

Software Requirements Specification

Version 2.1

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Project

GUEST HOUSE MANAGEMENT SYSTEM

Submitted in partial fulfillment

Of the requirements of

CS 223 Software Engineering

Changes:

Added UML Diagram.

Updated the Appendix.

Changes in 2.0:

This work is based upon the submissions of the course Software Engineering (CS223).

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1.0. Introduction

1.1. Purpose

The purpose of this document is to present the description of the Guest House Management System. It will explain **what** the system will do, what are the constraints for this system. This Document is for the Users, Developers, Testers and The developers will be using this document to construct the software.

1.2. Scope of Project

The software system will be Guest Room booking system handled by the Administrative Staff of the Guest House Management Office. This software system will be designed to allot rooms to the User requesting. The software will not give immediate confirmation of booking as Requests can be cancelled by the Administrative Staff, which will be performed manually. Adding new rooms to the database can also be done by the help of software.

Moreover the software system consists an online portal where Guests can enter their request related data, which makes it mobile. The objective of the software is to book rooms based on a Priority Order.

1.3 Constraints

- Platform Dependent
- Limited Storage Space
- Security Issues for Web Portal

- Internet Connection Required
- User Misunderstanding
- Server Errors

1.4 Assumptions and Dependencies

- Assuming that we are having the institute Members data for verification.
- Assuming we are having enough number of rooms.
- Assuming that user is among the Student, Faculty, Guest Faculties and their relatives.
- Assuming if extra important requests are given then External Room Service is provided by Institute Management
- Assuming that a room can accommodate maximum 4 members only.

1.3. Glossary

Term	Definition
User	People who want to book the guest rooms mostly students,faculty members,guest faculty.
Admin./Administrator	Person who will make the final decision of allotment of rooms according to a priority order.
URId	Unique Registration Id. automatically generated which can be used to check the status.
Payment Portal	Where cost of accommodation,cost of food and the total payable fees is shown.Portal generates URId and Transaction Id.
Admin Review	Admin can check the List of all bookings-Confirmed/Pending/Overall

1.4. References

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications*. IEEE Computer Society, 1998.

1.5. Overview of Document

The rest of the document is designed in the following way:

- **Overall Description:** This part of the document has the description of the system environment, user knowledge to use the program.
- **Requirement Specification:** This part of the document describes the use case or the functions and the technical terms of the functionality of the product, written targeting the developers.

2.0. Overall Description

2.1 *System Environment*

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2.2 *Functional Requirements Specification*

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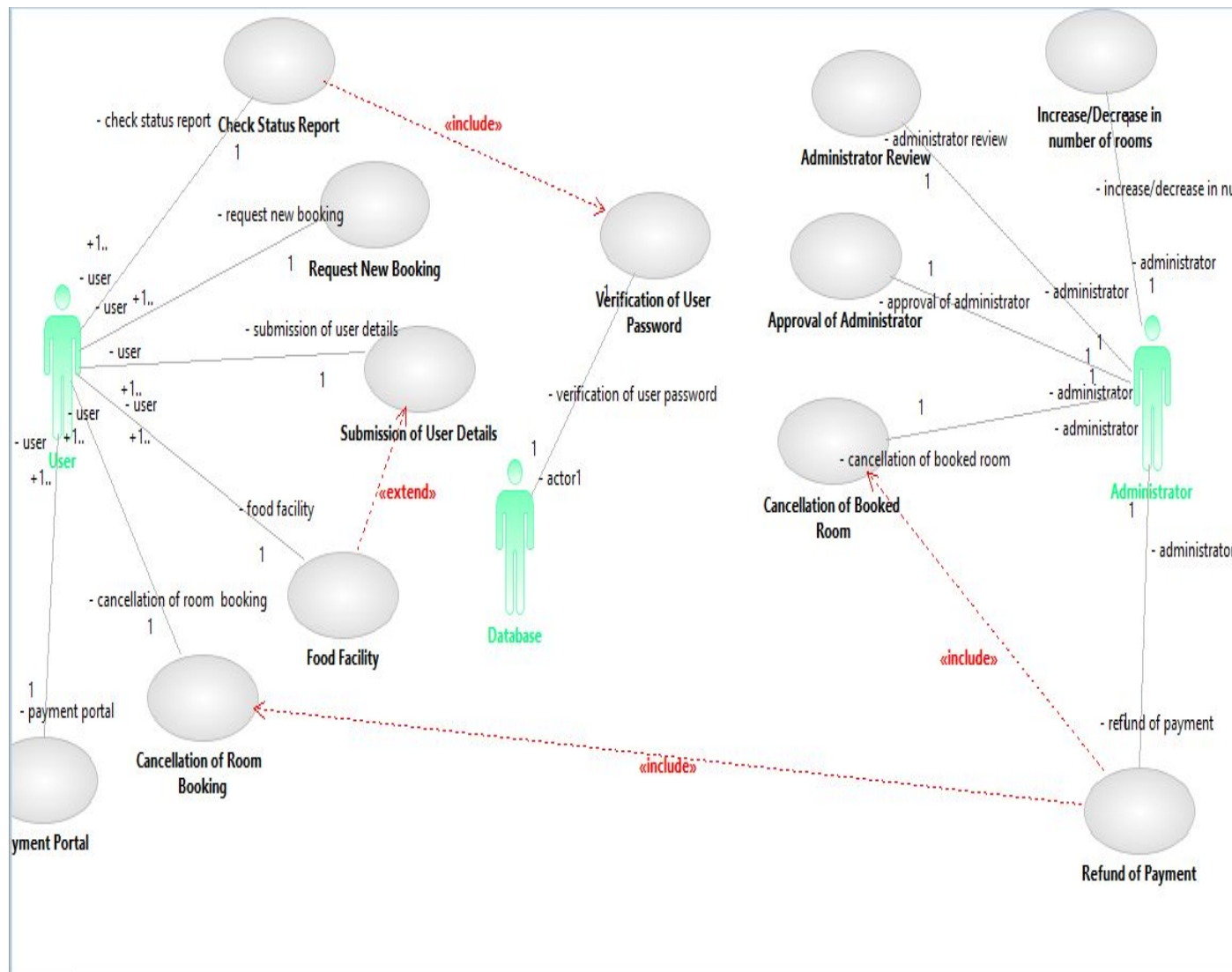
2.2.1 Use case Diagram:

Diagram:

Brief Description:

-Use Case diagram for the Guest House Management System

-Interaction between the actors and the use



cases.

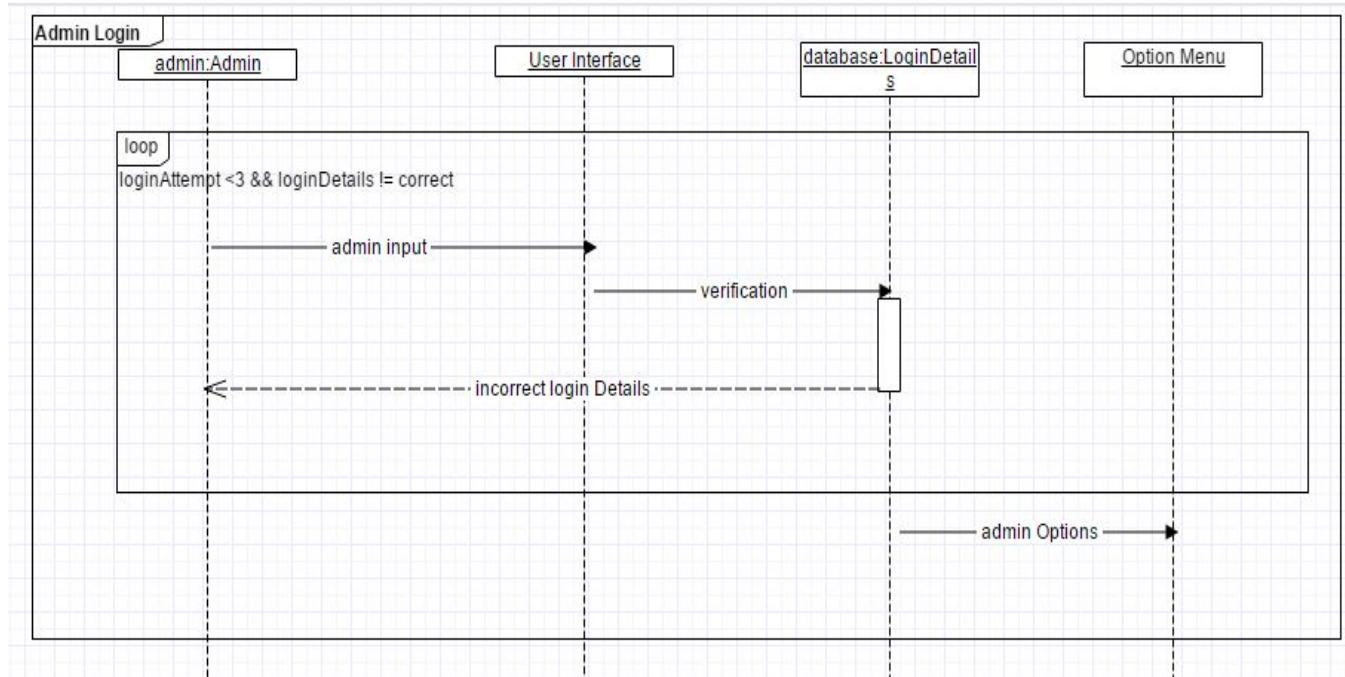
-User will enter the details which will be stored in database.

