Table of Contents

Chapter 1

Introduction

1. Introduction

1.1 **About the System**

The system will be developed to manage shared offices, conferences, laboratories and study rooms. The network display device is located outside each room. The device identifies who made it a place and during that period. The device allows users to save rooms and view other available rooms.

The system is a web-based system, but the status of each room can be verified on location. This adds use of a small house to eliminate the program conflict, stop and encourage good use.

1.2 **Purpose**

All the display are connected to the network, so they can be accessed through the interface URL only). The room schedule can be viewed on the website and protected by the principal. The user must be able to check availability for each room in the room and on the internet. The web interface allows you to create search rooms for search engines to find rooms in some time. All-important building management information is through the interface.

1.3 **Scope**

- ❖ Reserve the appropriate room when necessary from anywhere in the network
- ❖ Show meeting information outside each room
- ❖ Easily extend room reservation with touch screen
- ❖ Free a room if the meeting ends early
- ❖ Quickly identify occupied and available rooms with a red or green light
- ❖ Take a room with the touch screen for an uninterrupted impromptu meeting

1.4   Vision

Vision of the system is very simple to help those people who are manage and maintain their room so that they may provide good service to their client.

1.5   Why this system is necessary?

Now a days we are very much dependent on software. In our every business we use software so that work easily and quickly. Room Management System also help us for convention center business. We can record all client data easily and provide service quickly.

Chapter 2

System Analysis

2. System Analysis

The Merriam-Webster dictionary defines system analysis as "the process of studying a procedure or business in order to identify its goals and purposes and create systems and procedures that will achieve them in an efficient way". Another view sees system analysis as a problem-solving technique that breaks down a system into its component pieces for the purpose of the studying how well those component parts work and interact to accomplish their purpose.

The field of system analysis relates closely to requirements analysis or to operations research. It is also "an explicit formal inquiry carried out to help a maker identify a better course of action and make a better decision than she might otherwise have made.

2.1   Actor Goal List

Actor	Goal
System Admin	• Add new room detail • Delete room • Check room availability • Manage client • Manage display
Client	• Create an account • Book room • payment

2.2 Use Case Model

Room Management System

Manage Users

Manage Room

Manage Reservation

Maintain Display
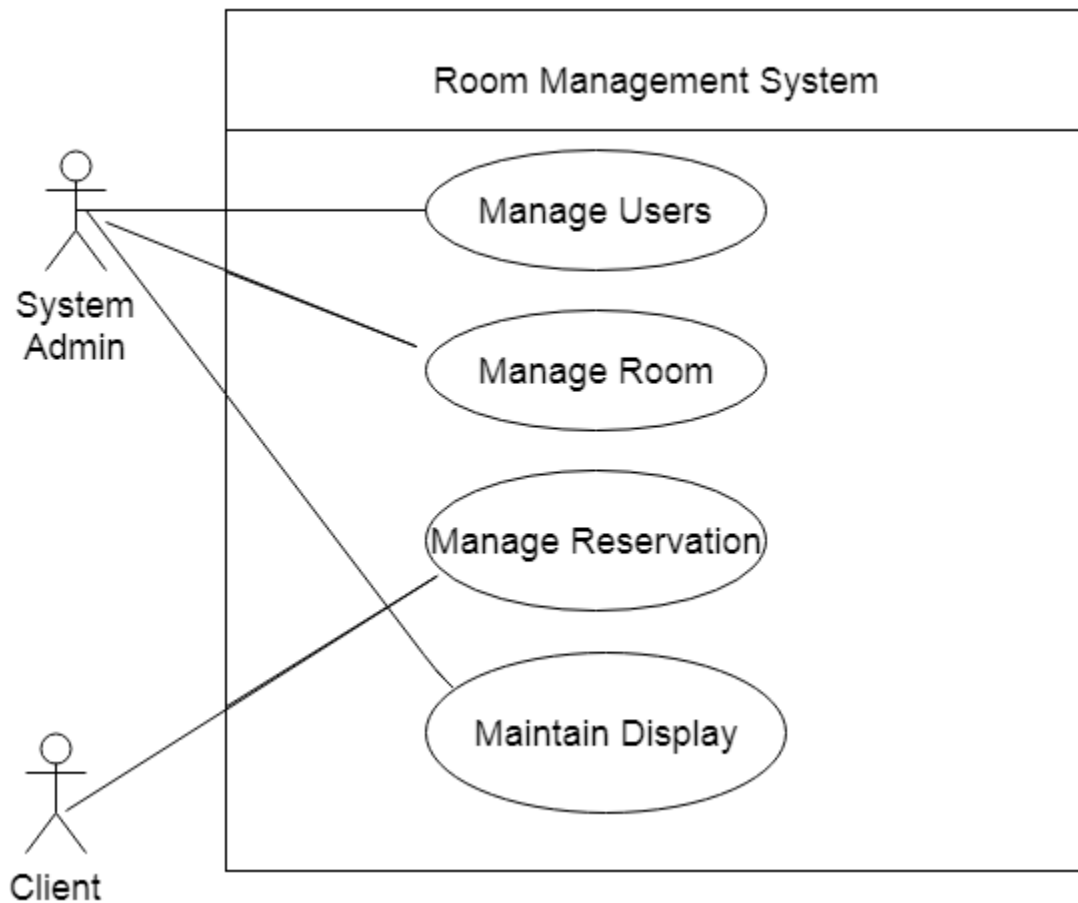
System Admin

Client

Figure 2.1 Use Case Diagram

2.3 Use Case Description (Brief)

2.3.1 Manage User

Admin of System can add new user and store their information in database. So the admin easily can find their client information when necessary. Beside this, the system admin also can delete any user if he/she wants.

