding assisted dogs, changing places, accessible toilets, and more. • Online Tickets and Offers: The website offer an online ticketing service, and in addition to that, there are exclusive offers available. For example, you can purchase tickets on credit by paying just £3. The site also features a "become a member" option, allowing you to buy a membership for a full year of visits or purchase one as a gift for someone else. • Providing Education: On the website, there is an "education" button containing educational content about animals. It also features "daily talks," providing research-based articles. • Dedicated Phone App: The zoo app is also available on IOS & ANDROID which makes navigation easier and more convenient. By using the app everyone can take a part in daily talks related zoo and provide some suggestions, which is incredibly good technique to get feedback from visitors. 	<p>example, there are two different buttons for articles and zoology books while these two things are same and can be combined under one wizard, which will make website more Button free and make it look less complex and convenient.</p> <ul style="list-style-type: none"> • No E-books in library: On website there is a wizard for library that will guide you for the book borrowing process in library but there is no option for E-books. there should have been a facility for E-book because mostly people now prefer to read online over going to the library and reading the hard copy of the book. • Too much promoting their products to get funds: No doubt the overall website is good but with some things need some attention to be fixed. Zoo website too much promoting their toys and clothing products while they have other things to focus on.
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How to get to London Zoo

Plan your journey with our suggested routes and useful travel information.

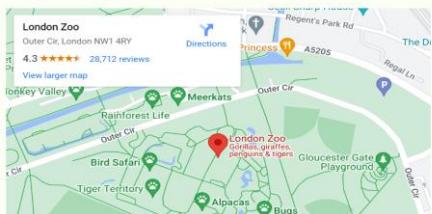


Figure 10



Figure 11

Overall Scores:

Features:	London Zoo	Blackpool Zoo	Chester Zoo	Edinburgh Zoo
Online ticket booking	5	4	4	5
Recent events	2	4	5	4
Games	1	1	2	1
Sponsored Animals	1	3	4	5
Usability	4	5	4	4
Layout	4	4	3	4
Navigation (Maps and Guides)	5	4	3	3
Support us section	3	4	5	5

Our analysis of various zoo websites in the UK has provided valuable insights into the essential elements that comprise an effective online presence for a zoological institution. Blackpool Zoo's website, with its clear ticket booking system and updated event information, sets a standard for user-friendliness and visitor engagement. However, the lack of interactive games and limited meal options highlight opportunities for improvement.

On the other hand, Chester Zoo and Edinburgh Zoo score high on sponsorship visibility and educational content, emphasizing their commitment to wildlife conservation and visitor education. London Zoo's interactive route planning and dedicated mobile app showcase innovation in visitor services, although the website interface and navigation could benefit from streamlining.

Collectively, these findings offer a roadmap for creating a dynamic and informative online platform for Claybrook Zoo. By integrating the positive aspects of these systems and addressing the identified

shortcomings, we can elevate the digital experience for all users, ensuring that Claybrook Zoo's website not only serves as a portal for ticket sales and information but also as a hub for conservation education and community engagement.

2.1.3.1.3 Visitor Kiosk/Information Systems

In the expanding landscape of zoo technologies, visitor information kiosks and QR codes have emerged as pivotal tools for enhancing the guest experience. Zoos worldwide have adopted these systems to provide interactive and educational content, streamline navigation, and facilitate engagement. Through our analysis of systems like Zoo Media's smart kiosks and the broader implementation of QR codes, we aim to assess their relevance, performance, and potential integration into zoo environments.

Visitor information kiosks serve as digital concierges, guiding guests through the zoo with a wealth of knowledge at their fingertips, while QR codes bridge the gap between physical exhibits and digital content. As we evaluate these technologies, we focus on their ability to enrich the zoo experience, provide educational value, and support conservation efforts, all while considering privacy, maintenance, and accessibility challenges.

Zoo media (zoomedia.us)



Figure 12

Innovating the visitor experience, many zoos have implemented interactive kiosks strategically placed throughout their premises. These versatile kiosks serve as invaluable tools, providing visitors with a dynamic and engaging way to explore the zoo. Not only do they offer detailed maps to enhance navigation, but they also become personalized guides, delivering insightful information about each animal on display. Leveraging innovative Augmented Reality (AR) technology, these kiosks transform the viewing experience by bringing virtual elements to life, allowing visitors to interact with the animals in unique and entertaining ways.

Moreover, the inclusion of educational games ensures an immersive and educational adventure for visitors of all ages. Kiosks like these are situated in many zoos for ex. San Diego & Tampa.

Positive Aspects	Negative Aspects
<ul style="list-style-type: none"> Improved Navigation Enhanced Visitor Experience Educational Opportunities Promotion of sponsored brands 	<ul style="list-style-type: none"> Privacy concerns May not be clear during broad daylight. May come as a distraction. Require regular maintenance.

Research on QR Codes.

QR codes and Quick response codes are becoming more and more used in a variety of business settings because they are simple to use, adaptable, and have a large quantity of data stored in them. The main benefits of QR codes are their capacity to easily and swiftly connect the digital and physical realms, giving consumers immediate access to data or services. Businesses may use QR codes to increase consumer interaction, expedite workflows, and boost productivity.

Instances of how QR codes are used in businesses include:

- Product information and marketing:** websites or multimedia content can be accessed by QR codes found on product packaging or marketing materials. Customers may also obtain product information, reviews, promos, or instructional videos by scanning QR codes.



Figure 13

Figure 14

- 2. Payments with Contactless Technology:** Mobile payments are often carried out using QR codes. Customers may safely make purchases by scanning the QR codes created by payment applications, which contain transactional data. Several banking applications and well-known mobile payments systems like apple pay and google pay are well known few examples.

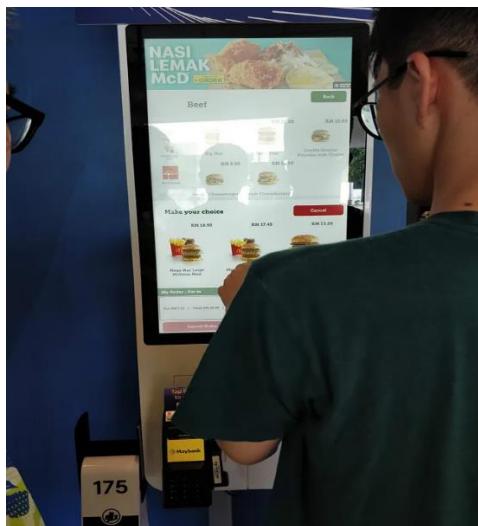


Figure 15

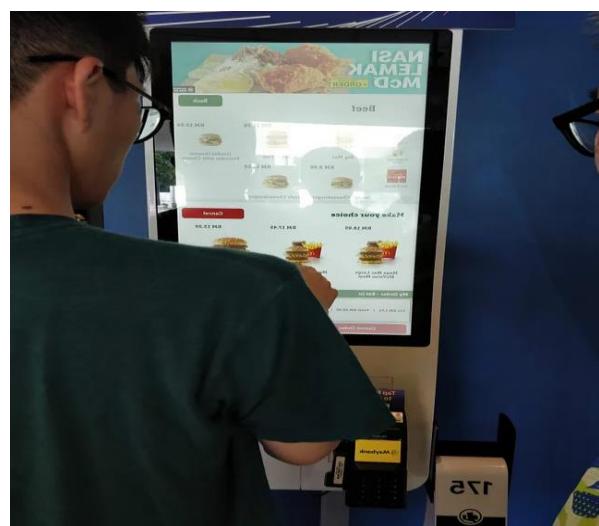


Figure 16

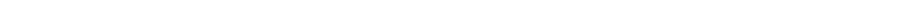
- 3. Events Ticketing and Registration:** Electronic tickets and events registrations are made using QR codes. Participants may check in quickly and easily by presenting their QR codes. QR codes are also used by event planners to monitor participant demographics and track attendance.



Figure 17



Figure 18



Inventory and access management: machinery, assets and inventory items all have QR tags attached for simple tracking and administration. Updating inventory levels and streamlining maintenance tasks are all made easier by scanning QR codes.

4. Authentication and security: Two-factor authentication procedures use QR codes. Users verify their identification by scanning a QR code produced by a security app, which gives access to sensitive systems or accounts.

5. Promotional campaigns: Customers may access special offers, competitions, or new product launches by scanning QR codes used in advertising and promotional materials. This establishes a clear connection between offline marketing collateral and online interaction.



Figure 19



Figure 20

6. Education: QR codes that lead to additional online resources like films, tests, or interactive information can be found in textbooks and other educational materials. Instructors can also provide students with extra learning resources by using QR codes.



Figure 21



Figure 22

- 7. Surveys and feedback:** Customers satisfaction surveys can be accessed via QR codes found on receipts or after-service documents. Consumers may simply scan the code to submit feedback.



Figure 23

Businesses may profit much more from QR codes but for their deployment to be effective, issues including security, user adoption, and design concerns must be addressed. Businesses may use QR codes more wisely in different situations when they are aware of their benefits and drawbacks.

Advantages of QR codes in businesses include.

- 1. Easy information access:** By scanning the codes users may quickly and effectively access websites, multimedia materials or information.



Figure 24



Figure 25

- 2. Cost effective:** QR codes generation and implementation are reasonably priced, making them an economical company option.
- 3. Contactless Transaction:** QR codes lessen the need for in-person encounters by enabling contactless transactions, this is particularly useful in payment systems and tickets.



Figure 26



Figure 27



Figure 28

- 4. Versatility:** QR codes may be used in a variety of settings, such as business cards, product packaging, ads, and more.
- 5. Trackability:** Companies may monitor QR code usage to learn more about consumer interaction such as how often customers scan and other statistics.

- 6. Convenience in Authentication:** Two-factor authentication which uses QR codes improves security while accessing accounts or private data.
- 7. Reduced Environmental Impact:** QR codes applications such as digital menus and e-tickets can help reduce paper waste, which is good for the environment.

Limitations faced in use of QR codes includes:

- 1. Dependency on technology:** users must possess smartphones with a camera or QR codes reader app for its functionality.
- 2. Security Concerns:** QR codes have the potential to be used maliciously such as to spread malware or send consumers to fraudulent websites.
- 3. Restricted Data Capacity:** Though QR codes have a respectable amount of data storage capacity, they might not be appropriate for applications that need to store a lot of data.
- 4. User Adoption:** Some users, especially those in older age groups or those with less access to smartphones might not be familiar with QR codes or be reluctant to utilize them.
- 5. Privacy Concerns:** Privacy issues with QR codes such as collecting user data. Businesses must adhere to privacy standards and be open about how they use data.
- 6. Dependency on Internet Connectivity:** The inability to access connected material in many QR code apps without internet connection is a drawback, an unreliable connection might make using a product difficult.
- 7. Limited Interaction Depth:** QR codes are excellent for instant information access, but in comparison to other technologies they might not offer a deep level of interaction.
- 8. Risk of Obsolescence:** There's a chance that QR codes will become outdated or superseded by newer technologies as technology advances.

Our exploration of visitor information kiosks and QR codes reveals that these technologies are integral to modernizing the zoo experience. Kiosks like those employed by Zoo Media offer enriched visitor interactions with exhibits, providing educational content and enhancing overall engagement. Meanwhile, QR codes have carved a niche in various business operations, proving to be versatile tools for information dissemination, payment processing, and promotional campaigns.

However, the adoption of these systems is not without its considerations. Privacy and security concerns, the potential for distraction, and visibility issues during certain conditions are some challenges that must be addressed. Additionally, the reliance on technology and internet connectivity, along with the risk of obsolescence, are factors that zoos must navigate when implementing QR codes.

In conclusion, while visitor information kiosks and QR codes offer significant benefits in creating a modern and interactive zoo environment, their successful deployment requires careful planning, regular maintenance, and ongoing assessment to ensure they continue to meet the evolving needs of both the zoos and their visitors.

2.1.3.2 Development Relevant Legislation

The transition from manual to digital information systems in the context of Claybrook Zoo necessitates a comprehensive understanding of applicable legislation. The Data Protection Act and the Equality Act serve as two primary legal frameworks that guide how personal and sensitive information is managed, stored, and processed by organizations. As we embark on digitizing Claybrook Zoo's records, it is imperative that we

scrutinize these laws to ensure our compliance and uphold the highest standards of integrity, security, and equality. Our research aims to identify the implications that these acts have for our operations and the proactive measures we must take to align with their stipulations.

The Data Protection Act demands a lawful, transparent, and secure approach to personal data management, while the Equality Act mandates inclusivity and non-discrimination in all organizational practices. These acts are not mere guidelines but are legally binding principles that safeguard individuals' rights and promote a fair and just society. As we delve into the specifics of these acts, we will outline the responsibilities and adaptations required to seamlessly integrate these legal requirements into our digital transformation efforts.

Data Protection Act

"The data protection act controls how a user's personal information is used by organisations, businesses, and the government" (UK, G., 2018. GOV. UK.). All entities using personal information are required to follow the data protection principles. Organisations, businesses, and the government must make sure the information obtained is:

- Used lawfully and transparently.
- Used for specified, straightforward purposes.
- Used in relevance and necessity.
- Kept for the appropriate amount of time.
- Managed in a secure manner.

There is stronger protection of more sensitive information, such as a user's:

- Race
- Sex
- Ethnicity
- Religion
- Biometrics
- Medical records
- Genetics
- Sexual orientation

Under the 2018 Data Protection Act, users have a right to find out what information is used and stored. These include the right to:

- Being informed about how the user's data is used.
- Access the user's data.
- Have incorrect or outdated data updated.

- Have data erased.
- Prevent the processing of the user's data.
- Object to how a user's data is being processed in certain cases.

Users can contact organisations and businesses for a copy of the information they have of them.

With the design of Claybrook Zoo's new website, Swiftech needs to be aware of what information we would need for the website's users. Based on the Data Protection act we do not have any need for more sensitive information, as something such as a user's sexual orientation is irrelevant towards the user's experience on the website and by extension the visiting of Claybrook Zoo.

We in Swiftech would use the information to allow users to easily navigate the zoo website without any additional prompts or additional details. Users that sign up would have information such as credit card information so that it is easier for them to purchase tickets for merchandise in the future. We would of course have this information securely kept in the database that we will have for the website.

With the information being managed, we would need to be careful of

- Misuse of personal information from anyone with the sufficient access
- Cyber-attacks and the repercussions if they are successful.
- the leaking of any sensitive information

Equality act

The equality act is particularly important because it helps to protect people from facing any form of discrimination and it help to make sure that equality is provided in different areas within life. For example, customer services, education etc. The equality act is important to be followed by the zoo company because its helps make sure that fair treatment is given for visitors and employees. The zoo company must follow this act to make sure that everyone within the zoo feels well respected, fairly treated, and feels welcomed to be in the zoo. This is regardless of any differences, abilities that they have and their background.

The equality act bans discrimination against people based on nine characteristics.

1. Disability
2. Religion
3. Age
4. Marriage
5. Sexual orientation
6. Race
7. Pregnancy
8. Gender reassignment (this is changing from one gender to another type of gender)
9. Gender

The zoo company needs to make sure they do not discriminate their visitors or employees based on these nine characteristics. Zoo workers must be fairly treated whilst they are being recruited for employment and during processes of dismissal, regardless of their background. The zoo needs to make sure that there are appropriate adjustments to help people with certain disabilities. For example, making sure there is accessibility for visitors who have mobility impairments and making any suitable changes for staff members with disabilities to make sure that they can complete their job efficiently and comfortably. The zoo would need to deliver other communication methods for staff members and visitors who have sensory disabilities. The zoo company needs to ensure there is diversity within the environment. For example, making sure that everyone receives equal opportunities regardless of any difference they have. It is to make sure they feel valued to be here in the zoo.

The equality act requires the zoo company to stop any form of harassments for individuals. Also stop any form of unfair treatments to visitors and employees based on the nine protected characteristics. The zoo would need to make sure that they implement a safe working environment and visitor environment because this would help people feel protected against any form of harassment and unwanted hatred. Following the equality act is beneficial because it attracts many visitors from different background, and this can help build a positive reputation for the zoo. A well respected and welcoming working environment can help employees to become productive. It also helps them to feel motivated and happy to work for the zoo. Not being able to follow the equality act can lead to fines and it can damage the reputation of the zoo company. Also, this could potentially cause less visitors appearing in the zoo and more employees leaving the company.

For the zoo to follow the equality as they need to make sure that they anonymize the employee's data on their software and make sure that their data is kept safe. This information would be related about their gender, age race and any disabilities. Anonymizing these types of data can help make sure that once they make any decision regarding about the any promotions and or even hiring staff, it would be based on their qualifications and skills. This can help get rid of biases or any form of prejudice. The zoo company would need to make sure that their software can track different type of people that work in the zoo. Such as looking at age, background, gender etc. They can look at this and see which groups are not represented enough for the zoo and this can ensure they can create plans that can help include everyone within the zoo. This can create equal opportunities for all workers and treated fairly. The zoo software needs to make it easy for employees with disabilities to ask for any help they may need for work. The zoos software should be able to deal with their requests very quickly to make sure they can complete their job in good fashion and without having to face any additional problems. Or any treatments that are unfair.

Another implementation for the zoo's software would be delivering easy to find information for visitors with disabilities. There should be translations for different languages on the website in rode top help everyone understands what is taking place. There should be virtual tours on the software to allow visitors, who cannot walk, explore the zoo without the need to walk very much. The software needs to have a report section for visitors to report any discrimination or unfair treatments that they faced. This can help solve these issues.

In conclusion, it is not only a legal obligation but a moral one for Swiftech to adhere to the Data Protection Act and the Equality Act while digitizing Claybrook Zoo's information systems. The principles of lawful and secure data usage, non-discriminatory practices, and inclusive design are essential components of our digitization strategy. We prioritize the sensitivity of personal data and implement proactive measures such as anonymization and robust cybersecurity protocols to safeguard against potential risks. Our commitment to these frameworks will not only ensure compliance but also enhance Claybrook Zoo's reputation as an inclusive and socially responsible institution.

2.1.3.3 Visitor Questionnaire

To continually enhance the visitor experience at the zoo, we have compiled a comprehensive questionnaire designed to gather in-depth feedback from our guests. This tool is an invaluable resource for gauging satisfaction, understanding visitor needs and preferences, and identifying areas for improvement. The questionnaire covers a wide range of topics, including staff interactions, facility services, accessibility, and educational content. By encouraging visitors to reflect on their experiences and rate various aspects of their visit, we can collect actionable data that will drive strategic decisions and foster an environment that delights all who walk through our gates.

The responses will not only reflect the current state of visitor satisfaction but also serve as a benchmark for future enhancements. Whether it is understanding the effectiveness of our signage, the efficiency of our queuing processes, or the inclusivity of our services for visitors with special needs, this questionnaire is designed to capture the nuanced aspects of the zoo experience. Our commitment to using this feedback to inform improvements underscores our dedication to visitor satisfaction and continuous growth.

Zoo Experience

Thank you for taking the time to complete this questionnaire designed to gather your feedback on your experience at the zoo. Your opinions are valuable and will help us improve.

Please mark your level of agreement with the following statements regarding your experience at the zoo:

Question	1 (Very bad)	2 (Bad)	3 (Neutral)	4 (Good)	5 (Very Good)
The staff at the zoo are friendly.					
The zoo staff are helpful.					
I am satisfied with the service at the zoo.					
The overall experience at the zoo is enjoyable.					
The signage at the zoo is clear and informative.					
The zoo signage is appropriately flashy.					

The information on the zoo signage is sufficient.					
I am satisfied with the neatness and maintenance of the zoo facilities.					
The queuing process at the zoo is efficient.					
The online payment process for the zoo is user-friendly.					
The zoo map is easy to navigate.					
Entry into the zoo is quick and easy.					
The zoo provides adequate facilities and services for visitors with special needs or disabilities.					
Purchasing souvenirs and stuffed animals online is a convenient option.					
The interactive experiences (e.g., shows, educational courses) at the zoo are engaging.					
I would appreciate more interactive games on the zoo website.					
The visual appeal of the zoo branding is high.					
The zoo stands out more than other zoos because of its branding.					

Accessibility & Transportation

Indicate your usual mode of transportation to the zoo:

Question	a) Car	b) Bike	c) Bus	d) Train	e) Walk	f) Other
How do you usually get to the zoo?						

Visit Companions

Your typical company during zoo visits:

Question	a) Parents	b) Siblings	c) Friends	d) Close Relatives	e) Distant Relatives	f) Other
Who do you come with whilst visiting the zoo?						

Language

Your most spoken or preferred language:

Question	a) English	b) Spanish	c) French	d) German	e) Other
What languages do you most commonly or comfortably speak?					

Frequency of Visits

Your visit frequency to the zoo each month:

Question	a) 1-2 times	b) 3-5 times	c) 10+ times	a) 1-2 times
How often do you visit the zoo in a month?				

Visitor Demographics

Your demographic information:

Question	Answer
What is the area code in which you live?	

Question	a) Below 5	b) 5-13	c) 13-18	d) 18-35	e) 35-55	f) 55+
What age range do you belong in?						

Animal Preferences

Your preferred types of animals to see at the zoo:

Question	a) Band A animals	B) Band B animals	C) Band C animals	D) Band D animals	E) Band E animals
Which type of animals are you very thrilled to see?					

Motivation for Visit

Your primary reason for visiting the zoo:

Question	a) educational purposes	b) To view your favourite animals	c) Have fun with family and friends	d) Taking photos of the zoo	e) Others, please state
What inspires you to visit the zoo?					

Overall Satisfaction

Your overall satisfaction rating with the zoo experience:

Question	a) 1	b) 2	c) 3	d) 4	e) 5
On a scale of 1 to 5, What would you rate your overall experience in the zoo (Where 5 is the highest and 1 is the lowest)?					

Staff Support

Your rating of the support provided by zoo staff:

Question	a) 1-Very Poor	b) 2-Poor	c) 3-Fair	d) 4-Good	e) 5-Very Good	f) 6-Excellent
On a scale of 1 to 5, where 5 is the highest, how would you rate the overall support given by the staff?						

Zoo Education & Knowledge

Knowledge gained from educational programs at the zoo:

Question	a) Animal behaviour	b) Environment and habitats	c) Wildlife threats	d) Human impacts on wildlife	e) Scientific research	f) Other (please specify)
What knowledge did you gain during any talks or educational programs within the zoo?						

Recommendations

Your reasons for recommending the zoo to others:

Question	a) Family friendly environment	b) Value of education	c) Entertainment	d) Photos and art	e) Relaxing atmosphere	f) Others (please specify)

What are the reasons why you would recommend the zoo for others?					
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Information

Useful information found during your zoo visit:

Question	A) Information about animal species and habitats	B) Helpful directions and maps to navigate the zoo	C) Useful information about animal behaviour	D) Useful information about educational programs and events taking place at the zoo
What useful information did you find in the zoo?				

Facilities and Services

Facilities and services for visitors with special needs or disabilities:

Question	a) Wheelchair accessible entrances and ramps	b) Audio guides and braille signages	c) Parking spaces reserved for people with disabilities,	d) Restrooms that are accessible	e) Help provided by staff who are trained for people with special needs
What type of facilities and services were given for visitors who have special needs or disabilities?					

Zoo Branding

Improvements noticed since the zoo's rebranding:

Question	a) Better signage and wayfinding	b) Improved animal habitats and enclosures	c) More educational programs and exhibits	d) Increased variety of animals	e) Better food and beverage options	f) Improved customer service
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What improvements have you noticed since the zoo rebranded?					
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The completion of the visitor questionnaire marks the beginning of a critical review and improvement process for the zoo. The feedback obtained provides us with a rich tapestry of insights into how visitors interact with our space, staff, and services. From the friendliness of our team to the ease of navigation around the zoo, every piece of data serves as a guidepost for enhancing our operations.

The analysis of questionnaire responses will inform our approach to staff training, facility maintenance, and the development of user-friendly digital tools such as online payments and interactive zoo maps. Furthermore, understanding visitor demographics, transportation preferences, and reasons for visiting will enable us to tailor our marketing strategies and educational programs more effectively. By acting upon the recommendations and overall satisfaction ratings, we will ensure that the zoo not only meets but exceeds visitor expectations, fostering a sense of wonder, learning, and enjoyment with each visit.

As we move forward, the insights derived from this questionnaire will play a pivotal role in shaping the zoo's trajectory, ensuring that our branding, services, and experiences align with our visitors' desires and our conservation mission. Our commitment to leveraging this feedback will solidify the zoo's reputation as a premier destination for families, educators, and wildlife enthusiasts alike.

2.1.3.3.1 Questionnaire Findings

The comprehensive analysis of the visitor questionnaire findings offers invaluable insights into the guest experience at the zoo. The feedback collected reflects a spectrum of visitor interactions, from initial impressions of staff friendliness and helpfulness to the efficiency of the facility's services and the effectiveness of educational programs. The data paints a detailed picture of visitor demographics, preferences, and behaviours, which is essential for understanding and catering to our audience's needs.

The questionnaire results indicate areas where the zoo excels, such as staff interaction and overall visitor enjoyment, as well as aspects that require attention, like the queuing process and online payment system. By dissecting these findings, we can target specific areas for improvement and capitalize on strengths to ensure that every visit is memorable, educational, and enjoyable.

Zoo Experience

Thank you for taking the time to complete this questionnaire designed to gather your feedback on your experience at the zoo. Your opinions are valuable and will help us improve.

Question	1 (Very bad)	2 (Bad)	3 (Neutral)	4 (Good)	5 (Very Good)
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The staff at the zoo are friendly.				10	90
The zoo staff are helpful.				5	95
I am satisfied with the service at the zoo.			10	10	80
The overall experience at the zoo is enjoyable.			5	5	90
The signage at the zoo is clear and informative.		5	5	10	80
The zoo signage is appropriately flashy.	2	3	5	80	10
The information on the zoo signage is sufficient.	10	10	10	30	40
I am satisfied with the neatness and maintenance of the zoo facilities.				10	90
The queuing process at the zoo is efficient.	40	30	10	10	10
The online payment process for the zoo is user-friendly.	100				
The zoo map is easy to navigate.		5	5	45	45
Entry into the zoo is quick and easy.	40	30	10	10	10
The zoo provides adequate facilities and services for visitors with	20	20	20	20	20

special needs or disabilities.					
Purchasing souvenirs and stuffed animals online is a convenient option.				10	90
The interactive experiences (e.g., shows, educational courses) at the zoo are engaging.			10	10	80
I would appreciate more interactive games on the zoo website.			10	40	50
The visual appeal of the zoo branding is high.				10	90
The zoo stands out more than other zoos because of its branding.				5	95

Accessibility & Transportation

Indicate your usual mode of transportation to the zoo:

Question	a) Car	b) Bike	c) Bus	d) Train	e) Walk	f) Other
How do you usually get to the zoo?	90		5	5		

Visit Companions

Your typical company during zoo visits:

Question	a) Parents	b) Siblings	c) Friends	d) Close Relatives	e) Distant Relatives	f) Other
Who do you come with whilst visiting the zoo?		20	30	50		

Language

Your most spoken or preferred language:

Question	a) English	b) Spanish	c) French	d) German	e) Other
What languages do you most commonly or comfortably speak?	90	1	1	1	7

Frequency of Visits

Your visit frequency to the zoo each month:

Question	a) 1-2 times	b) 3-5 times	c) 10+ times	a) 1-2 times
How often do you visit the zoo in a month?	100			

Visitor Demographics

Your demographic information:

Question	Answer
What is the area code in which you live?	(Average distance calculated after processing postcode data is 45 miles)

Question	a) Below 5	b) 5-13	c) 13-18	d) 18-35	e) 35-55	f) 55+
What age range do you belong in?			10	30	40	20

Animal Preferences

Your preferred types of animals to see at the zoo:

Question	a) Band A animals	B) Band B animals	C) Band C animals	C) Band D animals	d) Band E animals
Which type of animals are you very thrilled to see?	20	20	20	20	20

Motivation for Visit

Your primary reason for visiting the zoo:

Question	a) educational purposes	b) To view your favourite animals	c) Have fun with family and friends	d) Taking photos of the zoo	e) Others, please state
What inspires you to visit the zoo?	10	70	10	10	

Overall Satisfaction

Your overall satisfaction rating with the zoo experience:

Question	a) 1	b) 2	c) 3	d) 4	e) 5
On a scale of 1 to 5, What would you rate your overall experience in the zoo (Where 5 is the highest and 1 is the lowest)?			10	10	80

Zoo Education & Knowledge

Knowledge gained from educational programs at the zoo:

Question	a) Animal behaviour	b) Environment and habitats	c) Wildlife threats	d) Human impacts on wildlife	e) Scientific research	f) Other (please specify)

What knowledge did you gain during any talks or educational programs within the zoo?	20	30	40	10		
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Recommendations

Your reasons for recommending the zoo to others:

Question	a) Family friendly environment	b) Value of education	c) Entertainment	d) Photos and art	e) Relaxing atmosphere	f) Others (please specify)
What are the reasons why you would recommend the zoo for others?	10	70	10	10		

Information

Useful information found during your zoo visit:

Question	A) Information about animal species and habitats	B) Helpful directions and maps to navigate the zoo	C) Useful information about animal behaviour	D) Useful information about educational programs and events taking place at the zoo
What useful information did you find in the zoo?	10	70	10	10

Facilities and Services

Facilities and services for visitors with special needs or disabilities:

Question	a) Wheelchair accessible entrances and ramps	b) Audio guides and braille signages	c) Parking spaces reserved for people with disabilities,	d) Restrooms that are accessible	e) Help provided by staff who are trained for people with special needs

What type of facilities and services were given for visitors who have special needs or disabilities?	20	20	20	20	20
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Zoo Branding

Improvements noticed since the zoo's rebranding:

Question	a) better signage and wayfinding	b) Improved animal habitats and enclosures	c) More educational programs and exhibits	d) Increased variety of animals	e) Better food and beverage options	f) Improved customer service
What improvements have you noticed since the zoo rebranded?	50	20	30			

In conclusion, the visitor questionnaire has provided a wealth of feedback that can guide future enhancements to the zoo experience. It is heartening to see high satisfaction levels in areas such as staff interactions and overall enjoyment, which suggests that the zoo's efforts in these domains are well-received by guests. However, there are noteworthy concerns, particularly in the efficiency of queuing and the need for more interactive online content, which present opportunities for innovation and improvement.

The findings also reveal the diverse nature of our visitor base, with a range of transportation preferences, visit frequencies, and animal interests. This diversity underscores the importance of tailoring our approach to meet varied visitor needs and expectations. Moving forward, the zoo will focus on refining the visitor experience by addressing the highlighted areas for improvement, such as enhancing online features and ensuring all facilities are accessible and inclusive.

By leveraging the insights from this questionnaire, we can strive to make the zoo not only a place of wonder and discovery but also a beacon of accessibility, education, and visitor satisfaction. With a commitment to continuous improvement, we are poised to evolve and adapt, reinforcing our standing as a premier destination for families, educators, and nature enthusiasts alike.

2.1.3.4 Staff Questionnaire

The staff questionnaire is a crucial tool for understanding the internal perspective of zoo operations and obtaining direct insights from those who are on the frontline of visitor engagement. This survey is meticulously designed to capture the observations and experiences of the staff regarding visitor demographics, interests, and behaviours, as well as to evaluate the effectiveness of current zoo processes and gather input on potential areas for improvement.

The questions span a range of topics, from the ease of visitor navigation to the efficacy of communication strategies and the current feedback collection process. The survey also probes into the existing technological infrastructure and its impact on staff performance. By encouraging staff to share their experiences and

suggestions, the zoo can identify opportunities to refine operations, enhance visitor satisfaction, and foster a supportive work environment.

About Visitor:

Please mark your level of agreement with the following statements regarding your experience at the zoo:

Question	(a) Children (under 12)	(b) Adolescents (13-18)	(c) Adults (19-64)	(d) Seniors (65+)
What age group of visitors do you observe most frequently in the Zoo?				

Question	(a) Seeing the animals	(b) Learning about animals	(c) Participating in interactive activities	(d) Spending time with family and friends
In your experience, what are the primary interests of visitors?				

Question	(a) Easy to navigate	(b) Difficult to navigate	(c) Confusing
Can you describe the current experience for visitors navigating through the Zoo?			

Current Process, Experiences, and User Requirements:

Question	(a) Yes	(b) No	(c) If yes, please specify
Are there any challenges in the current Zoo operations that you have observed?			

Question	(a) Yes	(b) No	(c) If yes, please specify

Are there specific amenities or services that visitors frequently inquire about?			
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Question	(a) Communication	(b) Collaboration	(c) Decision-making	(d) Problem-solving	(e) Other (please specify)
What aspects of the current processes in the Zoo do you find most effective?					

Animal Information:

Question	(a) Ask staff members	(b) Read signage	(c) Use the Zoo's website or app
How do visitors typically seek information about animals in the Zoo?			

Question	(a) Answer their questions	(b) Direct them to signage or other resources	(c) Provide them with additional information or insights
In your role, how do you assist visitors with inquiries about animal facts and exhibits?			

Feedback and Improvement:

Question	(a) Visitor surveys	(b) Guest feedback forms	(c) Direct feedback from visitor	(d) No feedback
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How do you currently collect feedback from visitors about their experiences?				
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Question	(a) Provide more feedback channels (e.g., online surveys, comment boxes, etc.)	(b) Promote the feedback collection process more effectively	c) Analyse feedback data more regularly and thoroughly	(d) Share feedback results with staff more widely
How can the feedback collection process be made more efficient and comprehensive?				

Question	(a) Animal enclosures	(b) Facilities and amenities	(c) Food and beverage options	(d) Educational programs	(e) Visitor services
What areas of the Zoo could be improved on based on visitor feedback you have received?					

Training and Support:

Question	(a) More frequent training sessions	(b) More targeted training on specific topics	(c) Access to online training resources	(d) Other
How can the Zoo improve its training and support programs for staff members?				

Complex System Features and Technology Integration:

Question	(a) Animal management system	(b) Ticketing system	(c) Point-of-sale system	(d) Access control system
What complex features or systems are currently in place at the Zoo that you interact with?				

Question	(a) Provide better training	(b) Improve the user interface	(c) Reduce the number of steps required to complete tasks	(d) Integrate different systems more effectively
How can these complex features be made more user-friendly for staff and the system?				

Security and Access Control:

Question	(a) CCTV cameras	(b) Access control cards	(c) Security guards	(d) Visitor checks
How are security and access control measures currently implemented in the Zoo?				

Question	(a) Implement new technologies	(b) Improve training for security staff	(c) Increase the number of security guards	(d) Make security measures more visible
What improvements can be made to enhance security and access control?				

2.1.3.4.1 Questionnaire Findings

Thank you for taking the time to complete this questionnaire designed to gather your feedback on your experience at the zoo. Your opinions are valuable and will help us improve.

About Visitor:

Please mark your level of agreement with the following statements regarding your experience at the zoo:

Question	(a) Children (under 12)	(b) Adolescents (13-18)	(c) Adults (19-64)	(d) Seniors (65+)
What age group of visitors do you observe most frequently in the Zoo?	50	10	40	

Question	(a) Seeing the animals	(b) Learning about animals	(c) Participating in interactive activities	(d) Spending time with family and friends
In your experience, what are the primary interests of visitors?	80	10	5	5

Question	(a) Easy to navigate	(b) Difficult to navigate	(c) Confusing
Can you describe the current experience for visitors navigating through the Zoo?	90	10	

Current Process, Experiences, and User Requirements:

Question	(a) Yes	(b) No	(c) If yes, please specify
Are there any challenges in the current Zoo operations that you have observed?	90	10	

Question	(a) Yes	(b) No	(c) If yes, please specify
Are there specific amenities or services that visitors frequently inquire about?		100	

Question	(a) Communication	(b) Collaboration	(c) Decision-making	(d) Problem-solving	(e) Other (please specify)
What aspects of the current processes in the Zoo do you find most effective?	25	25	25	25	

Animal Information

Question	(a) Ask staff members	(b) Read signage	© Use the Zoo's website or app
How do visitors typically seek information about animals in the Zoo?	20	80	Does not exist now

Question	(a) Answer their questions	(b) Direct them to signage or other resources	© Provide them with additional information or insights
In your role, how do you assist visitors with inquiries about animal facts and exhibits?	100		

Feedback and Improvement:

Question	(a) Visitor surveys	(b) Guest feedback forms	(c) Direct feedback from visitor	(d) No feedback
How do you currently collect feedback from visitors about their experiences?		100		

Question	(a) Provide more feedback channels (e.g., online surveys, comment boxes, etc.)	(b) Promote the feedback collection process more effectively	(c) Analyse feedback data more regularly and thoroughly	(d) Share feedback results with staff more widely
How can the feedback collection process be made more efficient and comprehensive?		100		

Question	(a) Animal enclosures	(b) Facilities and amenities	(c) Food and beverage options	(d) Educational programs	(e) Visitor services
What areas of the Zoo could be improved on based on visitor feedback you have received?		50		30	20

Training and Support:

Question	(a) More frequent training sessions	(b) More targeted training on specific topics	(c) Access to online training resources	(d) Other
How can the Zoo improve its training and support programs for staff members?		100		

Complex System Features and Technology Integration:

Question	(a) Animal management system	(b) Ticketing system	(c) Point-of-sale system	(d) Access control system
What complex features or systems are currently in place at the Zoo that you interact with?	25	25	25	25

Question	(a) Provide better training	(b) Improve the user interface	(c) Reduce the number of steps required to complete tasks	(d) Integrate different systems more effectively
How can these complex features be made more user-friendly for staff and the system?		90	10	

Security and Access Control:

Question	(a) CCTV cameras	(b) Access control cards	(c) Security guards	(d) Visitor checks
How are security and access control measures currently implemented in the Zoo?	25	25	25	25

Question	(a) Implement new technologies	(b) Improve training for security staff	(c) Increase the number of security guards	(d) Make security measures more visible
What improvements can be made to enhance security and access control?	100			

In conclusion, the staff questionnaire is an invaluable resource for the zoo's continuous improvement strategy. The thoughtful design of the survey ensures that every aspect of the visitor experience and operational

efficiency is scrutinized from the staff's unique vantage point. The responses to this questionnaire will not only inform the management about current successes and challenges but also drive the development of tailored solutions that benefit both visitors and staff.

Upon analysing the staff feedback, the zoo will be better positioned to make informed decisions that align with its mission, improve visitor engagement, and enhance the overall zoo experience. The input gathered will directly influence training programs, technology upgrades, and security measures, all of which play a vital role in maintaining the zoo's reputation as a premier destination for education, conservation, and family-friendly entertainment. With the staff's cooperation and valuable insights, the zoo is set to embark on a path of progressive development, ensuring that it remains a safe, enjoyable, and enriching environment for all.

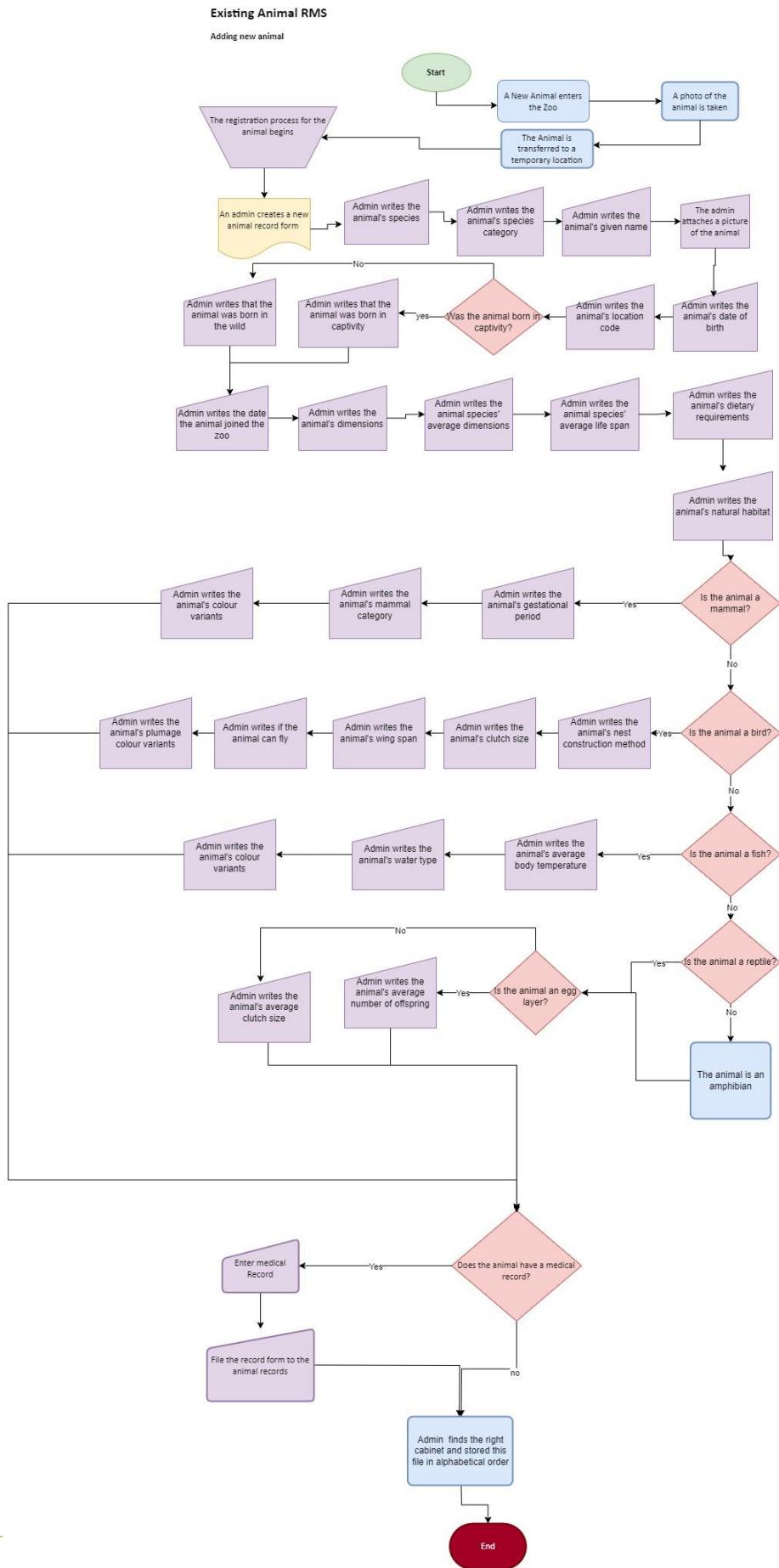
2.2 Requirements Specification

2.2.1 Problem Domain Description

2.2.1.1 Existing Business Operation

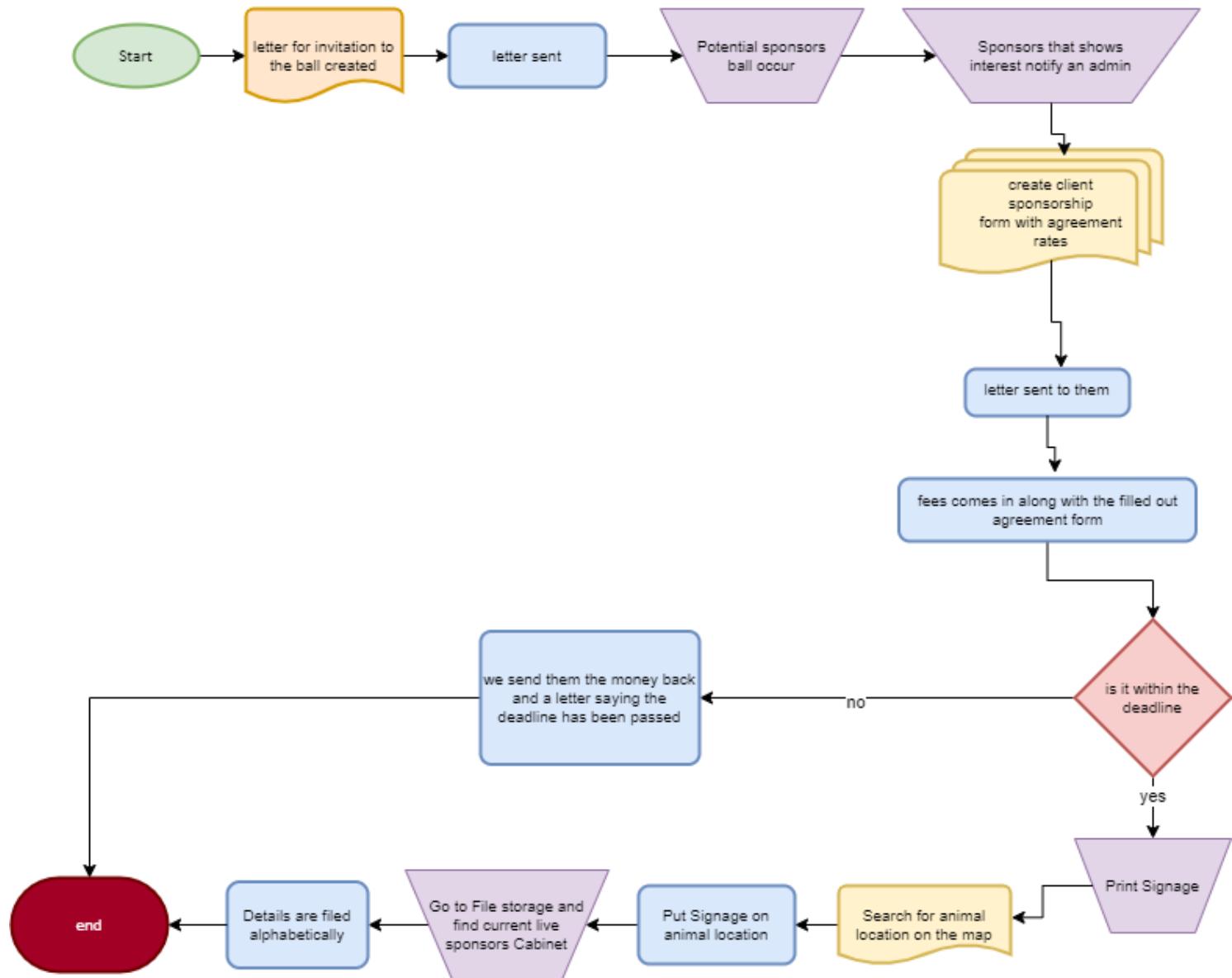
In the comprehensive analysis of the Claybrook Zoo's current operational framework, we meticulously charted flowcharts to dissect and understand the existing business processes. Our objective was to illuminate the inner workings of operations such as the Animal Lifecycle and Sponsorship Lifecycle, among others, to discern the most impactful areas for digital enhancement. These flowcharts offer a step-by-step visualization of the processes, providing clarity on the workflows that sustain the zoo's day-to-day activities. By examining these processes, we endeavoured to identify the strengths and weaknesses inherent in the current system, with a particular focus on spotting inefficiencies, redundancies, or areas that could benefit from automation. This analysis is pivotal in our decision-making process regarding which components of the operation are ripe for digitization and integration into the proposed software suite.

2.2.1.1.1 Animal Lifecycle

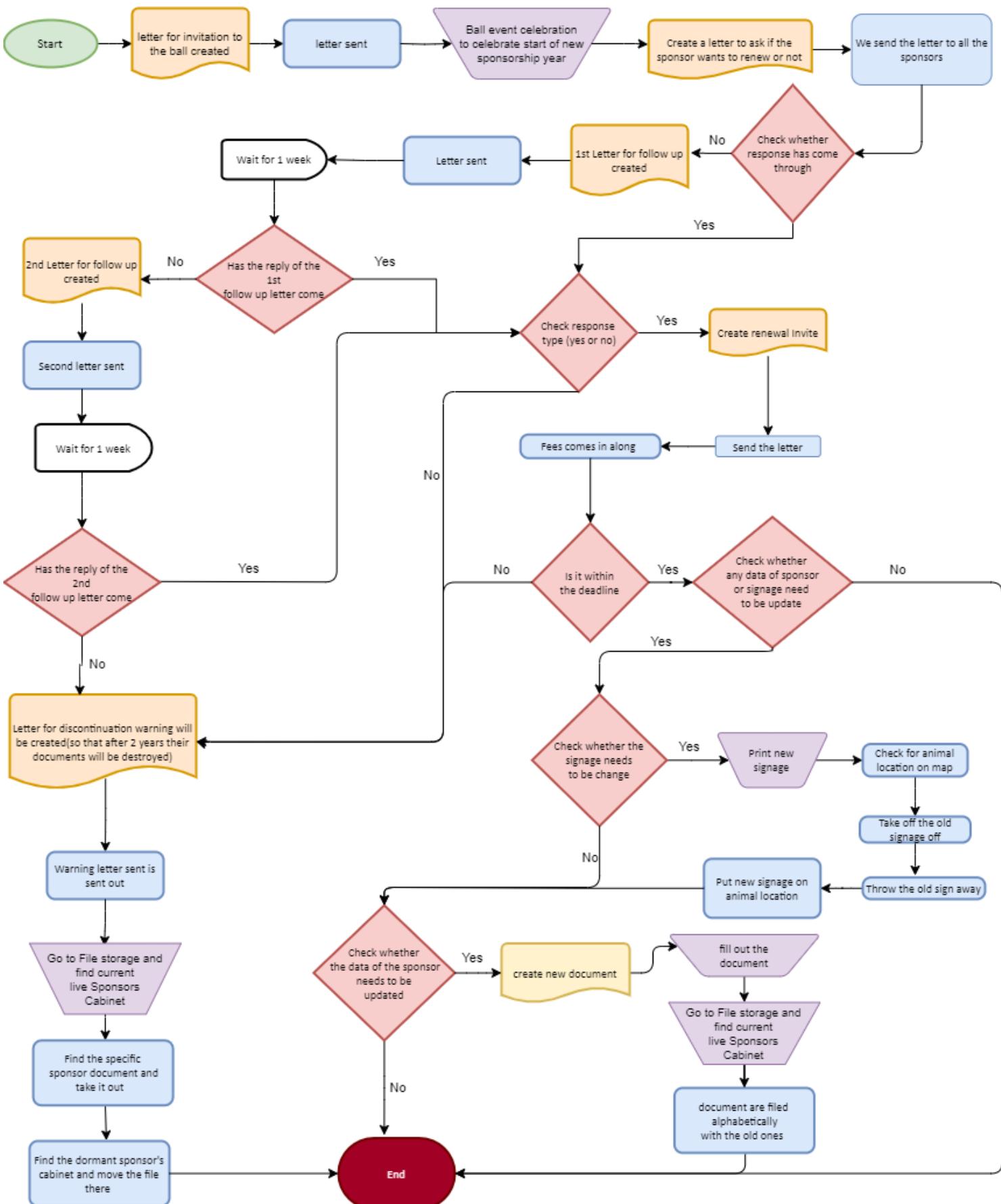


2.2.1.1.2 Sponsorship Lifecycle

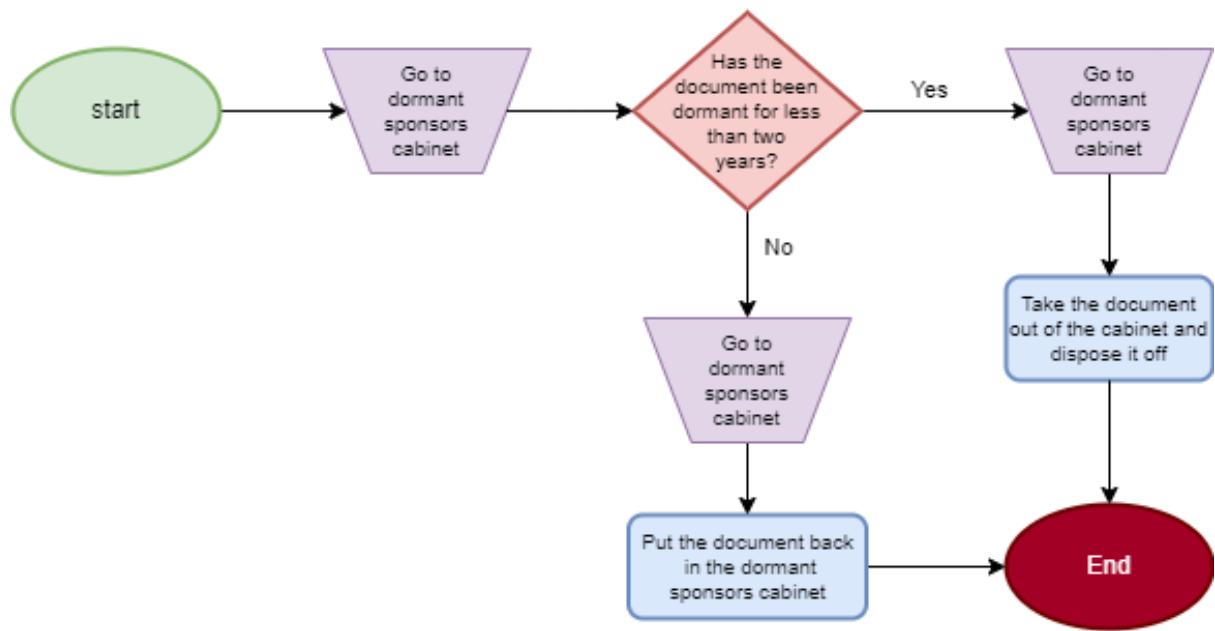
current processes- new sponsor's lifecycle



Current processes- Existing sponsor's renewal process

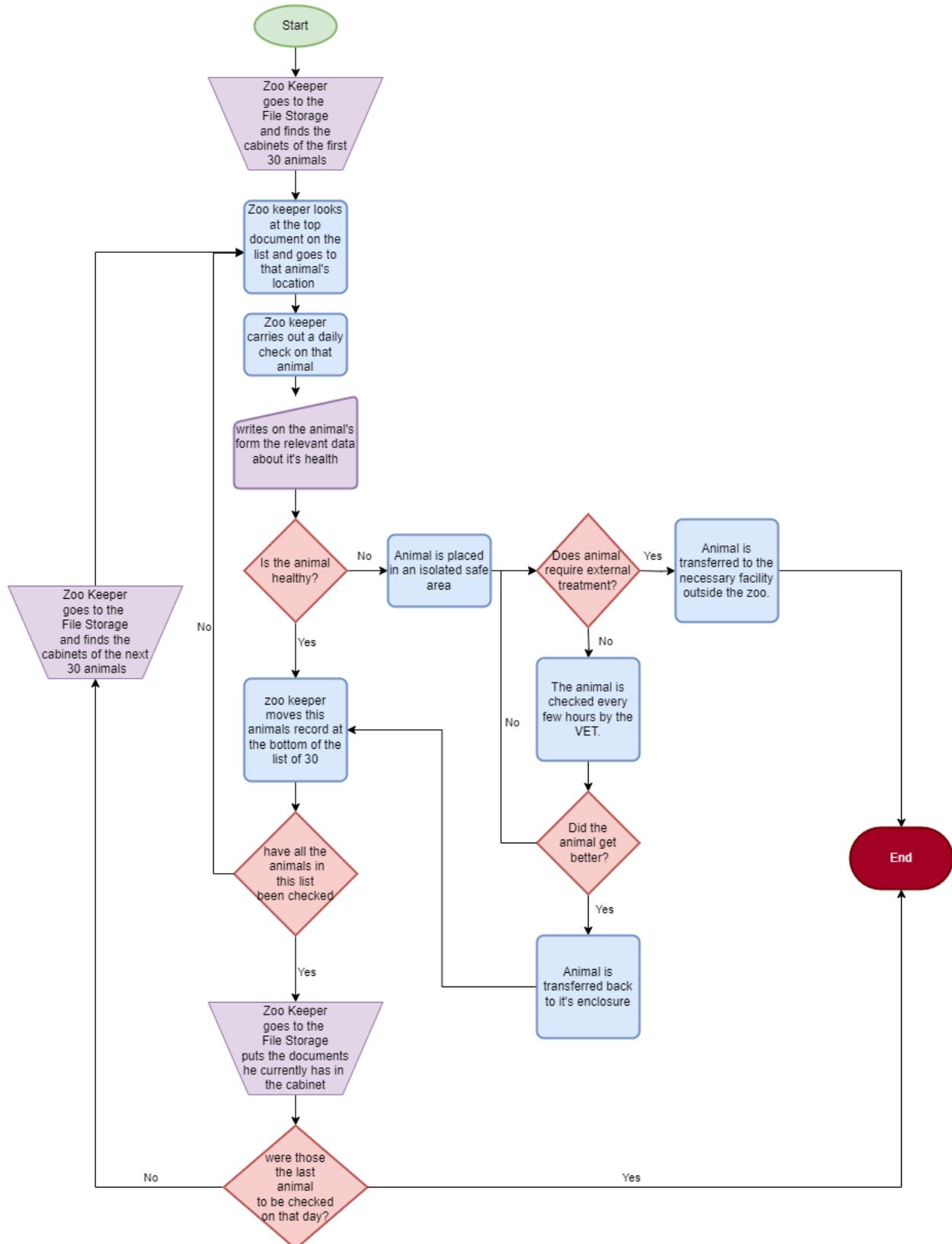


Current processes- Terminating sponsor

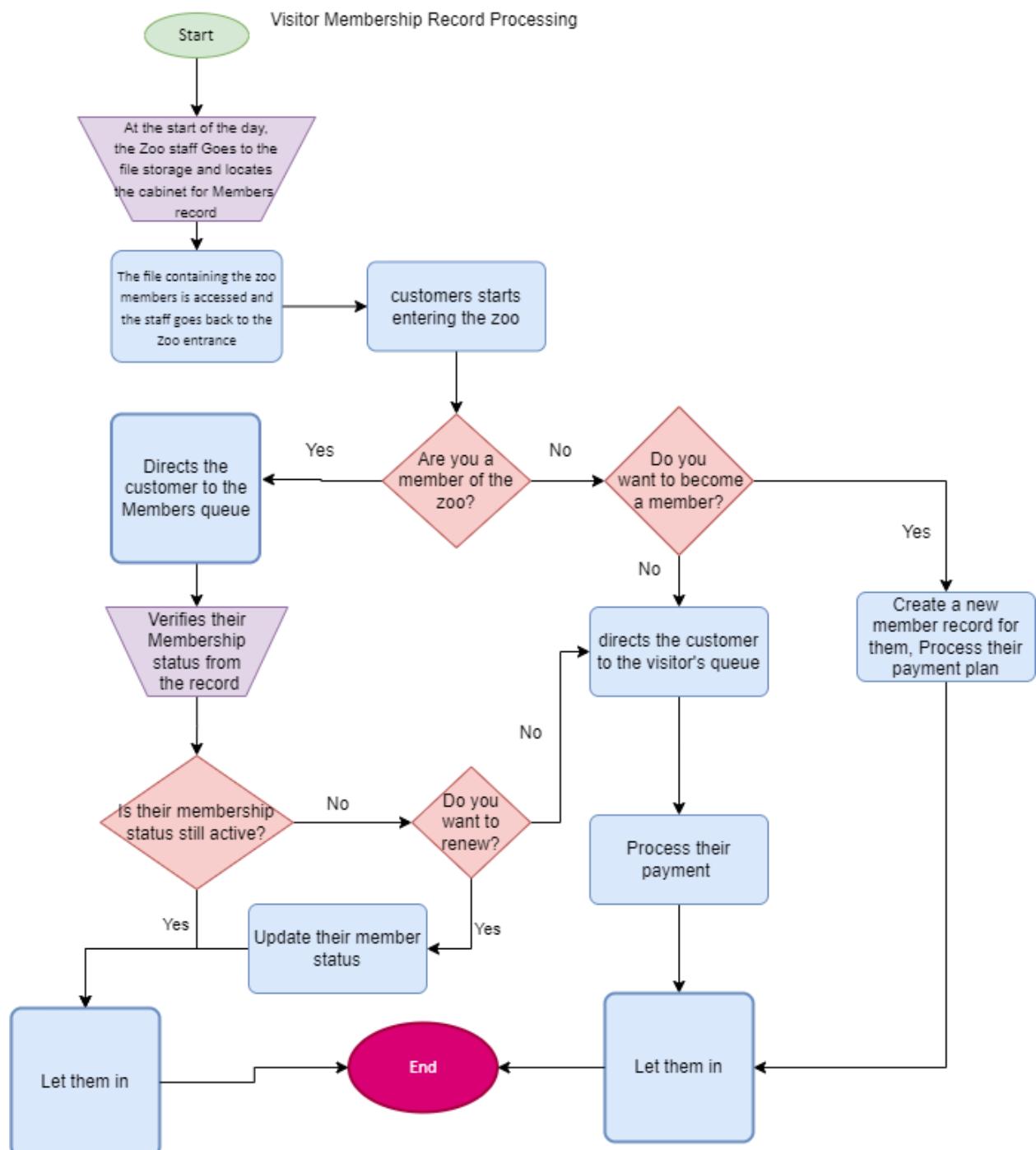


2.2.1.1.3 Animal Medical Record Processing

Current process: Animal's daily medical check

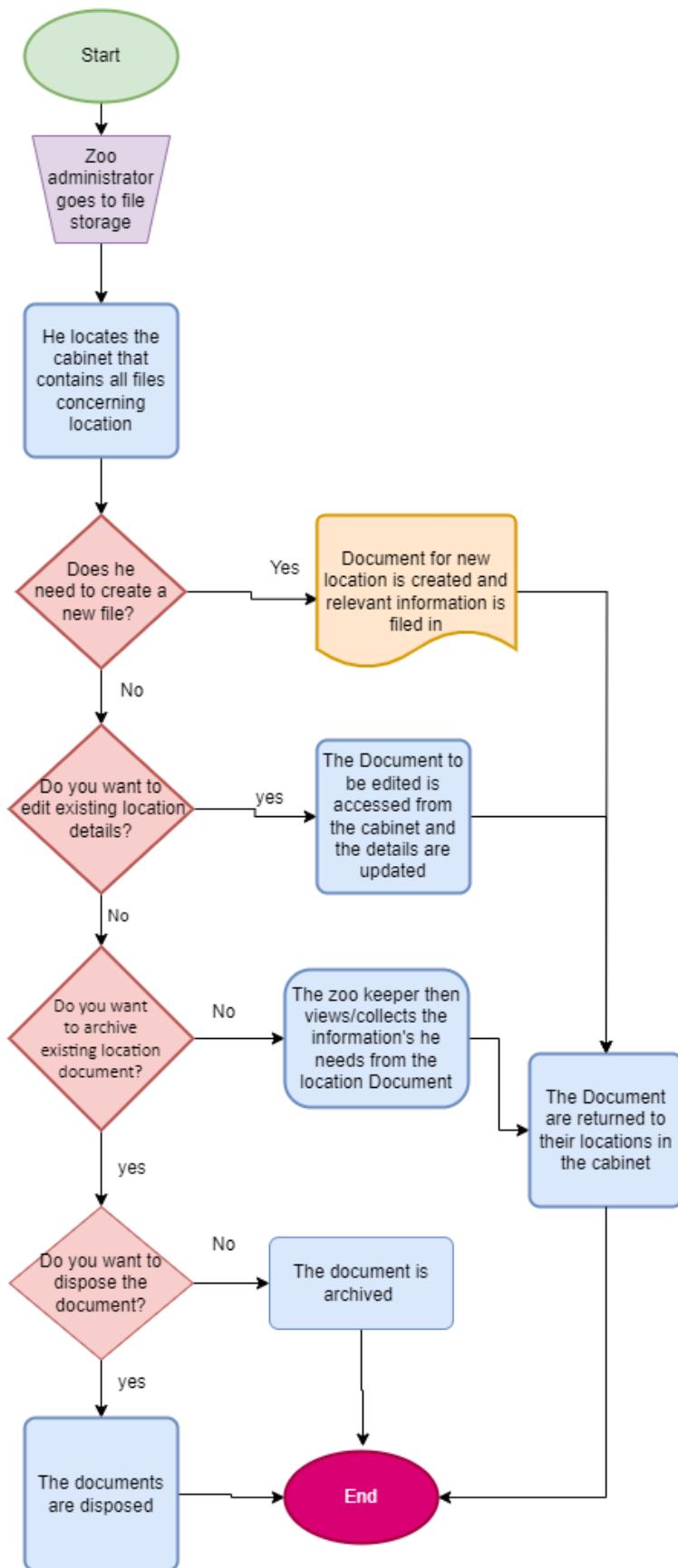


2.2.1.1.4 Visitor Membership Record Processing



2.2.1.1.5 Location Record Membership Processing

Location management record processing



2.2.1.2 Summary of existing business limitations

There are limitations within the current system. For example, its outdated system. Currently they are using paper records such as visitor records. This is a major problem because paper records can be lost easily. They can be damaged easily for example being ripped easily or paper becoming wet through any form of liquid being dropped on the paper. The reason why this is a major issue is because essential information would be compromised and unavailable. Paper records are not secure enough because they can easily be stolen by anyone and difficult to recover those records as well especially if they are damaged or stolen.

There are many issues with using paper records such as its limited accessibility. These types of records are physical and are only accessible through the location in which they were stored. This limits access to those who are physically there and need that information. Also, you would need to have a good amount of physical space to store those records. This can be difficult to accomplish for long term because the zoo would have long histories of data regarding about animals, visitors etc. Another issue with paper records is that requires a lot of time and effort to find certain information. This will waste time and especially if those records are not organised very well. Employees would find it difficult to efficiently search for relevant information they need through many paper records. It is difficult to update physical paper records and it is difficult to ensure its recent updated version for each paper records because of these large number of paper records having to be handled. Paper records are more likely to be tampered and face any form of unauthorised access. This is because encryption and access control cannot be used for paper records. Also, they can access easily by anyone who has access to them. Continuously utilizing paper records can cause major impacts to the environment such as deforestation and ecological footprint. Another issue with the current system is that it is difficult to transfer data through paper records as they are not digitalized. Substantial number of paper documents can take a lot of time when trying to process the data which would damage the efficiency of the business.

Furthermore, the zoo does not have an official website which is an issue because they could miss a big online audience. Visitors could be reliant on the internet to search for information about the zoo and to feel attracted to the zoo. Not having an official website can cause the zoo to find it difficult to reach those potential visitors. Not having an official website can be difficult to share important information such as its opening hours, news, location of the zoo, ticket prices, future events. This would cause visitors to miss vital information that they need to know about the zoo. Not having an official zoo website can cause problems for the zoo because they will not be able to build an online presence and their brand for the zoo. They will not be able to introduce any educational programs and upcoming events to their visitors. Also not having an official website can lead to missing out vital marketing opportunities such as online Advertising, search engine optimization etc. This can limit the zoo from attracting and engaging their visitors to the zoo. Without an official website can be difficult to make any updates regarding about opening hours tickets prices etc. This can be an issue because visitors will not be able to know any of these updates and may cause confusion for visitors.

Another issue within the current system is that they do not have any social media, presence. This is a major issue because social media platform helps to target the specific audience regarding about the interest demographics etc. it would be difficult target the specific audience without using social media platforms. Having no social media platforms can lead to missing sponsorships and donations. Social media platforms are extremely useful for donations and for campaigns. The zoo will be in a competitive disadvantage because they will not be able to attract visitors like the other zoos. Will be able to do with their social media platforms. The other zoos would be able to engage with their visitors efficiently.

Having delved into the existing business operations through detailed flowcharts, we have arrived at a nuanced understanding of the operational dynamics at Claybrook Zoo. This exploration has been instrumental in pinpointing the limitations within the current system, shedding light on areas where digital solutions can introduce significant improvements. The summary of existing business limitations, derived from our thorough investigation, sets the stage for targeted enhancements. It is with these insights that we can now proceed to

design and implement a software suite tailored to bridge the gaps, streamline workflows, and propel the zoo towards a future where efficiency and technological innovation go hand in hand. The identified limitations become the catalysts for transformation, ensuring that our next steps are both strategic and aligned with the overarching goal of elevating the zoo's operational excellence.

2.2.2 Functional Requirements

2.2.2.1 Records Management System

2.2.2.1.1 Software Features

The development of a robust Records Management System (RMS) is a critical component in modernizing the administrative and operational functions of Claybrook Zoo. The RMS will serve as the backbone for organizing, managing, and accessing a wide array of data crucial for the day-to-day management of the zoo. The following set of features outlines the capabilities that will be integrated into the system, each designed with the dual purpose of streamlining administrative processes and enhancing data security and accessibility.

From the initial login interface to the comprehensive finance and legal compliance modules, this RMS is poised to transform how staff interact with data and manage zoo operations. The system's user-friendly features, such as the homepage with quick links and the intuitive navigation bar, are tailored to facilitate efficient workflow for administrators and other staff. Detailed management modules for users, animals, and sponsors are complemented with robust data analytics, ensuring that every facet of the zoo's operations is captured and can be leveraged for strategic decision-making.

Record Management System Features	Description
Login Interface	Allows administrators to access records.
Homepage	Provides links to subpages with lists of users, animals, and sponsors.
User Management (Visitor and Employee)	Maintains a list of users with details like username, surname, password, email address, phone number (if applicable), and bank details (if applicable).
Animal Management	Manages a categorised list of animals with detailed records that can be updated and edited.
Animal Addition Feature	Enables the input of new animal data, deletion of existing data, and a two-admin authorization process for data deletion. Deletion reasons must be selected from a predetermined list (e.g., deceased due to disease, injury, environmental factors, or being killed by other animals).
Data Transfer Feature	Allows the transfer of all data for a specific animal to another zoo during a transfer process.
Sponsor Management	Manages a list of sponsors with their detailed information and the animals they sponsor (links to the animal's record management system page).
Sponsor Information Update Feature	Allows the creation and updating of sponsor information.

