COURSE PROJECT

PROJECT TITLE

Room Management Appliance System

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Chapter-01

1. Introduction

1.1   About the System:

A system for managing shared office, meeting, laboratory, and teaching space is to be developed. A networked display appliance is situated outside each room. The appliance indicates who has reserved the space and for what period. The appliance allows users to reserve a room and check the availability of other rooms. The system is a web based scheduling system but the status of each room can be checked at location. It incorporates the use of small flat panel displays to eliminate scheduling conflicts, interruptions, and encourage better space utilization.

1.2   Purpose:

In this system the registered user confirm about their room reservation with time. They can reserve the existing room for their purpose by maintaining the system. They have to login by their account and they can also cancel their reservation but after payment they are not be able to cancel reservation. This system such a great dill for them who need the meeting room.

1.3   Scope:

The system will make easy to reserve or check room to the users whenever they need. Every user reservation room in short time and make easy to select room and check room.

1.4   Vision:

All the room displays are networked so then can be accessed with web interface. Every room's schedule can viewed from the web interface and maintained by an administrator. A user should be able to check the availability of any room from the room display and the web interface.

1.5   Why the System is necessary?

- To make reservation in short time.
- Make reservation without visiting the rooms.
- Make easily reservation from anywhere
- Reserve multiple room at a time.

1.6   Proposed solution:

- User can make reservation quickly.
- User can make reservation from anywhere.
- User can make multiple reservation.

Chapter-02

2. System analysis

2.1   Actor goal list:

Table 1: Goal list for room management system

Actor	Goals
Administrator	**Add a User** **Delete A User** **Add Room** **Delete Room** **View Reservation Room**
User	**Make A Reservation** **Check Room Information** **View Reservation Information**

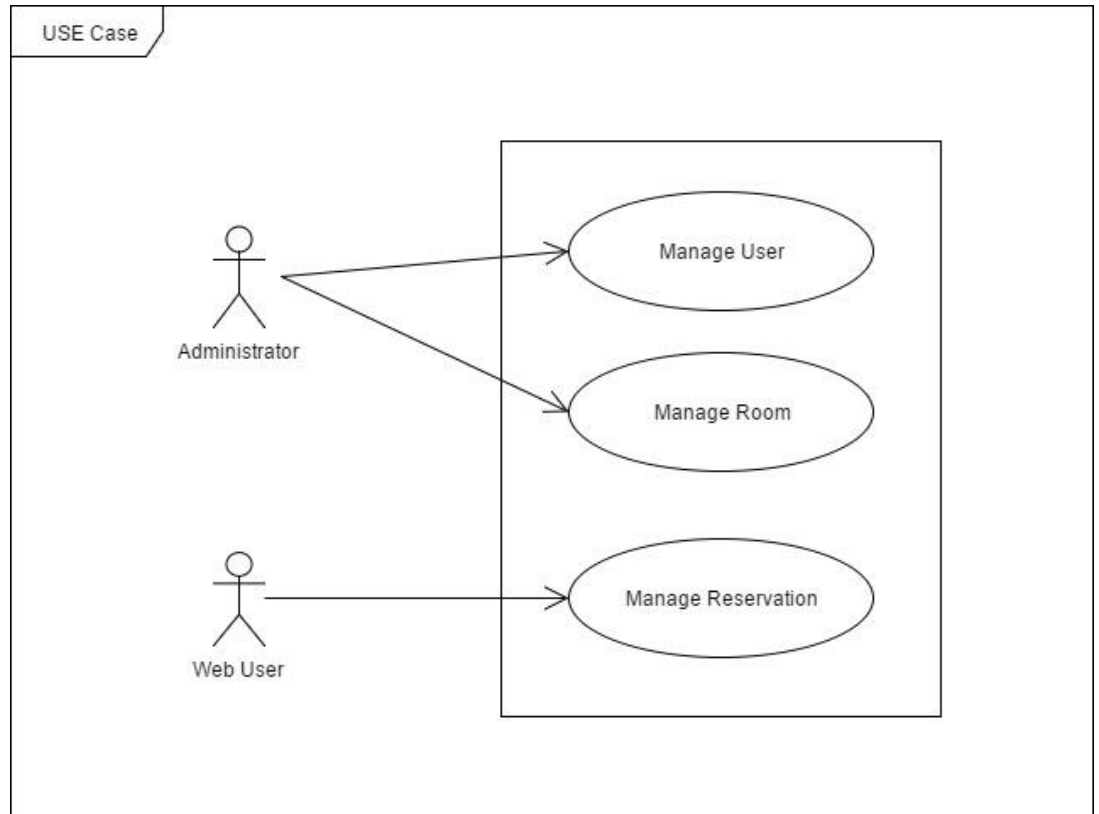## 2.2 Use Case model:

