

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“JnanaSangama”, Belgaum -590014, Karnataka.



**LAB REPORT**  
**on**

## **OBJECT ORIENTED MODELLING AND DESIGNING**

*Submitted by*

**POTANA KUNDANA SAI PRIYA (1BM19CS112)**

*in partial fulfillment for the award of the degree of*  
**BACHELOR OF ENGINEERING**

*in*  
**COMPUTER SCIENCE AND ENGINEERING**



**B.M.S. COLLEGE OF ENGINEERING**

(Autonomous Institution under VTU)

**BENGALURU-560019**

**April-2022 to July-2022**

**B. M. S. College of Engineering,**  
**Bull Temple Road, Bangalore 560019**  
(Affiliated To Visvesvaraya Technological University, Belgaum)  
**Department of Computer Science and Engineering**



**CERTIFICATE**

This is to certify that the Lab work entitled “OBJECT ORIENTED DESIGNING AND MODELLING” carried out by **POTANA KUNDANA SAI PRIYA (1BM18CS112)**, who is bonafide student of **B. M. S. College of Engineering**. It is in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visvesvaraya Technological University, Belgaum during the academic year 2021-2022. The Lab report has been approved as it satisfies the academic requirements in respect of a **object oriented modelling and designing - (20CS6PCOMD)** work prescribed for the said degree.

Dr. Nandhini Vineeth  
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Department of CSE  
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### Index Sheet

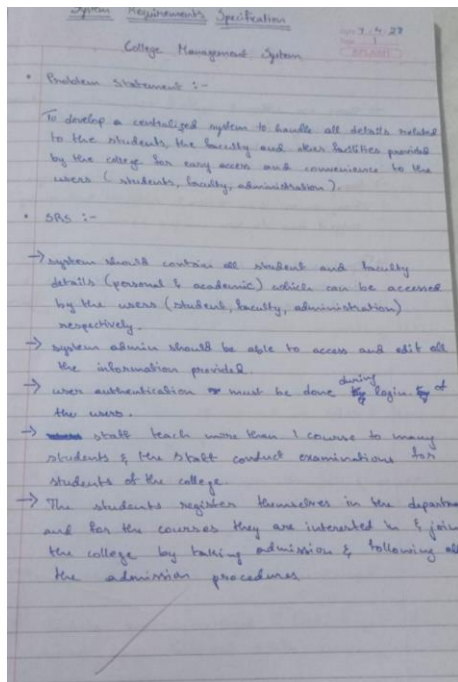
Sl. No.	Experiment Title	Page No.
1	COLLEGE MANAGEMENT SYSTEM	
2	HOSTEL MANAGEMENT SYSTEM	
3	STOCK MANAGEMENT SYSTEM	
4	COFFEE VENDING SYSTEM	
5	ONLINE SHOPPING SYSTEM	
6	RAIWAY RESERVATION SYSTEM	
7	GRAPHICS EDITOR SYSTEM	

### Course Outcome

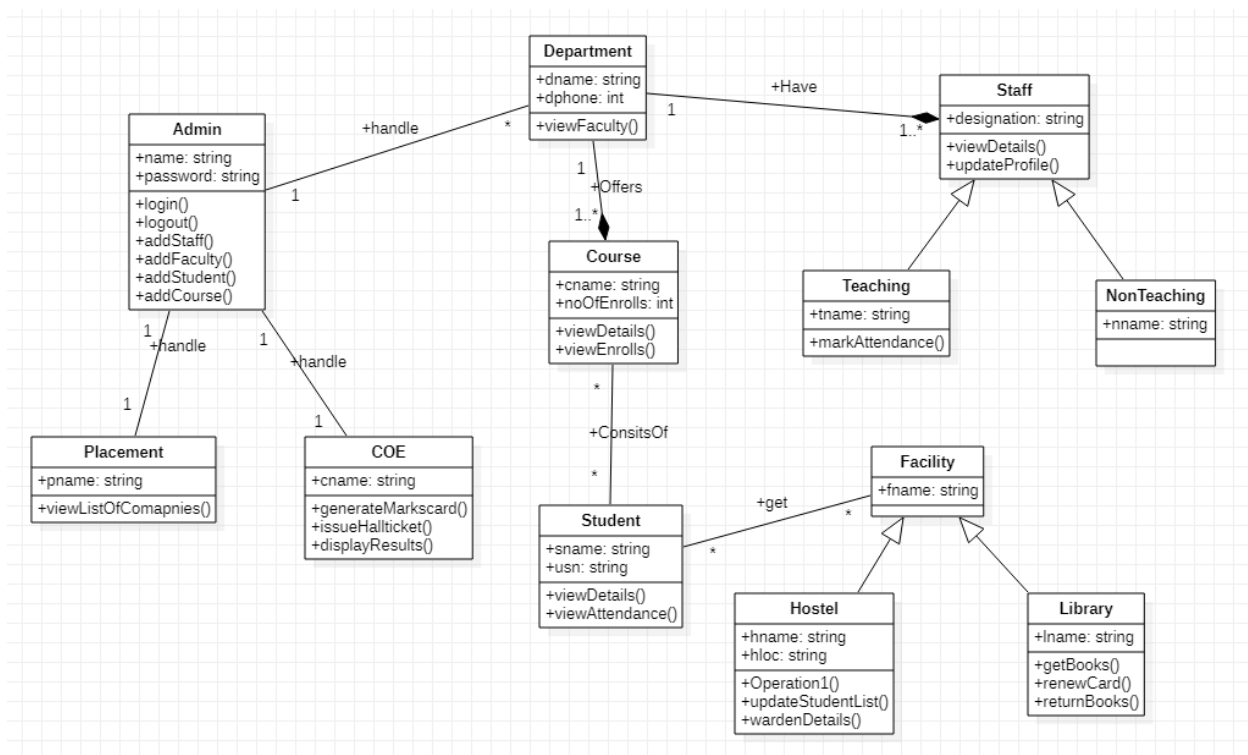
CO4	Ability to conduct practical experiment to solve a given problem using Unified Modeling language.
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## Exercise 1:

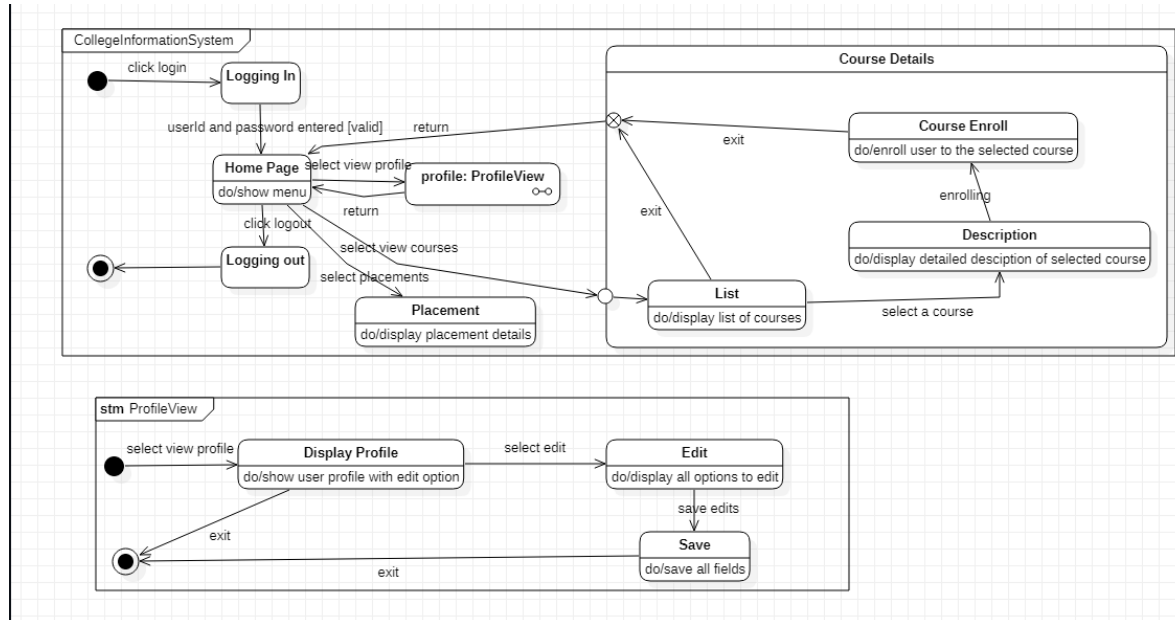
### 1. SRS



### 2. Advanced class diagram

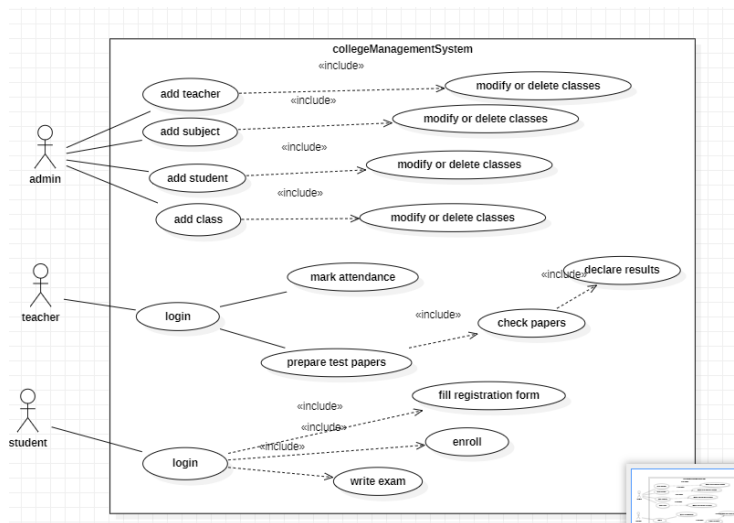


### 3. Advanced state diagram



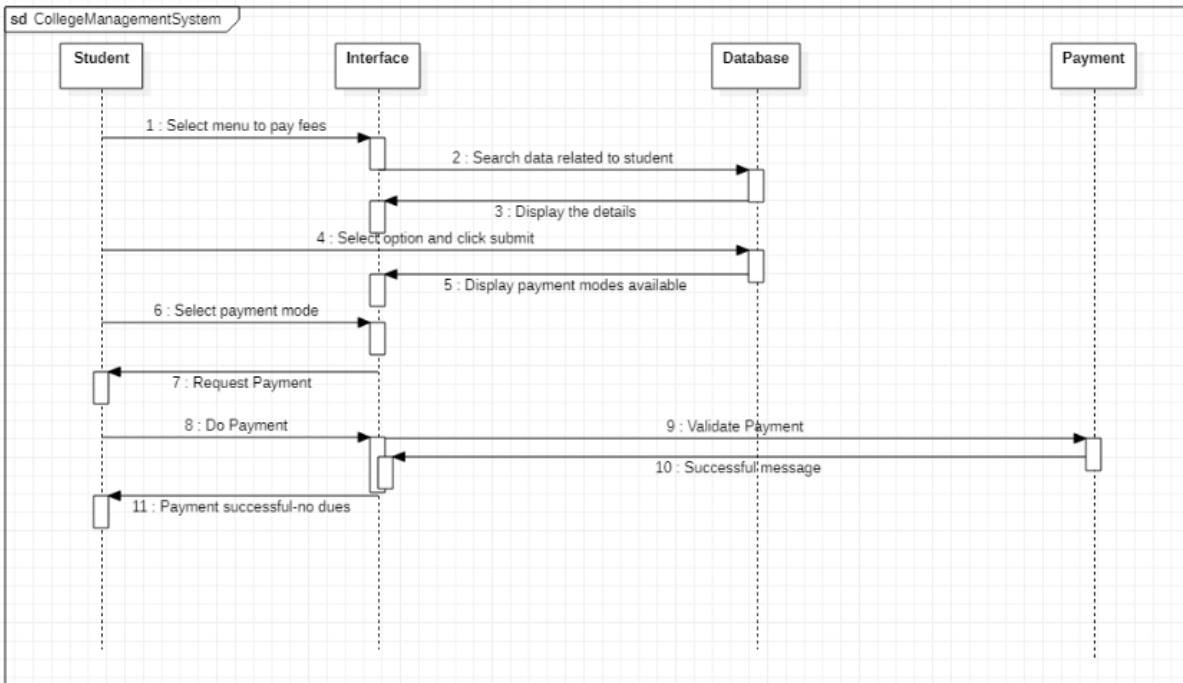
**Scenario: system login, view home page, profile, placement, course list and enroll course.