ZOO MANAGEMENT WEB APPLICATION

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this mini project **"ZOO MANAGEMENT WEB APPLICATION"** is the bonafide work of **"DHANASREE L P (2116220701061)","VIJAY P S (2116220701509)"**who carried out the project work under my supervision.

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

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ABSTRACT

The Zoo Management System is a web-based application designed to streamline zoo operations, including animal records, staff management, ticket bookings, and maintenance schedules. It provides administrators with tools to manage animal details like species, feeding schedules, and medical history, while also overseeing staff roles and daily tasks. Visitors benefit from an intuitive ticket booking system and access to zoo maps and event information.

Developed for Internet Programming coursework, this project integrates front-end and back-end technologies to ensure efficient data handling, scalability, and a user-friendly interface. The system enhances operational efficiency and improves the visitor experience through automation and effective management.

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CHAPTER 1

1.1 INTRODUCTION

The Zoo Management System is a web-based application designed to automate and simplify zoo operations. It efficiently manages animal records, staff assignments, visitor bookings, and maintenance tasks. The system ensures seamless coordination between zoo administrators and visitors through an intuitive interface and real-time updates. By integrating modern web technologies, it provides a scalable and reliable solution for zoo management. This project demonstrates the practical application of Internet Programming concepts to address real-world operational challenges.

1.2 SCOPE OF THE WORK

The scope of the Zoo Management System includes managing animal records, streamlining staff assignments, and enhancing visitor experiences through ticket booking and event management. It enables administrators to track animal medical history, feeding schedules, and maintenance tasks, while visitors benefit from ticket booking, interactive maps, and event notifications. The application simplifies zoo operations with real-time updates and efficient staff coordination, providing a user-friendly system that boosts management efficiency and ensures a better visitor experiences.

1.3 PROBLEM STATEMENT

Current zoo management systems face challenges such as inefficient operations, lack of realtime animal health monitoring, and limited visitor engagement tools. Administrators struggle to manage animal records, ticketing systems, and visitor analytics effectively, leading to operational delays and reduced satisfaction. Visitors often lack access to interactive and personalized experiences, resulting in a less engaging visit. This Zoo Management System is being developed to address these issues by providing a streamlined platform for efficient operations and enhanced visitor experiences, aiming to improve efficiency, foster engagement, and support wildlife conservation.

1.4 AIM AND OBJECTIVES OF THE PROJECT

The aim of this project is to develop a user-friendly Zoo Management System that streamlines zoo operations and enhances the overall visitor experience. The platform will enable administrators to efficiently manage animal records, including medical history, feeding schedules, and habitat details, while also overseeing staff assignments and maintenance schedules. Visitors will benefit from an intuitive ticket booking system, access to interactive zoo maps, and notifications about events and shows.

The web application is designed to be fully responsive, ensuring optimal usability on both desktop and mobile devices, thereby offering a seamless experience for users. The system will include a secure login feature to protect sensitive data and allow personalized access for staff and administrators. Additionally, the objective is to improve operational efficiency by automating routine tasks and creating a direct communication channel between visitors and the zoo administration, making it a modern, cost-effective solution for zoo management.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

Processor	:	Intel Core i3 or Higher
Memory Size	:	4 GB RAM (Minimum)
HDD	:	40 GB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Operating System	:	Windows 10 or Higher
Front – End	:	HTML, CSS, BOOTSTRAP, JAVASCRIPT
Back – End	:	PHP, MYSQL