Figure 1: Use Case Diagram to Room Management Appliance System

2.3 Use case description

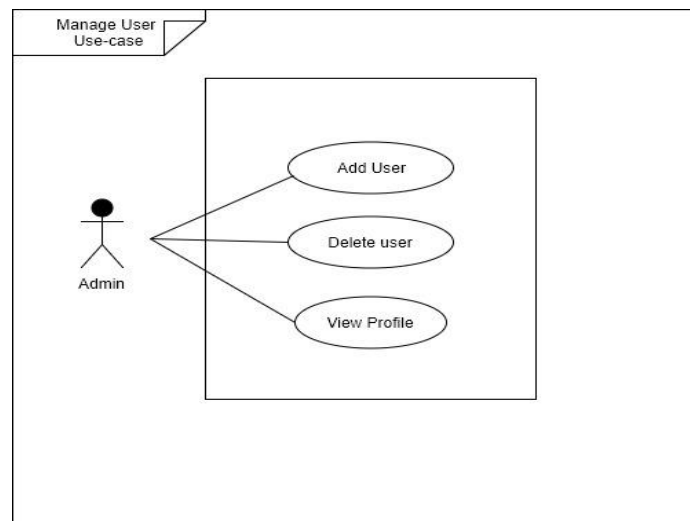### 2.3.1 Manage User Use-Case:

Figure 2: Use Case Diagram to Room Management Appliance System
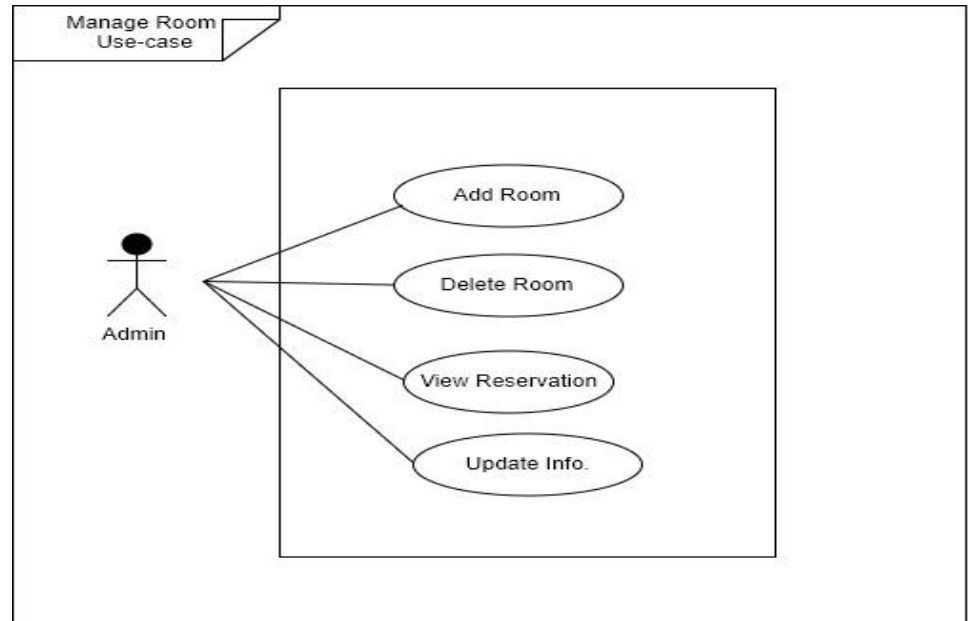
2.3.2 Manage Room Use-Case

