

Q. Software Requirements Specification (SRS) for Hotel Management System

1. Introduction

1.1 Purpose of this Document

This SRS defines the functional and non-functional requirements. It provides necessary details, step-wise working and important information needed to create an efficient and robust system.

1.2 Scope of this Document

System will not be able to perform operations :-

- Online Bookings and Reservations
- Early Check-in Option and lost
- Billing and Payment system
- Restaurant Order Management
- Identity Proof Validation

Estimated cost of development = 9600 \$ and 900 hours are required.

1.3 Overview

The hotel management system will be a web-based application to enable users to use services provided by the hotel.

2. General Description

User must be able to register himself / herself with the application. These details can be verified during login and user input - location, date, checkout-date, number of person's is entered. Based on data the matches with highest commonalities are displayed.

User can also refer to reviews and read others experiences to know more about the hotel. If confirmed the user can book the hotel by paying entire amount/charges through any payment gateway.

3. Functional Requirements

Reservation Management

Allows user to reserve or cancel reservation confirmation email and payment receipt. Avoid multiple bookings for same room. Provide for upgrades if rooms are vacant.

Room Management

Display all Do's and Don'ts before booking. Assign room to guest on arrival and update status.

Staff Management

Record check-in and check-out times. Weekly check of all staff by supervisor. Feedback must be entered.

4. Interface Requirements

Regional language option must be available.

VR representation of each room.

Error handling must be considered.

Centralized system so that data consistency can be maintained.

5. Performance Requirements

The response for any query must be less than 1 second and should run on minimum

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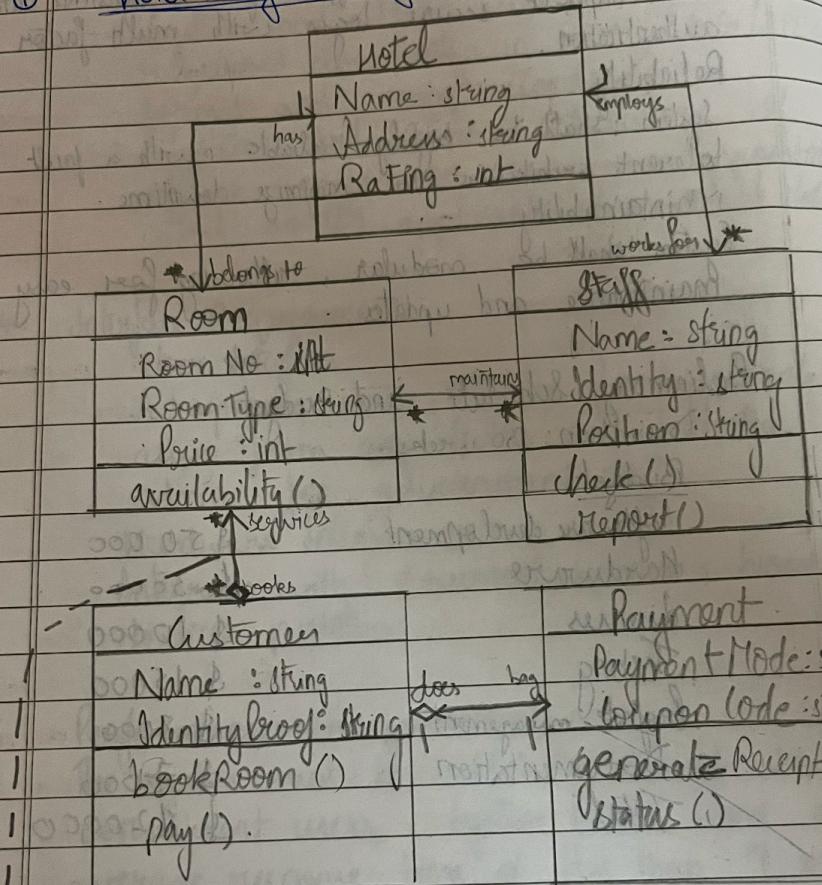
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- 8GB RAM system to ensure smooth functioning.
Error rate shouldn't exceed 10.
6. Design constraints
The algorithm must run in $\Theta(n \log n)$ time complexity. UI must be interactive and user-friendly to increase engagement and user retention. Application cannot run on Linux operating system.
7. Non-Functional Requirements:-
System must use RSA-2048 hashing for data security and must not be dependent on one architecture. System must be able to process and handle 10,000 users simultaneously and if needed must be able to handle more.
8. Preliminary Schedule and Budget
The project must be completed within 6 months and budget allocated is 9600\$. If any changes are made then reserve budget can be used.
- Start Date: 23/9/2024*
- Timeline of key deliverables:*
- Week 1: Project kick-off and initial planning
 - Week 2: Front-end design and basic structure
 - Week 3: Backend API development and database integration
 - Week 4: User authentication and login system
 - Week 5: Data processing and storage optimization
 - Week 6: Testing and QA phase
 - Week 7: Final review and deployment preparation
 - Week 8: Deployment and initial user training sessions
- Training sessions:*
- User training: 1-hour session for each department
 - Manager training: 2-hour session for each manager
 - Supervisor training: 1-hour session for each supervisor

Class Diagram :-

① Hotel Management System :-



②

Booking Detail

roomno : int

no. of nights : int

price : int

calculateTotal()

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