2.3.2 Manage Room

The system can add any room and its information and store it into database. He/She also can delete any room easily if it is not necessary.

2.3.3 Manage Reservation

Client can easily login this system. But before this they need to register with proper information. Then the can able to go to the home page. Here client can book any room if its available. For confirm booking they need to complete payment method.

2.3.4 Maintain Display

The system admin input meeting information and display it in display bar. He also can release any room if the meeting has finished.

2.4 Use Case Description (Detailed)

2.4.1 Manage User

Use Case ID	1	
Name	Manage User	
Primary Actor	System admin	
Secondary Actor	Client	
Goal	Manage all user and also add them, delete them.	
Precondition	1. Must be provided proper information of the user 2. Must be connected with internet 3. Admin must exit	
Post Condition	New account must be created User list must be provide	
Flow of events	Actor	System
	1. Registration creation option 2. Provide proper information 3. Delete user	1.1 Create user registration form. 2.1 Display registration information 3.1 Delete room
Exception Condition:	1.1 If there is no need to add user in this system the use case is not important. 3.1 Delete option is not necessary if there is no user.	

2.4.2 **Manage Room**

Use Case ID	2	
Name	Manage room	
Primary Actor	System admin	
Secondary Actor	Client	
Goal	Manage all room and also add it, check it availability	
Precondition	1. Must be provided proper information of the room 2. Must be connected with internet 4. Admin must exit	
Post Condition	New room must be a created room list must be provide	
Flow of events	Actor	System
	4. Room creation option 5. Room description from 6. Provide proper room information 7. Delete room 8. Display room information	1.2 Create room display option. 4.1 Delete room 5.1 Display room information
Exception Condition:	1.1 There is no need to add any room in this system the use is not important. 4.1 Delete option is not necessary if there is no room. 5.1 If there is no room, cannot display any information.	

2.4.3 **Manage Reservation**

Use Case ID	3	
Name	Manage reservation	
Primary Actor	Client	
Secondary Actor	System Admin	
Goal	User login, book room and payment	
Precondition	5. Must be provided correct user name and password 6. Must be connected with internet 7. User must exit	
Post Condition	Must return home page, booking must be successful	
Flow of events	Actor	System
	9. Login Option 10. Provide proper	2.1 Return home page

	username and password	
	11. Book room	3.1 Display room information
	12. Payment	4.1 Confirmation message
Exception Condition:	1.1 If there is no need to book any room in this system the use case is not important. 4.1 Payment option is not necessary if there is not booking any room.	

2.4.4   Maintain Display

Use Case ID	4	
Name	Maintain display	
Primary Actor	System admin	
Secondary Actor	Client	
Goal	Manage all meeting and also release room, show all information	
Precondition	8. Must be provided proper information of the meeting. 9. Must finish meeting to release room. 10. Must be connected with internet 11. Admin must exit	
Post Condition	Release room successfully, meeting information must be provide	
Flow of events	Actor	System
	13. Create meeting information input option 14. Provide proper information 15. Release room	2.1Display meeting information 3.1 Release room
Exception Condition:	1.1 If there is not held any meeting the use case is not important. 3.1 If there is not held any meeting, do not need to release room.	