CHAPTER 3

ARCHITECTURE DIAGRAM

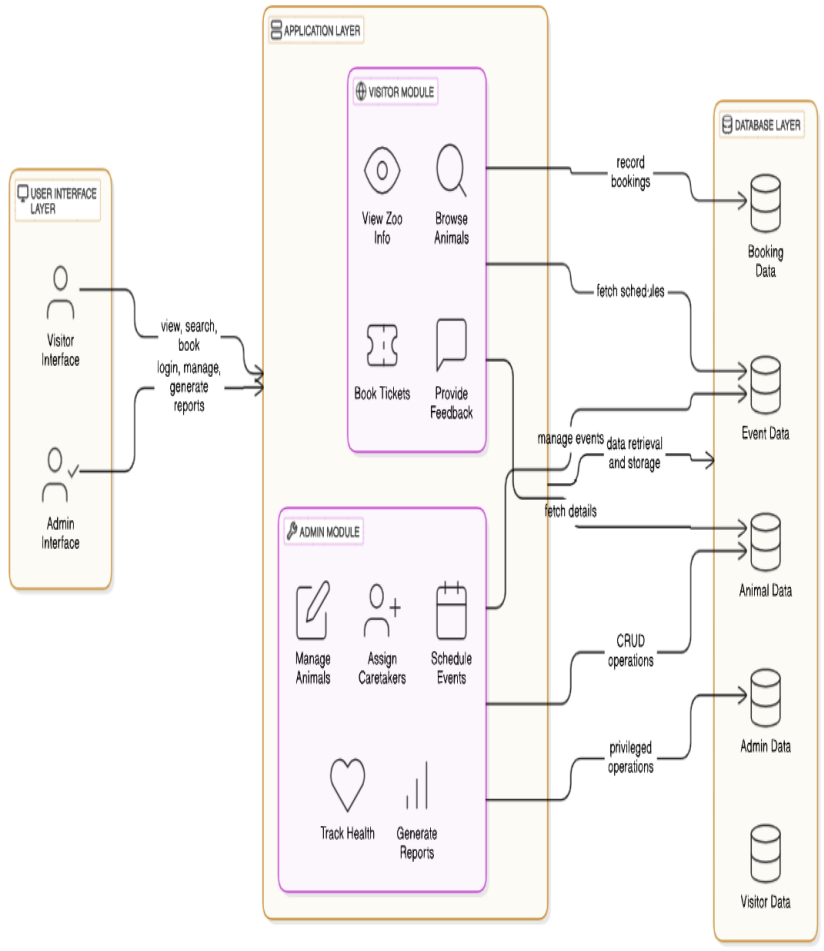


Fig. 3.1 Architecture diagram

This architecture diagram outlines a hotel management system with three main components. The Frontend (client side) is where admins or staff interact through a user-friendly interface built with HTML, CSS, and JavaScript, which sends asynchronous requests (AJAX) to the backend. The Backend (server side) handles core functionalities like user authentication, booking management, staff handling, complaint tracking, and generating reports. It processes these operations through various modules and communicates with the Database Layer , which stores essential data, such as user details, room availability, reservations, staff records, and complaints. Together, these layers ensure seamless interaction, efficient data management, and reliable system functionality.

CHAPTER 4

MODULE DESCRIPTION

4.1. User Registration and Login Module:

This module allows zoo administrators and staff to register and log in securely. Administrators can create accounts for staff, providing credentials such as name, email, and role. Users log in using these credentials, with authentication handled securely. Based on their roles, users gain access to specific features such as managing animals or handling ticket bookings.

4.2. Animal Records Management Module:

This module manages detailed records of animals, including species, habitat, feeding schedules, and medical history. Administrators can add, update, or delete records through an intuitive interface. This module ensures comprehensive tracking and easy retrieval of animal-related information for effective zoo management.

4.3. Ticket Booking Module:

This module enables visitors to book tickets online for general admission or special events. The system provides options for individual or group bookings and processes payments securely. Visitor information, including booking history, is stored for administrative use, improving visitor management and enhancing the booking experience.

4.4. Staff Management Module:

This module assists administrators in managing zoo staff. It allows for assigning tasks, scheduling shifts, and tracking staff performance. Staff data, including roles and responsibilities, is stored and accessible, ensuring efficient coordination and resource allocation.

4.5. Maintenance Management Module:

This module schedules and tracks maintenance tasks, such as enclosure cleaning and equipment repairs. Administrators can set reminders for maintenance activities, and the system notifies the responsible staff. This ensures timely upkeep of the zoo's infrastructure and enhances operational efficiency.

