

Team: Manoj Howale S, Nikhil Srikanth, Prajwal Bhat, M Gagan

Team Lead: M Gagan

HOTEL MANAGEMENT SYSTEM

Problem Statement:

The Hotel industry is a boom in today's generation. There is a need for proper management of all the available services of a hotel, to be easily accessed and used by the general public. The guests are all well versed with the use of the internet. They can access all the details of a hotel anywhere and anytime. Manual hotel management systems are very tiresome, time consuming and record maintenance is difficult. The inventories, recent updates, price ranges, offers and a rundown of administrations that they offer must be visible to the customers. The main purpose of the hotel management system is to deliver a hassle free management of all the resources by the employees.

Software Requirement Specification(SRS) of Hotel management system

1 Introduction:

- 1.1 Purpose of this Document:** An SRS forms the basis of an organization's entire project. It sets out the framework that all the development teams will follow. It provides critical information to all the teams, including development, operations, quality assurance (QA) and maintenance, ensuring the teams are in agreement.
- 1.2 Scope of this document –** The system is mainly for easy management of all the processes and operations taking place in the hotel. The system will consist of an online framework like room booking, customer satisfaction, interactions and financial details. Some of the other important features of the system are review system, reservation system, enquiry and help features, security and record maintenance.
- 1.3 Overview -** The hotel management system is a way through which the Managing Director and the staff of the hotel maintain an error free and easy interface with the customers. The cashier and the receptionist use the system to gain access to the financial transactions and reservation details of the customers. The system will help the trustees to analyze the hotel efficiency and maintain a clear and positive environment among the trustees.

1.4 General description: The system will provide an interface which is easy to use with basic knowledge of the system. There will not be any calculation errors and the customer's data will be stored safely and can be accessed at the time of need without any wastage of time. Bookings and laundry will be managed without any problem as all the details will be stored in a secure database. The human work-load will be reduced drastically because of the ease of storage that can be used to perform other important activities. Small errors on the bill of a customer during the checkout process can make a huge difference. If the customer finds out they have been charged more than they are supposed to pay then they will defame the hotel and many customers will be lost which is a very bad part for the business. The other major factor if the billing is decreased than it is supposed to then it is going to affect the owner of the hotel as his main source of income will be mismatched and problems might occur and even some misunderstanding can occur between the people which will cause problems in the working environment. Here the system provided will keep a good track of the money in a secure manner with no calculation errors.

2 Functional Requirements:

- Room reservation: The system should allow hotel staff to view room availability and book rooms for customers.
- Customer management: The system should allow hotel staff to manage customer information, including name, contact information, and payment details.
- Check-in and checkout management: The system should allow hotel staff to manage check-ins and checkouts, assign rooms, and generate invoices.
- Room service management: The system should allow hotel staff to manage room service requests and track their status.
- Billing management: The system should generate invoices, manage payments, and generate reports on revenue and occupancy rates.
- Report generation: The system should generate reports on revenue, occupancy rates, room utilization, and other related statistics.
- Laundry services: The hotel should provide laundry services to the customers.
- Database system which will store all the customer information and financial information.

3 Interface Requirements: The software developed should be very easy to navigate. The person has to login as the admin to check the details of the hotel which are to be kept secure. The database can only be accessed only by the hotel manager and the administration team. The financial data will be seen only by the cashier and the managers. Each interface can be accessed by registered users and the user interface will be easy to use and pleasant to the eye.

4 Performance Requirements: The software consists of multiple pages which provide various features to the user. The basic features include:

- **Login and sign-up page:** The login page allows a registered user to login to the system with the registered email and verified password. The sign-up page helps a user to create an account.
- **Home page:** The home page is the navigation page from which a guest/ user can navigate to any category. The user can log out, provide ratings and reviews/ recommendations for the system. A customer need not login to the system to view the hotel. If there are any bookings/ registrations to be made, then the user can login to the system.
- **Tariff page:** The user can view the prices of all the available rooms and other facilities.
- **Restaurant page:** The restaurant page displays a menu for the day including special dishes and their pricings. Images of the restaurant and the dishes will be displayed in the page.
- **Bookings page :** The bookings can be made either online or by calling the hotel. The online bookings display the available dates for room booking. If there are any discrepancies, then the users can contact the hotel management.
- **Database :** The database is used to store details of customers and their reservations. The payment transactions, restaurant bookings and other details are stored in the database.
- **Settings page :** The settings page helps a user to provide his details. He can make changes in his account. There is a provision for logging out of the current account and even deleting the account. The user can even send feedback about the app.
- **Transaction page:** The transaction page shows the transactions of the customer and the status of the payment. Alerts are sent to the user based on the status and their rooms and reservations.

5 Design Constraints:

- Programming language to be used is Java
- Storage of the data will be done on SQL database.
- The system can run on Windows and Linux.
- Internet availability is a must.
- Minimum Processor 1 GHz, 512 MB RAM and 850 MB free HDD for 32-bit or 2 GB for 64-bit.
- Windows 10 and above, Windows server 2003, Windows server 2008, Windows server 2012, Windows server 2016.
- Internet connection of 4 MBPS or higher.

6 **Non-Functional Attributes:**

- Security: The system should be secure and protect customer information and payment details.
- Scalability: The system should be scalable to accommodate a large number of customers and rooms.
- Reliability: The system should be reliable and available 24/7.
- Usability: The system should be user-friendly and easy to use for hotel staff and guests.
- Performance: The system should perform well and respond quickly to user requests.
- System Architecture: The Hotel Management System will be developed using a client-server architecture.

7 **Preliminary Schedule and Budget:** The project is scheduled to be completed within six months of the start date. The budget is allotted for the man-hours and the different softwares and databases being used.