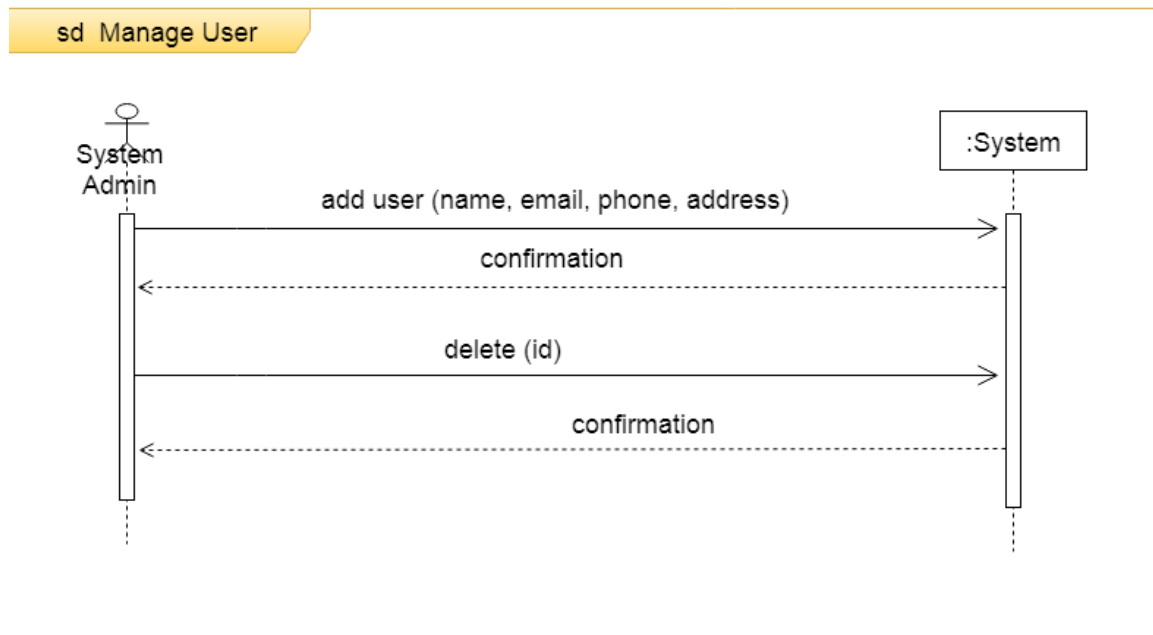## 2.5   System Sequence Diagrams

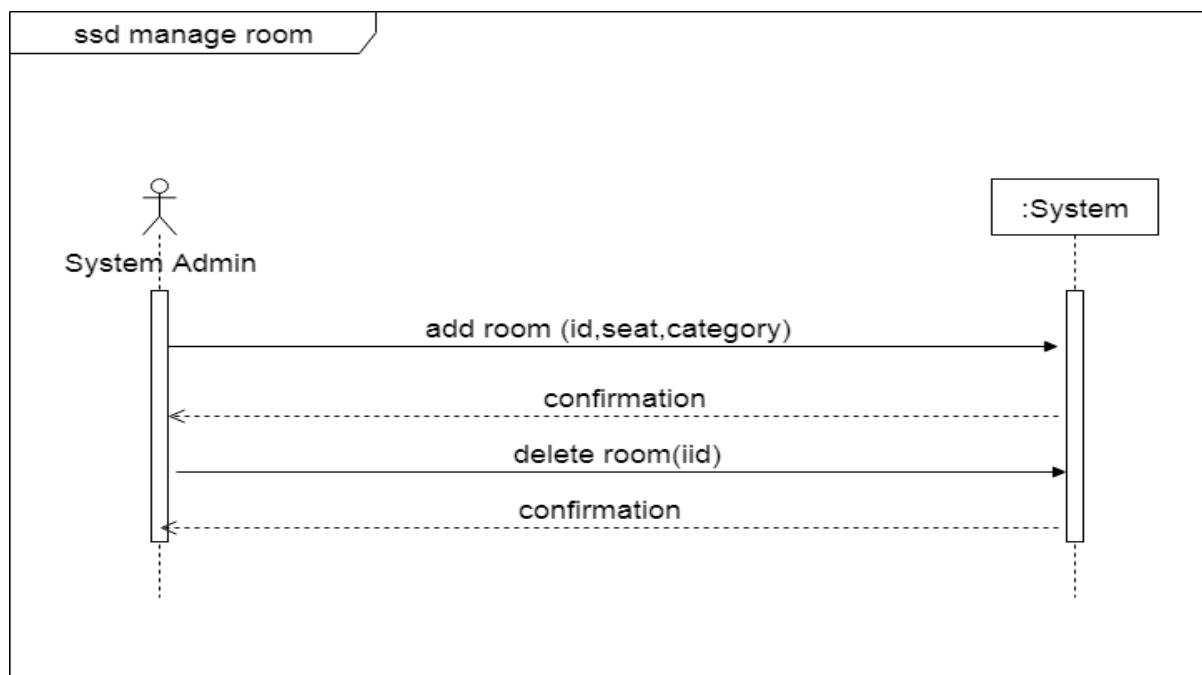### 2.5.1   Manage User

Figure 2.2 SSD to Manage User

2.5.2   Manage Room

Figure 2.3 SSD to Manage Room
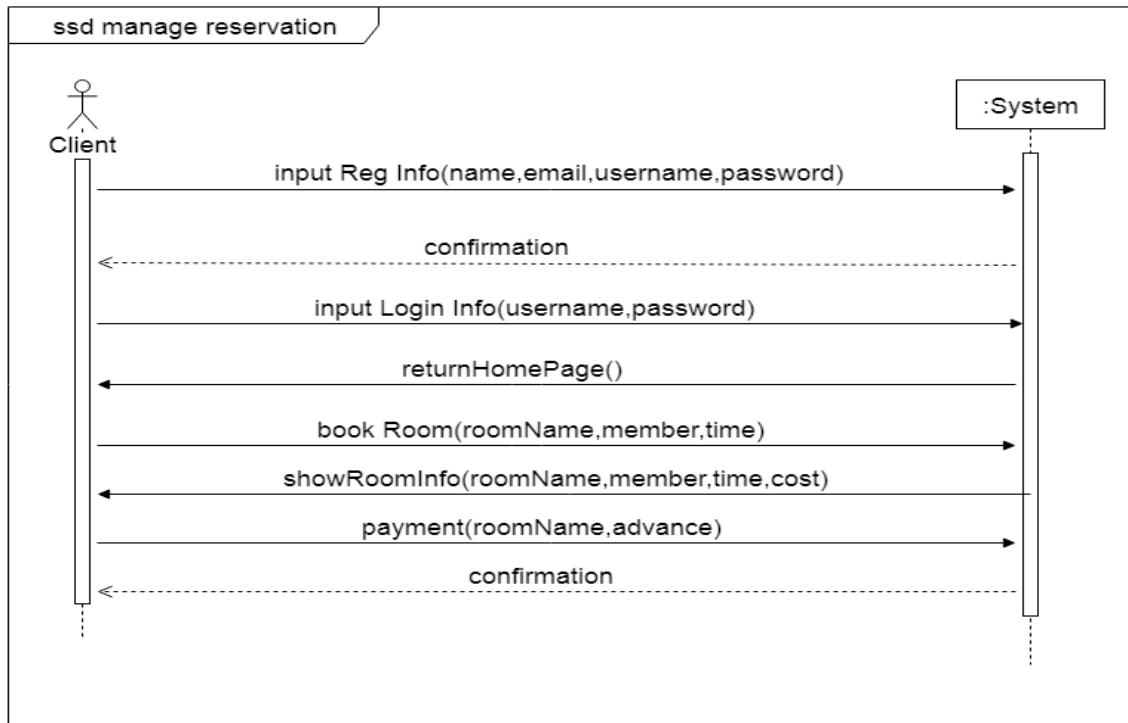
2.5.3   Manage Reservation

