

IN2901 – Software Development Project

Project Proposal

Level 2

Holiday Home Booking System

Delta X



Faculty of Information Technology

University of Moratuwa

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1. Introduction

The web-based holiday home booking system is designed for companies to promote work-life balance and employee satisfaction. It offers a user-friendly platform for managing company-owned holiday homes with dedicated caretakers, providing a seamless and hassle-free way for employees to book holiday homes.

The system offers a user-friendly interface for administrators and flexibility for employees. It simplifies the booking process, allowing administrators to manage bookings, monitor property details, and analyze past activities. Employees can reserve holiday homes according to their preferences. The system provides easy access to property histories and details, enhancing transparency and ensuring an exceptional booking experience. It eliminates the complexities of outdated systems, paving the way for a stress-free holiday home management experience.

2. Problem in brief

1.1. Problem Statement:

The problem at hand is the inefficient and cumbersome process of booking holiday homes for employees of Inova IT System, leading to scheduling conflicts, administrative overhead, and user frustration. The background of this problem domain encompasses the following key aspects:

1.2. Background:

In the context of Inova IT System, employees often require access to holiday bungalows for various purposes, including vacations, team retreats, and corporate events. However, the existing method for booking these accommodations is fraught with challenges:

1. Inova IT System employs a manual booking process with paperwork, emails, and phone calls, necessitating employee-administrator interaction for bookings.
2. The absence of real-time updates on bungalow availability causes scheduling conflicts and inconveniences when employees unintentionally book already reserved accommodation.
3. Limited booking options and inefficient search capabilities make it difficult and time-consuming for employees to find suitable bungalows based on their preferences.
4. Administrative tasks like managing bookings and user access burden Inova IT System's teams with time-consuming work and the potential for errors.

3. Aim and Objectives

3.1.Aim

- The aim of this project is to develop a system for addressing the challenges associated with booking holiday bungalows for “Innova IT system” is using a user-friendly web-based platform.

3.2.Objectives

- To streamline the holiday bungalow booking process, reducing complexities and inefficiencies.
- To provide real-time updates on bungalow availability, ensuring accurate and conflict-free bookings.
- To design a user-friendly interface that simplifies the selection and booking of holiday bungalows.
- To create efficient administrative tools for managing user access, bookings, and availability data.
- To enhance data security, implement robust measures to protect sensitive information.
- To offer comprehensive training and support for Inova IT System's employees in using the system effectively.
- To customize the system to align with Inova IT System's specific organizational requirements.
- To conduct rigorous testing and quality assurance to ensure system reliability and performance.
- To prepare detailed documentation for system operation, maintenance, and troubleshooting.

4. Proposed Solution

This project is committed to addressing these challenges by developing a secure, user-friendly, and customized web-based system tailored to the needs of Inova IT System. This system will not only simplify the booking process for their employees but also provide real-time availability information and offer efficient administrative tools for effective booking management.

The project aims to revolutionize the holiday bungalow booking experience for Inova IT System employees by developing a secure, user-friendly web-based platform. This solution leverages modern technologies and efficient processes to address challenges associated with the current booking system, ensuring a seamless and enjoyable experience for their employees. The project's objectives, key features, and benefits will be discussed.

4.1.Nature of the Solution:

- 4.1.1. User-Friendly Interface: The core of this solution is a user-friendly web-based interface accessible to employees of Inova IT System. This interface allows users to input their preferences, browse available holiday bungalows, and initiate bookings.
- 4.1.2. Real-Time Updates: To ensure the accuracy of bookings and prevent conflicts, this solution includes real-time updates on bungalow availability. This feature enhances the user experience and minimizes booking errors.
- 4.1.3. Administrative Tools: Administrative tools are integrated into the system to manage user access, monitor bookings, and maintain availability data. These tools reduce the administrative burden on Inova IT System's internal teams.

