Software Requirements Specification

for

Hotel Management

Version 1.1 approved

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Revision History

Name	Date	Reason For Changes	Version
Manali Shah	06/03/18	Modified functionalities of users	1.1

1. Introduction

1.1 Purpose

The Software Requirements Specification (SRS) will provide a detailed description of the requirements of the Hotel Management System (HMS). This SRS will allow for a complete understanding of what is to be expected from the newly introduced system which is to be constructed. The clear understanding of the system and its' functionality will allow for the correct software to be developed for the end user and will be used for the development of the future stages of the project. This SRS will provide the foundation for the project. From this SRS, the HMS can be designed, constructed and tested.

This SRS will be used by the system development team which is constructing the HMS and the hotel end users. This will be used to fully understand the expectations of this HMS and construct the appropriate software. The hotel end users will be able to use this SRS as a "test" to see if their needs have been satisfied. If not, they can specify how it is not to their liking and the SRS will be changed to fit the needs.

1.2 Document Conventions

This document is prepared using Microsoft Word 2007 and has used the font type 'Times New Roman'. The font size used is 12pt everywhere except for headings where 14pt and 18pt is used. Line spacing is 1.5. The bold property has been used for headings.

1.3 Intended Audience and Reading Suggestions

This SRS is intended for

- Developers who can review project's capabilities and more easily understand where their efforts should be targeted to improve or add more features to it.
- Project testers who can use this document as a base for their testing strategy as some bugs are easier to find using a requirements document. This way testing becomes more methodically organized.

- End users of this application (like hotel managers, receptionists and clients) who wish to read about what this project can do.

1.4 Product Scope

The HMS project is intended for the online reservations of rooms in a hotel. The HMS will have three end users: customer, receptionist and hotel manager. Customers will be able to check for availability of rooms, select and book the rooms. Receptionist will have access to view booking details and checkout for the customer. Manager will be able to view current booking details and customer details and update room cost.

The main goal is to simplify the everyday process of hotel booking. The number of hotels are increasing and they need to automate to provide customer ease of access. It will be able to take care of services to customer in a quick manner. This automation will be able to replace the drawbacks of large customer information physical files which were difficult to handle. Various advantages of this are:

- Convenience: Rooms can be booked at home itself, without going anywhere
- Saves time and effort: Time needed to go to the hotel and book rooms is saved.
- Towards a greener planet: Instead of printing receipts and maintaining hard copies, everything is done online so paper is not wasted.
- Improved and optimized service

1.5 References

- https://web.cs.dal.ca/~hawkey/3130/srs_template-ieee.doc
- https://www.w3schools.com/
- https://www.tutorialspoint.com/uml/index.htm

2. Overall Description

2.1 Product Perspective

The HMS is a new self contained software product which will be produced in order to overcome the problems that are present in the manual system. This will provide easy access to the system and it

will contain user friendly functions. The system will give better options for the problem of handling large scale physical files, errors occurring in calculations and all other required tasks that have been specified by the client. The final outcome will increase the efficiency of almost all the tasks in a more convenient manner.

2.2 Product Functions

- Customer Registration: Before booking, the customer needs to register his/her name on the system.
- Login: Separate login for clients, hotel managers and receptionists.
- Check availability of rooms: The customers can check which rooms are available and of what category.
- Display the rate: The price of each room will be displayed.
- Cancel booking: The client can cancel rooms online.
- Set room details: The hotel manager can add rooms and change the cost of existing rooms.
- Checkout: The receptionist checks out for the customer at the end of his stay.
- View Booking Details: The manager and the receptionist can view currently booked rooms.
- View Customer Bookings: The customer can view his current bookings.

2.3 User Classes and Characteristics

There are 3 user levels in out HMS.

1. Hotel Manager
2. Receptionist
3. Customers

Hotel Manager: The manager has access to the hotel system. He is solely responsible for managing hotel resources and staff. Manager can view customer information, booking information and room information, analyze them and take the decision accordingly. He is required to have experience on managing a hotel previously and have a basic knowledge of database and application server.

Receptionist: The sole purpose of the hotel receptionist is to provide quality customer service. She will have less access than the manager. She can view booking details, check availability of rooms and checkout for the customer. She should have good communication skills and basic IT knowledge.

