

Software Requirements Specification (SRS) for Hotel Reservation System

1. Introduction

1.1 Purpose

The purpose of this SRS document is to provide a detailed description of the requirements for the Hotel Reservation System. This document will cover all the necessary functionalities and features required to develop a comprehensive system for managing hotel reservations, customer information, room bookings, and related operations.

1.2 Scope

The Hotel Reservation System will allow hotel staff to manage room availability, customer reservations, and other related activities efficiently. It will also enable customers to book rooms online, check availability, and view their booking details.

1.3 Definitions, Acronyms, and Abbreviations

- **SRS:** Software Requirements Specification
- **API:** Application Programming Interface
- **UI:** User Interface

1.4 Overview

This document outlines the functional and non-functional requirements, system design, data models, and interface requirements for the Hotel Reservation System. It will serve as a guide for developers, testers, and stakeholders throughout the project lifecycle.

2. Overall Description

2.1 Product Perspective

The Hotel Reservation System will be a standalone application with a web-based user interface. It will be accessible by hotel staff for management purposes and by customers for online booking. The system will integrate with a relational database to store and retrieve data.

2.2 Product Functions

- User management (Customers, Hotel Staff)
- Room management (Types, Availability)
- Reservation management
- Offers management
- Payment processing
- Reporting and analytics
- Customer feedback and review system

2.3 User Classes and Characteristics

- **Hotel Staff:** Manage rooms, reservations, offers, payments, and customer feedback.
- **Customers:** Search for rooms, make reservations, and provide feedback.

2.4 Operating Environment

- **Server:** Windows with .NET Core runtime
- **Database:** SQL Server database
- **Client:** Modern web browser or mobile application

2.5 Design and Implementation Constraints

- The system should use a relational database for data storage.
- The backend should be developed using a robust web framework (e.g., ASP.NET Core).
- The system should follow RESTful API principles for any integrations.

2.6 User Documentation

User manuals and online help will be provided for hotel staff and customers.

2.7 Assumptions and Dependencies

- The system will be accessed through a reliable internet connection.
- The development team is familiar with the chosen technologies.

3. Specific Requirements

3.1 Functional Requirements

3.1.1 User Management

- **Customer Registration/Login:** Customers can register and log in to the system.
- **Hotel Staff Login:** Hotel staff can log in with appropriate access rights.

3.1.2 Room Management

- **Add Room:** Hotel staff can add new rooms to the system with details like room type, price, pictures and facilities (Facilities are chosen from a checklist).
- **Edit Room:** Hotel staff can edit room details.
- **Delete Room:** Hotel staff can remove rooms from the system.
- **View Room Availability:** Customers can view available rooms based on their preferences.

3.1.2 Offers Management

- **Add Offer:** Hotel staff can add new offer to the system with details like start date, end date, discount and assigned rooms.
- **Edit Offer:** Hotel staff can edit offer details.
- **Delete Offer:** Hotel staff can remove offers from the system.

3.1.3 Reservation Management

- **Make Reservation:** Customers can book rooms by providing necessary details (e.g., check-in, check-out dates).
- **Edit Reservation:** Customers can modify their reservations.
- **Cancel Reservation:** Customers can cancel their reservations.
- **View Reservation Details:** Both customers and hotel staff can view reservation details.

* Anonymous customers can only see room availability and offers, only authenticated customers can make, edit and cancel reservations.

3.1.4 Payment Processing

- **Payment Integration:** The system should support payment gateways for processing customer payments.
- **Invoice Generation:** The system should generate invoices for completed bookings.

3.1.5 Reporting and Analytics

- **Booking Reports:** Hotel staff can generate reports on room bookings over specific periods.
- **Revenue Reports:** Reports on revenue generated from room bookings.
- **Customer Reports:** Reports on customer demographics and booking patterns.

3.1.6 Customer Feedback and Review System

- **Submit Feedback:** Customers can submit feedback or reviews for their stay.
- **View Feedback:** Hotel staff can view and respond to customer feedback.