Software Requirements Specification

for

<Hotel Management System>

**Version 1.0 approved**

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**Revision History**

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Purpose

The purpose of the Hotel Management System is to simplify the day-to-day processes of the hotel. The system will be able to handle many services to take care of all customers in a quick manner. It will automate the manual system which includes bulk of data to be handled with safety, easiness of using and most importantly the efficiency of information retrieval.

**Document Conventions**

Standard IEEE template is used to organize the document. The document is prepared using Microsoft Word 2016 using font 'Times New Roman' with size of 12pt.Headings of the document are emphasized using bold property. Use case diagrams are prepared using Visual Paradigm. UML diagrams have been created according to UML 2.0standards.

## Intended Audience and Reading Suggestions

The intended readers are the administrator, employees, and project team to understand and analyze the system. SRS contain information like project description, system features, scope, Functional and nonfunctional requirements

## Product Scope

The Hotel management system is an application designed to automate major hotel operations. Login page is to access the application, add room system to add room information including checking availability of room. Reservation and Booking System takes information of the customer and allots room to them. The third subsystem is a Check Out for customer's checkout, Customer details system shows details of all customers in categorized form as all customers details,in hotel customers and check out customers. And Employee subsystem is to view employee's details and to update employee.

## References

Data Flow Diagram:

<http://myyee.tripod.com/cs457/dfd.htm>

Case Study:

<https://www.scribd.com/doc/27927992/Hotel-Management-Case-Study>

# Overall Description

## Product Perspective

The project team will develop the Hotel Management System as a software solution to address the issues that have arisen as a result of the current manual system. This system will offer a simple to use, aesthetically pleasing interface. The system will provide a better solution for the handling of big physical file systems, calculation mistakes, and any other necessary duties that the client has defined. The project's final result will improve the efficiency of practically all duties carried out at the hotel in a very simplified manner.

## Product Functions

* System Login
* Add room
* Manage room details
* Room reservation
* Manage customer details
* Manage employees
* Email notifications

## User Classes and Characteristics

Users are categorized as:

1. Administrator:

2. Receptionist

1. There are three user levels in Hotel Management System of Hotel Gayana.
3. I. Owner
4. II. Manager
5. III. Receptionist

**Administrator:**

Hotel Administrator have access to every function and can monitor and authorize all tasks performed by the system. He can set room rates and update employee from database. He is the most important user of the system

**Receptionist:**

Receptionist has to make reservations for customers. He /She can perform limited functions such as registering guests and view customer status. He has less authority and is considered to be less important.

## Operating Environment

**Hardware:**

Computer system that supports Windows.

Computer 4GB RAM, Monitor (minimum resolution 1024\*768), Mouse and keyboard

Hard drive having 10GB free space.

**Software:**

Any platform supporting Windows Operating System.

Microsoft .NET Frameworks 4.0 or above.

## Design and Implementation Constraints

1. Software development crew provides their best effort in developing the system. In order to maintain
2. the reliability and durability of system, some design and implementation constraints are applied.
3. Availability of an android app for hotel management system could make the system portable but due
4. to time constraint it is not possible. System will need a minimum memory of 512MB. But it is
5. recommended to have a memory of 1GB. When designing interfaces of system, we had the
6. capability of work with new tools such as Dev Express. Considering the client’s budget we decided
7. to create those interfaces in a simple realistic manner using affordable technology.
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14. to create those interfaces in a simple realistic manner using affordable technology.

Different new technologies can be used to construct the system interface, however due to customer preference and time restraints, HMS is designed to be relatively basic and just for those operations. The UI will be fairly simple. Implementation Constraints: The application should only use C# language. MySQL is the database used for this project. For the software to run, a computer system with windows operating system must have a minimum of 4GB RAM and 10GB of memory.

## User Documentation

User manual written in simple and understandable language will be provided along the project to guide user about the usage of system.

## Assumptions and Dependencies

As the system is developed according to the requirements and budget provided by the customer. It is assumed that system developed will work perfectly that’s going to be developed under the Windows OS, and MySQL database. If incase of any difficulties, SRS should be flexible enough to change accordingly.

# External Interface Requirements

## User Interfaces

The user interface for system shall be compatible to any type of web browser such as Mozilla Firefox, Google Chrome, and Internet Explorer.