Figure 2.4 SSD to Manage Reservation

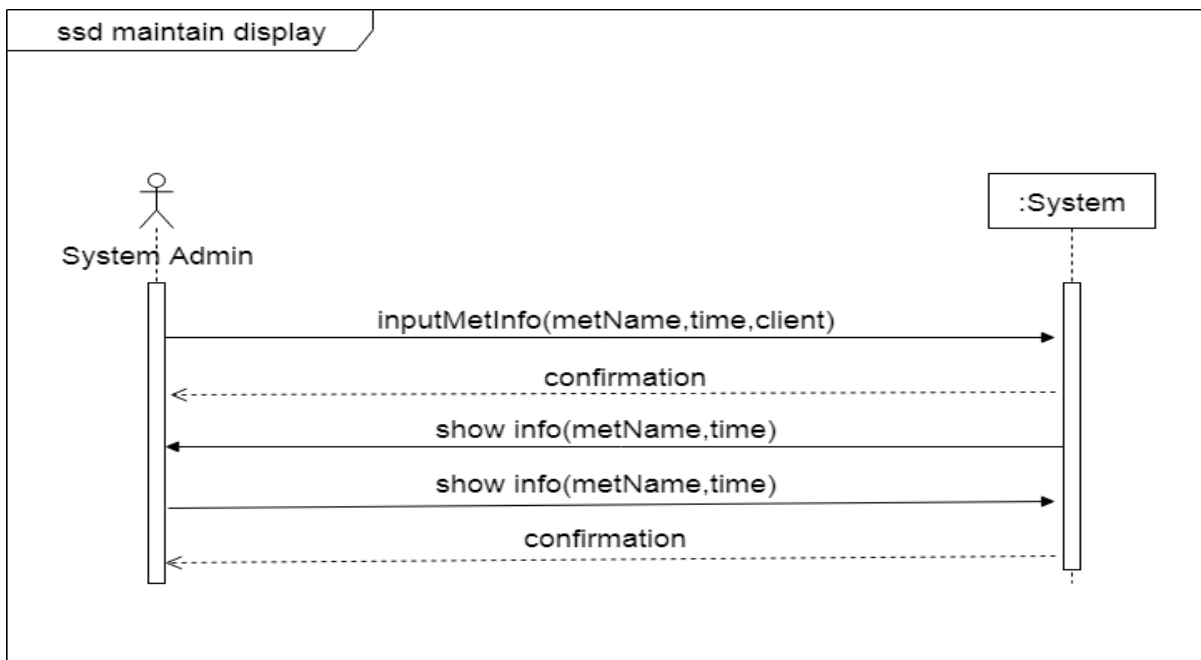### 2.5.4   Maintain Display

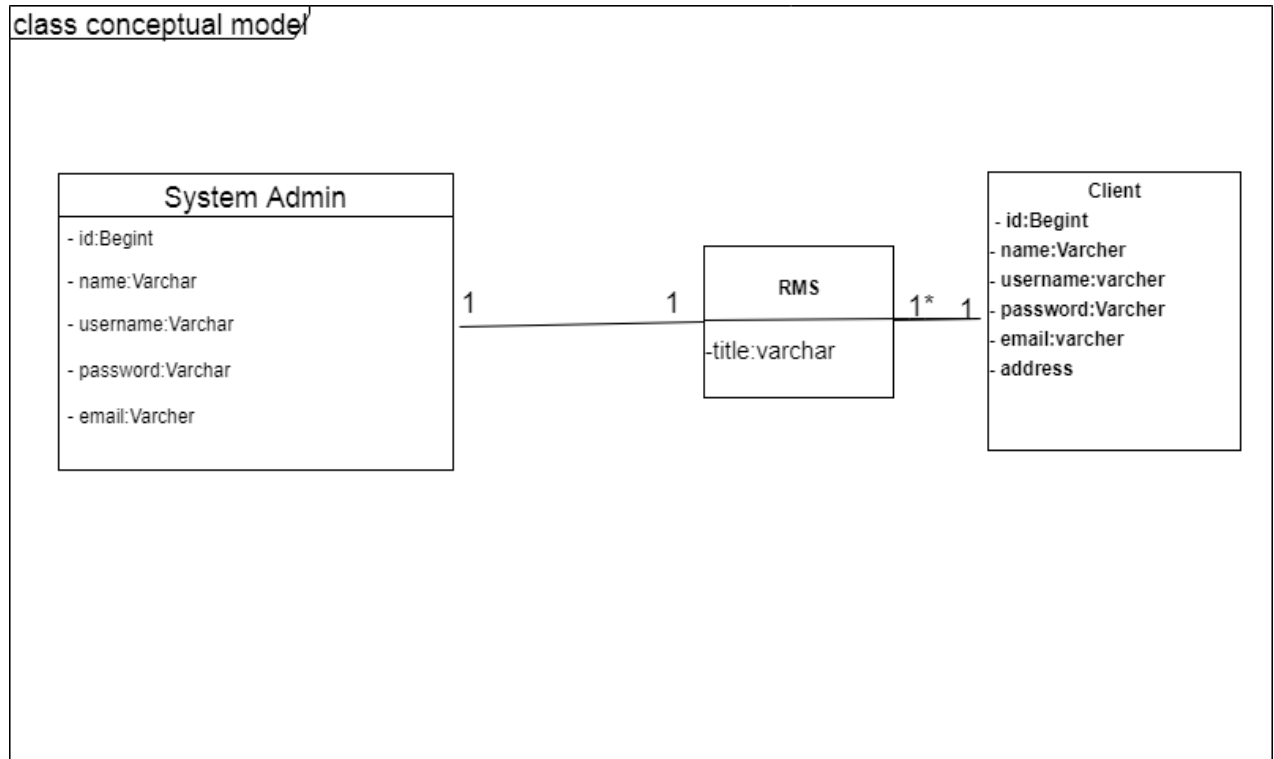**Figure 2.5 SSD to Manage Reservation**

2.6   Domain/Conceptual Model

Figure 2.6 System Domain Model

2.7   Activity diagram

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency.