CHAPTER 5

SYSTEM DESIGN

5.1 USE CASE DIAGRAM

Fig.5.2.1 Use Case Diagram

5.2 ER DIAGRAM

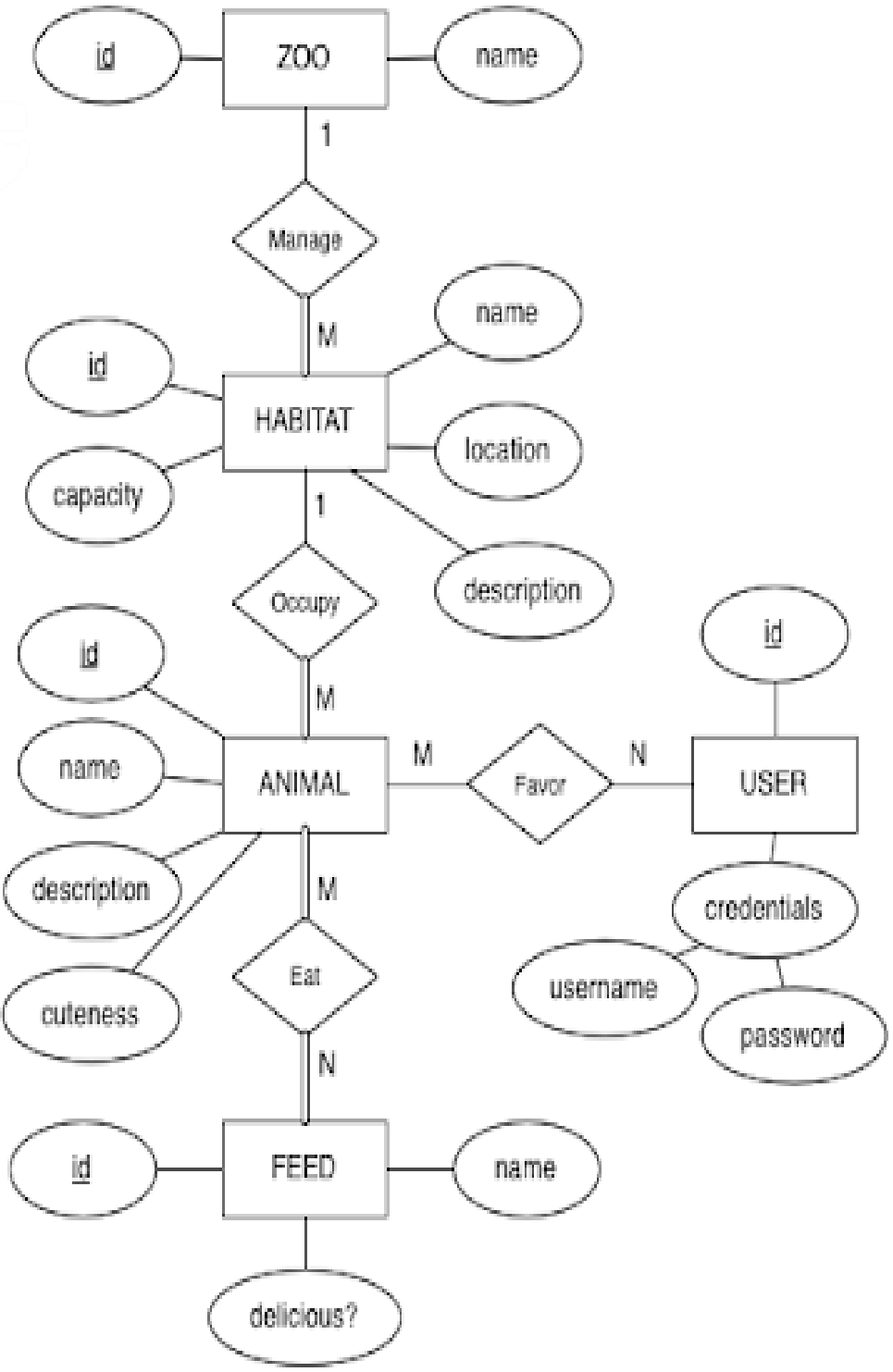