**

### 4. Advanced use case diagram



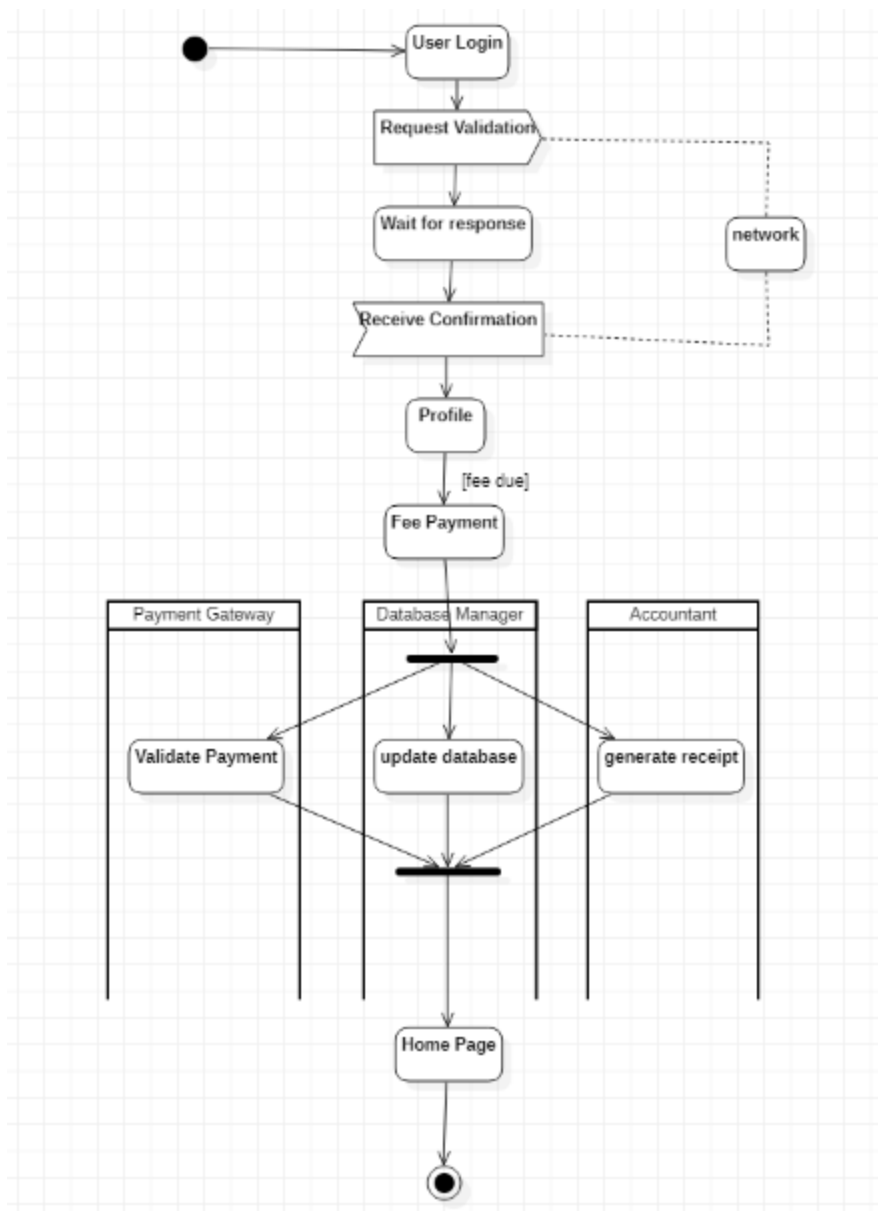
**Scenario: teacher and student can login, teacher can mark attendance, can set papers. Student can write papers, enroll, fill registration form.**