Figure 3: Use Case Diagram to Room Management Appliance System
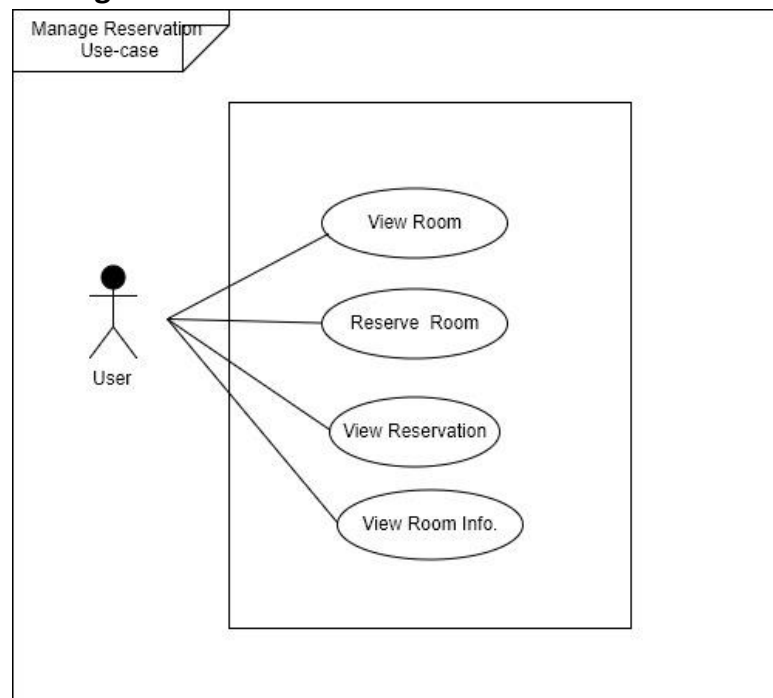
2.3.3 Manage Reservation Use-Case:

Figure 4: Use Case Diagram to Room Management Appliance System

2.4 USE Case Description

Table 2: Manage User for room management system

Use Case Name:	Manage User
Scenario :	Manage the all register web user
Brief Description:	When a user wanted to register in the site and provides proper information then Admin will approved it.
Actors:	Administrator
Stakeholders:	Web user Administrator
Preconditions:	Web user must exist. Internet must be connected. Registration form must be provided.
Post conditions:	User list must be provided. Delete option must be provided.
Flow of Events:	Actor / System
	Actor 1. Create registration option. 2. Listed the require information. 3. Customer request for registration form. **System** 1.1. Create registration form. 2.1. Provides form with require information. 3.1. Provides customer registration form.
Exception Conditions:	1.1. If the user can use the site without registration there is less important of this use case. 1.2. If the user do not need to provide their information administrator will pause this use case.

Table 3: Manage Room for room management system

Use Case Name:	Manage Room
Scenario :	Manage the all the room.

Brief Description:	Administrator will add room and provides all necessary room information that needed. He can check reservation if anyone reserve any room. He also can delete a room if needed
Actors:	System Administrator
Stakeholders:	Web user Administrator
Preconditions:	Room must be exist.
Post conditions:	Provides all necessary information. Check if any room reserved or not.

Flow of Events:	Actor	System
	1. Add a new room. 2. Provide room information. 3. Check reservation.	1.1. Create a new room 1.2. Add information with room. 1.3. Provides reservation information.

Exception Conditions:	1.1 If a room does not exist there is less important of this use case. 1.2 If the information does not accurate with added room then admin will check information. 1.3 If user did not reserve any room, admin will pause this use case.

Table 4: Manage Reservation for room management system

Use Case Name:	Manage Reservation
Scenario :	Manage the reservation of room.
Brief Description:	When a user check room information, he/ she can reserve a room with necessary information. They can cancel a reserve room or delete their reservation.
Actors:	Web User
Stakeholders:	Web user Administrator
Preconditions:	Web user must exist. Internet must be connected. Registration and login must be done.

Post conditions:	Room must be provided. Availability must be provided.
Flow of Events:	<table><tr><td>Actor</td><td>System</td></tr><tr><td>1. Login with information 2. Check room. 3. Confirm Reservation.</td><td>1.1. Verify user 2.1. Provides room with require information.</td></tr></table>
Exception Conditions:	1.1. If a user does not exist this use case will paused by the user. 2.1. If a room does not exist user will pause this use case.