Record Management System Features	Description
Update Feature	Allows the user to update the current information and save it in the system
Edit Function	Allows the user to edit the information where they have access.
Delete Function	Allows the user to delete any information in the RMS.
Search Function	Allows the user to search for anything using any term.
Import Function	Allows the user to import any information from backups or other devices.
Export Function	Allows the user to export the information from the RMS to backup storage or to other devices.
Data/Repository	This will be one of the pages that allows the user to view all data information in the RMS.
Data Analytics	This will be one of the pages that allows the user to view data analytics information in the RMS.
System Admin	This will be one of the pages that allows the user to view all system admin settings information in the RMS.
Finance Management	This will be one of the pages that allows the user to view finance management information in the RMS.
Legal and Compliance	This will be one of the pages that allows the user to view legal and compliance information in the RMS.
Navigation Bar	This will be one of the pages that allows the user to view all the pages as well as the current page in the RMS.

In conclusion, the proposed features of the Records Management System represent a significant leap forward in the digital infrastructure of Claybrook Zoo. The RMS is designed to be comprehensive, yet user-centric, ensuring that all staff can effectively manage their respective areas with a high degree of precision and ease. The addition, update, and deletion functions are engineered to support data integrity and traceability, while the import and export functions provide flexibility in data handling.

The integration of advanced features such as data analytics and finance management into the RMS will deliver a transformative impact on how the zoo operates and engages with its data. The system's adaptability and comprehensive coverage of operational domains underscore our commitment to excellence in data stewardship and operational efficiency. As we move towards implementation, these features will not only enhance internal processes but also support the zoo's mission of education, conservation, and visitor satisfaction.

2.2.2.1.2 Access Rights

The efficient operation of a Records Management System (RMS) is contingent upon the establishment of clear access rights and privileges for various user roles within the organization. In developing the RMS for Claybrook Zoo, it is essential to delineate the levels of access afforded to different staff members, ensuring that everyone has the necessary tools to perform their duties effectively while maintaining data security and integrity.

The access rights for the RMS are categorized across different operational levels—System Administrator, Zoo Administrator, and Zookeeper—each with tailored permissions that align with their operational needs and responsibilities. These rights cover a wide range of functions, from logging in and interacting with the dashboard to managing animal records, medical history, and visitor feedback. By clearly defining these access levels, we aim to streamline workflows, protect sensitive information, and empower staff members to manage their domains efficiently.

Access Levels				
Operation		System Administrator	Zoo Administrator	Zookeeper
Log in		Can log in with full access to features	Can log in with restricted access to features	Can log in with restricted access to features
Dashboard	Create/ Delete	Can Create and Delete any new sections	No access	No access
	Edit	Can edit existing sections on dashboard	No access	No access
	View/ Interact	Can view dashboard	Can view and interact with dashboards	Can view and interact with dashboards
Data import and export		Has full access to import and export data	No access	No access
Main page	Create/ Delete	Can create anything on section in main page	No access	No access
	Edit	Can edit any section in main page	No access	No access
	View/interact	Can view and interact with anything	Can view and interact with anything	Can view and interact with anything
Animal records	Create/ Delete	Can create new and delete animal record	Can create new and delete animal record	No access
	Edit	Can edit existing animal record	Can edit existing animal record	No access
	View	Can view all animal record	Can view all animal record	Can view all animal record

Medical history of animal	Create/Delete	Can create new and delete medical record	Can create new and delete medical record	Can create new and delete medical record
	Edit	Can edit existing medical record	Can edit existing medical record	Can edit existing medical record
	View	Can view all animal's medical record	Can view all animal's medical record	Can view all animal's medical record
Breeding program	Create	Can create new program	Can create new program	No access
	Edit	Can edit program	Can edit program	No access
	View	Can view all programs	Can view all programs	Can view all programs
Visitor log(data)	Edit/delete	Can edit and delete any data	No access	No access
	View	Can view all data	Can view all data	Can view all data
Membership/tickets	Edit/delete	Can edit and delete any data	No access	No access
	View	Can view all data	Can view all data	Can view all data
View visitor feedback		Can view all feedback	Can view all feedback	Can view all feedback
Sponsor Data	Edit/delete	Can edit and delete any data	No access	No access
	View	Can view all data	Can view all data	Can view all data
Account management page	Create and authorize	Can view all data	No access	No access
	Edit/Delete	Can edit and delete any data	No access	No access
	View	Can view all data	No access	No access
Backup		Has access to this feature	No access	No access
Reports	Create/delete	Can create and delete. any report	Only able to create animal record report	Only able to create animal medical reports
	edit	Can edit any reports	Only able to edit animal record report	Only able to edit animal medical reports
	View	Can view any type of report	Only able to view animal related reports	Only able to view reports for animals, but not for sponsors
Legal and compliances	Create	Can create new sections	No access	No access

	Edit	Can edit existing sections	No access	No access
	View	Can view	Can view	Can view

In conclusion, the access rights outlined for the RMS at Claybrook Zoo represent a comprehensive framework that is designed to optimize the use of the system across various functions within the organization. The delineation of rights ensures that System Administrators have broad control over the system's features and data, while Zoo Administrators and Zookeepers are provided with the necessary access to perform their specific roles effectively.

This structured approach to access management will not only safeguard the zoo's data against unauthorized use but also facilitate a smooth and secure operational environment. The ability to view, create, edit, and delete information within the RMS is judiciously allocated, ensuring accountability and efficiency in all data-related tasks. As the RMS becomes integral to the zoo's operations, these access rights will ensure that each staff member is equipped to contribute to the zoo's success while upholding the highest standards of data governance and compliance.

2.2.2.1.3 Data Attributes

2.2.2.1.3.1 Animal Entity

In the realm of zoological data management, a meticulously structured Records Management System (RMS) is pivotal for maintaining detailed records of each animal within the zoo. The establishment of comprehensive data attributes for the animal entity is critical to this endeavour. These attributes are designed to encapsulate all relevant information about the zoo's animals, ranging from basic identification and physical characteristics to intricate details of their medical history and species-specific data.

The attributes listed are thoughtfully crafted to ensure each animal's record is complete, accurate, and easily retrievable. They accommodate a broad spectrum of data points, including general information, dietary needs, habitat descriptions, and classification-specific data, which are crucial for the proper care and management of the animals. By standardizing these attributes, we aim to create a unified and efficient system that supports the zoo's operational needs and contributes to the well-being and conservation of the animal residents.

General Information

Entity	Format	Note				
Species	String (limit 1character-73character)	This is the name of the species of the animal				
Species Category	String (limit 1character-32character)	This is the name of the species category of the animal				
Given Name	String (limit 1character-747character)	This is the name given to the animal at birth				
Photograph of Animal	JPEG, PNG, GIF, WEBP, AVIF, SVG	Image of the animal taken when entering the zoo				
Date of Birth	String (limit 10characters)	Enter the date of birth where it is known. If the age is not known, enter approximate age of animal.				
Animal Location Code	String (limit 6 characters)	This is the location in the zoo where the animal is put in the zoo.				
Born in Captivity or Wild	ENUM:(either Captivity or Wild)	This is the information of the environment the animal was brought up in.				
Special Note	String	This section is designated for any valuable information of any kind to do with the animal.				
Joining Date	String (limit 10characters)	This is the date the animal joined the zoo.				
Animal Dimensions on Arrival	<table border="1"> <tr> <td>Height</td> <td>Integer</td> </tr> <tr> <td>Weight</td> <td>Integer</td> </tr> </table>	Height	Integer	Weight	Integer	These are the animal's measurements upon arrival at the zoo. (Units to be determined by the user)
Height	Integer					
Weight	Integer					

		inputting it.) Such as: weight, height				
Current Animal Dimension	<table border="1"> <tr> <td>Height</td><td>Integer</td></tr> <tr> <td>Weight</td><td>Integer</td></tr> </table>	Height	Integer	Weight	Integer	These are the current animal's measurements. (Units to be determined by the user imputing it.) Such as: weight, height
Height	Integer					
Weight	Integer					
Average Lifespan	Integer (limit range: dependant on the animal)	This is the average lifespan of the animal. This is a range dependant on the animal. The range will be determined by the user inputting this information.				
Dietary Requirements	<table border="1"> <tr> <td>Meal Type</td><td>String</td></tr> <tr> <td>Weight Per Meal</td><td>Integer</td></tr> </table>	Meal Type	String	Weight Per Meal	Integer	These are the animal's daily dietary requirements. Weighting units to be determined by the user inputting it.
Meal Type	String					
Weight Per Meal	Integer					
Natural Habitat Description	String	This is a basic description of the natural habitat				

Animal Case History

Entity	Format		Note				
Animal Medical Record	<table border="1"> <tr> <td>Date of Medical Check-up</td><td>String (limit 10characters)</td></tr> <tr> <td>Medical Conditions</td><td>String</td></tr> </table>		Date of Medical Check-up	String (limit 10characters)	Medical Conditions	String	These are the details of the medical conditions the animals have. From arrival to date. Any treatments made are to be recorded too.
Date of Medical Check-up	String (limit 10characters)						
Medical Conditions	String						

	Treatments Given	String	
	Medical Notes	String	
Date of Transfer from Claybrook Zoo	String (limit 10characters)		This is the date when the animal is transferred out of the zoo.
Destination of Transfer from Claybrook Zoo	String		This is the destination to which the animal is transferred to.
Date of Death	String (limit 10characters)		This is the date the animal died
Reason of Death	String		This is the reason of death
Date of Remains' incineration	String (limit 10characters)		This is the date they incinerate the animals remains.
Location of Remains' Incineration	String		This is the location of the remains are placed.

Classification Specific Data

Classification	Format	Note									
Mammal	<table border="1"> <tr> <td>Gestational Period</td> <td>Integer</td> </tr> <tr> <td>Mammal Category</td> <td>String (limit 1character-35characters)</td> </tr> <tr> <td>Colour Variants</td> <td> <table border="1"> <tr> <td>Male</td> <td>String</td> </tr> <tr> <td>Female</td> <td>String</td> </tr> </table> </td> </tr> </table>	Gestational Period	Integer	Mammal Category	String (limit 1character-35characters)	Colour Variants	<table border="1"> <tr> <td>Male</td> <td>String</td> </tr> <tr> <td>Female</td> <td>String</td> </tr> </table>	Male	String	Female	String
Gestational Period	Integer										
Mammal Category	String (limit 1character-35characters)										
Colour Variants	<table border="1"> <tr> <td>Male</td> <td>String</td> </tr> <tr> <td>Female</td> <td>String</td> </tr> </table>	Male	String	Female	String						
Male	String										
Female	String										

 This is the specific information to do with mammal classification. The colour variants are to be done according to the gender. |

Bird	<table border="1"> <tr><td>Nest Construction Method</td><td>String</td></tr> <tr><td>Clutch Size</td><td>Integer</td></tr> <tr><td>Wingspan</td><td>Integer</td></tr> <tr><td>Ability to Fly</td><td> <table border="1"> <tr><td>Yes</td><td>String</td></tr> <tr><td>No</td><td>String</td></tr> </table> </td></tr> <tr><td>Colour Variants</td><td> <table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table> </td></tr> </table>	Nest Construction Method	String	Clutch Size	Integer	Wingspan	Integer	Ability to Fly	<table border="1"> <tr><td>Yes</td><td>String</td></tr> <tr><td>No</td><td>String</td></tr> </table>	Yes	String	No	String	Colour Variants	<table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table>	Male	String	Female	String	This is the specific information to do with bird classification. The ability to fly is only constrained to two options i.e.: yes or no. The colour variants are to be done according to the gender.
Nest Construction Method	String																			
Clutch Size	Integer																			
Wingspan	Integer																			
Ability to Fly	<table border="1"> <tr><td>Yes</td><td>String</td></tr> <tr><td>No</td><td>String</td></tr> </table>	Yes	String	No	String															
Yes	String																			
No	String																			
Colour Variants	<table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table>	Male	String	Female	String															
Male	String																			
Female	String																			
Fish	<table border="1"> <tr><td>Average Body temperature</td><td>Integer (limit 25-33)</td></tr> <tr><td>Water Type</td><td> <table border="1"> <tr><td>Salt</td><td>String</td></tr> <tr><td>Fresh</td><td>String</td></tr> </table> </td></tr> <tr><td>Colour Variants</td><td> <table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table> </td></tr> </table>	Average Body temperature	Integer (limit 25-33)	Water Type	<table border="1"> <tr><td>Salt</td><td>String</td></tr> <tr><td>Fresh</td><td>String</td></tr> </table>	Salt	String	Fresh	String	Colour Variants	<table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table>	Male	String	Female	String	This is specific information to do with fish classification. The water type is only between two options i.e.: salt and fresh water. The colour variants are to be done according to the gender.				
Average Body temperature	Integer (limit 25-33)																			
Water Type	<table border="1"> <tr><td>Salt</td><td>String</td></tr> <tr><td>Fresh</td><td>String</td></tr> </table>	Salt	String	Fresh	String															
Salt	String																			
Fresh	String																			
Colour Variants	<table border="1"> <tr><td>Male</td><td>String</td></tr> <tr><td>Female</td><td>String</td></tr> </table>	Male	String	Female	String															
Male	String																			
Female	String																			
Reptile	<table border="1"> <tr><td>Reproduction Type</td><td> <table border="1"> <tr><td>Egg layer</td><td>String</td></tr> <tr><td>Livebearer</td><td>String</td></tr> </table> </td></tr> <tr><td>Average Number of Offspring</td><td> <table border="1"> <tr><td>Egg layer</td><td>Integer</td></tr> <tr><td>Livebearer</td><td>Integer</td></tr> </table> </td></tr> <tr><td>Average Clutch Size</td><td></td></tr> </table>	Reproduction Type	<table border="1"> <tr><td>Egg layer</td><td>String</td></tr> <tr><td>Livebearer</td><td>String</td></tr> </table>	Egg layer	String	Livebearer	String	Average Number of Offspring	<table border="1"> <tr><td>Egg layer</td><td>Integer</td></tr> <tr><td>Livebearer</td><td>Integer</td></tr> </table>	Egg layer	Integer	Livebearer	Integer	Average Clutch Size		<p>This is specific information to do with reptile classification. The reproduction type is only between two options i.e.: Egg layer and livebearer.</p> <p>The average number of offspring is dependent on only two options i.e.: Egg layer and livebearer. The average clutch size is only for egg layer reptiles.</p>				
Reproduction Type	<table border="1"> <tr><td>Egg layer</td><td>String</td></tr> <tr><td>Livebearer</td><td>String</td></tr> </table>	Egg layer	String	Livebearer	String															
Egg layer	String																			
Livebearer	String																			
Average Number of Offspring	<table border="1"> <tr><td>Egg layer</td><td>Integer</td></tr> <tr><td>Livebearer</td><td>Integer</td></tr> </table>	Egg layer	Integer	Livebearer	Integer															
Egg layer	Integer																			
Livebearer	Integer																			
Average Clutch Size																				

		Egg layer	Integer	
Amphibian	Reproduction Type	Egg layer	String	This is specific information to do with amphibian classification.
	Livebearer	String		The reproduction type is only between two options i.e.: Egg layer and livebearer. The average number of offspring is dependent on only two options i.e.: Egg layer and livebearer. The average clutch size is only for egg layer amphibians.
	Average Number of Offspring	Egg layer	Integer	
	Livebearer	Integer		
	Average Clutch Size	Egg layer	Integer	

In conclusion, the data attributes for the animal entity in the Records Management System are a foundational component that will significantly enhance the zoo's information management capabilities. These attributes are not only tailored to record the diverse aspects of each animal's life but are also designed with the flexibility to accommodate the unique requirements of varied species classifications.

Implementing these attributes within the RMS will provide the zoo with a powerful tool to ensure the accuracy of records, facilitate informed decision-making, and support ongoing research and conservation efforts. The attention to detail in defining these attributes demonstrates our commitment to a high standard of animal management and care. As the system is put into practice, it will become an invaluable asset in the daily operations of Claybrook Zoo, enabling staff to deliver the highest quality of service to both the animals and the visitors who come to learn about and appreciate them.

2.2.2.1.3.2 Sponsor Entity

The sponsorship program is a critical component of Claybrook Zoo's operational and conservation efforts, fostering partnerships that benefit both the zoo and the corporate community. The development of the sponsor entity within the Records Management System (RMS) is designed to manage and enhance these relationships effectively. The attributes specified for the sponsor entity encompass all the necessary

information to facilitate these sponsorships, from basic contact details to specific sponsorship agreements and payment methods.

These attributes are meticulously crafted to ensure the zoo can manage sponsor data accurately and securely while providing sponsors with a seamless and transparent experience. By capturing a comprehensive slate of data points, the zoo can tailor its sponsorship packages to meet the needs and preferences of each sponsor, maintain clear communication channels, and uphold a high standard of record-keeping and reporting.

General Information

Entity	Format	Note
Sponsor Name	String (limit 1character-73character)	This is the name of the client or company that wants to sponsor
Existing Customer Identifier	String (limit 2character-3character)	This is the unique identifier for the sponsors used to track their purchases on sponsorships. To be used to provide report information.
ID/identifier (Optional)	String (limit 1character-6character)	This is the unique identifier for the sponsor used to track their purchases on sponsorships. To be used to provide report information. The character limit can be changed in future once no more combinations are left.
Primary Phone Number	Integer +char	This is to get the clients' primary detail
Secondary Phone Number	Integer (limit 5characters to 7characters)	To get a second contact detail from the client
Sponsor Email	String	To be recorded from the website as an input.
Client Address/ Contact Details	String (No limit)	This is to get the geo-location of the client

Animal(s) to be Sponsored	String (No limit)	This is/ are the names of the animals that are sponsored by the specific sponsor
Animal Location in the Zoo	String	This information is to provide the client with the animal's location (for the sponsored animal)
Sponsorship Band (A-E)	String (limit 6)	The category the animal's they sponsored belong to
Total price	String	At this section, the amount the customer is to pay will be shown
Period of agreement	String	This is the length of how long his sponsorship will last
Automatic renewal	Boolean	The client must decide if he wants his next sponsorship to be automatic or manual
Signage % Area	String	This is the amount of space the client might want their signage to occupy
Signage Displayed (document of actual agreed content)	JPEG, PNG, GIF, WEBP, AVIF, SVG, PDF	This can be either pdf or picture
Special Notes / request	String	This is to allow the client give extra information
Customer agreement	String	This part seals and binds the client's agreement to the zoo's sponsorship terms & conditions

Payment Method	String	At this part, the customer is taken to a secured partnered payment page where he pays through bank link or payment cards																												
Payment Details	<table border="1"> <tr> <td>First Name</td><td></td></tr> <tr> <td>Surname</td><td></td></tr> <tr> <td>Billing Address</td><td> <table border="1"> <tr> <td>Address Line 1</td><td>String</td></tr> <tr> <td>Address Line 2</td><td>String</td></tr> <tr> <td>Town/City</td><td>String</td></tr> <tr> <td>County/State</td><td>String (limit 22 characters)</td></tr> <tr> <td>Postcode</td><td>String (limit 11 characters)</td></tr> </table> </td></tr> <tr> <td>Card Number</td><td>Integer (limit 16characters to 19characters)</td><td>The information is subject to data protection.</td></tr> <tr> <td>Expiry date</td><td> <table border="1"> <tr> <td>Month</td><td>Integer (limit 2characters)</td></tr> <tr> <td>Year</td><td>Integer (limit 4characters)</td></tr> </table> </td><td></td></tr> <tr> <td>CVV number</td><td>Integer (limit 3 characters)</td><td></td></tr> </table>	First Name		Surname		Billing Address	<table border="1"> <tr> <td>Address Line 1</td><td>String</td></tr> <tr> <td>Address Line 2</td><td>String</td></tr> <tr> <td>Town/City</td><td>String</td></tr> <tr> <td>County/State</td><td>String (limit 22 characters)</td></tr> <tr> <td>Postcode</td><td>String (limit 11 characters)</td></tr> </table>	Address Line 1	String	Address Line 2	String	Town/City	String	County/State	String (limit 22 characters)	Postcode	String (limit 11 characters)	Card Number	Integer (limit 16characters to 19characters)	The information is subject to data protection.	Expiry date	<table border="1"> <tr> <td>Month</td><td>Integer (limit 2characters)</td></tr> <tr> <td>Year</td><td>Integer (limit 4characters)</td></tr> </table>	Month	Integer (limit 2characters)	Year	Integer (limit 4characters)		CVV number	Integer (limit 3 characters)	
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Year	Integer (limit 4characters)																													
CVV number	Integer (limit 3 characters)																													

Payment Confirmation	String	Once the payment has been confirmed on the payment site, the client is automatically sent back to the sponsorship page
Sponsorship Review Date	String	An automatic remainder is set
Sponsor's Business Name	String	This is the information about the sponsor's business name (if applicable for businesses that are sponsored)
Sponsor's Business Address	String	This is the information about the sponsor's business address (if applicable for businesses that are sponsored)
Sponsor's Business Registration Number/Company Number	String	This is the information about the sponsor's business registration/company number (if applicable for businesses that are sponsored)

In conclusion, the thorough definition of sponsor entity attributes within the RMS provides Claybrook Zoo with a robust framework to administer its sponsorship program effectively. The system captures essential sponsor details, sponsorship terms, and payment information, all while adhering to stringent data protection standards. The inclusion of features such as automatic renewal options and signage percentage areas demonstrates a nuanced understanding of sponsor needs and a commitment to accommodating various sponsorship arrangements.

With these attributes in place, the zoo can foster strong, mutually beneficial relationships with its sponsors. The system will streamline sponsorship management, ensuring that each sponsorship is documented, tracked, and managed with the utmost efficiency. This will enable Claybrook Zoo to continue its vital work in conservation and education, supported by a community of engaged and committed sponsors. The RMS stands as a testament to the zoo's dedication to excellence in both animal care and community partnership.

2.2.2.1.3.3 User Entity

The user entity is a fundamental component of the Records Management System (RMS) at Claybrook Zoo, designed to capture and store comprehensive information about the zoo's visitors. The attributes for the user

entity have been thoughtfully developed to encompass all relevant data points that can enhance the visitor experience, streamline communication, and facilitate personalized engagement. These attributes allow the zoo to gain a deeper understanding of its visitors, from their basic contact information to their specific interests and needs.

By collecting data such as home address, interests, group size, and accessibility requirements, the RMS can help in tailoring services, education programs, and marketing initiatives that resonate with different visitor segments. The inclusion of language preferences and secure login information further emphasizes the zoo's commitment to providing a visitor-centric experience that is both inclusive and secure.

General Information

Entity	Format	Note
Full name	string	This will let us keep the record on the name of individuals.
Home address	string	We will use it to check how far is the user home from the zoo.
Date of birth	string	This is to calculate age.
interest	string	This is to know their interest of certain animals.
Group size	integers	This is to know how they visit zoo with the family, friends, or children.
Phone number	integers	This is to keep them up to date and help us identify their identity.
Email address	string	This is to send them promotional mails and they can use it to login as well.
Geographic location	string	This is to know their location as every area has its own preferences.
Accessibility requirements	string	This is to know about what help they need to get to the zoo
Purpose of visit	string	This is to know whether they primarily were there for entertainment or for educational purpose.
Language preference	string	This is for communication ease
password	string	This is to provide them with the safe individual login.

In conclusion, the user entity attributes within the RMS are pivotal in building a rich database of visitor information that can be leveraged to enhance operational effectiveness and customer satisfaction at Claybrook Zoo. This detailed collection of visitor data supports the zoo's efforts to understand and meet the

diverse needs and preferences of its audience. The strategic use of this information can lead to improved services, targeted communications, and personalized experiences that will encourage repeat visits and deeper engagement with the zoo's offerings.

The RMS's comprehensive approach to user data management underscores Claybrook Zoo's dedication to fostering an inclusive, educational, and enjoyable environment for all visitors. With these attributes in place, the zoo is well-equipped to adapt to the evolving expectations of its visitors, ensuring that each individual feels valued and supported during their interactions with the zoo.

2.2.2.1.3.4 Location Entity

The location entity in the Records Management System (RMS) at Claybrook Zoo plays an integral role in the organization and navigation of the zoo's physical space. An effective RMS not only catalogues the diverse array of animals and sponsors but also meticulously organizes the various zones, compounds, and facilities within the zoo. The location entity attributes detail the specific areas and structures, from administrative offices to animal habitats, ensuring that each sector is clearly defined and accessible both for staff reference and for enhancing the visitor experience.

These attributes consider the operational nuances of each location, including capacity limitations, access restrictions, and key identifiers, which are essential for maintaining the zoo's logistical integrity. By standardizing this information, the zoo can optimize the management of its grounds, improve safety and compliance, and ensure that visitors enjoy a seamless journey through the different exhibits and amenities.

General Information

Attribute	Format/Data type	Notes.																				
Administration	<table border="1"> <tr> <td>Visitor Center [A]</td><td>String</td></tr> <tr> <td>Managers Office [B]</td><td>String</td></tr> <tr> <td>Administration and File Office [C]</td><td> <table border="1"> <tr> <td>String</td><td></td></tr> <tr> <td>Administration Office</td><td>String</td></tr> <tr> <td>File Office</td><td>String</td></tr> </table> </td></tr> <tr> <td>Zoo Train [D]</td><td>String</td></tr> <tr> <td>Boat House [E]</td><td>String</td></tr> <tr> <td>Car Park [F]</td><td>String</td></tr> <tr> <td>Café Block [G]</td><td>String</td></tr> </table>	Visitor Center [A]	String	Managers Office [B]	String	Administration and File Office [C]	<table border="1"> <tr> <td>String</td><td></td></tr> <tr> <td>Administration Office</td><td>String</td></tr> <tr> <td>File Office</td><td>String</td></tr> </table>	String		Administration Office	String	File Office	String	Zoo Train [D]	String	Boat House [E]	String	Car Park [F]	String	Café Block [G]	String	<p>The visitor center is subject to the maximum capacity of visitors allowed in location.</p> <p>The visitor center is subject to the open times of the zoo.</p> <p>Each location is subject to the operating hours of the location.</p> <p>Type of location (Restricted access. Staff Only access).</p> <p>The zoo train is subject to subject to having a ticket which gives you access.</p> <p>The boat house is subject to subject to having a ticket which gives you access.</p> <p>The individual locations have a key which is used by the administration to differentiate them.</p>
Visitor Center [A]	String																					
Managers Office [B]	String																					
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Car Park [F]	String																					
Café Block [G]	String																					

Aviary	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Block 1 [1]</td><td style="width: 85%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> <tr> <td>Outdoor</td><td>String (6 characters)</td></tr> </table> </td></tr> <tr> <td>Block 2 [2]</td><td> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> </table> </td></tr> <tr> <td>Block 3 [3]</td><td> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> </table> </td></tr> </table>	Block 1 [1]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> <tr> <td>Outdoor</td><td>String (6 characters)</td></tr> </table>	Indoor	String (6 characters)	Outdoor	String (6 characters)	Block 2 [2]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> </table>	Indoor	String (6 characters)	Block 3 [3]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Indoor</td><td style="width: 95%;">String (6 characters)</td></tr> </table>	Indoor	String (6 characters)	<p>The animal locations have a Unique identifier of each block it is assigned by the zoo administration.</p> <p>The individual locations have a key which is used by the administration to differentiate them.</p> <p>The Aviary is subject to the open times of the zoo.</p>
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Mammal compound/cage	Compound 1 [10]	<table border="1"> <tr> <td>Outdoor</td><td>String (6 characters)</td></tr> </table>	Outdoor	String (6 characters)	The individual locations have a key which is used by the administration to differentiate them. The Mammal Compound/Cage is subject to the open times of the zoo.						
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	Compound 3 [12]	<table border="1"> <tr> <td>Outdoor</td><td>String (6 characters)</td></tr> </table>	Outdoor	String (6 characters)							
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	Caged Area 4 [13]	<table border="1"> <tr> <td>Indoor</td><td>String (6 characters)</td></tr> </table>	Indoor	String (6 characters)							
Indoor	String (6 characters)										

In conclusion, the detailed location entity attributes within the RMS provide a clear and comprehensive map of Claybrook Zoo's facilities, enabling effective management and oversight of the entire property. The system ensures that each location, whether it is a visitor-centric area like the aviary or a restricted access zone such as the administration offices, is catalogued with precision.

The RMS's robust location management capabilities will aid in administrative planning, emergency response coordination, and overall facility maintenance. Additionally, the clarity these attributes provide will enhance the visitor's ability to navigate the zoo's offerings and partake in the rich educational experiences available. The thoughtful organization of location data is a testament to Claybrook Zoo's commitment to creating an accessible, well-maintained, and visitor-friendly environment.

2.2.2.1.3.5 Medical Entity

In the complex environment of a zoo, the health and well-being of the animals are paramount. A comprehensive Records Management System (RMS) includes a medical entity that meticulously documents every aspect of an animal's health care and medical history. The attributes defined for the medical entity are critical for veterinarians and zookeepers to monitor health trends, manage treatments, and ensure the highest standards of animal care.

These attributes allow for rigorous tracking and analysis of each animal's medical condition, treatments administered, and ongoing health care plans. From routine check-ups to emergency interventions, the RMS captures detailed medical data, including test results, medications, dosages, and costs. By integrating insurance coverage and appointment scheduling, the system also assists in the administrative and financial aspects of animal health management.

General Information

Attributes.	Format/Data Type.	Description.
Records _ ID	Integer	Unique identifier for each animal medical records.
Animal _ ID	Integer	Identification of each animal.
Date	Text	Medical records entry date.
Medical _ Issue	Text	Reason for visit or description of medical issue.

Test Result	Text	Result of any test carried out.
Treatment	Text	Details of treatment provided.
Medications/Dosage	Text	List of prescribed medication, with usage.
Follow up	Text	Information on follow up and future care.
Cost	Decimal	Associated cost to the medical records.
Insurance coverage	Boolean	Indication of whether medical records is covered by insurance.
Next Appointment	Date Time	Date and time scheduled for next appointment
Created at	Date Time	Indication of when medical record was created.

In conclusion, the medical entity attributes within the RMS serve as an essential tool in the proactive health management of the zoo's animals. The system enables a holistic approach to veterinary care by providing a centralized database of medical records that is easily accessible to authorized personnel. With clear records of medical issues, treatments, and follow-up care, the zoo can ensure that each animal receives personalized and timely medical attention.

The RMS's medical entity plays a significant role in facilitating communication among veterinary staff, streamlining medical processes, and maintaining transparent health care records. This level of detail and organization in the medical entity not only aids in the immediate care of the animals but also contributes to long-term health monitoring and research initiatives. The implementation of these attributes reflects Claybrook Zoo's commitment to excellence in animal welfare and its dedication to maintaining a thriving environment for the diverse species in its care.

2.2.2.1.4 Data Input

2.2.2.1.4.1 Animal Record

A Records Management System (RMS) serves as the digital backbone of Claybrook Zoo's commitment to animal care and conservation. The integrity and utility of the RMS are heavily reliant on the quality and detail of the data inputs regarding each animal within the zoo's care. Such inputs include comprehensive information about the animals' species, physical characteristics, and histories within their natural habitats and the zoo environment. These data inputs not only facilitate day-to-day animal management but also assist in research, breeding programs, and educational outreach efforts.

The data inputs for the animal record are structured to capture a wide array of information that is critical to both the operational and ethical responsibilities of the zoo. From basic identifiers such as species and given names to more detailed inputs like dietary requirements and natural habitat descriptions, each data point is meticulously recorded to ensure a holistic view of each animal's well-being and care requirements.

Table 1

Input	Description
Species	The group of animals this animal belongs to
Species Category	Refer to table 2
Given Name	The name given to the animal
Photograph of animal upon arrival at zoo	A clear photo of the animal
Date of Birth	The day, month, and year the animal was born
Approximate age	The animal's current age
Animal born in captivity or wild?	Was this animal born while in captivity or born in the wild
Special notes	Any important notes about the animal
Date animal joined the zoo	The date the animal was admitted to the zoo
Animal dimensions upon joining the zoo	The animal's height and weight upon joining the zoo
Average animal dimensions	The average height and weight of the animal's species
Average life span	The average life expectancy of an animal
Dietary requirements	The animal's diet
Natural Habitat description	A brief explanation of the animal's indigenous habitat
Animal location code	The code the animal is given upon its arrival

Table 2:

#	Sub category 1	Sub category 2		Sub category 3		Sub category 4	
2	Species Category	2.1	Mammal	2.1.1	Gestational Period	2.4.1.1	Average number of offspring
		2.2	Bird	2.1.2	Mammal Category	2.4.1.2	Average Clutch size
		2.3	Fish	2.1.3	Colour Variants		
		2.4	Amphibian/ Reptile	2.2.1	Nest construction method		
				2.2.2	Clutch size		
				2.2.3	Wing span		
				2.2.4	Ability to fly		
				2.2.5	Plumage colour variants		
				2.3.1	Average body temperature		
				2.3.2	Water type		
				2.3.3	Colour variants		
				2.4.1	Reproduction type		

Table 3:

Animal dimensions upon joining the zoo		10.1	Height	
		10.2	Weight	
Average animal dimensions		11.1	Height	
		11.2	Weight	

In conclusion, the data inputs for the animal record within the RMS are invaluable for maintaining the highest standards of animal welfare at Claybrook Zoo. These inputs provide a granular view of each animal's life, encompassing both their physical and environmental needs. As the zoo continues to grow and evolve, the RMS's capacity to record and interpret this data will be instrumental in ensuring that all animals receive the personalized care that they require.

The comprehensive nature of these data inputs reflects the zoo's dedication to transparency, accountability, and informed animal management. By continuously updating and refining the RMS, Claybrook Zoo reaffirms its commitment to being a leading institution in the preservation of wildlife and the education of the public about the importance of biodiversity and conservation.

2.2.2.1.4.2 Sponsor

The sponsorship program at Claybrook Zoo represents a valuable partnership between the zoo and its sponsors, which include both businesses and individuals. To facilitate these partnerships effectively, the Records Management System (RMS) must be equipped to handle detailed sponsor information with precision and care. The sponsor input component of the RMS is designed to collect all relevant data needed to establish and maintain these sponsor relationships, ensuring that each sponsor's preferences, requirements, and contributions are recorded accurately.

This data input process is crucial for administrative efficiency and provides a basis for personalized engagement with sponsors. It covers the full spectrum of sponsor interactions, from the initial acceptance of cookies for a tailored online experience to the finalization of the sponsorship through a signed agreement. By capturing these details, the zoo can streamline the sponsorship process, fulfil special requests, and maintain a high level of sponsor satisfaction.

Input	Note
Cookies acceptance	The client accepts the Cookies policy for personalized data
Name	Name of the company/client sponsor
Telephone number	Contact number for OTP or SMS Messaging
Address	Location of the sponsor
Email	For E-document or relevant information
Contact method	The client chooses the method of contact [SMS, Email, Letter(physical)]
Bank details	For payment process
Animal(s) to be sponsored	The animal adopted by the sponsor
Sponsor request	Special requirement of the sponsor
Sponsor displayed	The image of the sponsor
Terms and Conditions	Take the acceptance of the client for the terms and conditions
Signature	The sponsor signs the commitment

In conclusion, the sponsor input process within the RMS is a testament to Claybrook Zoo's commitment to fostering enduring and mutually beneficial relationships with its sponsors. The detailed records of sponsor information facilitate a smooth sponsorship experience, allowing the zoo to cater to the specific needs and preferences of each sponsor while ensuring compliance with legal and financial obligations.

By securing sponsors' data, preferences, and agreements, the zoo not only upholds its professional standards but also creates a foundation for future engagement and support. The RMS, with its comprehensive approach to sponsor management, plays a pivotal role in the zoo's ongoing efforts to secure the necessary funding and support for its conservation and educational initiatives. With this system in place, Claybrook Zoo is well-

positioned to attract and retain sponsors, contributing to the zoo's growth and the welfare of the animals in its care.

2.2.2.1.4.3 Visitor

In the dynamic environment of Claybrook Zoo, understanding and catering to the needs of each visitor is vital for delivering a high-quality experience. The Records Management System (RMS) serves as the nexus for capturing comprehensive visitor data, which is instrumental in enhancing visitor engagement and satisfaction. The visitor input component of the RMS is meticulously designed to collect a wide array of visitor information, from basic demographics to detailed feedback and preferences.

This data is integral to many facets of the zoo's operations, including tracking visitor attendance, managing memberships, processing payments, and shaping marketing strategies. By allowing for the upload of profile images and the recording of personal preferences, the RMS not only personalizes the visitor experience but also strengthens security measures. The inclusion of various forms for feedback, contact, and event registration ensures that the zoo remains responsive and connected to its audience.

Input	Description
Visitor ID	Unique identifier assigned to each visitor for tracking purposes.
Name	Full name of the visitor
Age	Age of the visitor
Gender	Gender of the visitor
Contact Information	All contact details including telephone and email.
Image Upload	Profile image of the visitor for their account
Date of visit	Date the visitor visited
Membership Status	Indicates whether the visitor is a zoo member.
Payment Details	Transaction details for any purchased tickets or memberships.
Feedback	Comments or feedback provided by the visitor.
Newsletter Signup	Email address for subscribing to the zoo's newsletter
User Account	Username and password for registered users
Personal Preferences	User preferences for a personalized website experience
Ticket Purchases	Selection of tickets for online purchase
Membership Signup	Information for joining the zoo's membership program
Visitor Feedback	Form for providing feedback on the website or zoo.
Contact Form	General contact form for inquiries or assistance

Event Registrations	Registration for special events or educational programs
Educational Resources	Access to educational materials, videos, or downloads
Social Media Links	Links to the zoo's social media profiles
Sponsorship Enquiry	Sponsorship enquiry form

In conclusion, the visitor input process within the RMS is a cornerstone of Claybrook Zoo's commitment to visitor-centric service. The data collected provides the zoo with a nuanced understanding of its visitors, enabling tailored communications, efficient service delivery, and the cultivation of lasting relationships with guests. The RMS's ability to integrate feedback directly informs the continual improvement of the zoo's facilities and programs.

Through the comprehensive approach to gathering visitor data, the zoo can also gauge the effectiveness of its educational resources, the reach of its social media efforts, and the interest in its sponsorship opportunities. By leveraging the insights garnered from this system, Claybrook Zoo is well-equipped to adapt, innovate, and thrive as a cherished institution that both educates and inspires its visitors.

2.2.2.1.4.4 Administrator

The role of an administrator within the Records Management System (RMS) is pivotal to the seamless and secure operation of Claybrook Zoo's digital infrastructure. The administrator inputs encompass a broad spectrum of functionalities, enabling the efficient management of user access, animal records, sponsor information, system settings, and more. These inputs serve as the control centre through which the integrity and accuracy of the RMS data are maintained, ensuring that all modifications adhere to the zoo's protocols and policies.

The ability for administrators to manage events, content, feedback, and reports is crucial for the dynamic updating of the zoo's offerings and for fostering a responsive communication flow with visitors. As the digital gatekeepers, administrators play a critical role in safeguarding the zoo's data, ensuring system reliability, and facilitating the adoption of modern technologies and processes that enhance the visitor experience and operational efficiency.

Input	Description
Manage User Access	The admin will have the ability to grant and revoke certain access rights to the internal users in the zoo
User Management	The admin should be able to manage users. This includes creating new user accounts, updating existing user information, resetting passwords, and deleting user accounts. The user list should contain usernames, surnames, email addresses, phone numbers, and employee number (if applicable).
Animal Management	Admin should be able to manage animal records. This includes adding new animal records, updating existing animal data, and deleting animal records. The deletion process should be setup to be authorized by the admin with an approval from the key stakeholder. This could also include the information about the animal that does not change regularly or does not change at all.

Sponsor Management	The admin will have the ability to create and update and safeguard critical information of the sponsor. This is the information about the sponsor that doesn't change regularly or doesn't change at all.
System Settings and Configurations	The admin will have the ability to configure various system settings such as the internet and network settings, firewall rules, and system policies. This is once the wireless network protocols are installed in the zoo.
Software Updates and Installations	The admin will be responsible for installing and updating software on the system. This includes verifying the authenticity and integrity of the updates made on computers and the system itself. This is once they get new computer setups.
Data Backups and Recovery	The admin will have the ability to implement and maintain data back procedures whether in the cloud or physical databases in the zoo. This is to protect the zoo's systems against data loss.
Data Transfer	The admin should be able to send over all data for a specific animal to another zoo when a transfer process is being carried out.
Event Management	The admin should be able to manage events and programs. This could include adding, updating, and deleting events. Particularly on the website, this would be general visitor events and sponsor specific events on the sponsors section of the website.
Content Management	The admin should be able to manage the content on various pages of the website or mobile application. This could include updating the 'About Us' section, adding new exhibits and animals, updating the 'Plan Your Visit' section, and managing the 'News and Updates' section.
Feedback Management	The admin should have the ability to view, respond to, and manage feedback received from visitors. The access of this could be shared to other people who will actively read and answer the questions.
Reports and Analytics	The admin should have access to reports and analytics to get insights on visitor behaviour, popular exhibits, ticket sales, and other relevant data. He should be able to create, edit, delete, and send out any reports generated by the system.
User Agreement Management	The admin should have the ability to create, update, delete the terms and conditions of the website. They are also responsible for ensuring all legal requirements and compliances the zoo has to follow are well outlined in the terms and conditions of the website and system.

In conclusion, the administrator inputs within the RMS are the keystones of effective data governance and system management at Claybrook Zoo. The comprehensive control over various aspects of the RMS allows administrators to adapt the system to the evolving needs of the zoo, respond to technological advancements, and address the changing landscape of data protection and cybersecurity.

The administrators' ability to guide the zoo through software updates, data backups, and system configurations ensures that the RMS remains a robust and cutting-edge asset. Moreover, their role in managing user agreements and legal compliances underscores the zoo's commitment to ethical standards and

transparency. Through the diligent work of the administrators, Claybrook Zoo's RMS stands as a beacon of operational excellence, supporting the zoo's mission to educate, conserve, and inspire.

2.2.2.1.5 Data Output

The Records Management System (RMS) at Claybrook Zoo serves as a vital tool in communicating the outcomes of our efforts and the impact of sponsorships to all stakeholders involved. The data outputs of the RMS are carefully crafted documents and digital content that not only serve as detailed reports for sponsors and educational newsletters for visitors but also as a means of showcasing the zoo's achievements and future endeavours. Each output is designed to provide a clear, engaging, and informative snapshot of the zoo's activities, ranging from financial overviews to conservation highlights.

The RMS data outputs are tailored to meet the needs of various audiences, ensuring that the information is relevant, accessible, and actionable. Whether it is for sponsors looking to see the return on their investment or visitors seeking updates on zoo happenings, these data outputs are a crucial bridge between the zoo's internal operations and its public face.

RMS Data Output

- **Header** - Place the name and logo of the zoo at the top of the report. Include the date of the report.
- **Preface** - Briefly thank the sponsor for their support. Provide an overview of the report's contents.
- **Introduction** – A basic introduction to that report depending on which report it is.
- **Executive Summary** - Summarize the key highlights and achievements resulting from the sponsorship. Include any notable statistics or metrics that showcase the impact.
- **Sponsor Information** - List the sponsor's name, logo, and contact information. Acknowledge any specific goals or preferences outlined by the sponsor.
- **Project Overview** - Describe the specific project or initiative that the sponsorship supported. Highlight the goals and objectives of the project.
- **Financial Overview** - Provide a breakdown of how the sponsorship funds were utilized and include a budget summary and actual expenses.
- **Impact and Achievements** - Showcase the positive outcomes or results achieved with the sponsor's support and include relevant photos, testimonials, or success stories.
- **Recognition** - Highlight how the sponsor was acknowledged and promoted through various channels (e.g., signage, social media, events). Also include any media coverage or press mentions related to the sponsorship.
- **Future** - Outline any future or projects that the zoo intends to undertake and mention opportunities for continued sponsorship involvement.
- **Conclusion** - Express gratitude once again for the sponsor's support and invite further collaboration or involvement.
- **Contact Information** - Provide contact details for individuals who can address any additional questions or concerns from the sponsor.
- **Appendix** - Include additional supporting documents, such as detailed financial statements, project plans, or media coverage.
- **Footer** - Include Zoo Address and Social Media links.

(Insert The image of the zoo's logo in the background)

ZOO SPONSOR REPORT
[Enter the name of the Author/’s

[Insert a different image of the animal sponsored by the sponsor in the background)

Adaptable Template

[The Zoo Logo]

Zoo Sponsor Report

Date: [Date]

Preface:

Dear [Sponsor's Name],

We would like to express our sincere gratitude for your generous support and commitment to Claybrook Zoo. Your sponsorship has played a crucial role in advancing our mission and making a positive impact on our community.

The following report provides a detailed overview of how your sponsorship has contributed to our work, from supporting specific projects and initiatives to amplifying our conservation efforts. We have also included an

overview of the recognition your organization has received because of the sponsorship, as well as our future plans and opportunities for continued involvement.

We hope you find this report informative and insightful, and we look forward to continuing our fruitful partnership.

Thank you once again for your valuable support.

Introduction:

This is the introduction of our report on [Insert or include the actual introduction to the report].

Executive Summary:

In the [Time Period], your sponsorship played a vital role in achieving significant milestones, fostering [specific achievements]. Here is a snapshot of the key highlights: [Insert any highlights that are relevant to the report]

-
-
-
-

Sponsor Information:

Sponsor Name: [Sponsor's Name]

Contact: [Sponsor's Contact Information]

Sponsorship Duration: [Start Date] to [End Date]

Project Overview:

The focus of your sponsorship was the [Project Name], contributing to [Project Goals]. This initiative is aligned with our mission to [Zoo's Mission].

Financial Overview:

Your generous contribution of [Insert the specific sponsorship amount of the sponsor] was allocated to key areas, ensuring transparency in resource utilization:

-
-
-

Total Expenditure: [£Total]

Impact and Achievements:

The tangible impact of your support can be seen in [Insert the specific outcomes]. [Include photos, testimonials, or success stories].

Recognition:

Your support was prominently acknowledged through [Insert the channels if applicable], reaching an estimated [Insert the Specific reach made if applicable]. Notable media coverage included [Mentions or Articles].

Future:

Looking ahead, we are excited about upcoming initiatives, including [insert future project's names if applicable]. Your continued partnership will play a pivotal role in achieving these goals.

Conclusion:

We have reached the end of our report, and we hope it has provided you with a comprehensive understanding of the significant impact your sponsorship has made at [Zoo's Name]. Your generous support has not only enabled us to achieve our goals but has also contributed to the betterment of our community and the conservation efforts we passionately uphold.

[Insert the summary/conclusion of the report above, specific to that report].

In closing, we express our deepest gratitude for your commitment to our cause. Your support has been instrumental in [Insert the Achievements]. We eagerly anticipate future collaborations.

Should you have any questions or require further information, please do not hesitate to get in touch with us.

Thank you once again for your unwavering support.

Contact Information:

For any inquiries or further discussions, please contact:

[Your Contact Person]

[Contact Email]

[Contact Phone]

Appendix:

Attach any additional supporting documents.

Zoo Address

[Zoo Website]

Follow us on:

[Social Media Links]

[Insert images of the particular social media links]

Email Newsletter

- **Subject Line:** "Discover the Wild: [Month] Newsletter from [Zoo Name]"
- **Header:** Bright header with the zoo's logo, an attractive photo of the zoo, and a warm greeting.
- **Introduction:** A hearty welcome that expresses gratitude for being a member of the zoo community and provides a quick overview of the contents of the newsletter.
- **Highlighted Text:**

1. **Animal Spotlight** - This section features an eye-catching image, fascinating facts, and a link to additional information about the featured animal of the month.

- 2. Upcoming Events** - Vibrant banners or iconography promoting noteworthy zoo events, exhibits, or educational initiatives.
- 3. Conservation Corner** - Concise descriptions and pictures highlighting the zoo's latest conservation initiatives, raising awareness, and enticing donations.
- 4. Behind-the-Scenes** - An inside look at the zoo's daily operations, including carers, educational events for the animals, and entertaining stories.
 - **Call to Action:** Captivating buttons or links that persuade readers to make travel plans, buy tickets online, or follow the zoo on social media to receive updates in real time.
 - **Community Corner:** An area with user-generated material that promotes a feeling of community, such as pictures or comments from zoo guests.
 - **Footer:** Verify compliance with email regulations by including a clear unsubscribe option, links to the zoo's social media pages, and contact information.
 - **Closing:** Thanking subscribers for their continued support, asking them to post about their zoo experiences on social media, and sending off with a happy note.

Zoo Email Newsletter Template

"Explore the Wild: [Month] Newsletter from [Zoo Name]  

****Header:****

An eye-catching header featuring the zoo's logo, vibrant images of diverse animals, and a warm welcome message.

****Introduction: ****

- A brief and friendly introduction expressing appreciation for subscribers and setting the tone for an exciting update.

****Featured Content: ****

1. **Animal Spotlight: **

- Stunning visuals and interesting facts about a highlighted animal, encouraging a closer connection with the zoo's residents.

2. **Upcoming Events: **

- Colourful banners and enticing graphics displaying upcoming events, exhibits, and special promotions at the zoo.

3. **Conservation Highlights: **

- Engaging visuals and summaries of the zoo's ongoing conservation efforts, fostering awareness and support.

4. **Behind-the-Scenes Peek: **

- Candid snapshots or short videos offering an exclusive look behind the scenes, connecting subscribers to the daily life of the zoo.

****Call to Action: ****

- Vibrant buttons or links encouraging subscribers to plan a visit, purchase tickets, or follow the zoo on social media for more updates.

****Community Corner: ****

- User-generated content, such as photos or stories from zoo visitors, creating a sense of community among subscribers.

****Footer: ****

- Contact information, social media icons, and a link to the zoo's website for additional details and further exploration.

****Unsubscribe Option: ****

- A clear and compliant option for subscribers to easily manage their preferences and unsubscribe if needed.

****Closing: ****

Expressing gratitude for being a part of the zoo community, inviting subscribers to share their experiences, and signing off with a cheerful farewell.

In conclusion, the data outputs generated by the RMS are a testament to Claybrook Zoo's commitment to transparency, engagement, and appreciation for every contribution made by its supporters. The care taken in crafting these reports and newsletters reflects the zoo's dedication to maintaining strong relationships with its sponsors and fostering a connected community of visitors and wildlife enthusiasts.

These outputs not only serve as a record of the zoo's achievements but also as an invitation to deepen the involvement and support of those who receive them. By providing a comprehensive view of the zoo's activities, financial stewardship, and future, the RMS data outputs play a pivotal role in driving the zoo's mission forward. Claybrook Zoo remains grateful for the support and involvement of its sponsors and visitors and is eager to continue sharing its journey through these thoughtfully prepared communications.

2.2.2.1.6 Processing Logic

The Claybrook Zoo-Records Management System (CZ-RMS) is designed to streamline and manage the complex data requirements of modern zoological operations. Each page and screen within the system has been designed with specific functionalities and interactive elements to ensure a seamless user experience for administrators. The processing logic details the flow of actions, conditional operations, error handling, and feedback mechanisms that underpin the system's robust infrastructure.

The following document outlines the processing logic for each key component of the CZ-RMS, ranging from login authentication to detailed management of animal records, medical history, breeding programs, and more. This logic ensures that all system interactions are intuitive, secure, and efficient, allowing for the effective management of the zoo's diverse range of data inputs and outputs.

Page/Screen Name	CZ-RMS-001- Login Page
Functionality Description	This is the first page the admin user interacts with on the RMS. The page presents the admin user these features: <ol style="list-style-type: none">1. Login feature into the system.2. Option to store login records in cookies.

	<p>3. Option to reset your password.</p> <p>4. Accessibility Icon (International Symbol of Access [ISA])</p>															
	<p>This page displays the following:</p> <ol style="list-style-type: none"> 1. Input field for admin username entry by the admin user (User typing). 2. Input field for password entry by the admin user (User typing). <p>Once completed the page allows the admin user to <Login> the completed fields.</p> <p>The page also displays' these buttons (Mouse clicks):</p> <ol style="list-style-type: none"> 1. <Remember Me> 2. <Forgot Password> 															
Page Inputs	<p>Admin user inputs the <Submit> button by clicking.</p> <p>The inputs will be checked if they are within specified character limits (refer to the data attributes of the user entity).</p> <p>The input is cross checked with the login details stored in the in CZ-RMS-15-System Administration</p>															
Operation/Error Messages	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9e1f2;"> <th style="text-align: center; padding: 5px;">Admin Username</th> <th style="text-align: center; padding: 5px;">Password</th> <th style="text-align: center; padding: 5px;">Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">Correct</td> <td style="text-align: center; padding: 5px;">Correct</td> <td style="text-align: center; padding: 5px;">Login Successful CZ-RMS-002-Main Page</td> </tr> <tr> <td style="text-align: center; padding: 5px;">Incorrect</td> <td style="text-align: center; padding: 5px;">Correct</td> <td style="text-align: center; padding: 5px;">Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"</td> </tr> <tr> <td style="text-align: center; padding: 5px;">Correct</td> <td style="text-align: center; padding: 5px;">Incorrect</td> <td style="text-align: center; padding: 5px;">Error message "Incorrect password for admin username provided - Try again or click <Forgot Password>for support"</td> </tr> <tr> <td style="text-align: center; padding: 5px;">Incorrect</td> <td style="text-align: center; padding: 5px;">Incorrect</td> <td style="text-align: center; padding: 5px;">Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"</td> </tr> </tbody> </table> <p>For access information (refer to access tables for the RMS).</p> <p>If the admin user, selects <Remember Me></p> <p>the system displays to the admin user the terms and conditions of the system found in the system database in [CZ-RMS-021-Legal and Compliance]</p> <p>If the admin user, selects <Forgot Password></p> <p>the system displays to the admin user an input field for them to enter their email again. A <Submit> button is to be displayed here.</p>	Admin Username	Password	Message/Output/Action	Correct	Correct	Login Successful CZ-RMS-002-Main Page	Incorrect	Correct	Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"	Correct	Incorrect	Error message "Incorrect password for admin username provided - Try again or click <Forgot Password>for support"	Incorrect	Incorrect	Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"
Admin Username	Password	Message/Output/Action														
Correct	Correct	Login Successful CZ-RMS-002-Main Page														
Incorrect	Correct	Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"														
Correct	Incorrect	Error message "Incorrect password for admin username provided - Try again or click <Forgot Password>for support"														
Incorrect	Incorrect	Error message "Unknown admin username and/or password - Try again or click <Forgot Password> for support"														

	<p>If the admin user clicks the submit button and the input field is not empty, the input is cross checked with the repository [CZ-RMS-25-Repository]</p> <p>If the email is verified to be a registered account, then an email is sent out to the user with the password reset details.</p> <p>If an unauthorized user tries to login to the [CZ-RMS-001-Login Page] it will take a log of their username and password entered. This log will be taken if that user does it more than two times. The log is to be stored in [CZ-RMS-025- Repository]. Also, an announcement of this log is to be sent to the admin user in [CZ-RMS-022-Notification and Alerts].</p> <p>(refer to access levels table to see the types of users and their levels of access within different systems).</p> <p>After a successful login, the page should redirect the admin user to the next page [CZ-RMS-02-Main Page]</p>
Confirmation/feedback Messages	The system displays a confirmation message to the user as they are now logged in to the system: “Successful Login.”
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>The password reset email is to be system generated with the template to be used is to be sourced from the database [CZ-RMS-025- Repository]</p>

Page/Screen Name	CZ-RMS-002-Main Page
Functionality Description	<p>This page provides an authorized user with a list of clickable navigation buttons for the following administration features:</p> <ol style="list-style-type: none"> 1. Overview (Thumbnail Preview) 2. Accessibility Icon (International Symbol of Access [ISA]) 3. Animal Management 4. Visitor management 5. Sponsor management 6. System administration

7. Data analytics
8. Legal and Compliance

The page displays the import and export buttons (<Import Data> & <Export Data>).

Features available on exporting data to a cloud and to import data from the cloud.

Page Inputs	Mouse click and mouse hover																																																					
	The logic to be used to present different outputs and Page redirecting is as follows:																																																					
	If logic is to be used here:																																																					
	<table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Hamburger Menu</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Overview</td> <td>True</td> <td>Displays a thumbnail preview of the outputs</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Animal Management</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Visitor Management</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Sponsor Management</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>System Administration</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Data Analytics</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Legal and Compliance</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>					Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Hamburger Menu	True	Display status bar	True	No Operation	Overview	True	Displays a thumbnail preview of the outputs	True	No Operation	Animal Management	True	Display status bar	True	No Operation	Visitor Management	True	Display status bar	True	No Operation	Sponsor Management	True	Display status bar	True	No Operation	System Administration	True	Display status bar	True	No Operation	Data Analytics	True	Display status bar	True	No Operation	Legal and Compliance	True	Display status bar	True	No Operation
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Overview	True	Displays a thumbnail preview of the outputs	True	No Operation																																																		

	Animal Management	True	Redirect to	True	No Operation
	Visitor Management	True	Redirect to <Visitor Management> CZ-RMS-007	True	No Operation
	Sponsor Management	True	Redirect to <Sponsor Management> CZ-RMS-011	True	No Operation
	System Administration	True	Redirect to <System Administration> CZ-RMS-015	True	No Operation
	Data Analytics	True	Redirect to <Data Analytics> CZ-RMS-018	True	No Operation
	Legal and Compliance	True	Redirect to <Legal and Compliance> CZ-RMS-021	True	No Operation
	If the user clicks a particular thumbnail preview it should enlarge the output presented.				
Confirmation/feedback Messages	None				
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data”.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails. Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>				

	Display overview that is adapted to the page content using the structure in [CZ-RMS-022-Overview Page] which is adapted to [CZ-RMS-002-Main Page].
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Page/Screen Name	CZ-RMS-003- Animal Management																																																			
	<p>This page provides an authorised user with a list of clickable navigation buttons for the following administration features:</p> <ol style="list-style-type: none"> 1. Animal Records 2. Medical History 3. Breeding Program 4. Location Management <p>The page will have a thumbnail preview which are a compressed version of the</p>																																																			
Functionality Description																																																				
Page Inputs	Mouse click and mouse hover																																																			
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Features	Mouse Click																																																			
	On	Message/Output/Action	Off	Message/Output/Action																																																
Operation/Error Messages																																																				

	Thumbnail Preview	True	Display full page output of the page	True	No Operation
	Animal Records	True	Redirect to <Animal Records> CZ-RMS-004	True	No Operation
	Medical History	True	Redirect to <Medical History> CZ-RMS-005	True	No Operation
	Breeding Program	True	Redirect to <Breeding Program> CZ-RMS-006	True	No Operation
	If the user clicks a particular thumbnail preview it should enlarge the output presented.				
Confirmation/feedback Messages	None				
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails. Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>				

Page/Screen Name	CZ-RMS-004- Animal Records
Functionality Description	List displaying all the available animals at the zoo with all their relevant information.

	<p>The information to be presented about the animal is to be found within the data attributes of the animal (refer to animal attributes). Feature to be able to edit, add and delete records.</p> <p>The page will display the animal record form.</p> <p>The user will have access to create, edit, update, and delete it</p>																	
Page Inputs	<p>Mouse click, mouse hover and keyboard typing</p> <p>Image file (refer to animal attributes to get the specified formats)</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creation of a new form 2. Editing/updating of an already present form. 3. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>																	
Operation/Error Messages	<p>User can fill in the digital animal record form, edit and update it or delete it.</p> <p>Error messages:</p> <p>“Image failed to upload”  when the image being uploaded has failed to upload.</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th rowspan="2">Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]</p>	Input		Message/Output/Action	Create/Edit	Submit	True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																
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True	True	Save the new information in [CZ-RMS-015-System Administration]																
True	False	Display error message with this text: The changes made will not be saved																
False	True	Display error message with this text: No changes were made																
False	False	No operation																

The page's output information is to be sourced from [CZ-RMS-024]
Any changes made, should be logged on to the system and stored in the [CZ-RMS-015-System Administration]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Display Animal Records	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Display Animal Records	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	Any action carried out must be validated by a second admin in case this failed. Message will show saying “validation unsuccessful”
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p>

	<p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails. Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Flowchart

Page/Screen Name	CZ-RMS-005- Medical History										
Functionality Description	List displaying all the available medical history of the animals at the zoo. Feature to be able to edit, add and delete records and planning vaccination dates for animal.										
Page Inputs	<p>Mouse click, mouse hover and keyboard typing</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creation of a new form 2. Editing/updating of an already present form. 3. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>										
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d9e1f2;">Input</th> <th colspan="2" style="background-color: #d9e1f2;">Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td style="background-color: #d9e1f2;">Create/Edit</td> <td style="background-color: #d9e1f2;">Submit</td> <td></td> </tr> <tr> <td style="background-color: #d9e1f2;">True</td> <td style="background-color: #d9e1f2;">True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> </tbody> </table>		Input	Message/Output/Action		Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]
Input	Message/Output/Action										
Create/Edit	Submit										
True	True	Save the new information in [CZ-RMS-015-System Administration]									

True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Display Animal medical Records	True	Display a preview of the full output	True	No Operation
Display Vaccination Plan	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Display Animal medical Records	True	Display full output	True	No Operation
Display Vaccination Plan	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	<p>Any action carried out must be validated by a second admin in case this failed.</p> <p>Message will show saying “validation unsuccessful”</p>
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data”.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-006-Breeding Program
Functionality Description	<p>List displaying all the available mating record of the animals.</p> <p>This page provides a detailed overview of the breeding program of the zoo.</p> <p>It includes:</p> <ul style="list-style-type: none"> 1. Mating records 2. Offspring details

	<p>3. Reproductive health status.</p> <p>Feature to be able to edit, add and delete records and records of offspring and reproductive health status present.</p>																													
	<p>Mouse click, mouse hover, and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creating a new breeding program record. 2. Editing/updating an existing breeding program record. 3. Deleting an existing breeding program record. <p>The above inputs will be confirmed using the <submit button>.</p>																													
Page Inputs	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th rowspan="2">Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>The page's output information is to be sourced from [CZ-RMS-015-System Administration]</p> <p>Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]</p> <p>The logic to be used to present different outputs is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="3">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Input		Message/Output/Action	Create/Edit	Submit	True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation	Features	Mouse Hover			On	Message/Output/Action	Off	Message/Output/Action				
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	On	Message/Output/Action	Off	Message/Output/Action																										
Operation/Error Messages																														

Display breeding Program	True	Display a preview of the full output	True	No Operation
Mating Records	True	Display a preview of the full output	True	No Operation
Offspring Details	True	Display a preview of the full output	True	No Operation
Reproductive Health Status	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Display breeding Program	True	Display full output	True	No Operation
Mating Records	True	Display full output	True	No Operation
Offspring Details	True	Display full output	True	No Operation
Reproductive Health Status	True	Display full output	True	No Operation

The logic to be used to present different outputs is as follows:

If the user creates/edits a breeding program record and clicks 'Submit', the new information will be saved in the database.

For deleting a breeding program record, the operation to be done is to delete the record and a log of this action will be stored in the database.

If the user tries to submit without making any changes, an error message will be displayed: "No changes were made".

Confirmation/feedback Messages	Upon successful creation/editing/deletion of a breeding program record, a confirmation message will be displayed: "Operation successful".
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	<p>Any action carried out must be validated by a second admin in case this failed.</p> <p>Message will show saying “validation unsuccessful”</p>
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-007- Visitor Management
Functionality Description	<p>The page will have a thumbnail preview.</p> <p>Shows 3 redirecting links:</p> <ol style="list-style-type: none"> 1. Visitor Logs 2. Membership Management 3. Visitor Feedback <p>List displaying all the available user(visitors) at the zoo with all their relevant information.</p>

Page Inputs	Mouse click and hover																																																										
	<p>The logic to be used to present different outputs and Page redirecting is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full output preview</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Visitor Logs</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Membership Management</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Visitor Feedback</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Click</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full page output of the page</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Visitor Logs</td> <td>True</td> <td>Redirect to <Visitor Logs>¶CZ-RMS-008</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Membership Management</td> <td>True</td> <td>Redirect to <Membership Management>¶CZ-RMS-009</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Visitor Feedback</td> <td>True</td> <td>Redirect to <Visitor Feedback>¶CZ-RMS-010</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>	Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full output preview	True	No Operation	Visitor Logs	True	Display status bar	True	No Operation	Membership Management	True	Display status bar	True	No Operation	Visitor Feedback	True	Display status bar	True	No Operation	Features	Mouse Click				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full page output of the page	True	No Operation	Visitor Logs	True	Redirect to <Visitor Logs>¶CZ-RMS-008	True	No Operation	Membership Management	True	Redirect to <Membership Management>¶CZ-RMS-009	True	No Operation	Visitor Feedback	True	Redirect to <Visitor Feedback>¶CZ-RMS-010	True	No Operation
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Visitor Feedback	True	Redirect to <Visitor Feedback>¶CZ-RMS-010	True	No Operation																																																							
Operation/Error Messages																																																											

	If the user clicks a particular thumbnail preview it should enlarge the output presented.
Confirmation/feedback Messages	Message will show saying “validation unsuccessful” if the
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data”.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails. Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-008-Visitor Logs		
Functionality Description	Data that has been gathered through kiosks; website entries is shown.		
Page Inputs	Mouse click and keyboard typing.		
Operation/Error Messages	<p>The logic to be used to present different outputs is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <tr> <td>Features</td> <td>Mouse Hover</td> </tr> </table>	Features	Mouse Hover
Features	Mouse Hover		

	On	Message/Output/Action	Off	Message/Output/Action
Display Visitor Logs	True	Display a preview of the full output	True	No Operation
Zoo Entry/Exit times	True	Display a preview of the full output	True	No Operation
Website Entry/Exit times	True	Display a preview of the full output	True	No Operation
Areas Visited in the zoo	True	Display a preview of the full output	True	No Operation
Institutional records	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Display Visitor Logs	True	Display full page output of the page	True	No Operation
Zoo Entry/Exit times	True	Display full page output of the page	True	No Operation
Website Entry/Exit times	True	Display full page output of the page	True	No Operation
Areas Visited in the zoo	True	Display full page output of the page	True	No Operation
Institutional records	True	Display full page output of the page	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
Additional Outputs	Data table representing visitor's interactions with kiosks and website is shown.