## 5. Advanced sequence diagram



**Scenario: student fee payment**

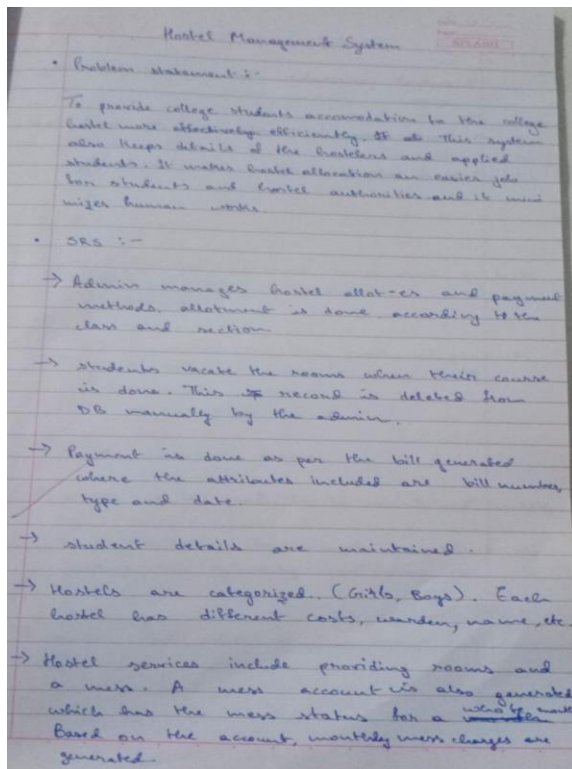
## 6. Advanced activity diagram



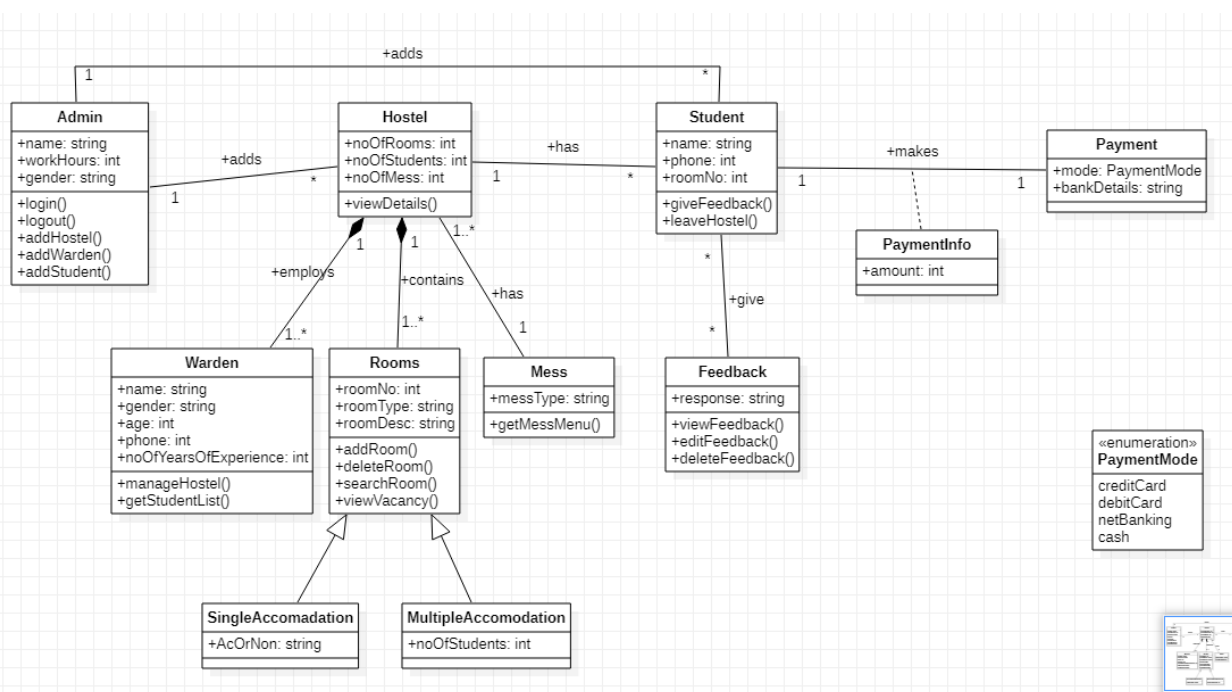
**Scenario: student fees payment**

## Exercise 2:

### 