2.5 System sequence diagram
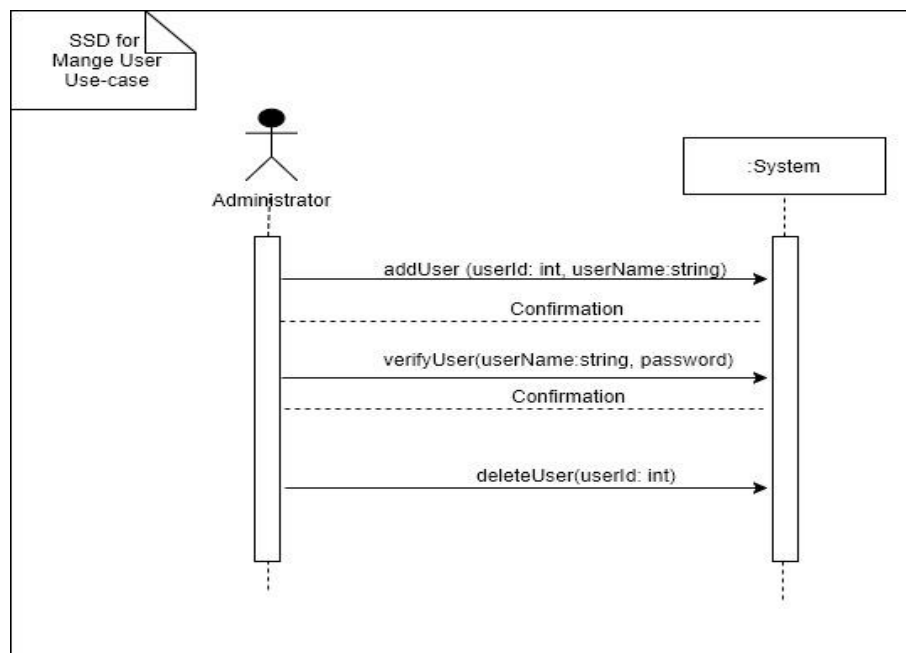
Figure 5: SSD for Mange User
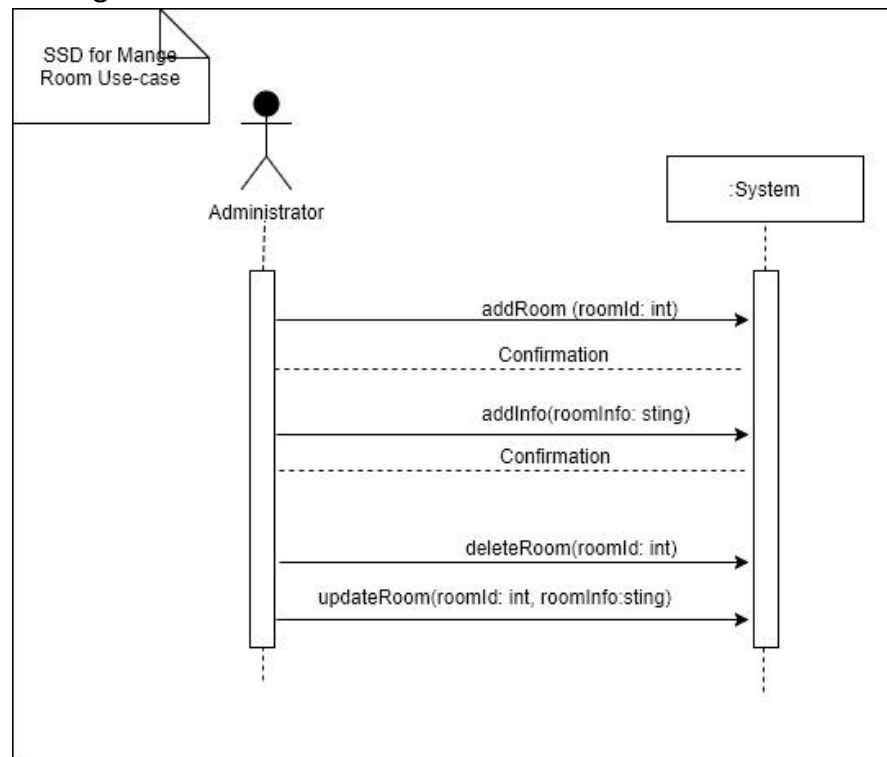
2.5.1 Manage Room:

