LAB - 1

Software Requirement Specification (SRS)

Hotel Management System

Problem Statement:

The current manual system for managing hotel operations is time-consuming and prone to errors. There is a need for a more efficient automated system to streamline these processes and improve overall hotel management.

1 Introduction

1.1 Purpose of This Document

The purpose of this document is to provide a detailed description of the requirements for the hotel management system. It outlines the goal and objective of the system.

1.2 Scope of this Document

This document defines the requirements for the development of a Hotel management System. It includes a description of the systems functionality, user characteristics, features and benefits.

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 inventory management

2. General Description
The hotel management software will
cater to the needs of hotel staff,
managers and guests. It will feature
user-friendly interfaces, real-time
data updates and robust security
measures. Key features includes:
→ Reservation management
→ Check-in / Check-out management
→ Billing and invoicing
→ Room inventory management
→ Guest Profile management
→ Reporting and analysis.

3) Functional requirements Reservation manage
→ 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 proces
→ 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 Analysis
- 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 50 users.
- Data processing speed Real time updates for book availability and member transactions.

6) Design constraints
- Integration with existing library systems and databases for data migration
- Compatibility with different operating systems and web browsers.
- Compliance with library standards and protocols for cataloging and circulation

7) Non - Functional Attributes
→ Security: Encryption of sensitive data, role-based access control for staff and members.
→ Portability: Accessibility across different devices and platform
→ Reliability: minimal down time, data backup and recovery mechanisms
→ Scalability: Ability to accommodate growing library collections and user base.

8) Preliminary Schedule and Budget
The development of library management System is estimated to take 6 months with a budget of $80,000. This includes analysis, design, development, Testing and deployment phases.

Class diagram

hotel management

Hotel Managment
HotelName
NumberOfEmployeees
open ()
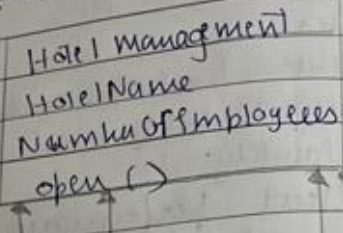
Employees
Employee Id
EmployeeName
Employee Salary
employee details()

Server
Serverid
Orderid

Chef
Chef-id
Orderid

Customer
Customer id
Customer Name
Bill id
Order id
Payment id
customer-details ()
ordered-items ()
payment-status

Menu
Itemid
ItemName
Amount
items ()

Order
Orderid
Itemid
ItemName
Quantity
Customerid
Serverid
order-items()

Table
Tablenumber
OccupiedStatus
Serverid
Customerid
Table details()
availability-status)

Payment
Paymentid
Bill-id
isPaid ()

Cash   Card

Bill
Bill-id
Orderid
TotalBill
Calculate

Hotel Management System
+hotelName
+hotelLocation
+hotelType

+add()
+remove()
+search()
+edit()

1   +branch_id   1

Branch
+branchName
+branchLocation

1

0..*

0..*

1

1..*   +has

**«enumeration»
room-type**
singleAc
singleNonAc
doubleAc
doubleNonAc

Rooms
+roomNo
+roomType
+Attribute1

+search()
+reserve()

Employees
+name
+age
+gender
+address
+contact

+bookRooms()
+checkRooms()
+manageDatabase()
+generateBills()

Customer
+custName
+custAge
+custPhoneNo

+checkIn()
+checkOut()
+pay()

Restaurant
+name
+type

+serve()
+collectBill()
+acceptPayment()

+consists

Helper

+consists

+consists

Chef

Receptionist

1   +makes

0..*

Order
+orderQty
+orderAmt
+orderTime

+calculateTax()
+calculateTotal()

Menu
+itemName
+itemType
+itemPrice

+addItems()
+removeItems()

1   +has

1..*

Payments
+totalAmt
+paymentType
+paymentDate

+makePayment()
+printBills()

Veg

Non-veg

CashPayments

CardPayments