	<p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-009-Membership Management																			
Functionality Description	List of all the user’s membership details is shown along with the data about when it renews.																			
Page Inputs	<p>Mouse click and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creation of a new form 2. Editing/updating of an already present form. 3. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>																			
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table>		Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
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False	True	Display error message with this text: No changes were made																		
False	False	No operation																		

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output preview	True	No Operation
Membership Details	True	Display status bar	True	No Operation
Membership Status				
Renewal Dates	True	Display status bar	True	No Operation
Benefits Tracking	True	Display status bar	True	No Operation
Membership Type	True	Display status bar	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full page output of the page	True	No Operation
Membership Details	True	Display status bar	True	No Operation
Membership Status				
Renewal Dates	True	Display status bar	True	No Operation
Benefits Tracking	True	Display status bar	True	No Operation

	<table border="1"> <tr> <td>Membership Type</td><td>True</td><td>Display status bar</td><td>True</td><td>No Operation</td></tr> </table> <p>If the user clicks a particular thumbnail preview it should enlarge the output presented.</p>	Membership Type	True	Display status bar	True	No Operation
Membership Type	True	Display status bar	True	No Operation		
Confirmation/feedback Messages	None					
Additional Outputs	<p>Overview of last created/edited visitor information form/document will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>					

Page/Screen Name	CZ-RMS-010-Visitor Feedback
Functionality Description	<p>The page displays the feedback data from surveys present in the zoo website [CZ-WEB] and the zoo’s Information Systems [CZ-INF]</p> <p>The page will Perform data analysis of the data stored in [CZ-RMS-015-System]</p>

	<p>Administration]</p> <p>The page will have a thumbnail preview.</p> <p>The page will present a list of these options:</p> <ol style="list-style-type: none"> 1. Survey Trends 2. Survey Analysis Charts 3. Survey Analysis Predictions 																																											
Page Inputs	<p>The admin user will have the option of choosing between the following options:</p> <ol style="list-style-type: none"> 1. Survey Trends 2. Survey Analysis Charts 3. Survey Analysis Predictions <p>The inputs to be taken for the above options is a mouse click and a mouse hover.</p>																																											
	<p>Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-018-Data Analytics].</p> <p>The information to be scraped is the individual outputs for all the options in the dropdown lists.</p> <p>The logic to be used to present different outputs is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full output preview</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Survey Trends</td> <td>True</td> <td>Display list of different survey trends</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Survey Analysis Charts</td> <td>True</td> <td>Display list of different survey analyses</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Survey Analysis Predictions</td> <td>True</td> <td>Display list of different survey predictions</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Click</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full page output of the page</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>	Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full output preview	True	No Operation	Survey Trends	True	Display list of different survey trends	True	No Operation	Survey Analysis Charts	True	Display list of different survey analyses	True	No Operation	Survey Analysis Predictions	True	Display list of different survey predictions	True	No Operation	Features	Mouse Click				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full page output of the page	True	No Operation
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Survey Trends	True	Display full page output of the page	True	No Operation
Survey Analysis Charts	True	Display full page output of the page	True	No Operation
Survey Analysis Predictions	True	Display full page output of the page	True	No Operation
<p>If the user clicks a particular thumbnail preview it should enlarge the output presented.</p> <p>The list of different trends, analyses, and predictions will be determined by the outputs.</p> <p>The outputs of these features will be scraped from [CZ-RMS-018-Data Analytics] as here is where all data analyses and visualisations will be done and outputted.</p>				
Confirmation/feedback Messages	None			
Additional Outputs	<p>Display First dropdown list with these options if the conditions are met:</p> <ol style="list-style-type: none"> 1. Survey Trends 2. Survey Analysis Charts 3. Survey Analysis Predictions <p>Display the second dropdown list with these secondary options:</p> <ol style="list-style-type: none"> 1. Survey Trends {The different Trends to be displayed will be determined by the system developers}. 2. Survey Analysis Charts {The different Analyses to be displayed will be determined by the system developers} 3. Survey Analysis Predictions {The different Predictions to be displayed will be determined by the system developers} <p>The dropdown lists are to be displayed only if the conditions placed are met.</p> <p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p>			

	Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)
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Page/Screen Name	CZ-RMS-011-Sponsor Management				
	<p>The page displays the overview which is a summary of individual components in the specific pages.</p> <p>The page can display the same information in the Notification Alerts just compressed to be a summary.</p> <p>The page will have a thumbnail preview.</p> <p>This page will have the following features redirecting the user to different pages in the RMS system:</p> <ul style="list-style-type: none"> 1. Sponsorship Information 2. Sponsorship Opportunities 3. Contacting Sponsors <p>The overview page output is to be displayed using a thumbnail preview of the outputs, which can be enlarged.</p>				
Functionality Description					
Page Inputs	<p>The admin user will have the option of choosing between the following options:</p> <ul style="list-style-type: none"> 1. Sponsorship Information 2. Sponsorship Opportunities 3. Contacting Sponsors <p>The inputs to be taken for the above options is a mouse click and a mouse hover.</p>				
Operation/Error Messages	<p>Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-015-System Administration].</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th>Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit</td> <td>Submit</td> </tr> </tbody> </table>	Input	Message/Output/Action	Create/Edit	Submit
Input	Message/Output/Action				
Create/Edit	Submit				

True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output preview	True	No Operation
Sponsorship Information	True	Display status bar	True	No Operation
Sponsorship Opportunities	True	Display status bar	True	No Operation
Contacting Sponsors	True	Display status bar	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output of the page.	True	No Operation

Sponsorship Information	True	Redirect to < Sponsor Information > CZ-RMS-012	True	No Operation
Sponsorship Opportunities	True	Redirect to < Sponsor Opportunities > CZ-RMS-013	True	No Operation
Contacting Sponsors	True	Redirect to < Sponsor Opportunities > CZ-RMS-014	True	No Operation
If the user clicks a particular thumbnail preview it should enlarge the output presented.				
Confirmation/feedback Messages	None			
Additional Outputs	Overview of last created/edited sponsor Information form/document will be shown.			
	The page will display options of ways for the user to upload an image (for the options list refer to the attributes)			
	Include a <plus icon> button with the text “Create” below it.			
	Include a <pencil icon> button with the text “Edit” below it.			
	Include a <bin icon> button with the text “Delete” below it.			
	Include a <submit> button.			
	Display <export icon> at the top right with text below it “Export Data.”			
Display data <import icon> at the top right next to the export function with text below it				

	<p>“Import Data”.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-012-Sponsorship Information				
Functionality Description	<p>The page will output the following information:</p> <ol style="list-style-type: none"> 1. Company/Business info (company number/business registration number) as a table/excel sheet. 2. Sponsor Contact Details (emails, telephone numbers, address line for post) as a table/excel sheet. 3. Sponsor names as a table/excel sheet. 4. Bank details as a table/excel sheet. <p>The information is both current and historical information stored in the zoo. The information can be categorized into yearly, quarterly, monthly.</p> <p>The overview page output is to be displayed using a thumbnail preview of the outputs, which can be enlarged.</p>				
Page Inputs	<p>Mouse clicks and mouse hover and keyboard typing</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creation of a new business/sponsor and their relevant information 2. Editing/updating of an already present business/sponsor and their relevant information. 3. Deleting of an already present business/sponsor and their relevant information <p>The above inputs will be confirmed using the submit button.</p>				
Operation/Error Messages	<p>Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-015-System Administration].</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th>Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit</td> <td>Submit</td> </tr> </tbody> </table>	Input	Message/Output/Action	Create/Edit	Submit
Input	Message/Output/Action				
Create/Edit	Submit				

True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Company/Business Info	True	Display a preview of the full output	True	No Operation
Sponsor Contact Details	True	Display a preview of the full output	True	No Operation
Sponsor Names	True	Display a preview of the full output	True	No Operation
Sponsor Bank Details	True	Display a preview of the full output	True	No Operation
Sponsorship Levels	True	Display a preview of the full output	True	No Operation
Communication History	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action

	Company/Business Info	True	Display full output	True	No Operation
	Sponsor Contact Details	True	Display full output	True	No Operation
	Sponsor Names	True	Display full output	True	No Operation
	Sponsor Bank Details	True	Display full output	True	No Operation
	Sponsorship Levels	True	Display full output	True	No Operation
	Communication History	True	Display full output	True	No Operation
	If the user clicks a particular thumbnail preview it should enlarge the output presented.				
Confirmation/feedback Messages	None				
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p>				

	Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)
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Page/Screen Name	CZ-RMS-013-Sponsor Opportunities																			
Functionality Description	<p>This page presents a comprehensive suite of sponsorship opportunities available to potential sponsors.</p> <p>It includes details about:</p> <ol style="list-style-type: none"> 1. Available sponsorship packages 2. The benefits of sponsorship 3. Cost and donation options 4. The application processes. 																			
Page Inputs	<p>Mouse click and mouse hover and keyboard typing.</p> <p>The page will take the following inputs:</p> <ol style="list-style-type: none"> 1. Creating/editing/deleting sponsorship packages 2. Creating/editing/deleting sponsorship benefits 3. Creating/editing/deleting cost and donation options 4. Creating/editing application processes 																			
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> <th></th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]</p>		Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																		
Create/Edit	Submit																			
True	True	Save the new information in [CZ-RMS-015-System Administration]																		
True	False	Display error message with this text: The changes made will not be saved																		
False	True	Display error message with this text: No changes were made																		
False	False	No operation																		

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Available sponsorship Packages	True	Display a preview of the full output	True	No Operation
Benefits of Sponsorship	True	Display a preview of the full output	True	No Operation
Cost and Donation options	True	Display a preview of the full output	True	No Operation
Application Process	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Available sponsorship Packages	True	Display full output	True	No Operation
Benefits of Sponsorship	True	Display full output	True	No Operation
Cost and Donation options	True	Display full output	True	No Operation
Application Process	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p>
	<p>Include a <plus icon> button with the text “Create” below it.</p>
	<p>Include a <pencil icon> button with the text “Edit” below it.</p>
	<p>Include a <bin icon> button with the text “Delete” below it.</p>
	<p>Include a <submit> button.</p>
	<p>Display <export icon> at the top right with text below it “Export Data.”</p>
	<p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p>
Additional Outputs	<p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-014-Contacting sponsors
Functionality Description	This page allows the user to manage communications with sponsors.

	<p>Features include sending sponsorship receipts (with templates already available) and sending emails (welcome, confirmation of payment, report of sponsorship).</p>																		
Page Inputs	<p>Mouse hover, click and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Selecting a sponsor from a list or search result. 2. Selecting a sponsorship receipt template from a list. 3. Typing an email message or selecting a pre-written email template. 																		
	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table>	Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																	
Create/Edit	Submit																		
True	True	Save the new information in [CZ-RMS-015-System Administration]																	
True	False	Display error message with this text: The changes made will not be saved																	
False	True	Display error message with this text: No changes were made																	
False	False	No operation																	
Operation/Error Messages	<p>For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]</p> <p>The page's output information is to be sourced from [CZ-RMS-015-System Administration]</p> <p>Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]</p> <p>The logic to be used to present different outputs is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Sending Sponsorship Receipts</td> <td>True</td> <td>Display a preview of the full output</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>	Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Sending Sponsorship Receipts	True	Display a preview of the full output	True	No Operation				
Features	Mouse Hover																		
	On	Message/Output/Action	Off	Message/Output/Action															
Sending Sponsorship Receipts	True	Display a preview of the full output	True	No Operation															

Sending all emails (Welcome, Confirmation of payment, Reports)	True	Display a preview of the full output	True	No Operation
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If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Sending Sponsorship Receipts	True	Display full output	True	No Operation
Sending all emails (Welcome, Confirmation of payment, Reports)	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

The logic to be used to present different outputs is as follows:

1. If the user selects a sponsor and a receipt template, then clicks the 'Send Receipt' button, the system will generate a receipt using the selected template and send it to the selected sponsor. If successful, a confirmation message will be displayed.
2. If the user selects a sponsor and an email template, then clicks the 'Send Email' button, the system will send the selected email to the selected sponsor. If successful, a confirmation message will be displayed.

Error message:

If an operation fails, an error message will be displayed. "Operation was unsuccessful."

Confirmation/feedback Messages	If an operation is successful, the system will display a confirmation message such as "Receipt sent successfully" or "Email sent successfully".
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p>

	<p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-0 Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-015-System Administration
	<p>The page will have a thumbnail preview.</p> <p>This page provides an authorised user with a list of clickable navigation buttons for the following administration features:</p> <ol style="list-style-type: none"> 1. Account Management 2. Data Backup and Recovery.
Functionality Description	
Page Inputs	Mouse click and mouse hover.

Operation/Error Messages	Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-018-Data Analytics].				
	The information to be scraped is the individual outputs for all the options in the dropdown lists.				
	The logic to be used to present different outputs is as follows:				
	If logic is to be used here:				
	Features	Mouse Hover			
		On	Message/Output/Action	Off	Message/Output/Action
		True	Display full output preview	True	No Operation
		True	Display Status bar	True	No Operation
		True	Display Status bar	True	No Operation
	Features	Mouse Click			
		On	Message/Output/Action	Off	Message/Output/Action
		True	Display full output for the page	True	No Operation
		True	Redirect to <Account Management and Authorization>¶CZ-RMS-016	True	No Operation
		True	Redirect to <Repository>¶CZ-RMS-025	True	No Operation

	Data Backup and Recovery	True	Redirect to <Data Backup and Recovery> CZ-RMS-017	True	No Operation
If the user clicks a particular thumbnail preview it should enlarge the output presented.					
Confirmation/feedback Messages	None				
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>				

Page/Screen Name	CZ-RMS-016-Account Management and Authorization	
Functionality Description	This page allows the user to manage user roles and permissions, user authentication, and access logs.	
Page Inputs	<p>Mouse click, mouse hover, and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> Creating a new user account. Editing/updating an existing user account. Giving and revoking system authorizations and permissions for other internal users of the zoo. Deleting an existing user account. 	
Operation/Error Messages	Logic is to be applied when the user interacts with these features:	
	Input	Message/Output/Action
	Create/Edit	Submit

True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
User Roles and Permissions	True	Display a preview of the full output	True	No Operation
User Authentication	True	Display a preview of the full output	True	No Operation
Access Logs	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
User Roles and Permissions	True	Display full output	True	No Operation
User Authentication	True	Display full output	True	No Operation

	Access Logs	True	Display full output	True	No Operation
<p>If the user creates/edits a user account and clicks 'Submit', the new information will be saved in the database. If the user tries to submit without making any changes, an error message will be displayed: "No changes were made".</p>					
<p>For deleting a user account, the operation to be done is to delete the account and a log of this action will be stored in the database.</p>					
Confirmation/feedback Messages	Upon successful creation/editing/deletion of a user account, a confirmation message will be displayed: "Operation successful".				
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>				

Page/Screen Name	CZ-RMS-017-Data backup and Recovery																		
Functionality Description	<p>This page allows the user to manage the data backup and recovery processes.</p> <p>Features include:</p> <ol style="list-style-type: none"> 1. Scheduled backups. 2. Backup storage management 3. Recovery procedures 4. Data integrity checks. 																		
Page Inputs	<p>Mouse click, mouse hover, and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Scheduling a new backup. 2. Initiating a recovery process. 3. Performing a data integrity check. 																		
Operation/Error Messages	<p>User can fill in the digital information, delete all the information related to an animal or edit it.</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]</p> <p>The page's output information is to be sourced from [CZ-RMS-015-System Administration]</p> <p>Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]</p> <p>The logic to be used to present different outputs is as follows:</p>	Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																	
Create/Edit	Submit																		
True	True	Save the new information in [CZ-RMS-015-System Administration]																	
True	False	Display error message with this text: The changes made will not be saved																	
False	True	Display error message with this text: No changes were made																	
False	False	No operation																	

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Scheduled Backups	True	Display a preview of the full output	True	No Operation
Backup Storage Management	True	Display a preview of the full output	True	No Operation
Recovery Procedures	True	Display a preview of the full output	True	No Operation
Data Integrity Checks (Infrastructure)	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Scheduled Backups	True	Display full output	True	No Operation
Backup Storage Management	True	Display full output	True	No Operation
Recovery Procedures	True	Display full output	True	No Operation
Data Integrity Checks (Infrastructure)	True	Display full output	True	No Operation

If the user schedules a new backup or initiates a recovery process, the system will perform the operation and provide a confirmation message upon successful completion.

If a data integrity check is performed, the system will display the results of the check.

Confirmation/feedback Messages	Upon successful completion of a backup, recovery, or data integrity check, a confirmation message will be displayed: "Operation successful".
Additional Outputs	Overview of last created/edited form will be shown.

	<p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-018-Data Analytics
Functionality Description	<p>The page will have a thumbnail preview.</p> <p>This page provides an authorized user with a list of clickable navigation buttons for the following data analytics features:</p> <ol style="list-style-type: none"> 1. Analytics Dashboard, 2. Custom Reports.
Page Inputs	Mouse click and mouse hover.
Operation/Error Messages	Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-018-Data Analytics] .

The information to be scraped is the individual outputs for all the options in the dropdown lists.

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output preview	True	No Operation
Analytics Dashboard	True	Display status bar	True	No Operation
Custom Reports	True	Display status bar	True	

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output of the page	True	No Operation
Analytics Dashboard	True	Redirect to < Analytics Dashboard > CZ-RMS-019	True	No Operation
Custom Reports	True	Redirect to < Custom Reports > CZ-RMS-020	True	No Operation

Confirmation/feedback Messages

None

Additional Outputs

Display a spinner as the redirecting is occurring in the few seconds the screen loads.

	<p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-019-Analytics Dashboard																			
Functionality Description	<p>This page provides the user with a comprehensive view of various key metrics such as:</p> <ol style="list-style-type: none"> 1. Visitor trends 2. Animal health metrics 3. Sponsorship performance 4. Membership analysis. 																			
Page Inputs	Mouse click and mouse hover.																			
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th>Input</th> <th colspan="2">Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Edit</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]</p> <p>The page's output information is to be sourced from [CZ-RMS-015-System Administration]</p> <p>Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]</p>		Input	Message/Output/Action		Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
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False	True	Display error message with this text: No changes were made																		
False	False	No operation																		

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Visitor Trends	True	Display a preview of the full output	True	No Operation
Animal Health Metrics	True	Display a preview of the full output	True	No Operation
Sponsorship Performance	True	Display a preview of the full output	True	No Operation
Membership Analysis	True	Display a preview of the full output	True	No Operation
Visitor Feedback Analysis	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Visitor Trends	True	Display full output	True	No Operation
Animal Health Metrics	True	Display full output	True	No Operation
Sponsorship Performance	True	Display full output	True	No Operation
Membership Analysis	True	Display full output	True	No Operation
Visitor Feedback Analysis	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
Additional Outputs	<p>Data shown through a list After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-020-Custom Reports																
Functionality Description	<p>This page allows the user to generate custom reports based on user-defined parameters.</p> <p>Features include:</p> <ol style="list-style-type: none"> 1. A report generator tool 2. Export options (PDF, CSV) 3. Scheduling reports. 																
Page Inputs	<p>Mouse click, mouse hover, and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Selecting parameters for the custom report. 2. Scheduling a report. 3. Exporting a report. 																
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> <th></th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> </tbody> </table>		Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made
Input		Message/Output/Action															
Create/Edit	Submit																
True	True	Save the new information in [CZ-RMS-015-System Administration]															
True	False	Display error message with this text: The changes made will not be saved															
False	True	Display error message with this text: No changes were made															

False	False	No operation
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For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [CZ-RMS-024-Repository]

The page's output information is to be sourced from [CZ-RMS-015-System Administration]

Any changes made, should be logged on to the system and stored in the [CZ-RMS-024-Repository]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Custom Report Generator tool	True	Display a preview of the full output	True	No Operation
User Defined Parameters	True	Display a preview of the full output	True	No Operation
Scheduling Reports	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Custom Report Generator tool	True	Display full output	True	No Operation
User Defined Parameters	True	Display full output	True	No Operation
Scheduling Reports	True	Display full output	True	No Operation

If the user selects parameters for a custom report and clicks 'Generate', the system will generate the report and display it on the page.

	<p>If the user schedules a report, the system will schedule the report to be generated at the specified time.</p> <p>If the user exports a report, the system will export the report in the selected format.</p>
Confirmation/feedback Messages	<p>Upon successful generation, scheduling, or exporting of a report, a confirmation message will be displayed: "Operation successful".</p>
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text "Create" below it.</p> <p>Include a <pencil icon> button with the text "Edit" below it.</p> <p>Include a <bin icon> button with the text "Delete" below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-021-Legal and Compliance																													
Functionality Description	<p>The page will have a thumbnail preview.</p> <p>This page provides the user with comprehensive information about</p> <ul style="list-style-type: none"> 1. GDPR compliance 2. Equality monitoring 3. Other legal documentation. <p>It also offers functionalities such as data encryption, consent management, data access logs, and data erasure requests.</p>																													
Page Inputs	Mouse click and mouse hover.																													
	<p>Display an overview of all the charts created from the data collected. The page will scrape information from [CZ-RMS-018-Data Analytics].</p> <p>The information to be scraped is the individual outputs for all the options in the dropdown lists.</p> <p>The logic to be used to present different outputs is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full output preview</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>GDPR Compliance</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Equality Monitoring</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Legal Documentation</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>	Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full output preview	True	No Operation	GDPR Compliance	True	Display status bar	True	No Operation	Equality Monitoring	True	Display status bar	True	No Operation	Legal Documentation	True	Display status bar	True	No Operation
Features	Mouse Hover																													
	On	Message/Output/Action	Off	Message/Output/Action																										
Thumbnail Preview	True	Display full output preview	True	No Operation																										
GDPR Compliance	True	Display status bar	True	No Operation																										
Equality Monitoring	True	Display status bar	True	No Operation																										
Legal Documentation	True	Display status bar	True	No Operation																										
Operation/Error Messages	<p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th>Features</th> <th>Mouse Click</th> </tr> </thead> </table>	Features	Mouse Click																											
Features	Mouse Click																													

	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output for the page	True	No Operation
GDPR Compliance	True	Redirect to < GDPR Compliance > CZ-RMS-026	True	No Operation
Equality Monitoring	True	Redirect to < Equality Monitoring > CZ-RMS-027	True	No Operation
Legal Documentation	True	Redirect to < Legal Documentation > CZ-RMS-028	True	No Operation
Confirmation/feedback Messages	None			
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>			

Page/Screen Name	CZ-RMS-022-Notification and Alerts
Functionality Description	<p>This page allows the user to manage:</p> <ol style="list-style-type: none"> 1. System backups 2. General system updates 3. Sponsor queries 4. Data updates 5. Error detection.

	<p>6. User unauthorised access alerts</p> <p>All data updates and system backups will be announced here.</p> <p>All sponsor queries and emails to be announced here.</p> <p>All editing and updates will be announced here.</p> <p>All system errors in whichever area of the system.</p> <p>All user's identified as unauthorised will send the updates here with a log of their username and password with the number of tries they have made. Refer to [CZ-RMS-001-Login Page] to see how the unauthorised access alerts will be done.</p>																	
Page Inputs	<p>Mouse click, mouse hover, and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Scheduling a system backup. 2. Initiating a system update. 3. Responding to a sponsor query. 4. Updating data. 5. Detecting errors 																	
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th rowspan="2">Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table> <p>If logic is to be used here:</p>	Input		Message/Output/Action	Create/Edit	Submit	True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																
Create/Edit	Submit																	
True	True	Save the new information in [CZ-RMS-015-System Administration]																
True	False	Display error message with this text: The changes made will not be saved																
False	True	Display error message with this text: No changes were made																
False	False	No operation																

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
General system Updates	True	Display a preview of the full output	True	No Operation
Backup Updates	True	Display a preview of the full output	True	No Operation
Sponsor Queries [CZ-RMS-014-Contacting sponsors]	True	Display a preview of the full output	True	No Operation
Data Updates	True	Display a preview of the full output	True	No Operation
Error Detection	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
General system Updates	True	Display full output	True	No Operation
Backup Updates	True	Display full output	True	No Operation
Sponsor Queries [CZ-RMS-014-Contacting sponsors]	True	Display full output	True	No Operation
Data Updates	True	Display full output	True	No Operation
Error Detection	True	Display full output	True	No Operation

If the user schedules a system backup or initiates a system update, the system will perform the operation and provide a confirmation message upon successful completion.

	<p>If the user responds to a sponsor query or updates data, the system will save the changes and provide a confirmation message.</p> <p>If the system detects errors, the system will display the results of the error detection.</p> <p>If an authorized user tries to login or access a particular area of the RMS it will announce this here (refer to access levels table to see the types of users and their levels of access).</p>
Confirmation/feedback Messages	<p>Upon successful completion of an operation, a confirmation message will be displayed: "Operation successful".</p>
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text "Create" below it.</p> <p>Include a <pencil icon> button with the text "Edit" below it.</p> <p>Include a <bin icon> button with the text "Delete" below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>



Page/Screen Name	CZ-RMS-023-Overview Page
	<p>The overview pages will have a basic adaptable design of thumbnail previews which uses images in compressed formats. These compressed formats are used to take inputs e.g.: Mouse hovering and mouse clicks.</p> <p>The page will Display outputs that is specific to the page.</p> <p>In the areas where it appears, it might have other inputs.</p>
Functionality Description	Features available on exporting data to a cloud and to import data from the cloud.
Page Inputs	Main inputs for this page are Mouse clicks and Mouse hovers
Operation/Error Messages	<p>The logic behind this is the system will source the information in this manner:</p> <p>Data from [CZ-RMS-025-Repository]</p> <p>Image from [CZ-RMS-025-Repository]</p> <p>Analysis from [CZ-RMS-019-Analytics Dashboard]</p> <p>Charts from [CZ-RMS-019-Analytics Dashboard]</p> <p>The overview page is only in applicable on major sections.</p>
Confirmation/feedback Messages	None
Additional Outputs	<p>The page will have an output that appears constantly on the page which are:</p> <p>A <bell icon> button which redirects the user to [CZ-RMS-022-Notification and Alerts]</p> <p>Display export button at the top right with text below it “Export Data.” With the</p> <p>Display data import button at the top right next to the export function with text below it “Import Data.”</p> <p>The page displays the import and export buttons (<Import Data> & <Export Data>).</p>

	Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)
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Page/Screen Name	CZ-RMS-024-Location Management																				
Functionality Description	<p>This page displays the:</p> <ol style="list-style-type: none"> 1. Full zoo map 2. Location information of the zoo 3. Which animals are in each of the occupied pages, 4. Vacant locations 5. Dimensions of the locations 6. An animal allocation system. 																				
Page Inputs	<p>Mouse click and mouse hover and keyboard typing</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creating new information on locations, vacancy, dimensions of locations, allocation of animals. 2. Editing information on locations, vacancy, dimensions of locations, allocation of animals. 3. Deleting information on locations, vacancy, dimensions of locations, allocation of animals. 																				
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> <tr> <th>Create/Edit</th> <th>Submit</th> <th></th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> <tr> <td>False</td> <td>False</td> <td>No operation</td> </tr> </tbody> </table>			Input		Message/Output/Action	Create/Edit	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made	False	False	No operation
Input		Message/Output/Action																			
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True	False	Display error message with this text: The changes made will not be saved																			
False	True	Display error message with this text: No changes were made																			
False	False	No operation																			

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Display zoo Map	True	Display a preview of the full output	True	No Operation
Display the location information	True	Display a preview of the full output	True	No Operation
Display the location vacancy	True	Display a preview of the full output	True	No Operation
Display the dimensions of the locations	True	Display a preview of the full output	True	No Operation
Animal Allocation System	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Display zoo Map	True	Display full output	True	No Operation
Display the location information	True	Display full output	True	No Operation
Display the location vacancy	True	Display full output	True	No Operation
Display the dimensions of the locations	True	Display full output	True	No Operation
Animal Allocation System	True	Display full output	True	No Operation

	<p>If the user hovers over a particular location on the zoo map, a detailed view of that location will be displayed.</p> <p>If the user clicks on a particular location, they will be redirected to a page with more comprehensive information about that location.</p>
Confirmation/feedback Messages	None
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-025-Repository
Functionality Description	This page provides an authorized user with a list of clickable navigation buttons for the following administration features: 1. Animal records

- | | |
|--|---|
| | <ol style="list-style-type: none"> 2. Location records 3. Medical records 4. Employee records 5. Sponsor records 6. Website records 7. Information systems records 8. Records management system records. |
|--|---|

This page houses all data stored in RMS, INF, WEB. It includes all records taken in the zoo.

This is where all raw data is stored, from which the data can be scraped in its raw form and used for data analysis and system improvement.

All survey results are also stored here.

The page displays the import and export buttons (<Import Data> & <Export Data>).

Features available on exporting data to a cloud and to import data from the cloud.

Features available on exporting data to a local storage and to import data from the local storage.

Page Inputs	Mouse click and mouse hover																																																
Operation/Error Messages	<p>The logic to be used to present different outputs and Page redirecting is as follows:</p> <p>If logic is to be used here:</p> <table border="1"> <thead> <tr> <th rowspan="2">Features</th> <th colspan="4">Mouse Hover</th> </tr> <tr> <th>On</th> <th>Message/Output/Action</th> <th>Off</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Thumbnail Preview</td> <td>True</td> <td>Display full output preview</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Animal Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Location Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Medical Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Employee Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Sponsor Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> <tr> <td>Website Records</td> <td>True</td> <td>Display status bar</td> <td>True</td> <td>No Operation</td> </tr> </tbody> </table>					Features	Mouse Hover				On	Message/Output/Action	Off	Message/Output/Action	Thumbnail Preview	True	Display full output preview	True	No Operation	Animal Records	True	Display status bar	True	No Operation	Location Records	True	Display status bar	True	No Operation	Medical Records	True	Display status bar	True	No Operation	Employee Records	True	Display status bar	True	No Operation	Sponsor Records	True	Display status bar	True	No Operation	Website Records	True	Display status bar	True	No Operation
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Sponsor Records	True	Display status bar	True	No Operation																																													
Website Records	True	Display status bar	True	No Operation																																													

Information Systems Records	True	Display status bar	True	No Operation
Records Management System Records	True	Display status bar	True	No Operation

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output preview	True	No Operation
Animal Records	True	Redirect to < Animal Records >¶CZ-RMS-033	True	No Operation
Location Records	True	Redirect to < Location Records >¶CZ-RMS-034	True	No Operation
Medical Records	True	Redirect to < Medical Records >¶CZ-RMS-035	True	No Operation
Employee Records	True	Redirect to < Employee Records >¶CZ-RMS-036	True	No Operation
Sponsor Records	True	Redirect to < Sponsor Records >¶CZ-RMS-037	True	No Operation
Website Records	True	Redirect to < Website Records >¶CZ-RMS-038	True	No Operation
Information Systems Records	True	Redirect to < Information Systems Records >¶CZ-RMS-039	True	No Operation

	Records Management System Records	True	Redirect to < Records Management System Records >CZ-RMS-040	True	No Operation
If the user hovers over a specific dataset, a detailed view of that dataset will be displayed.					
Confirmation/feedback Messages	None				
Additional Outputs	<p>Display a spinner as the redirecting is occurring in the few seconds the screen loads.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>				

Page/Screen Name	CZ-RMS-026-GDPR Compliance
Functionality Description	<p>This page outputs the information on the law and the ways the zoo has addressed this in their services.</p> <p>It includes active efforts by the zoo to address the law and operational implementations done by the zoo specifying where, how, and why it was implemented.</p>
Page Inputs	<p>Mouse clicks and mouse hover and keyboard typing</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creating new information on the law 2. Editing information on the law 3. Deleting information on the law

Operation/Error Messages

Logic is to be applied when the user interacts with these features:

Input		Message/Output/Action
Create/Edit	Submit	
True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display a preview of the full output	True	No Operation
Zoo's Active Efforts	True	Display a preview of the full output	True	No Operation
Operational Implementations	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display full output	True	No Operation
Zoo's Active Efforts	True	Display full output	True	No Operation
Operational Implementations	True	Display full output	True	No Operation

Confirmation/feedback Messages

None

Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-027-Equality Monitoring			
Functionality Description	<p>This page outputs the information on the law and the ways the zoo has addressed this in their services.</p> <p>It includes active efforts by the zoo to address the law and operational implementations done by the zoo specifying where, how, and why it was implemented.</p>			
Page Inputs	<p>Mouse clicks and mouse hover and keyboard typing</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creating new information on the law 2. Editing information on the law 3. Deleting information on the law 			
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Input</td> <td style="padding: 5px;">Message/Output/Action</td> </tr> </table>		Input	Message/Output/Action
Input	Message/Output/Action			

Create/Edit	Submit	
True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display a preview of the full output	True	No Operation
Zoo's Active Efforts	True	Display a preview of the full output	True	No Operation
Operational Implementations	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display full output	True	No Operation
Zoo's Active Efforts	True	Display full output	True	No Operation
Operational Implementations	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
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Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-028-Legal Documentation					
Functionality Description	<p>This page outputs the information on the law and the ways the zoo has addressed this in their services.</p> <p>It includes active efforts by the zoo to address the law and operational implementations done by the zoo specifying where, how, and why it was implemented.</p>					
Page Inputs	<p>Mouse clicks and mouse hover and keyboard typing.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creating new information on the law 2. Editing information on the law 3. Deleting information on the law 					
Operation/Error Messages	<p>Logic is to be applied when the user interacts with these features:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Input</th> <th style="text-align: left; padding: 5px;">Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Create/Edit</td> <td style="padding: 5px;">Submit</td> </tr> </tbody> </table>		Input	Message/Output/Action	Create/Edit	Submit
Input	Message/Output/Action					
Create/Edit	Submit					

True	True	Save the new information in [CZ-RMS-015-System Administration]
True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display a preview of the full output	True	No Operation
Zoo's Active Efforts	True	Display a preview of the full output	True	No Operation
Operational Implementations	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Outputs	True	Display full output	True	No Operation
Zoo's Active Efforts	True	Display full output	True	No Operation
Operational Implementations	True	Display full output	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
Additional Outputs	

	<p>Overview of last created/edited form will be shown.</p> <p>After an operation is completed, the page could display a log of recent operations.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text “Create” below it.</p> <p>Include a <pencil icon> button with the text “Edit” below it.</p> <p>Include a <bin icon> button with the text “Delete” below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>
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Page/Screen Name	CZ-RMS-029-Financial management
Functionality Description	<p>This page provides an authorized user with a list of clickable navigation buttons for the following administration features:</p> <ol style="list-style-type: none"> 1. Employee records 2. Sales revenue records 3. Expenditure records <p>The page will have a thumbnail preview which are a compressed version of the full output.</p> <p>The records are to be sourced from [CZ-RMS-025-Repository] and output this in these sections. It is put this way to enable the system admins to review this data when needed with ease.</p>
Page Inputs	Mouse click and mouse hover
Operation/Error Messages	<p>The logic to be used to present different outputs and Page redirecting is as follows:</p> <p>If logic is to be used here:</p>

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full output preview	True	No Operation
Employee Records	True	Display status bar	True	No Operation
Sales Revenue Records	True	Display status bar	True	No Operation
Expenditure Records	True	Display status bar	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Thumbnail Preview	True	Display full page output of the page	True	No Operation
Employee Records	True	Redirect to < Employee Records > CZ-RMS-030	True	No Operation
Sales Revenue Records	True	Redirect to < Sales Revenue Records > CZ-RMS-031	True	No Operation
Expenditure Records	True	Redirect to < Expenditure Records > CZ-RMS-032	True	No Operation

If the user clicks a particular thumbnail preview it should enlarge the output presented.

Confirmation/feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

	Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)
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Page/Screen Name	CZ-RMS-030-Employee Records												
Functionality Description	<p>List displaying all the Employee with all their relevant information.</p> <p>The relevant data will include:</p> <ul style="list-style-type: none"> 1. Employee's unique code 2. Bank details 3. Salary 4. General ID information <p>The user will have access to create, edit, update, and delete it.</p>												
Page Inputs	<p>Mouse click, mouse hover and keyboard typing</p> <p>Image file of the employee and other image records.</p> <p>The page would take the following inputs if the user made them:</p> <ul style="list-style-type: none"> 4. Creation of a new record 5. Editing/updating of an already present form. 6. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>												
Operation/Error Messages	<p>User can fill in the digital animal record form, edit and update it or delete it.</p> <p>Error messages:</p> <ul style="list-style-type: none"> 4. “Image failed to upload” when the image being uploaded has failed to upload. <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit/Delete</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> </tbody> </table>	Input		Message/Output/Action	Create/Edit/Delete	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved
Input		Message/Output/Action											
Create/Edit/Delete	Submit												
True	True	Save the new information in [CZ-RMS-015-System Administration]											
True	False	Display error message with this text: The changes made will not be saved											

False	True	Display error message with this text: No changes were made
False	False	No operation

For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [**CZ-RMS-025-Repository**]

The delete function will need authorization by either two system admins or by the zoo administrator.

The page's output information is to be sourced from [**CZ-RMS-025-Repository**]

Any changes made, should be logged on to the system and stored in the [**CZ-RMS-025-Repository**]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Employee's unique code	True	Display a preview of the full output	True	No Operation
Bank details	True	Display a preview of the full output	True	No Operation
Salary	True	Display a preview of the full output	True	No Operation
General ID information	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Employee's unique code	True	Display full output	True	No Operation
Bank details				

	Salary	True	Display full output	True	
	General ID information	True	Display full output	True	
	Employee's unique code	True	Display full output	True	No Operation
	Bank details				
	Salary	True	Display full output	True	
Confirmation/feedback Messages	Upon successful completion of a backup, recovery, or data integrity check, a confirmation message will be displayed: "Operation successful". Message will show saying "Operation unsuccessful."				
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text "Create" below it.</p> <p>Include a <pencil icon> button with the text "Edit" below it.</p> <p>Include a <bin icon> button with the text "Delete" below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p>				

	<p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p> <p>After an operation is completed, the page could display a log of recent operations.</p>
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Page/Screen Name	CZ-RMS-032- Sales Revenue Records									
Functionality Description	<p>List displaying all the sales made within the zoo with all their relevant information.</p> <p>The relevant data will include:</p> <ul style="list-style-type: none"> 1. Tickets and membership purchases 2. Sponsorships and donations 3. Educational trips revenue 4. Souvenirs and Merchandise sales 5. Caffe and food sales <p>The user will have access to create, edit, update, and delete it.</p> <p>For any deleting it will require authorization from two system admins or the zoo administrator.</p>									
Page Inputs	<p>Mouse click, mouse hover and keyboard typing</p> <p>Image file of the employee and other image records.</p> <p>The page would take the following inputs if the user made them:</p> <ul style="list-style-type: none"> 1. Creation of a new record 2. Editing/updating of an already present form. 3. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>									
Operation/Error Messages	<p>User can fill in the digital sales revenue records edit and update it or delete it.</p> <p>Error messages: “Operation unsuccessful” when an operation is not successfully accomplished/</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th>Input</th> <th colspan="2">Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Create/Edit/Delete</td> <td>Submit</td> <td></td> </tr> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> </tbody> </table>	Input	Message/Output/Action		Create/Edit/Delete	Submit		True	True	Save the new information in [CZ-RMS-015-System Administration]
Input	Message/Output/Action									
Create/Edit/Delete	Submit									
True	True	Save the new information in [CZ-RMS-015-System Administration]								

True	False	Display error message with this text: The changes made will not be saved
False	True	Display error message with this text: No changes were made
False	False	No operation

For the delete action the operation to be done is to delete the form and a log of this action is to be stored in [**CZ-RMS-025-Repository**]

The delete function will need authorization by either two system admins or by the zoo administrator.

The page's output information is to be sourced from [**CZ-RMS-025-Repository**]

Any changes made, should be logged on to the system and stored in the [**CZ-RMS-025-Repository**]

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Tickets and membership purchases	True	Display full output	True	No Operation
Sponsorships and donations	True	Display full output	True	No Operation
Educational trips revenue	True	Display full output	True	No Operation
Souvenirs and Merchandise sales	True	Display full output	True	No Operation
Caffe and food sales	True	Display full output	True	No Operation

If logic is to be used here:

Features	Mouse Click

	On	Message/Output/Action	Off	Message/Output/Action
Tickets and membership purchases	True	Display full output	True	No Operation
Sponsorships and donations	True	Display full output	True	No Operation
Educational trips revenue	True	Display full output	True	No Operation
Souvenirs and Merchandise sales	True	Display full output	True	No Operation
Caffe and food sales	True	Display full output	True	No Operation
Tickets and membership purchases	True	Display full output	True	No Operation
Confirmation/feedback Messages	Upon successful completion of a backup, recovery, or data integrity check, a confirmation message will be displayed: "Operation successful". Message will show saying "Operation unsuccessful."			
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text "Create" below it.</p> <p>Include a <pencil icon> button with the text "Edit" below it.</p> <p>Include a <bin icon> button with the text "Delete" below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data".</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>			

After an operation is completed, the page could display a log of recent operations.

Page/Screen Name	CZ-RMS-032- Expenditure Records															
Functionality Description	<p>List displaying all the Employee with all their relevant information.</p> <p>The relevant data will include:</p> <ol style="list-style-type: none"> 1. Purchases of Supplies (Inclusive of food and water) 2. General Expenses 3. Salary Payments to Staff 4. VAT and all Tax Information <p>The user will have access to create, edit, update, and delete it.</p>															
Page Inputs	<p>Mouse click, mouse hover and keyboard typing</p> <p>Image file of the employee and other image records.</p> <p>The page would take the following inputs if the user made them:</p> <ol style="list-style-type: none"> 1. Creation of a new record 2. Editing/updating of an already present form. 3. Deleting of an already present form <p>The above inputs will be confirmed using the submit button.</p>															
Operation/Error Messages	<p>User can fill in the digital animal record form, edit and update it or delete it.</p> <p>Error messages:</p> <p>“Image failed to upload” ↗ when the image being uploaded has failed to upload.</p> <p>Logic is to be applied when the user interacts with these features:</p> <table border="1"> <thead> <tr> <th colspan="2">Input</th> <th rowspan="2">Message/Output/Action</th> </tr> <tr> <th>Create/Edit/Delete</th> <th>Submit</th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Save the new information in [CZ-RMS-015-System Administration]</td> </tr> <tr> <td>True</td> <td>False</td> <td>Display error message with this text: The changes made will not be saved</td> </tr> <tr> <td>False</td> <td>True</td> <td>Display error message with this text: No changes were made</td> </tr> </tbody> </table>		Input		Message/Output/Action	Create/Edit/Delete	Submit	True	True	Save the new information in [CZ-RMS-015-System Administration]	True	False	Display error message with this text: The changes made will not be saved	False	True	Display error message with this text: No changes were made
Input		Message/Output/Action														
Create/Edit/Delete	Submit															
True	True	Save the new information in [CZ-RMS-015-System Administration]														
True	False	Display error message with this text: The changes made will not be saved														
False	True	Display error message with this text: No changes were made														

False	False	No operation
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For the delete action the operation to be done is to delete the form and a log of this action is to be stored in **[CZ-RMS-025-Repository]**

The delete function will need authorization by either two system admins or by the zoo administrator.

The page's output information is to be sourced from **[CZ-RMS-025-Repository]**

Any changes made, should be logged on to the system and stored in the **[CZ-RMS-025-Repository]**

The logic to be used to present different outputs is as follows:

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Employee's unique code	True	Display a preview of the full output	True	No Operation
Bank details	True	Display a preview of the full output	True	No Operation
Salary	True	Display a preview of the full output	True	No Operation
General ID information	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Employee's unique code	True	Display full output	True	No Operation
Bank details				
Salary	True	Display full output	True	No Operation

	General ID information	True	Display full output	True	No Operation
	Employee's unique code	True	Display full output	True	No Operation
	Bank details				
	Salary	True	Display full output	True	No Operation
Confirmation/feedback Messages	Upon successful completion of a backup, recovery, or data integrity check, a confirmation message will be displayed: "Operation successful". Message will show saying "Operation unsuccessful."				
Additional Outputs	<p>Overview of last created/edited form will be shown.</p> <p>The page will display options of ways for the user to upload an image (for the options list refer to the attributes)</p> <p>Include a <plus icon> button with the text "Create" below it.</p> <p>Include a <pencil icon> button with the text "Edit" below it.</p> <p>Include a <bin icon> button with the text "Delete" below it.</p> <p>Include a <submit> button.</p> <p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data".</p> <p>Thumbnail preview of the outputs to be displayed in the page which can be clicked to display the full output, or it could also be images of animals within the zoo used as the thumbnails.</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p> <p>After an operation is completed, the page could display a log of recent operations.</p>				

Page/Screen Name	CZ-RMS-033-Animals Records
Functionality Description	This page will display the stored data of Animals Record in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-034-Location Records
Functionality Description	This page will display the stored data of Location records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it “Export Data.”</p> <p>Display data <import icon> at the top right next to the export function with text below it “Import Data.”</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-035-Medical Records
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Functionality Description	This page will display the stored data of medical records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-036-Employee Records
Functionality Description	This page will display the stored data of Employee records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-037-Sponsor Records
Functionality Description	This page will display the stored data of Sponsor records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None

Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-038-Website Records
Functionality Description	This page will display the stored data of Website records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-039-Information Systems Records
Functionality Description	This page will display the stored data of Information Systems Records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-040-Records Management System Records
Functionality Description	This page will display the stored data of Records management system records in its raw form.
Page Inputs	Mouse clicks
Operation/Error Messages	None
Confirmation/feedback Messages	None
Additional Outputs	<p>Display <export icon> at the top right with text below it "Export Data."</p> <p>Display data <import icon> at the top right next to the export function with text below it "Import Data."</p> <p>Display Accessibility Icon (International Symbol of Access [ISA]) (CZ-RMS-041-Accessibility Options)</p>

Page/Screen Name	CZ-RMS-041-Accessibility Options
Functionality Description	<p>This page will feature accessibility options to ensure all systems are accessible to everyone who joins the team.</p> <p>The feature will be accessible via accessibility icons throughout all pages will help the user to choose their desired features to enhance their experience.</p> <p>This button will appear this way in every page of the RMS and will be interacted with by either clicking the icon displayed ([Accessibility Icon (International Symbol of Access [ISA])]).</p> <p>The button once interacted with reveal the following sub features in a drop-down list:</p> <ol style="list-style-type: none"> 1. Screen reader compatibility 2. Resizable text 3. High contrast mode 4. Alternative text for images <p>All forms and buttons on our RMS page are clearly labelled, so that users understand their purpose.</p>
Page Inputs	Mouse clicks and mouse hover
Operation/Error Messages	<p>The page's output information is to be adapted to achieve the functionality that the user chooses.</p> <p>The output of the page will remain the same but only Improved to include the feature chosen.</p> <p>The logic to be used to present different outputs is as follows:</p>

If logic is to be used here:

Features	Mouse Hover			
	On	Message/Output/Action	Off	Message/Output/Action
Screen reader compatibility	True	Display a preview of the full output	True	No Operation
Resizable text	True	Display a preview of the full output	True	No Operation
High contrast mode	True	Display a preview of the full output	True	No Operation
Alternative text for images	True	Display a preview of the full output	True	No Operation

If logic is to be used here:

Features	Mouse Click			
	On	Message/Output/Action	Off	Message/Output/Action
Screen reader compatibility	True	Change/adapt the page to apply the feature.	True	No Operation
Resizable text	True	Change/adapt the page to apply the feature.	True	No Operation
High contrast mode	True	Change/adapt the page to apply the feature.	True	No Operation
Alternative text for images	True	Change/adapt the page to apply the feature.	True	No Operation

Confirmation/feedback Messages	Display this message as a confirmation that the new features have been applied: “Changes have been applied successfully”
Additional Outputs	Screen readers convert digital text into synthesized speech. It is crucial that the data displayed on our RMS page is compatible with screen readers.

	<p>Allowing users to resize text ensures that our RMS page is accessible to users with visual impairments.</p> <p>High contrast mode increases the colour contrast of text and images on the screen, making them more distinct and easier to identify.</p> <p>Alternative text for images, will provide textual description of an image for users who cannot see it. This feature is important in our RMS to ensure that users who are visually impaired or use screen readers can understand the content of the images.</p>
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The processing logic embedded within the Claybrook Zoo-Records Management System ensures that every aspect of zoo operations is meticulously organized and accessible to authorized personnel. Through a combination of user inputs, system operations, confirmations, feedback messages, and additional outputs, the system provides a comprehensive management tool that aligns with the zoo's operational needs.

Whether it is managing detailed animal records, overseeing visitor management, handling sponsorships, or ensuring legal compliance, the CZ-RMS's processing logic is the backbone that supports these functions. It guarantees that data integrity, user accessibility, and system security are upheld to the highest standard, enabling Claybrook Zoo to focus on its mission of conservation, education, and visitor engagement. Through this well-orchestrated logic, the zoo can anticipate a future where technological efficiency and data-driven insights lead to continued growth and success.

2.2.2.2 Zoo Website

2.2.2.2.1 Software Features

The Zoo Website serves as the digital gateway to the enriching experiences offered by Claybrook Zoo. The objective of the website is to provide visitors with an intuitive, informative, and interactive platform that mirrors the educational and conservational ethos of the zoo. Each feature of the website is thoughtfully designed to enhance user engagement, provide valuable information, and foster a connection between the zoo and its visitors, whether they are planning an in-person visit or exploring the zoo virtually.

From detailed exhibit overviews to comprehensive conservation initiatives, the website's features are tailored to cater to a wide audience, including students, families, researchers, and wildlife enthusiasts. The visitor mobile application information system brings the zoo into the digital age, offering a suite of accessible and engaging tools that align with the zoo's mission to educate, inspire, and promote wildlife stewardship.

Software Features (Visitor Mobile Application Information System)	Notes
Home Page	The website's main page for visitors should give a summary of the zoo and should include eye-catching photos, necessary information, and connections with prominent sections.
About Us	It should provide a thorough overview of the zoo's goals, background, and core principles. The following text would explain the zoo's dedication to wildlife education and conservation.

Exhibits and Animals	This page must have a comprehensive list of all the zoo's inhabitants, along with photographs, videos, and in-depth details about each species and its natural habitat.
Plan Your Visit	Give guests useful information such as operating hours, ticket costs, parking information, and any unique needs or instructions to ensure a hassle-free and pleasurable visit.
Events and Programmes	Highlight the zoo's upcoming schedule of events, which includes workshops, educational courses, animal presentations, and special exhibitions. Recommend guests to take part in these interesting activities.
Conservation Initiatives	Describe the zoo's endeavours in sustainability, research, and animal conservation. Emphasise collaborations, current initiatives, and achievements in this important field.
Education and Outreach	Provide details about outreach projects, school visits, and educational programmes. Highlight the zoo's contribution to raising community awareness and education about wildlife.
Membership and Support	This section should list the advantages of joining the zoo, such as special access, discounts, and privileges. Give guests ways to help the zoo by volunteering or making donations.
Virtual Tours	Provide visitors who are unable to visit in person with an immersive online experience. To reach a worldwide audience, use interactive components, 360-degree videos, and virtual tours of the zoo.
News and Updates	Provide guests with the most recent information about zoo announcements, news, and behind-the-scenes looks. Frequent updates encourage participation and a sense of community.
Contact Us	Please provide your contact details, such as phone numbers and email addresses, for support, comments, and general questions. Provide a form for easy communication in the attachment.
FAQs	Prepare for and respond to frequently asked questions from visitors by developing an extensive Frequently Asked Questions (FAQ) page. It improves the visitor experience by making important information quickly and easily accessible.

Accessibility Information	Give information about strollers' rentals, wheelchair accessibility, and any extra accommodations that may be needed for guests with special needs. Make sure that the zoo experience is enjoyable for all.
Social Media Integration	To encourage online interaction, include connections to the zoo's social media pages. Urge guests to interact with the zoo community by sharing their experiences.
Interactive Map	Provide guests with an interactive map of the zoo's layout so they may quickly plan their journey and find exhibits, buildings, and services.

In conclusion, the software features of the Claybrook Zoo website collectively form a vibrant and dynamic online environment that extends the zoo's reach beyond its physical boundaries. The thoughtful integration of information, visual appeal, and user-friendly navigation ensures that every visitor, regardless of where they are, can access a wealth of knowledge and contribute to the zoo's mission.

The website stands as a testament to the zoo's commitment to accessibility, community engagement, and global conservation efforts. With features like virtual tours, interactive maps, and social media integration, the zoo not only educates and informs but also builds a community of passionate supporters. The continuous updates and interactive elements of the website promise to keep visitors informed and engaged, making the Claybrook Zoo website an indispensable tool for visitor engagement and education.

2.2.2.2.2 Access Rights

The access rights of the Zoo Website delineate the levels of interaction and management capabilities assigned to various roles within the zoo's operational structure. The delineation of these rights is essential for maintaining the integrity of the website and ensuring that each user has the appropriate level of control and visibility required for their role. Ranging from system administrators to casual visitors, each level of access is carefully calibrated to balance operational security, data integrity, and user experience.

The framework for these access rights is established to provide full administrative control to system and zoo administrators, while granting limited but meaningful interaction for other roles such as zookeepers, sponsors, and visitors. This ensures that the website functions effectively as a central hub for information dissemination, visitor engagement, and internal management.

		Access Level				
Operation		System Administrator	Zoo Administrator	Zookeeper	Sponsor	Visitor
User Account Management		Full access	Can log in/sign up as visitor	Can log in/sign up as visitor	Can log in /sign up as visitor and sponsor on website	Can log in/sign up as visitor
Home Page	Create	Images and text content	No access	No access	No access	No access

	Edit	Images and text content	No access	No access	No access	No access
	View/Interact	View and interact with everything	View and interact with everything	View and interact with everything	View and interact with everything	View and interact with everything
Animal Of the Week Section	Create	Can upload image and information for that animal	No access	No access	No access	No access
	Edit	Can change or delete image and information for that animal	No access	No access	No access	No access
	View	View only	View only	View only	View only	View only
Voting For Next Animal	Create	Can add new animal every week.	No access	No access	No access	No access
	Edit	Can edit a mistake or anything on this section	No access	No access	No access	No access
	View/Interact	Full access	Both view and interact			
Redirecting Links on Website	Create	Can create new links if pages are created	No access	No access	No access	No access
	Edit	Can edit anything links on website	No access	No access	No access	No access
	View/Interact	Can view and interact with anything.	View and interact	View and interact	View and interact	View and interact
Souvenirs/Ticket/Membership Shop	Create/Add	Can add new tickets	No access	No access	No access	No access
	Edit	Can edit prices or tickets images	No access	No access	No access	No access
	View/Interact	Can view and interact with tickets	Can view and interact with tickets	Can view and interact with tickets	Can view and interact with tickets	Can view and interact with tickets
Timetable Of Events	Create	Can create new timetable	No access	No access	No access	No access

	Edit	Can edit current timetable	No access	No access	No access	No access
	View/Interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact
Maps	Create	Can add new map	No access	No access	No access	No access
	Edit	Can edit map	No access	No access	No access	No access
	View/Interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact
Quizzes And Games	Create	Can create/add new game	No access	No access	No access	No access
	Edit	Can edit existing games	No access	No access	No access	No access
	View/Interact	Can view and interact with all games	Can view and interact with all games	Can view and interact with all games	Can view and interact with all games	Can view and interact with all games
Enclosure Availability List	Create	Can add new enclosure to the list	No access	No access	No access	No access
	Edit	Can edit existing enclosures details from current list	No access	No access	No access	No access
	View	Can view the list	Can view the list	Can view the list	Can view the list	Can view the list
Contact Information and FAQs	Create	Can add new details on contact information and new FAQs	No access	No access	No access	No access
	Edit	Can edit existing Contact details and FAQs	No access	No access	No access	No access
	View/Interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact	Can view and interact

In conclusion, the structured access rights of the Zoo Website play a critical role in the ecosystem of Claybrook Zoo's digital presence. By allocating specific capabilities to various roles, the zoo can maintain a secure, well-organized, and user-friendly website that caters to the diverse needs of its users. The system administrator holds the highest level of control, ensuring the overall functionality and content quality of the website,

whereas the visitors enjoy an immersive and interactive experience with the ability to view and interact with various sections.

This multi-tiered approach to access rights ensures that each stakeholder from system administrators to visitors can interact with the zoo's digital platform in a way that is both meaningful and appropriate to their level of engagement. The thoughtful design of these access rights is a testament to the zoo's commitment to a seamless, secure, and enriching online experience for all.

2.2.2.2.3 Data Output

As we navigate through the complexities of modern communication, the importance of effective digital interfaces in educational and recreational institutions cannot be overstressed. A zoo's website serves as a critical touchpoint, offering a window into its conservation efforts and the experiences on offer. The data outputs of such a website, therefore, must be carefully crafted to balance informative content with user-friendliness and visual appeal. This section delves into the myriad ways through which zoo websites can engage visitors, presenting information that is both accessible and compelling. The design elements, from the home page layout to interactive features, are tailored to guide visitors through a seamless virtual journey, enhancing their understanding and anticipation of the real-world zoo experience.

Webpage Outputs

Home page:

The home page will be divided into three sections.

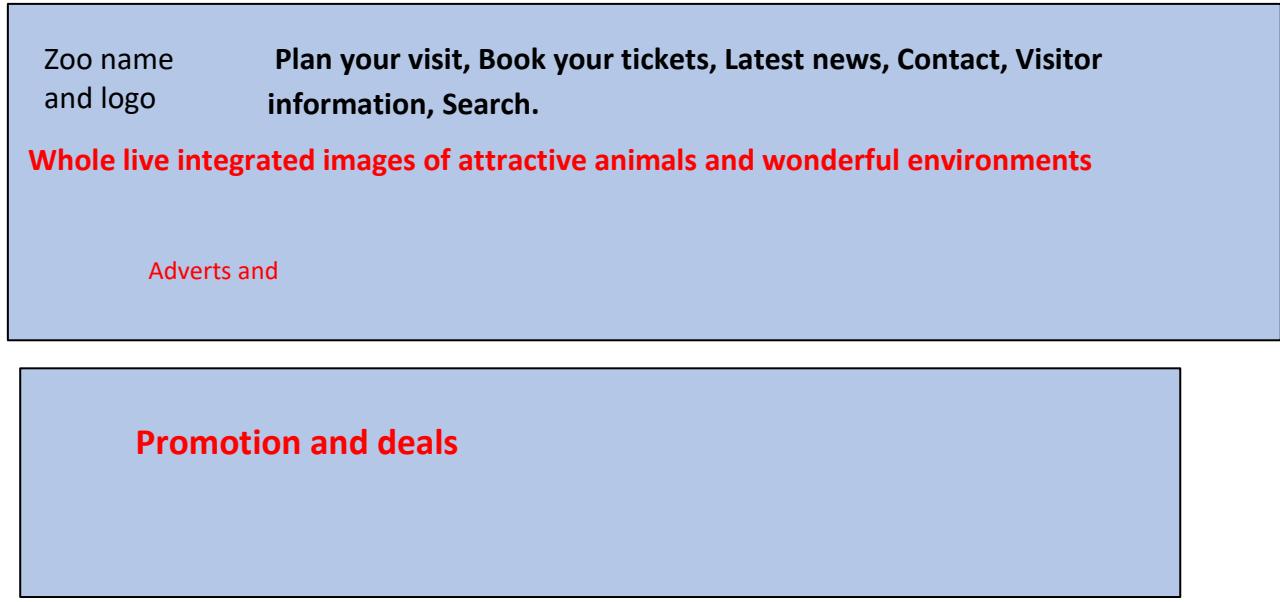
1. The Top section (The introductory section that visitors will see)
 - A. A whole live integrated pages of attractive animals and wonderful environments
 - i. This will also contain the zoo Name and logo, Key hyperlinks (e.g. About us, Book your tickets, Latest news, Contact, Visitor information, Search, etc.)
 - B. **Promotions and deals.**
2. The middle section (The zoos Activity Highlights)
 - A. Plan your visit, Interactive activity links (e.g., zoo games and educative quizzes), Exhibits and Animals.
 - B. Events and Programs, Membership and support, Education and outreach, Initiative conservation.
 - C. Virtual tours, Shop with us (on-site stores and cafes, online stores), Gallery, News and updates, Visitor information (Relevant info, Accessibility, and services)
3. The Bottom Section (This contain Extras and most of what are at the "Top Section")
 - A. Jobs and Internship, Site map, subscription to News and updates.
 - B. Contact us, social media handles, FAQS, Weather updates.
 - C. Terms and conditions, cookie policy, privacy policy, attached logo and certifications, Zoo's address and reg number.

Homepage Templates design

KEY NOTES:

- Bold black coloured words are features that are constant output, but the contents they hold are subject to change at the discretion of the company.
- The RED coloured words are for features that its content is not constant, and they are subject to change on all the time depending on the time event.
- The yellow-coloured words are features that may be changed after a long period of time.

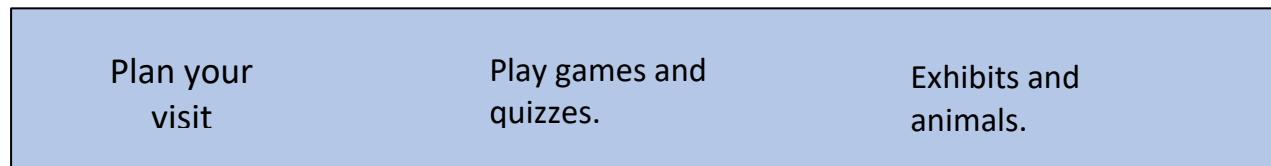
Top Section



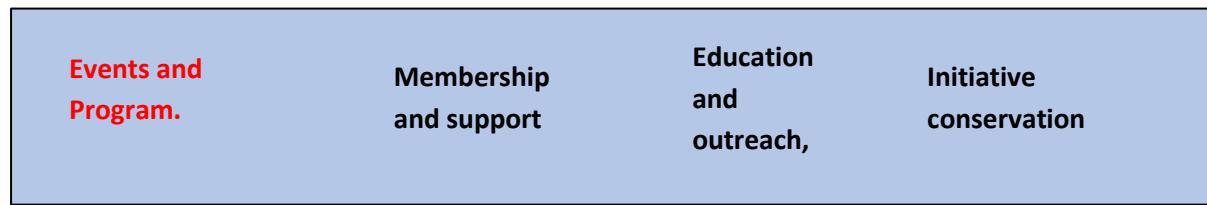
Promotion and deals

Middle section

A



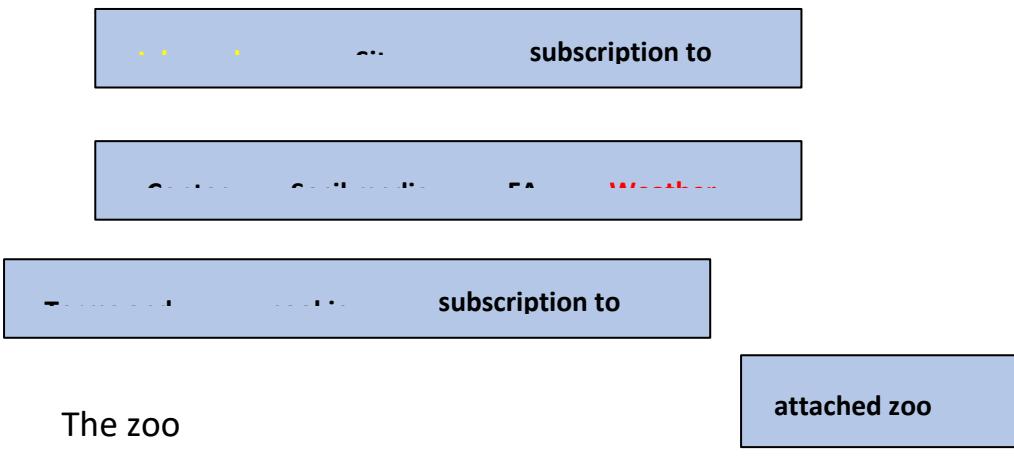
B



C



Bottom section



Visitor Receipt Output

- **Header** - Place the name and logo of the zoo at the top of the receipt. Include the zoo's address and contact information.
- **Transaction Information** - Date and time of the visit. Receipt number for reference.
- **Visitor Information** - Name of the visitor or group leader. Number of adults and children in the group.
- **Admission Details** - Ticket types (e.g., adult, child, senior). Quantity of each ticket type. Individual and total ticket prices.
- **Additional Services** - If there are additional services (e.g., guided tours, special exhibits), list them with individual and total prices.
- **Subtotal** - Sum of the admission fees and additional services.
- **Taxes** - If applicable, show the tax amount.
- **Total Amount** - Sum of the subtotal and taxes.
- **Payment Information** - Payment method (credit card, cash, etc.). If paid by card, the last four digits of the card number.
- **Terms and Conditions** - Include any important terms, conditions, or disclaimers related to the admission.
- **Footer** - Thank the visitor for their visit. Provide information on membership programs, upcoming events, or social media handles for the zoo.

Example Visitor Receipt Template

[Your Zoo Logo]

Zoo Receipt

Date: [Date]

**Transaction Information: **

*Receipt Number: * [Unique Receipt Number]

*Date and Time of Visit: * [Date and Time]

**Visitor Information: **

- *Name: * [Visitor's Name]

- *Number of Adults: * [Number]

- *Number of Children: * [Number]

*Subtotal: * [£Subtotal]

**Additional Services: **

- *Service 1: * [Description] - [£X]

**Admission Details: **

- *Ticket Type* *Quantity* *Price*

- Adult [X] [£Y]

- Child [X] [£Y]

- *Service 2: * [Description] - [£Y]

[Add more if necessary]

**Total Amount: **

*Total: * [\$Total] ---

**Terms and Conditions: **

**Payment Information: **

- *Payment Method: * [Credit Card/Cash/Other]

- *Last Four Digits: * [Last 4 Digits of Card, if applicable]

Thank you for visiting [Zoo Name]. By accepting this receipt, you agree to comply with all terms and conditions outlined by [Zoo Name].

**Footer: **

We appreciate your support. For more information about our zoo, visit [Zoo Website] or follow us on [Social Media Links].

Sponsor Receipt Template

[Your Zoo Logo]

Sponsored Animal Receipt

Date: [Date]

**Sponsorship Information: **

- *Receipt Number: * [Unique Receipt Number]

- *Date of Sponsorship: * [Date of Sponsorship]

**Sponsor Information: **

- *Sponsor Name: * [Sponsor's Name]

- *Contact: * [Sponsor's Contact Information]

**Animal Details: **

- *Animal Name: * [Name of Sponsored Animal]

- *Species: * [Species]

- *Date of Birth: * [Date of Birth, if known]

--

****Sponsorship Details: ****

- ***Type of Sponsorship:** * [e.g., Annual, Lifetime]
- ***Sponsorship Amount:** * [£Amount]

****Payment Information: ****

- ***Payment Method:** * [Credit Card/Cash/Other]
- ***Last Four Digits:** * [Last 4 Digits of Card, if applicable]

****Recognition: ****

Your sponsorship will be acknowledged through:

- ***Signage near the animal enclosure***
- ***Recognition on our website***
- ***Social media mentions***

--

****Updates: ****

Periodic updates on the sponsored animal's well-being, milestones, and activities will be sent to the sponsor.

--

****Terms and Conditions: ****

Thank you for sponsoring [Animal Name]. By accepting this receipt, you agree to comply with all terms and conditions outlined by [Zoo Name].

--

****Footer: ****

We appreciate your generous support. For more information about our zoo and other sponsorship opportunities, visit [Zoo Website] or follow us on [Social Media Links].

--

Maps, Games, Adverts Outputs

Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

Search bar so that the user can navigate to the specific place he wants to.

Navigation bar with Tabs. This would include diff buttons.

Different routes for different vehicles

Different places of the zoo marked with numeric and then each numeric corresponds to the defined place.

MAPS

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

It would include different games options shown.

Provide a brief description of the gaming experience.

Includes a call-to-action buttons to play games.

Gaming Terminal

Downloadable e-books and research articles on animals

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

News

Latest zoo news and updates

Categories like events, animal birth and conservation efforts.

Clickable links to read full Articles.

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

**Adverts (Sponsorship
advertisements to be on
every page)**

Advertisements including different products with pictures and logos.

Perks and Benefits of products

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

To sum up, the data outputs we have examined are integral to the digital representation of a zoo's brand and mission. They are not merely static pages but dynamic interfaces that reflect the zoo's ongoing activities and commitment to its visitors. The structure of the home page, the visitor receipt templates, and the interactive features must all work in harmony to provide a cohesive user experience. The strategic use of design and content not only facilitates ease of use but also fosters a deeper connection between the zoo and its visitors. As such, these elements should be regularly revisited and updated to ensure they continue to serve the evolving needs of the audience and the institution. Well-designed data outputs not only enhance visitor engagement but also play a crucial role in supporting the zoo's overarching goals of education, conservation, and visitor satisfaction.

2.2.2.2.4 Processing Logic

As the digital world continues to expand and user expectations rise, it becomes increasingly important for institutions of all types, including zoological parks, to establish a robust online presence. The processing logic we have developed for the zoo's website is a strategic response to this need, aiming to foster a richer interaction with users and provide a more accessible conduit for information and services. This digital interface is crafted not only to augment the physical experience of the zoo but also to serve as a standalone portal where the public can engage with and learn about the wildlife in the zoo's care.

The design of the processing logic is guided by the principle of versatility, addressing the varied requirements of different user groups. Whether it is a visitor planning their day at the zoo or a wildlife enthusiast seeking in-depth knowledge about a particular species, the website's architecture is structured to assist them effectively. This is achieved through a comprehensive array of features distributed across the website, including informative sections on animals, real-time updates on exhibits, avenues for supporting the zoo, and tools for personal account management. Added to this are a detailed FAQ segment and an intuitive map interface to guide visitors to the zoo's location.

Integration of advanced search functions, elaborate filtering options, and streamlined navigation ensures that the website serves as a central platform for education, conservation efforts, and visitor engagement. By placing the user's experience at the forefront, the website is meticulously tailored to be as useful to an academic conducting research as it is to a family arranging a leisurely visit.

Page/Screen Name	CZ-WEB-01-Mainpage
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. Section with simple overview of latest news (small description) also includes new sponsored animal and upcoming events (when you click on it send you to latest news page where there is more details) Section about animal of the week shown (Image of the animal of the animal), then vote for the visitors to choose next animal of the week, map(bottom) Option for accepting cookies will pop up every time you open the website.

	<ul style="list-style-type: none"> <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	User will be able to interact with buttons listed above through mouse click, and keyboard typing to write in the search bar.
Operation/Error Messages	If links are clicked then the user is redirected to relevant pages
Confirmation/feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-02-General News
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. Search bar specific to this page such the user can search directly for the article's name, and it will filter everything. There will be overviews of news being displayed under the title of each news article, the whole box will be interactive such that if clicked it will redirect the user to full version of the specific article pressed. <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-03-Animal News
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.

	<p>News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.</p> <ul style="list-style-type: none"> • Search bar specific to this page such the user can search directly for the article's name, and it will filter everything. • There will be overviews of news being displayed under the title of each news article, the whole box will be interactive such that if clicked it will redirect the user to full version of the specific article pressed. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-04-Sponsor News
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. • Search bar specific to this page such the user can search directly for the article's name, and it will filter everything. • There will be an overview of news being displayed under the title of each news article, the whole box will be interactive such that if clicked it will redirect the user to full version of the specific article pressed. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-05-Timetables
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.

	<ul style="list-style-type: none"> • Description of some zoo activities such as Train fair ride and camel rides, with some interesting and fun facts. • Timetable which displays important zoo related events is displayed full screen. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse clicks.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-06-Our Zoo
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. • Description of the zoo, with some interesting and fun facts. • Pictures of zoo and select animals. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse clicks.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-07-Videos
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.

	<p><Basket>.</p> <ul style="list-style-type: none"> • Videos that show a tour of the zoo, as well as descriptions for notable animals. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard inputs.
Operation/Error Messages	Videos are played when clicked on. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-08-Games
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. • Games are available to be played. • Quizzes that educate users on different animals. • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard inputs.
Operation/Error Messages	Games can be played when clicked on. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	Results of quiz will be displayed when completed, showing total score and which questions user answered correctly in green and errors will be shown in red.
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-09-Souvenirs
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.

	<ul style="list-style-type: none"> Display of all available souvenirs currently in stock at the zoo (not to be sold online but only at the physical shop at the zoo, this page is simply to check the availability of the stock). <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse clicks.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	Image of all the souvenirs available Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-10-Ticket Purchase
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>. On one side of the screen there will be a calendar that users can interact with by clicking on a date that they will visit the zoo. Then the user chooses one of the types of tickets displayed with the prices of each and the amount that they want to buy, then they can add this to the basket through the <Add to Basket> button. <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse clicks.
Operation/Error Messages	User will be able to select a date for the day of visit, after it is clicked it will be highlighted. If a past date is selected on ticket purchase, then "date passed" error message will show. If links are clicked, then the user is redirected to relevant pages. <Add to Basket> button will add the selected ticket to the basket and update the data of the user on the RMS.
Confirmation/Feedback Messages	Once ticket has been added to basket, "successfully added to basket" message will show.
Additional Outputs	Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-11-Mammals
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>.

	<ul style="list-style-type: none"> • List of all Mammals in zoo, once they are clicked then all information relevant to that animal will show in a dropdown bar. • Search bar to look go straight to desired animal. • Filtering option present: <ol style="list-style-type: none"> 1. Primates 2. Canine 3. Bipedal 4. Quadrupedal 5. Fur and hair 6. Live birth • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	Clicking on the filters will organise the mammals based on the selected filter, page specific bar will also allow to filter through all animals. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	If the certain animals name is clicked, then all information relevant to that animal will show in a dropdown bar. Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-12-Fish
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. • Search bar to look go straight to desired animal. • List of all Fish in zoo, once they are clicked then all information relevant to that animal will show in a dropdown bar. • Filtering option present: <ol style="list-style-type: none"> 1. Salt water 2. Fresh water • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	Clicking on the filters will organise the Fishes based on the selected filter, page specific bar will also allow to filter through all animals. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.