1. SRS

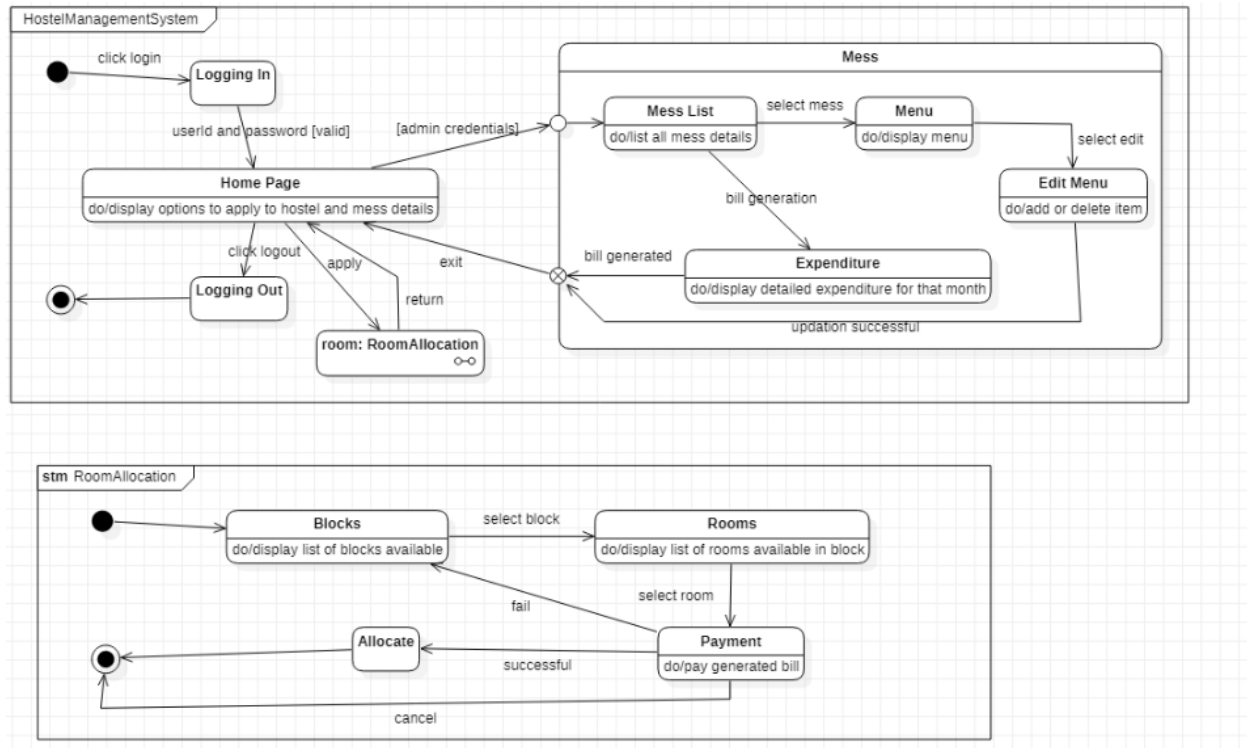


### 2. Advanced class diagram



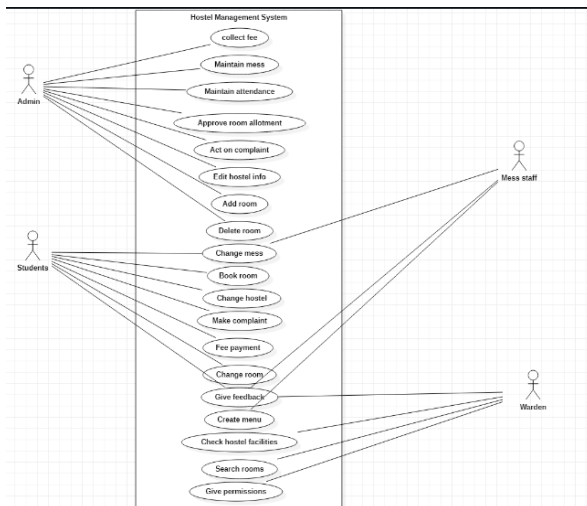


### 3. Advanced state diagram



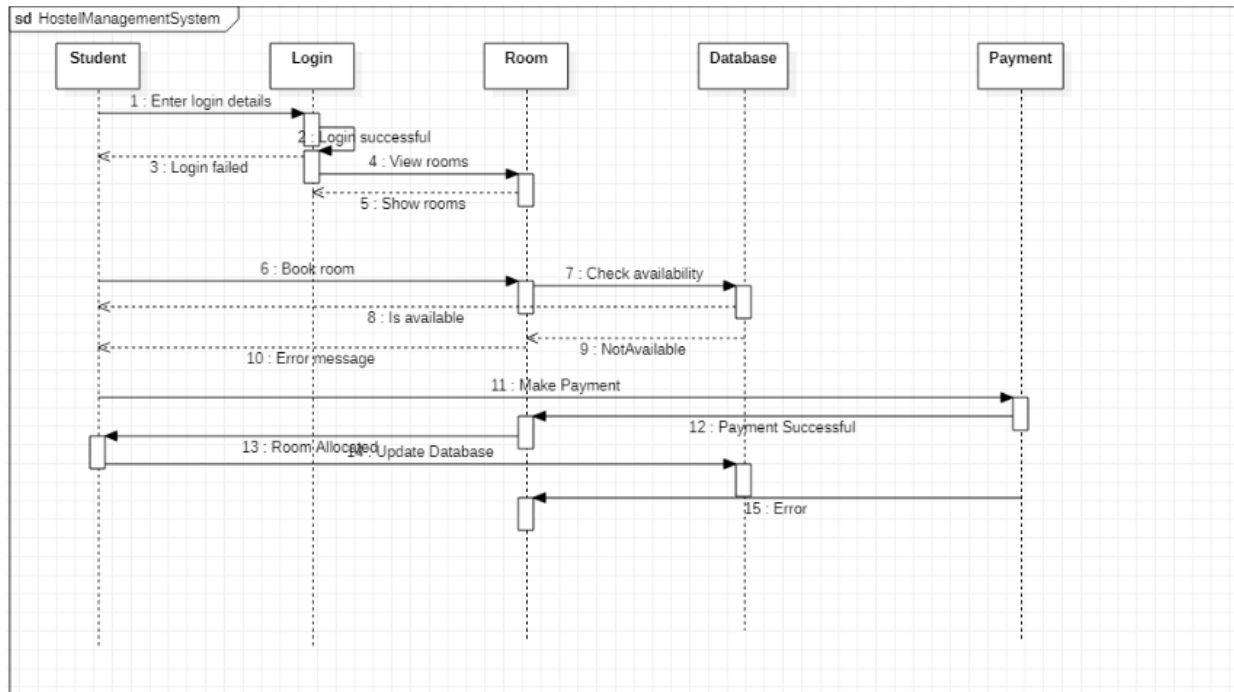
**Scenario: admin can allot rooms and edit mess menu.**

### 4. Advanced use case diagram



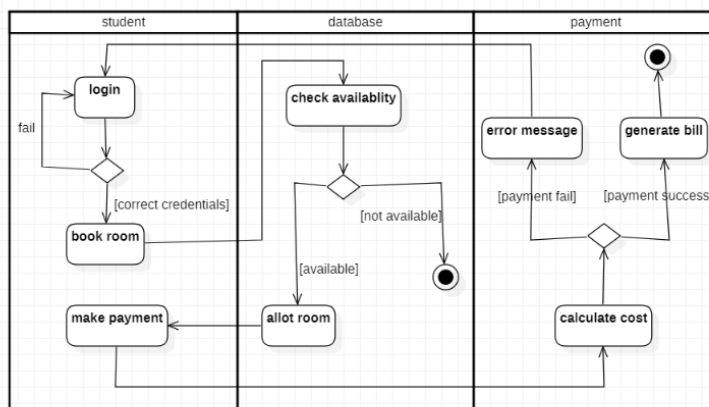
**Scenario: admin can manipulate hostel data. Student can use hostel amenities, warden can monitor the hostel, mess staff can take care of the mess.**