4.2.Technologies to be Adapted:

- 4.2.1. Web Development Stack: Including HTML5, CSS and a framework of JavaScript, ReactJS
- 4.2.2. Backend Technologies: Framework of JavaScript, NodeJS
- 4.2.3. Real-Time Updates: Web Sockets
- 4.2.4. Database: Oracle Database (RDBMS)

4.3. Feasibility of Implementation:

- 4.3.1. The proposed solution is highly feasible, drawing from established web development and database technologies. Team possesses the necessary expertise to design, develop, and deploy the system effectively.

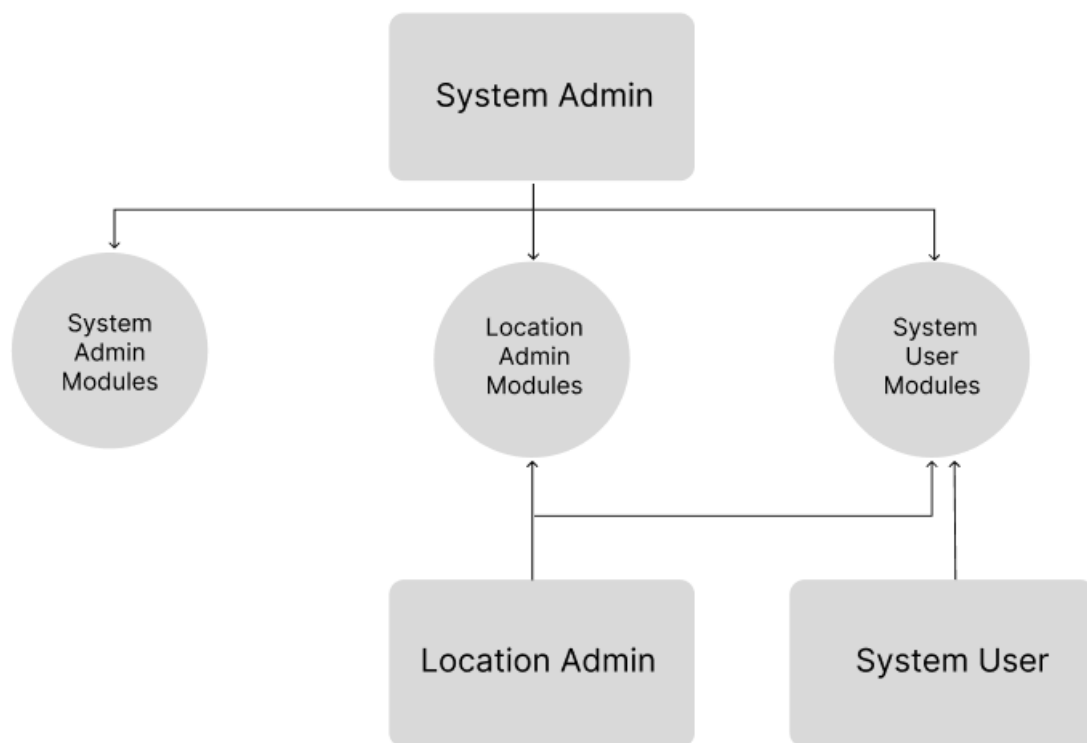
4.4.Capability to Solve the Problem:

- 4.4.1. Ready to collaborate effectively with the team, utilizing technical expertise, problem-solving skills, and creativity to contribute to the successful execution of the web development project.