Fig.5.2.2 ER Diagram

5.3 DFD DIAGRAM

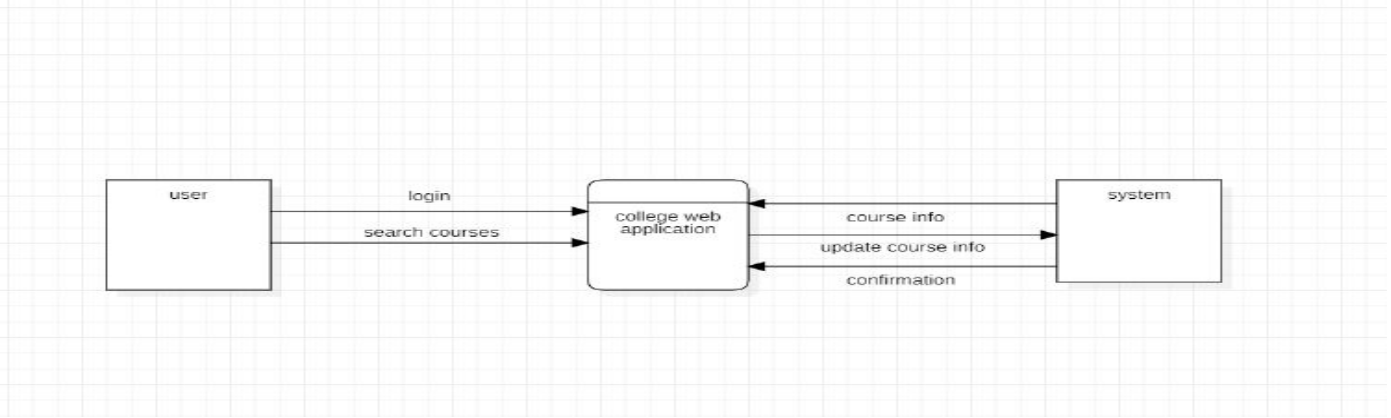
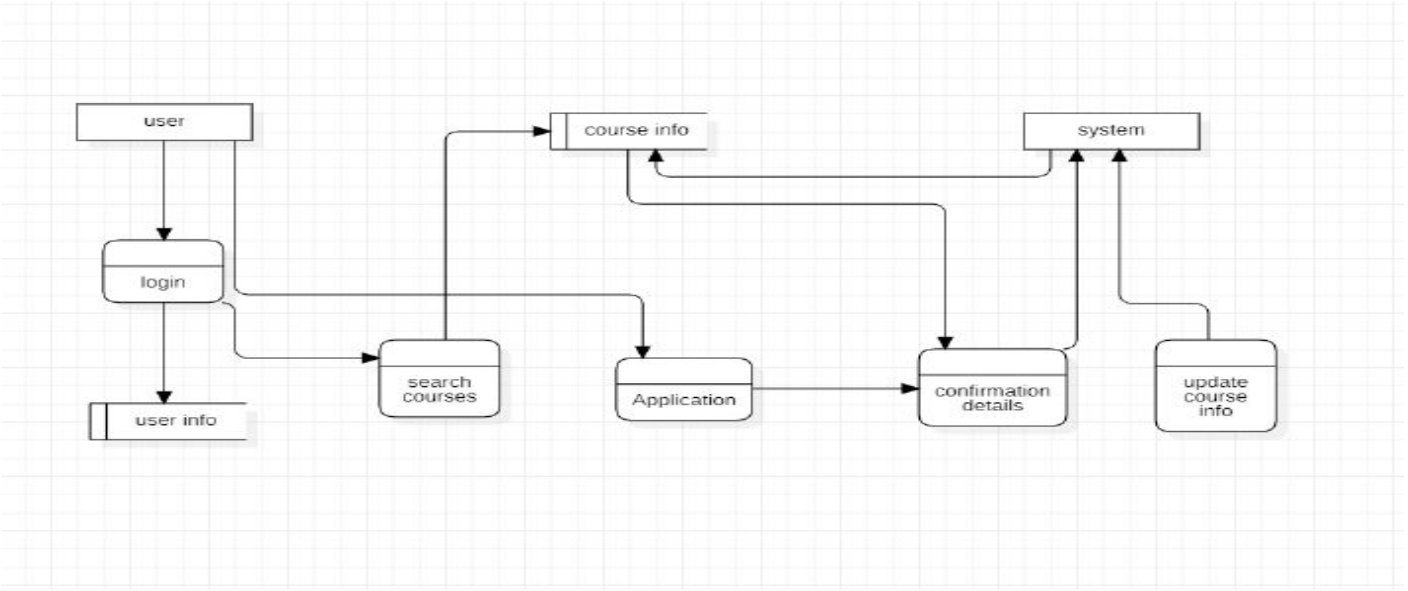