In the system workflows starts from the stage when an applications enters the area of Federal Shariat Court i.e. uploaded in the system to last activity that is a judgment comes or the case is dismissed .This whole process is shown in the below diagram.
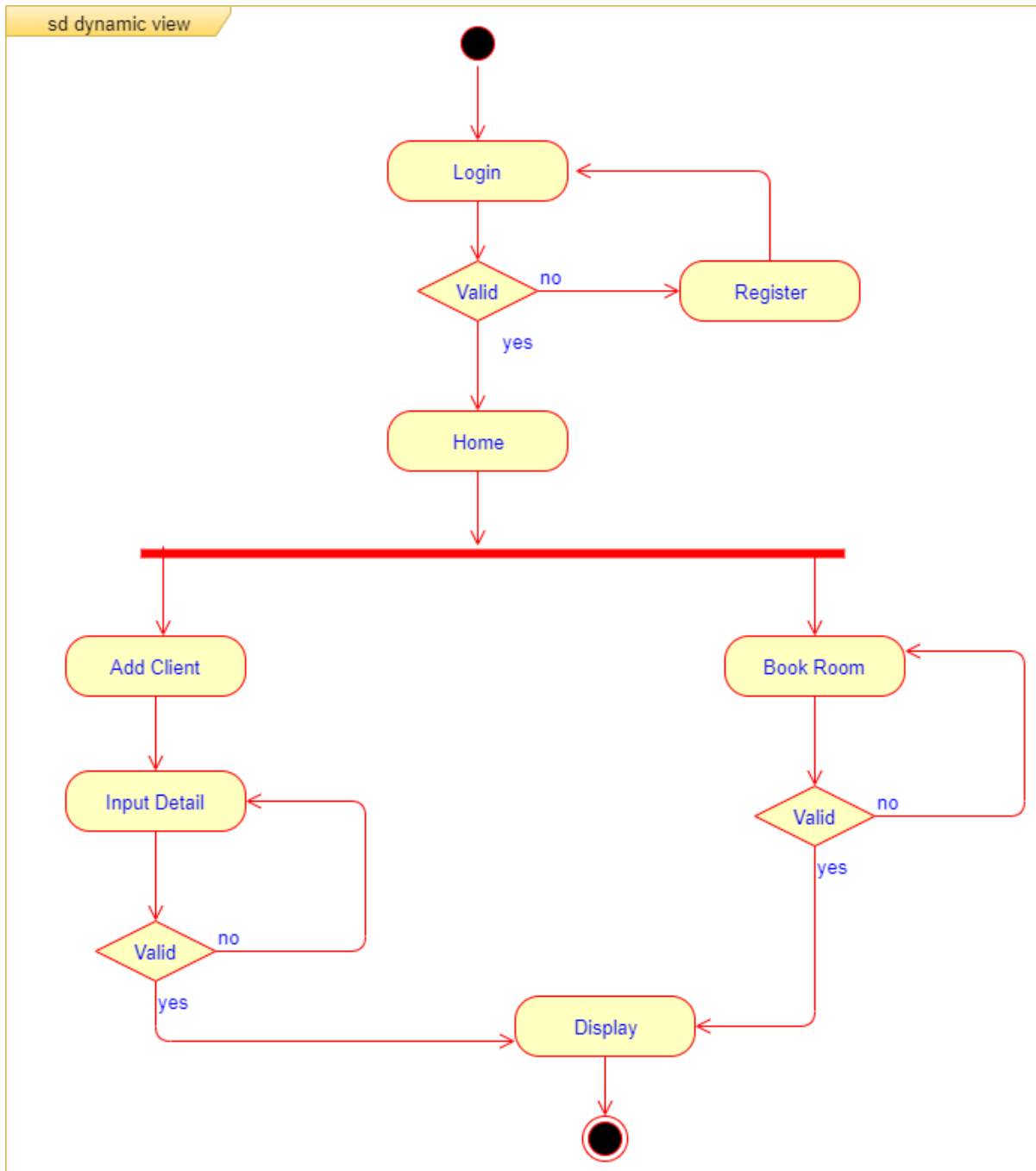
Figure 2.18 Activity Diagram of the system