Figure 6: SSD for Mange Room
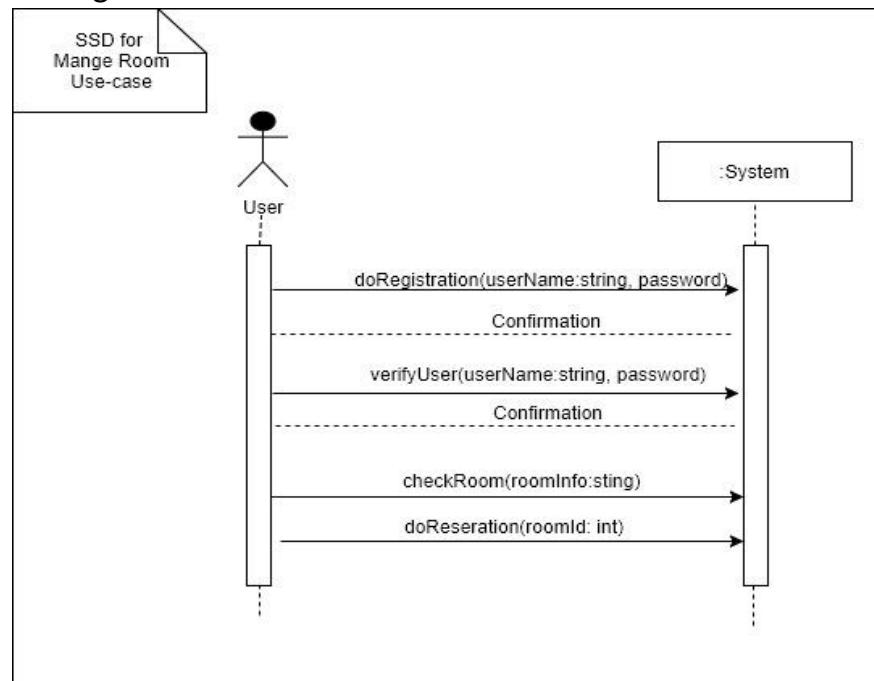
2.5.2 Manage Reservation:

Figure 7: SSD for Mange Room
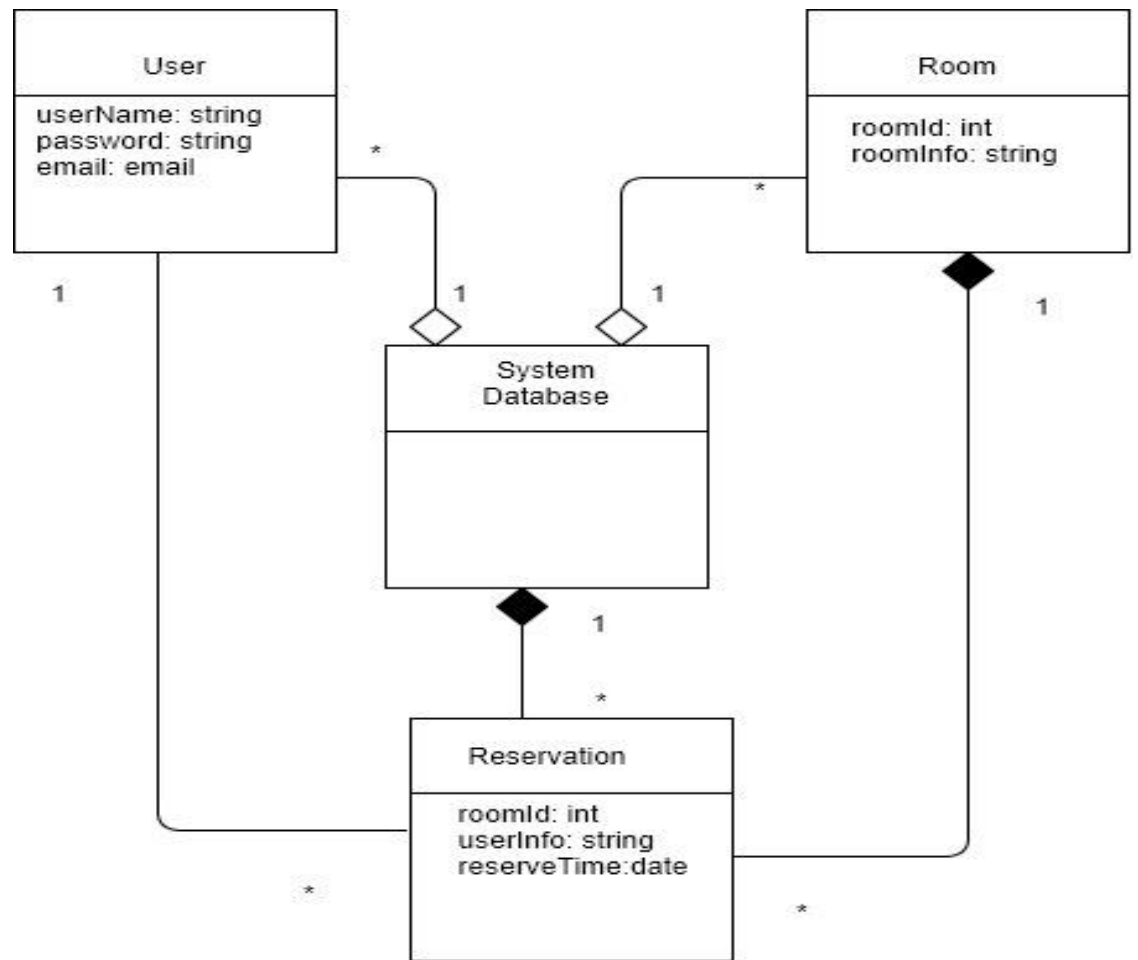
2.6   Domain model:

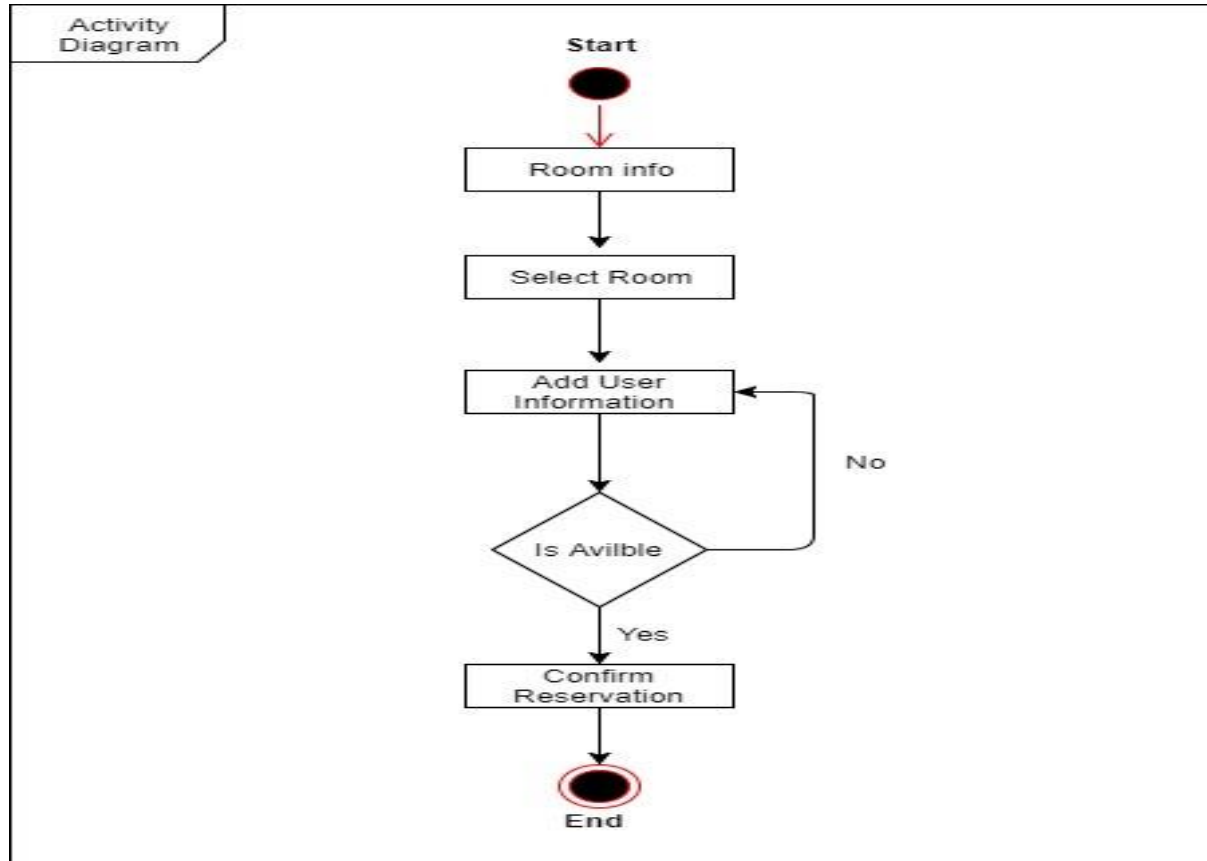Figure 8: Domain Model for room management system