Fig.5.3.1 DFD Level-0 Diagram



DFD Level-1 Diagram

Fig.5.3.2 DFD Level-1 Diagram

5.4 ACTIVITY DIAGRAM

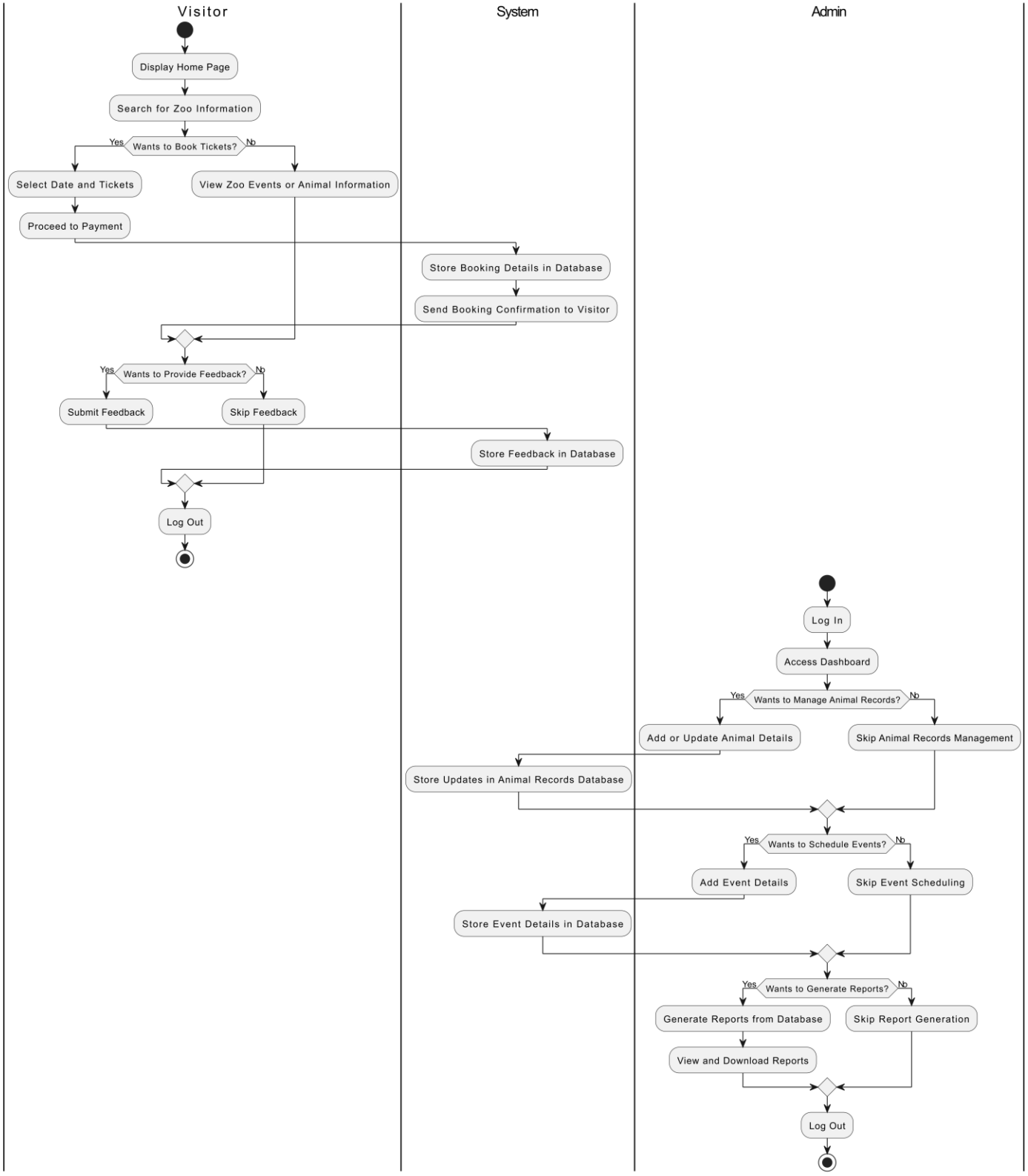


Fig.5.4.1 Activity Diagra

CHAPTER 6

SCREENSHOTS

Fig. 6.1. Home Page

The home page provides a user-friendly interface to explore properties and access key features.