Chapter 3

System Design

3. System Design

Design is a process that uses the product of analysis to produce a specification for implementing a system. Design is the logical description of how a system will work.

Design emphasizes a conceptual solution that fulfills the requirements, rather than its implementation. For example, a description of a database schema and software objects. Design ideas often exclude low-level or "obvious" details obvious to the intended consumers. Ultimately, designs can be implemented, and the implementation (such as code) expresses the true and complete realized design. The term is best qualified, as in object-oriented design or database design.

3.1   Sequence Diagrams

The UML includes interaction diagrams to illustrate how objects interact via messages. They are used for dynamic object modeling. The term interaction diagram is a generalization of two more specialized UML diagram types:
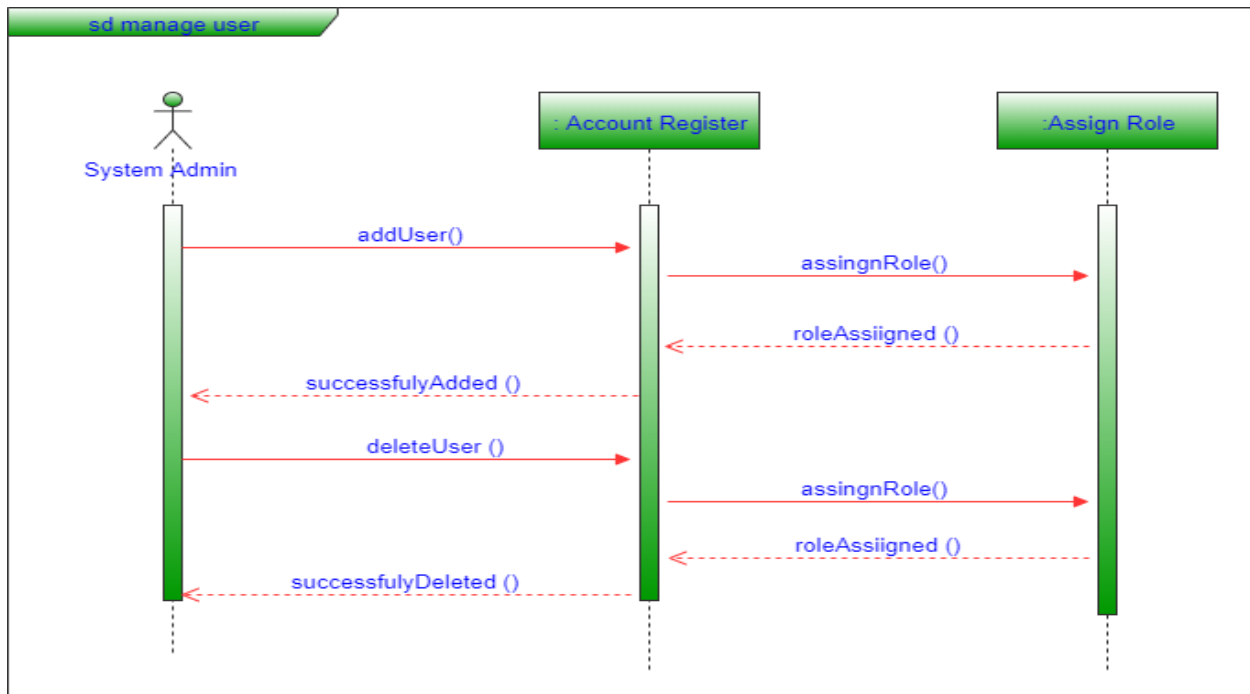
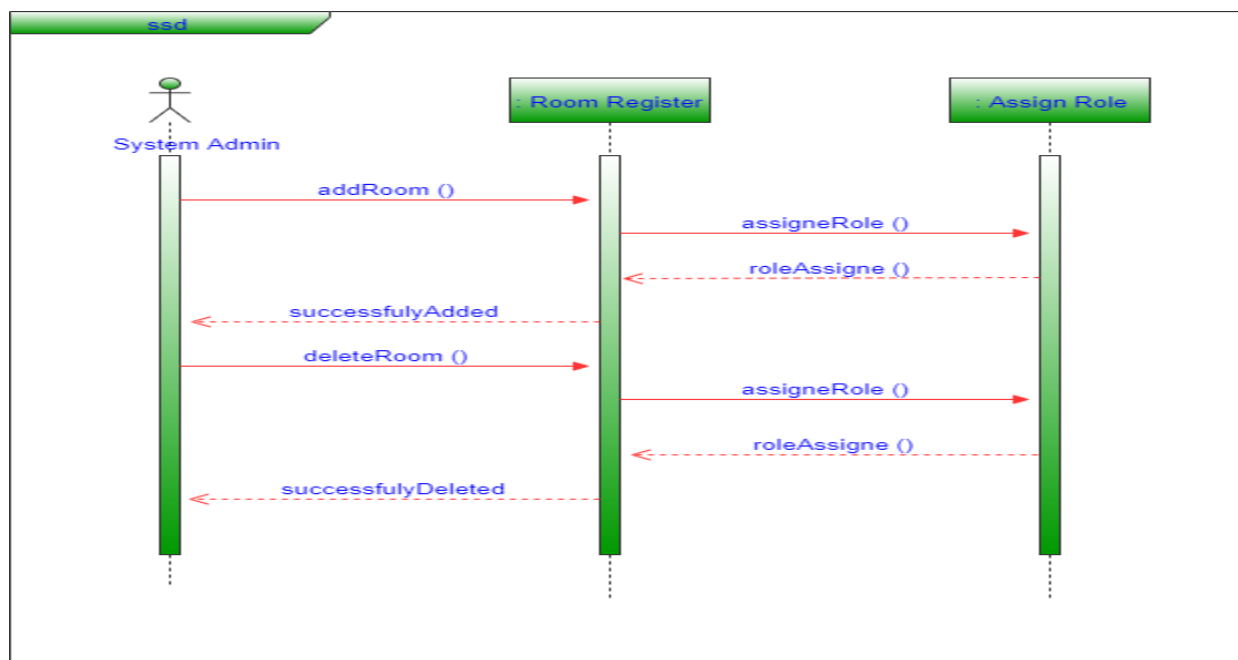### 3.1.1   Manage User