Customer: They are a vital part of the system. They have access to view the vacant room information and price range. They should be able to confirm the booking and cancel if necessary. The customer should be able to use the interface.

2.4 Operating Environment

Operating Environment for the hotel management system is:

- Distributed Database
- Client/Server System
- Operating System: Linux (Ubuntu)
- Database: MySQL Database
- Platform: PHP

2.5 Design and Implementation Constraints

To maintain the reliability and durability of the system, some design and implementation constraints are applied.
System will need a minimum memory of 512 MB. But it is recommended to have a memory of 1 GB. Language used in the software is English only.

2.6 User Documentation

The manual on how to use the website will be provided to the client, receptionist and customer. Since their functionalities are different, each user will have a different manual.
The user will have a manual which includes instructions on how to use the website.

The receptionist and hotel manager will be given a manual that contains details on the MySQL database working in the background and how to use the website.

2.7 Assumptions and Dependencies

It is assumed that the users of the software can operate and use it and have basic knowledge of how to operate computers. Also, the client should be able to afford the amount of money required to purchase the software. The client should not change his/her decision on the next phases of software development.

3. External Interface Requirements

3.1 User Interface

The user interface for system shall be compatible with web browsers like Mozilla Firefox and Google Chrome.

3.2 Hardware Interfaces

1. Operating System: Supported in Linux
2. Computer: 512 MB Ram, keyboard, mouse, monitor
3. Hard drive: Minimum 5 GB of free space.

3.3 Software Interfaces

Software can run on the Linux Operating System. The web server used is Apache and database server used is MySQL. The development end uses HTML, CSS, JavaScript and PHP.

3.4 Communications Interfaces

The system will use HTTP/HTTPS for communication over internet.

4. System Features

4.1 Registration

- The customer should be able to register with the details
- The following customer details should be entered in the database: Name, Email, Contact Number, Password, Gender

4.2 Logging In

- The system should verify the customer email and password against the member database while logging in
- After login, the member is directed to page which shows availability of rooms

4.3 Reservation

- The system should allow the customer to check for availability of rooms
- The system should display rate for all rooms
- The system should allow the customer to confirm or cancel the booking
- The system should record booking details into database

4.4 Receptionist Access

- The receptionist can view all bookings, available rooms and checkout for the customer.

4.5 Manager Access

- The manager can add or update room information, view customer details and bookings made.

5. Nonfunctional Requirements

5.1 Performance Requirements

- The database should be scalable; it must have the capacity to hold large number of users in future.
- The number of connections to the system should not slow down the application to a large degree.
- The data for the analysis will be obtained from the database of users, so the response time for a query from the client side to the database side should not be more than 5 seconds.
- Error handling should be implemented and the application should be able to handle all runtime errors.
- The application should be flexible for future enhancements, for example, the addition of a few more additional features.

5.2 Safety Requirements

- Backups must be taken regularly.

5.3 Security Requirements

- Users shall be required to log in to thefor their own reservation information and modification with email address and password.
- The system shall permit only authorized members who are in the authorized database.
- The system shall permit customers to view only their own current bookings
- All data must be stored, protected or protectively marked.

5.4 Software Quality Attributes

- Correctness: It should satisfy the normal regular HMS operations to fulfil end user objectives.

- Efficiency: Resources should be implemented to achieve the particular task efficiency without hassle.
- Flexibility: We should be able to add new features and handle them conveniently.
- Integrity: System should focus on securing customer information and avoid data loss as much as possible.
- Portability: System should run in any Windows or Linux system.
- Maintainability: System should be maintainable.

5.5 Business Rules

None.

6. Other Requirements

When the system is completely developed and submitted to the client, few sessions will be required to make the users of the system understand the functionality and adapt to the system. After these sessions, it is required that a member from the development team should spend some time in the system background for an agreed time period. That time period will be used to identify new bugs.

Appendix A: Glossary

Abbreviated terms and their meanings:

HMS: Hotel Management System

SRS: Software Requirement Specifications

HTML: HyperText Markup Language

PHP: Hypertext Preprocessor

CSS: Cascading Style Sheets

SQL: Structured Query Language

HTTP(S): Hypertext Transfer Protocol (Secure)

Appendix B: Analysis Models

Document Attached.

Appendix C: To Be Determined List

NA