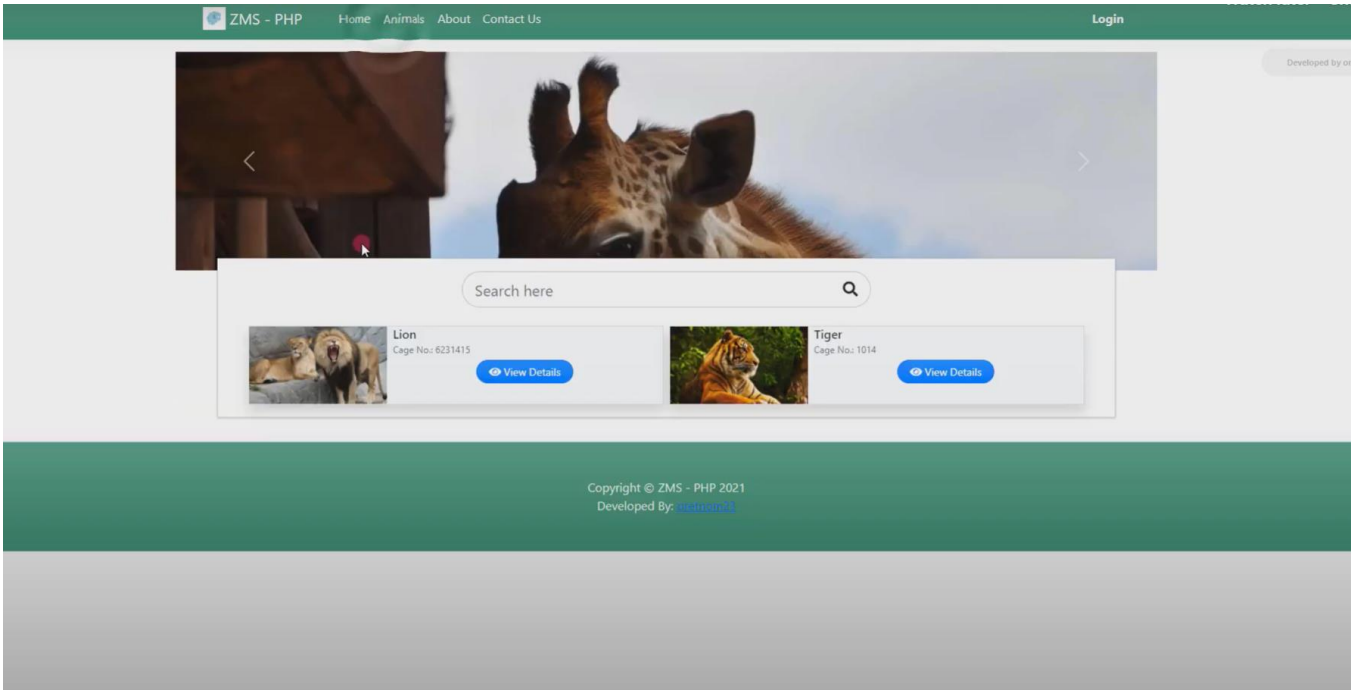


Fig. 6.2. Login Module

The animal view page displays detailed information about each animal, including its species, age, and health status, for efficient zoo management.