## 5. Advanced sequence diagram



**Scenario: student can view available rooms, book and pay for a room.**

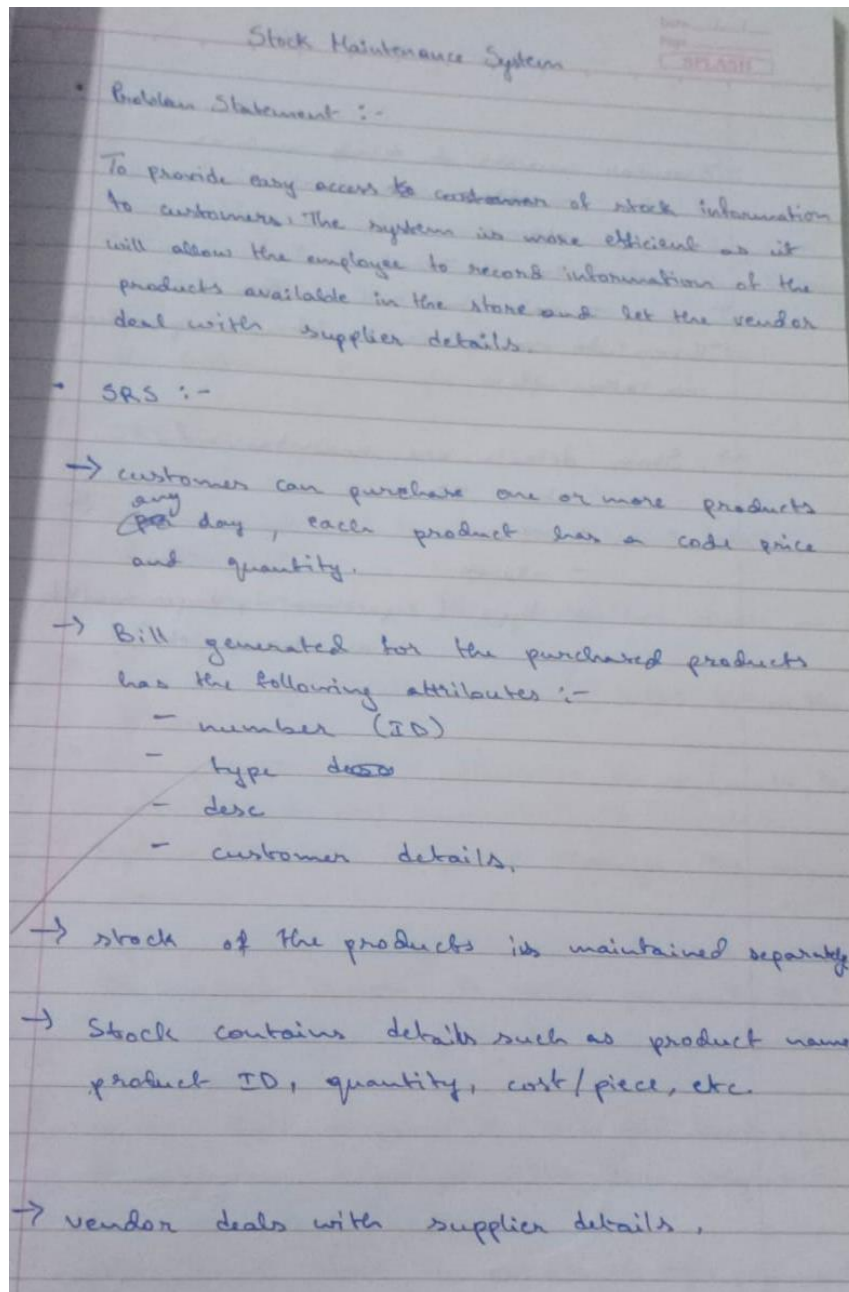
## 6. Advanced activity diagram



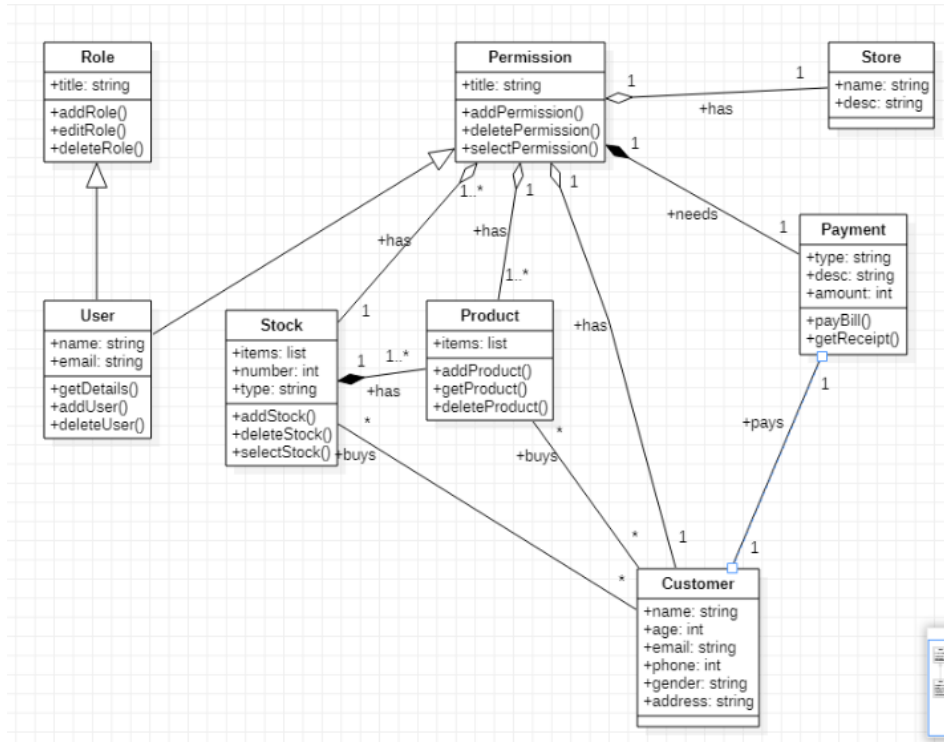
**Scenario: room allotment to a student**