-Admin can increase or decrease number of rooms.

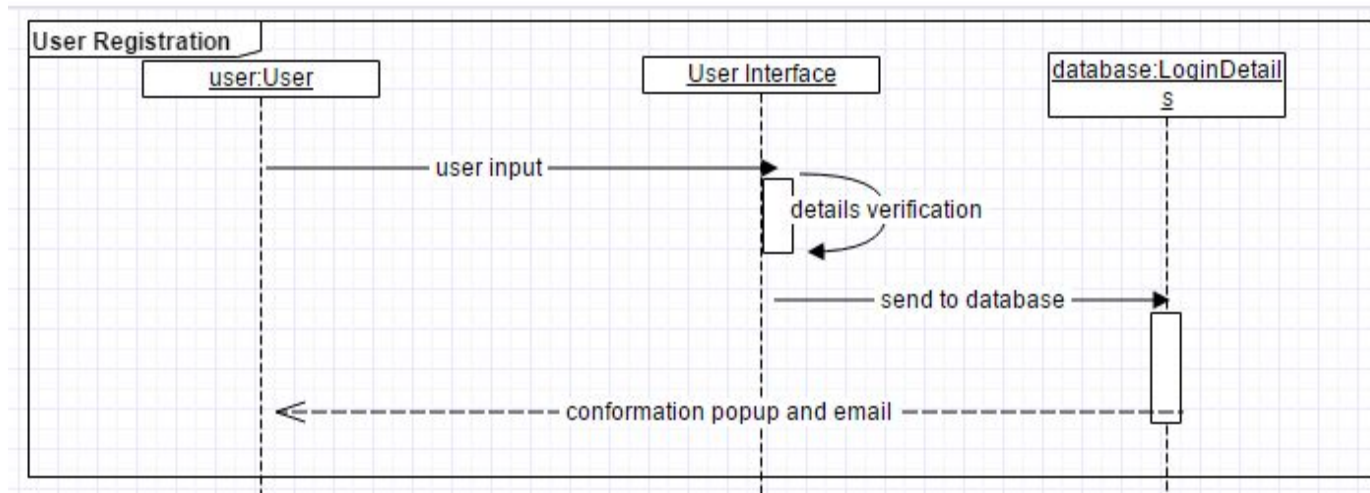
-Admin has power to cancel the booked room on the basis of priority order.

Sequence Diagram:

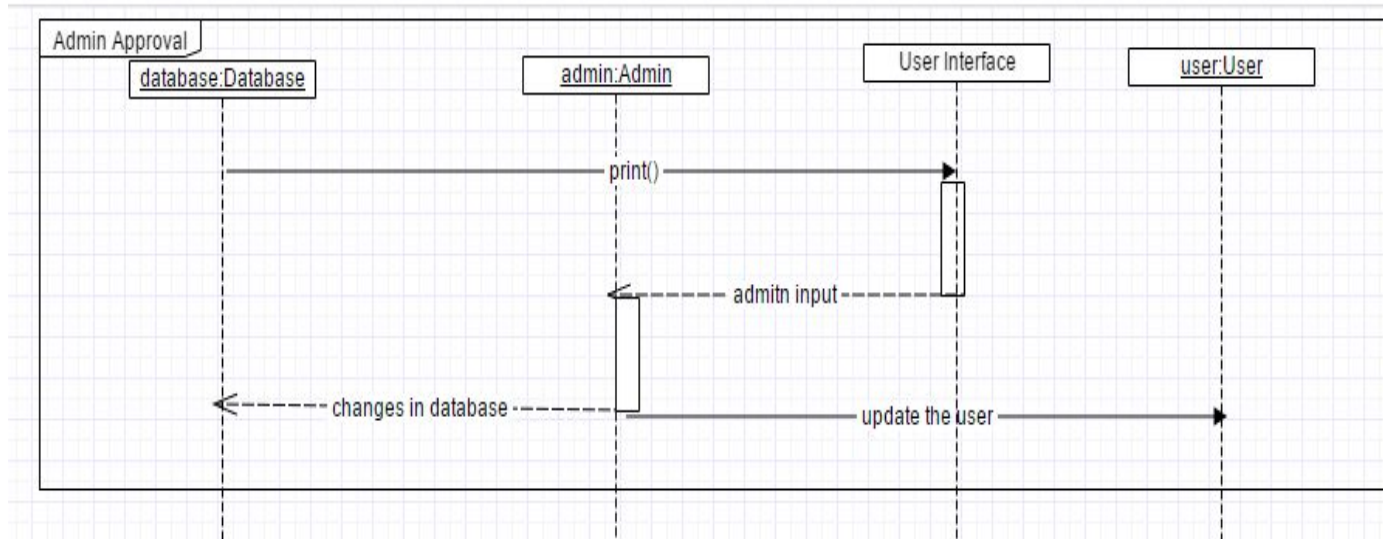
Admin Login:



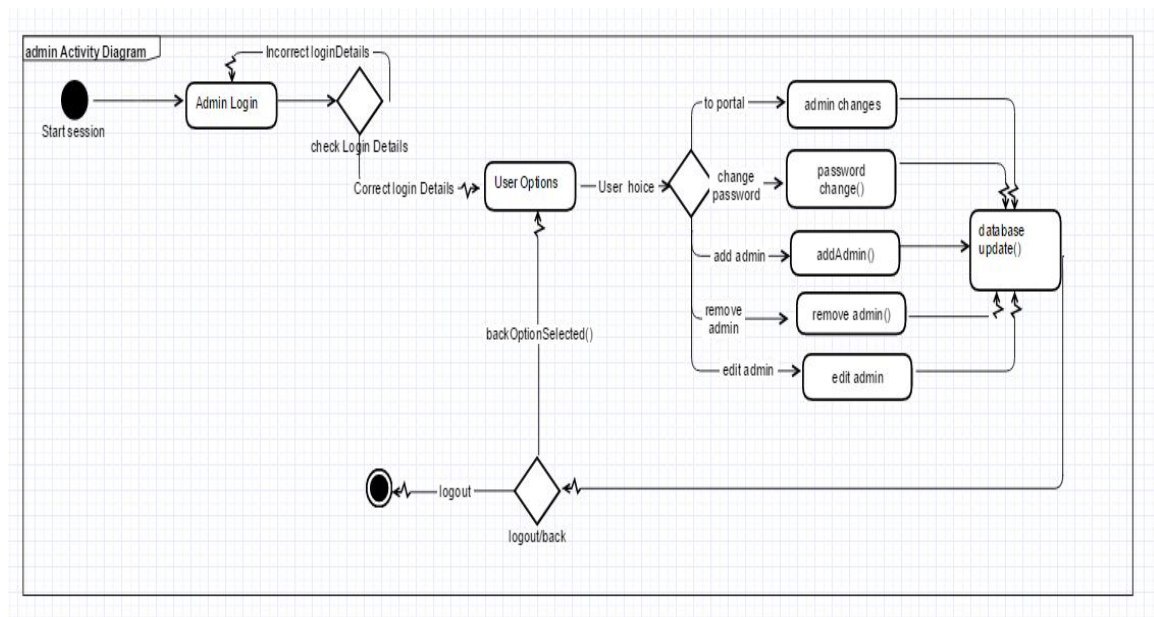
User Registration:



Admin Approval:



Activity Diagram:



2.3 *User Characteristics*

The user of this software system requires the following skills to use this software:

- The Language for input/output operations is English, user must have enough knowledge of English.
- User should be familiar with Internet and terms related to it.
- Should be familiar with Computers.

2.4 *Non-Functional Requirements*

- **Security**
- **Good Internet Connection**
- **Performance Requirements**
- **Reliability**
- **Database Requirements**

- **Maintainability**
- **Availability**
- **Design Constraints**
- **Portability**

3.0. Requirements Specification

3.1 *Functional Requirements*

3.1.1 Status Report

Use Case Name	Checking the Status
Trigger	-
Precondition	User should have URId.
Basic Path	1. Enter URId. 2. Click Submit Button.
Alternative Paths	No
Postcondition	1.If URId matched in Database show the status. 2.If Confirmed,display the user details and reservation details. 3.If Cancelled Refund the payment.
Exception Paths	User can abandon the attempt at any time Server error Empty filled exception
Other	No.

3.1.2 Request New Booking

Use Case Name	User booking room
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Trigger	When user is doing new booking.
Precondition	Internet connection needed for user.
Basic Path	1. Enter Name of Student and Faculty. 2. Enter Institute Id. 3. Designation (Student/ Faculty)
Alternative Paths	Telephone Booking
Postcondition	Transfer to the User Info Page.
Exception Paths	User can abandon the attempt at any time. Server error Empty filled exception
Other	None

3.1.3 Details Submission of User

Use Case Name	User Info Page
Trigger	Submission on first page
Precondition	Entry completed on first page.
Basic Path	1. Enter date of stay. 2. Enter check in time. 3. Enter check out time. 4. Number of persons coming along. 5. Their details and contact. 6. Require food facility or not.
Alternative Paths	None
Postcondition	Transfer to food facility column.

