

# HOTEL MANAGEMENT SYSTEM

## SOFTWARE REQUIREMENTS SPECIFICATION

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LABORATORY: PROGRAM - 1010201

SOFTWARE REQUIREMENTS SPECIFICATION FOR  
HOTEL MANAGEMENT SYSTEM

1. Introduction:

1.1 Purpose of this Document : This document outlines the requirements for the Hotel Management System (HMS) software application. It serves as a guide for the development team and ensures that all stakeholders are aligned on the software's functionality, scope and objectives.

1.2 Scope of this Document : This document covers the functional, non-functional requirements of HMS, including user-interface design, system features, performance expectations, and design constraints. It will also provide a high-level overview of the project timeline and budgets estimates.

1.3 Overview : The HMS will be a comprehensive software solution designed to streamline various hotel operations, including reservation management, guest check-in/out, room



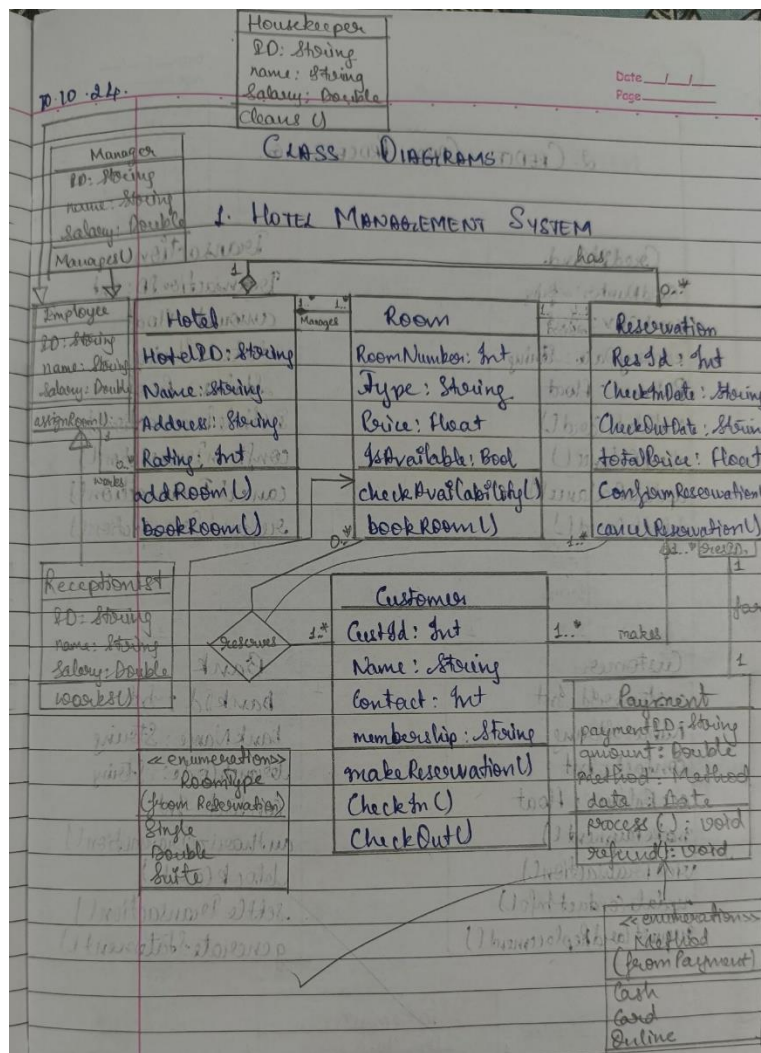
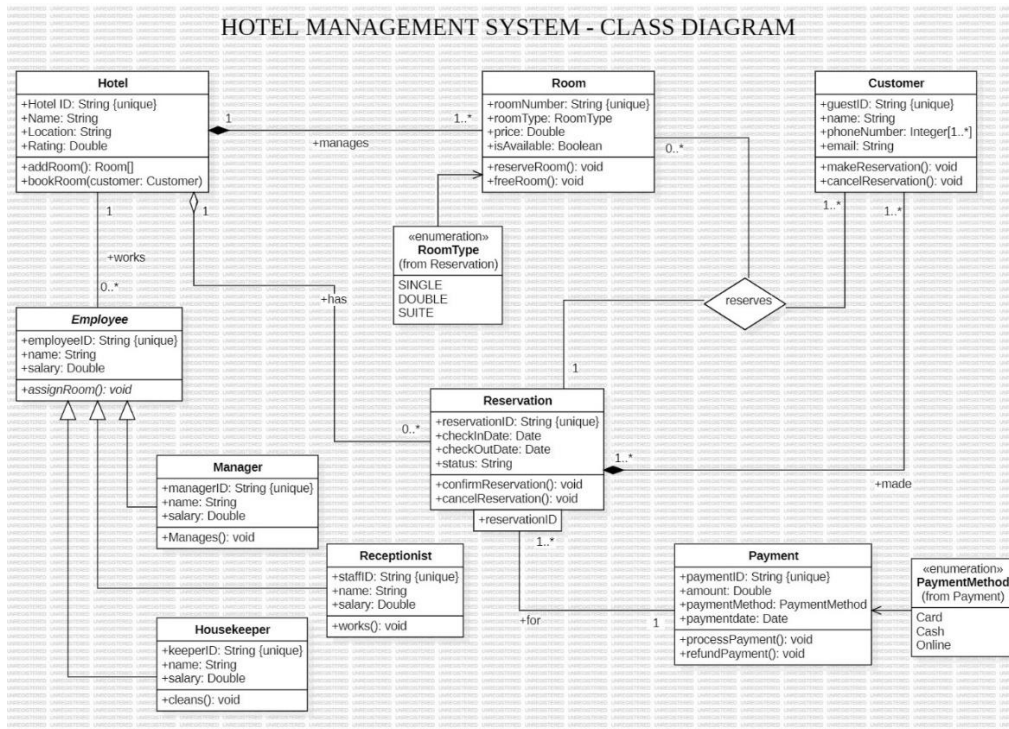
<p>2. General description : <i>Project Overview</i></p> <p>2.1 User Objectives : The system will enable hotel staff to efficiently manage reservations, automate check-in and check-out processes, track guest preferences, generate accurate billing, and access comprehensive reporting tools.</p> <p>2.2 Features : <i>Functional Requirements</i></p> <ul style="list-style-type: none"> <li>• Reservation Management</li> <li>• Guest Management</li> <li>• Billing and Payment</li> <li>• Reporting and Analytics</li> </ul> <p>2.3 Benefits : The system will improve operational efficiency, reduce manual errors, enhance guest satisfaction, and provide valuable insights into business performance.</p> <p>2.4 User Characteristics : The system will be used by a range of hotel staff, including receptionists, management and housekeeping, each with varying levels of technical expertise. Therefore, the system should be user-friendly and intuitive.</p>	<p>3. Functional Requirements :</p> <p>3.1 Reservation Management : The system shall allow users to create, modify and cancel reservations. The system shall generate unique confirmation numbers for each reservation.</p> <p>3.2 Guest Management : The system shall allow users to register new guests with their personal information.