2.6 Activity diagram:

Figure 9: Activity Diagram for room management system

Chapter-03

3.1 System Design

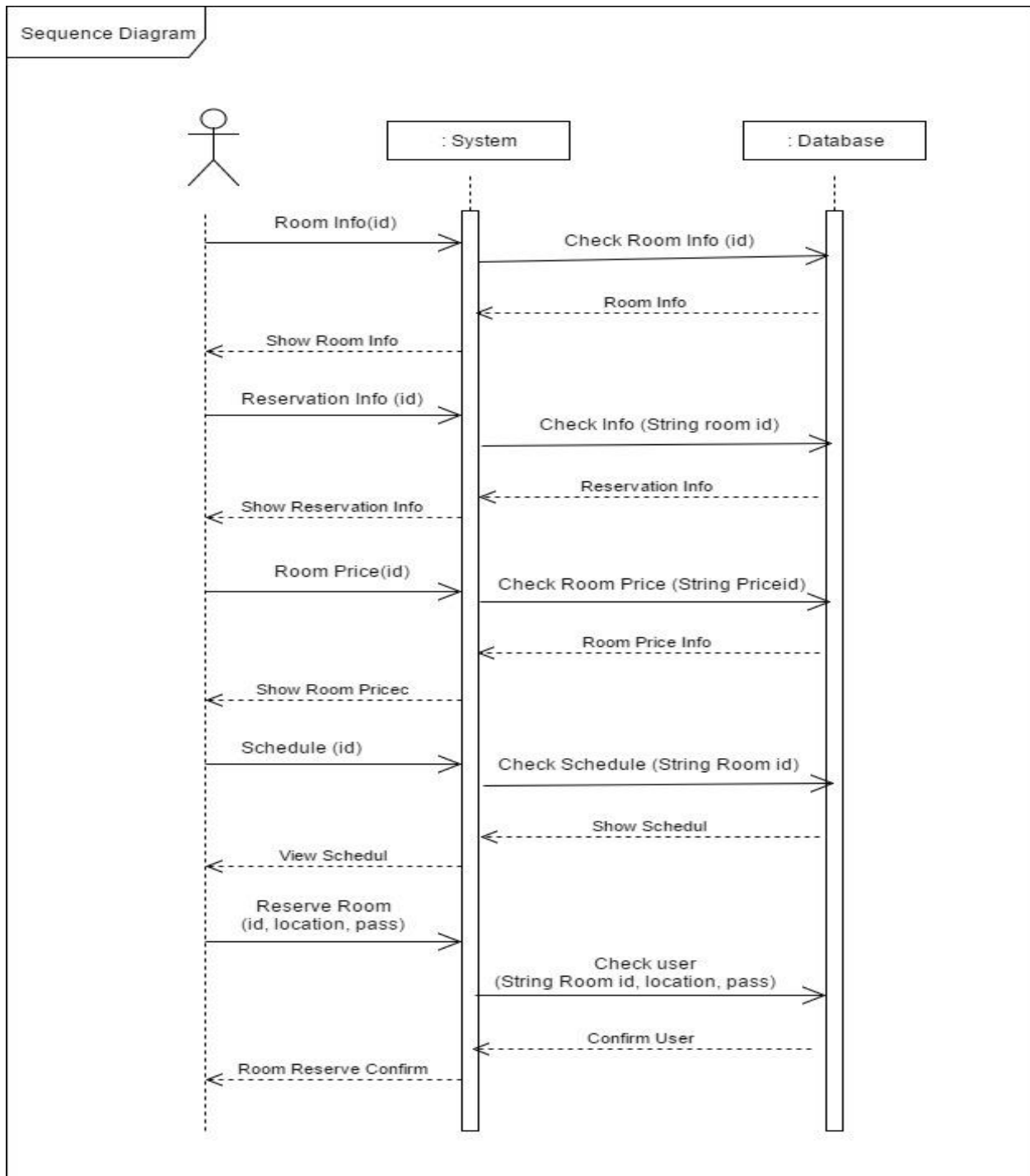### 3.1.1 Sequence Diagram

