# Proposal

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## Project Overview

## Project Scope/Time Constraints

* 30 Hours of development time, not all features can be fully implemented
* Likely Not all Features will be implemented
* Higher Risks of Bugs

## Project Requirements (Languages)

* What I used why I chose that language Specifically
* What were my Options
* What’s the front end language and what its for
* What Libraries did I use and their functionalities

## Functional Requirements

* Functional Requirements are essential operations and user interactions which must be developed.
* Signup/Login System
* Navigation System (Frontend)
* Email/Password Verification
* Role type: VIP/Regular User
* Account Settings
* Logout
* Profile
* Password Confirmation and Reset
* Two Factor Authentication
* **SCENARIO SPECIFICS**

**Password Reset**

**Account Login – Google**

**Profile**

**Email Change**

**Booking System – Installation and consultation**

**Shopping chart**

**Payment**

## Non-functional Requirements

* Non-functional requirements are the concepts considered to ensure the quality and maintenance of the solution.
* The security of the database, due to strict legal requirements the security of personal data is essential
* Password Hashing, a final protection again a data breach to prevent access to accounts illegally.
* Maintainability and scalability – Due to Time constraints making the website maintainable and scalable is important for future development and collaboration.
* Authentication
* Reliability – Ensure the website is accessible and reliable when in use to prevent issues with user experience.

## Project Risks

### Cybersecurity

* Security Threats
* SQL Injection Attack
* Malware: Spyware, Keyloggers, Trojans
* Data breach
* Bugs
* Important to test bugs because of the time constraints

### UI/User Experience

* Poor Implementation of UI can make user experience much worse
* Inconsistent UI Implementation
* Accessibility – User Experience (Also a Legal Requirement)

## Key Performance Indicators

* A variety of statistics that need to be tracked and analysed throughout development to see how well the solution is performing. These statistics can be measured in a variety of ways including:
  + Gross Income – Month to Month or Years
  + Current Active Accounts
  + Average New Users (Per Day/Week)
  + Load Times
  + Amount of sales
  + Technical Performance (Preventing 404 errors etc)
  + Customer Satisfaction (Feedback)

## User Acceptance Criteria

* The user acceptance criteria ensures that the end users including new users and administrators feel like the website is complete and up to standard.
* The user interface and User Experience must be considered to back up this.
* Developing the Core features of the solution.

e.g. Riget Zoo asked for a loyalty system and booking system.

The Layout should be completed and consistent to be considered complete. The design should be flawless with no significant differences.

Making sure you Accommodate the website to the task objective.

## Newly Emerging Technology

* Technology becoming more mainstream

### Artificial Intelligence (AI)

* AI is on a rapid incline and it’s an ever-evolving piece of technology that’s becoming mainstream in all sectors of work. Companies worldwide are using it, and many are using it for personal use.
* AI can be implemented for Customer Support
* Since AI Is becoming a mainstream tool we would be at a disadvantage if we don’t at least considering to implement it.
* AI is an extremely good tool for data analysis.
* Extensive research is important to prevent any risks.

### Virtual Reality (VR) / Augmented Reality (AR)

* VR can be used to emulate features we offer without having to visit to keep customers engaged and interested
* AR is a mix or real-world visuals with Virtual Content, It can also be used to help emulate the work.

### Internet of Things (IoT

The Internet of Things is a technology that allows for the connection of various devices and objects to the internet enabling them to easily communicate with one another and to share data.

## Legal and Regulatory Guidelines

- Data Protection Act (2018) – This act states various rules and regulations related to how personal data is kept securely, protected and private. As such any data that may be gathered about the individual needs to have appropriate data security measures, along with obtaining consent for further data collection and usage.

- Equality Act (2010) – This act was made to prohibit discrimination, harassment and victimization on the grounds of individual protected characteristics, as such ensuring that everyone is treated equally.

- Health and Safety at Work Act (1974) – This act specifies the duties an employer has regarding the health, safety and welfare of its employees and customers. It requires for them to perform risk assessments of their working environment, providing appropriate training to employees so they can effectively and safely perform their job duties along with requiring them to maintain safe working conditions.

- Consumer Rights Act (2015) – This act provides protection for the consumers/customers in various sectors, including the Tourism and Leisure sector, it specifies the right a customer has when purchasing goods and/or services from a company, such as expecting them to be provided and performed with reasonable care and skill, right to receive goods and services that match descriptions provided, and the right to a refund or equivalent compensation for substandard product/services.

### Software Development Industry

* - Data Protection Act (2018) – This act states the rules and regulations related to how personal data is kept securely, protected, and private. To ensure the proposed application follows these regulations, we would have to implement appropriate data security measures within the application, obtain the user’s consent for data collection and usage, along with providing full transparency to any individual about how the collected user data will be used, processed, analysed and protected.
* Intellectual Property Act (2014) – This act states that individuals have control over the content they produce, as such they can determine how it is used, such as what credit/attribution must be given, along with any monetary compensation required for the use of the content within the application.
* - WCAG (Web Content Accessibility Guidelines) – Although this act is not a legally binding one enforced by governments, it is a well know set of guidelines developer by the World Wide Web Consortium (W3C) and it is heavily recommended for all digital content on the web to follow these guidelines so individuals with disabilities can also interact with their application. Within these guidelines it provides technical and design standards to make the digital content on websites perceivable, operable, understandable and robust for all users regardless of their abilities and possible disabilities. These guidelines have been constantly modified and kept up to date with modern software standards since its initial release in 1999.
* - Equality Act (2010) – This act has a set of laws and regulations that specify that developed systems must be easily useable and accessible to all and ensure that everyone is treated equally and receive equal treatment and opportunities

### Tourism and Leisure