</p> <p>3.3 Billing and Payment : The system shall generate itemized bills for each guest, detailing room charges, services and taxes.</p> <p>3.4 Reporting and Analytics : The system shall generate reports on occupancy rates, revenue, and other key performance indicators.</p> <p>4. Interface Requirements :</p> <p>4.1 User-Interface : The user-interface shall be web-based, intuitive, and easy to navigate, ensuring a seamless user experience across different devices.</p> <p>4.2 External System Interfaces : The system may need to interface with external systems such as : Payment gateways, property Management systems, Channel Management systems.</p>
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<p>5. Performance Requirements :</p> <p>5.1 Response Time : Should respond to user requests within a reasonable time frame.</p> <p>5.2 Capacity : Should handle a large number of concurrent reservations.</p> <p>5.3 Availability : Should be highly available.</p> <p>6. Design Constraints :</p> <p>6.1 Technology Stack : The dev team may be restricted to using specific tech or frameworks.</p> <p>6.2 Hardware Limitations : Deployable on the existing hardware infrastructure.</p> <p>6.3 Security Compliance : Must comply with relevant data security and privacy regulations.</p> <p>7. Non-Functional Attributes</p> <p>7.1 Security</p> <p>7.2 Reliability</p> <p>7.3 Usability</p> <p>7.4 Maintainability</p>	<p>8. Preliminary Schedule and Budget</p> <p>8.1 Schedule : The project is estimated to take 6 months, broken into key phases :</p> <p>8.2 Budget</p> <ul style="list-style-type: none"> <li>• Requirements Gathering (2 weeks)</li> <li>• Design Phase (1 month)</li> <li>• Development Phase (3 months)</li> <li>• Testing phase (1 month)</li> <li>• Deployment and Training (2 weeks)</li> <li>• Post-deployment support (2 weeks)</li> </ul> <p>8.2 Budget : The total estimated budget is \$120,000, allocated as follows :</p> <ul style="list-style-type: none"> <li>• Requirements gathering : \$10,000</li> <li>• Design Phase : \$20,000</li> <li>• Development Phase : \$50,000</li> <li>• Testing Phase : \$15,000</li> <li>• Deployment and training : \$10,000</li> <li>• Post-deployment support : \$5,000</li> </ul>
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# UML DIAGRAMS

## CLASS DIAGRAM



# STATE DIAGRAM

