

Lab-1

Hotel Management System

problem statement

To design & develop a hotel management system to automate all activities with little human interaction

SRS documentation

1) Introduction

1.1 purpose

Defining requirement for HMS. It illustrate complete declaration & mature declaration for development of system

1.2 scope

system allows customer to generate receipts, book food to their rooms, check in/check out, book their lounge for a specific time & book rooms. This particular system will reduce human error & improve efficiency

1.3 Overview

It's a centralized application accessible by staff, customers & management. It'll handle reservations, guest records, billing & generating reports

2) General description

uses hotel staff, managers, customers & admin
user characteristics:

- customer requires simple booking interface
- staff needs basic computer knowledge
- managers need detailed reports

Features:

online/offline booking, billing, reporting & staff schedules

Benefits:

accuracy increase, proper management, saving time & high customer service

3) Functional requirements

- room booking & cancellation
- room & customer check in/check out
- automated billing
- customer information storage
- staff schedules
- request management

4) Interface requirements

• user interface: web-based dashboard for staff (admin) & module friendly interface for customers

• software interface: database, payment gateway, email/SMS service

• communication: Internet connectivity for online bookings & shared database for sync

5) Performance requirements

- supports atleast 100 users
- response time < 3 secs. for all major operations
- database queries should return results in a very less time
- system uptime $\geq 99.9\%$

6) design constraints

- Runs on windows/Linux/MacOS
- supports all web browsers
- comply with PCI DSS for payment security
- database backup needed oftenly

7) Non-functional attributes

- security: Encrypted storage & secure login
- portability: can be used on both mobiles & web devices
- reliability: data consistency maintained during failures
- scalable: expansion supported

8) Preliminary schedule & budget

Schedule

- requirement analysis - 3 w
- design - 4 w
- development - 4 w
- Testing - 4 w
- deployment - 2 w

Total ~ 23 w (6 months)

Budget estimate

- development: $\sim \text{₹} 22$ Lakh
- infrastructure: $\sim \text{₹} 66$ lakh
- annual maintenance: $\sim \text{₹} 4.5$ lakh