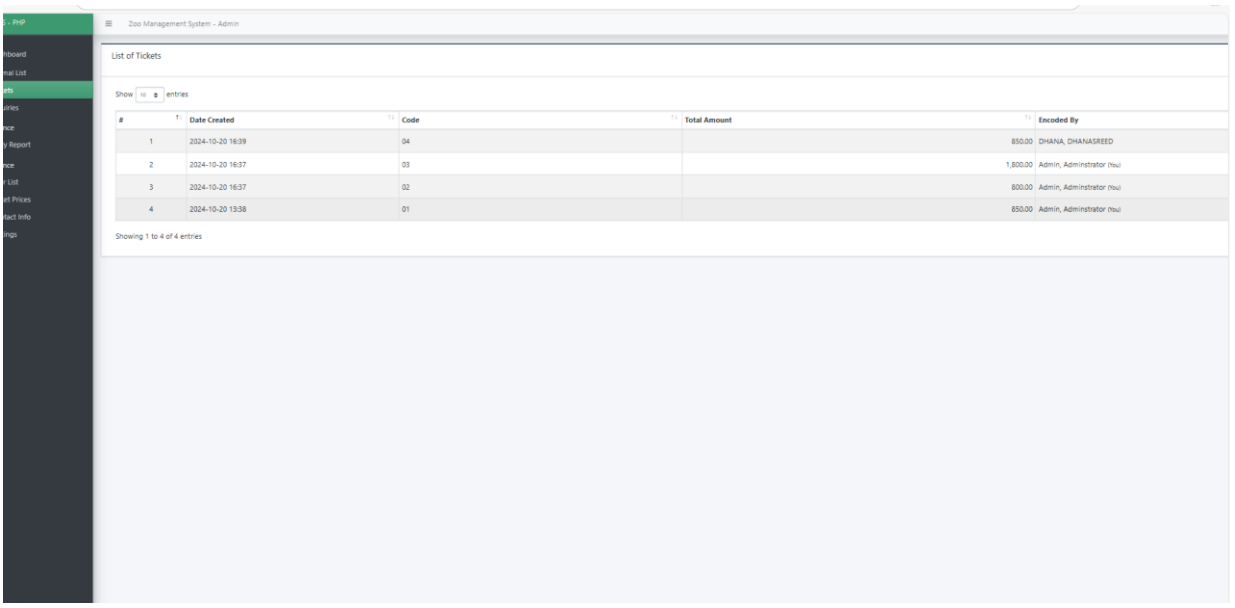


Fig. 6.3. Users and Ticket Info Page

The users and ticket info page allows administrators to manage user profiles and roles while also providing visitors with ticket types, pricing, and booking details for easy access to zoo events and services.

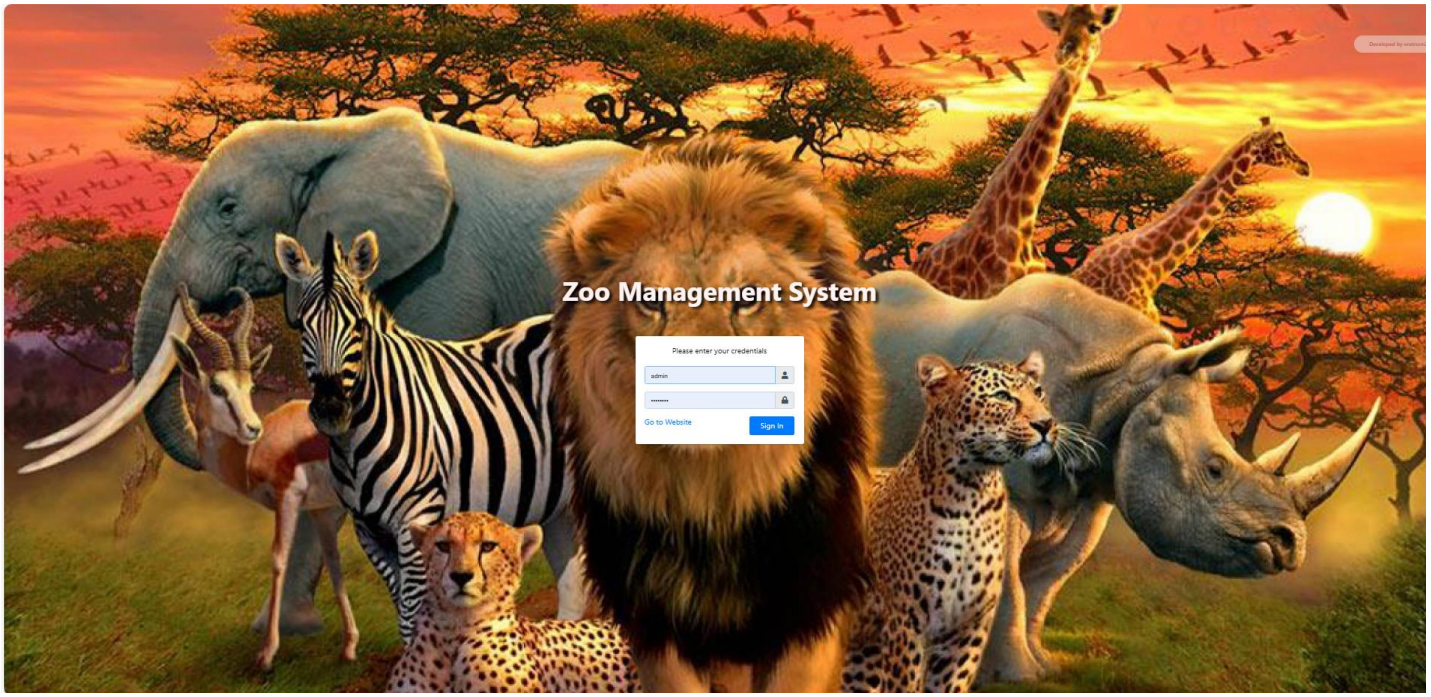


Fig. 6.4. Create Listing

The create listing module lets users add property details for sale or rent, including name, description, price, features, and images