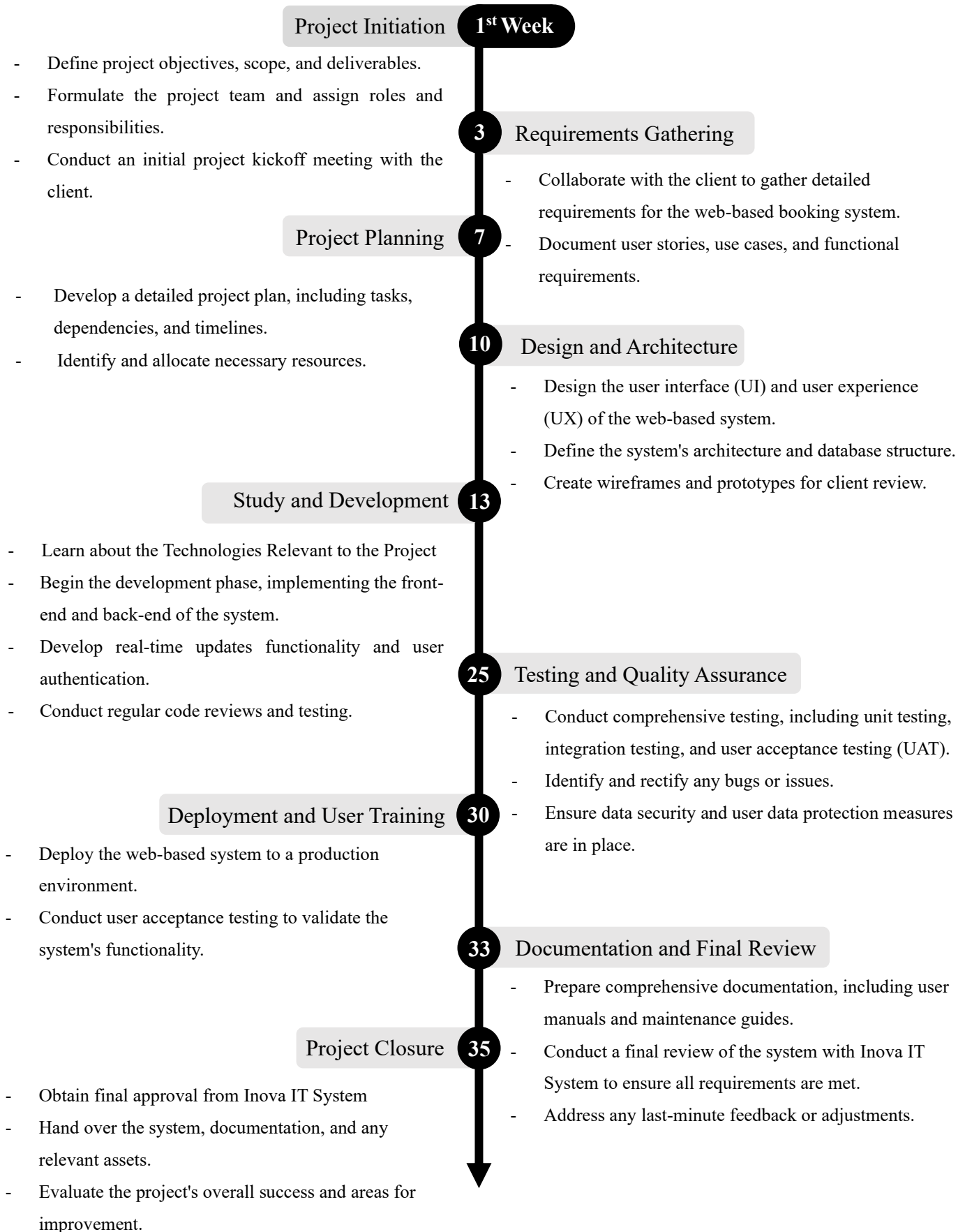
4.5. Availability of Resources:

- 4.5.1. Access to a range of resources, including skilled developers and designers, along with the allocation of the necessary infrastructure and tools, ensures the successful implementation of the solution.

Figure:



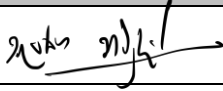
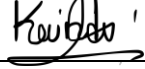



5. Timeline



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Signatures of the Group Members

| Index No | Name | Signature |
|----------|---------------------|---|
| 214092B | Jayatissa P.B.N. |  |
| 214135L | Munasinghe M.A.K.L. |  |
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Supervisors' Declaration

I hereby declare that I have checked this project, and, in my opinion, this project is adequate in terms of scope and quality.

1. Name of Supervisor : Mrs. Chandimali M.N.
 Designation : Lecture, Department of Information Technology
 Date : / / 2023
 Signature :
 Any further comments :
2. Name of Supervisor : Dr.(Ms) Ganegoda G.U.
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 Date : / / 2023
 Signature :
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