Additional Outputs	If the certain animals name is clicked, then all information relevant to that animal will show in a dropdown bar. Display a spinner as the redirecting is occurring in the few seconds the screen loads.
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Page/Screen Name	CZ-WEB-13-Amphibians
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>. Search bar to look go straight to desired animal. List of all Amphibians in zoo, once they are clicked then all information relevant to that animal will show in a dropdown bar. Filtering option present: <ol style="list-style-type: none"> Anura Caudata Apoda <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	Clicking on the filters will organise the Amphibians based on the selected filter, page specific bar will also allow to filter through all animals. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	If the certain animals name is clicked, then all information relevant to that animal will show in a dropdown bar. Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-14-Birds
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>. Search bar to look go straight to desired animal. List of all Birds in zoo, once they are clicked then all information relevant to that animal will show in a dropdown bar. Filtering option present:

	<ul style="list-style-type: none"> 1. Songbirds 2. Birds of Prey 3. Sea Birds 4. Water Birds 5. Wading birds <ul style="list-style-type: none"> • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	Clicking on the filters will organise the Birds based on the selected filter, page specific bar will also allow to filter through all animals. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	If the certain animals name is clicked, then all information relevant to that animal will show in a dropdown bar. Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-15-Reptiles
Functionality Description	<ul style="list-style-type: none"> • Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. • Search bar to look go straight to desired animal. • List of all Reptiles in zoo, once they are clicked then all information relevant to that animal will show in a dropdown bar. • Filtering option present: <ul style="list-style-type: none"> 1. Crocodilians 2. Rhynchocephalians 3. Squamata 4. Testudines • <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse click and keyboard typing to write in the search bar.
Operation/Error Messages	Clicking on the filters will organise the Reptiles based on the selected filter, page specific bar will also allow to filter through all animals. If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	If the certain animals name is clicked, then all information relevant to that animal will show in a dropdown bar. Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-16-Live Enclosures
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>. A list of all the enclosures currently opens this time of the year. (so that visitors know what to expect when they visit) <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Mouse clicks.
Operation/Error Messages	If links are clicked, then the user is redirected to relevant pages.
Confirmation/Feedback Messages	None.
Additional Outputs	List of open enclosures. Display a spinner as the redirecting is occurring in the few seconds the screen loads.

Page/Screen Name	CZ-WEB-17-Sponsor Sign Up
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>. <Basket>. Sponsors can enter their details to sign up for program, view which animals are available for sponsorship with the fees to sponsor each. <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button.
Page Inputs	Keyboard typing: - Company name - Phone number and mouse clicking
Operation/Error Messages	Sponsor can select one or more of available animal for sponsorship program from the list and data from sign up for renewal is stored to <CZ-RMS-12> if transaction or validation from administrator of system has failed then relevant error message will be shown
Confirmation/Feedback Messages	If transaction and validation from admin has been successful, then message for successful process will be shown.
Additional Outputs	None

Page/Screen Name	CZ-WEB-18-Login Page												
Functionality Description	<ul style="list-style-type: none"> Search bar at the very top next to redirecting buttons such as:<Our Zoo>,<Mammals>,<Fish>,<Amphibians>,<Birds>,<Reptiles>,<Live Enclosures>,<Tickets>,<Memberships>,<Souvenirs>,<Sponsor Us>,<Animal News>,<Sponsor News>,<General News>,<Timetable>,<User Log in>,<Basket>,<Videos>,<Games>.<Basket>. The page presents the user these features: <ol style="list-style-type: none"> 1. Login feature into the system. 2. <Sign-up> button 3. Option to keep your login records stored in the cookies. 4. Option to reset your password through <Forgot Password> button. <FAQs> button will be present at the bottom of the page along with contact us section with links to their social media links, along with a simple Map will be present in footer with a <Find Us> button. 												
Page Inputs	<p>This page displays the following:</p> <ol style="list-style-type: none"> 1. Input field for visitor username entry by the user. 2. Input field for password entry by the user. <p>Once completed the page allows the visitor user to <Submit> the completed fields.</p> <p>The page also displays these buttons:</p> <ol style="list-style-type: none"> 1. <Sign-up> button (person icon) 2. <Remember Me> 3. <Forgot Password> 												
Operation/Error Messages	<p>The page will await the for the user's input and the <Submit> to be done.</p> <p>The inputs will be checked if they are within specified character limits (refer to the data attributes of the user entity).</p> <p>(Table becomes applicable if limits are specified in the attributes)</p> <table border="1"> <thead> <tr> <th>Username</th> <th>Password</th> <th>Message/Output/Action</th> </tr> </thead> <tbody> <tr> <td>Within limit</td> <td>Within limit</td> <td>Do not display error message</td> </tr> <tr> <td>Within limit</td> <td>Not within limit</td> <td> Error message "Password should be this [character limit length] character long" Should be displayed directly below the password input field </td> </tr> <tr> <td>Not within limit</td> <td>Within limit</td> <td> Error message "visitor username should be this [character limit length] character long" Should be displayed directly below the visitor username input field </td> </tr> </tbody> </table>	Username	Password	Message/Output/Action	Within limit	Within limit	Do not display error message	Within limit	Not within limit	Error message "Password should be this [character limit length] character long" Should be displayed directly below the password input field	Not within limit	Within limit	Error message "visitor username should be this [character limit length] character long" Should be displayed directly below the visitor username input field
Username	Password	Message/Output/Action											
Within limit	Within limit	Do not display error message											
Within limit	Not within limit	Error message "Password should be this [character limit length] character long" Should be displayed directly below the password input field											
Not within limit	Within limit	Error message "visitor username should be this [character limit length] character long" Should be displayed directly below the visitor username input field											

Not within limit	Not within limit	Error message "visitor username should be this [character limit length] character long" Should be displayed directly below the visitor username input field Error message "Password should be this [character limit length] character long" Should be displayed directly below the password input field
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The input is crosschecked with the login details stored in the in **CZ-RMS-15**

Username	Password	Message/Output/Action
Correct	Correct	Display message: "Login Successful" and page redirects you to -CZ-WEB-01
Incorrect	Correct	Error message "Unknown visitor username and/or password - Try again or click <Forgot Password> for support"
Correct	Incorrect	Error message "Incorrect password for visitor username provided - Try again or click <Forgot Password>for support"
Incorrect	Incorrect	Error message "Unknown visitor username and/or password - Try again or click <Forgot Password> for support"

If the visitor user clicked the sign-up button:

Display the following outputs:

Output on Page	Message/Output/Action
Full Name	Store the data in the database- CZ – RMS – 15
Home Address	Store the data in the database- CZ – RMS – 15
Date of Birth	Store the data in the database- CZ – RMS – 15
Interest	Store the data in the database- CZ – RMS – 15
Group Size	Store the data in the database- CZ – RMS – 15
Phone number	Store the data in the database- CZ – RMS – 15
Email Address	Store the data in the database- CZ – RMS – 15
Geographic Location	Store the data in the database- CZ – RMS – 15
Accessibility Requirements	Store the data in the database- CZ – RMS – 15
Purpose of Visit	Store the data in the database- CZ – RMS – 15
Language Preference	Store the data in the database- CZ – RMS – 15
Password	Store the data in the database- CZ – RMS – 15

Confirmation/Feedback Messages	The system display's a confirmation message to the user as they are now logged in to the system: "Successful Login."
Additional Outputs	After a successful login, the page should redirect the visitor user to the next page- CZ-WEB-01 If the visitor user, selects <Remember Me>

	<p>the system displays to the visitor user the terms and conditions of the system found in the system database in -CZ-RMS-21</p> <p>If the visitor user, selects <Forgot Password> the system displays to the visitor user an input field for them to enter their email again. A <Submit> button is to be displayed here.</p> <p>If the visitor user clicks the submit button and the input field is not empty, the input is crosschecked with the database- CZ – RMS – 15</p> <p>If the email is verified to be a registered account, then an email is sent out to the user with the password reset details.</p> <p>The password reset email is to be system generated with the template to be used is to be sourced from the database- CZ – RMS – 15</p>
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Page/Screen Name	CZ-WEB-19-FAQs
Functionality Description	A brief description of all the most asked questions listed out, subdivided into categories
Page Inputs	Mouse click to show the answer to the question
Operation/Error Messages	None
Confirmation/Feedback Messages	None
Additional Outputs	Question and answer shown.

Page/Screen Name	CZ-WEB-20-Find Us
Functionality Description	Enlarged and interactive version of zoo map available to display where the zoo is and how to get to the zoo, for example which trains are present and which busses lead to the zoo
Page Inputs	Mouse clicks to interact with the Map
Operation/Error Messages	None
Confirmation/Feedback Messages	None
Additional Outputs	None

The culmination of the processing logic for the zoo website is a testament to the power of technology in enhancing the intersection of human and natural worlds. The well-crafted interface, combined with the robust back-end logic, ensures that every interaction with the website is intuitive, informative, and engaging. From the minutiae of animal facts displayed in interactive dropdowns to the ease of navigation facilitated by the search bars and filtering options, the website stands as a comprehensive digital ecosystem.

The functionality descriptions, page inputs, operation/error messages, and additional outputs outlined in the processing logic serve as foundational elements that, together, create a harmonious user experience. The foresight in design is evident in the anticipation of user actions and the provision of relevant feedback and confirmation messages, which are critical for a satisfying user journey.

The processing logic is more than just a blueprint for a website; it is a digital extension of the zoo itself, inviting the world to explore, learn, and connect with wildlife from wherever they are. As technology continues to advance and user expectations evolve, this zoo website is poised to adapt and thrive, ensuring that it remains a vital tool for conservation education and visitor engagement for years to come.

2.2.2.3 Visitor Mobile Application Information System

2.2.2.3.1 Software Features

With the advent of mobile applications, zoos now can offer a more interactive and educational experience to their guests. The Visitor Mobile Application Information System is designed to leverage these technological advancements and provide a multifaceted tool that enriches the zoo visit. This system incorporates a suite of software features aimed at improving navigation, delivering detailed animal information, and ensuring accessibility for a diverse audience. Each feature is thoughtfully integrated into the application to engage users, facilitate learning, and provide a seamless connection between the visitors and the zoo's offerings.

Software Features (Visitor Mobile Application Information System)	Notes
Interactive Maps	The kiosk should have an interactive map of the zoo layout, allowing visitors to easily navigate through different exhibits. Users can zoom in to specific areas and click on icons representing animal enclosures for more information.
Animal Information Panels	Each animal enclosure on the map should have an associated information panel. These panels display key details about the animal, such as species, habitat, diet, and conservation status. Visitors can also find interesting facts and trivia about each animal.
Sponsor Advertisements	Integrated within the animal information panels, there should be sections for sponsor advertisements. This not only helps zoos generate revenue but also fosters partnerships between businesses and the zoo. Advertisements can include the sponsor's logo, a brief description, and links for more information.

Augmented Reality (AR) Features	To enhance the visitor experience, the kiosk can incorporate AR features. Visitors can use their smartphones or devices to scan certain codes on the kiosk, triggering AR animations or 3D models of the animals, providing a more immersive learning experience.
Multilingual Support	To cater to a diverse audience, the kiosk should offer information in multiple languages. Visitors can easily switch between languages to access animal facts, making the zoo experience more inclusive and accessible.
Search Functionality	A search feature allows visitors to quickly locate specific animals or exhibits on the map. This can be especially helpful in larger zoos with numerous attractions.
Real-time Updates	The kiosk should provide real-time information about scheduled animal feedings, shows, or other events happening throughout the day. This ensures visitors stay informed and can plan their visit accordingly.
Educational Games	To engage younger visitors, incorporate educational games related to animals and conservation. This adds an element of fun to the learning experience and encourages children to explore and interact with the kiosk.
Accessibility Features	Ensure the kiosk is accessible to all visitors, including those with disabilities. This may involve features such as audio descriptions, large text options, and tactile interfaces for those with visual impairments.
Feedback and Survey Option	Include a feedback option for visitors to share their thoughts on the kiosk and overall zoo experience. This can help zoo management gather valuable insights for future improvements.
QR codes	To streamline visitors getting information from the kiosks, QR codes are implemented into various pages. This allows visitors to get further information from their smartphones to allow other visitors to use the kiosks.

To encapsulate, the Visitor Mobile Application Information System stands as a quintessential example of how technology can transform a traditional zoo visit into an interactive and educational journey. The diverse array of features within the application not only supports the mission of zoological parks to educate and inform but also enriches the visitor experience with cutting-edge digital tools. From interactive maps to AR encounters, the application is a testament to the zoo's commitment to innovation and visitor satisfaction. By embracing these features, the zoo not only meets the expectations of the modern visitor but also sets new standards for engagement, learning, and accessibility within the realm of wildlife conservation.

2.2.2.3.2 Access Rights

The architecture of a comprehensive Visitor Mobile Application Information System not only encompasses a variety of features but also necessitates a structured approach to access rights. These access rights ensure that the system is updated, managed, and utilized in a way that maintains data integrity, operational security, and an optimal user experience. By defining clear access levels for different user groups such as System Administrators, Zoo Staff, Zookeepers, and Visitors, the application adheres to principles of good governance and functionality. Below is a detailed breakdown of access rights tailored to the respective roles, ensuring that every user interacts with the system in ways that align with their responsibilities and needs.

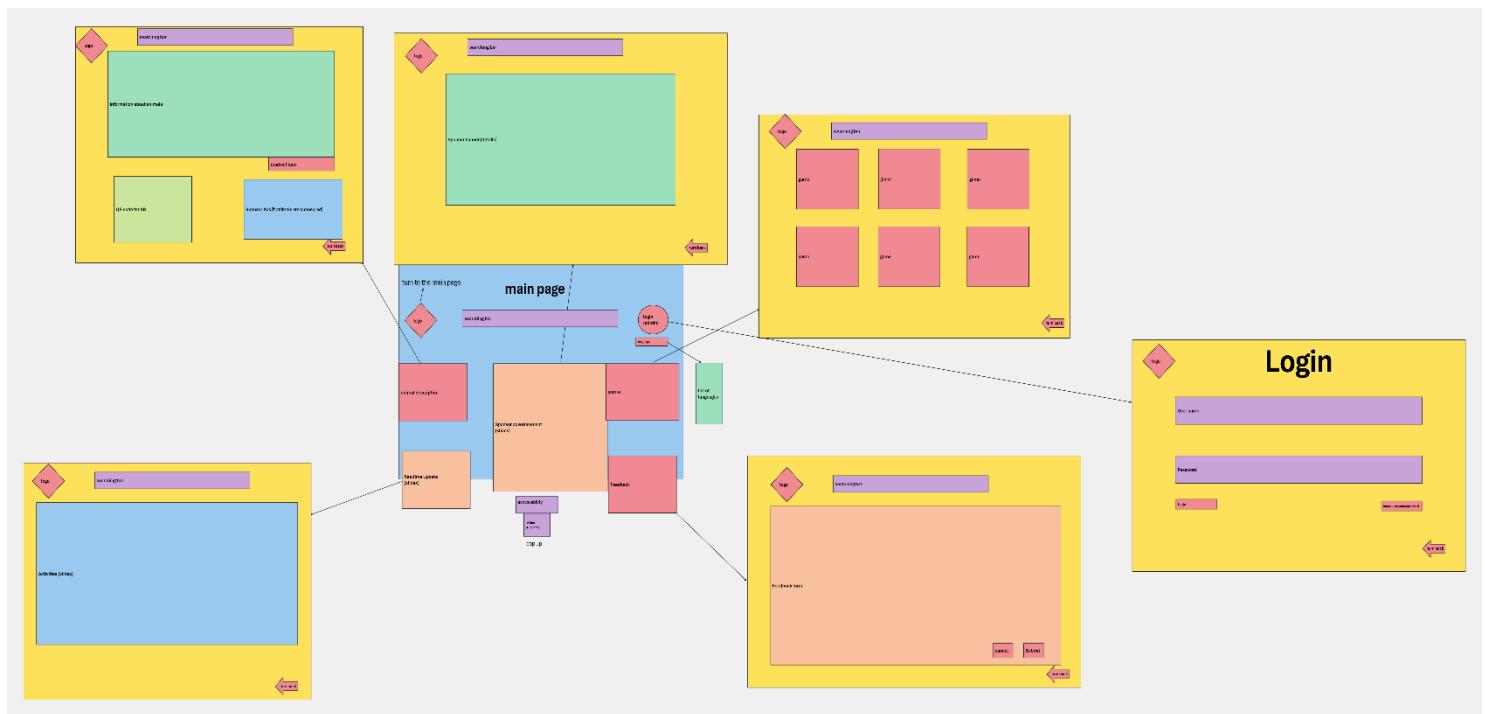
		Access Level			
Operation		System Admin	Zoo Staff	Zookeeper	Visitor
Search		Can search	Can use search feature	Can use search feature	Can use search feature
Real Time Updates	Create	Can create and upload new updates	No access	No access	No access
	Edit	Can edit existing updates	No access	No access	No access
	View	View only	View only	View only	View only
Maps	Create	Can create new map and upload	No access	No access	No access
	Edit	Can edit existing map	No access	No access	No access
	View	View only	View only	View only	View only
Augmented Reality Features & QR Code	Create	Can add new AR models and QR codes to list	No access	No access	No access
	Edit	Can edit existing AR models or QR codes	No access	No access	No access
	View/Interact	View and interact	View and interact	View and interact	View and interact
Educational Content/Games	Create	Can create and add new	No access	No access	No access

	Edit	Can edit existing information	No access	No access	No access
	View	View and interact	View and interact	View and interact	View and interact
Sponsor Advertisements	Upload	Can upload new sponsors adverts	No access	No access	No access
	Edit	Can edit existing sponsor's adverts (if requested by sponsor)	No access	No access	No access
	View/Interact	View and interact	View and interact	View and interact	View and interact
Accessibility Features	Create	Able to create new accessibility features in system	No access	No access	No access
	Edit	Access to edit existing accessibility features	No access	No access	No access
	View/Interact	View and interact	View and interact	View and interact	View and interact
Feedback Survey		View	View	No access	No access

The delineation of access rights within the Visitor Mobile Application Information System is a crucial element that upholds the system's integrity and efficiency. By granting permissions tailored to the roles of System Admins, Zoo Staff, Zookeepers, and Visitors, the system ensures that each stakeholder can perform their functions effectively without compromising the usability or security of the application. This structure not only facilitates the smooth operation of the application but also ensures that the data remains accurate and the content relevant. It underscores a commitment to providing a dynamic and engaging experience for visitors while enabling the zoo's staff to maintain and update the system with ease. Through these well-defined access rights, the Visitor Mobile Application Information System is positioned to serve the evolving needs of the zoo and its guests, exemplifying a harmonious blend of technological innovation and operational governance.

2.2.2.3.3 Data Output

The Visitor Mobile Application Information System is a sophisticated tool designed to enhance the educational and navigational experience of zoo visitors. At its core, the system is engineered to provide a multitude of data outputs that not only inform and guide guests but also enrich their engagement with the zoo's offerings. These outputs are a blend of real-time data, interactive content, and useful information that cater to the diverse needs and preferences of all visitors. From pinpointing their exact location within the zoo to interacting with augmented reality features, the system is tailored to deliver a seamless and immersive zoo experience. The following is an overview of the various types of data outputs that visitors can expect from the kiosk, each serving a unique and integral role in the overall functionality of the system.



Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

Search bar so that the user can navigate to the specific place he wants to.

Navigation bar with Tabs. This would include diff buttons.

Different routes for different vehicles

Different places of the zoo marked with numeric and then each numeric corresponds to the defined place.

MAPS

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

It would include different games options shown.

Provide a brief description of the gaming experience.

Includes a call-to-action buttons to play games.

Gaming Terminal

Downloadable e-books and research articles on animals

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

Interactive tabs including maps, games, adverts,

Navigation bar with Tab: Map, Adverts and Promos, Home, Promos, Gaming, News

News

Latest zoo news and updates

Categories like events, animal birth and conservation efforts.

Clickable links to read full Articles.

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

**Adverts (Sponsorship
advertisements to be on
every page)**

Advertisements including different products with pictures and logos.

Perks and Benefits of products

Footer

Contact info: social links: Instagram, WhatsApp, Gmail, Facebook.

Support us: donations, suggestions.

In conclusion, the Visitor Mobile Application Information System's data outputs serve as a critical component in bridging the gap between technology and user experience within the zoo's environment. These outputs have been thoughtfully designed to cater to the varied requirements of visitors, from directional assistance to educational enrichment. By integrating real-time data with interactive and dynamic content, the system not only enhances the visitor's experience but also supports the zoo's mission of education and conservation. The feedback mechanism ensures a user-centric approach to continuous improvement, while the inclusion of sponsor advertisements and facility information underscores the system's role in operational support. As zoos continue to evolve in the digital age, this application system stands as a testament to the power of technology in transforming visitor interactions into memorable and meaningful experiences.

2.2.2.3.4 Processing Logic

Interactive kiosks have become a staple in places where information and user engagement are key to the experience. The zoo is one such place where enhancing visitor experience through technology can make a significant impact. The following sections outline the specifications for a series of interactive kiosk pages designed to inform, engage, and gather feedback from zoo visitors. From sponsor advertisements and games to real-time updates and feedback forms, these kiosks serve as a multifunctional tool to enrich the zoo experience.

Page/Screen name	CZ-INF-01-Home Page
Functionality description	<p>This page displays all pages on the kiosk.</p> <p>This page also provides the user with options to:</p> <ul style="list-style-type: none"> CZ-INF-02-Animal Description CZ-INF-03- Screensaver (sleep mode) CZ-INF-04-Login CZ-INF-05-Sponsor Advertisement CZ-INF-06-Games CZ-INF-07-Real Time Update CZ-INF-09-Feedback <p>Reverts to this page after 30 seconds of inactivity on other screens. This page acts as the central hub for all navigation and is crucial for user orientation.</p>
Page inputs	<p>This page also has several function buttons/a searching bar:</p> <ul style="list-style-type: none"> <Logo> <User icon> <Search icon>

	<p><Language></p> <p><Animal description></p> <p><Games></p> <p><Sponsor advertisement></p> <p><Realtime update></p> <p><Feedback></p> <p><Accessibility></p> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	Display "Loading..." during reloading or loading progress
Confirmation/Feedback messages	NONE
Additional outputs	NONE

Page/Screen name	CZ-INF-02-Animal Description
Functionality description	<p>This page displays all the information about the animal on the kiosk.</p> <p>Provides detailed information about the animals exhibited in the zoo.</p> <p>This main feature will have a display time of 1 minute before reverting to the Home Page, ensuring visitors have ample time to read about the animals.</p>
Page inputs	<p>This page also has several buttons:</p> <p><Logo></p> <p><Search icon></p> <p><Accessibility icon></p> <p><Help icon></p> <p><Turn back></p> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	<p>Display "Loading..." during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p>

	<p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the submit button <Submit>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the user types anything then the search bar will display suggestions of things to access in the kiosk. A dropdown list with other aliases of the closest term searched that relates to the zoo will also be displayed.</p> <p>Error handling for Help, Accessibility, Search, and Navigation. Upon receipt of an error then the page will display an error code with a brief explanation.</p>
Confirmation/Feedback messages	If the kiosk cannot connect to the server to load the sponsor advertisement, then message the user “Lost connection!”
Additional outputs	Click on <Sponsor advertisement> → CZ-INF-07-Sponsor Advertisement

Page/Screen name	CZ-INF-03-Screensaver (sleep mode)
Functionality description	A function that becomes active after 3 hours of inactivity This enables the kiosk to save energy by displaying an output at low power.

	The output to be displayed is the zoo's logo.
Page inputs	None
Operation/Error messages	Before the output is displayed, the screen will turn full black then after 3 seconds the output will be displayed.
Confirmation/Feedback messages	NONE
Additional outputs	Display the zoo's logo in a low power mode/output

Page/Screen name	CZ-INF-04-Login															
Functionality description	<p>The kiosk will display the user icon which will be a button that redirects the user to the page for logging in.</p> <p>Login to the admin account for access to manage kiosk settings.</p> <p>The page will display the zoo logo and the</p>															
Page inputs	<p>Username (refer to attributes to get the character limits)</p> <p>Password (refer to attributes to get the character limits)</p> <p>This page also has several buttons:</p> <ul style="list-style-type: none"> <Logo> <Search icon> <Accessibility icon> <Help icon> <Turn back> <p>On screen keyboard typing and touch inputs for clicking</p>															
Operation/Error messages	<p>The login logic gate:</p> <table border="1"> <thead> <tr> <th>Username</th> <th>Password</th> <th>Message</th> </tr> </thead> <tbody> <tr> <td>True</td> <td>True</td> <td>Login successfully!</td> </tr> <tr> <td>True</td> <td>False</td> <td>Incorrect password, please retry!</td> </tr> <tr> <td>False</td> <td>True</td> <td>Unknown username, please retry!</td> </tr> <tr> <td>False</td> <td>False</td> <td>Please try again, or click on <Help icon></td> </tr> </tbody> </table> <p>If the user, selects <Help icon> the system displays to the user “admin authorization is required”</p>	Username	Password	Message	True	True	Login successfully!	True	False	Incorrect password, please retry!	False	True	Unknown username, please retry!	False	False	Please try again, or click on <Help icon>
Username	Password	Message														
True	True	Login successfully!														
True	False	Incorrect password, please retry!														
False	True	Unknown username, please retry!														
False	False	Please try again, or click on <Help icon>														

	<p>If the email is verified to be a registered account, the user will be redirected to the page with the kiosk settings. The settings page is specific to the kiosk purchased.</p> <p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>Once the kiosk is in sleep mode, it can be turn on by a simple touch input and this take the user to CZ-INF-01-Home Page</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p> <p>Handling login success and errors.</p> <p>Assistance for login issues. Display “You do not have access to the device settings.”</p>
Confirmation/Feedback messages	After login successfully, confirm “User successfully logged in”
Additional outputs	None

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Page/Screen name	CZ-INF-05-Sponsor Advertisement
Functionality description	<p>This page displays all the information about the sponsor and their banner on the kiosk</p> <p>Showcases sponsor information and related external links.</p> <p>As a significant aspect of the zoo's partnership with sponsors, this page will remain on display for 30 seconds before reverting to the Home Page.</p>
Page inputs	<p>This page also has several buttons:</p> <ul style="list-style-type: none"> <Logo> <Search icon> <Accessibility icon> <Help icon> <Turn back> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	<p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p>

	<p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the kiosk cannot connect to the website → “Lost connection!”</p>
Confirmation/Feedback messages	NONE
Additional outputs	NONE

Page/Screen name	CZ-INF-06-Games
Functionality description	<p>This page displays game terminal on the kiosk.</p> <p>This page provides the user with QR codes to a game terminal on their devices.</p> <p>Engages users with interactive games related to the zoo.</p> <p>Will have an interactive display time of 30 seconds to promote engagement before reverting, highlighting the entertainment aspect of the kiosk.</p>
Page inputs	<p>This page also has several buttons:</p> <ul style="list-style-type: none"> <Logo> <Search icon> <Accessibility icon> <Help icon> <Turn back> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	<p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks either of the game options displayed the page will redirect them to the game terminal. Which is simply relayed from the [CZ-WEB].</p>

	<p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the user clicks on <Turn back>, take the user to the previous page. Click on <Logo> → turn to the CZ-INF-01-Home Page</p> <p>If the kiosk cannot connect to the game terminal --> “Lost connection!”</p>
Confirmation/Feedback messages	NONE
Additional outputs	NONE

Page/Screen name	CZ-INF-07-Real Time Update
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Functionality description	<p>This page displays real-time activities that can be followed easily.</p> <p>Show the timetable of the zoo.</p> <p>This page also provides the user with options to:</p> <p style="padding-left: 40px;">CZ-INF-08-Schedule table</p> <p>Provides updates on real-time activities and schedules within the zoo.</p> <p>Will display real-time information for 30 seconds to provide timely updates to visitors.</p>
Page inputs	<p>This page also has several buttons:</p> <p style="padding-left: 40px;"><Logo></p> <p style="padding-left: 40px;"><Search icon></p> <p style="padding-left: 40px;"><Accessibility icon></p> <p style="padding-left: 40px;"><Help icon></p> <p style="padding-left: 40px;"><Turn back></p> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	<p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p>

	If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.
Confirmation/Feedback messages	NONE
Additional outputs	<p>If the user clicks on <Turn back>, take the user to the previous page.</p> <p>Click on <Logo> → turn to the CZ-INF-01-Home Page</p> <p>If the user clicks on <Schedule>, take the user to CZ-INF-13-Schedule Table</p> <p>If the kiosk cannot connect to the server to show the timetable on CZ-INF-13-Schedule Table → “Lost connect to the server”</p>

Page/Screen name	CZ-INF-08-Schedule Table
Functionality description	<p>Show the timetable/activities.</p> <p>Will display real-time information for 30 seconds to provide timely updates to visitors.</p>
Page inputs	<p>This page also has several buttons:</p> <ul style="list-style-type: none"> <Logo> <Search icon> <Accessibility icon> <Help icon> <Turn back> <p>On screen keyboard typing and touch inputs for clicking</p>
Operation/Error messages	<p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p>

	<p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p>
Confirmation/Feedback messages	NONE
Additional outputs	NONE

Page/Screen name	CZ-INF-09-Feedback
Functionality description	<p>This page shows a feedback form to take surveys from users. The page will provide them with options of surveys to choose from.</p> <p>Will be shown for 20 seconds to facilitate a fast yet effective feedback process, encouraging users to participate without a significant time commitment.</p> <p>Once a user interacts with the survey the kiosk will save the inputs instantly to the cloud.</p> <p>This display mode is part of the sequence and comes towards the end.</p>
Page inputs	<p>This page also has several buttons:</p> <ul style="list-style-type: none"> <Logo> <Search icon> <Accessibility icon> <Help icon> <Submit> <Cancel> <Turn back>

	On screen keyboard typing and touch inputs for clicking
Operation/Error messages	<p>Display “Loading...” during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the submit button <Submit>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-16-Feedback.</p>
Confirmation/Feedback messages	<Submit> → “Your feedback was submitted successfully.”
Additional outputs	NONE

Page/Screen name	CZ-INF-10-Feedback Form
Functionality description	Display a detailed feedback form.

	Will be shown for 20 seconds to facilitate a fast yet effective feedback process, encouraging users to participate without a significant time commitment.
Page inputs	Take user's feedback (choices or opinion)
Operation/Error messages	<p>Display "Loading..." during reloading or loading progress.</p> <p>If the user clicks the help button <Help icon>, a popup is displayed with the options of calling the zoo staff, or Accessibility.</p> <p>If the user clicks the help button <Turn back>, the page will redirect them to the previous page they were in.</p> <p>If the user clicks the help button <Accessibility icon>, the page will display the accessibility options the kiosk offers (some of the features to be borrowed from [CZ-WEB] and [CZ-RMS] features).</p> <p>If the user clicks the search button <Search icon>, a large input field will be displayed, and the user can input their search terms. An arrow will be displayed at the end of the input field which will be used to take an input which will be used to initialise the search/enter).</p> <p>If the user clicks the logo button <Logo>, the page will redirect the user to CZ-INF-01-Home Page.</p> <p>If the user clicks the submit button <Submit>, the page will redirect to CZ-INF-01-Home Page.</p> <p>If the user clicks the cancel button <Cancel>, the page will redirect to CZ-INF-01-Home Page.</p>
Confirmation/Feedback messages	<Submit> → "Your feedback was submitted successfully."
Additional outputs	NONE

These interactive kiosk pages are designed with the dual goal of enhancing visitor experience and providing the zoo with valuable insights from its patrons. Each page is thoughtfully created to be user-friendly and informative, offering a modern touchpoint for visitors to interact with the zoo. By integrating these kiosks, the zoo can expect to see an improvement in visitor engagement, sponsor visibility, and overall visitor satisfaction.

2.2.3 Performance Requirements (Records Management System)

In an increasingly data-driven world, the effectiveness of any organization relies heavily on its ability to manage and process information efficiently. A Records Management System (RMS) is the backbone of information management within an institution, and for organizations like zoos that handle a myriad of data ranging from animal records to customer interactions, the performance of an RMS is critical. The success of such a system hinge on its performance capabilities, which must be meticulously defined to meet the unique demands of the organization.

The performance requirements outlined below set forth the standards expected for the RMS to operate effectively. These requirements cover various aspects of system performance, including speed, capacity, reliability, usability, and more. Each is designed to ensure that the system can handle the robust demands of zoo operations, accommodate growth, maintain high availability, and offer an intuitive and accessible user experience.

2.2.3.1 Speed

The speed requirement for a R.M.S helps define the rate it takes for the system to process a batch of records both old and new (Throughput) and Time taken to respond to requests also the ability to adjust or maintain its response speed no matter the size of data or the number of queries, information and records been processed at a given time.

Taking into records the Volume of the data and Expected growth rate of records overtime below are some key speed requirements required for the R.M.S.

Throughput

The System will be able to process records at an average rate of 250mbps -350mbps. While during the seasonal period where there might be increase in Ticket sales, and visitors to the zoo, the speed can increase to 500 mbps. The above given rate can carry a record system with a storage of up to 18gb.

Response Time

The time will be on an average of one hundred milliseconds and can decrease to 50 milliseconds when there is an increase in Processing records.

2.2.3.2 Capacity

Scalability

We have applied a multiple of four across all current storage to allow for future scalability.

Local Storage Scalability

The RMS should be designed to handle increases in data related to core system operations stored on the physical backup storage. As the zoo grows and expands, more data will be generated, including animal records, medical histories, feeding logs, etc.

The RMS should be able to accommodate this growth without significant degradation in performance. For instance, the RMS should be designed to handle a minimum of 3000 animal records, but it should also be scalable enough to handle twice or thrice this number in the future.

Cloud Storage Scalability:

non-essential processes will be stored in the cloud. The RMS should be designed in such a way that it can handle an increasing amount of data from non-essential processes. This includes data from the kiosks, websites, visitor logs, financial logs, etc.

Concurrency

- User Concurrency

The RMS should be able to handle multiple users accessing the system at the same time. This includes zookeepers, administrators. The system should be designed to handle a maximum concurrent user of 20 without slowing down or crashing.

- Process Concurrency

The RMS should also be able to handle multiple processes running simultaneously. This includes data updates, data retrieval, analytics, report generation, etc.

The system should have a minimum of eight physical cores which will take on 8 processes, but 16 cores is the ideal number of cores with hyperthreading enabled.

Data Storage

This refers to the maximum volume of data the system must be able to manage efficiently.

Local Storage: The local storage should be able to efficiently manage a large volume of data related to core system operations. This includes animal information, feeding logs, medical records of animals, and potentially other sensitive data. The local storage should be designed to handle a certain maximum volume of this data without slowing down or crashing.

Sensitive data:

- Animal records = 567MB of which 189MB is medical record
- Sponsor records = 859MB
- Visitor memberships records (10% of total annual visitors) = 2.16GB
- Animal location management = 1MB
- Medical record of animal = 189MB
- Feeding list for animals = 39MB
- Total = 3815MB rounded to 4000MB
- Total of physical storage minimum is around 4000MB.

To be safe we are going to have double the amount of storage. So 8000MB,

To be even safer we are going to future proof it by having double this amount: 16000MB.

Cloud Storage:

The cloud storage should be able to efficiently manage a large volume of data from non-essential processes. This includes data from the kiosks, websites, visitor logs, financial logs, etc. The cloud storage should be designed to handle a certain maximum volume of this data without slowing down or crashing.

The cloud storage will also hold all the physical data as well as the cloud specific data.

- animal records for 3000 animals = $(567\text{MB}/3) * 2 = 378\text{MB}$
- Sponsored animals (2700) = 858.6MB
- 50MB for around three hundred employees
- Visitor log and financial log 2MB file each day = around 1.5GB
- Total of cloud storage minimum is around 2GB.

To be safe we are going to have double the amount of storage. So 4GB,

To be even safer we are going to future proof it by having double this amount: 8 GB.

Final cloud storage the zoo will require is 24GB.

2.2.3.3 Reliability

Availability:

Objective:

Ensure high availability for users.

Requirement:

The system should have an uptime of at least 99.8%, allowing for scheduled maintenance.

Elaboration:

Availability is critical for uninterrupted service. This requirement sets a high standard for system uptime, ensuring that the Zoo RMS is reliably accessible to users with minimal downtime, if maintenance is needed a less busy weekday can be allotted for the system maintenance.

Fault Tolerance:

Objective:

Enhance system resilience against failures.

Requirement:

Implement fault-tolerant mechanisms such as redundancy, mirroring, or automatic failover to handle hardware failures, network issues, or other unexpected events without impacting user experience.

Elaboration:

Fault tolerance ensures system stability in the face of unforeseen challenges. This requirement mandates the implementation of measures to handle hardware failures and other issues seamlessly.

Recovery Time:

Objective:

Minimize downtime in case of system disruptions.

Requirement:

The system should recover from failures within 30 minutes to ensure quick restoration of normal operations.

Elaboration:

Recovery time specifies the maximum acceptable duration for the system to recover after a failure. This requirement emphasizes a swift recovery process to minimize disruptions to zoo operations.

[**2.2.3.4 Usability**](#)

User Interface

The UI should be easy to understand and navigate, allowing users to use it rapidly by themselves. Normally, an efficient RMS takes a few minutes to familiarize around 20-30 minutes.

Accessibility

The RMS should have special features for disabilities. Including support for screen readers, keyboard navigation, and others.

Efficiency

It is necessary to respond quickly and smoothly to rapid user interactions. The RMS needs to respond instantly, response time can be calculated by milliseconds.

User Satisfaction

The user satisfaction surveys should take a score over four out of 5 in categories related to usability and user experience.

Flexibility

The RMS can be customized depending on customer demand. Customization can enhance usability by individualizing.

Search and Retrieval

It is necessary for the RMS. Filtering, sorting, and searching can improve usability and performance.

Scalability

Huge data needs to be processed in the RMS. Thus, designing suitable scalability to handle mega data without sacrificing performance is crucial.

Error Handling

The RMS should control the error from users. It should provide the error message to users and help them correct it. Additionally, it should prevent or minimize the occurrence of errors through intelligent design.

The outlined performance requirements are integral to the development and operation of a robust, efficient, and user-friendly Records Management System for zoo operations. By setting clear expectations for speed, capacity, reliability, and usability, we ensure that the RMS will not only meet the current needs of the zoo but also possess the agility to adapt to future challenges and growth. Implementing a system that satisfies these requirements will provide a seamless, uninterrupted service that supports the dynamic environment of the zoo, enhances the work of its staff, and enriches the visitor experience.

2.2.4 Performance Requirements (Zoo Website)

In the vibrant and dynamic environment of a zoo, a website serves as a crucial portal for visitors, sponsors, and staff. It is the digital façade that represents the zoo's brand, the interactive guide for guests planning their visit, and the administrative hub for the management team. As such, the performance of the zoo's website is paramount. It must be fast, reliable, and user-friendly to accommodate a diverse range of users and their needs. From quick and easy account management for visitors and zoo staff to the efficient presentation of rich media content such as images, descriptions, and videos of the animals, every aspect of the website's performance impacts the overall user experience.

To ensure the website meets these expectations, a set of performance requirements has been established. These requirements delve into the specifics of speed, capacity, reliability, usability, and more – all formulated with the end-user in mind. They are designed to create a seamless, enriching online experience, whether the user is a first-time visitor or a seasoned administrator. By adhering to these standards, the zoo's website will not only serve its immediate functional purposes but also evolve alongside technological advancements and user expectations.

2.2.4.1 Speed

User account management

- 10 seconds on average/ no more than twenty max to login to account (visitor, sponsor, system admin, zookeeper, zoo admin)
- Around 3 mins to sign up and create account due to the additional info that must be added due to the type of the account being made (sponsor, system admin, zookeeper, zoo admin)/ 1 min to make an account (visitor)
- Should take around 3 seconds for the page itself to load regardless of what type of account is being accessed because the only thing differing in each account is the type and amount of information being inputted.
- Although it should take around 3 seconds for a user's account to load there are factors that could affect that and slow it down for example: internet speed is a large factor since if one has poor internet, it affects the loading speed of the page and the website.
- The other main factor that could affect the loading speed and slow it down would be the number of users accessing the website. Chester zoo would need a website able to deal with high traffic and for that to happen it would need to have 4 or more CPU cores in this instance Chester zoos website would have 4 CPU cores running the website and a website using a single core could hold 250 users simultaneously so Chester zoos website would be able to hold about 1000.
- What this means is that depending on how close the number of users is on the website to the max amount it would slightly affect the loading speed and if the website was to hold the max amount of

users it can have simultaneously at a time it would greatly affect the loading time slowing it down significantly.

2.2.4.2 Capacity

The website system will be storing data consisting of images, descriptions and videos of the animals, advertisements from sponsors and an interactive map.

All the data present on the website will be stored in the Record Management System.

To futureproof our website, we are going to have four times the minimum amount of estimated storage taken up by our whole system.

2.2.4.3 Reliability

The uptime and downtime availability of the website

Website performance is critical for attracting and retaining users, as well as assuring the website's operation and security. Uptime and downtime are two crucial indicators of website performance. Uptime is the proportion of time that a website is completely functioning and accessible to users. Downtime is the period when a website is unavailable or inaccessible to users, typically due to technical problems, maintenance, or security breaches. A website with a high uptime and a low downtime is reliable, fast, and secure, whereas a website with a low uptime and a high downtime is untrustworthy, slow, and sensitive. As a result, website owners and developers should monitor and optimise their websites uptime and downtime availability to deliver a satisfying user experience.

Backup and recovery.

Website backup and recovery is the procedure of producing, storing, and restoring copies of your website's data in the event of data loss or corruption. Backup and recovery are crucial for a website because they can prevent data loss, minimise losses due to human mistake, safeguard your reputation and revenue, comply with data protection rules, and provide you peace of mind. By creating a backup of your website, you can assure that your website data is safe and secure, and that you can quickly and simply restore your website to a prior condition.

2.2.4.4 Usability

User Interface

The website should be designed in a way that is easy to understand and navigate. This allows users to familiarize themselves with it rapidly.

Accessibility

The website should have special features for disabilities. This includes support for screen readers, keyboard navigation, and others.

Efficiency

The website should respond quickly and smoothly to rapid user interactions. The response time should be calculated by milliseconds.

User Satisfaction

User satisfaction surveys should be conducted to assess the usability and user experience of the website. The website should aim to achieve a score of over four out of 5 in categories related to usability and user experience.

Flexibility

The website should be able to be customized depending on customer demand. Customization can enhance usability by individualizing.

Search and Retrieval

The website should provide efficient search and retrieval capabilities. This includes filtering, sorting, and searching.

Scalability

The website should be designed to handle large amounts of data without sacrificing performance.

Error Handling

The website should control errors from users. It should provide the error message to users and help them correct it. Additionally, it should prevent or minimize the occurrence of errors through intelligent design.

In conclusion, the outlined performance requirements set a comprehensive benchmark for the zoo's website. These standards are designed to guarantee that the website remains a vibrant, effective, and efficient gateway for all users. By meeting these requirements, the website will offer a user account management system that is both swift and secure, a reliable and scalable storage solution, and a robust framework that ensures high uptime and streamlined backup and recovery processes.

Moreover, usability is at the forefront, with an interface that is intuitive, accessible, and flexible, ensuring that users with varying needs and preferences can navigate and interact with the website with ease. The website will also have efficient search and retrieval functions, quick response times, and a proactive approach to error handling, all of which contribute to a satisfying user experience. User satisfaction surveys will serve as a metric for continuous improvement, aiming for high ratings that reflect the website's success in meeting user demands.

By fulfilling these performance requirements, the zoo's website will not only attract and retain users but also enhance the reputation and operational efficiency of the zoo itself. It is through this commitment to excellence that the zoo's digital presence will continue to thrive and support its mission of education, conservation, and recreation.

2.2.5 Performance Requirements (Visitor Kiosk/Information Systems)

As technology advances, zoos can enhance the visitor experience using interactive kiosks and information systems. These systems are designed to provide guests with easy access to information about the zoo's animals, exhibits, and facilities, as well as engaging educational content. However, to be effective, these kiosks must meet certain performance requirements that ensure they are fast, reliable, and user-friendly. In this discussion, we will outline the key performance requirements for the visitor kiosks/information systems at the zoo. These requirements will cover aspects such as speed, capacity, reliability, and usability, which are critical to delivering a positive user experience and ensuring the system supports the zoo's operational needs.

2.2.5.1 Speed

Speed is a crucial performance requirement that significantly impacts user experience, search engine and effectiveness. To ensure optimization, continuous monitoring and performance testing are essential. Speed refers to the efficiency and responsiveness and processes associated with managing access control.

Access rights permissions granted to individuals or entities to access specific resources or perform certain actions.

- Authentication speed: Login: This gives response time to which a user can authenticate themselves to gain access. Takes approximately 10 seconds after provided credentials.
- Authorization Decision time: Time taken or permitted to grant request and make authorization, usually within 5 seconds.
- Loading time of videos: system responds to loading of videos in 3-4 seconds, making sure access is being granted to requests.
- Loading time of interactive map: response time should be granted in 2 seconds for easy navigation of the zoo.

Throughput

Throughput refers to the rate at which a system can process or transfer data. Our system is only able to run one kiosk at a time. The system speed will be more efficiently handled with more kiosks by improving the hardware and its components. Such as the processor speed, storage speed and hardware accelerators.

2.2.5.2 Capacity

The kiosk system will be storing data consisting of images and videos of the animals, and an interactive map along with the code that runs the system. The kiosk will be holding in its internal storage the games that can be played on it that would be no more than 100mb in size. this amount should be more than enough to add multiple arcades like games as each one rarely takes up to 10mb in space. To accommodate updates to the system that updates weekly, it is recommended that the system's storage should have a remaining 30%

storage after the system is tested, minimum 300mb so that there is always room to add or replace variables along with the gradual increase in complexity with the system's code.

The kiosk's system should be able to support weekly updates by the administration of the zoo, which would contain changes such as map updates, animal roster, QR codes for sponsors, system UI, etc.

We can use internal storage of kiosks because it does not take up too much space, while for the rest of the data can be uploaded to cloud storage that links the RMS with kiosks.

2.2.5.3 Reliability

Management

A visitor information system, such as zoo kiosks, must be managed efficiently to ensure its reliability. Putting in place a comprehensive monitoring and management system allows kiosks to be controlled in real time. It involves monitoring the hardware, tracking the software's functionality, and anticipating potential problems. To avoid affecting the experience of visitors, it is essential to update the software, conduct system inspections, and perform regular maintenance on the system. It is essential that the management protocol for the information system is established to ensure that it runs efficiently and provides visitors with accurate and up-to-date data.

Accessibility Consideration

Careful attention to accessibility factors is necessary to improve the dependability and inclusivity of zoo kiosks. Provide options for visually impaired people, such as adjusting screen heights, using readable fonts, and providing audio descriptions. Make sure the user interface complies with accessibility guidelines so that people of various abilities may use it. A wide variety of visitors benefit from having different language options and clear instructions, which adds to a dependable and good user experience. Conducting frequent accessibility inspections and user testing is imperative to pinpoint potential areas of enhancement and boost the system's dependability for all users.

User-Friendly Interface

The dependability and efficacy of a zoo kiosk's visitor information system depend on its interface. Create an interface that is simple to use, with features that are easy to navigate. Use clear language and visual signals to assist people in finding the information they need. For interactive screens, use touch-friendly components to guarantee a smooth and satisfying user experience. Utilise usability testing or surveys to regularly collect user feedback in order to determine any problems or potential areas for development. The visitor information system becomes more dependable when user-friendly design is prioritised since visitors can quickly and easily get the information they need with little difficulty or discomfort.

Durable Hardware Selection

Purchasing sturdy hardware is an essential component in guaranteeing the dependability of zoo kiosks. Whenever possible, choose ruggedized parts that are resistant to exposure to many types of weather, such as heat, sunlight, and rain. Choose premium touchscreens that are resistant to degradation from regular use. To ensure the system's lifespan, use tamper-resistant enclosures to safeguard internal components. To avoid unanticipated failures, regularly evaluate the hardware's state, carry out preventative maintenance, and replace components as needed. The zoo kiosks can run continuously and give guests dependable information during their stay by investing in sturdy hardware.

Availability

For visitors to have a great experience, it is essential that visitor information systems, such as zoo kiosks, are available. Consider redundancies when designing the system to improve availability. To prevent a single point of failure, use redundant servers and data storage options. Distribute user requests among several servers using load balancing techniques to avoid overloading any one server and to provide steady service even during busy hours. Furthermore, consider storing essential elements on cloud servers, which provide universally available and scalable resources. Maintain a close eye on system performance and set up automated alerts to let administrators know when something might be wrong. The availability of the information system is increased by upholding a strong infrastructure and actively monitoring system health, guaranteeing that visitors have dependable access to information when they need it.

Fault Tolerance

To minimise the effects of failures in a tourist information system, fault tolerance is crucial. Provide fault tolerance features into the system design so that it can function even in the event of a hardware or software failure. Use the software's error-handling features to handle unforeseen problems politely and prevent system-wide failures. Separate important parts so that a malfunction in one does not cause the system to collapse. For example, if a particular kiosk experiences a hardware malfunction, the system as a whole need immediately direct consumers to other working kiosks. Stress testing and failure scenario simulation should be done on a regular basis to find weak points and improve fault tolerance mechanisms. The visitor information system is made more resilient and dependable by proactively addressing failure points and incorporating redundancy into the system, guaranteeing visitors to the zoo uninterrupted service.

2.2.5.4 Usability

Interactive kiosks

should be designed with a variety of accessibility features to ensure all users can navigate and utilize the system effectively:

Physical Accessibility

Kiosks should be wheelchair-friendly, designed with suitable reach, height, and space around them. The kiosk should be tall. This includes responsive touch interfaces and sensitive pressure points for different types of touch.

Visual Accessibility

Kiosks should offer adjustable font sizes, high contrast options, and audio descriptions for on-screen content. Adequate lighting and minimal screen glare are also important, catering to users with varying levels of vision 1, 2.

Hearing Accessibility:

Subtitles should be provided for audio content and videos, ensuring inclusivity for visitors with hearing impairments two.

Input Methods

Kiosks should offer a variety of input methods such as keyboards, touchscreens, and other devices like remote connection and control. This caters to users with different motor abilities. The user interface should be easy to use, with recognizable icons and symbols, and easy-to-use buttons with plenty of space in between to prevent incorrect selection.

Support

Staff members should be available to provide support to visitors using the kiosk. Additionally, a support section within the kiosk itself can guide users to find help or additional information. Regular usability testing with users of different abilities can help to ensure the kiosk is user-friendly 2.

Mobile Accessibility

The kiosk should be mobile-friendly, providing access via mobile web browsers through a reliable QR code or URL. The interface should allow for easy navigation using touch gestures on mobile phones 4.

In conclusion, the performance requirements for the zoo's visitor kiosks and information systems are designed to provide a seamless and efficient user experience. Speed, capacity, reliability, and usability are the cornerstones of these requirements, each playing a vital role in ensuring the kiosks serve their intended purpose effectively. By adhering to these specifications, the zoo can offer visitors a dynamic and interactive way to learn about the zoo's offerings, enhancing their overall experience. The kiosks must be quick to respond, capable of handling large amounts of data, reliable in varied conditions, and accessible to all visitors, regardless of physical or sensory abilities. With the implementation of robust hardware, thoughtful interface design, and regular updates and maintenance, these kiosks will undoubtedly become an integral part of the zoo's visitor services. The goal is to create an environment where technology complements the natural beauty and educational value of the zoo, contributing to memorable visits for all guests.

2.2.6 Design Constraints (All software components)

The design of any robust technological system requires adherence to a set of constraints that guide its development and ensure its viability and effectiveness in real-world applications. The Records Management System, Zoo Website, and Zoo Visitor Kiosk/Information Systems at the zoo each have unique functionalities and objectives but share a common set of design constraints that affect how they are constructed and implemented. These constraints are fundamental to the development process, influencing decisions from hardware selection to software architecture. By considering these constraints, developers can create systems that are not only functional but also reliable, user-friendly, and in alignment with the strategic goals of the zoo. In this section, we will explore the specific design constraints that apply to the three systems in question, examining how they will shape the development of these critical technological assets.

Target Operating system:

Currently, the most common operating system used for these types of systems is Windows.

Data Architecture:

The core data such as the core will be stored locally along with data used daily by the zoo. Miscellaneous data will be distributed on the cloud to keep local data storage open for more data.

Minimum hardware requirements:

- 32-core processor
- 8 GB – 16 GB of RAM
- 50 GB - 100 GB of SSD storage

Front – End Graphic styles:

Design that appeals to a younger audience, with cartoonish designs. Colours would reflect the zoo's new logo.

Programming languages to be used:

- Front-end: html, CSS, JavaScript
- Back-end: python/C++/Java
- Will be connecting with API.
- For the database we can use MySQL

Application packages integration:

Third-party game developer company that will provide an interactive zoo-themed game.

Design Approach:

Agile model

- Fast delivery: Help us load records and documents faster.
- Continuous improvement: encourages the making of a better website over time.

In designing the zoo's Records Management System, Zoo Website, and Zoo Visitor Kiosk/Information Systems, it is essential to adhere to the outlined design constraints to ensure that the final products meet the operational needs and expectations of both the zoo and its visitors. By doing so, we can achieve systems that are not only compatible with the prevalent Windows operating system but are also aptly equipped with the necessary hardware and software to perform their functions effectively. The youthful and vibrant design aesthetic, alongside the selection of appropriate programming languages and databases, will contribute to creating engaging and intuitive interfaces. The integration of third-party applications and an agile development approach will ensure the systems remain dynamic and adaptable to changing requirements. These constraints form the blueprint for a structured development process, leading to the creation of reliable, efficient, and user-friendly systems that will serve the zoo and its patrons for years to come.

2.2.7 Commercial Constraints (Total Project)

The financial planning and management of resources are critical components in the execution of any commercial project. For Claybrook Zoo's endeavour to upgrade and manage their information systems, a

Commercial Constraints (Claybrook Zoo)					
Staff Costs	QTY	Yearly Wage(Per unit)	Yearly Cost	Weekly Cost	Project Duration Cost
Manager	1.00	£69,390.00	£69,390.00	£1,334.42	£21,350.77
Records Management System Development(AWS/Azure, MySQL, Node.js)	4.00	£53,675.00	£214,700.00	£4,128.85	£66,061.54
Website Developers Front-End (HTML, CSS, Javascript)	3.00	£38,359.00	£115,077.00	£2,213.02	£35,408.31
Website Developers Back-End(Python, C++)	3.00	£53,675.00	£161,025.00	£3,096.63	£49,546.15
Information Systems Architecture	1.00	£38,359.00	£38,359.00	£737.67	£11,802.77
Additional Business Expenses	QTY	Unit Cost	Yearly Cost	Weekly Cost	Project Duration Cost
Physical Resources					
Office Rent (£2,083 per month, for 12 members)	1.00	£25,000.00	£25,000.00	£480.77	£7,692.31
Electricity/Gas/Water	1.00	£3,666.00	£3,666.00	£70.50	£1,128.00
Consumables/Business Rates	1.00	£8,000.00	£8,000.00	£153.85	£2,461.54
Hardware Resources					
Wireless Fidelity (WIFI)	1.00	£37,500.00	£37,500.00	£721.15	£11,538.46
Computers/Laptops/Tablets	120.00	£1,984.75	£238,170.00	£4,580.19	£73,283.08
Backup Storage/Servers/Database	1.00	£29,000.00	£29,000.00	£557.69	£8,923.08
High-Performance Kiosk Machine	200.00	£5,000.00	£1,000,000.00	£19,230.77	£307,692.31
Computer Systems Resources(Online)					
Servers	1.00	£5,700.00	£5,700.00	£109.62	£1,753.85
Cloud Storage(24GB)	250.00	£2,750.00	£687,500.00	£13,221.15	£211,538.46
Online Database	1.00	£2,381.70	£2,381.70	£45.80	£732.83
Application Programming Interface(API)	1.00	£197.60	£197.60	£3.80	£60.80
Software Licenses	1.00	£68.00	£68.00	£1.31	£20.92
Totals(Project Duration(4 Months))					£810,995.17
Project Duration(Wks)	1month	2 months	3 months	4 months	
Total Cost (Net for company)	202,748.79	£405,497.58	£608,246.38	£810,995.17	
With 50% Profit Margin	304,123.19	608,246.38	912,369.57	1,216,492.75	
With 40% Profit Margin	283,848.31	567,696.62	851,544.93	1,135,393.24	
With 30% Profit Margin	263,573.43	527,146.86	790,720.29	1,054,293.72	

detailed analysis of the commercial constraints has been undertaken. This analysis encompasses a wide array of costs associated with staff, business expenses, hardware, and computer system resources required for the development and implementation of the project over a four-month period. Our breakdown will provide a comprehensive overview of the projected financial commitment, considering different levels of profit margin, allowing for a clear understanding of the project's financial landscape, and ensuring that all investments are accounted for and optimized for the best return on investment (ROI).

Upon review of the commercial constraints associated with Claybrook Zoo's project, it becomes clear that significant investment is required to meet the project's goals. With total costs amounting to £1,054,293.72 over the project duration, it is essential to carefully manage the budget to maintain financial viability. The

detailed breakdown of costs, including staff wages, office rent, utilities, and various resources, provides a transparent view of the financial commitment needed. The projections with added profit margins of 50%, 40%, and 30% illustrate the potential returns that can be expected upon successful completion of the project. It is vital for the zoo to consider these financial aspects to ensure that the development yields beneficial results, not only in terms of technological advancements but also in financial prosperity. With prudent management and execution, the project stands to enhance the zoo's operational efficiency and guest experience, thus contributing to its long-term success.

3 System Interface Designs

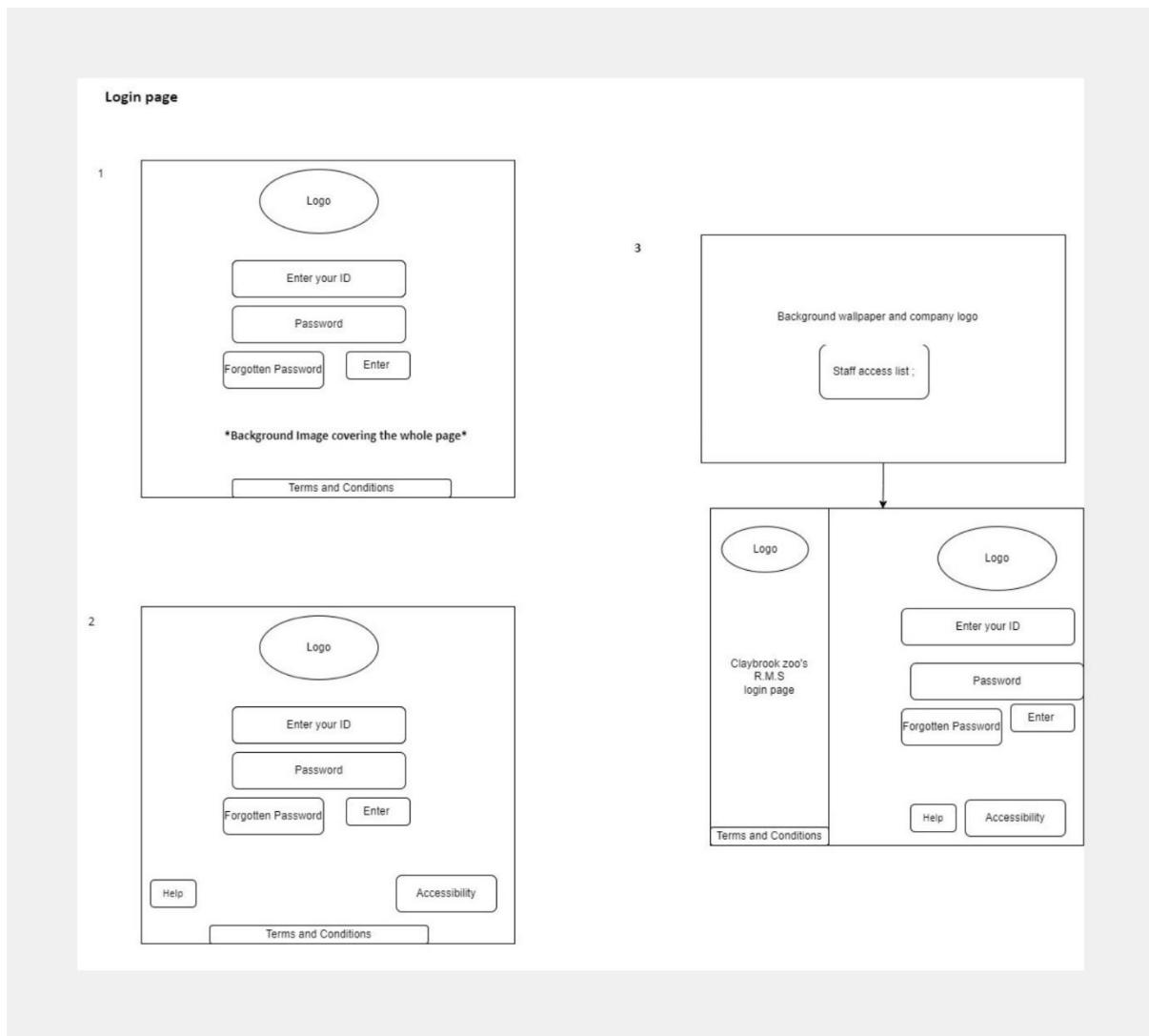
3.1 Draft Interface Designs for RMS

3.1.1 Wireframes

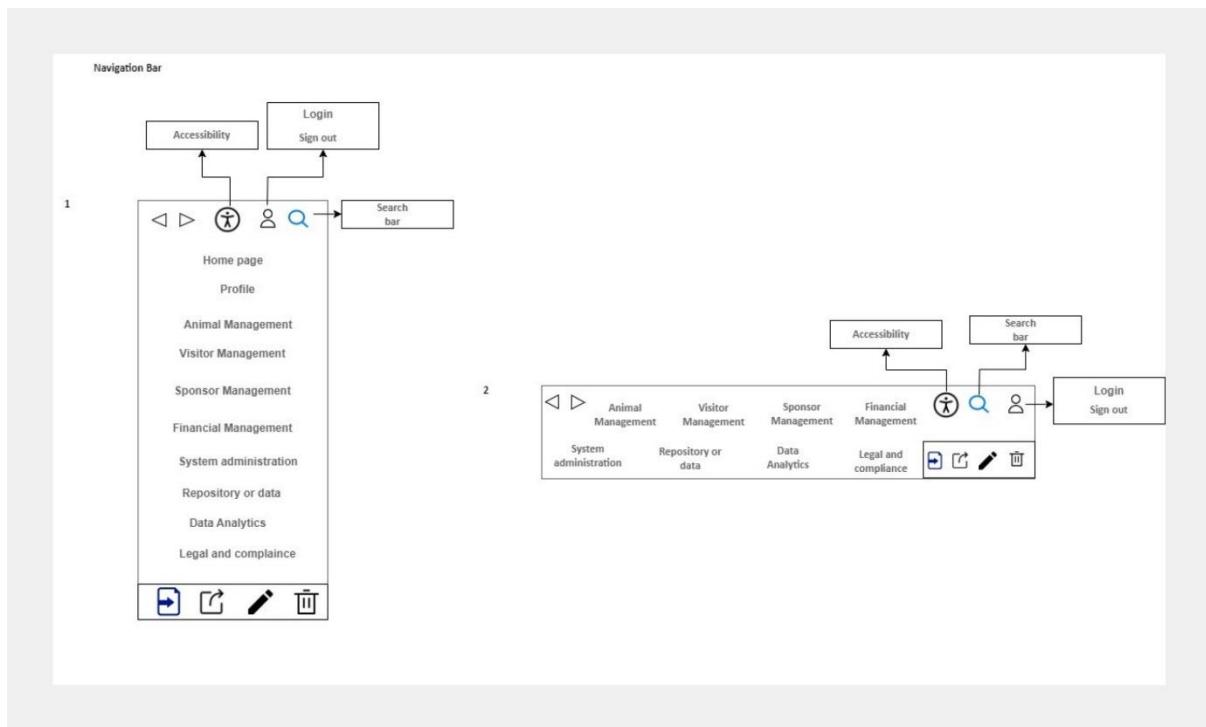
In the era of digitization, where every facet of operations is being transformed by technology, the development of a records management system for Claybrook Zoo stands as a testament to this progress. The wireframes presented provide a visual blueprint for a comprehensive and user-friendly system designed to streamline the management of various records within the zoo. From veterinary records to fiscal management and employee data, the wireframe outlines a robust structure that aims to enhance efficiency, accuracy, and accessibility of data. This preliminary design showcases a system that is not only tailored to the unique requirements of a zoo but also considers the intricate details that are vital for the day-to-day operations and long-term strategic planning.

- The following are the first draft of designs(wireframes) which were then presented to the client.

Log in Page (First design)



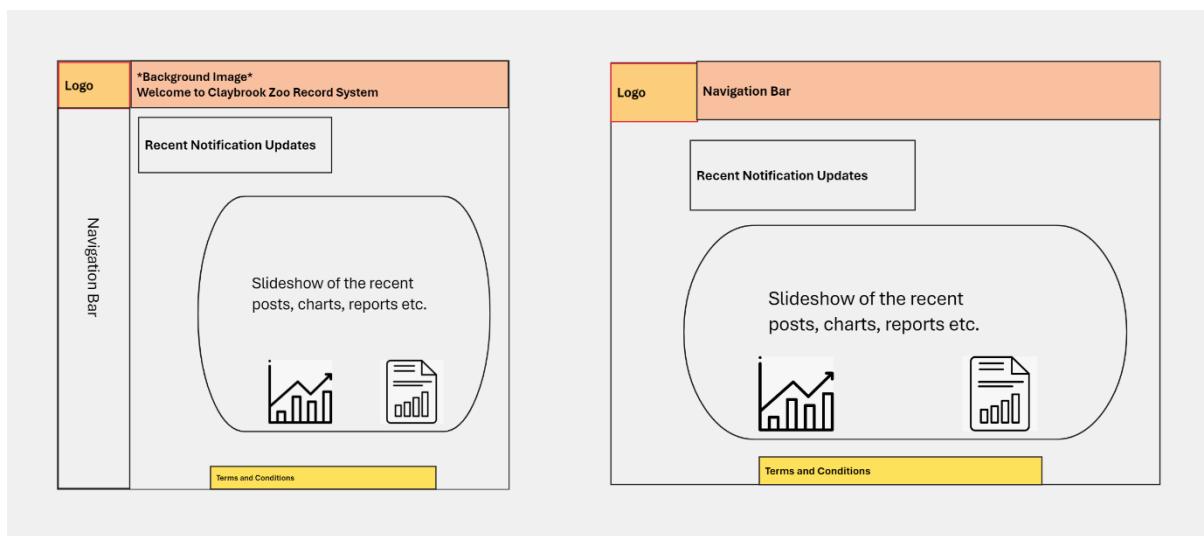
Navigation Bar (First Design)



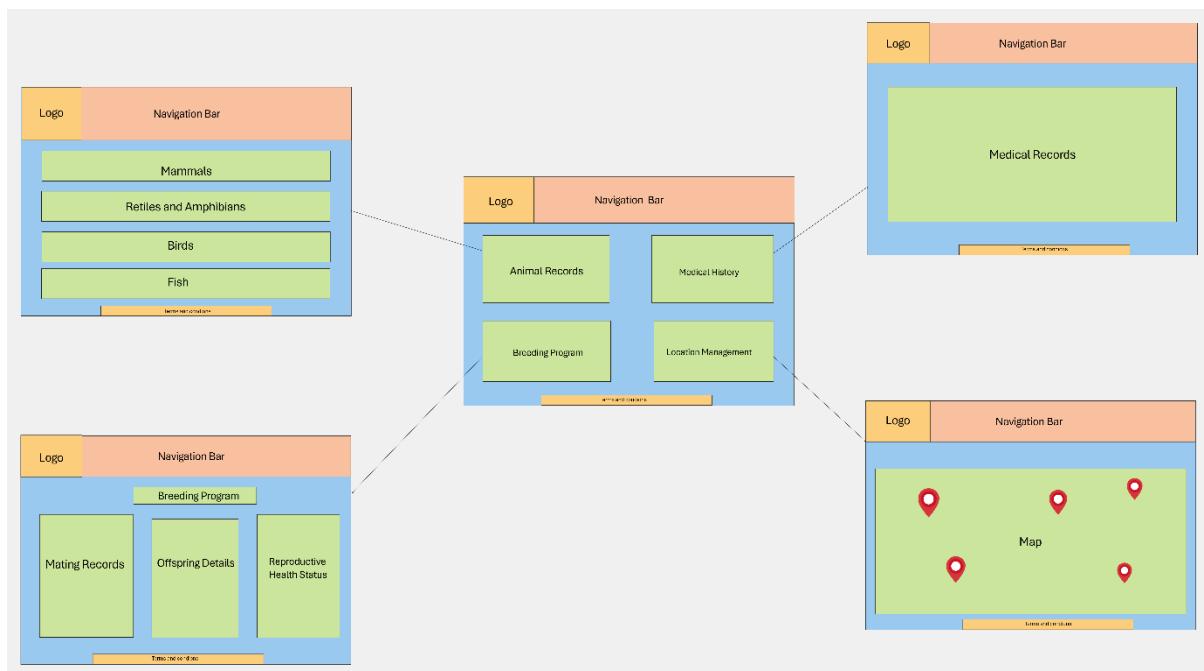
Financial Management:



Home page



Animal Management:

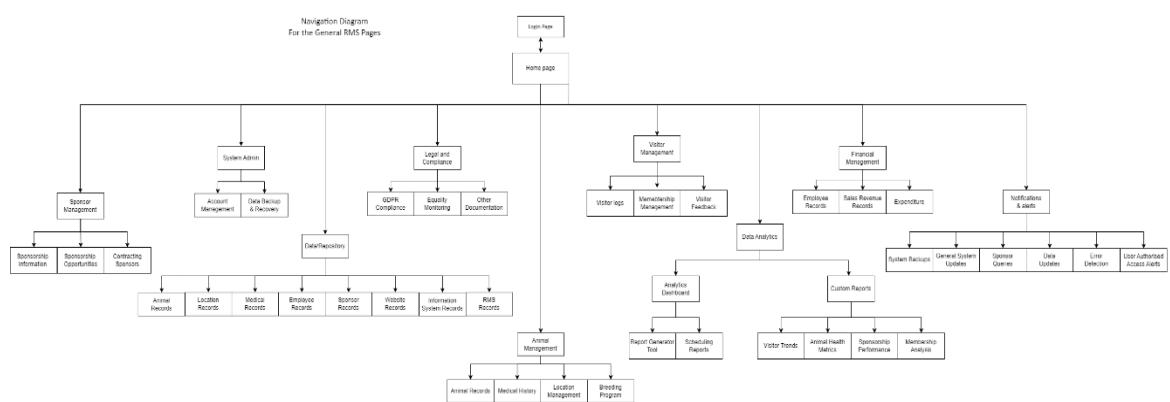


The proposed wireframes for Claybrook Zoo's records management system depict a well-thought-out interface that promises to address the multifaceted needs of the zoo's record-keeping processes. While the design is not without its imperfections, it lays down a solid groundwork upon which further refinements can be made to achieve an optimal user experience. The system's capabilities, as sketched out in the wireframes, include detailed animal records, medical histories, breeding programs, financial tracking, and more. Such a system, once implemented, is poised to revolutionize the way the zoo operates by providing a centralized, streamlined, and efficient method for managing critical data. It is a significant step forward in ensuring that the zoo's operations are supported by a technological backbone that is both robust and adaptable to future advancements and needs.

