

FridayLAB-1

I) Hotel Management System

Problem statement:

The old hotel management system lacks efficiency due to manual processing, leading to errors, delays and resource wastage. Automation introduces streamlined operations, improving efficiency in reservation handling, check-in/check-out, room assignment etc. By leveraging automation, the new automated system is needed to streamline these processes and improve overall hotel management.

SRS Documentation:

1. Introduction:

1.1 purpose of this Document

The purpose of this document is to outline the requirements and specification for the development of a Hotel Management Software.

1.2 Scope of this document

This document outlines the overall functionality, interface requirements, performance, expectations, design constraints, and non-functional attributes of the Hotel Management Software. It also provides a preliminary schedule and budget estimation for the project.

1.3 overview

The Hotel Management Software is designed to streamline various operations within a hotel such as reservations, check-ins, check-outs, billing and inventory management. It aims to enhance efficiency, improve guest satisfaction.

and optimize hotel operations.

2. General Description

The Hotel Management Software will cater to the needs of the hotel staff, managers, and guests. It will feature user-friendly interfaces, real-time data updates, and robust security measures. Key features include:

- Reservation Management
- Check-in / check-out Management
- Billing and Invoicing
- Room Inventory Management
- Guest Profile Management
- Reporting and Analytics

3. Functional Requirements

Reservation Management

- Ability to create, modify, and cancel reservations
- Real-time availability updates
- Guest preferences and special requests management
- • Check-in / check-out Management
 - Efficient check-in and check-out processes
 - Room assignment and key management
- • Billing and invoicing
 - Generation of accurate bills and invoices
 - Integration with payment gateways for online payments
- • Room inventory Management
 - Tracking of room availability and occupancy
 - Room status updates
- • Guest profile Management
 - Storage and retrieval of guest information
 - History of past stays and preferences
- • Reporting and analytics
 - Generation of various reports
 - Data analysis for decision making

4. Interface Requirements

The Hotel Management Software will interact with users through:

- Graphical User Interface (GUI) for hotel staff
- Web-based interface for online reservations
- Mobile Application for guests.

5. Performance Requirements

- Response time for user actions: < 2 seconds

- System uptime: 99.9%

- Concurrent user support: Minimum 100 users

- Data processing speed: Real-time updates

6. Design Constraints

- Use of secure protocols for data transmission

- Compatibility with existing hardware & software installations

- Compliance with industry standards and regulations.

7. Non-functional Attributes

- Security: Encryption of sensitive data, role-based access control

- Portability: Compatibility with multiple devices & platforms

- Reliability: Minimal downtime, data backup & recovery mechanism

- Reusability: Modular design for future enhancements

- Application compatibility: Integration with 3rd party services

- Data Integrity: Data validation & error handling mechanism

- Scalability capacity: Ability to handle increasing workload

8. Preliminary Schedule and Budget

The development of the Hotel Management Software is estimated to take 6 months with a budget of \$100,000. This includes analysis, design, development, testing and deployment phases.