HOTEL MANAGEMENT SYSTEM SRS

1. Problem statement
Handling reservations, customer data, billing and payment information, scheduling rooms and tracking housekeeping aretedious necessary functions of a hotel, making manual processing of these activities time consuming and error prone. A digital HMS is required to streamline operations, enhance customer experience and optimize hotel resources.

2. IEEE standard SRS document

Software & Requirement Specification

1. Introduction
   1.1 Purpose of this document
      The purpose of this document is to specify the requirements for the development of a Hotel Management system.
      The HMS will handle reservations, customer bookings, billing, payment and housekeeping mag management. It will also generate reports of occupancy rates, revenue and staff performance.
      The system will cater to the hotel staff, customers and administrators. This document is a reference for developers, testers and other stakeholders throughout the project lifecycle.

1.2 Scope of this document

The HMS system will provide an efficient solution to hotel operations. Customers can book rooms over the online portal. complete payments and provide feedback. Hotel staff will be able to manage reservations, schedule rooms and housekeeping. billing and payments. Administrators can generate reports to analyse performance and revenue.

The system will reduce manual errors, reduce costs and improve efficiency, by providing a web based interface for all user roles.

The system is expected to cost 50,000 USD and take approximately 6 months to develop.

1.3 Overview

The HMS will include modules for Reservation Management, Billing and Payments, Customer Information, Room Allocation, Housekeeping, Feedback and Reports. It will provide dashboard for administrators, booking portal for customers and an operations portal for hotel staff

2. General description

The HMS is intended for use by administrators, customers and hotel staff

a) Customers can book rooms online or offline (walk-in and complete payments

b) Hotel staff can manage reservations, allocate rooms, track housekeeping.

c) Administrators have access to revenue and performance dashboards.

The system thus implements the primary hotel operations while minimizing errors, improving efficiency

and enhancing customer experience.

3. Functional Requirements
FR1 : Book, modify or cancel reservations.
FR2 : Store customer records with secure data handling
FR3 : Assign rooms based on availability and customer requirements.
FR4: Generate accurate bills, process payments via cash/credit card/online transfers.
FR5: Track room cleaning and other housekeeping tasks.
FR6: Generate occupancy reports, revenue and performance reviews for administrators.

4. Interface Requirements
a) User Interfaces
1. Customer Portal : Online booking and, payment and feedback posted sections
2. Hotel Staff Operations Panel : Manage reservations, rooms status, billing
3. Admin Dashboard : Reports on revenue and performance.

b) Hardware Interfaces : Desktop PCs, tablets, POS terminals

c) Software Interfaces : Integration with payment gateways.

d) Communication Interfaces : Internet connectivity, LAN for local hotel systems

5. Performance Requirements
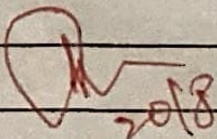a) The system must process requests and reservations within 3 seconds.
b) Should support upto 500 concurrent users during peak booking hours.
c) Must ensure 99.9% uptime
d) Maximum error rate of less than 1% for online transactions.

6. Design constraints
a) Must comply with data privacy laws for storing customer data
b) Use of relational databases
c) Accessible via standard browsers
d) $

7. Non-Functional Requirements
a) Security
   Encrypted customer and payment data
b) Reliability
   Fault tolerant with automatic backups
c) Usability
   Simple, intuitive interface for staff and customers
d) Portability
   Accessible on web and mobile platforms
e) Scability and Maintainability
   Support multiple hotel/branches, modular design for easy updates

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8. Preliminary Schedule and Budget
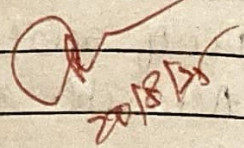a) Development Duration : 6 months
   Analysis & Design - 2 months
   Development - 3 months
   Testing and deployment - 1 month
b) Budget estimate :
   Approximately 50,000 USD for design,
   development testing and deployment.

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