3.1.2 System Navigation Diagram

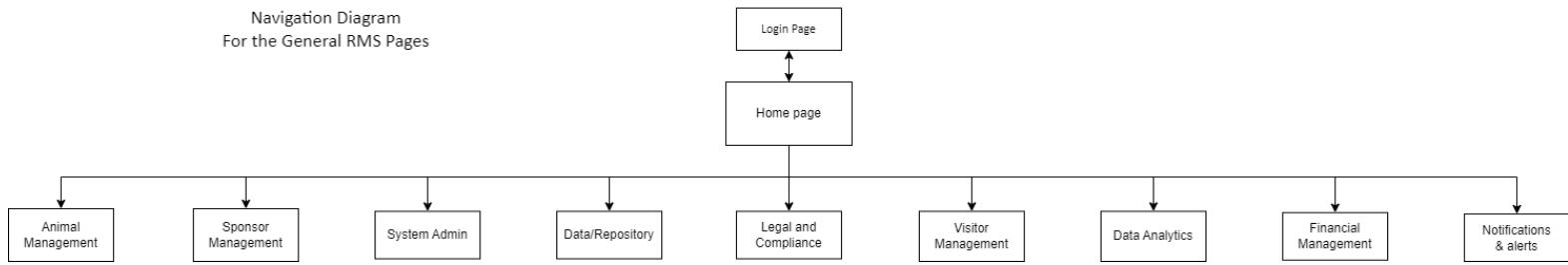
Embarking on a journey through the digital landscape of the Claybrook Zoo's Records Management System requires a comprehensive map to navigate its complexities. To meet this need, we have meticulously crafted a system navigation diagram that functions as a user's compass, guiding them seamlessly from the initial welcome page to the terminal point of their data inquiry or entry. This diagram is not just a visual tool but a representation of the processing logic inherent in the system. It delineates the pathways a user can traverse, ensuring that even those with minimal technical expertise can understand and follow the flow of interactions. By doing so, we have encapsulated the essence of user experience within the functional architecture of the system.

Here is the full system navigation diagram:

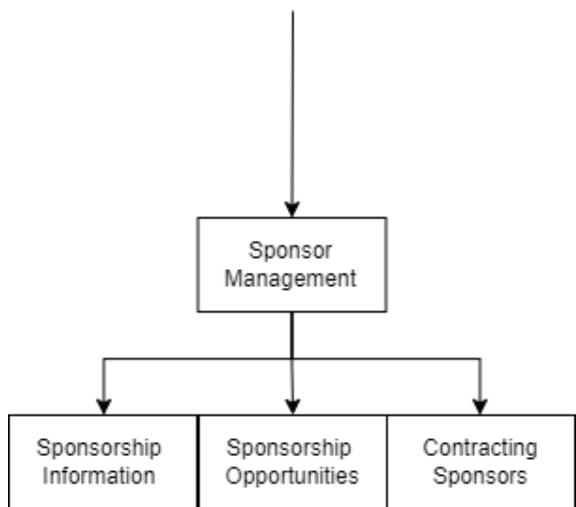


The specific navigation of each section is listed below:

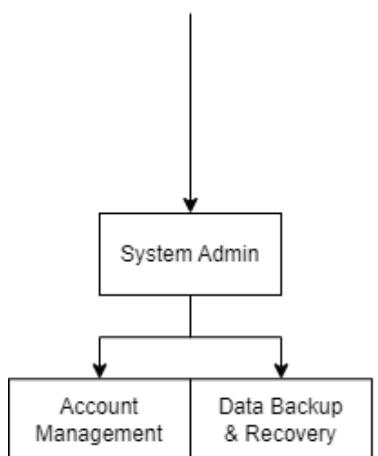
Home Page to Main pages:



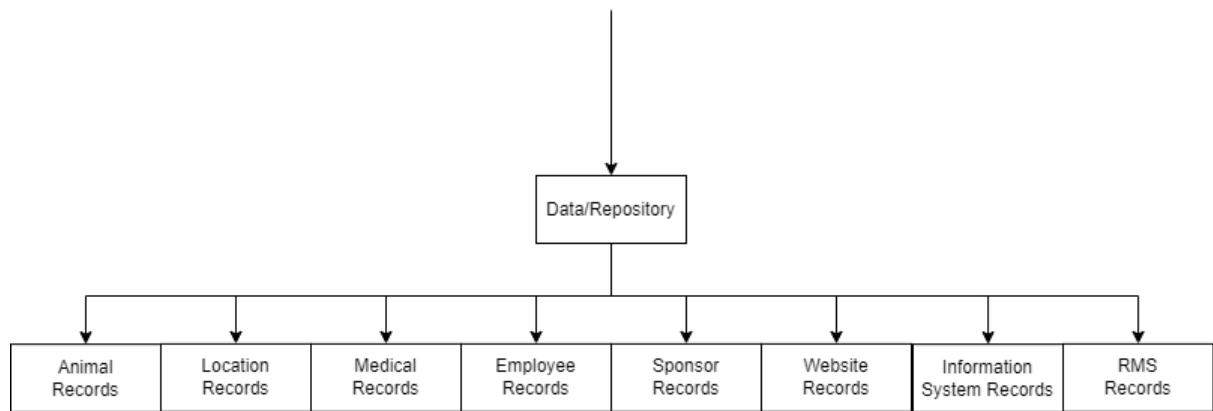
Sponsor Management:



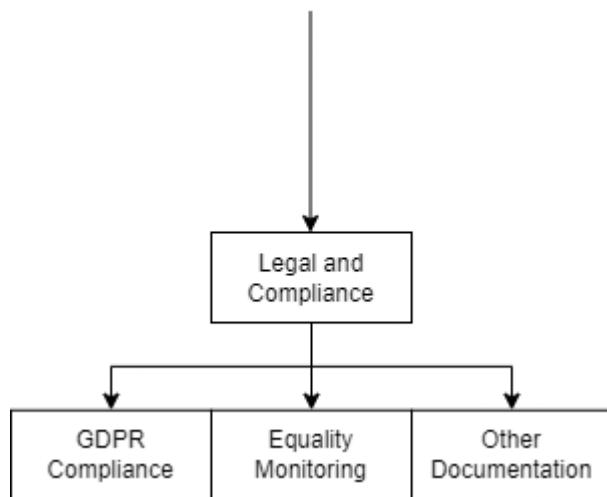
System Administrator:



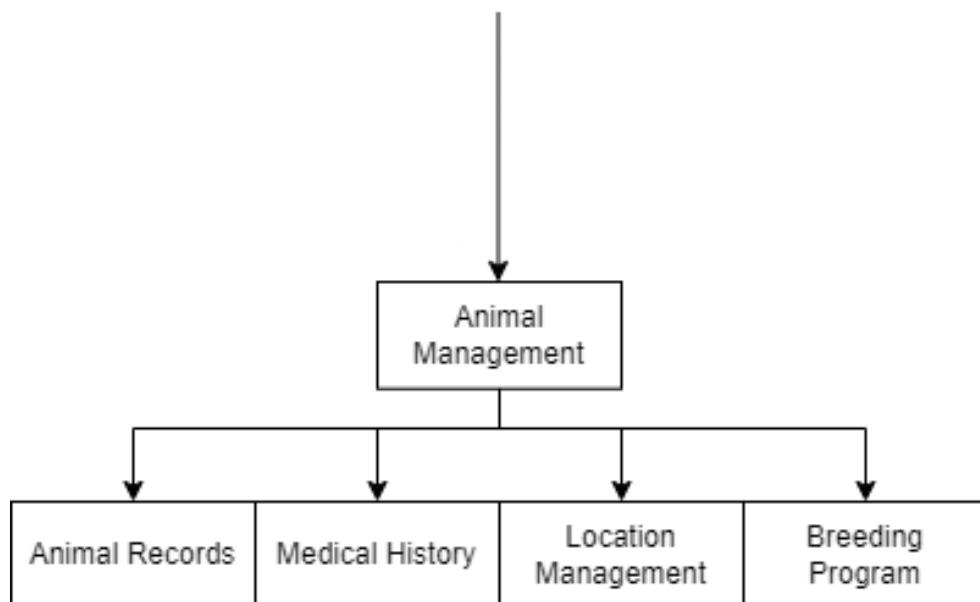
Data/Repository:



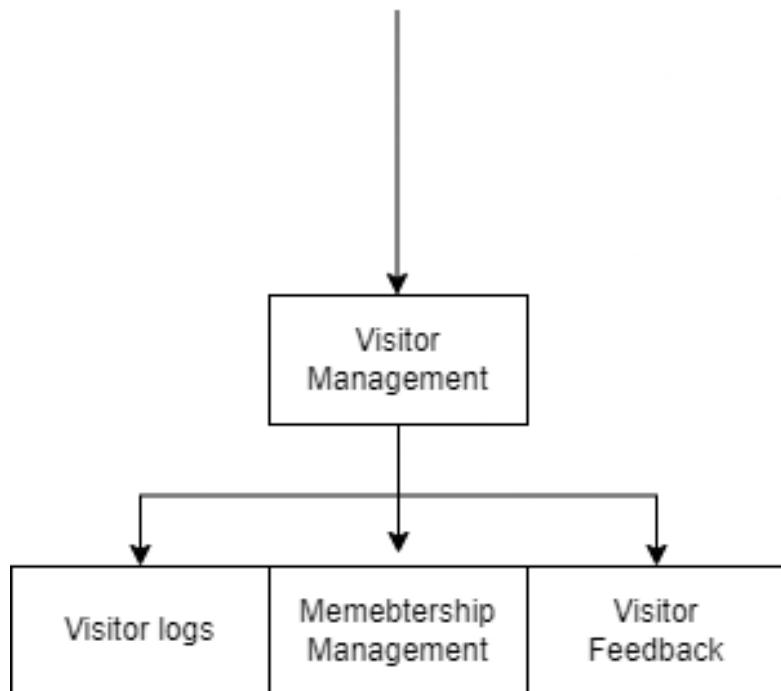
Legal and Compliance:



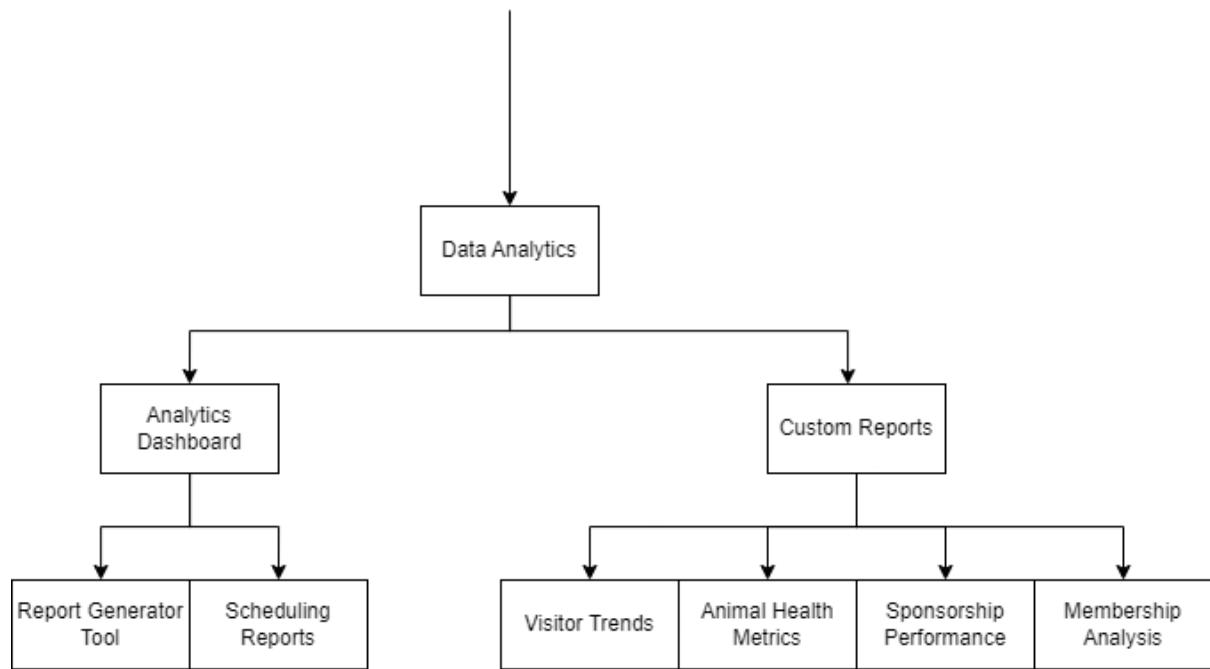
Animal management:



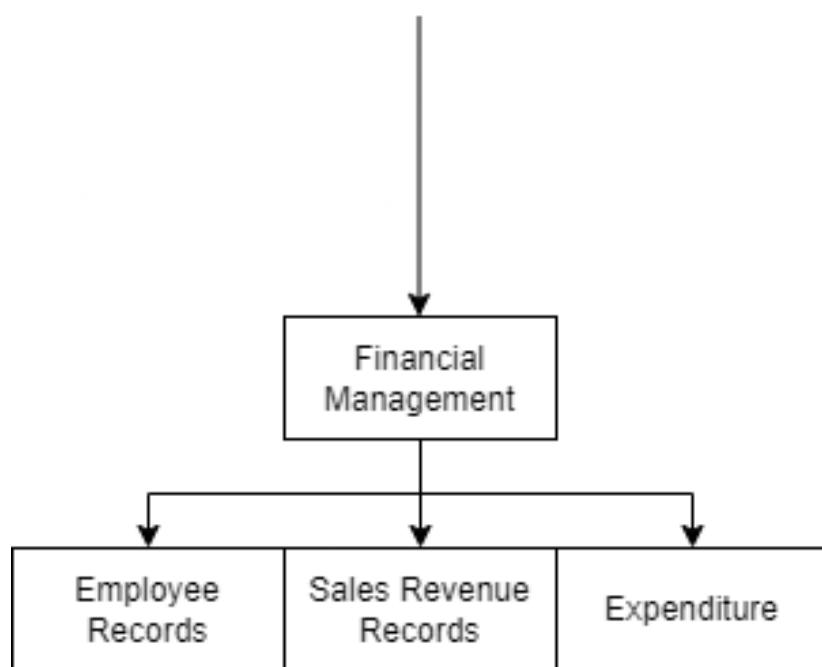
Visitor Management:



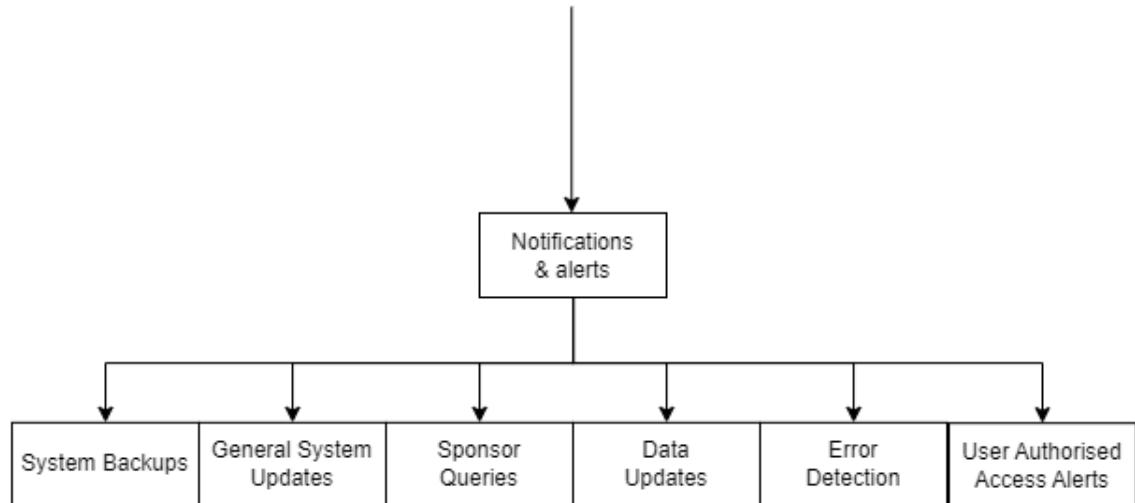
Data Analytics:



Financial management:



Notifications and Alerts:

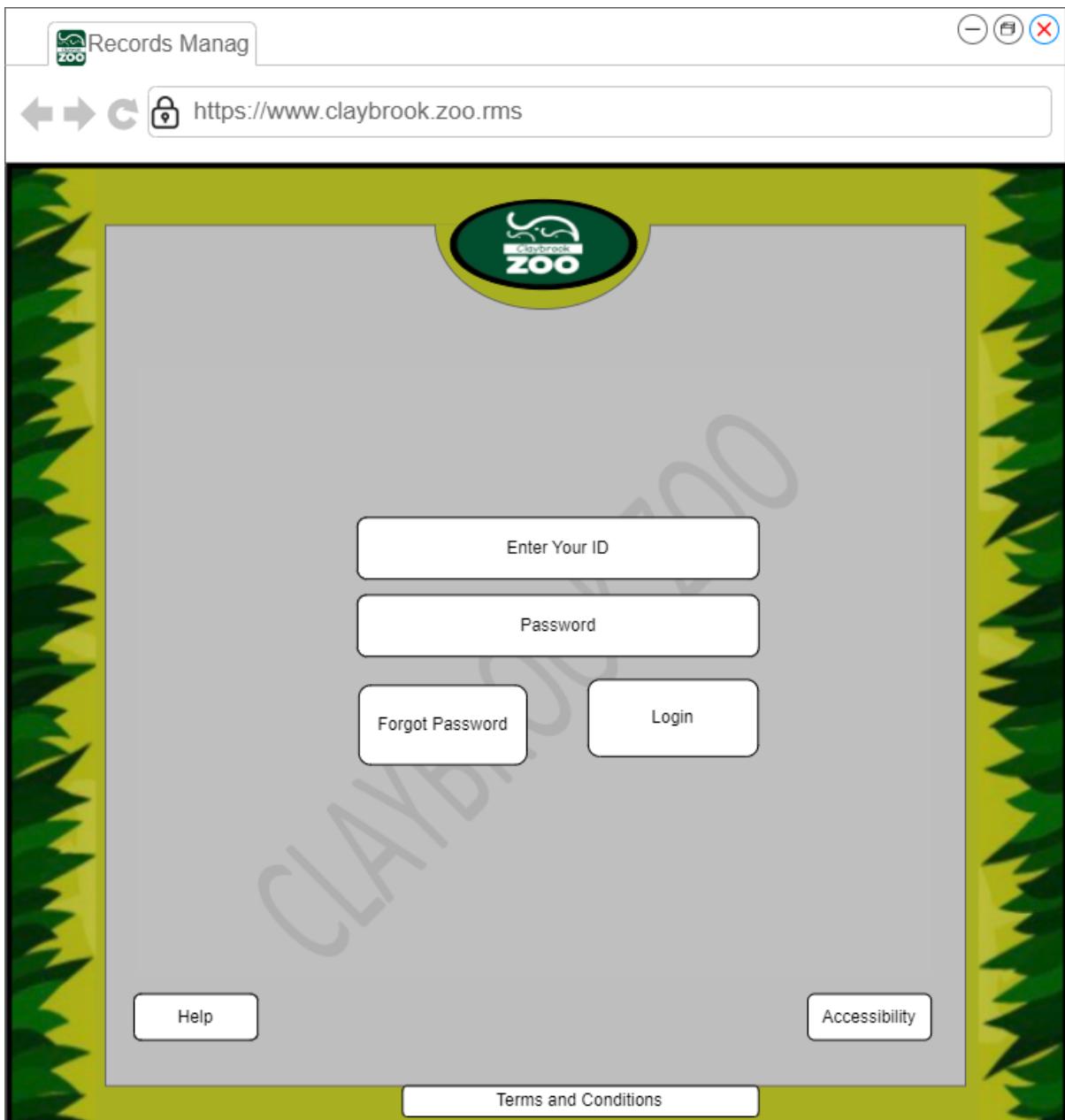


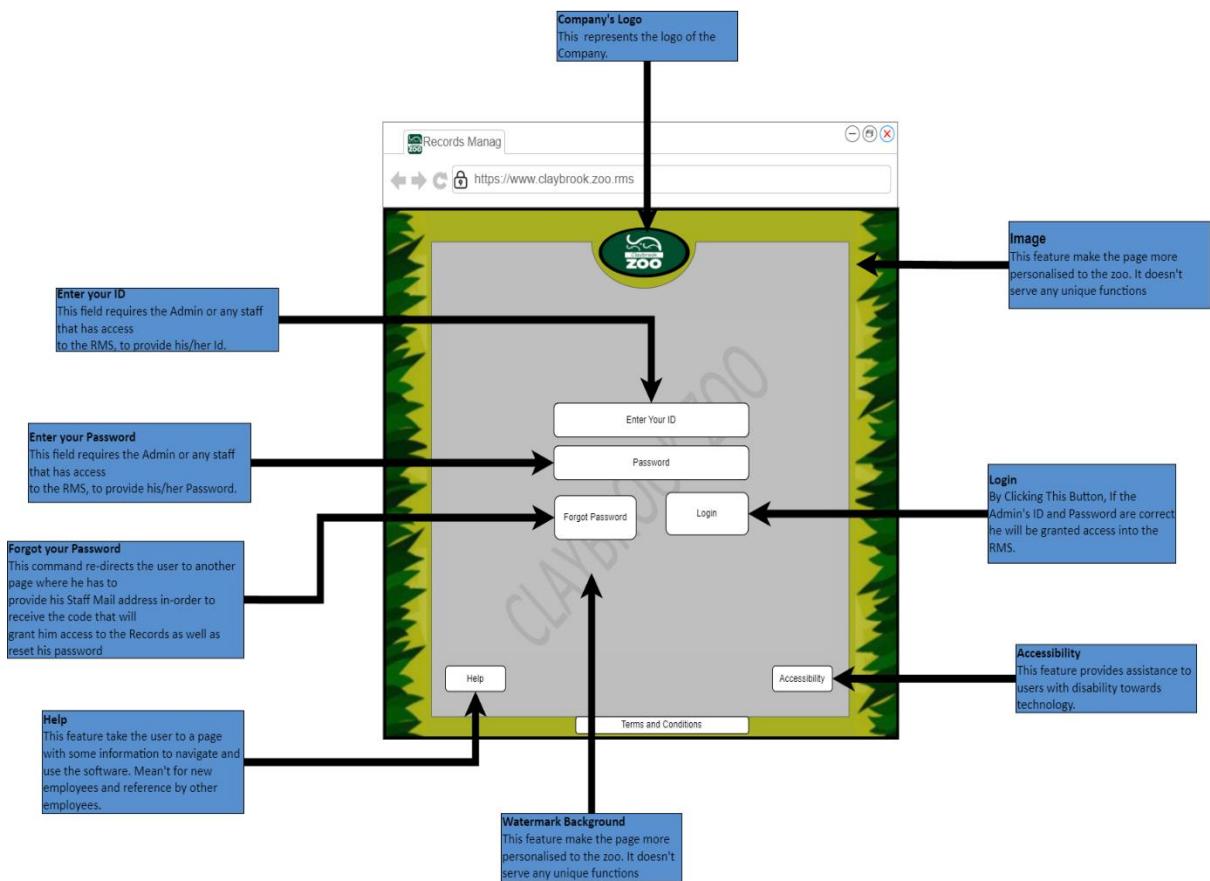
The system navigation diagram for the Claybrook Zoo's Records Management System is the culmination of thoughtful design and user-centric planning. It stands as an illustrative guide that demystifies the journey across the system's landscape. This diagram ensures that users are well-equipped to manoeuvre through the various functionalities and records with confidence and ease. By providing a clear, simplified representation of the system's logic, the diagram serves as an indispensable tool for training new users, supporting existing ones, and maintaining the integrity of the system's use over time. As the system evolves and grows, this navigation diagram will be the foundational document that can be revisited and revised to accommodate new features and processes, thus continually enhancing the user experience.

3.1.3 System Screen mock-ups

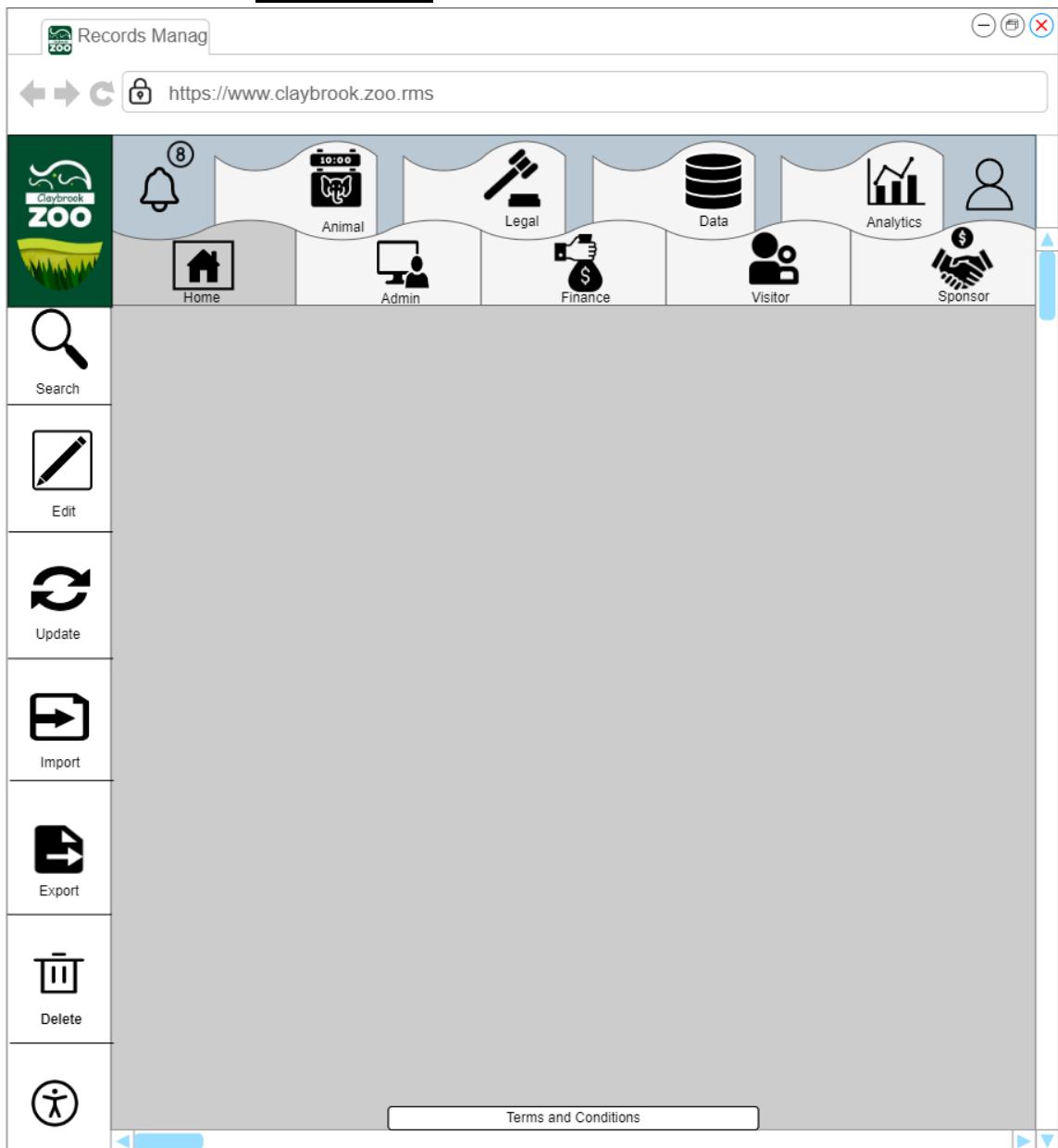
After a collaborative effort that drew on the expertise and perspectives of both visitors and stakeholders, the Claybrook Zoo's Records Management System has reached a pivotal stage in its development. With the wireframes serving as our blueprint, we engaged in a productive dialogue with key figures such as Thomas Smith, a representative of our valued visitors, and Matthew Jones, a stakeholder with a vested interest in the system's success. Their insights and suggestions have been invaluable, informing the evolution of our initial concepts into the refined mockups that now stand ready for presentation. These mockups represent the culmination of collective input and are poised to offer a tangible glimpse into the potential of the system, setting the stage for the final approval before the recording of the system begins.

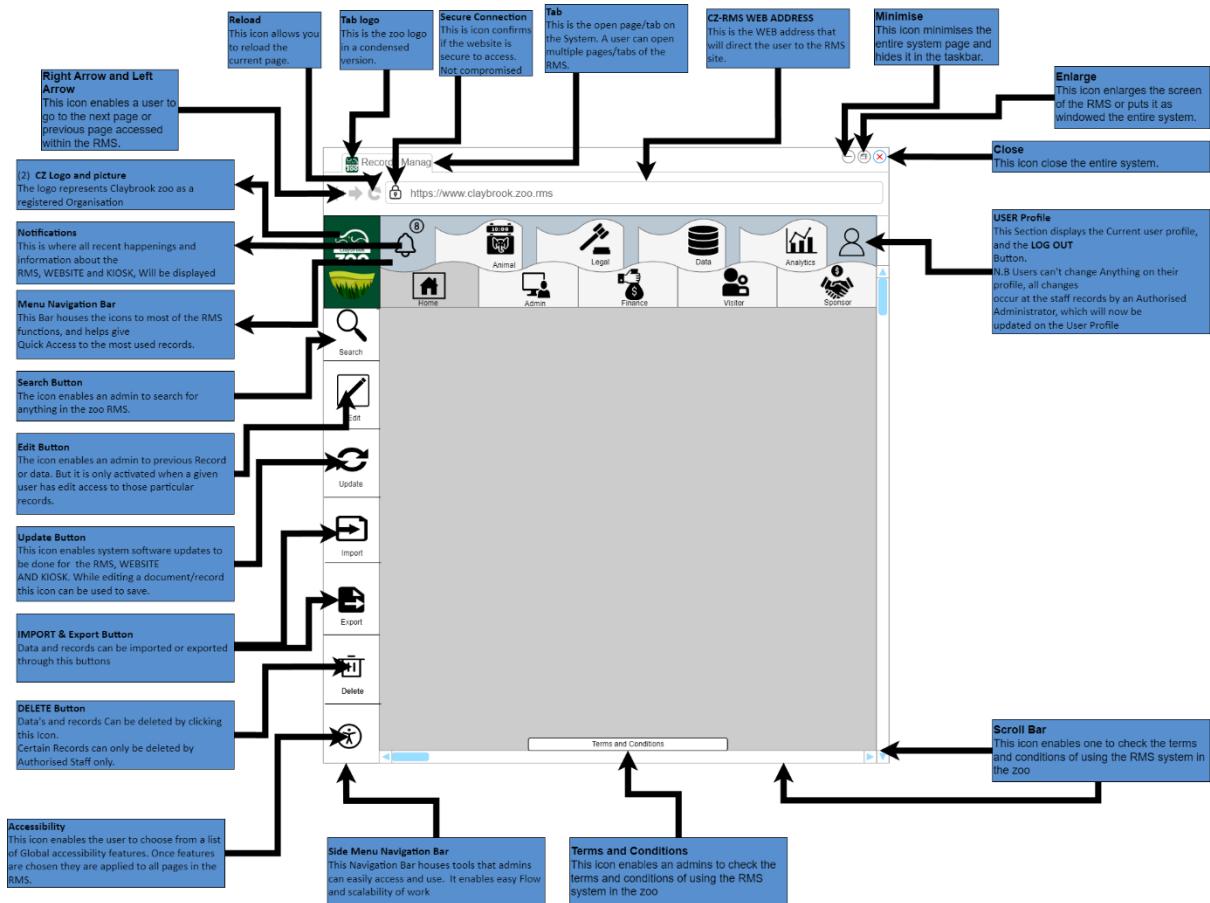
Login Page





Navigation Bar





Main Page

Records Manager

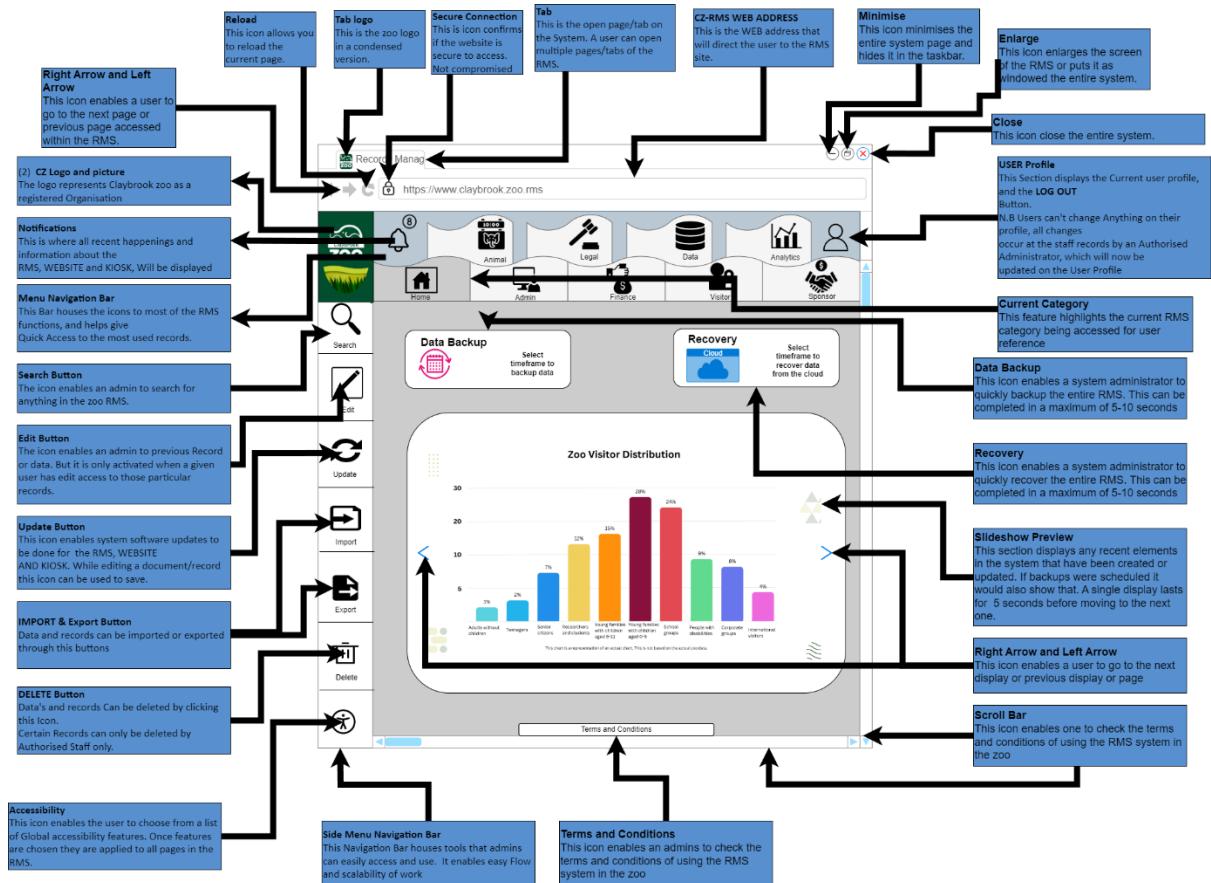
<https://www.claybrook.zoo.rms>

The interface includes a sidebar with icons for Search, Edit, Update, Import, Export, Delete, and User. A top navigation bar features a bell icon with 8 notifications, a clock icon, Legal, Data, Analytics, and Sponsor sections. The main area displays a 'Data Backup' button (Select timeframe to backup data) and a 'Recovery' button (Select timeframe to recover data from the cloud). A large bar chart titled 'Zoo Visitor Distribution' shows visitor percentages across different categories.

Category	Percentage
Adults without children	1%
Teenagers	2%
Senior citizens	7%
Researchers and students	12%
Young families with children aged 6-11	15%
Young families with children aged 0-5	28%
School groups	24%
People with disabilities	9%
Corporate groups	8%
International visitors	4%

This chart is a representation of an abstract chart. This is not based on the actual zoo data.

Terms and Conditions



Search Page

The screenshot shows the 'Search Page' of the Claybrook Zoo Records Management System. The top navigation bar includes a logo for 'Records Manag' and a URL 'https://www.claybrook.zoo.rms'. Below the header is a horizontal menu bar with icons for Animal, Legal, Data, Analytics, Home, Admin, Finance, Visitor, and Sponsor. To the left is a sidebar with icons for Search, Edit, Update, Import, Export, Delete, and a user profile. The main content area features a 'FIND' section with search fields for 'Search for anything:' and 'Search for animal:', both with 'Search' buttons. Below this is a 'For Animals:' section with fields for 'Animal ID/Enclosure code:', 'Name/Species:', and 'Category:'. A 'Terms and Conditions' link is located at the bottom right of the main content area.

Records Manag

https://www.claybrook.zoo.rms

Claybrook ZOO

Animal Legal Data Analytics

Home Admin Finance Visitor Sponsor

Search

Edit

Update

Import

Export

Delete

User Profile

FIND

Search for anything:

Search for animal:

Search

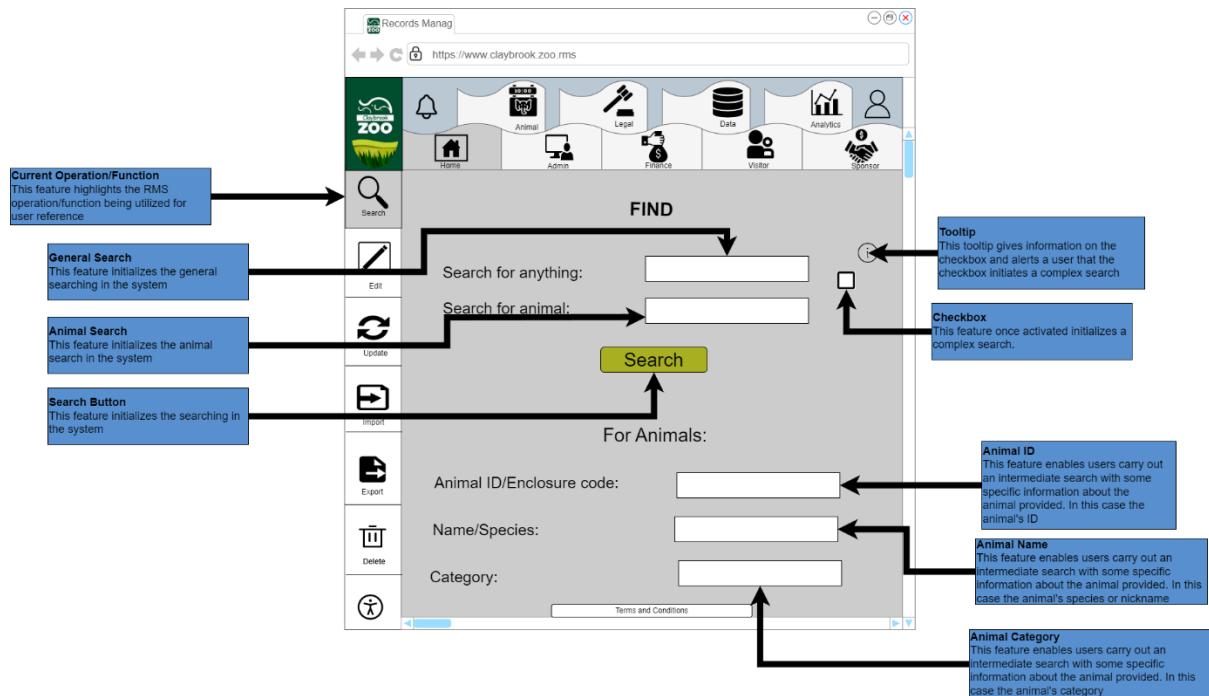
For Animals:

Animal ID/Enclosure code:

Name/Species:

Category:

Terms and Conditions



Search Results

Records Manager

https://www.claybrook.zoo.rms

Claybrook Zoo

Animal Admin Finance Visitor Sponsor

Analytics

SEARCH RESULTS

Snowy Owl
The snowy owl is a large, white owl found in the Arctic and subarctic regions of the world. It is known for its striking white plumage, which helps it camouflage in its snowy habitat. Snowy owls are powerful predators, preying on small rodents, rabbits, and even other birds. They are also known for their distinctive call, which sounds like a series of hoots.

Red Fox
The red fox is a medium-sized canine with a distinctive reddish-orange coat, black legs, and a bushy tail. It is known for its cunning and adaptability, and can be found in a variety of habitats, from forests and grasslands to urban areas. Red foxes are opportunistic feeders, preying on small rodents, rabbits, birds, and even fruits and vegetables. They are also skilled hunters, using their keen senses and stealth to catch their prey.

Gila Monster
The Gila monster is a large, venomous lizard found in the southwestern United States and northern Mexico. It is easily recognizable by its black and orange banded coloration, and its thick, heavy body. Gila monsters are slow-moving and docile creatures, but they can deliver a powerful bite if they feel threatened. Their venom is not typically fatal to humans, but it can cause severe pain and swelling.

Search Edit Update Import Export Delete Terms and Conditions

Page Title
This feature shows the user which page they are on, especially after carrying out an operation like searching and search results are being displayed.

Animal image
This feature shows the user a compressed image of the animals/output.

Animal Description
This feature shows the user suggestions that are close or that match to the search they did. A brief description is given.

Animal	Description
Snowy Owl	The snowy owl is a large, white owl found in the Arctic and subarctic regions of the Northern Hemisphere. Its white plumage provides camouflage in its snowy habitat. Snowy owls are powerful predators, preying on small rodents, rabbits, and even other birds. They are also known for their distinctive call, which sounds like a series of hoots.
Red Fox	The red fox is a medium-sized canid with a distinctive reddish-orange coat, black legs, and a bushy tail. It is known for its cunning and adaptability, and can be found in a variety of habitats, from forests and grasslands to urban areas. Red foxes are opportunistic feeders, preying on small rodents, rabbits, birds, and even fruits and vegetables. They are also skilled hunters, using their keen senses and stealth to catch their prey.
Gila Monster	The Gila monster is a large, venomous lizard found in the southwestern United States and northern Mexico. It is easily recognizable by its black and orange banded coloration, and its thick, heavy body. Gila monsters are slow-moving and docile creatures, but they can deliver a powerful bite if they feel threatened. Their venom is not typically fatal to humans, but it can cause severe pain and swelling.

Final Output Page

Records Manager

https://www.claybrook.zoo.rms

Claybrook ZOO

Animal Record – Claybrook Zoo

Species:	Lowland Gorilla
Species Category/Classification:	Mammal - Primate
Given Name: Redwell	
Photograph of animal upon arrival at zoo:	
	
Date of Birth of Animal (Where known) - If age is not known enter approximate age of animal	15/03/2016
Animal Location Code:	MC1-A1
Animal Born in Captivity or Wild?	Captivity
Special Notes:	N/A
Date animal joined the zoo.	21/09/2007
Height :	1.75 m
Animal dimensions upon join the zoo :	Weight: 200 kg
Average Animal dimension:	height 1.65–1.75 metres (5 ft 5 in–5 ft 9 in), and in weight 140–200 kg (310–440 lbs)
Average Life Span (e.g. months/years).	30–50 years
Dietary Requirements (Daily)	2.2 Kg Green Leaf Matter
Natural Habitat Description	1.5 Kg Assorted Fruit West and Central Africa

Given Name: Redwell
 Species: Lowland Gorilla
 Species Category: Mammal
 Location Code: MC1-A1
 Date of Birth: 15/03/2016
 Date Joined: 21/09/2007
 Dietary Requirements:
 2.2 Kg Green Leaf Matter
 1.5 Kg Assorted Fruit

This information is subject to the following legal clause: GDPR

Terms and Conditions

Final Page Output
This feature shows the final record/output searched.

Legal
This feature shows the user All legal clauses the output is subject to if any.

Animal Record – Claybrook Zoo

Species:	Loveland Gorilla
Species Category/Classification:	Mammal - Primates
User Name:	Redwell
Photograph of animal upon arrival at zoo:	
Date of Birth of Animal (Where known) – Exact date or month and year of birth:	15/03/2016
Animal Location Code:	MC1-A1
Animal Name in Captivity or Visit:	Gorilla
Species Notes:	N/A
Date animal joined the Zoo:	21/09/2007
Animal dimensions upon join the Zoo :	Height: 1.80 m Width: 1.25 m Weight: 200 kg
Average Animal dimensions:	Height: 1.80-1.75 metres (5' 11" to 5' 9") Width: 1.25-1.20 metres (4' 1" to 3' 11") Weight: 140-200 kg (300-440 lbs)
Average Life Span (in months/year):	30-50 years
Dietary Requirements (Diet):	2.2 Kg Green Leaf Matter 1.5 Kg Assorted Fruit
Natural Habitat Description:	Jungle and Tropical Africa

Given Name: Redwell
Species: Loveland Gorilla
Species Category: Mammal - Primates
Location: MC1-A1
Date of Birth: 15/03/2016
Date Joined: 21/09/2007
Details: Height: 1.80 m, Width: 1.25 m, Weight: 200 kg
2.2 Kg Green Leaf Matter
1.5 Kg Assorted Fruit

Animal Image
This feature shows the user a compressed image of the animals/output.

Brief Animal Description
This feature shows the user short information about the animal. This aims to help easier refer for animal ID's or enclosure code etc.

This information is subject to the following legal clause: GDPR

System Admin Page

Records Manag https://www.claybrook.zoo.rms

Claybrook ZOO

Animal Legal Data Analytics

Home Admin Finance Visitor Sponsor

Search

Edit

Update

Import

Export

Delete

Terms and Conditions

Data Backup and Recovery Account Management

Data Backup

From

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Choose the dates in between which you need your data to be backed up

To

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Backup Type

Full Differential

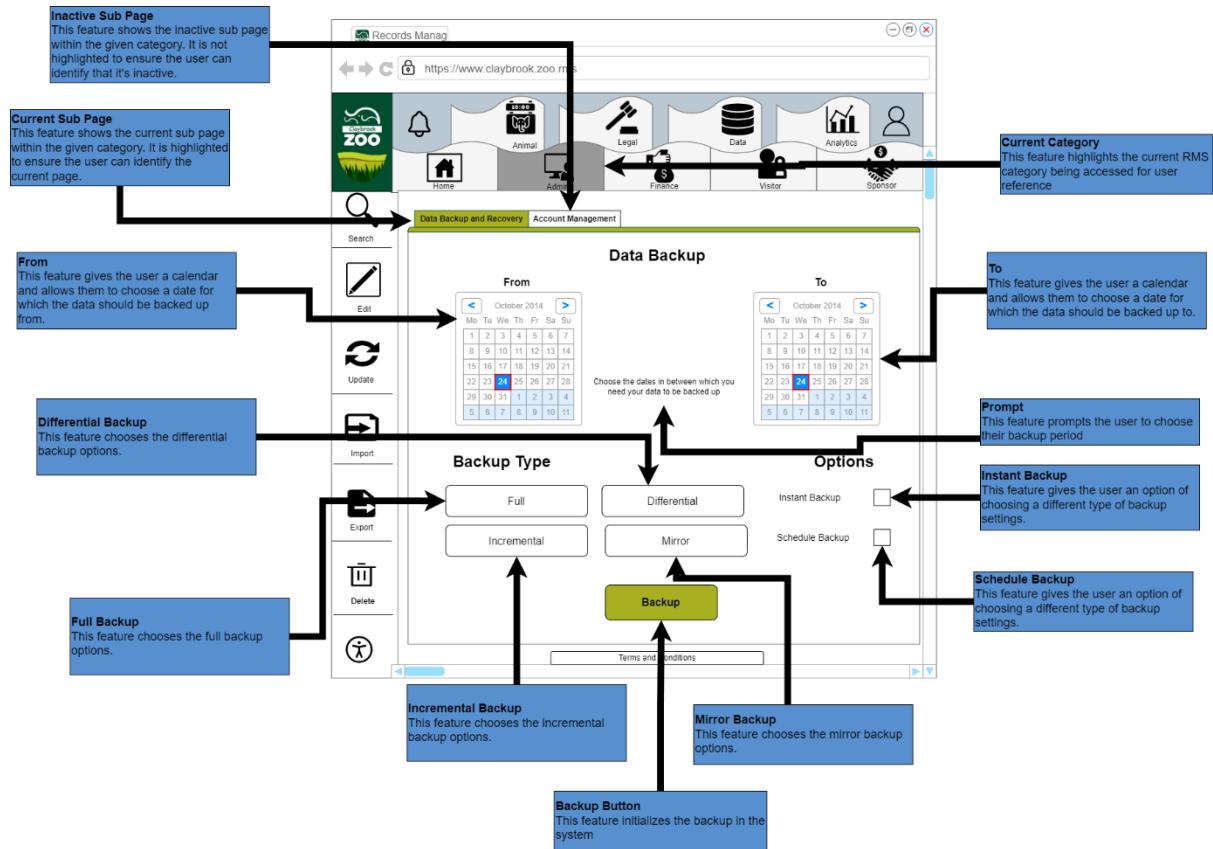
Incremental Mirror

Options

Instant Backup

Schedule Backup

Backup



Finance Management Page

Records Manag

<https://www.claybrook.zoo.rms>

Claybrook ZOO

Home Admin Animal Legal Data Analytics Sponsor

Search

Edit

Update

Import

Export

Delete

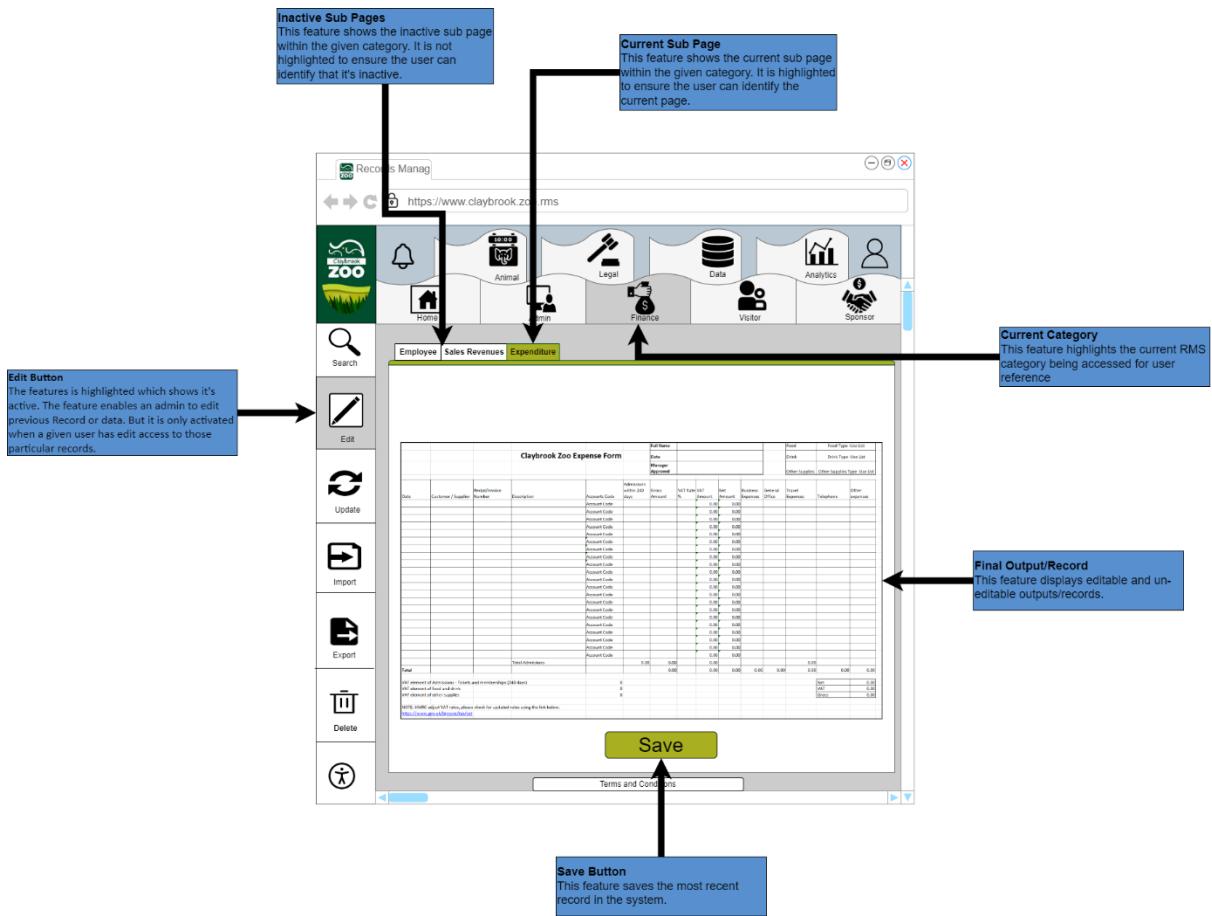
Employee Sales Revenues Expenditure

Claybrook Zoo Expense Form

Full Name				Food		Food Type - Use List	
Date	Manager Approved	Date	Manager Approved	Drink	Drink Type - Use List	Other Supplies	Other Supplies Type - Use List
Total Admissions		0.00	0.00	0.00	0.00	0.00	0.00
VAT element of Admissions - Tickets and memberships (240 days)		0		Net	0.00		
VAT element of food and drink		0		VAT	0.00		
VAT element of other supplies		0		Gross	0.00		
NOTE: HMRC adjust VAT rates, please check for updated rates using the link below: https://www.gov.uk/tickets/tax/vat							

Save

Terms and Conditions



Visitor Management Page

Records Manag

https://www.claybrook.zoo.rms

Claybrook ZOO

Home Admin Animal Legal Data Analytics Sponsor

Search Edit Update Import Export Delete User Management

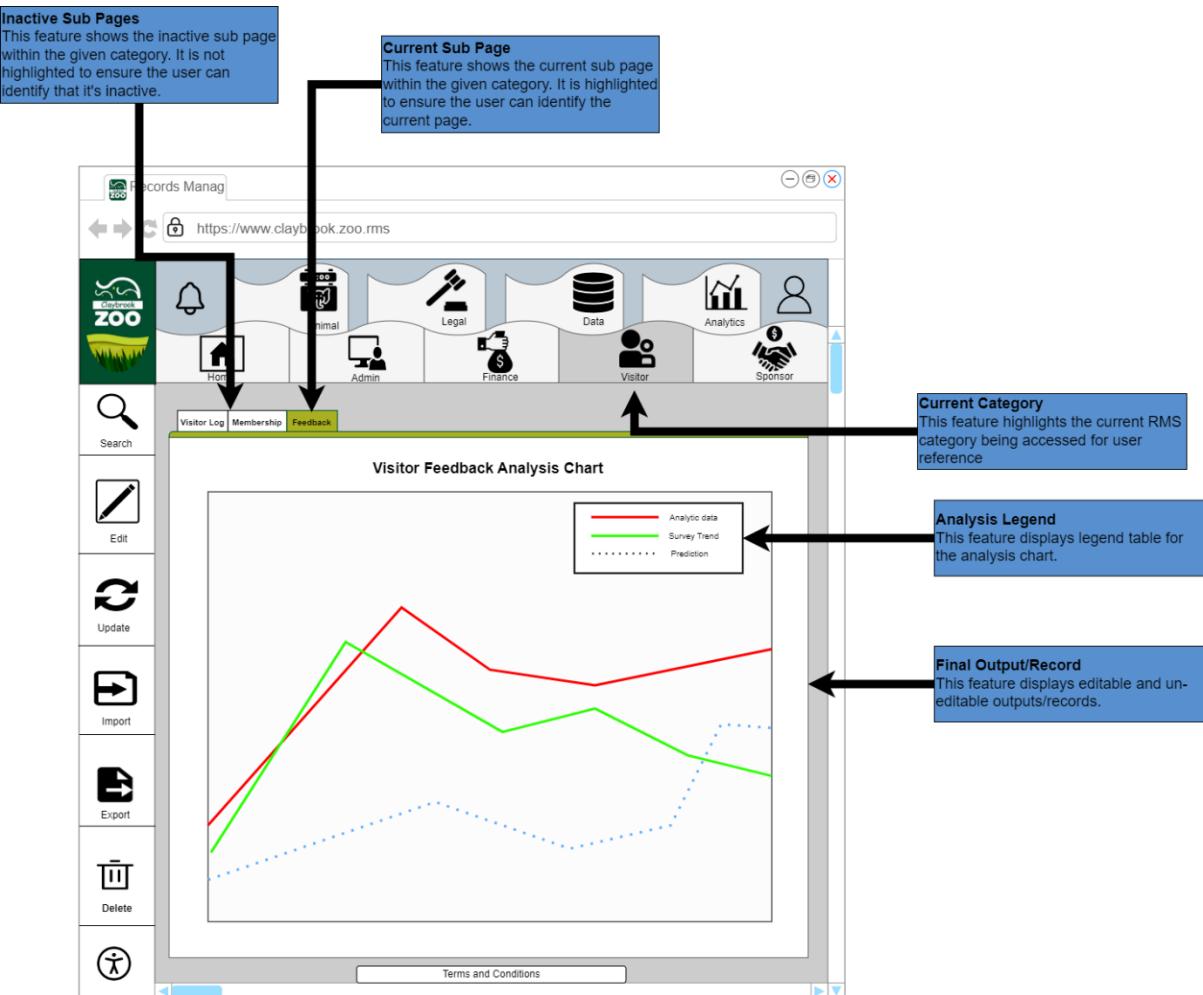
Visitor Log Membership Feedback

Visitor Feedback Analysis Chart

Legend:

- Analytic data (Red solid line)
- Survey Trend (Green solid line)
- Prediction (Blue dotted line)

Terms and Conditions



Sponsor Management Page

Records Manager

<https://www.claybrook.zoo.rms>

Claybrook ZOO

Home Admin Legal Data Analytics Sponsor

Search

Edit

Update

Import

Export

Delete

Terms and Conditions

Name

First Name Second Name

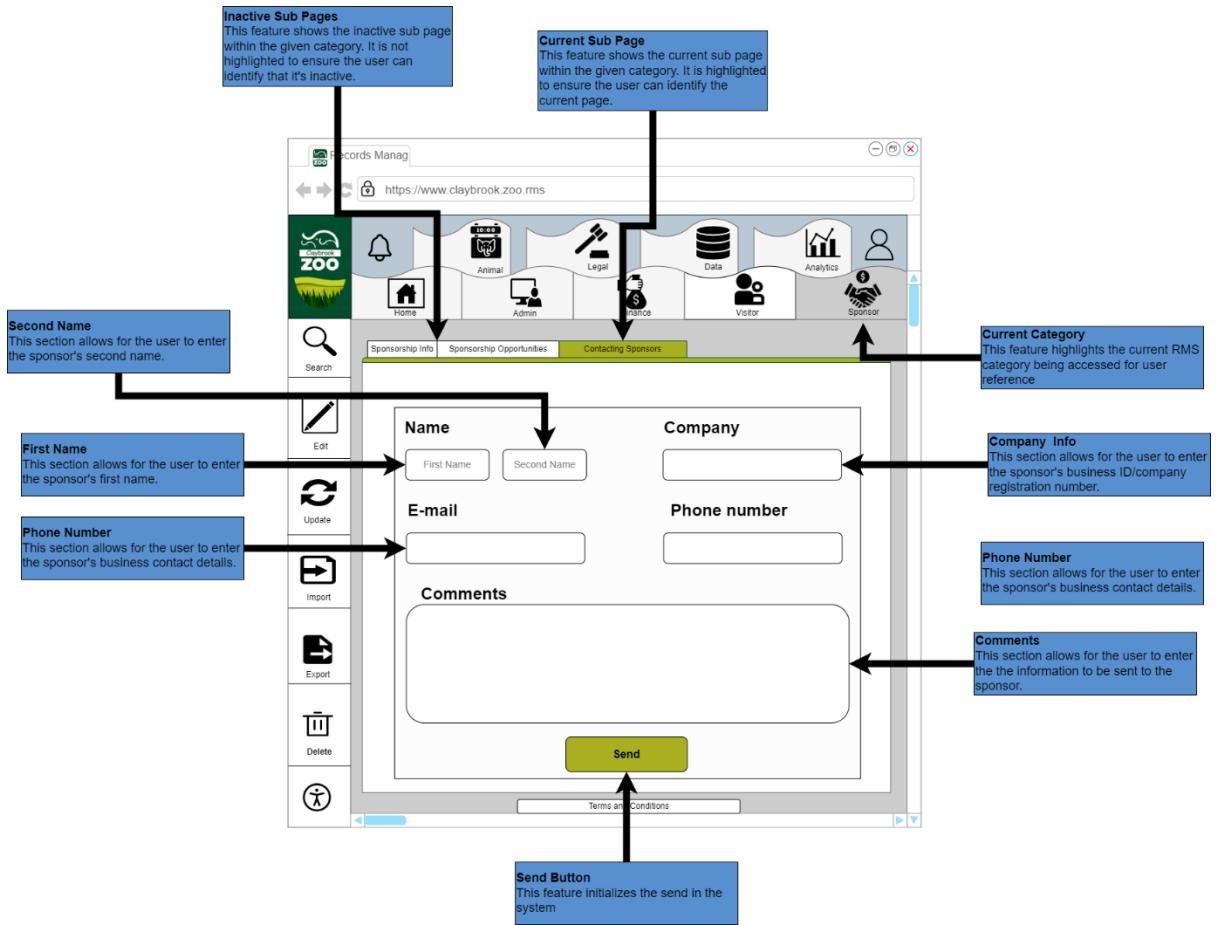
Company

E-mail

Phone number

Comments

Send



Animal Management Page

Records Manag
(-) (e) (x)

C

 https://www.claybrook.zoo.rms

Search

Edit
Update
Import
Export
Delete
Logout

Record Medical History Breeding **Location and Feeding**

10

Detailed Map of Mammal Outdoor Compound 1

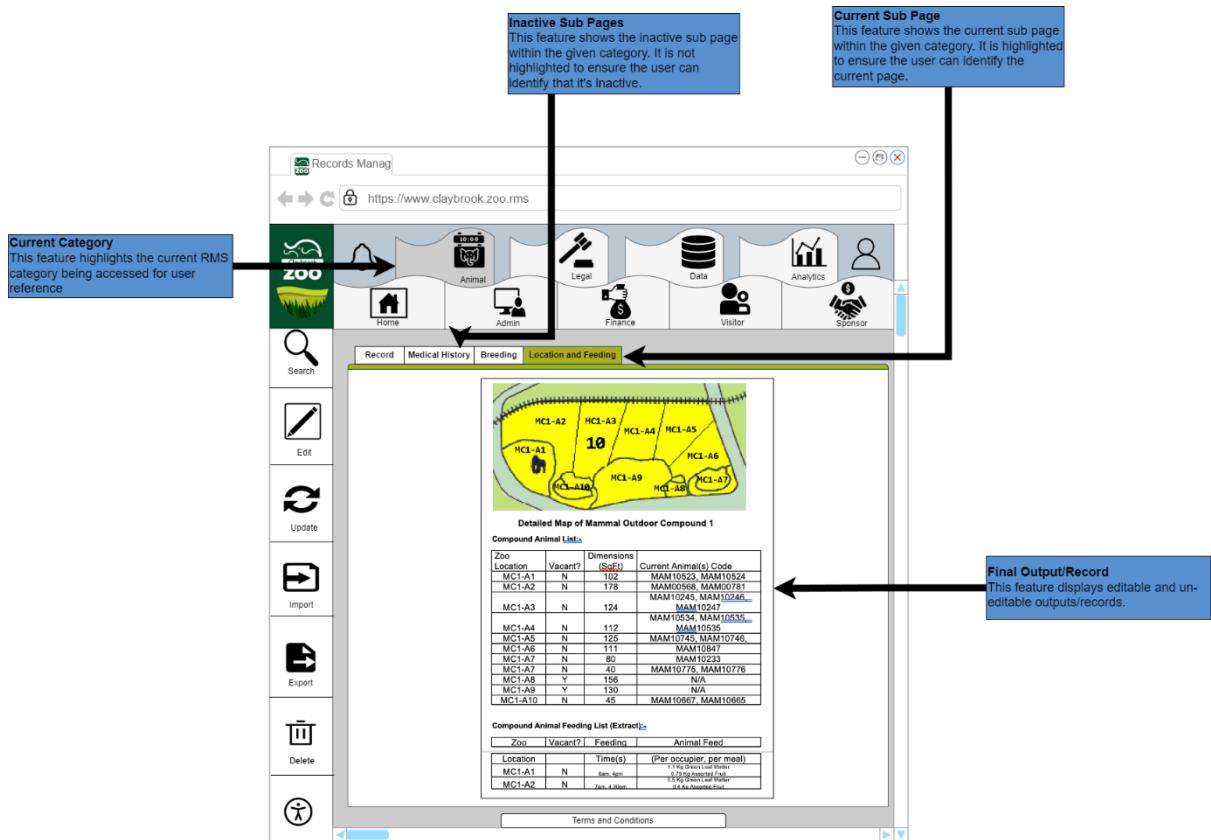
Compound Animal List:

Zoo Location	Vacant?	Dimensions (SqFt)	Current Animal(s) Code
MC1-A1	N	102	MAM10523, MAM10524
MC1-A2	N	178	MAM00568, MAM00781
MC1-A3	N	124	MAM10245, MAM10246, MAM10247
MC1-A4	N	112	MAM10534, MAM10535
MC1-A5	N	125	MAM10745, MAM10746, MAM10847
MC1-A6	N	111	MAM10233
MC1-A7	N	80	MAM10775, MAM10776
MC1-A8	Y	156	N/A
MC1-A9	Y	130	N/A
MC1-A10	N	45	MAM10667, MAM10665

Compound Animal Feeding List (Extract):

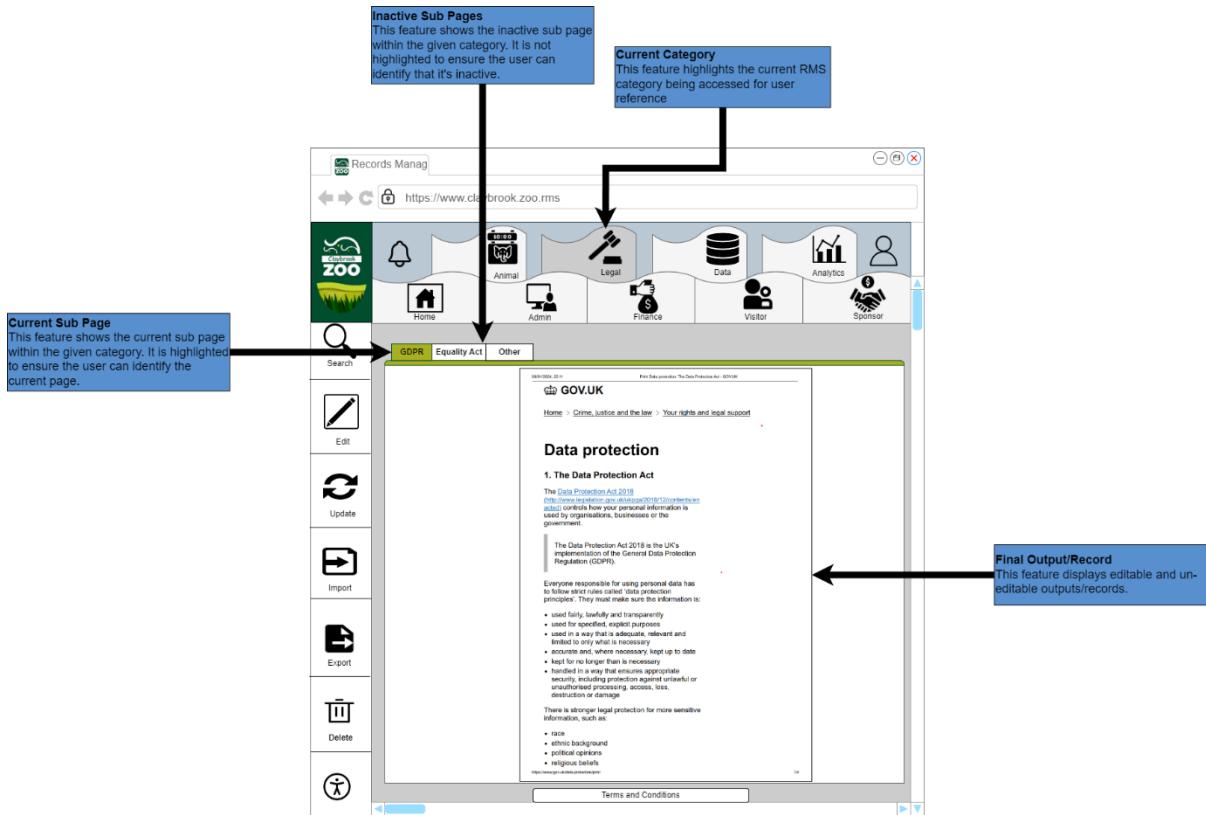
Zoo	Vacant?	Feeding	Animal Feed
MC1-A1	N	6am, 4pm	1.1 Kg Green Leaf Matter 0.75 Kg Assorted Fruit
MC1-A2	N	7am, 4:30pm	0.5 Kg Green Leaf Matter 0.4 Kg Assorted Fruit

Terms and Conditions
Help
Logout



Legal and Compliance Page

The screenshot shows a web application interface for 'Records Manag' at <https://www.claybrook.zoo.rms>. The main menu includes icons for Home, Animal, Legal, Data, Analytics, Sponsor, Admin, Finance, and Visitor. On the left, a sidebar lists actions: Search, Edit, Update, Import, Export, Delete, and User. The 'Data protection' section is currently selected. The main content area displays the GOV.UK Data Protection Act 2018 page, which provides information about the act's implementation of the General Data Protection Regulation (GDPR). It highlights principles like fairness, lawfulness, and transparency, and mentions stronger legal protection for sensitive information such as race, ethnic background, political opinions, and religious beliefs.