Figure 3.1 SD Manage User

3.1.2 Manage Room

Figure 3.2 SD Manage Room

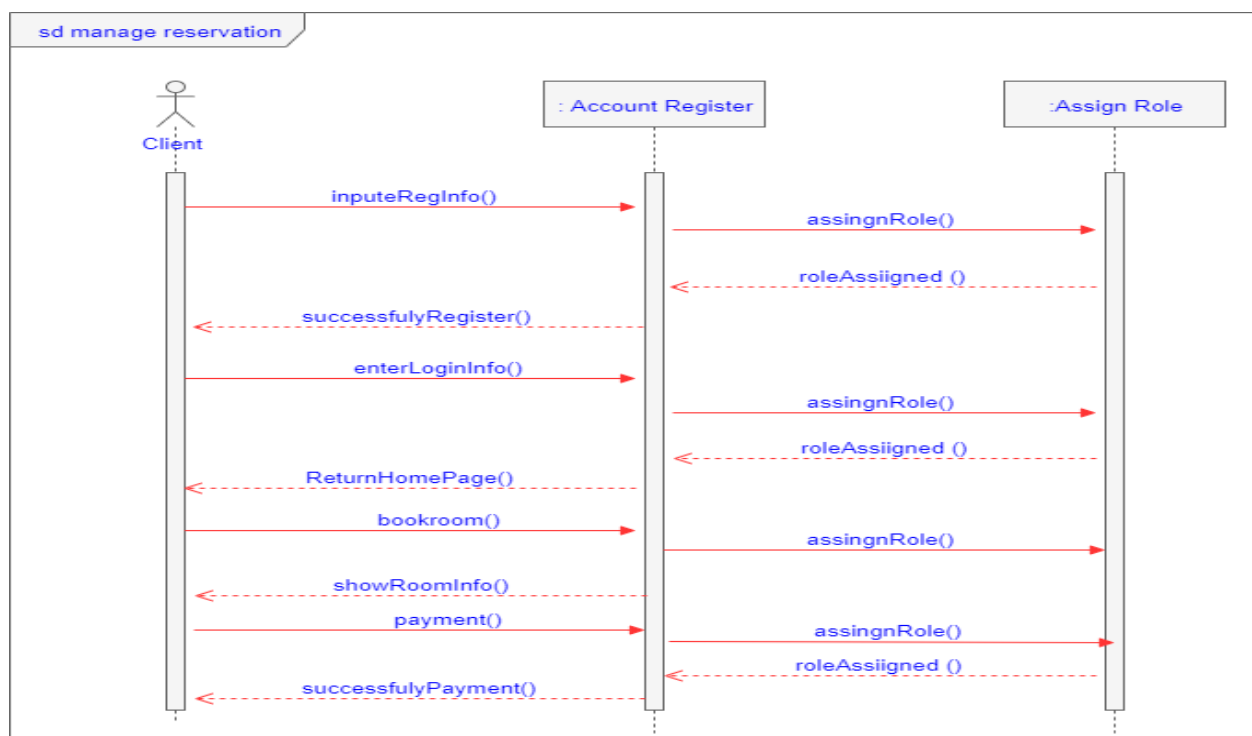### 3.1.3 Manage Reservation

Figure 3.3 SD Manage Reservation

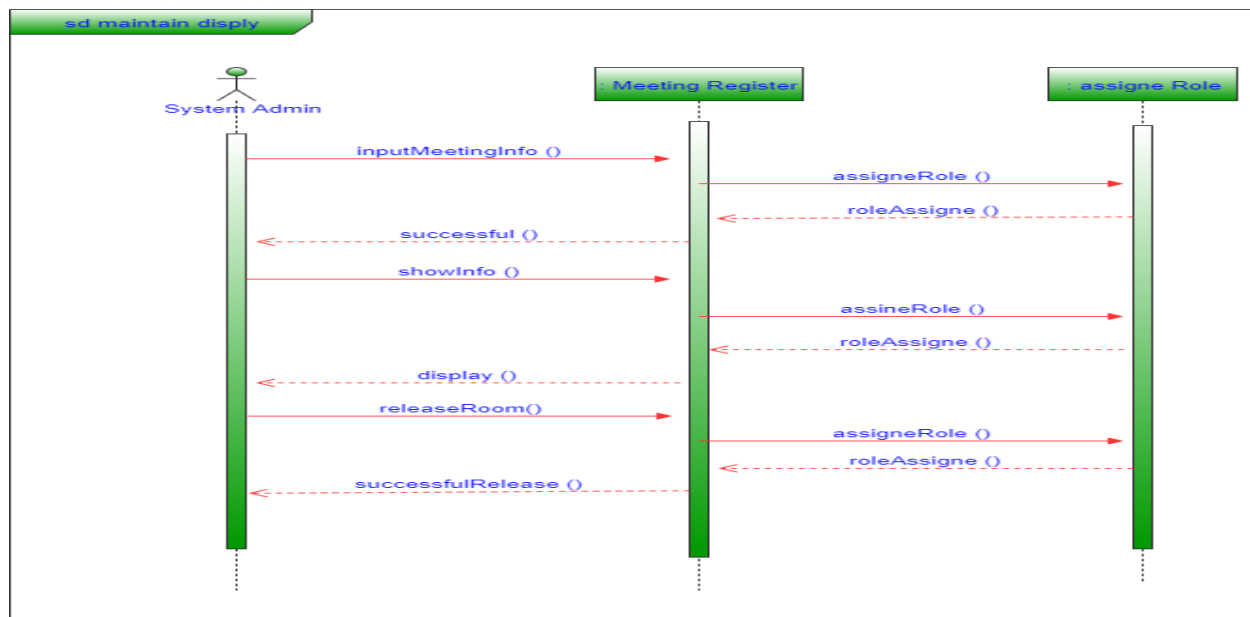### 3.1.4   Maintain Display

Figure 3.4 SD Maintain Display

3.2   Class Diagram