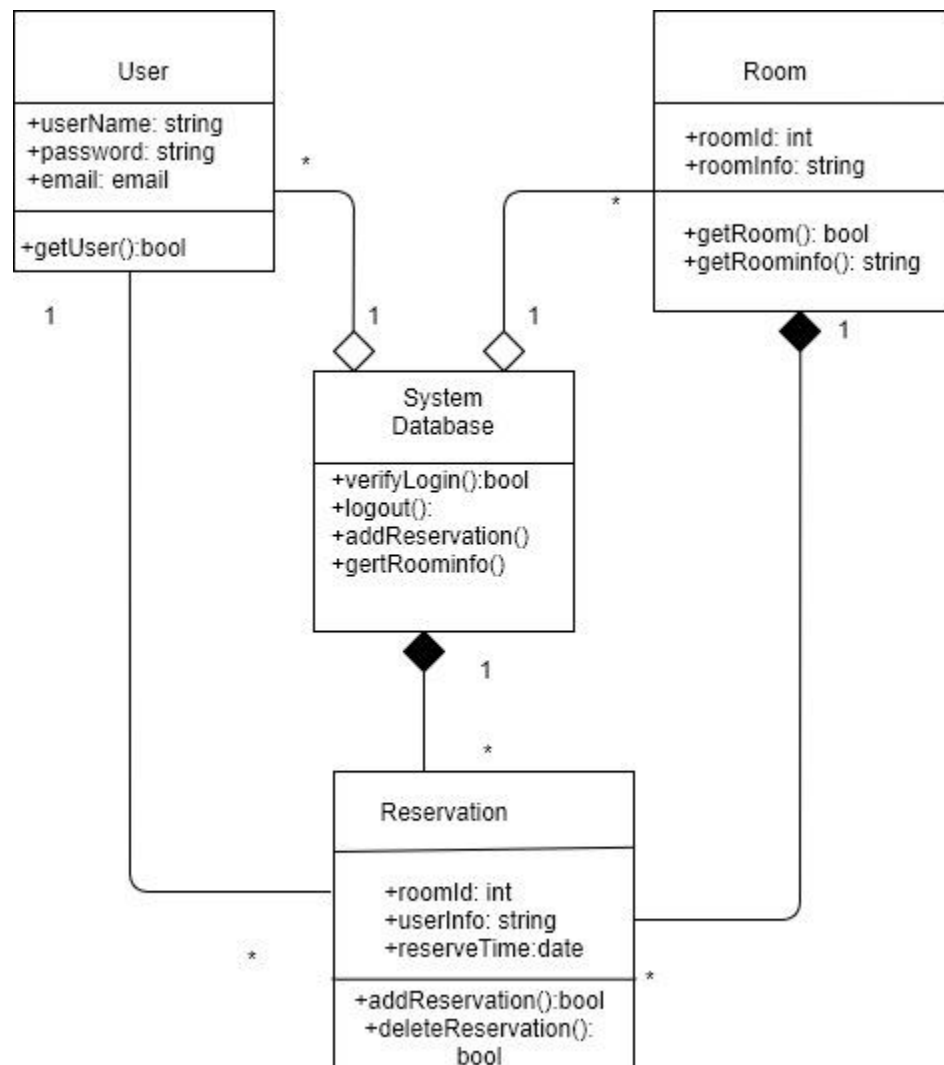Figure 10: Sequence Diagram for room management system

3.1.2 Class Diagram

Figure 11: Class Diagram for room management system