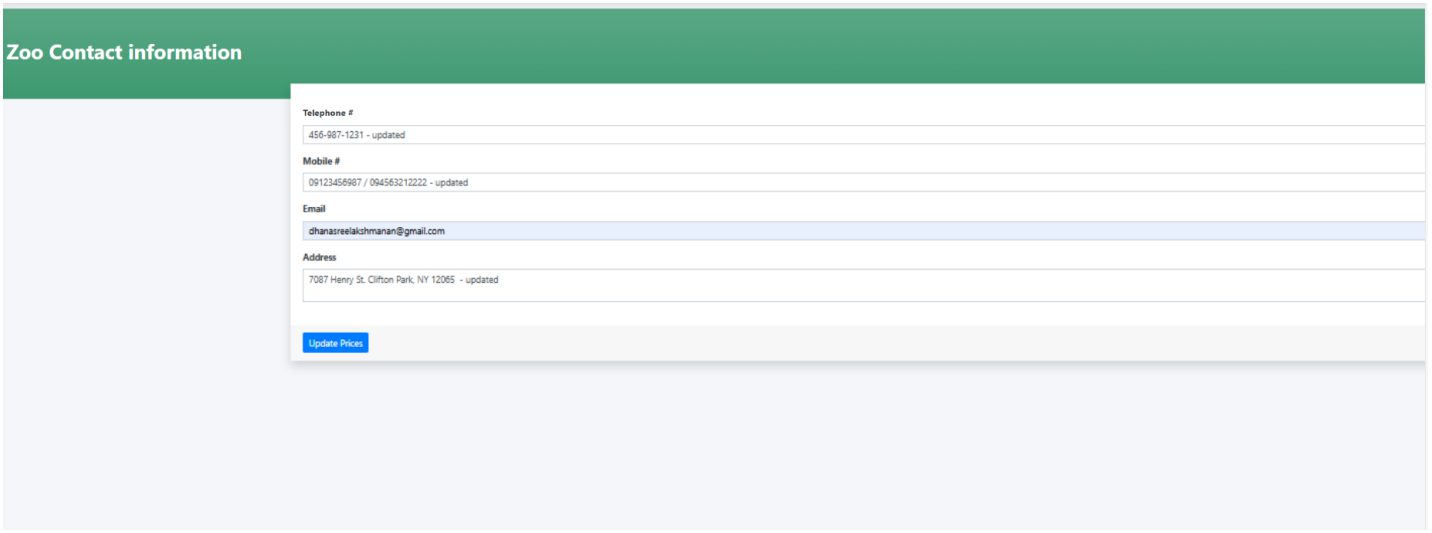


Fig. 6.5. Contact Info Page

The contact info page provides visitors with essential contact details, including phone numbers, email addresses, and a contact form for inquiries or support requests

CHAPTER 7

CONCLUSION

In conclusion, the Zoo Management System effectively addresses the challenges of managing zoo operations and enhancing the visitor experience through its streamlined, user-friendly platform. With features such as comprehensive animal information, efficient ticket booking, and robust administrative tools, the application simplifies the management of zoo activities while fostering engagement with visitors. The platform's intuitive navigation, secure login, and compatibility across devices ensure accessibility and convenience for users, including administrators, staff, and visitors alike. As the requirements of zoos evolve, the future development of the Zoo Management System could include innovative features such as AI-powered animal health monitoring, real-time visitor analytics, and augmented reality experiences to offer interactive animal tours. These advancements would not only optimize zoo operations but also provide visitors with a more immersive and educational experience. The Zoo Management System aspires to redefine zoo operations by making management tasks efficient, visitor experiences memorable, and the conservation of wildlife a shared and transparent responsibility..

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