Class or structural diagrams define the basic building blocks of a model. They are used for static object modeling, describing what attributes and behavior it has rather than detailing the methods for achieving operations.
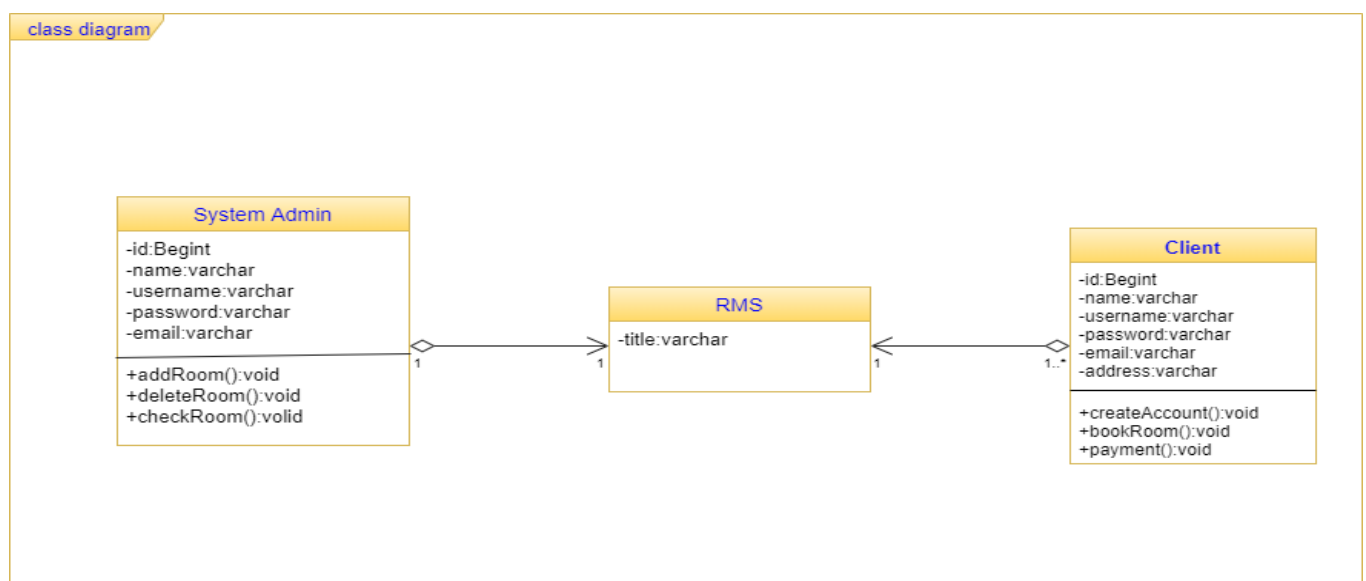

Figure 3.8 Class Diagram of System