Data/Repository Page

Records Manag

https://www.claybrook.zoo.rms



Animal Admin Data Analytics Sponsor

Home Admin Finance Visitor Sponsor

Search Edit Update Import Export Delete

Animal Location Medical Employee Sponsor Website Information Systems Records Management System

Zoo Animal Sponsorship Agreement Form

Client/Company Name: Zenith Staybrite Ltd

Existing Customer: Yes/No: Yes
ID (if appropriate): SP1021
Primary Telephone Number: 01966 7855121
Secondary Telephone Number: 0800 3289395

Client Address/Contact Details:
Mrs Jane Woods (Senior Accountant)
45 Blackwood Road
Westhills
Longbottom
North Yorkshire
NY12 D454

Animal(s) to be sponsored: Redwell and Mango

Animal location: MC1-A1

Sponsorship Band(A E): A

Total Price: £3000 x 2 (£6000)

Period of agreement: 1st January 2022 to December 31st 2022

Signage % Area: 1/8

Signage Displayed (Picture of actual agreed content):

Animal Sponsorship By: Zenith Staybrite

Call for a FREE QUOTE: 0800 328 9395

Terms and Conditions

Inactive Sub Pages
This feature shows the inactive sub page within the given category. It is not highlighted to ensure the user can identify that it's inactive.

Current Category
This feature highlights the current RMS category being accessed for user reference

Current Sub Page
This feature shows the current sub page within the given category. It is highlighted to ensure the user can identify the current page.

Final Output/Record
This feature displays editable and un-editable outputs/records.

The screenshot shows the 'Sponsor' tab selected in the navigation bar. The main content area displays a form titled 'Zoo Animal Sponsorship Agreement Form'. The form includes fields for Client/Company Name (Zenith Staybrite Ltd), Existing Customer (Yes/No), Primary Telephone Number (01966 7855121), Secondary Telephone Number (0800 3289395), and Client Address/Contact Details (Mrs Jane Woods (Senior Accountant), 45 Blackwood Road, Wharfedale, Longbottom, North Yorkshire, NY12 0AS). It also lists the Animals to be sponsored (Redwell and Mango), Animal location (MC1-A1), Sponsorship Band(A-E) (A), Total Price (£3000 x 2 (£6000)), Period of agreement (1st January 2022 to December 31st 2022), Signage % Area (1/8), and Signage Displayed (Picture of actual agreed content). The form features logos for Zenith Staybrite and a call to action: 'Call for a FREE QUOTE' and '0800 328 9395'.

Data Analytics Page

Records Manager

https://www.claybrook.zoo.rms

Claybrook ZOO

Analytics Dashboard Custom Reports

Report Generator Tool

Scheduling Reports

Financial -End Year Report

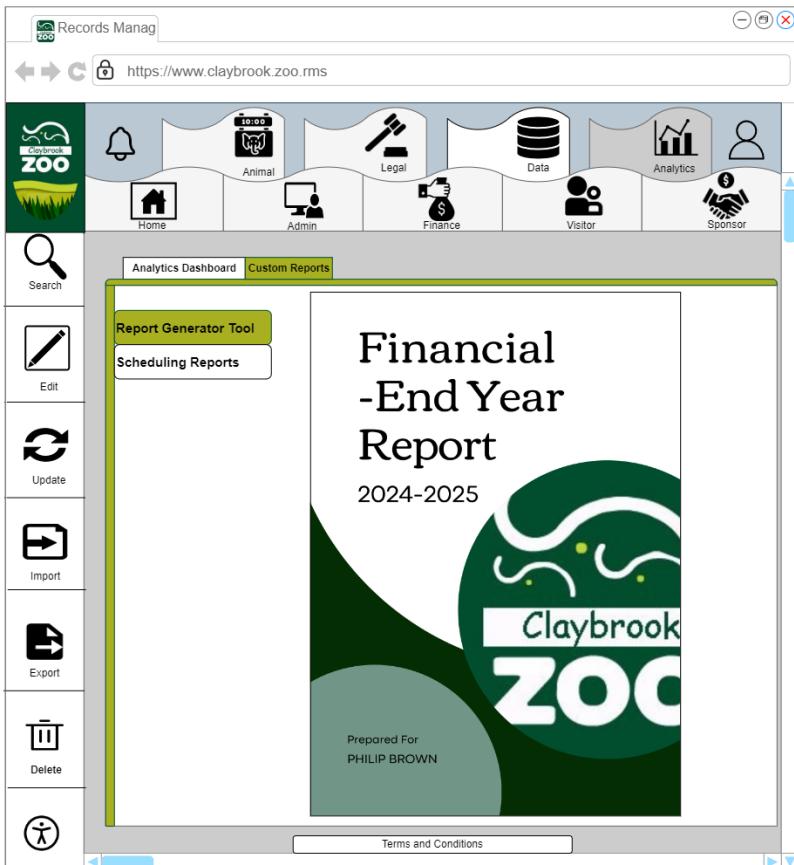
2024-2025

Prepared For
PHILIP BROWN

Terms and Conditions

Inactive Sub Pages
This feature shows the inactive sub page within the given category. It is not highlighted to ensure the user can identify that it's inactive.

Current Category
This feature highlights the current RMS category being accessed for user reference



Current Sub Page
This feature shows the current sub page within the given category. It is highlighted to ensure the user can identify the current page.

Final Output/Record
This feature displays editable and un-editable outputs/records.

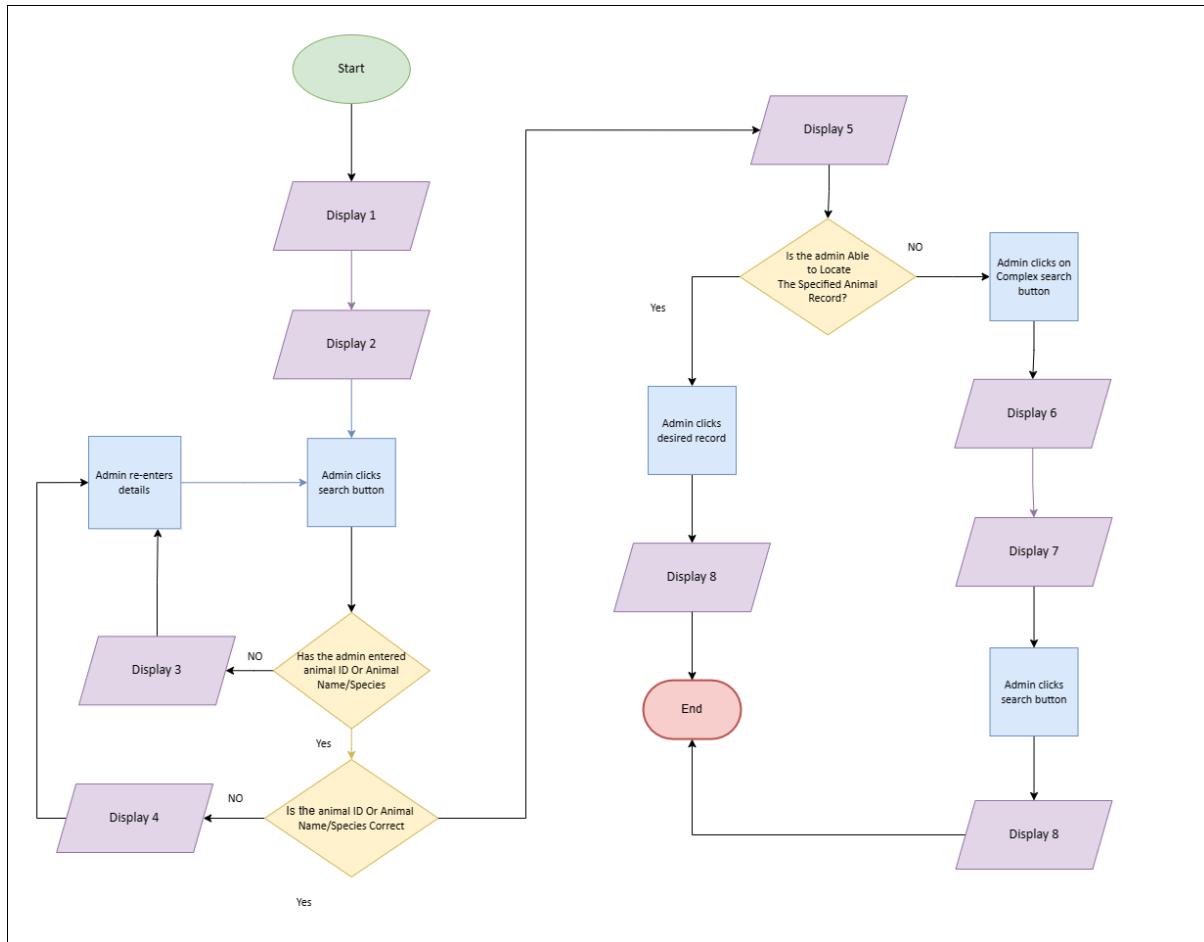
The journey from conceptual wireframes to the polished mockups of the Claybrook Zoo's Records Management System has been one of meticulous consideration and iterative refinement. The feedback from Thomas Smith and Matthew Jones has been instrumental in shaping a user interface that is not only visually appealing but also intuitively aligned with the needs of those it serves. These mockups are more than just static images; they are a promise of functionality and efficiency, a prelude to the user experience that awaits. As we present these final designs to the client, we do so with the confidence that they encapsulate the vision, diligence, and collaborative spirit that have driven this project forward. Upon approval, we will embark on the exciting phase of bringing these mockups to life, transforming them from carefully crafted designs into a dynamic and fully functional records management system.

3.1.4 System Activity Event Diagrams

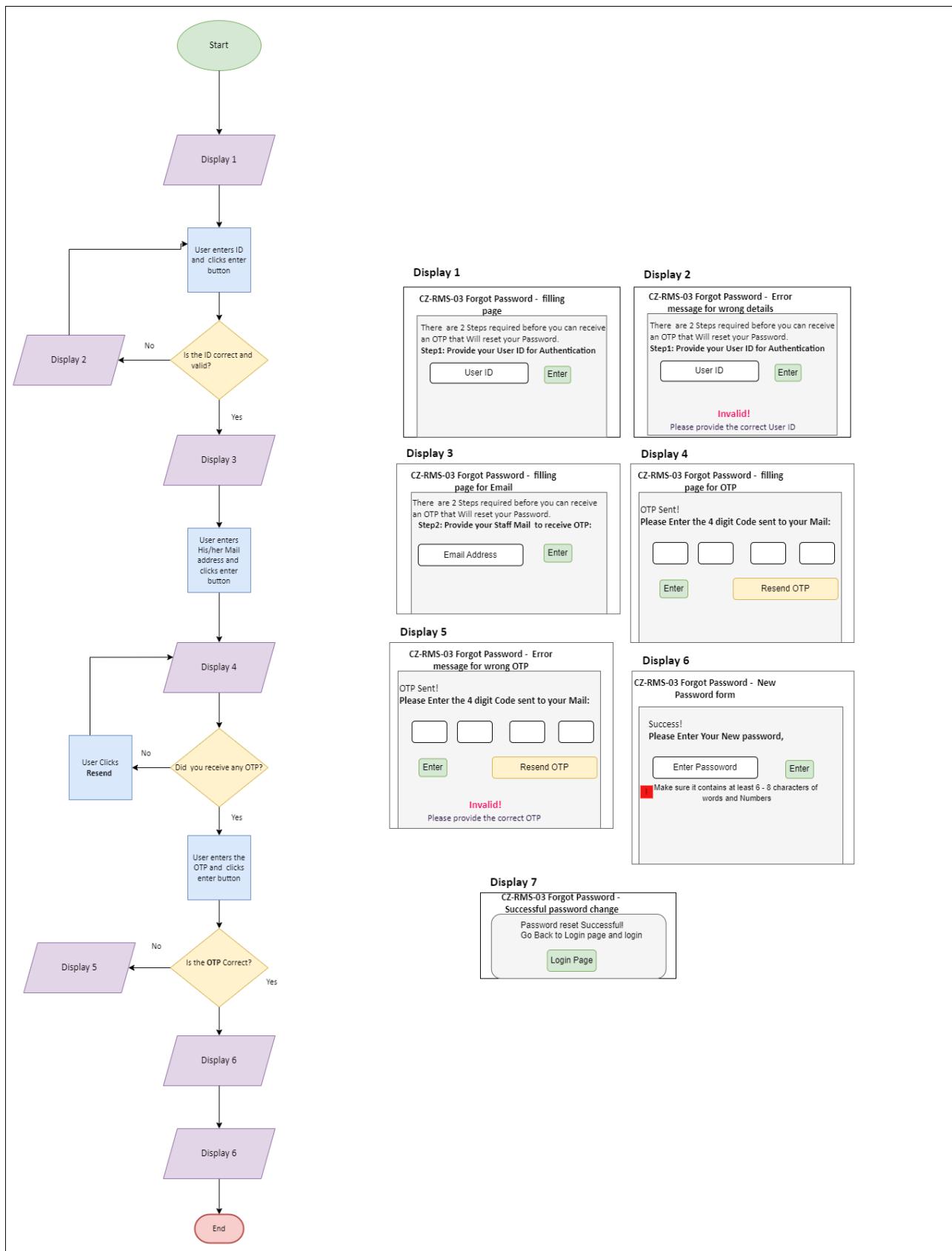
The intricate web of user interactions within the Claybrook Zoo's Records Management System necessitates a clear understanding of how each action precipitates a cascade of events and transitions. To capture this dynamic flow of activities, we have developed system activity event diagrams. These diagrams serve as a visual narrative, detailing the journey a user undergoes through various system states in response to their interactions with distinct features. They are designed to mirror the real-world scenarios that users will

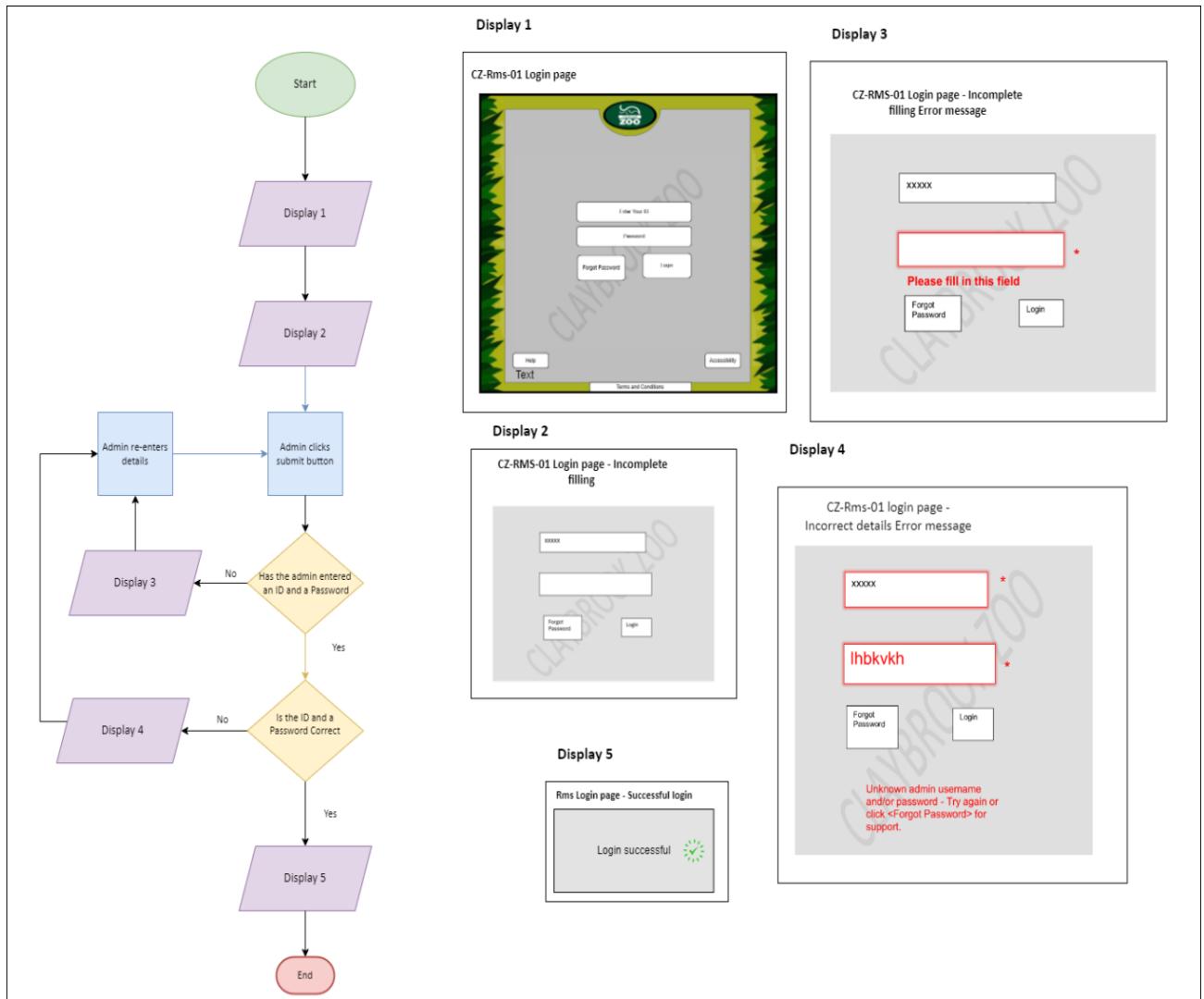
encounter, providing a step-by-step depiction of the system's behavioural responses. This meticulous mapping is essential for ensuring that the system's architecture is both robust and responsive, delivering a seamless user experience that aligns with the practical needs of the zoo's operations.

Search Functionality



<p>Display 1</p> <p>CZ-RMS-6.1- Search page- To find form</p> <p>Search for anything: <input type="text"/></p> <p>Search for Animals: <input type="text"/></p> <p>Search for Animals</p> <p>Animal ID/Enclosure: <input type="text"/></p> <p>Name/Species: <input type="text"/></p> <p>Category: <input type="text"/></p>	<p>Display 2</p> <p>CZ-RMS-6.1- Search page- Partial form filling</p> <p>Search for anything: <input type="text"/></p> <p>Search for Animals: <input type="text"/></p> <p>Search for Animals</p> <p>Animal ID/Enclosure: <input type="text"/></p> <p>Name/Species: <input type="text"/></p> <p>Category: <input type="text"/> Mammal</p>	<p>Display 3</p> <p>CZ-RMS- Search page- Error message for partial filling</p> <p>Search for anything: <input type="text"/></p> <p>Search for Animals: <input type="text"/></p> <p>Search for Animals</p> <p>Animal ID/Enclosure: <input type="text"/></p> <p>Name/Species: <input type="text"/></p> <p>Category: <input type="text"/> Mammal</p> <p>Please fill in either the Animal Id or Name/Species</p>	<p>Display 4</p> <p>CZ-RMS-6.1- Search page- Error message</p> <p>Search for anything: <input type="text"/></p> <p>Search for Animals: <input type="text"/></p> <p>Search for Animals</p> <p>Animal ID/Enclosure: <input type="text"/></p> <p>Name/Species: <input type="text"/></p> <p>Category: <input type="text"/> Mammal</p> <p>"No Result Found" Please fill in either Animal Id or Name/Species</p>																														
<p>Display 5</p> <p>CZ-RMS-6.1- Search page- Partial Search Result</p> <h3>SEARCH RESULTS</h3> <p>Snowy Owl</p> <p>The snowy owl is a large, white owl found in the Arctic and subarctic regions of the world. It is known for its striking white plumage, which helps it camouflage in its snowy habitat. Snowy owls are powerful predators, preying on small rodents, rabbits, and even penguins. They are also known for their distinctive call, which sounds like a series of hoots.</p> <p>Red Fox</p> <p>The red fox is a medium-sized canine with a distinctive reddish-orange coat, black legs, and a bushy tail. It is known for its cunning and adaptability, and can be found in a variety of habitats, from forests to urban areas. Red foxes are opportunistic feeders, preying on small rodents, rabbits, birds, and even fruits and vegetables. They are also skilled hunters, using their keen senses and stealth to catch their prey.</p> <p>Gila Monster</p> <p>The gila monster is a large, venomous lizard found in the southwestern United States and northern Mexico. It has a unique pattern of black and orange banded coloration, and its thick, heavy body. Gila monsters are slow-moving and docile creatures, but they can deliver a powerful bite if they feel threatened. Their venom is not typically fatal to humans, but it can cause severe pain and swelling.</p> <p>Terms and Conditions [arrow]</p>		<p>Display 6</p> <p>CZ-RMS-6.1- Search page- Complex Search Page</p> <h3>FIND</h3> <p>Search for anything: <input type="text"/> <input type="checkbox"/></p> <p>Search for animal: <input type="text"/></p> <p>For Complex Searches:</p> <p>Name: <input type="text"/> ⓘ</p> <p>Species: <input type="text"/> ⓘ</p> <p>Category: <input type="text"/> ⓘ</p> <p>Animal ID: <input type="text"/> ⓘ</p> <p>Enclosure Code: <input type="text"/> ⓘ</p> <p>Repository Code: <input type="text"/> ⓘ</p> <p>Search</p> <p>Terms and Conditions</p>																															
<p>Display 7</p> <p>CZ-RMS- Search page- Complex Search Page Filled form</p> <h3>FIND</h3> <p>Search for anything: <input type="text"/> ⓘ</p> <p>Search for animal: <input type="text"/></p> <p>For Complex Searches:</p> <p>Name: <input type="text"/> ⓘ REDWELL</p> <p>Species: <input type="text"/> ⓘ Gorilla</p> <p>Category: <input type="text"/> ⓘ Mammal</p> <p>Animal ID: <input type="text"/> ⓘ A12345</p> <p>Enclosure Code: <input type="text"/> ⓘ</p> <p>Repository Code: <input type="text"/> ⓘ</p> <p>Search</p> <p>Terms and Conditions</p>																																	
<p>Display 8</p> <p>CZ-RMS- Search page- Final Search Result</p> <p>Animal Record - Gorilla</p> <table border="1"> <thead> <tr> <th>Record</th> <th>Species</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Animal Name: Gorilla</td> <td>Gorilla</td> <td>Male</td> </tr> <tr> <td>Date of Birth: 1990-01-01</td> <td></td> <td></td> </tr> <tr> <td>Last Update Date: 2023-01-01</td> <td></td> <td></td> </tr> <tr> <td>Animal Description: Gorilla</td> <td></td> <td></td> </tr> <tr> <td>Animal Status: Active</td> <td></td> <td></td> </tr> <tr> <td>Average Weight (kg): 150</td> <td></td> <td></td> </tr> <tr> <td>Average Height (cm): 180</td> <td></td> <td></td> </tr> <tr> <td>Average Lifespan (avg. months): 40</td> <td></td> <td></td> </tr> <tr> <td>Dietary Requirements (Avg): 1.5 kg Assorted Fruit</td> <td></td> <td></td> </tr> </tbody> </table> <p>Gorilla</p> <p>Gorilla Name: Gorilla Species: Gorilla Species Category: Mammal Location Code: MC-A1 Date of Birth: 1990-01-01 Last Update Date: 2023-01-01 Dietary Requirements: 1.5 kg Assorted Fruit</p>				Record	Species	Location	Animal Name: Gorilla	Gorilla	Male	Date of Birth: 1990-01-01			Last Update Date: 2023-01-01			Animal Description: Gorilla			Animal Status: Active			Average Weight (kg): 150			Average Height (cm): 180			Average Lifespan (avg. months): 40			Dietary Requirements (Avg): 1.5 kg Assorted Fruit		
Record	Species	Location																															
Animal Name: Gorilla	Gorilla	Male																															
Date of Birth: 1990-01-01																																	
Last Update Date: 2023-01-01																																	
Animal Description: Gorilla																																	
Animal Status: Active																																	
Average Weight (kg): 150																																	
Average Height (cm): 180																																	
Average Lifespan (avg. months): 40																																	
Dietary Requirements (Avg): 1.5 kg Assorted Fruit																																	





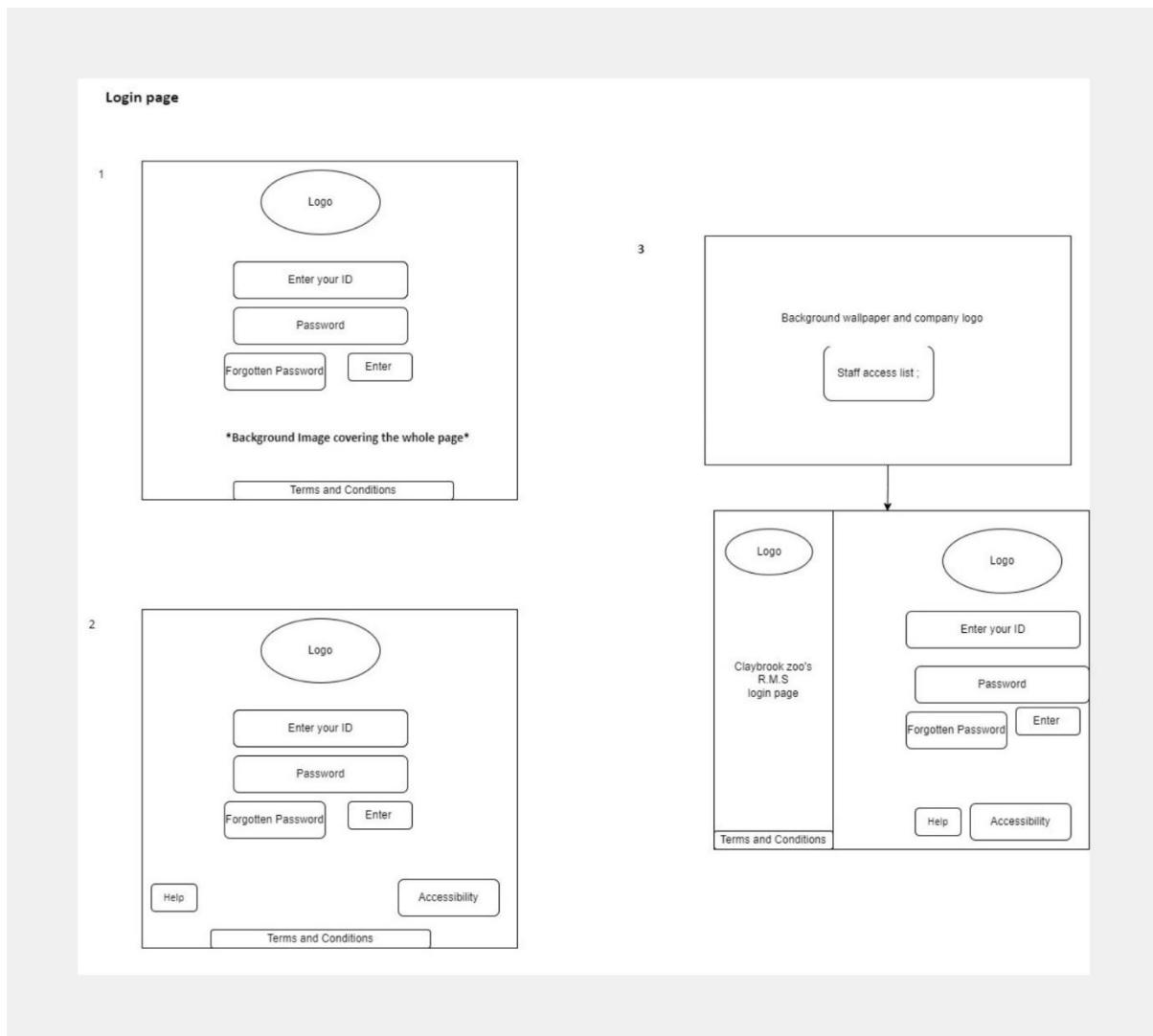
The system activity event diagrams for the Claybrook Zoo's Records Management System represent a comprehensive analysis of the system's inner workings. They are the culmination of our efforts to design a system that is not only functionally rich but also intuitive and user-friendly. By tracing the path from trigger events to system responses, these diagrams illuminate the complex interplay between user actions and system activities. They are an invaluable tool for developers, testers, and stakeholders alike, providing a common reference point that ensures alignment and understanding across all stages of system development and deployment. As we progress toward the final implementation, these diagrams stand as a testament to our commitment to creating an accessible and efficient digital environment for the zoo's record management needs.

3.2 Design Revisions

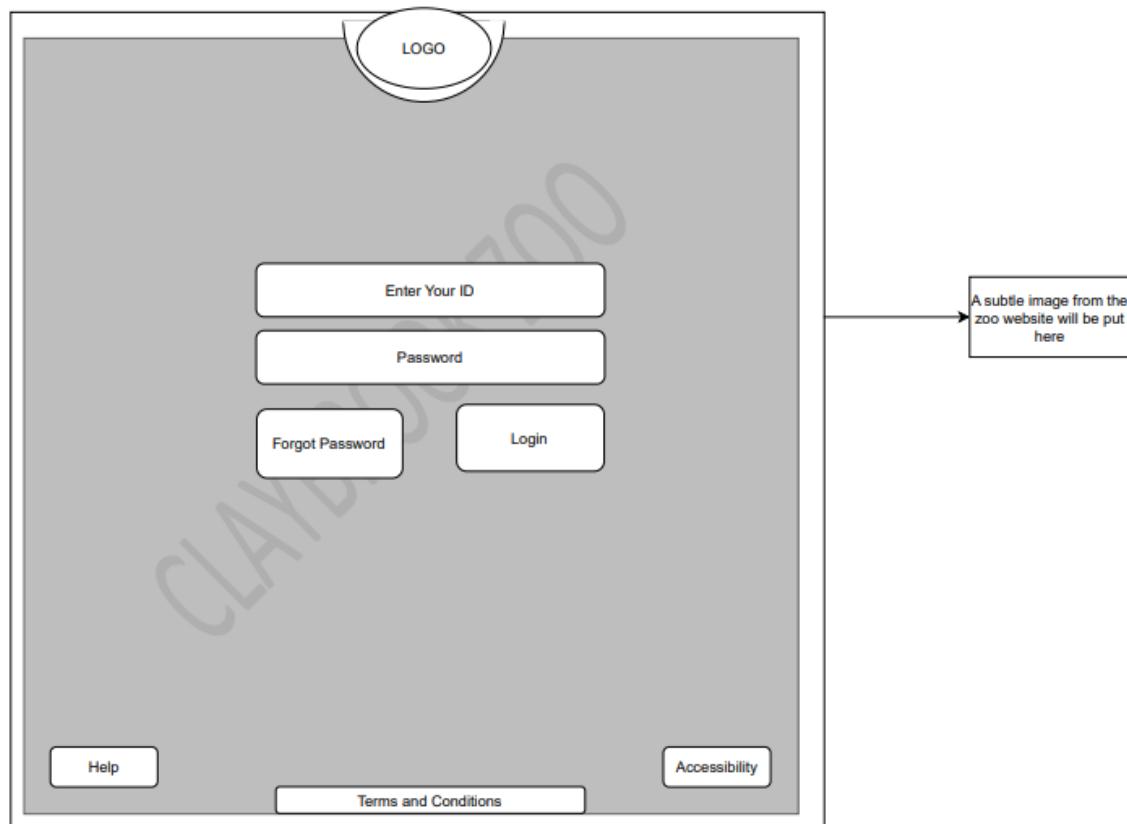
In the ever-evolving landscape of system design, feedback is the cornerstone of progress. Recognizing this, we embraced the insights gathered from Thomas Smith, our visitor with a keen eye for user engagement, and Matthew Jones, the key stakeholder whose strategic vision shapes our objectives. Their suggestions offered a unique opportunity to refine our initial designs, ensuring that the final product not only meets but exceeds the expectations of its diverse user base. This phase of design revisions, sparked by their invaluable input, has been an exercise in precision and user-centric innovation. We meticulously re-examined our work through the lens of their feedback, leading to a series of enhancements that have fortified the functionality and usability of the Claybrook Zoo's Records Management System.

- The following are the first draft of designs(wireframes) which were then presented to the client, right after each design is the redesign done after we received feedback from the client which were then used as guide when creating the final mock-ups designs.

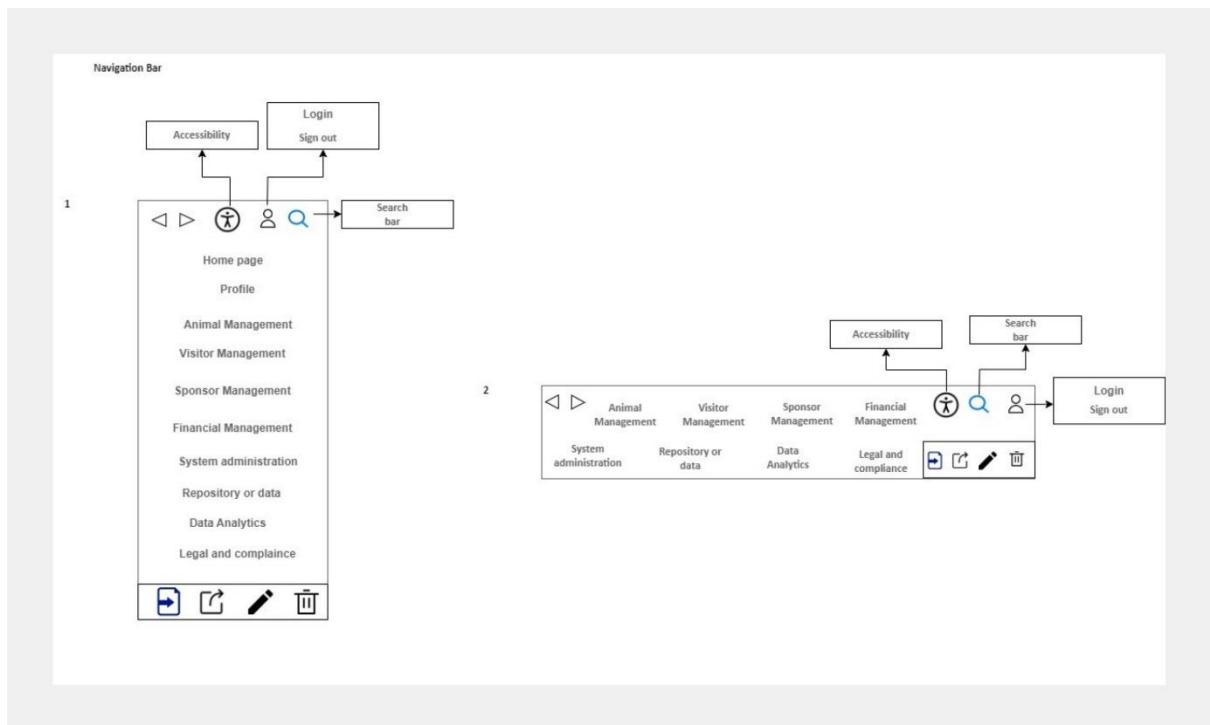
Log in Page (First design)



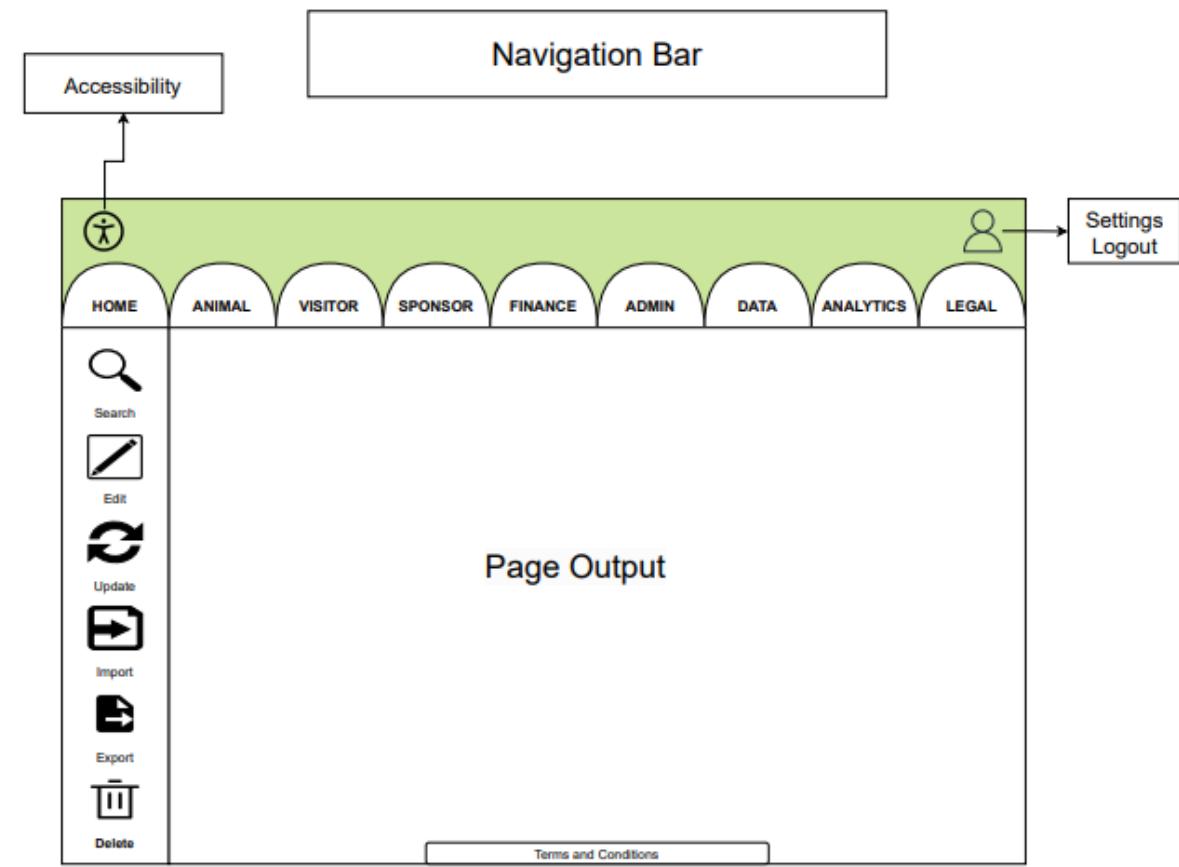
Log in Page (Redesign)



Navigation Bar (First Design)



Navigation Bar (Redesign)



- The following are Designs made after suggestions were given by client on certain areas of the system.

The symbol is highlighted in grey to show the current page

Search Page And Functionality

The symbol is highlighted in grey to show the current operations being applied. If none it's not highlighted

FIND

Search for anything:

Search for animal:

This turns on a detailed search

For Animals:

Animal ID/Enclosure code:

Name/Species:

Category:

Terms and Conditions

The page to be highlighted is the most current one. This will change once the particular information is chosen.

After search functionality

HOME **ANIMAL** **VISITOR** **SPONSOR** **FINANCE** **ADMIN** **DATA** **ANALYTICS** **LEGAL**

Search

Edit

Update

Import

Export

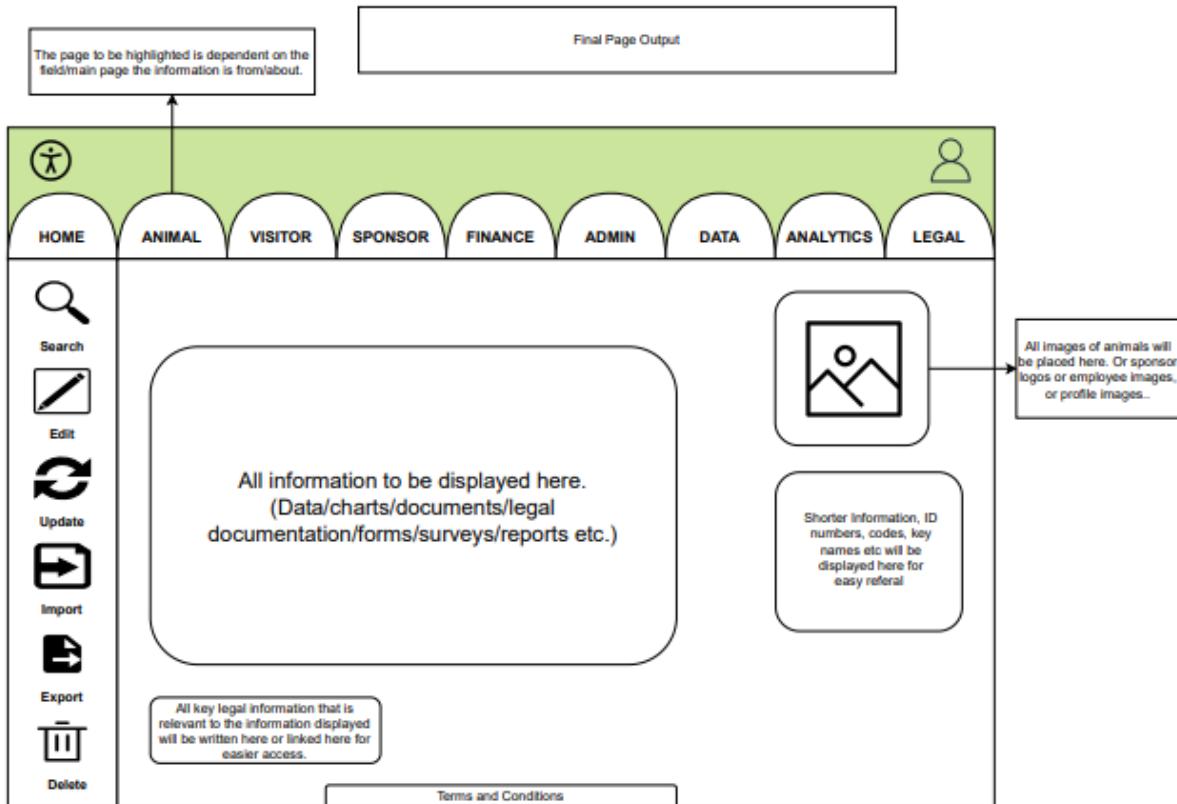
Delete

Short description of relevant search term/output

Short description of relevant search term/output

Short description of relevant search term/output

Terms and Conditions



The iterative process of design revisions has brought forth a refined version of the Claybrook Zoo's Records Management System that stands as a beacon of collaborative development. The contributions from Thomas Smith and Matthew Jones have been instrumental in sculpting a system that is not just a repository of records but a platform that resonates with the needs and expectations of its users. The revised designs encapsulate our dedication to creating a responsive and intuitive system, one that is the sum of its parts—each component meticulously tuned to the symphony of user feedback. As we reach the end of this revision cycle, we do so with the assurance that the system is well-poised to deliver an unparalleled user experience, underpinned by the clarity of purpose and commitment to excellence that have been our guiding lights throughout this journey.

3.3 Draft Interface Designs for Zoo Website

3.3.1 Wireframes

We present to you the wireframes of the Zoo website, which serve as the architectural skeleton of our online presence. These wireframes have been designed with the user in mind, ensuring that every interaction on our website is intuitive, informative, and engaging. From participating in the "Animal Vote" to navigating through our diverse range of exhibits and engaging with our community via social media, the wireframes lay out a roadmap for a seamless and interactive online experience. Each feature is thoughtfully placed to ensure that visitors and sponsors alike can easily find what they are looking for, whether it is ticket information, membership details, or the latest zoo news.

The following are the first draft of designs(wireframes) which were then presented to the client.

Main page (first design)

The wireframe shows a top navigation bar with a menu icon, a search icon, and a user profile icon. Below this is a green header section containing "Main News", "Animal News", and "Sponsor News". A yellow sidebar on the left contains "ANIMAL VOTE" and a picture of the week's animal with its description. To the right of the sidebar is a "next animal vote:" section with three options. The main content area includes "Contact Us:" with links to phone number, social media, and address/registration number. It also features a "FAQ" section and a "MAP" section. At the bottom, there are links for Cookies Policy and Terms and conditions.

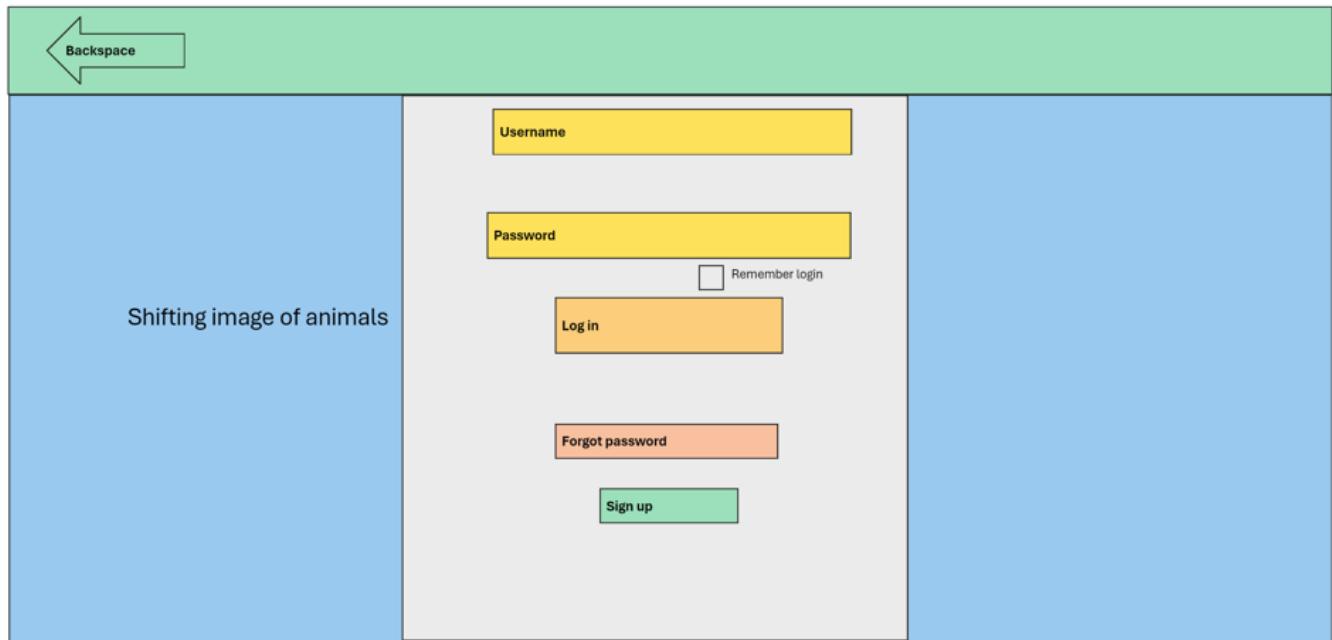
ANIMAL VOTE picture of this week's animal+description	next animal vote: option 1 option 2 option 3	
Contact Us: Phone Number Social Media link 1 Social Media link 2 Social Media link 3	FAQ Address: Company Registration Number:	MAP
Cookies Policy Terms and conditions		

Navigation System (First design)

The wireframe shows a top navigation bar with a menu icon, a search icon, a shopping cart icon, and a user profile icon. Below this is a grid of links arranged in two rows. The first row includes "Our zoo" (with icons for entrance and ticket booth), "Tickets", "Memberships", and "Souvenirs". The second row includes "Mammals" (with a bear icon), "Fishes", "Birds", "Reptile", "Amphibians", and "Live enclosures". To the right of the grid is a column of links: "Animal News", "Sponsor News", "General News", "Timetables", "Online Activities", "Videos", and "Games".

Our zoo	Tickets	Mammals	Animal News	Timetables
Memberships		Fishes	Sponsor News	Online Activities
Souvenirs		Birds	General News	Videos
		Reptile		Games
		Amphibians		
		Live enclosures		

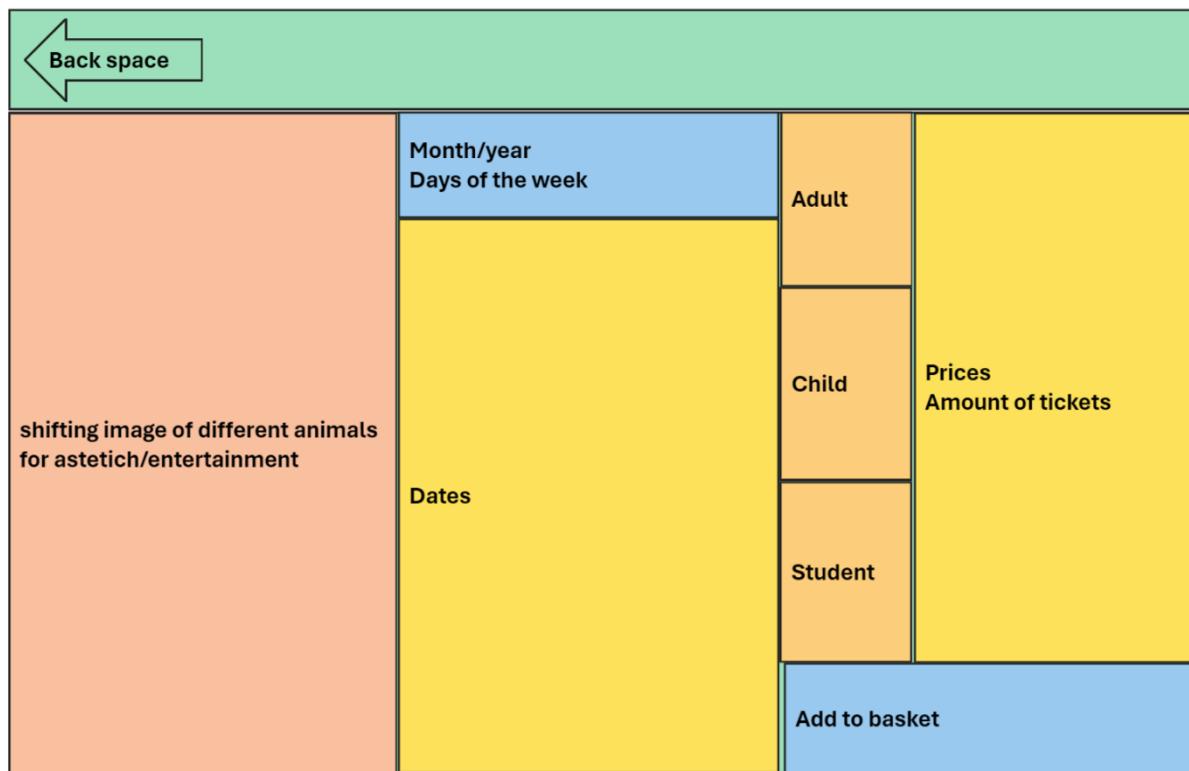
Log in page (First Design)



A wireframe diagram of a login page. The top bar is green with a backspace icon. The main area has a light blue background with a shifting image of animals. The central form area is white and contains the following elements:

- Username input field
- Password input field
- Remember login checkbox
- Log in button
- Forgot password link
- Sign up link

Ticket Purchase Page (First Design)



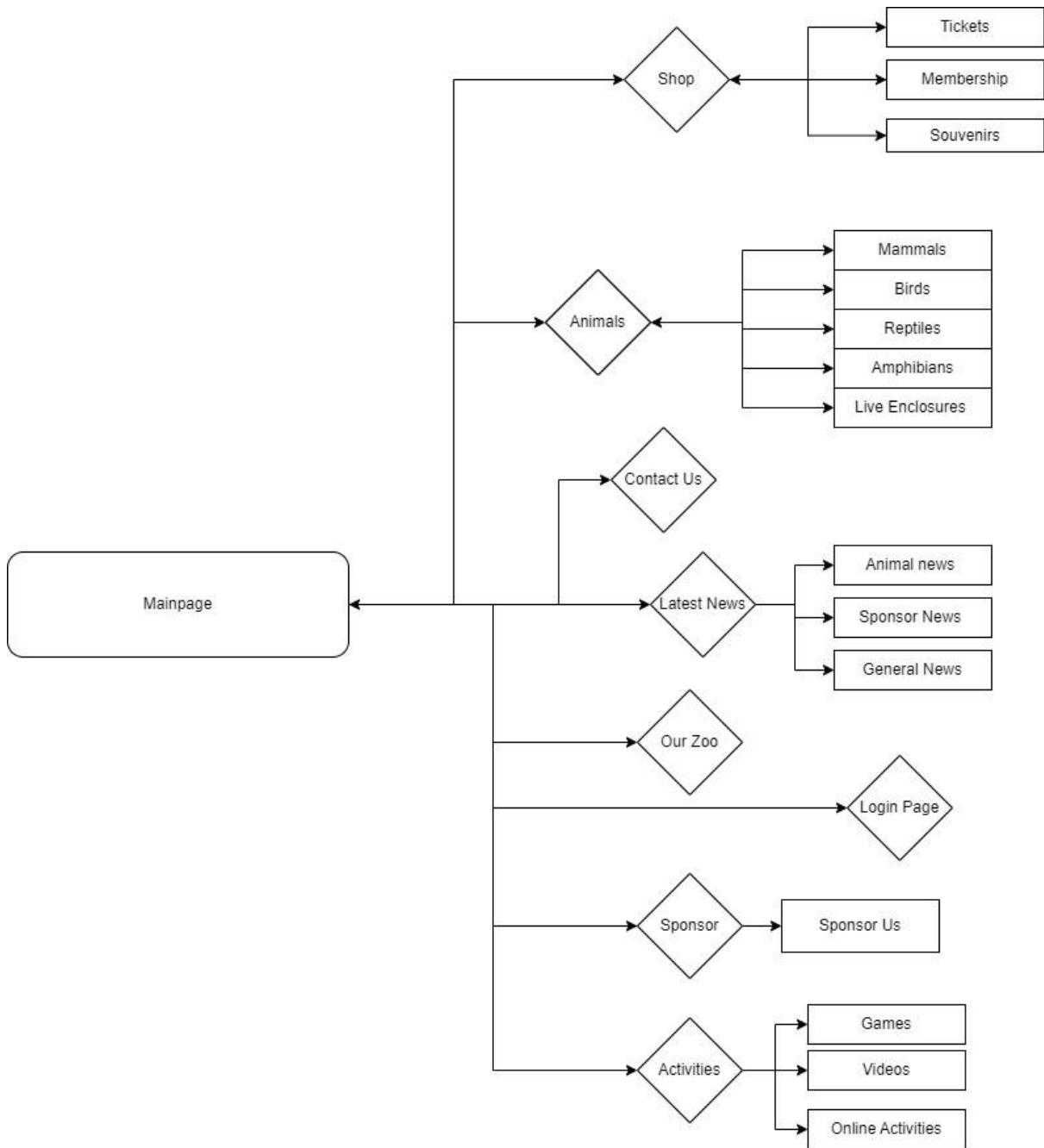
A wireframe diagram of a ticket purchase page. The top bar is green with a back space icon. The main area is divided into several colored sections:

- Orange section on the left: shifting image of different animals for astetich/entertainment
- Blue section at the top: Month/year, Days of the week
- Yellow section: Dates
- Orange section: Adult, Child, Student
- Yellow section: Prices, Amount of tickets
- Blue section at the bottom: Add to basket

The wireframes for the Claybrook Zoo website encapsulate a vision of connectivity and engagement, providing a solid foundation upon which our interactive online platform is built. They represent a harmonious blend of functionality and aesthetics, inviting users to explore, learn, and become part of our zoo community. As we move forward to the development phase, these wireframes will be the guiding blueprint that ensures all features are translated into a user-friendly interface. The final website will embody the spirit of Claybrook Zoo, offering a digital space where visitors and sponsors can support and enjoy our mission of conservation, education, and recreation from anywhere in the world.

3.3.2 System Navigation Diagram

In the quest to offer an intuitive and efficient user experience, we developed a navigation diagram for the Claybrook Zoo Records Management System. This diagram serves as a visual guide, outlining the user's journey through our comprehensive online ecosystem. From the Main page to the final interaction, each step is plotted to reflect the logical flow and interconnectivity of the system's pages. The navigation diagram is not just a tool for orientation; it reflects our commitment to creating a user-friendly environment where information is accessible, and tasks are completed with ease. It incorporates all critical pages—from Animals to Online Activities—ensuring that users can visualize the path they will traverse in managing records, purchasing tickets, or engaging with the zoo community.



The navigation diagram stands as a testament to our thoughtful approach to system design, offering users a bird's-eye view of the Claybrook Zoo Records Management System's structure. It encapsulates our dedication to providing a seamless navigation experience, allowing users to flow from one page to the next without losing sight of their objectives. This diagram will act as a compass for new users, a refresher for seasoned visitors, and a framework for ongoing system enhancements. With each page and transition logically connected, the Claybrook Zoo assures an online experience that is as organized and natural as the habitats of the animals in our care.

3.3.3 System Screen mock-ups

As we approached the culmination of our design phase, we meticulously crafted a series of mockups for the Claybrook Zoo website. These mockups represent the visual and functional blueprint of our final design, meticulously conceptualized to deliver an engaging and intuitive user experience. The main page mockups, inclusive of features such as the transition of the voting section and the annotated hamburger menu, serve as the cornerstone of our website's interface. We have employed progressive visualization techniques to ensure that each element is not only aesthetically pleasing but also functionally coherent. These mockups are the visual concretization of our extensive research, user feedback, and creative brainstorming sessions. They are intended to guide developers and stakeholders alike, providing a tangible representation of what the final product will look like and how it will operate.

This is the home page of the zoo's Website:

Page 1

<https://www.Claybrook-Zoo.com>

WE WISH YOU A MERRY HOLLY JOLLY CHRISTMAS

Animal Vote Winner:
Redwell(Lowland Gorilla)



Marvel at the Lowland Gorilla, nature's peaceful powerhouse. Weighing up to 440 pounds, these social beings charm with intelligence and deep family ties. Vital to their ecosystem and skilled in complex communication, they need our protection to survive. Encounter the magic of these gentle giants and join the mission to safeguard their future!

[Learn More](#)

Vote for the next animal.

 Time left: 2d

<input type="radio"/> Silvershade (Arctic Fox) Learn More
<input type="radio"/> Aurora (Peregrine Falcon) Learn More
<input type="radio"/> Moss (African Elephant) Learn More
<input type="radio"/> Fin (Green Anaconda) Learn More

[Submit Vote](#)

CLAYBROOK ZOO

Contact Us:

Phone Number: +44-xxx-xxx-xxxx



Opening Times:

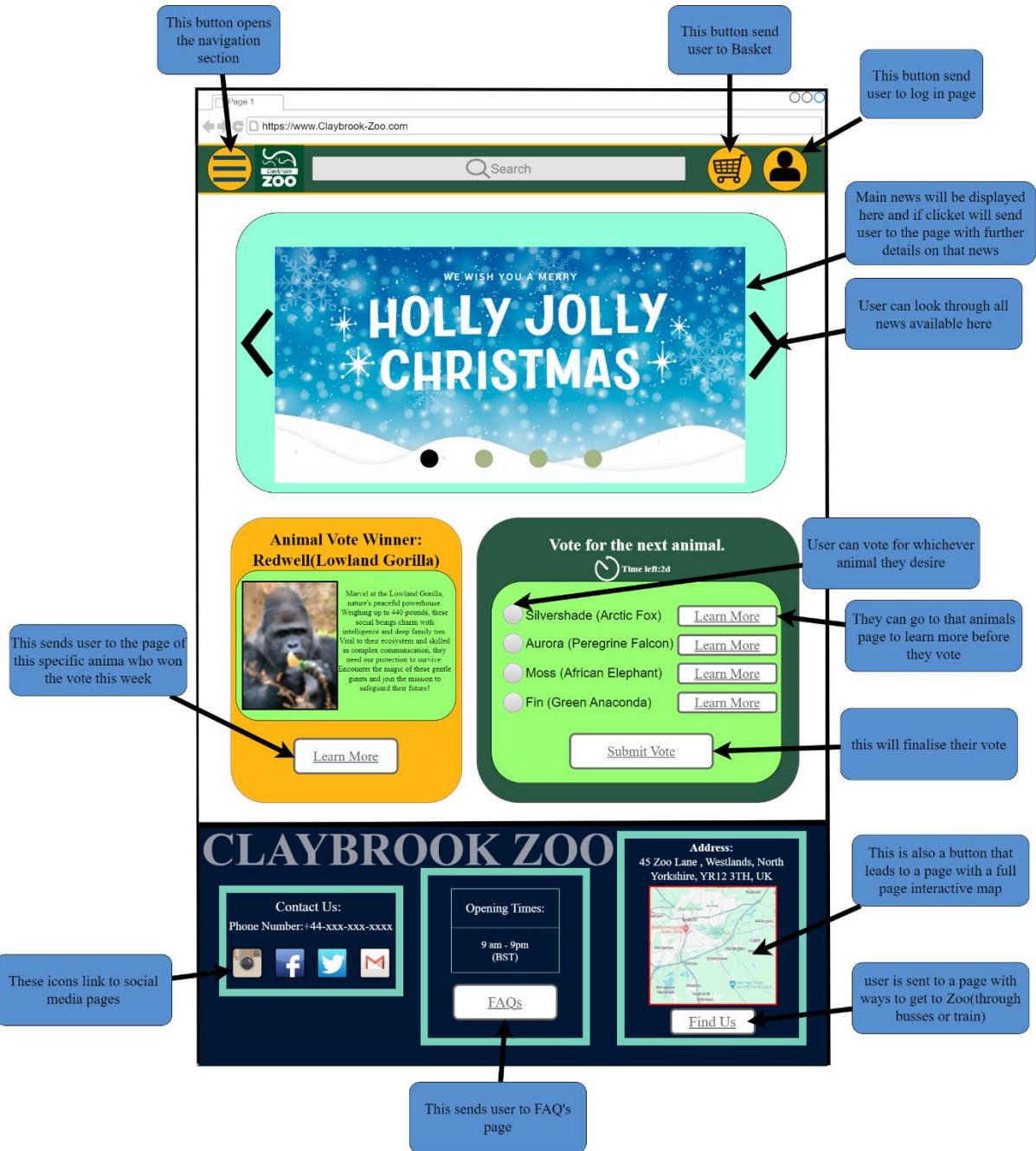
9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)



This is the Navigation section that will show up when hamburger menu button is clicked:

Page 1

<https://www.Claybrook-Zoo.com>

Animal Vote Winner:
Redwell(Lowland Gorilla)


Marvel at the Lowland Gorilla, nature's peaceful powerhouse. Weighing up to 440 pounds, these social beings charm with intelligence and deep family ties. Vital to their ecosystem and skilled in complex communication, they need our protection to survive. Encounter the magic of these gentle giants and join the mission to safeguard their future!

[Learn More](#)

Vote for the next animal.

Time left: 2d

<input type="radio"/> Silvershade (Arctic Fox)	Learn More
<input type="radio"/> Aurora (Peregrine Falcon)	Learn More
<input type="radio"/> Moss (African Elephant)	Learn More
<input type="radio"/> Fin (Green Anaconda)	Learn More

[Submit Vote](#)

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx

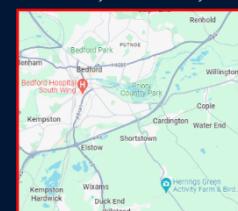


Opening Times:

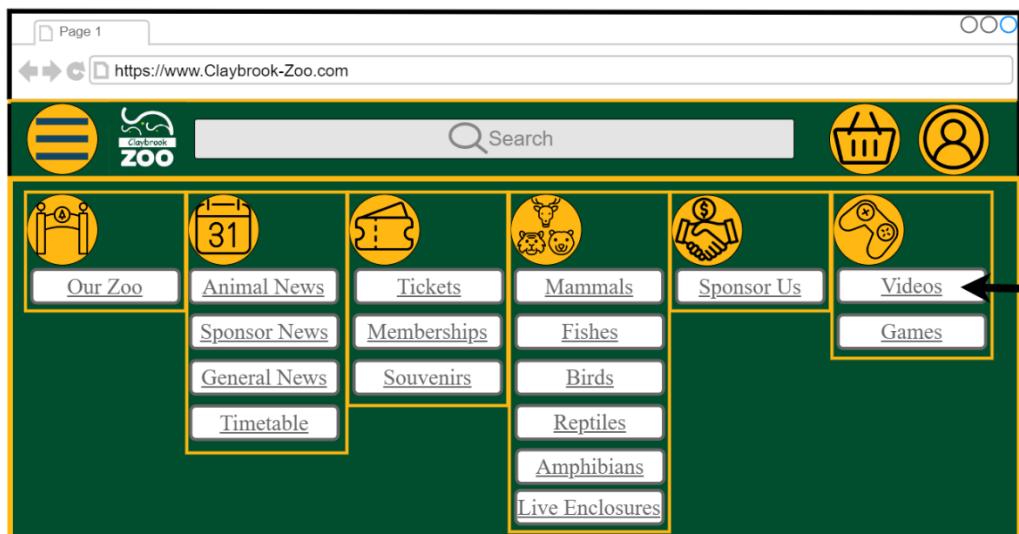
9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)



Once user clicks on any of these buttons he is sent to that specific page

Our Zoo page:

Page 1

<https://www.Claybrook-Zoo.com>



Search

OUR ZOO

Welcome to Claybrook Zoo, a Sanctuary of Nature's Marvels!

Discover a world where wildlife conservation and educational excellence unite in the heart of Westlands, North Yorkshire. Claybrook Zoo is not just a destination; it's an experience that takes you on an immersive journey into the natural world. Our grounds, located at the picturesque 45 Zoo Lane, are home to over 3,000 animals, each living in carefully crafted replicas of their natural habitats.

ANIMALS

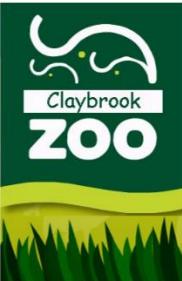
Aviary: Our Aviary is a kaleidoscope of avian life, where the air is filled with the melodies of birds from around the globe. Here, visitors can marvel at the grace of these feathered creatures as they soar through their spacious enclosures.

Aquarium: Venture into the depths of our Aquarium, where the wonders of the underwater world come to life. From the playful antics of dolphins to the silent glide of sharks, our Aquarium offers a window into the mysteries of the seas.

Hothouse: The Hothouse is a lush, tropical environment brimming with exotic plants and reptiles, a vibrant celebration of biodiversity that showcases the importance of these ecosystems.

Mammal Compounds/Cages: Our Mammal Compounds are a testament to the beauty and adaptability of mammals from all corners of the earth, offering guests a chance to witness the majesty of these creatures up close.

OUR LOGO





Closing Remarks

As you leave the Visitor Center, with its wealth of knowledge and warm welcomes, you'll find that every corner of Claybrook Zoo offers a new story. With cafes that provide a peaceful break and a multitude of events that entertain and educate, your visit will be filled with moments of joy and discovery.

Open from 9 am to 9 pm during British Summer Time and 10 am to 6 pm for the rest of the year, we invite you to step into a realm where nature is cherished and conserved. Engage with us online at www.Claybrook-Zoo.com and plan your visit to a place where nature's magic is celebrated every day.

Join us on this adventure at Claybrook Zoo, where every visit helps to protect the wonders of the wild and every experience leaves a lasting impact on your heart.

CLAYBROOK ZOO

Contact Us:

Phone Number: +44-xxx-xxx-xxxx

Opening Times:

9 am - 9pm (BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)

Animal News Page:

Page 1

<https://www.Claybrook-Zoo.com>

  Search  

Animal News



Frogs' Chorus: A Journey to Amphibian Awareness!
Leap into the world of amphibians with our "Frogs' Chorus" exhibit. Get up close with a variety of frog species, and join our interactive sessions on amphibian conservation and the vital role frogs play in our environment.

[more info](#)



Dolphin Dialogues: Dive into Interactive Learning!
Make a splash with our interactive dolphin shows, where intelligence meets playfulness. Engage with our trainers in a unique learning experience and discover the secrets of dolphin communication and behavior.

[more info](#)



Stripes of Success: Grand Opening of the Tiger Trail!
Venture into the wild with our new "Tiger Trail" exhibit, an immersive experience where you can witness the grace of our newest Bengal tigers. Learn about tiger conservation and their critical role in the ecosystem.

[more info](#)



Gator Gaze: Behold the Alligator Oasis!
Step into the bayou as we unveil the "Alligator Oasis," an expansive new habitat featuring our impressive new resident alligators. Observe their daily routines and learn about the importance of wetland preservation.