Exception Paths	Empty Field Exception Date exception
Other	None

3.1.4 Food Facilities

Use Case Name	Selecting food.
Trigger	Applied for food
Precondition	Food facility checked
Basic Path	1. Listing Checkbox for selection of breakfast, lunch, dinner. 2. Prefer Veg or Nonveg Type of food
Alternative Paths	Order food on-site.
Postcondition	Transfer to Payment Page.
Exception Paths	User may not select the food option Empty field exception
Other	None

3.1.5 Payment Portal

Use Case Name	Payment Info
Trigger	After successful completion of all step
Precondition	At least one room is booked
Basic Path	1. Payment for food 2. Payment for room 3. Payment as Caution Money

	4. Make Payment
Alternative Paths	None
Postcondition	Generation of details of user with a unique booking id and payment transaction id.
Exception Paths	Server error Payment not done exception
Other	None

3.1.6 Cancelling the Booking

Use Case Name	Cancellation of Booked Room
Trigger	Cancel Request
Precondition	User should have booked at least one room
Basic Path	1. Enter the URId. 2. Confirm cancellation
Alternative Paths	None
Postcondition	Cancellation by User message displayed.
Exception Paths	Incorrect URId. entered empty field exception server error
Other	None

Admin Aspects

3.1.7 Admin review

Use Case Name	Checking the list
Trigger	Security password match
Precondition	Authorised admin
Basic Path	1. List of all booking/ reservation 2. Confirmed booking 3. Pending Booking 4. Data of each reservation
Alternative Paths	None
Postcondition	None
Exception Paths	Admin can abandon the system at any time. password incorrect exception
Other	None

3.1.8 Approval from Admin.

Use Case Name	Confirmation of Booking
Trigger	User requesting for a room
Precondition	Authorisation of Admin.
Basic Path	1:Check the Availability of Rooms 2:Check the Payment is done. 3:Confirmation Status Updated

	4:Automatically Update Number of Rooms 5:Automatically Update the total money received 6:Check the allotted room number
Alternative Paths	None
Postcondition	Confirmation Message displayed
Exception Paths	Non Availability of Rooms Payment Not Received decreasing number of rooms exception database connection exception
Other	None

3.1.9 Cancellation of Booked Room

Use Case Name	Cancellation of the room
Trigger	Clashes between two or more users for a room
Precondition	Admin should be authorised and URId should exist in database
Basic Path	1:Remove the User name from overall list 2:Update the Booking Status. 3:Automatically update number of Rooms 4:Generate Refund Payment
Alternative Paths	None
Postcondition	Cancellation Message displayed
Exception Paths	Database connection exception
Other	None

3.1.10 Refund After Cancellation from Admin.

Use Case Name	Refund of payment after cancellation
Trigger	Cancellation Done Successfully
Precondition	Admin should be authorised and should have booking payment information
Basic Path	1. Refunding Back the money to user 2. Generating the Receipt and Transaction Id. 3. Updating the total payment received.
Alternative Paths	None
Postcondition	Generation of Refund Message and details of Refund. New Transaction Id. generated.
Exception Paths	Booking payment information is not given to admin. database connection Server
Other	None

3.3 Detailed Non-Functional Requirements

- **Security:**As the Information resides in the servers,the servers should have their own security to prevent unauthorised access/edits.The System on which the software resides should also have its own security.Only the Admin will have the access to the Software.
- **Good Internet Connection:**Good Internet Connection will ensure faster and flawless communication between the software and servers and also the processing of the software.
- **Performance Requirements:**Computer on which the software is going to run should be efficient for smooth functioning of Software.
- **Database Requirements:**Requirement of Database to store the datas
- **Maintainability:**

- **Availability:**
- **Design Constraints:**
- **Portability:**

3.4 *Logical Structure of the Data*

4.0 Supporting information

4.1 *Table of contents and index*

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BOOKING:5,6,10,11,12,13

CANCELLATION:5,10,11,12,13

CONSTRAINTS:4,5

FOOD:8,9,13.

FUNCTIONAL REQUIREMENTS:8,9,13.

GLOSSARY:6

PAYMENT:6,10,11,12,13.

SECURITY:6,8,12,13

USER:5,6,7,8,10,11,12.