## Hardware Interfaces

For hardware interface, a desktop computer with 4GB RAM and 10GB memory, along with mouse and keyboard.

## Software Interfaces

The operating system required for this system to be installed is Windows. On that C# .Net platform will be installed .There will be ADO.NET data transmission with Microsoft SQL Server Management Studio that will be installed in the same computer.

## Communications Interfaces

The System shall be using HTTP/HTTPS for communication over Internet and for intranet communications, it shall use TCP/IP protocol.

# System Features

*<This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.>*

## System Feature 1

**4.1.3 Functional Requirements**

**Registration**

**FR1.** The receptionist should be able to register customer with their details

**FR2.** The system should record following customer details into member database.

Name, Mobile number, Email, Password, Address, gender, DOB

**FR3.** The system shall send verification email.

**Logging In**

**FR4.** The system should verify the employee email & password against the member database when logging in

**FR5**. After login, member should be directed to system functions.

**Reservation**

**FR6.** The system should enable receptionist to check for availability of rooms

**FR7.** The system should set rate for rooms

**FR8.** The system should record reservation details into database

3.2.4 **Receptionist Access**

**FR9.** The system should allow Receptionist to add booking information

**FR10.**The system should provide access to receptionist for view customer check-out.

3.2.5 **Administration Access**

**FR13.** The system should enable administrator full modification access to customer, booking and room information

## System Feature 2 (and so on)

# Other Nonfunctional Requirements

## Performance Requirements

**NF1.** Login Validation should be done within 3 seconds

**NF2.** Load time of UI Should not take more than 2 seconds

**NF3.** Data in database should be updated within 2 seconds.

## Safety Requirements

**NF4.** All external communications between the data’s server and client must be encrypted.

**NF5.** Access to various subsystems will be protected by user login screen that requires a username and password.

## Security Requirements

**NF6.** Database should be backed up every hour.

## Software Quality Attributes

**• Correctness:**

This system should satisfy the normal regular Hotel Management operations precisely to fulfill the end user objectives

**• Efficiency:**

Enough resources to be implemented to achieve the particular task efficiently without any hassle.

**• Flexibility:**

System should be flexible enough to provide space to add new features and to handle them conveniently

**• Integrity:**

System should focus on securing the customer information and avoid data losses as much as possible

**• Portability:**

The system should run in any Microsoft windows environment.

**• Usability:**

The system should provide user manual to every level of users.

## Business Rules

The system is designed in a way where responsibility and privileges are decreased in the order of owner, manager and receptionist. The role of manager is elected in the aim of making the owner’s hands free from regular interfering with the system. So, most of the privileges that owner has are given to manager, except the ones are critical and important. Some features like that are, taking backup, restoring of the system and handling financial details, hotel income reports of the system. Receptionist is given with the most frequently used features of the system which has less responsibility than the other two users. Deleting of any information in the system is only allowed for the owner of the hotel.

# Other Requirements

After project development, few sessions to make users of system to understand the system functionalities, will be arranged. A member from the development team should spend some time in the system background for an agreed time period to identify new bugs that didn’t showed up in development process.

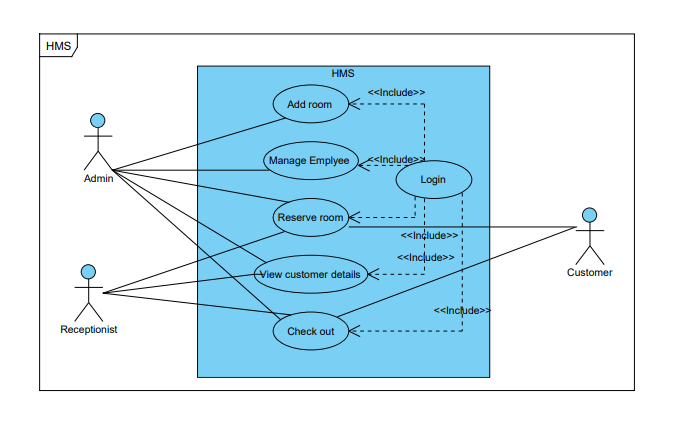
**Appendix A: Glossary**

HMS: hotel management system

OS: Operating system

UI: User Interface

**Appendix B: Analysis Models**

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**Appendix C: To Be Determined List**

*<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>*