[more info](#)

Past page < 1 2 3 4 > Next page

CLAYBROOK ZOO

Contact Us:

Phone Number: +44-xxx-xxx-xxxx

Opening Times:

9 am - 9pm (BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)

This is a button to turn back to home page directly

[HOME](#)

Animal News

This will be the title that is displayed at the top of every page.

Image relating to the news is shown this is to make the new more eye catching.

Title that stands out and basic description to intrigue user to read more on the news.

This button if clicked will display the specific new with the full details on a separate page

Frogs' Chorus: A Journey to Amphibian Awareness! Step into the world of amphibians with our "Frogs' Chorus" exhibit. Get up close with a variety of frog species, and join our interactive sessions on amphibian conservation and the vital role frogs play in our environment.

Dolphin Dialogues: Dive into Interactive Learning! Make a splash with our interactive dolphin shows, where intelligence meets playfulness. Engage with our trainers in a unique learning experience and discover the secrets of dolphin communication and behavior.

Stripes of Success: Grand Opening of the Tiger Trail! Venture into the wild with our new "Tiger Trail" exhibit, an immersive experience where you can witness the grace of our newest Bengal tigers. Learn about tiger conservation and their critical role in the ecosystem.

Gator Gaze: Behold the Alligator Oasis! Step into the bayou as we unveil the "Alligator Oasis," an expansive new habitat featuring our impressive new resident alligators. Observe their daily routines and learn about the importance of wetland preservation.

on Darker backgrounds the font colour will appear to be white to make reading easier.

This bottom section is to toggle between pages, to go to the next 4 news

Past page < 1 2 3 4 Next page

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx

Opening Times:
9 am - 9pm (BST)

FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK

Find Us

Video

Page 1

https://www.Claybrook-Zoo.com

  Search  

Videos



TITLE:
Adventuring in the zoo and play with many animal.

[Watch](#)



TITLE:
Untamed Science:Animal Training

[Watch](#)



TITLE:
How do Zookeeper feed 7000 exotic animals?

[Watch](#)



TITLE:
Amazing Zoo Event with Polar bear.

[Watch](#)

Past page < 1 2 3 4 > Next page

CLAYBROOK ZOO

Contact Us:
Phone Number:+44-xxx-xxx-xxxx

Opening Times:

9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane , Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)

Page 1

<https://www.Claybrook-Zoo.com>

HOME

Videos



TITLE:
Adventuring in the zoo and play with many animal.

[Watch](#)



TITLE:
Untamed Science:Animal Training

[Watch](#)



TITLE:
How do Zookeeper feed 7000 exotic animals?

[Watch](#)



TITLE:
Amazing Zoo Event with Polar bear.

[Watch](#)

Past page 1 2 3 4 Next page

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx



Opening Times:
9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane , Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)

Log in page

Page 1

https://www.Claybrook-Zoo.com

The website features a large collage of images from the zoo. At the top left is a photo of two elephants being bathed by keepers. To the right is a close-up of a tiger's face. Below the tiger is a giant panda eating bamboo. In the bottom left corner is a photo of a family sitting in a field of orange flowers. The bottom right corner shows a keeper interacting with a group of people at a viewing area.

Search

Claybrook Zoo

Username

Password

Remember login

[Log in](#)

[Forget password](#)

[Sign up](#)

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-XXX-XXX-XXXX

Opening Times:

9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK

A map showing the location of Claybrook Zoo in Bedfordshire, UK. The map includes labels for Bedford, Bedford Hospital, South Bridge, Kempston, Elstow, Wixams, Duke End, Willington, Cople, Cardington, Water End, and Helming Green Activity Farm & Bird Park. A red box highlights the area around the zoo.

[Find Us](#)



Sponsors sign up.

Page 1

https://www.Claybrook-Zoo.com

  Search  

Sponsor Sign Up

Contact Details

First and last name

Email

Phone number

Company Details & Contract

Company Name

Animal to be Sponsored Choose... Options

Press the button to download a copy of the contract and after signing it, please upload it below:

Download

Choose file

Submit contract and Complete Sign-up

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-XXX-XXX-XXXX
   

Opening Times:
9 am - 9pm (BST)
FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



Find Us

Sponsor Sign Up

Contact Details

First and last name

Email

Phone number

Company Details & Contract

Company Name

Animal to be Sponsored Choose... Options

Press the button to download a copy of the contract and after signing it, please upload it below:

Download

Choose file Browse Upload

Submit contract and Complete Sign-up

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx

Opening Times:
9 am - 9pm (BST)

FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK

Find Us

Sponsor enters their name and surname

Sponsor enters their Email

Sponsor enters their Phone number

Sponsor enters their Company name

Once filled out the contract it reuploaded

Sponsor can choose between the available animals which one to sponsor

Sponsor downloads the contact which then has to be signed

once this is clicked the details posted above are verified and further contacting with sponsor is done via email

Animal page (Mammals)

Page 1

https://www.Claybrook-Zoo.com

  Search  

Mammals

MEET OUR ANIMALS AND DISCOVER NEW THINGS ABOUT THEM



LION



TIGER



KAPIBARA



RED PANDA

Past page  Next page

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-XXX-XXX-XXXX

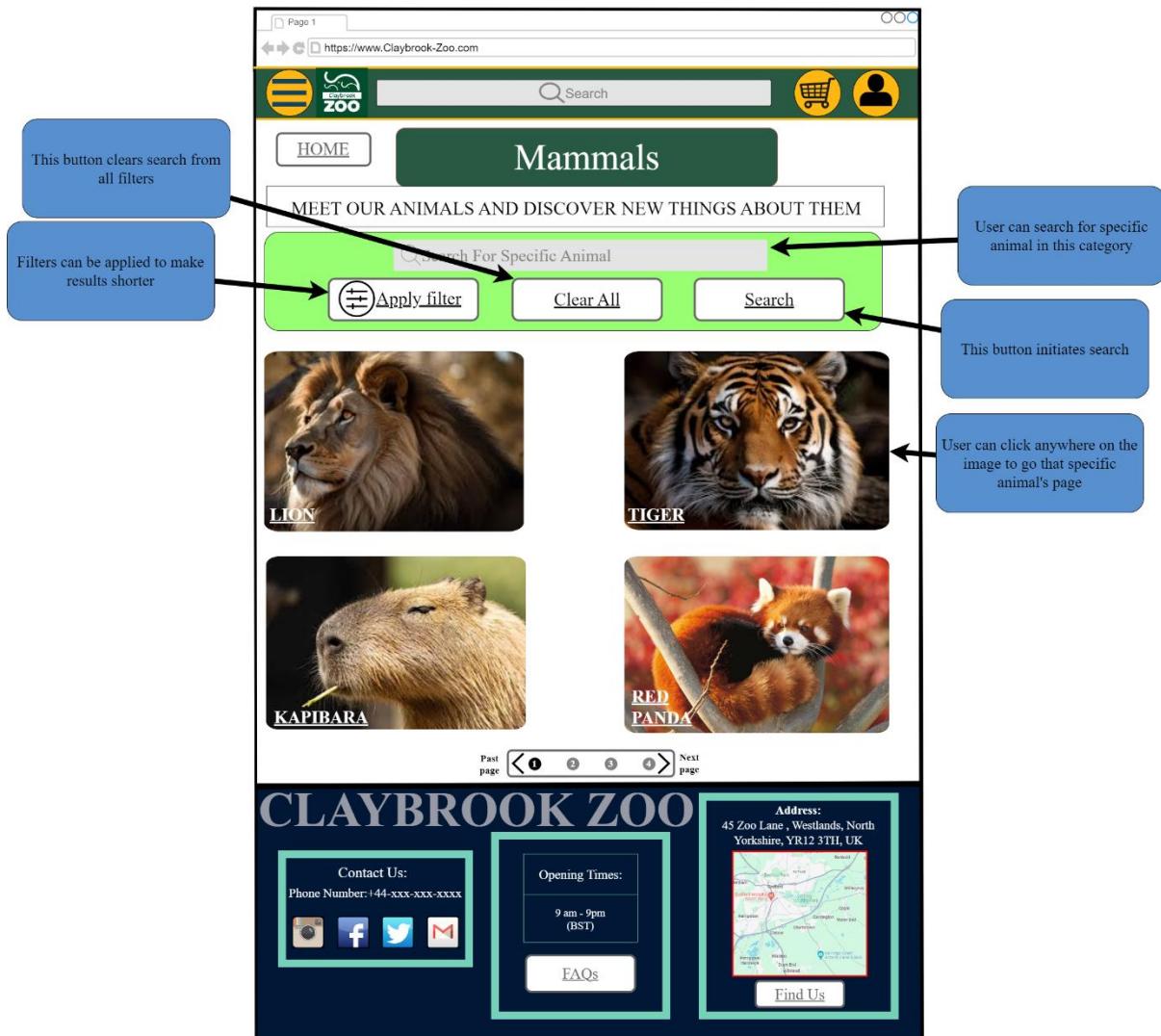
Opening Times:
9 am - 9pm
(BST)

FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



Find Us



Ticket purchase page

Page 1 https://www.Claybrook-Zoo.com

 Search  

Ticket purchase

Description of selected date:
18th February
This is a Special activity day
Interactive animal experience available for a limited time on this day

Perfect for all ages: whether you're a toddler taking their first steps or a grandparent with decades of memories, the joy of connecting with animals is timeless. Our experience is designed to be safe, supervised, and suitable for animal lovers of all ages.

February 2024						
Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Legend

- Busy Day
- Quiet Day
- Special Activity
- Unavailable

Purchase Ticket		
Ticket Type	Quantity	Price
Adult	(-) 0 (+)	£64.00
Junior explorer (4-17)	(-) 0 (+)	£34.00
Little explorer (0-3)	(-) 0 (+)	Free
Concession	(-) 0 (+)	£XX.XX

Your total is: £XX.XX

[Add To Basket](#)

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx



Opening Times:

9 am - 9pm
(BST)

[FAQs](#)

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK



[Find Us](#)



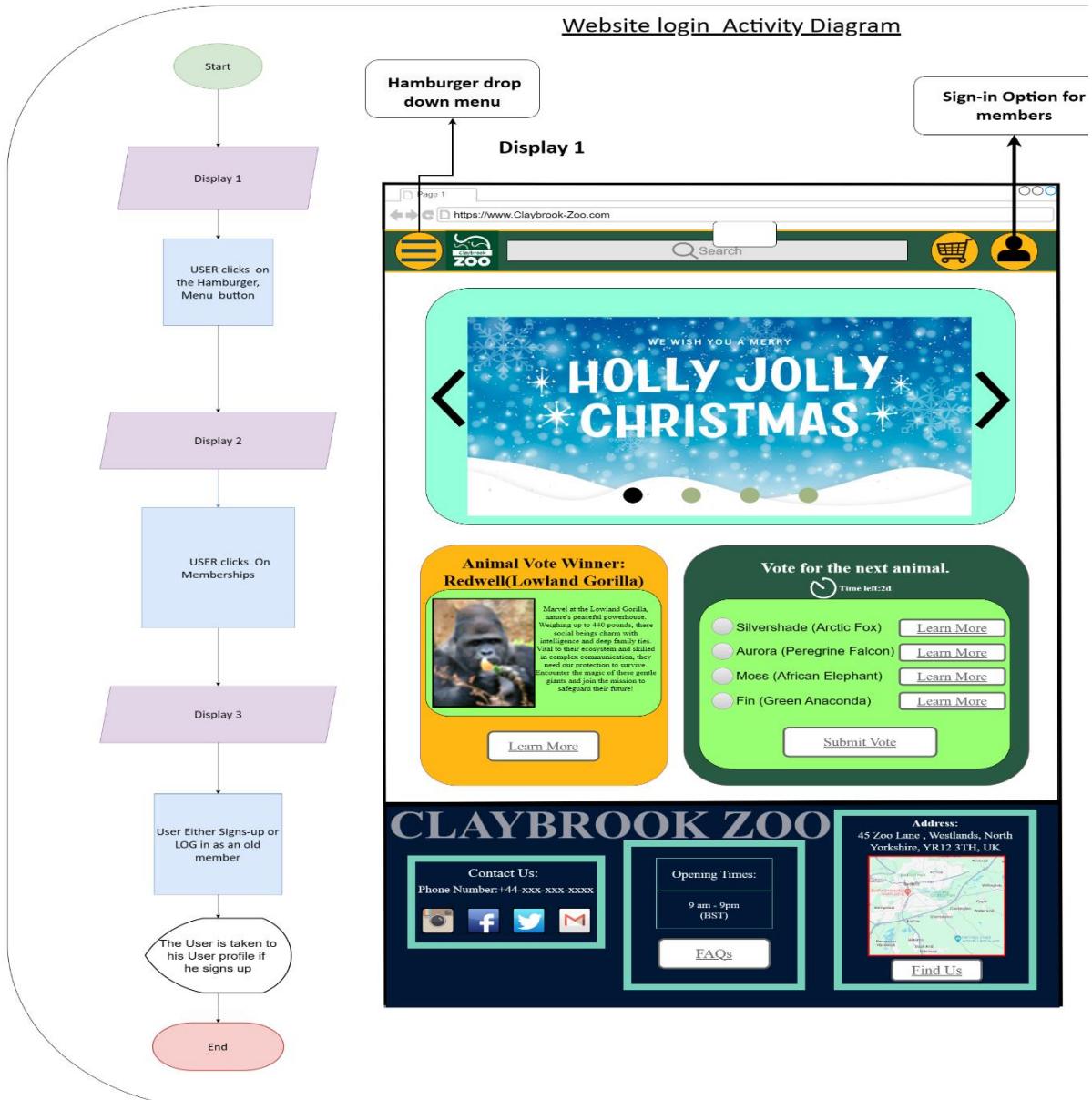
The creation of these final mockups marks a significant milestone in our journey towards delivering a comprehensive digital solution for Claybrook Zoo. They embody the collective vision and strategic planning that has been invested into this project. With detailed annotations and dynamic representations, these mockups provide a clear pathway for the transition from design to development. They are the embodiments of functionality, user engagement, and design excellence, poised to transform the online presence of the zoo. As we prepare to present these designs to the client, we do so with confidence that they encapsulate the optimal user experience we aim to provide. The mockups stand as a testament to our commitment to excellence and are intended to pave the way for a successful implementation that will delight users and meet the strategic objectives of Claybrook Zoo.

3.3.4 System Activity Event Diagrams

As we progress from the textual analysis of zoo management systems, we shift our focus to the visualization of user interactions within these systems. System Activity Event Diagrams play a pivotal role in illustrating how users navigate and engage with the technology. These diagrams map out the user journey, providing valuable insights into the usability and efficiency of the system's interface. They serve as blueprints for identifying

potential areas of improvement and ensuring a seamless user experience. Let us explore these diagrams to understand the flow of activities that users—be they visitors, sponsors, or staff—typically perform.

Please Zoom in to see the specific parts.



Display 2

The screenshot shows the homepage of the Claybrook Zoo website. At the top, there's a navigation bar with links for 'Our Zoo', 'Animal News', 'Tickets', 'Mammals', 'Sponsor Us', 'Videos', and 'Games'. Below the navigation is a banner for a 'Redwell(Lowland Gorilla)' vote. To the right is a section for voting on the next animal, listing 'Silvershade (Arctic Fox)', 'Aurora (Peregrine Falco)', 'Moss (African Elephant)', and 'Fin (Green Anaconda)'. At the bottom, there's contact information, opening times (9 am - 9pm BST), and a map of the area.

Page 1
https://www.Claybrook-Zoo.com

Claybrook Zoo

Search

Our Zoo Animal News Tickets Mammals Sponsor Us Videos Games

Sponsor News Memberships Fishes

General News Souvenirs Birds

Timetable Amphibians Reptiles

Enclosures

Animal Vote Winner:
Redwell(Lowland Gorilla)

Marvel at the Lowland Gorilla, nature's peaceful powerhouse. Weighing up to 440 pounds, these social beings charm with intelligence and deep family ties. Vital to their ecosystem and skilled in complex communication, they need our protection to survive. Encounter the magic of these gentle giants and join the mission to safeguard their future!

Learn More

Vote for the next animal.

Time left: 2d

• Silvershade (Arctic Fox) [Learn More](#)

• Aurora (Peregrine Falco) [Learn More](#)

• Moss (African Elephant) [Learn More](#)

• Fin (Green Anaconda) [Learn More](#)

Submit Vote

CLAYBROOK

Contact Us:
Phone Number: +44-XXX-XXXX

ZOO

Opening Times:
9 am - 9pm (BST)

FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK

Find Us

Display 3

Page 1

https://www.Claybrook-Zoo.com

CLAYBROOK ZOO

Contact Us:
Phone Number: +44-xxx-xxx-xxxx

Opening Times:
9 am - 9pm (BST)

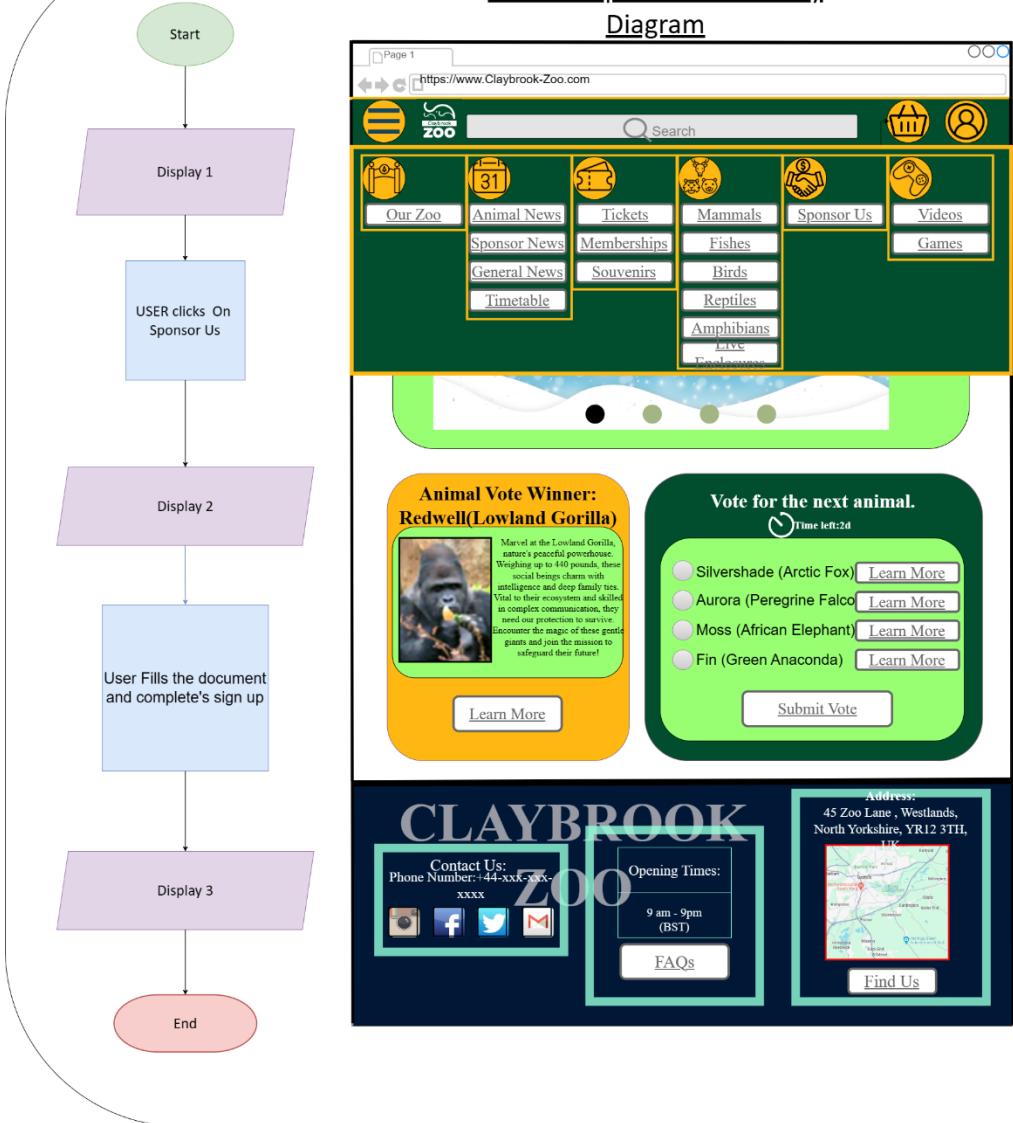
FAQs

Address:
45 Zoo Lane, Westlands, North Yorkshire, YR12 3TH, UK

Find Us

Website Sponsor us Activity.

Diagram



Website Sponsor us Activity
Diagram

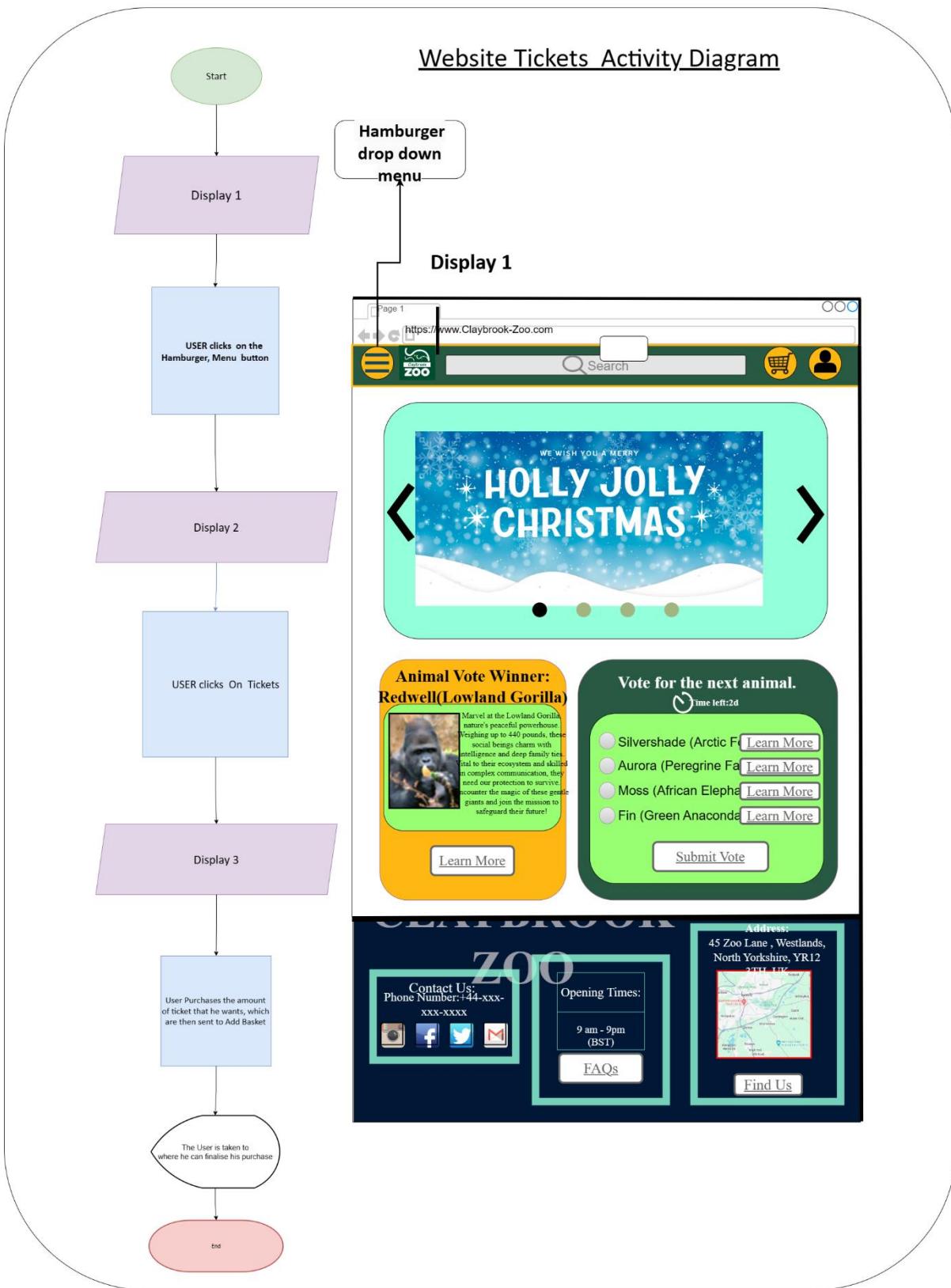
Display 2

The screenshot shows a web browser window for 'https://www.Claybrook-Zoo.com'. The main title is 'Sponsor Sign Up'. Below it, there are two sections: 'Contact Details' and 'Company Details & Contract'. In the 'Contact Details' section, there are fields for 'First and last name', 'Email', and 'Phone number'. In the 'Company Details & Contract' section, there is a field for 'Company Name' and a dropdown menu for 'Animal to be Sponsored' with options like 'Choose...', 'Options', 'Download', 'Browse', and 'Upload'. Below these sections is a button labeled 'Submit contract and Complete Sign-up'. At the bottom of the page, there is a footer with sections for 'Contact Us', 'Opening Times', and 'Address'.

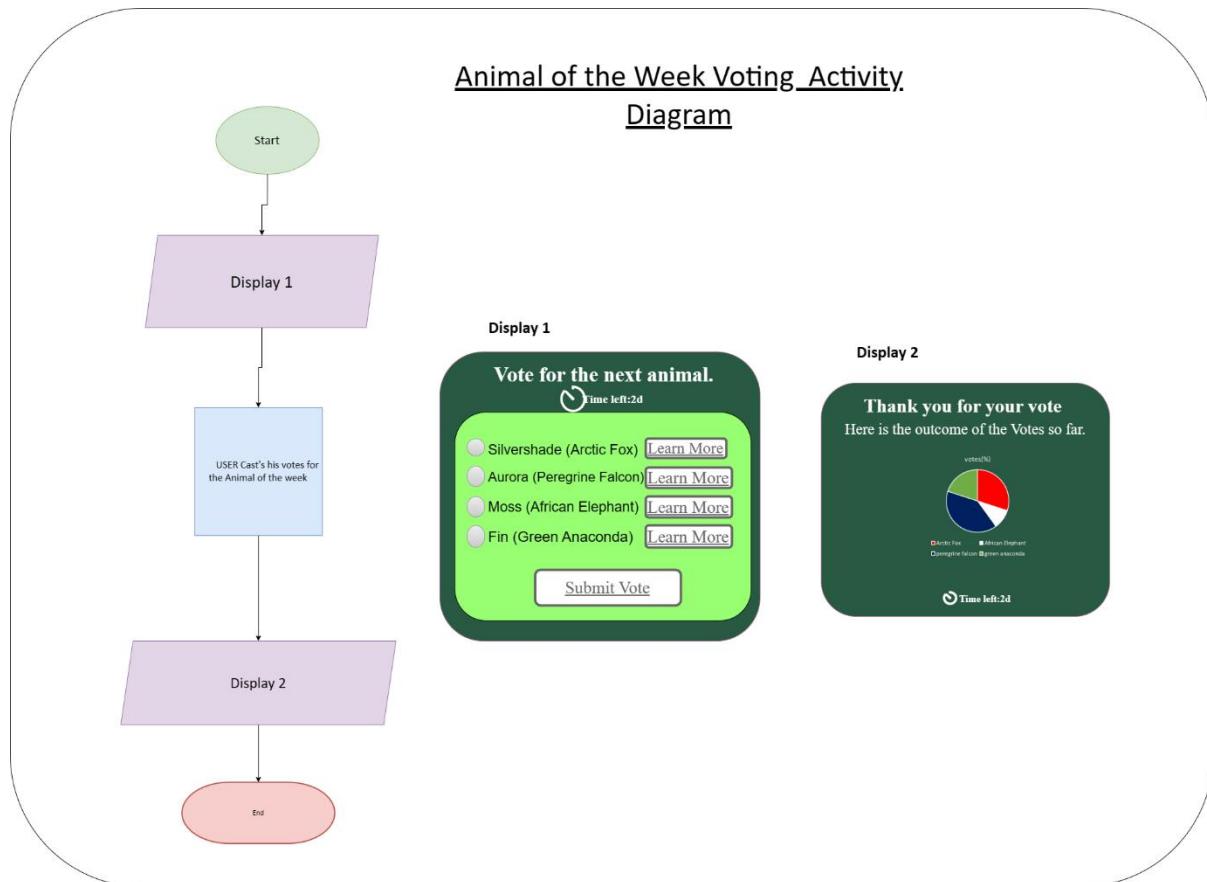
Display 3



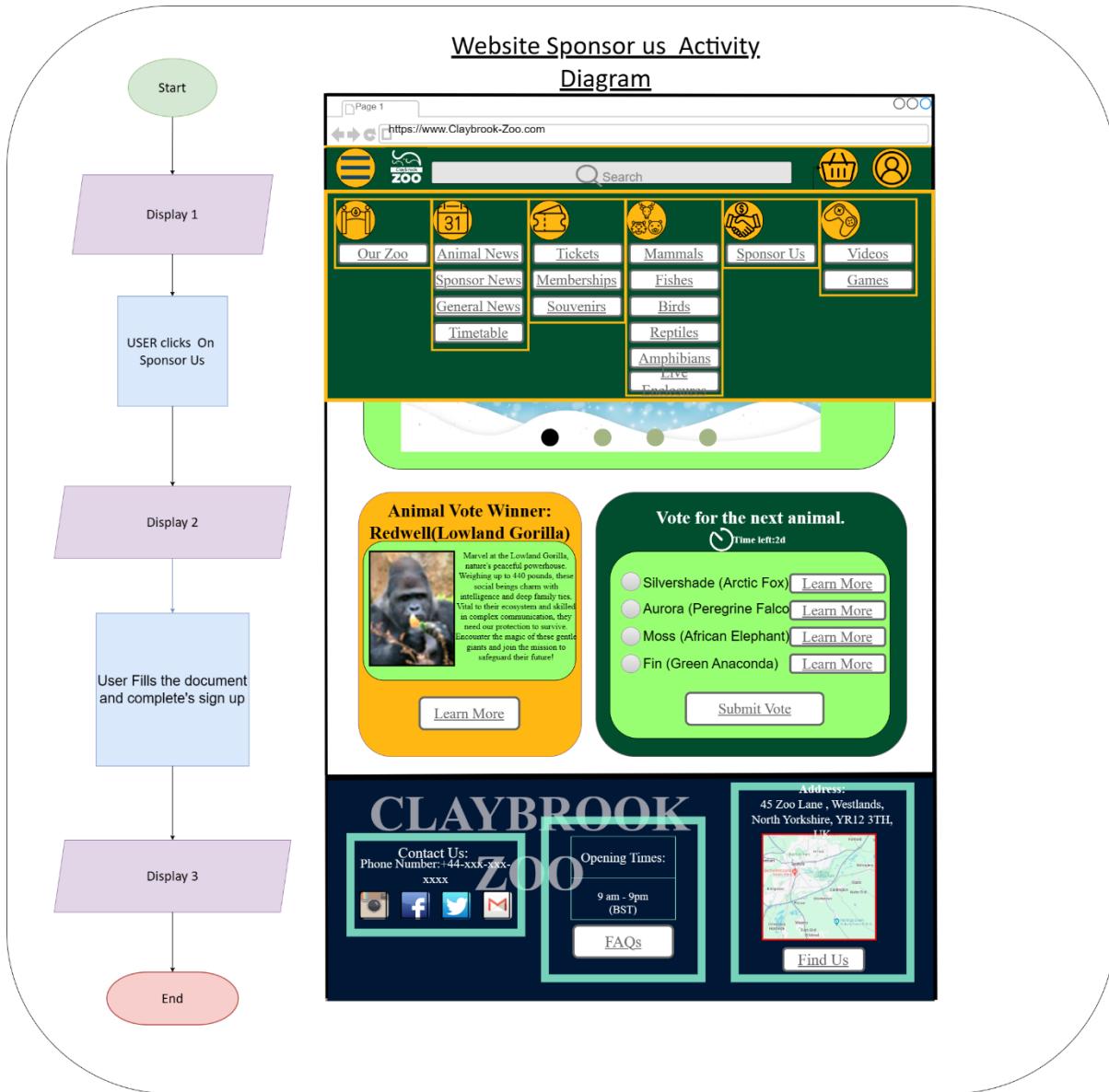
Website Tickets Activity Diagram



Animal of the Week Voting Activity Diagram



**Website Sponsor us Activity
Diagram**



Website Sponsor us Activity Diagram

Display 2

Sponsor Sign Up

Contact Details

First and last name
Email
Phone number

Company Details & Contract

Company Name

Animal to be Sponsored Choose... Options

Press the button to download a copy of the contract and after signing it, please upload it below:

Download
Choose file Browse Upload

Submit contract and Complete Sign-up

CLAYBROOK ZOO

Contact Us: Phone Number: 123-XXXX-XXXX
Opening Times: 9 am - 9pm
FAQs Find Us

Address: 45 Zoo Lane, Westlands, North Yorkshire YR12 3TH

Display 3

Sponsor Sign Up

Thanks for Sponsoring

[Log into your Account](#)

CLAYBROOK ZOO

Contact Us: Phone Number: 123-XXXX-XXXX
Opening Times: 9 am - 9pm
FAQs Find Us

Address: 45 Zoo Lane, Westlands, North Yorkshire YR12 3TH

The detailed walkthrough provided by the System Activity Event Diagrams is more than just a schematic representation; it is a critical analysis tool that informs the design and development process of the system. By examining the diagrams, developers and managers can pinpoint any unintuitive aspects of the system, streamline the user flow, and enhance overall interaction quality. These diagrams ensure that every touchpoint—from initial login to complex navigational sequences—is user-friendly and aligns with the expectations and needs of all stakeholders. The clarity gained from these diagrams can be directly applied to refine the interface, making sure that the zoo management system is not only functionally rich but also accessible and engaging for every user.

3.4 Design Revisions

This section presents the evolutionary stages of the zoo website's design, beginning with the initial wireframes that laid the foundation for the client's vision. Following the presentation of these drafts, we received invaluable feedback from the client, which informed the subsequent design revisions. These revisions were not merely adjustments but transformative steps that guided the creation of the final mock-up designs. This iterative process ensures that the product resonates with both the client's expectations and the users' needs.

Main page (first design)

The wireframe illustrates the layout of the main page:

- Header:** Contains a menu icon (three horizontal bars), a search bar with a magnifying glass icon, and a user profile icon.
- Content Area:** A sidebar on the left lists "Main News", "Animal News", and "Sponsor News".
- Central Yellow Area:** Labeled "ANIMAL VOTE", it includes a placeholder for "picture of this week's animal+description". To its right, under "next animal vote:", are three options labeled "option 1", "option 2", and "option 3".
- Footer Contact:** Includes "Contact Us:" followed by "Phone Number", "Social Media link 1", "Social Media link 2", and "Social Media link 3".
- Footer FAQ:** Includes "FAQ", "Address:", and "Company Registration Number:".
- Footer Links:** "Cookies Policy" and "Terms and conditions".
- Footer Map:** Labeled "MAP".

Main page(REDESIGN)

The wireframe shows the main page layout:

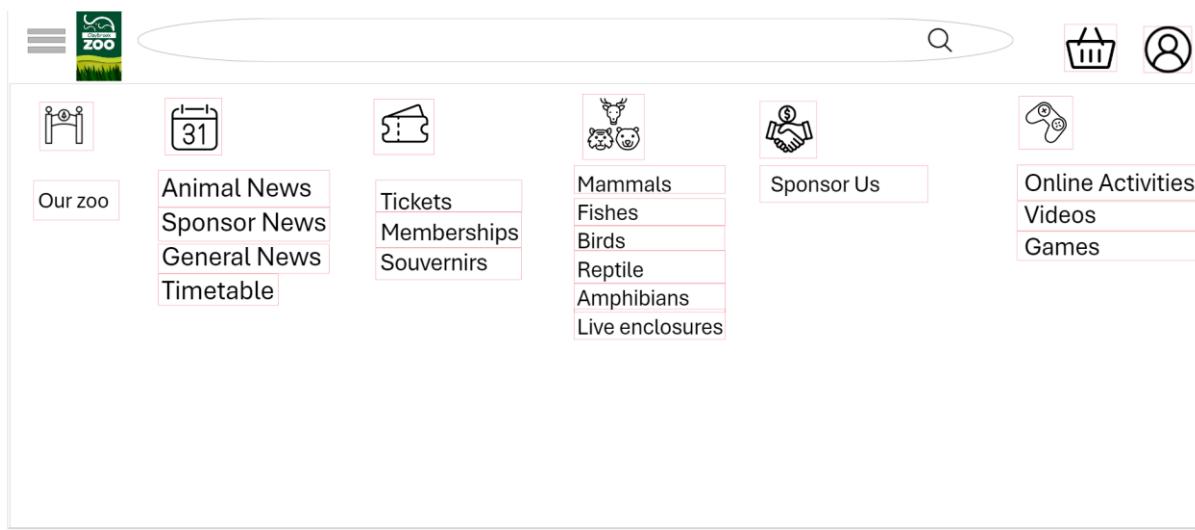
- Header:** Includes a menu icon, a search bar, a shopping cart icon, and a user profile icon.
- Sliding News:** A green header section containing the title "Sliding News" and a set of six circular navigation dots below it.
- ANIMAL VOTE Section:** A yellow section containing:
 - A large image of an owl.
 - The text "Description of animal of the week+link that animal".
 - A pie chart icon labeled "result of vote form previous week".
- Next Animal Vote Section:** A yellow section containing:
 - The text "next animal vote:" followed by three radio button options, each labeled "option 1+LINK TO THE ANIMAL'S PAGE".
 - A "Submit" button.
 - A pie chart icon with three segments, labeled "this graph shows the votes after a user votes for an animal".
- Contact Us:** Includes fields for Phone Number, Social Media link 1, Social Media link 2, and Social Media link 3.
- FAQ:** A section with a "FAQ" button, fields for Address and Company Registration Number, and links for Cookies Policy and Terms and conditions.
- Map Icon:** An icon of a map with a pin, located in a grey box.

A large green arrow points from the map icon towards the text: "when clicked it takes user to separate page with both a map of zoo location, interactive map of the zoo and a guide of how to get to the zoo".

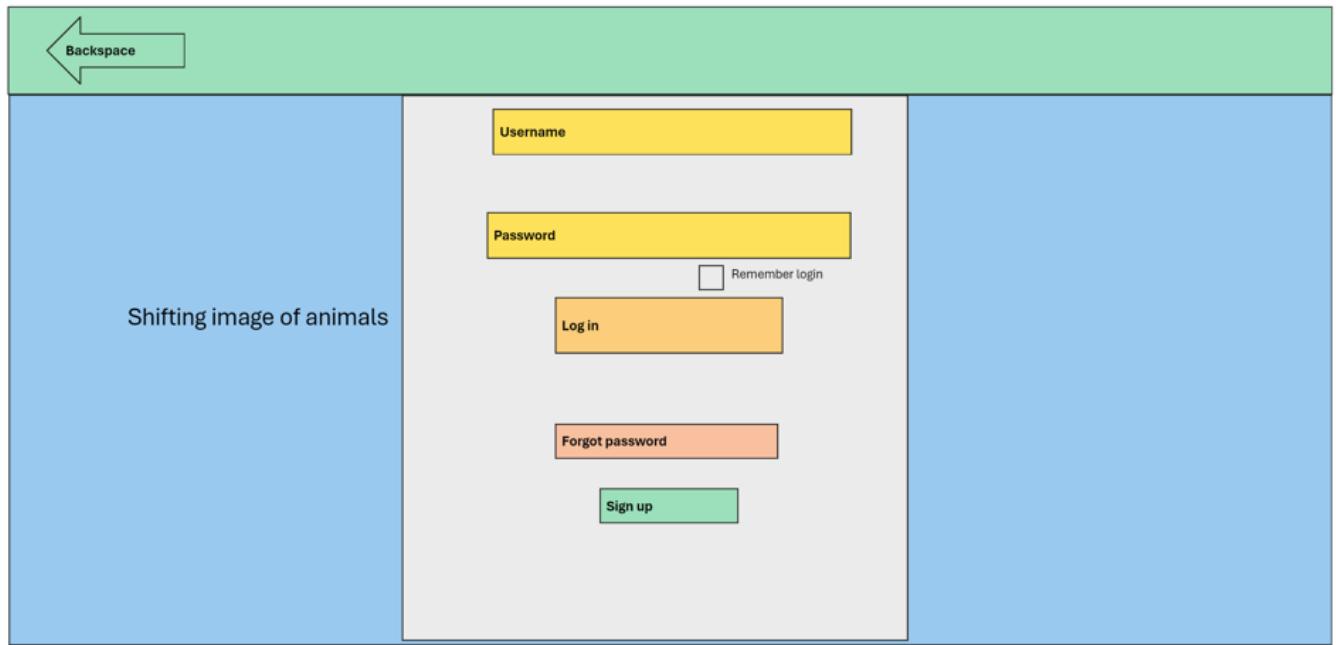
Navigation System (First Design)



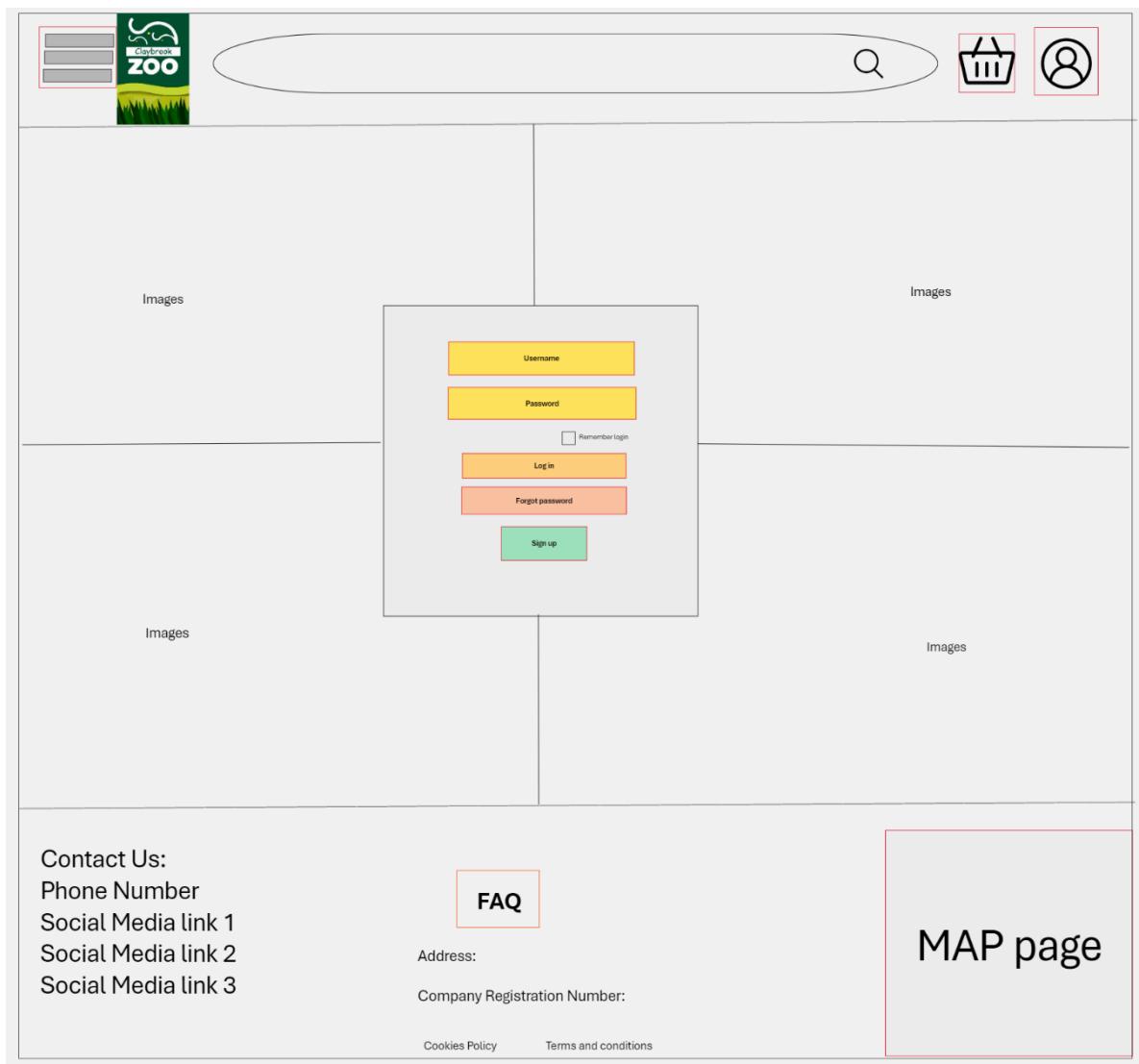
Navigation System (Redesign)



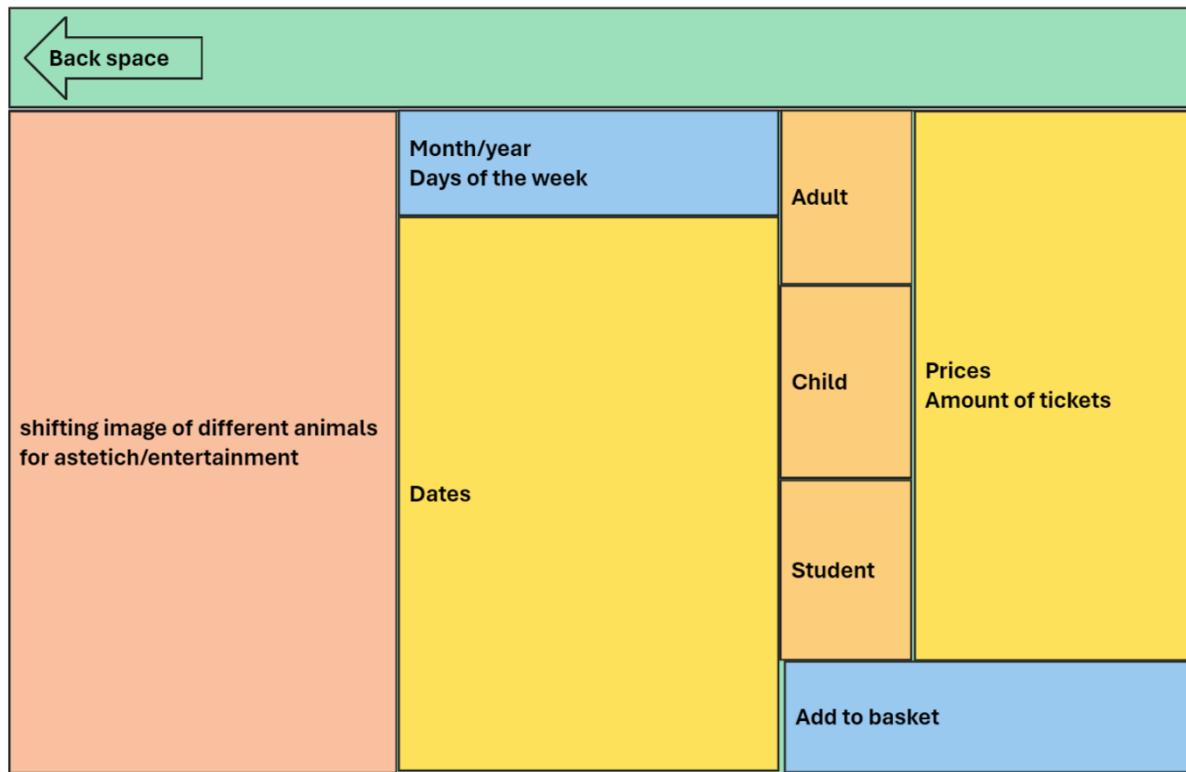
Login Page (First Design)



Login Page (Redesign)



Ticket Purchase Page (First Design)



Ticket Purchase Page (Redesign)

The wireframe illustrates a redesigned ticket purchase page. At the top, there is a header with a logo (Claybrook Zoo), a search icon, and a user icon. Below the header is a date calendar for October 2014, showing days from 1 to 31. A legend provides color coding for different day types: Busy Day (red), Quiet day (green), Holiday (blue), and Activity (purple). To the right of the calendar is a table for selecting ticket quantities and prices. The table includes columns for Membership, Quantity, and Price. The total price is displayed as 'Your Total Is: £XX.XX'. At the bottom left, there is a 'Contact Us:' section with links to social media and a 'FAQ' button. On the right, there is a 'MAP page' button.

Membership	Quantity	Price
Adult	<input type="button" value="+"/> 0 <input type="button" value="-"/>	£64.00
Junior Explorer (4-17)	<input type="button" value="+"/> 0 <input type="button" value="-"/>	£34.00
Little Explorer (0-3)	<input type="button" value="+"/> 0 <input type="button" value="-"/>	Free
Concession	<input type="button" value="+"/> 0 <input type="button" value="-"/>	£XX.XX

Your Total Is: £XX.XX

Add To Basket

Contact Us:

- Phone Number
- Social Media link 1
- Social Media link 2
- Social Media link 3

FAQ

Address:

Company Registration Number:

Cookies Policy Terms and conditions

MAP page

Concluding this segment of the report, the wireframes for the Mobile Application Information System stand as the foundational designs from which our mobile application will evolve. The initial wireframes, which have been presented to the client, mark the beginning of a collaborative journey towards a refined and user-centric mobile application. These wireframes serve not only as a blueprint for the application's layout and features but also as a conversation starter, inviting feedback that will shape subsequent iterations. The insights gained during this initial presentation are invaluable, providing direction for the necessary enhancements that will lead to the development of more sophisticated and polished designs. As we progress, these wireframes will undergo transformation, guided by client input and design expertise, with the aim of achieving an optimal balance between user needs and business goals.

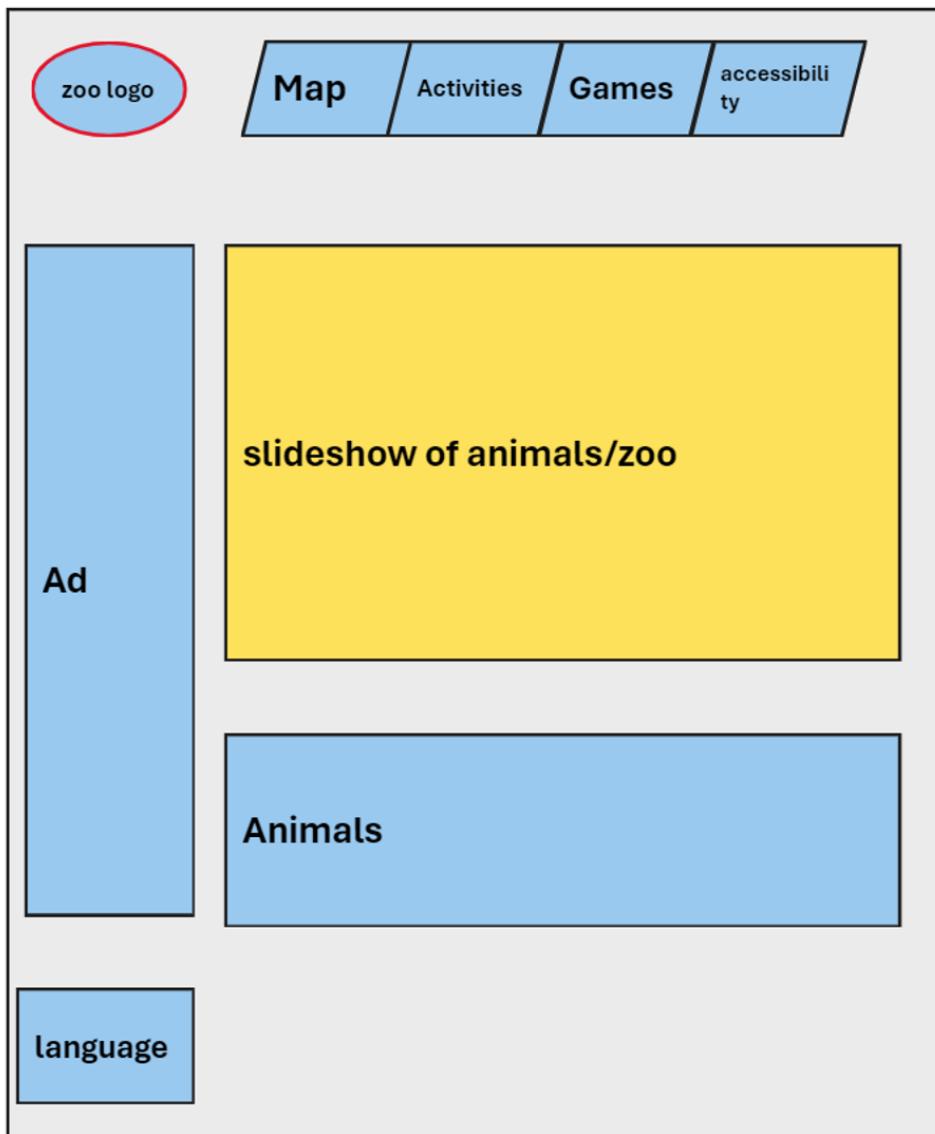
3.5 Draft Interface Designs for Mobile Application Information System

3.5.1 Wireframes

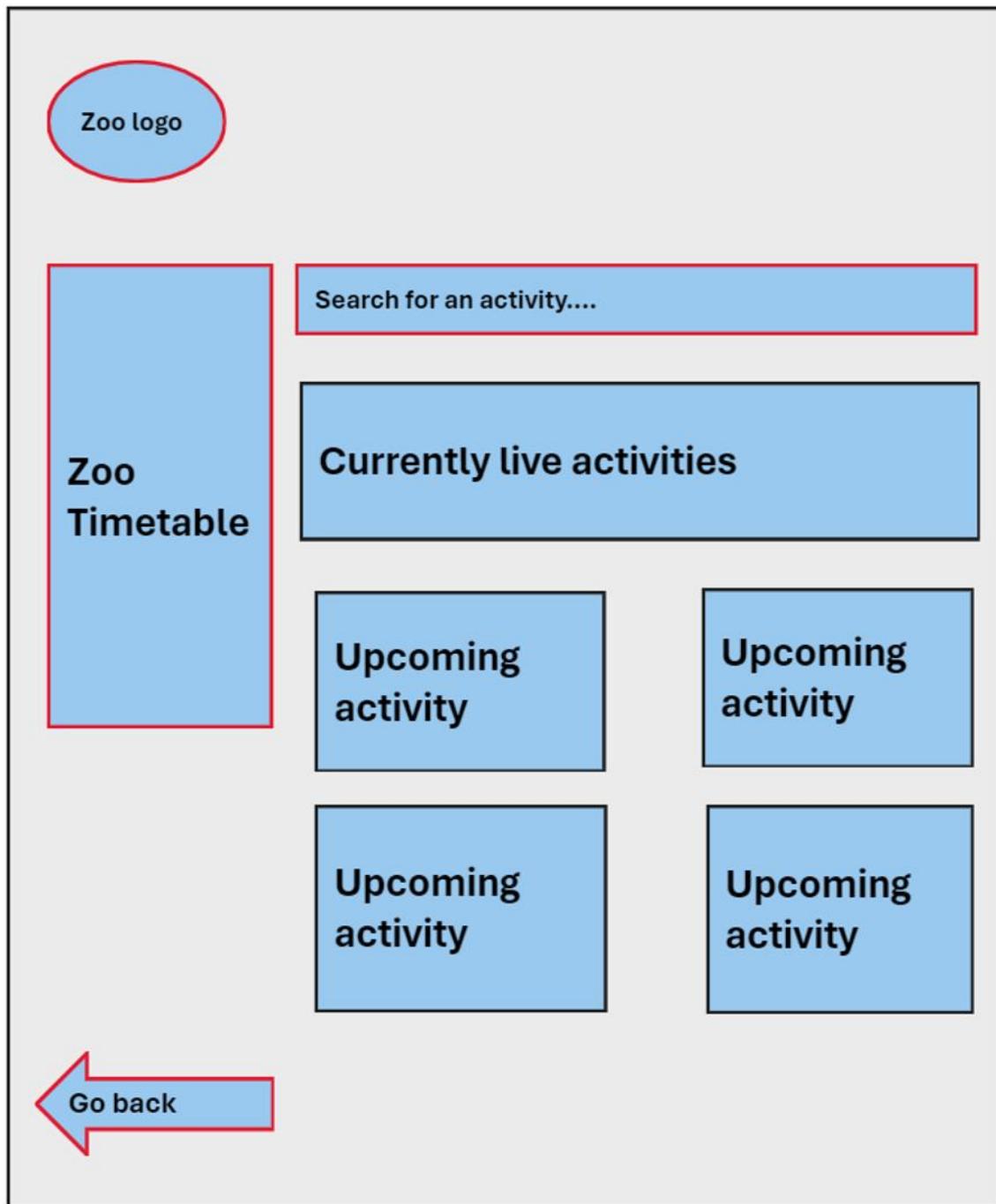
The following segment of our report addresses a pivotal element in the evolution of the Mobile Information System Kiosk—the initial conceptualization and presentation of the first draft wireframes. These wireframes represent the embryonic stage of our design thought process, providing a skeletal framework that encapsulates the envisioned structure, functionality, and navigational flow of the kiosk.

They form a crucial underpinning for the system's architecture, offering stakeholders a concrete model to engage with and evaluate. We hereby present the first iterations of these wireframes, which have been diligently composed by our design team in anticipation of the client's first evaluation. This early stage in development is of paramount importance as it launches a constructive exchange of feedback and sets the wheels in motion for the iterative design cycle that is to ensue.

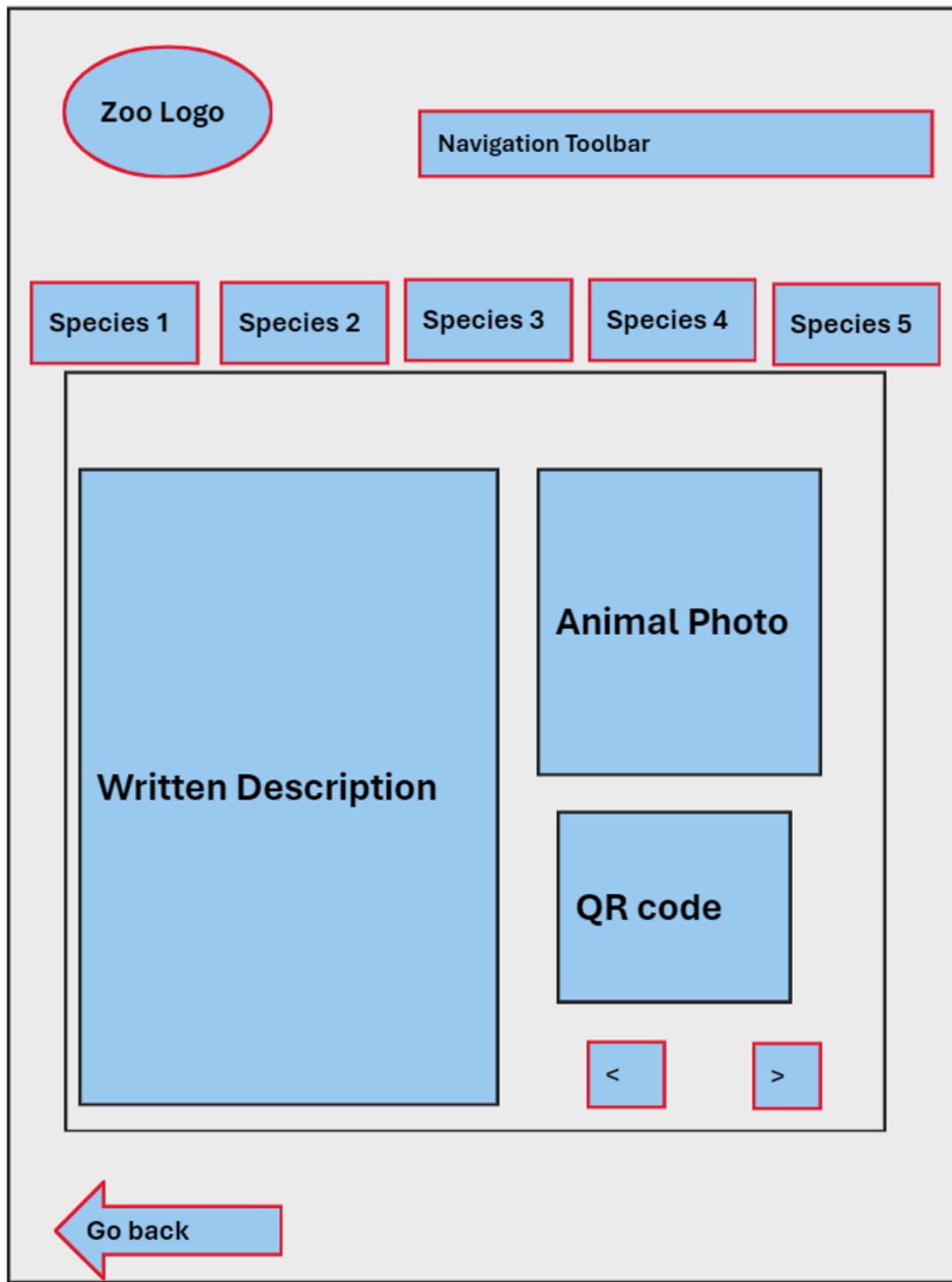
MAIN PAGE (First Design)



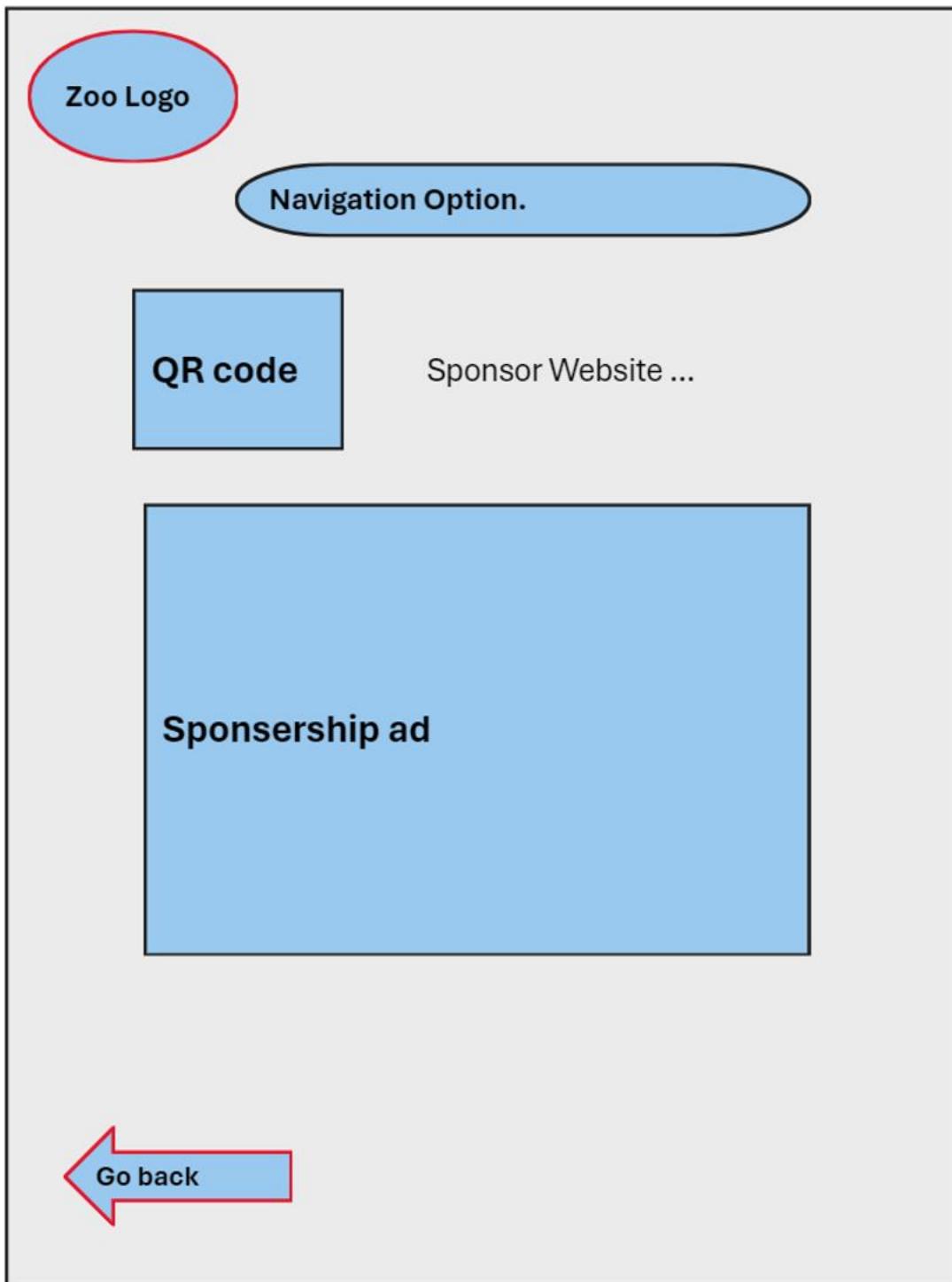
News/Activities Page (First Design)



Animal Page (First Design)



Sponsor Advertisement Page (First Design)

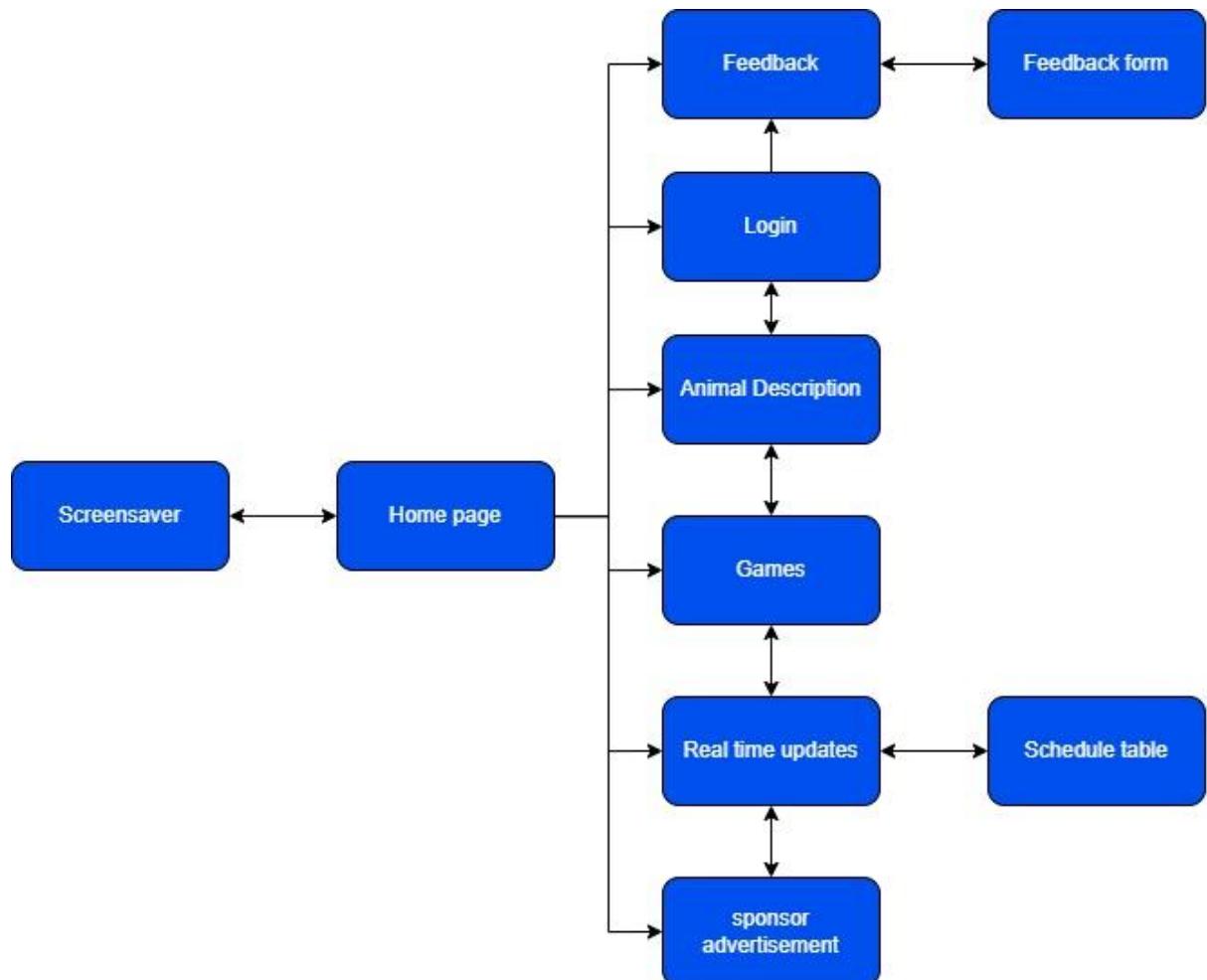


Concluding this segment, the wireframes for the Mobile Information System Kiosk stand as the essential groundwork from which the kiosk interface will mature. These initial wireframes, which have been meticulously crafted and subsequently presented to the client, signify the advent of a cooperative development process aimed at achieving a user-focused information kiosk. The wireframes act as a

fundamental blueprint for the kiosk's structural design and interactive elements, initiating an ongoing dialogue for feedback that will inform and refine future design iterations. The feedback garnered from this initial client interaction is instrumental, offering a clear direction for the design enhancements required to evolve these preliminary sketches into a sophisticated, user-friendly interface. As the project advances, these wireframes are set to be reshaped and enriched, steered by both client insights and professional design acumen, with the collective goal of harmonizing user interaction with strategic business objectives.

