

Software Requirement Specification (SRS)

1> Hotel Management System

1. Introduction

1.1 Purpose of this Document

This document outlines the software requirements for the Hotel Management System. It serves to provide stakeholders with a clear understanding of the functionalities, design constraints, and overall goals of the software. The purpose is to ensure all parties are aligned on expectations and requirements, facilitating a smoother development process.

1.2 Scope of this Document

The SRS details the objectives, features and user requirements for the system. It will also address estimated development costs & timelines. The Hotel Management system aims to streamline operations with the hospitality industry, while focusing on efficient handling.

1.3 Overview:

The Hotel Management System will provide a comprehensive solution for managing reservation, check-in, billing and customer services.

2. General Description

- User Objectives: Simplify reservation management, enhance customer experience, and streamline check-in/check-out processes.
- User Characteristics: Front desk staff, hotel managers, customers.
- Features: Room booking, payment processing, customer management, reporting tools.
- Benefits: Increased operational efficiency, improved customer satisfaction, and reduced manual errors.

Importance:- Essential for modern hotels to remain competitive and efficient in service delivery.

Functional Requirement:-

Room Booking:- Allow users to search for available rooms and book online.

Check-in/Check-out:- Facilitate easy check-in and check-out processes.

Payment Processing:- Handle payments via various methods (Credit card, cash, etc).

Customer Management:- Store and manage customer profiles and preferences.

Reporting:- Generate reports on occupancy, revenue and customer satisfaction.

Interface Requirements

User Interface:- Web-based dashboards for staff and mobile interface for customers.

API Interface:- Integration with third-party services (Payment gateways, etc).

Data Streams:- Real time updates on room availability and bookings.

Performance Requirements

Response Time:- The system should respond to user request within 2 seconds.

Availability:- 99.9% uptime to ensure the reliability.

Scalability:- Less than 0.01% of transactions should result in errors.

Design Constraints

1) Must be compatible with existing hotel management system.

2) Should comply with data protection regulations (e.g. GDPR).

7. Non-functional Requirements / Attributes

- security : user data must be protected against unauthorized access.
- usability : Interface must be intuitive for non-technical staff.
- scalability :- System should support growth in user base and features.

8. Preliminary Schedule & Budget

- Estimated development time : 6 months
- Estimated Budget : \$ 150,000.

class Diagrams

Hotel management System

HotelName : string
 No. of employee : string
 Hotel address : string
 open()

Works for
 Salary
 Job Title

takes
 orderid
 ordername

Entities and Relationships:

- Employees** (1...*) **has** (1) **Customer** (1...*)
- Customer** (1) **has** (1) **Menu** (1)
- Menu** (1) **takes** (0...*) **Order** (1...*)
- Order** (1) **has** (1) **OrderItems** (1...*)
- OrderItems** (1) **has** (1) **Payment** (1)
- Payment** (1) **has** (1) **Bill** (1)
- Table** (1...*) **serves** (1) **Order** (1)

Attributes:

- Employees:** E_id, E_name, E_salary, E_details()
- Customer:** C_name, Bill_id, Order_id, payment_id, C_details()
- Menu:** itemid, itemname, Amount, item()
- Order:** Order_id, item_id, item_name, quantity, C_id, server_id, Orderitems()
- OrderItems:** Orderitems()
- Payment:** payment_id, Bill_id, ispaid()
- Bill:** Bill_id, Order_id, Total Bill, Cal-Bill()
- Table:** Table Number, Occupied status, Server_id, C_id, table_details(), avail_status()

Associations:

- Employees** **is** **chef** (1) **Order** (1)
- Customer** **chooses** **Menu** (1...*)
- Order** **pays** **Payment** (1)
- Table** **pays** **Order** (1)

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