3.5.2 System Navigation Diagram

Now we will examine the System Navigation Diagram, which is vital for mapping the user interface of the Mobile Information System Kiosk. This diagram is essential for architecting the user's journey through the kiosk's information system, outlining the touchpoints and features that facilitate user interactions. The System Navigation Diagram acts as a visual representation of the kiosk's capabilities and navigational logic, ensuring that users can intuitively access information and services. The features outlined in this section serve as the foundation for the kiosk's functionality, designed to cater to the informational needs of the users in a direct and accessible manner. We will now detail the various components that constitute this diagram, emphasizing their role in delivering a smooth and efficient user experience.



In conclusion, the System Navigation Diagram for the Mobile Information System Kiosk is critical in illustrating the interconnected features that make up the kiosk's interface. The elements detailed—from the welcoming 'Home page' with its 'Screensaver' to the interactive 'Games', the informative 'Animal Description', and the practical 'Schedule table'—each play a significant role in guiding users through their informational journey. The inclusion of a 'Feedback form' directly accessible within the system exemplifies a dedication to user feedback and continuous improvement. Meanwhile, 'Real-time updates' provide timely information, ensuring that the kiosk remains a relevant and valuable source of information. The strategic placement of 'Sponsor' and 'Advertisement' areas speaks to the system's dual role in user engagement and revenue generation. These features, as depicted in the System Navigation Diagram, are not just discrete components but are part of a larger, cohesive user experience strategy. This strategy is designed to captivate, inform, and assist users, ensuring that the Mobile Information System Kiosk is not only a hub of information but also a beacon of user-centric design.

3.5.3 System Screen mock-ups

Moving forward in our report, we arrive at a significant milestone in the development of the Mobile Information System Kiosk: the finalization and presentation of the system screen mock-ups. These mock-ups are the refined visual representations of the kiosk's interface, embodying the culmination of iterative design and client feedback. They depict the definitive aesthetics, layout, and interaction points of the kiosk's various pages and features, serving as the conclusive blueprint for the user experience. The mock-ups that follow are not merely illustrations, but the actual templates set to be implemented in the kiosk. They were created with precision and a keen eye for detail by our design team and have been reviewed and approved by the client. Each page and feature have been tailored to meet the specific needs and preferences of the end-users while aligning with the strategic objectives of the project.

Screensaver Page



Main Page

The image shows the main screen of a mobile application for Claybrook Zoo. The top navigation bar includes a back arrow, a search icon, and a menu icon. Below the bar are several icons: a green square for the Claybrook Zoo logo, a blue square for a calendar showing the number 31, a grey square for a game controller, a yellow square for two small animals, and a red square for a handshake. A large central image of a gorilla eating is framed by a green border with left and right arrows. To the left of the gorilla is a map of the zoo grounds with numbered sections (11, 9, 12). At the bottom are links for Language, Accessibility, Admin Login, and a menu icon.

Claybrook ZOO

31

Animal Sponsorship By

Zenith Staybrite

Call for a **FREE QUOTE**

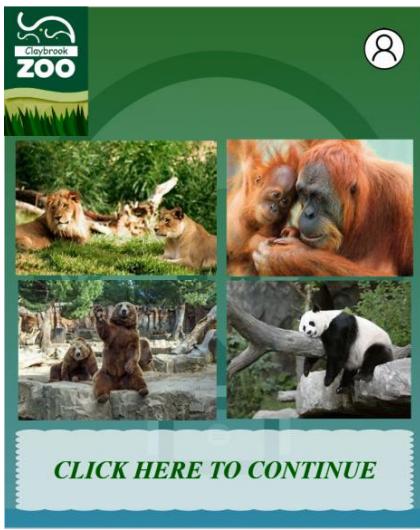
0800 328 9395

Language

Accessibility

Admin Login

Admin Login Page



ADMIN LOGIN

Username

Password

Remember me

[Forgot User or Password](#)

Events Page

The page features a green header bar with the Claybrook Zoo logo, a date icon (31), a game controller icon, a deer and bear icon, and a handshake icon. Below the header is a QR code with a callout text: "For schedules outside of today, scan the QR and visit our website!"

The main content is a 3x3 grid schedule for Friday, 19/01/2024:

Friday 19/01/2024		
10:00	10:30 Petting zoo	11:00 Petting zoo
11:30 Zoo bingo	12:00 Arts and Crafts	12:30 Bird show
13:00	13:30 Arts and Crafts	14:00 Bird show

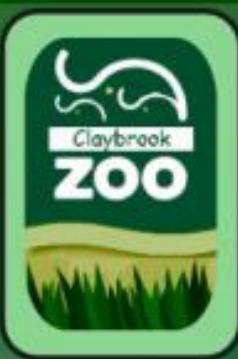
A large green arrow at the bottom left points left with the text "Go back".

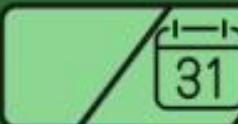
Games Page

Augmented Reality Page



Animal Description Page





Animal search

[Lowlands Gorilla](#) [Koala](#) [Sloth](#) [Chimpanzee](#)

Lowlands Gorilla

The largest primate, mainly found in forests in central Africa. They mainly eat fruits, leaves and shoots.



For more information about the Lowland Gorilla, scan this QR code



[Go back](#)

371

Sponsorship Page



- The following are the final designs which were then presented to the client:
Screensaver Page: The entry point of the kiosk, designed to attract and invite interaction with an engaging display when the kiosk is not in active use.
- **Main Page:** The central hub of the kiosk, where users can navigate to all the available features and services.

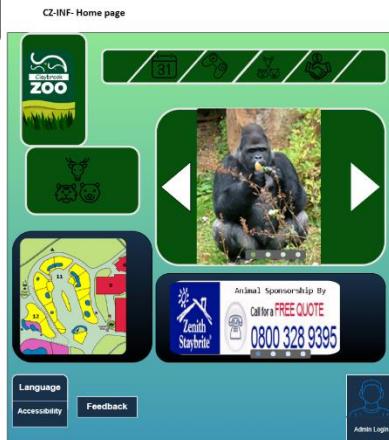
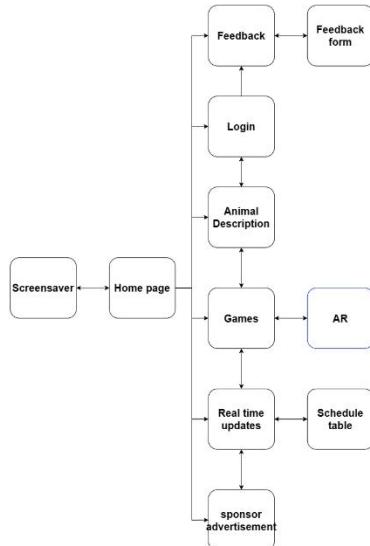
- **Admin Login Page:** A secure access point for administrators to log in and manage the kiosk's content and settings.
- **Events Page:** This page provides users with information on current and upcoming events, enhancing community engagement.
- **Games Page:** An interactive element designed to entertain and educate users, often featuring themed games related to the kiosk's purpose.
- **Augmented Reality Page:** A cutting-edge feature that offers an immersive experience, allowing users to interact with augmented reality elements.
- **Animal Description Page:** A dedicated space for detailed information about animals, which is particularly useful in zoos or wildlife-themed kiosks.
- **Sponsorship Page:** A section designed to showcase sponsors, providing visibility for partners and financial support for the kiosk.

These pages and features have been developed to ensure that the Mobile Information System Kiosk is not only informative and user-friendly but also engaging and relevant to the interests of its users. The final designs have been thoroughly vetted to ensure they meet our high standards for quality and functionality before being presented to the client for the last phase of approval.

3.5.4 System Activity Event Diagrams

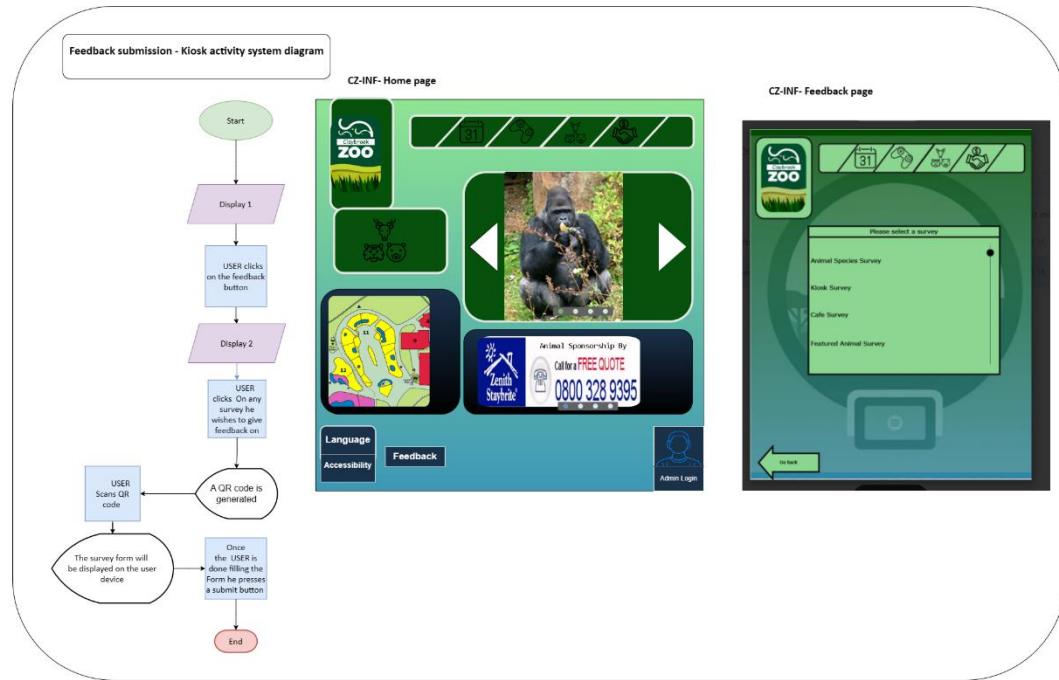
We now turn our attention to a crucial facet of the Mobile Information System Kiosk's functionality—the System Activity Event Diagrams. This section of our report delineates the dynamic aspects of user interaction with the kiosk through detailed event diagrams. These diagrams serve as the operational blueprints that illustrate the sequential flow of activities a user engages in during their interaction with the system. They are vital in understanding the user's journey from initiation to completion of specific tasks within the kiosk's environment.

QR Code Sequence Diagram- Kiosk activity system diagram



CZ-INF- AR





Feedback Interaction Flow:

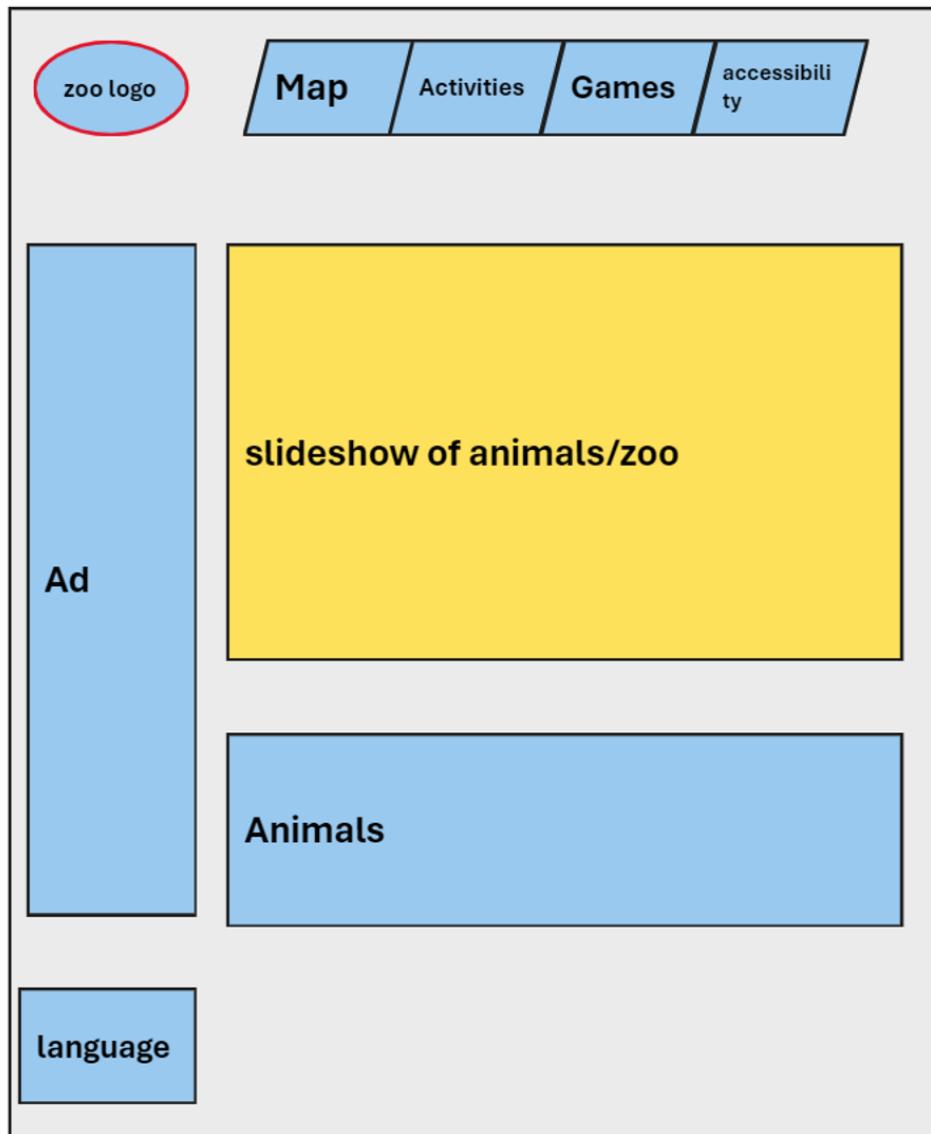
1. **Start:** The user interaction commences at Display 1, initiating the feedback sequence.
2. **User Clicks Feedback Button:** The user selects the feedback button on Display 1 to begin the process of providing their input.
3. **Display 2 Shows Surveys:** Upon user action, display 2 surfaces, presenting a list of available surveys tailored to gather user feedback.
4. **User Selects Survey:** The user then chooses a specific survey they intend to complete based on their feedback preference.
5. **QR Code or Scan Option:** In response, the system generates a QR code for the user to scan with their device or provides an option for the user to scan an existing code.
6. **Survey Form Displayed:** Subsequently, the chosen survey form is displayed on the user's personal device, ready for input.
7. **User Fills Form and Submits:** The user completes the survey form with their feedback and submits it by pressing the 'submit' button.
8. **End:** The feedback process concludes, capturing the user's valuable insights.

The above example of a System Activity Event Diagram is an instrumental tool in both the design and evaluation of the user experience. It ensures that the feedback mechanism is intuitive, efficient, and user-friendly, promoting user engagement and the gathering of actionable feedback. The diagram not only serves as a guide for developers and designers but also as a means for stakeholders to visualize the user's interaction pathway clearly.

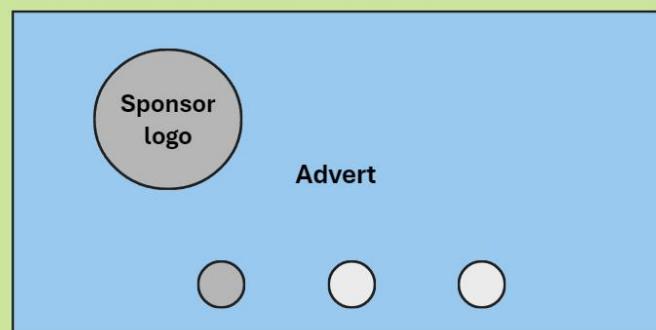
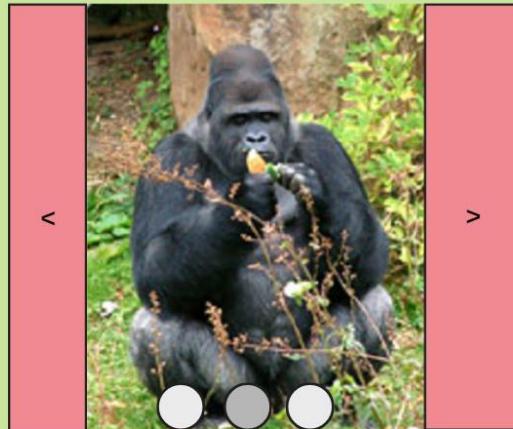
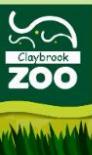
3.6 Design Revisions

Within the scope of this document, we address the essential phase of design evolution for the Mobile Information System Kiosk. Initially, we present the first drafts of designs—our wireframes—that were meticulously crafted and subsequently shared with the client for preliminary review. Following this initial presentation, we incorporate the valuable feedback received from the client to refine our designs. Each original design is juxtaposed with its respective redesign, serving as a critical reference point in the development of the final mock-up designs. This iterative process underscores our dedication to a collaborative design methodology and ensures that the outputs align closely with the client's vision and user requirements.

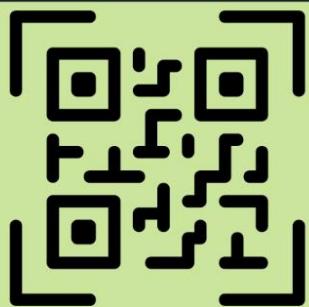
Main Page (First Design)



Main Page (REDESIGN)



QR code for treasure hunt

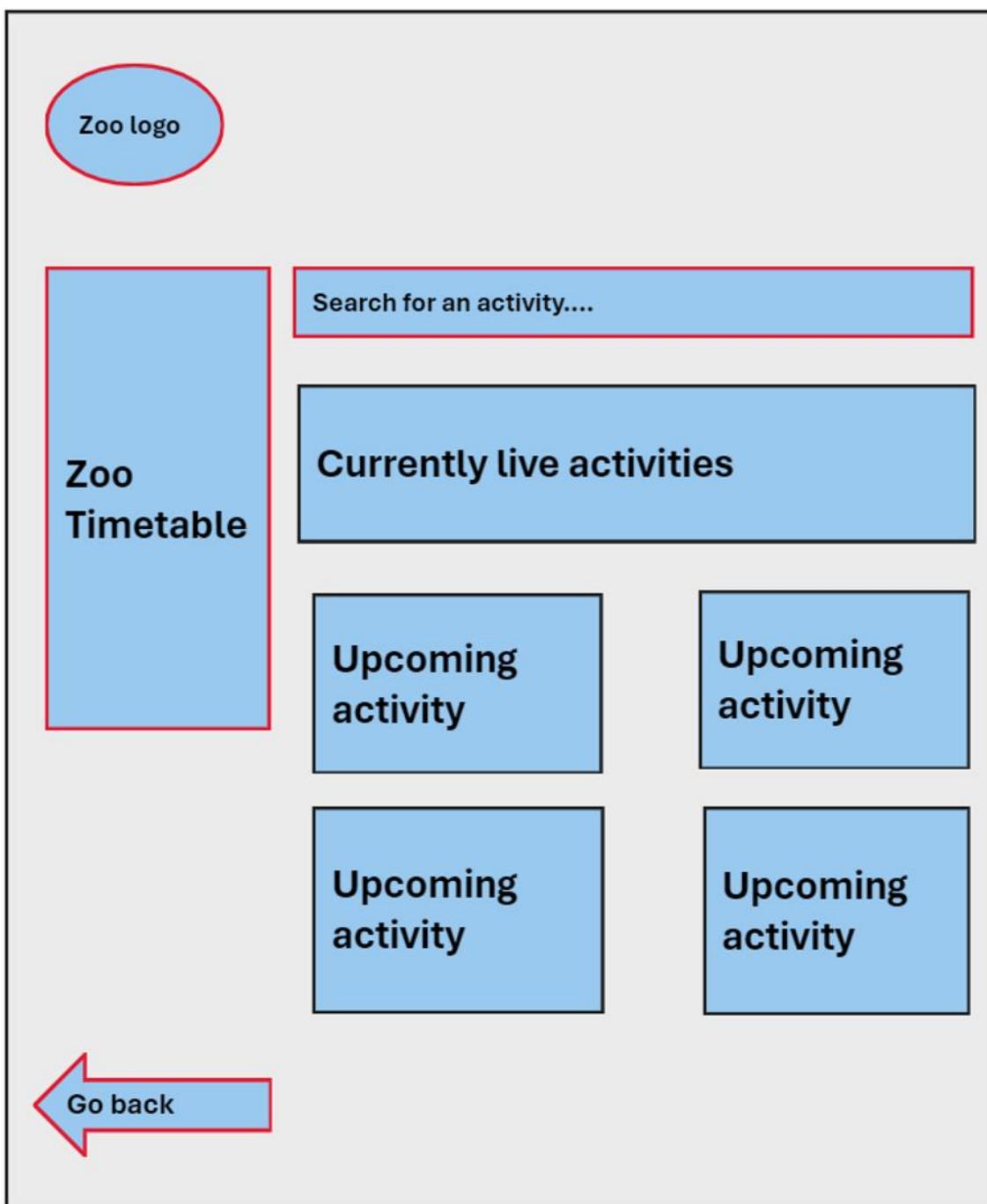


[language](#)

[accessibility](#)

[Admin login](#)

News/Activities Page (First Design)



News/Activities Page (REDESIGN):

The mockup illustrates a redesigned news/activities page for the Claybrook Zoo. The top header features the zoo's logo (a stylized animal silhouette above the text "Claybrook ZOO") and five activity icons: a map pin, a calendar showing "31", a video game controller, two animals (a deer and a bear), and a handshake. Below the header, there are two main content sections: "Currently live activities" and "Upcoming activity". Each section contains four circular placeholder icons. QR codes are located in the top right of each section. At the bottom left, a red arrow points left with the text "Go back".

Claybrook ZOO

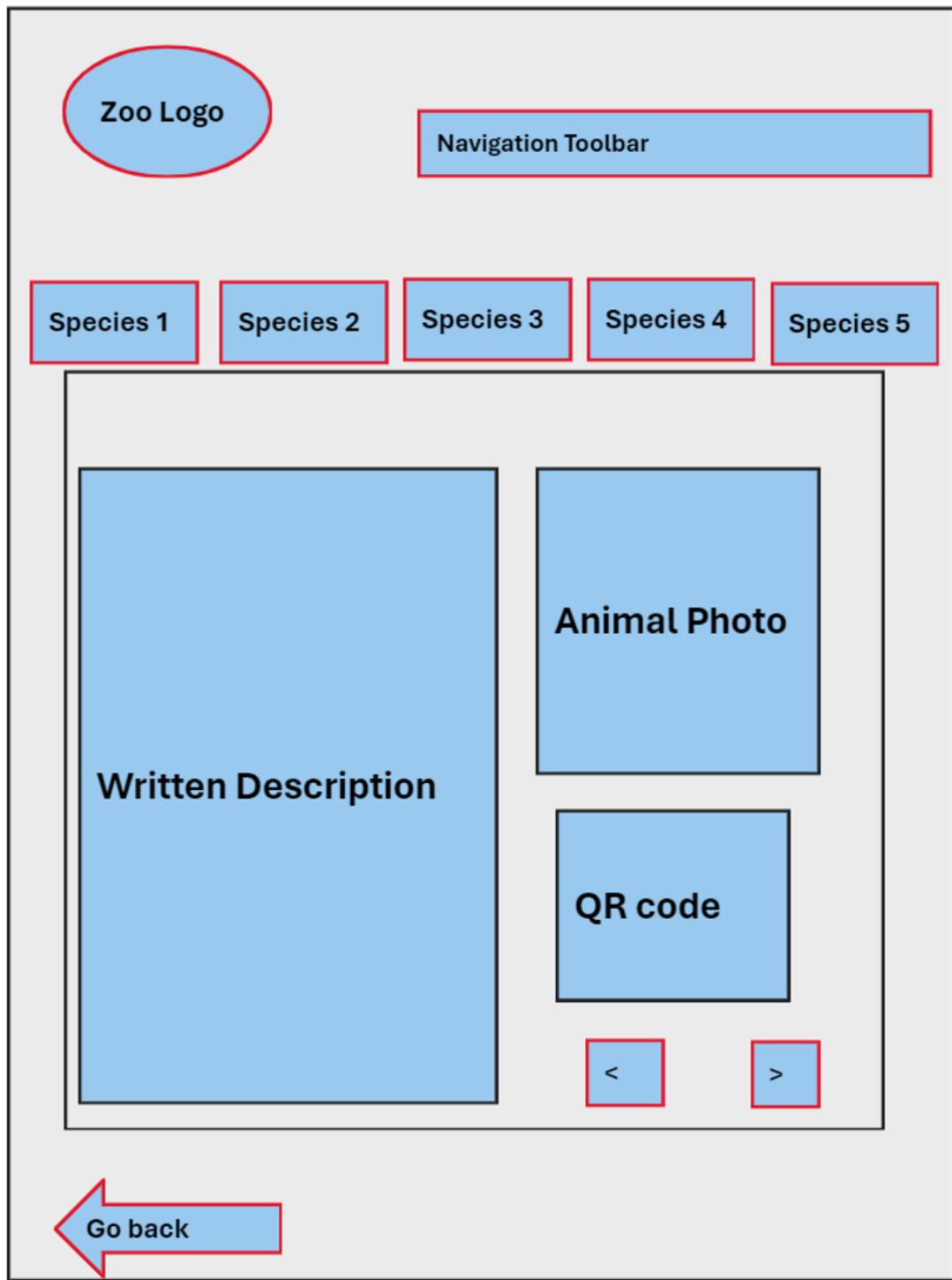
31

Currently live activities

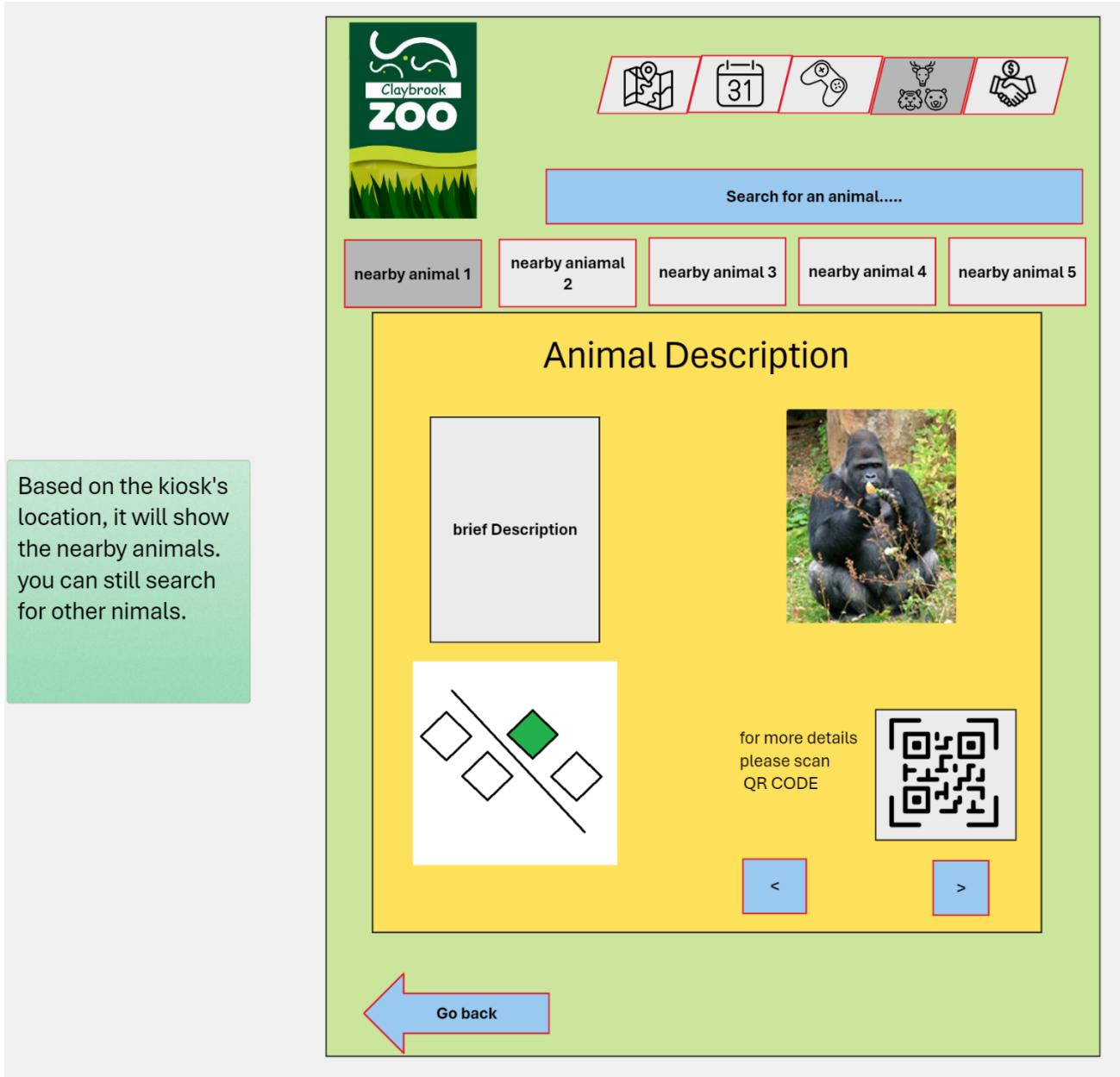
Upcoming activity

Go back

Animal Page (First Design)



Animal Page (Redesign)



The image shows a redesigned animal page kiosk layout. At the top left is the Claybrook Zoo logo. To the right are five icons: a map pin, a calendar showing '31', a game controller, a deer, and a handshake. Below these are five boxes labeled 'nearby animal 1' through 'nearby animal 5'. A central yellow box contains the text 'Animal Description' and a placeholder 'brief Description'. To the right is a photograph of a gorilla. Below the photo is a QR code with the text 'for more details please scan QR CODE'. Navigation arrows (< and >) are at the bottom right. A green sidebar on the left contains the text: 'Based on the kiosk's location, it will show the nearby animals. you can still search for other animals.'

Claybrook ZOO

Search for an animal.....

nearby animal 1 nearby animal 2 nearby animal 3 nearby animal 4 nearby animal 5

Animal Description

brief Description

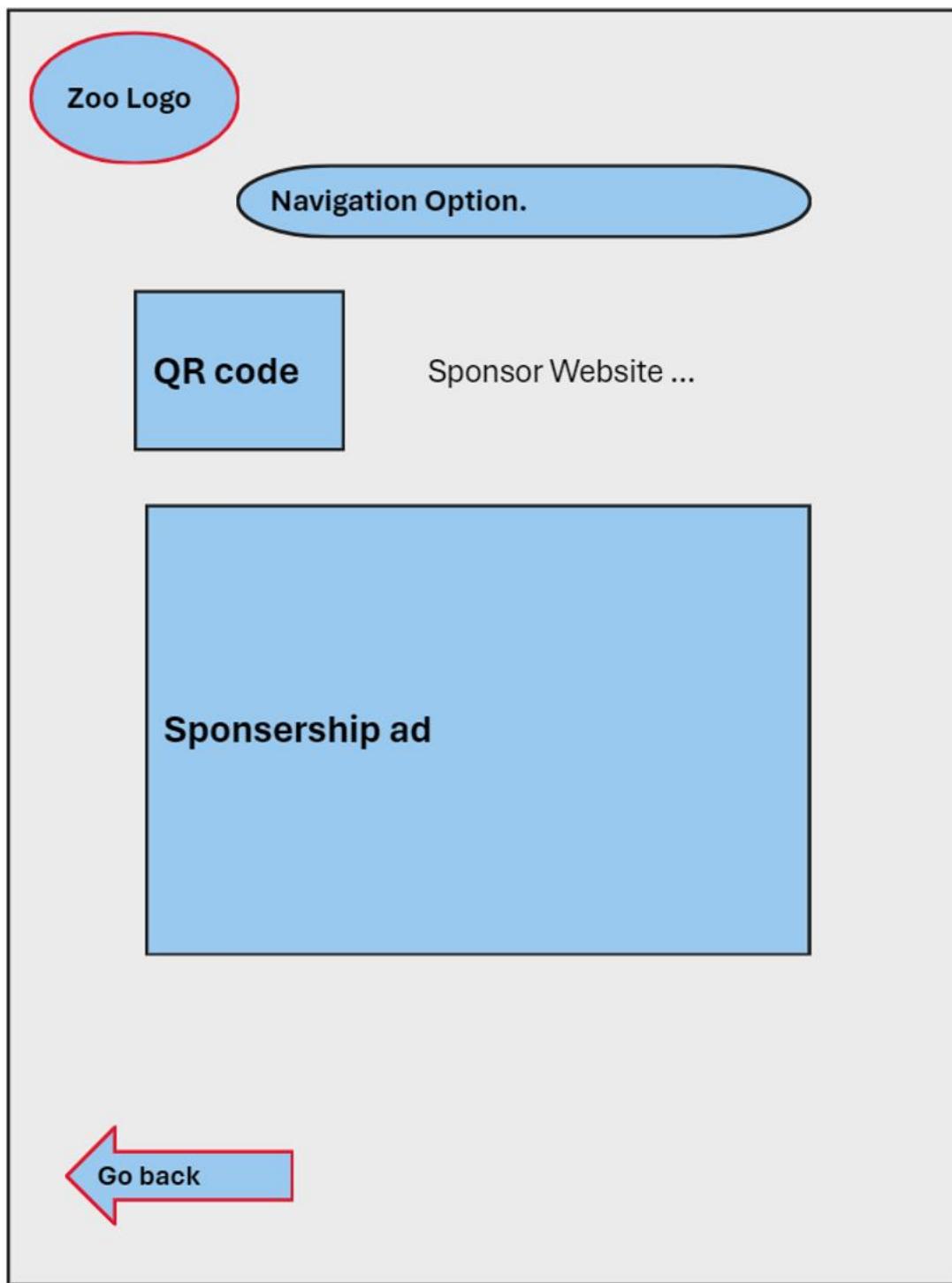
for more details
please scan
QR CODE

< >

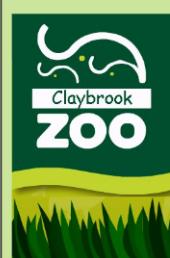
Go back

Based on the kiosk's location, it will show the nearby animals. you can still search for other animals.

Sponsor AD Page (First Design)



Sponsor AD Page (Redesign)



Sponsor Website ...

<

Sponsorship ad

>



The following outputs reflect the rigorous and iterative process of design revision:

- **Initial Wireframes vs. Redesigns:** We provide a side-by-side comparison of the first draft wireframes with the subsequent redesigns, illustrating the transformation informed by client feedback.

- **Revised Interface Layouts:** The interface layouts have been updated to enhance user interaction, with attention to both the aesthetic and functional aspects of the kiosk's interface.
- **Updated Interaction Schemes:** We have restructured interaction flows to optimize user engagement, making common tasks more straightforward and efficient.
- **Enhanced Accessibility Features:** Our revisions extend to improving accessibility, ensuring that the kiosk is usable by the widest possible audience, in accordance with contemporary accessibility standards.
- **Optimized Performance:** System performance has undergone optimization to ensure faster response times and a smoother user experience.
- **Security Enhancements:** The kiosk's security measures have been fortified, reflecting our commitment to protecting user data and maintaining system integrity.
- **User Feedback Incorporation:** User feedback has been instrumental in guiding the redesigns, ensuring that the kiosk not only meets but anticipates user needs and preferences.
- **Technical Documentation Update:** Accompanying these design changes, technical documentation has been meticulously updated to aid in ongoing support and future development efforts.

Each revision is a testament to our iterative and user-centric design philosophy. These changes are not merely adjustments but are significant strides towards creating a final product that resonates with users and fulfills the client's strategic objectives with precision and foresight.

4 Analysis and Design Records Management System -

4.1 Preliminary Analysis Stages

4.1.1 Textual Analysis

Having explored the fundamental aspects of information systems in zoo management, we now turn our attention to the comprehensive textual analysis of the entities and processes that underpin these systems. This analysis is essential for understanding the depth and breadth of the zoo management universe, and it serves as the backbone for developing user-centric and efficient technological solutions. We will delve into classes, functions, and attributes that are integral to the zoo's operations and see how they interact with and complement each other within the management systems.

Classes (Nouns)	Functions (Verbs)
Zoo	investigate
Software Suite (Records management system (Database)/ Website/ Kiosk)	Incorporate
Data /Records (Reports/documentation/logs/catalogues)	Conduct
Animal (animal types)	Embed
User (visitor/sponsor/admin/zookeeper/manager)	Access control
System (interface/applications/API)	Generate
Companies (businesses/schools)	Search
Zoo locations (Cages/Compounds)	Edit
Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds)	Update
Legal (GDPR /Equality act)	Import

Survey Analysis (Trends/predictions)	Export
Medical	Delete
Sponsor	Create
System admin	Send/submit
Financial management	Back up
Aviary	Triggers
Hothouse	
Aquarium	
Events	
Back up type	
Terms and conditions	
User authentication	
Habitat	
Signage	
Breeds	
Food	
Sponsorship info	
Sponsorship opportunities	
Membership	
Feedback	
Survey	
Data analytics	
Sales revenues	
Expenditure expense form	
Admissions	
Taxes	
Tickets	

Adjectives (Attributes)

Internally
Key
Electronic
Essential
Average
Natural
Global
Functionality (Graphical/ User-friendly)
Complex

Critical
Automated
Recommended
Regular
Name
Dates (Birth date, joining date)
Species
Gender
Life span
Routine
Output/Results
Contact details (number/email/address)
Security/access control
Identifier Codes (animal, location, account)
Signage area
Dimensions
Phone number (visitor, employee, sponsor)
Card Information
Historical information

The textual analysis laid out here provides a structured insight into the myriad components of zoo management systems. By dissecting the various classes, functions, and attributes, we form a clearer picture of the complex interactions and dependencies that exist within these systems. The information gleaned from this analysis is not just a reflection of the current situation but also a guide for future enhancements. Understanding these elements helps in developing more intuitive and robust systems that can cater to the dynamic needs of zoo management, leading to improved animal care, visitor experience, and operational efficiency. The granularity of this analysis allows for precise customization and optimization of the zoo's technological framework, ensuring that it is not only comprehensive but also adaptable to the evolving landscape of zoo management.

4.1.2 Significant Event Analysis

The subsequent section delves into the practical details of significant event analyses within this context. These analyses are pivotal as they offer a comprehensive overview of the different types of interactions that performers—ranging from zoo personnel to animals and even visitors—have with the zoo's management systems. This detailed examination encompasses a variety of actions such as investigating, incorporating, conducting, and many others, all of which are critical for the smooth and efficient functioning of zoological institutions. Each event is meticulously catalogued with corresponding performers and attributes, illustrating not just the complexity but also the interconnectivity of data, roles, and responsibilities within the zoo environment.

Event	Performers	Attributes
Investigate	<ul style="list-style-type: none"> • Zoo • Animal • Survey Analysis (Trends/predictions) • Medical • Events • User (visitor/sponsor/admin/zookeeper/manager) 	Functionality (Graphical/ User-friendly) Routine
Incorporate	<ul style="list-style-type: none"> • Zoo • System (interface/applications/API) • Software Suite (Records management system (Database)/ Website/ Kiosk) • Events User (visitor/sponsor/admin/zookeeper/manager)	Internally Key Electronic Essential Global Functionality (graphical interface/ user-friendly) Complex Critical Automated Recommended

		Regular
Conduct	<ul style="list-style-type: none"> • Zoo • Animal (animal types) • User (visitor/sponsor/admin/zookeeper/manager) • Aviary • Hothouse • Aquarium • Zoo locations (Cages/Compounds) • Animal (animal types) • User (visitor/sponsor/admin/zookeeper/manager) • Events • User authentication • 	<p>Internally</p> <p>Electronic</p> <p>Global</p> <p>Complex</p> <p>Critical</p> <p>Dates (birth date, joining date)</p> <p>Species</p> <p>Gender</p> <p>Life span</p> <p>Routine</p> <p>Output/results</p> <p>Security/access control</p> <p>Identifier Codes (animal, location, account)</p> <p>Signage area</p> <p>Dimensions</p>
Embed	<ul style="list-style-type: none"> • Zoo • Data /Records (Reports/documentation/logs/catalogues) • Legal (GDPR /Equality act) • Terms and conditions • Software suite (Records management system (Database)/ Website/ Kiosk) • System (interface/applications/API) • User (visitor/sponsor/admin/zookeeper/manager) 	<p>Internally</p> <p>Key</p> <p>Electronic</p> <p>Essential</p> <p>Average</p> <p>Natural</p> <p>interface/ user-friendly)</p> <p>Complex</p> <p>Critical</p> <p>Regular</p>

		<p>Output/results Security/access control Identifier Codes (animal, location, account)</p>
Access Control	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • System admin • User (visitor/sponsor/admin/zookeeper/manager) 	<p>Internally Key Electronic Essential Global Security/access control Identifier Codes (animal, location, account)</p>
Generate	<ul style="list-style-type: none"> • Zoo • User (visitor/sponsor/admin/zookeeper/manager) 	<p>Electronic Essential Average Natural Global Functionality (graphical interface/ user-friendly) Automated Recommended Regular Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Phone number (visitor, employee, sponsor)</p>

Search	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • User (visitor/sponsor/admin/zookeeper/manager) • Animal (animal types) • Sponsorship info • Sponsorship opportunities • Membership • Feedback • Survey • Events • Survey Analysis (Trends/predictions) • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Data analytics • Sales revenues • Expenditure expense form • Admissions • Tickets <p>Financial management</p>	Internally Key Electronic Essential Global Functionality (graphical interface/ user-friendly) Automated Recommended Name Dates (birth date, joining date) Species Gender Life span Output/results Phone number (visitor, employee, sponsor) Identifier Codes (animal, location, account)
Edit	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Sponsorship info • Sponsorship opportunities • Membership • Feedback 	Internally Key Electronic Essential Global Functionality (graphical interface/ user-friendly) Complex

	<ul style="list-style-type: none"> • Survey • Survey Analysis (Trends/predictions) • Data analytics • Sales revenues • Expenditure expense form • Admissions • Tickets • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Events • Financial management 	<p>Critical</p> <p>Name</p> <p>Dates (birth date, joining date)</p> <p>Species</p> <p>Gender</p> <p>Life span</p> <p>Routine</p> <p>Output/results</p> <p>Contact details (number/email/address)</p> <p>Security/access control</p> <p>Identifier Codes (animal, location, account)</p> <p>Dimensions</p> <p>Phone number (employee)</p> <p>Historical information</p>
Update	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Survey Analysis (Trends/predictions) • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Events • Financial management 	<p>Internally</p> <p>Key</p> <p>Electronic</p> <p>Critical</p> <p>Name</p> <p>Dates (birth date, joining date)</p> <p>Species</p> <p>Gender</p> <p>Life span</p> <p>Routine</p> <p>Output/results</p>

		Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Signage area Dimensions Phone number (visitor, employee, sponsor) Card information Historical information
Import	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Sponsorship info • Sponsorship opportunities • Membership • Feedback • Survey Analysis (Trends/predictions) • Survey • Data analytics • Sales revenues • Expenditure expense form • Admissions • Tickets • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Financial management 	Electronic Essential Critical Automated Name Dates (birth date, joining date) Species Gender Life span Routine Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Dimensions Phone number (visitor, employee, sponsor) Historical information
Export	<ul style="list-style-type: none"> • Zoo 	Electronic

	<ul style="list-style-type: none"> • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Sponsorship info • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Sponsorship opportunities • Membership • Feedback • Survey • Data analytics • Sales revenues • Expenditure expense form • Admissions • Tickets • Financial management 	Functionality (graphical interface/ user-friendly) Automated Name Dates (birth date, joining date) Species Gender Life span Output/results Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Dimensions Phone number (visitor, employee, sponsor)
Delete	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Sponsorship info • Sponsorship opportunities • Membership • Feedback • Survey Analysis (Trends/predictions) • Survey • Data analytics • Sales revenues 	Electronic Essential Global Functionality (graphical interface/ user-friendly) Critical Automated Name Dates (birth date, joining date) Species Gender Life span

	<ul style="list-style-type: none"> • Expenditure expense form • Admissions • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Events 	Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Signage area Dimensions Phone number (visitor, employee, sponsor) Card information Historical information
Create	<ul style="list-style-type: none"> • Zoo • Software Suite (Records management system (Database)/ Website/ Kiosk) • Animal (animal types) • Sponsorship info • Sponsorship opportunities • Membership • Feedback • Survey • Data analytics • Survey Analysis (Trends/predictions) • Sales revenues • Expenditure expense form • Admissions • Tickets • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Events • Financial management 	Electronic Essential Global Functionality (graphical interface/ user-friendly) Complex Critical Output/results Signage area Dimensions Phone number (visitor, employee, sponsor) Card information Historical information
Send/Submit	<ul style="list-style-type: none"> • Zoo 	Electronic

	<ul style="list-style-type: none"> • Animal (animal types) • Membership • Feedback • Survey • Data analytics • Survey Analysis (Trends/predictions) • Expenditure expense form • Admissions • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Financial management 	Global Critical Automated Name Dates (birth date, joining date) Species Gender Life span Output/results Contact details (number/email/address) Security/access control Identifier Codes (animal, location, account) Phone number (visitor, employee, sponsor) Card information Historical information
Backup	<ul style="list-style-type: none"> • Zoo • Back up type • System admin • 	Internally Electronic Essential Automated Recommended Regular Critical
Triggers	<ul style="list-style-type: none"> • Zoo • Software suite (Records management system (Database)/ Website/ Kiosk) • System (interface/applications/API) 	Internally Key Electronic Essential

	•	Average Global Automated Recommended Regular

The detailed significant event analysis presented serves as a fundamental component in understanding the multifaceted operations of a zoo. Through the careful dissection of each event—investigate, incorporate, conduct, embed, and more—we gain insights into the essential tasks that ensure the zoo's operations are both effective and secure. These tasks span from routine data entries to critical updates that safeguard the well-being of both the animals and the institution itself. The analysis also highlights the importance of user-friendly interfaces and the integration of electronic systems in facilitating these complex processes. By examining the roles and attributes associated with each event, zoo administrators and software developers can better tailor their systems to meet the demands of a dynamic and ever-evolving environment. The goal is to create a seamless and automated infrastructure that supports the welfare of the animals, the satisfaction of visitors, and the operational excellence of the zoo.

4.1.3 Class- Responsibility-Collaborator (CRC)

As we approach a significant phase in the development of the Records Management System (RMS) for the zoo, it is crucial to encapsulate the essence of our progress thus far. The formulation of the Class Responsibility Collaborator (CRC) cards stands as a testament to our strategic analysis and meticulous planning. These cards serve as a fundamental tool in object-oriented design, providing a concise and comprehensive overview of the system's classes, their respective responsibilities, and collaborators. Each CRC card encapsulates a vital component of the RMS, ensuring clarity in the division of tasks and seamless interaction among system elements. They represent the collective effort to create a robust and reliable RMS that adheres to our high standards of functionality, security, and user accessibility.

Class Name: System Admin
<p>Responsibilities:</p> <ul style="list-style-type: none"> • Investigate • Incorporate • Embed • Access control • Generate • Search • Edit • Update • Import • Export • Delete • Create • Send/submit.

<ul style="list-style-type: none"> • Back up • Conduct
<p>Collaborators:</p> <ul style="list-style-type: none"> • Zoo • Back up type • System admin event • Animal • Survey Analysis (Trends/predictions) • Medical • Breeds • Events • Food • System (interface/applications/API) • Software Suite (Records management system (Database)/ Website/ Kiosk) • User (visitor/sponsor/admin/zookeeper/manager) • Aviary • Hothouse • Aquarium • Zoo locations (Cages/Compounds) • User authentication • Data /Records (Reports/documentation/logs/catalogues) • Legal (GDPR /Equality act) • Terms and conditions • Sponsorship info • Sponsorship opportunities • Membership • Feedback • Survey • Category/classification (Amphibians/ Mammals/ Reptiles/ Fish/ Birds) • Data analytics • Sales revenues • Expenditure expense form • Admissions • Tickets • Financial management
<p>Brief Description: Manages system administration tasks and ensures the smooth functioning and security of the RMS.</p>
<p>Why Significant: Ensures critical system operations and security, contributing to the overall stability and reliability of the RMS.</p>
<p>List of attributes:</p> <ul style="list-style-type: none"> • Internally • Electronic • Global • Functionality • Security/access control • Contact details (number/email/address) • Identifier Codes (animal, location, account) • Phone number (visitor, employee, sponsor)

Class Name: Finance Management
Responsibilities:
<ul style="list-style-type: none">● Investigate● Generate● Search● Edit● Update● Import● Export● Delete● Create● Send/submit.● Back up● Conduct
Collaborators:
<ul style="list-style-type: none">● Zoo● System Admin● Financial analysts● Legal (compliance considerations)● Sales revenues● Expenditure expense form● Admissions● Tickets
Brief Description:
Handles financial transactions, budgeting, and reporting within the RMS.
Why significant:
Essential for financial control, providing insights into expenditures, revenues, and budget planning.
List of attributes:
<ul style="list-style-type: none">● Internally● Electronic● Essential● Average● Global● Complex● Critical● Automated● Recommended● Regular● Functionality● Security/access control● Contact details (number/email/address)● Identifier Codes (animal, location, account)● Phone number (visitor, employee, sponsor)● Card information

Class Name: Visitor Management**Responsibilities:**

- Incorporate
- Access control
- Generate
- Search
- Edit
- Update
- Import
- Export
- Delete
- Create
- Send/submit.
- Back up
- Conduct

Collaborators:

- Zoo
- System Admin
- Events
- User authentication
- Legal (Terms and conditions, GDPR, Equality act)
- Feedback
- Survey
- Admissions
- Tickets

Brief Description:

Manages visitor-related activities, including admissions, ticketing, and membership.

Why Significant:

Key for enhancing the visitor experience and maintaining accurate records of visitor interactions.

List of attributes:

- Internally
- Electronic
- Essential
- Average
- Natural
- Global
- Functionality
- Security/access control
- Contact details (number/email/address)
- Identifier Codes (animal, location, account)
- Phone number (visitor, employee, sponsor)

Class Name: Sponsor Management**Responsibilities:**

- Investigate

- Incorporate
- Access control
- Generate
- Search
- Edit
- Update
- Import
- Export
- Delete
- Create
- Send/submit.
- Back up
- Conduct

Collaborators:

- Zoo
- System Admin
- Legal
- Sponsorship info
- Sponsorship opportunities
- Financial management
- Events

Brief Description:

Manages sponsorship-related information and opportunities within the RMS

Why significant:

Vital for establishing and maintaining sponsor relationships, contributing to the financial health and support of the zoo.

List of attributes:

- Internally
- Electronic
- Essential
- Global
- Security/access control
- Identifier Codes (animal, location, account)
- Contact details (number/email/address)
- Phone number (visitor, employee, sponsor)
- Card information

Class Name: Animal Management

Responsibilities:

- Investigate
- Generate
- Search
- Edit
- Update
- Import
- Export

<ul style="list-style-type: none"> • Delete • Create • Send/submit. • Back up • Conduct
<p>Collaborators:</p> <ul style="list-style-type: none"> • Monitor animal health and well-being. • Track breeding and genetic information. • Manage food and nutrition plans. • Maintain records of species and breeds. • Handle medical records. • Implement aviary, hothouse, and aquarium management. • Collaborators: • Zoo • System Admin • Medical • Breeds • Events • Food • Aviary • Hothouse • Aquarium • Data / Records (Reports/documentation/logs/catalogues) • Category/classification (Amphibians/Mammals/Reptiles/Fish/Birds)
<p>Brief Description: Manages animal details, health, breeding, and species information within the RMS.</p>
<p>Why Significant: Essential for the overall management and conservation efforts of the zoo's animal population.</p>
<p>List of attributes:</p> <ul style="list-style-type: none"> • Internally • Electronic • Essential • Average • Natural • Global • Functionality • Complex • Security/access control • Identifier Codes (animal, location, account) • Dimensions • Phone number (visitor, employee, sponsor) • Historical information • Dates (birth date, joining date) • Species • Gender • Life span • Routine • Output/result

Class Name: Legal and Compliance
Responsibilities:
<ul style="list-style-type: none"> • Search • Edit • Update • Import • Export • Delete • Create • Conduct
Collaborators:
<ul style="list-style-type: none"> • Zoo • System Admin • Legal • Terms and conditions • Sponsorship info • Sponsorship opportunities
Brief Description:
Ensures legal compliance and handles regulatory aspects within the RMS.
Why Significant:
Critical for safeguarding the zoo's legal standing, managing legal documentation, and addressing compliance issues.
List of attributes:
<ul style="list-style-type: none"> • Internally • Electronic • Essential • Global • Security/access control • Identifier Codes (animal, location, account) • Phone number (visitor, employee, sponsor) • Historical information

As this section of our project documentation concludes, we have laid out a solid groundwork of responsibilities and collaborations for each class within the RMS. The System Admin, Finance management, Visitor management, Sponsor management, Animal management, and Legal and compliance classes—all critical cogs in our RMS—have been defined with precision and purpose.

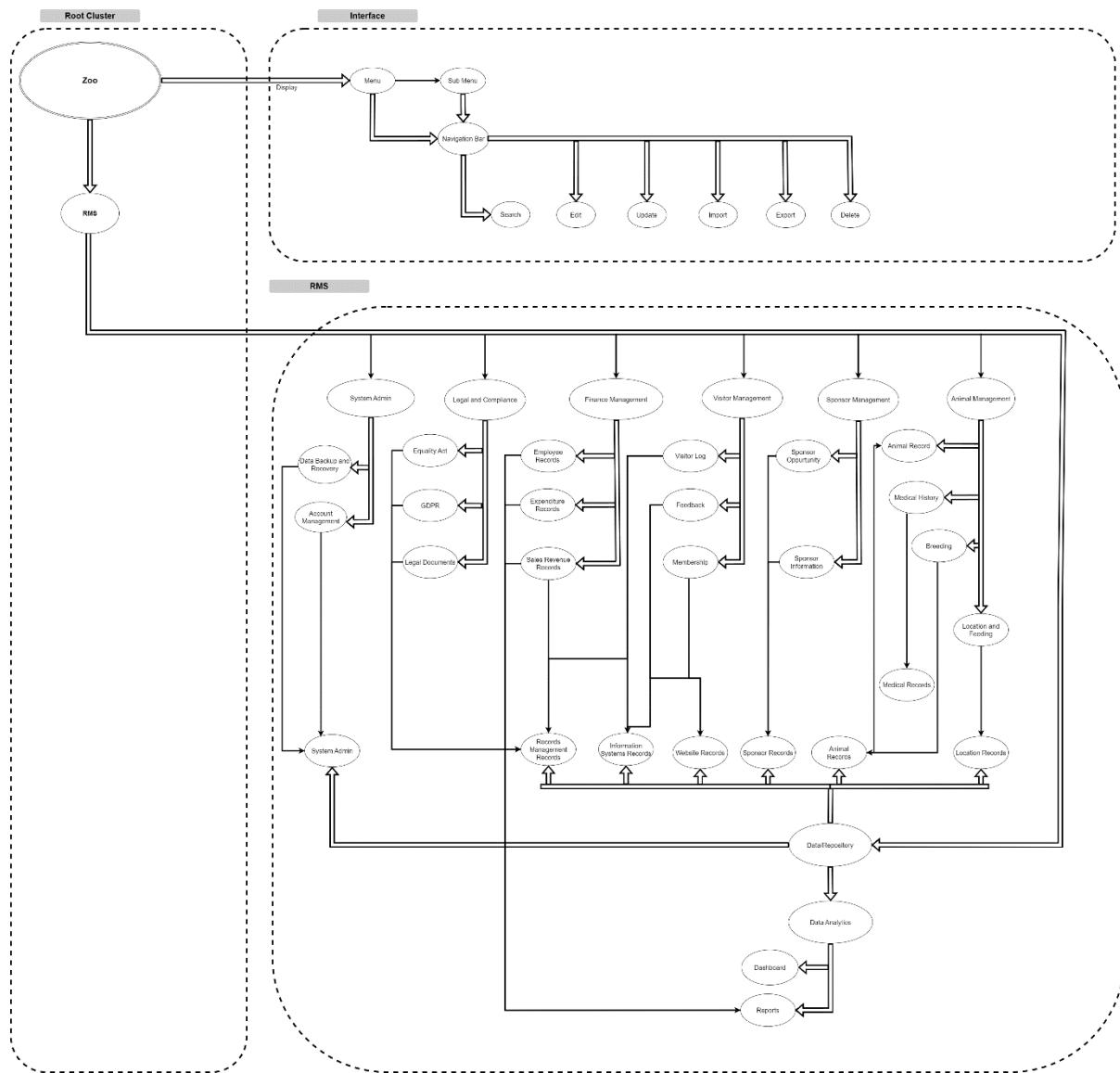
These CRC cards not only symbolize the meticulous thought invested in the system's architecture but also signal our readiness to advance to the subsequent stages of development. They will guide our developers and stakeholders as we move forward, ensuring that each aspect of the RMS is developed with a clear understanding of its role in the larger ecosystem. The foundation laid by these CRC cards is integral to the success of the project, bringing us one step closer to realizing a comprehensive and user-centric Records Management System for the zoo.

4.2 Detailed Static System Designs

4.2.1 First Draft BON System Architecture Diagram

Embarking on the penultimate section of our report, we present the First Draft BON System Architecture Diagram, a visual representation that forms the backbone of our Records Management System (RMS) design. As the architecture of any information system is pivotal to its functionality, efficiency, and scalability, this

This diagram is essential for visualizing the relationships and interactions between the various components of our RMS. The classes, interfaces, and inheritance hierarchies have been meticulously outlined to demonstrate how each module interacts with the others within the system. This diagram serves as a navigator through the complex structure of our system, providing a high-level overview of the system's architecture, and setting the stage for detailed development and implementation. Here, we offer a glimpse into the intricate network of operations that will form the foundation of the RMS, ensuring a seamless flow of information and a user-friendly interface for effective data management.



In summary, the First Draft BON System Architecture Diagram offers a comprehensive snapshot of our envisioned RMS, charting out the interactive pathways and hierarchical structure of the system's classes. This diagram is more than a planning tool; it is a communication instrument that aligns the development team with the functional requirements and the strategic objectives of the RMS. By capturing the essence of the system's architecture, it not only guides the developers with a clear model to reference during the construction of the RMS but also ensures that the stakeholders can visualize the product. As we wrap up this section, we are left

with a robust framework that promises seamless integration of diverse functionalities ranging from finance and visitor management to animal care and legal compliance. The First Draft BON System Architecture Diagram is, therefore, a cornerstone document that will be referenced and refined as we progress towards the finalization of our RMS, ensuring that the system we build is both resilient and responsive to the needs of the zoo.

4.2.2 BON Class Charts

As we culminate our comprehensive report on the development of the Records Management System (RMS) for the zoo, we present the BON (Business Object Notation) Class Charts. This final section is dedicated to the structural representation of our system's classes, with a focus on their interactions within the RMS. BON Class Charts serve as a blueprint that delineates the properties of each class, their operations (queries and commands), and the constraints under which they operate. They are designed to provide a clear, visual understanding of the system's architecture and are an essential aspect of our documentation, ensuring that our RMS is not only conceptualized but also well-communicated among our development team and stakeholders. With an emphasis on clarity and detail, these charts are the concluding pieces of our report that solidify the system's design before we move into the implementation phase.

Class	Records Management System
TYPE OF OBJECT: Database Object	INDEXING Created: 17/01/2024
Queries	Search, Edit, Update, Import, Export, Delete, Category
Commands	make_database, Add, Backup, Recover, Amend, Create, display_output, Assign, reset_password
Constraints	<ul style="list-style-type: none"> • For the Records Management Systems to be made, the zoo must exist. • To add an entity in the Records Management System, the entity must be part of the zoo. • To backup records in the database, the records must exist. • To recover records from the database, the records must have been backed up previously. • Before amending records, the user should have access. • To amend records, the records must exist. • Before creating a new record, the user must have access and the record should not exist. • To display, the system must have an interface or application. • To display, the page should have information to relay. • To assign access to other users, the users must exist, and their records stored in the system. • To import records, the records must exist and should be backed up.

	<ul style="list-style-type: none"> • To export records, the records must exist. • To change the page the page must have an output on the next page. • To reset the password, the user must prompt the system to. • To reset the password, the user must have an account assigned to them. • Records may contain sensitive information, especially related to staff or visitors. • Ensure that data entries are verified for accuracy and completeness before being added to the system. • Ensure data integrity by validating the accuracy and completeness of new entries before incorporation into the system. • Adhere to data privacy laws and regulations to protect sensitive information, with regular audits and compliance checks.
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Class	System Admin
TYPE OF OBJECT: Database Object	INDEXING Created: 17/01/2024
Queries	Search, Data backup, Data recovery, Account management, Edit, Update, Import, Export, Delete, Category
Commands	make_database, Add, backup_system, recover_system, Create, display_output, assign_access
Constraints	<ul style="list-style-type: none"> • Search does not account for spelling errors. • The search can only display outputs if the search record/entity is stored in the database.

	<ul style="list-style-type: none"> • To display, the page should have information to relay. • To backup system in the database, the records must exist. • To recover system from the database, the records must have been backed up previously. • To assign access the user must exist in the zoo. • To add an important information to the system, the user must have access. • To import records, the records must exist and should be backed up. • To export records, the records must exist. • To create an important information to the system, the user must have access. • To change the page the page must have an output on the next page. • Implement user role management to define and restrict actions based on user permissions within the system. • Guarantee system performance by setting thresholds for efficient operation under varying loads and data volumes.
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Class	Legal and Compliance
TYPE OF OBJECT: Record Object	INDEXING Created: 17/01/2024
Queries	Equality Act, GDPR, Legal document, Edit, Update, Import, Export, Delete, Category
Commands	Display_output, change_page, create_legal_document
Constraints	<ul style="list-style-type: none"> • User must have access to view or edit this page. • System must have records present for the output to be displayed. • To create a legal document to the system, the user must have access. • To import records, the records must exist and should be backed up. • To export records, the records must exist. • To create an important information to the system, the user must have access. • To change the page the page must have an output on the next page. • To display, the page should have information to relay. • As different commands interact with the records, the system should ensure, data privacy laws and regulations are adhered to.

	<ul style="list-style-type: none"> • Feature for compliance tracking to monitor and maintain the zoo's adherence to legal standards, with alerts for pending compliance actions. • Establish record retention policies that dictate the duration for which different record types must be maintained.
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Class	Finance Management
TYPE OF OBJECT: Record Object	INDEXING Created: 17/01/2024
Queries	Employee records, Expenditure records, Sales revenue records, Create, Edit, Update, Import, Export, Delete, Category
Commands	Display_output, change_page, create_financial_record
Constraints	<ul style="list-style-type: none"> • User must have access to view or edit this page. • System must have records present for the output to be displayed. • To create a financial document to the system, the user must have access. • To import records, the records must exist and should be backed up. • To create an important information to the system, the user must have access. • To export records, the records must exist. • To change the page the page must have an output on the next page. • To display, the page should have information to relay. • Incorporate financial auditing capabilities to ensure the accuracy of financial records and adherence to standards. • Develop a budgeting tool within the system for the creation and management of the zoo's financial planning.

Class	Visitor Management
TYPE OF OBJECT: Record Object	INDEXING Created: 17/01/2024
Queries	Visitor log, Feedback, Membership, Edit, Update, Import, Export, Delete, Category
Commands	Display output, change_page,
Constraints	<ul style="list-style-type: none"> • User must have access to view or edit this page. • System must have records present for the output to be displayed. • To import records, the records must exist and should be backed up.

	<ul style="list-style-type: none"> • To export records, the records must exist. • System must have records present for the output to be displayed. • To edit a visitor's records, the visitor must exist. • Admin Access is required to edit visitor information as there is sensitive information. • To change the page the page must have an output on the next page. • To display, the page should have information to relay. • Integrate visitor analytics to glean insights for service improvement and enhanced visitor experiences. • Collect and securely store emergency contact information for visitors as a standard requirement for new entries.
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Class	Sponsor Management
TYPE OF OBJECT: Record Object	INDEXING Created: 17/01/2024
Queries	Sponsor opportunity, Sponsor information, Edit, Update, Import, Export, Delete, Category
Commands	Display_output, change_page, input_credentials, create_sponsor
Constraints	<ul style="list-style-type: none"> • User must have access to view or edit this page. • System must have records present for the output to be displayed. • To create an important information to the system, the user must have access. • To import records, the records must exist and should be backed up. • To export records, the records must exist. • Admin Access is required to edit visitor information as there is sensitive information. • To change the page the page must have an output on the next page. • To display, the page should have information to relay. • For sponsor information, the sponsor must exist. • For sponsor opportunities, there must be animals not sponsored. • Define sponsorship levels with associated benefits and constraints to streamline management of the sponsorship scheme. • Manage sponsorship renewals and expirations with automated notifications and processing capabilities.

Class	Animal Management
TYPE OF OBJECT: Animal Object	INDEXING Created: 17/01/2024
Queries	Animal records, medical history, Breeding, Location and feeding, Edit, Update, Import, Export, Delete, Category
Commands	Display_output, change_page, create_animal_records
Constraints	<ul style="list-style-type: none"> • User must have access to view or edit this page. • To create animal records in the system, the user must have access. • To create medical history, the user must have access. • To create an animal's medical history, an animal must exist. • To edit breeding, location and feeding information, an animal must exist. • System must have records present for the output to be displayed. • To import records, the records must exist and should be backed up. • To export records, the records must exist. • To change the page the page must have an output on the next page. • To edit animal records, there record must exist. • To display, the page should have information to relay. • Track veterinary care including visits, treatments, and vaccinations within the animal records. • Maintain records of animal enrichment activities, ensuring compliance with animal welfare standards.

In closing, the BON Class Charts encapsulate the essence of our design philosophy for the Records Management System. They represent a cohesive network of classes, from the System Admin to the Animal Management, each with its defined scope of responsibility and operational constraints. Through these charts, we have laid out a clear map for developers to follow and stakeholders to understand, ensuring that every requirement is addressed, and every function is well-defined. As we conclude this section, we are confident that these detailed schematics provide the necessary foundation to build an RMS that is robust, compliant, and tailored to the unique needs of the zoo. The BON Class Charts are not just a segment of our report; they are the keystones of a system that is designed for efficiency, scalability, and adaptability, ready to meet the demands of both today and tomorrow.

5 Report Conclusion

In this project, we aimed to investigate the potential development of a software suite for Claybrook Zoo, addressing their requirements for a customer-facing website, internally facing visitor information technologies, and a zoo records administration/content management system. Through extensive research and analysis, we have successfully achieved the following outcomes:

Strengths:

Comprehensive mock-ups: Design: We have developed a comprehensive mock-up designs that encompasses all the essential features and functionalities outlined by the zoo manager, Matthew Jones. The mock-ups showcase a user-friendly, intuitive interface capable of handling complex search criteria and data management tasks. With the level of detail done, the system can be developed using the analysis and design we have done throughout the project.

Integration of Advanced Technologies: Our proposed solution incorporates cutting-edge technologies to enhance the zoo's operations and visitor experience. This includes the use of QR-driven triggers for mobile applications, providing real-time information to visitors throughout the zoo.

Robust Security Measures: We have prioritized data security and access control by incorporating suitable security features into the mock-up's software solution, ensuring the protection of sensitive zoo records and visitor information.

Weaknesses:

Limited Testing and Evaluation: Due to the project's scope and time constraints, we were unable to fully test and evaluate the performance of the prototype software. Further testing and user feedback are necessary to identify potential areas for improvement and ensure optimal system functionality.

Incomplete Implementation: As this project focused on the design and specification phase, we were unable to complete the actual implementation of the software suite. Future work will involve the development and deployment of the system to make it fully functional.

Group Dynamics:

Effective Collaboration: Our group demonstrated effective collaboration and teamwork throughout the project. We maintained open communication channels, shared responsibilities equitably, and worked together to overcome challenges and achieve our goals.

Constructive Feedback: We engaged in regular peer feedback sessions to provide constructive criticism and suggestions for improvement. This feedback loop helped us refine our ideas, identify potential issues, and enhance the overall quality of our work.

Changes and Future Work:

Alternative Development Approaches: While we explored various development approaches during the design phase, we were limited in our ability to implement and compare different techniques due to time constraints. In future work, we would like to investigate alternative approaches to identify the most suitable one for the zoo's specific needs.

Enhancements and Future Development: The software suite can be further enhanced by incorporating additional features such as online ticket booking, interactive maps, and educational resources for visitors. Future work will focus on extending the system's capabilities and exploring emerging technologies to improve the zoo's overall operations and visitor engagement.

Survey Analysis:

A survey conducted within the group revealed valuable insights into the project experience. The majority of respondents found the project timeline suitable for the assigned workload and believed that the original aims and objectives were met. Effective leadership, good quality of work, and positive team dynamics were was among the strengths identified. However, inconsistent workloads, poor time management, and initial leadership issues were mentioned as weaknesses. The survey also provided suggestions for future projects, such as improving workload distribution, emphasizing industry-standard routines, and ensuring equal group membership.

Recommendations:

Based on the survey findings, we recommend the following improvements for future projects:

Leadership: Provide more guidance on effective leadership and team management at the start of the project.

Communication: Implement regular check-ins or structured communication channels to ensure consistent and clear communication among team members.

Workload Management: Plan the project timeline with more evenly distributed workloads and consider academic schedules.

Time Management: Provide more realistic deadlines and warn students about high-effort periods.

Group Composition: Monitor group dynamics and intervene when imbalances in contribution levels are detected. Encourage peer accountability.

In conclusion, this project has provided a solid foundation for the development of a comprehensive software suite for Claybrook Zoo. The proposed system addresses the zoo's requirements for a customer-facing website, internally facing visitor information technologies, and a zoo records administration/content management system. While we have successfully completed the design and specification phase, further work is needed to implement, test, and evaluate the system to ensure its successful deployment and use by the zoo. The comprehensive nature of the work done in this project, however, provides a strong basis for future development of the actual system.

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7 Appendix

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