## Exercise 3:

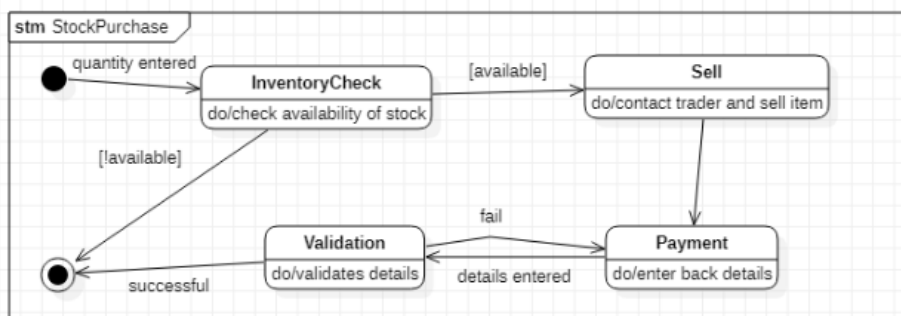
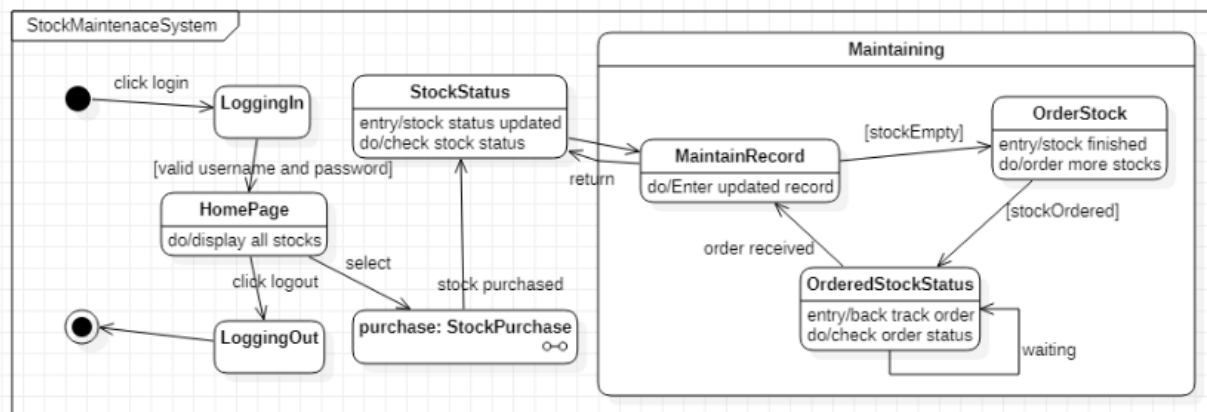
### 1. SRS



## 2. Advanced class diagram

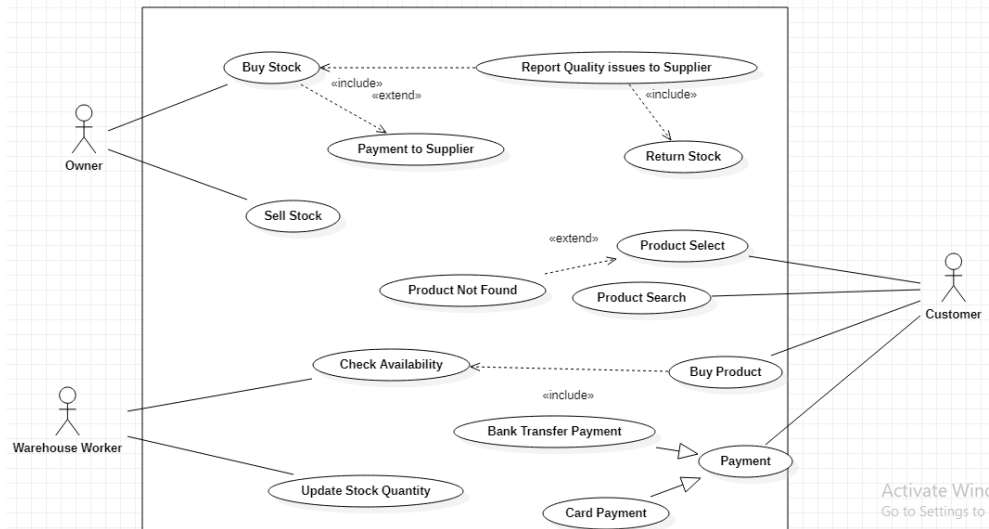


## 3. Advanced state diagram



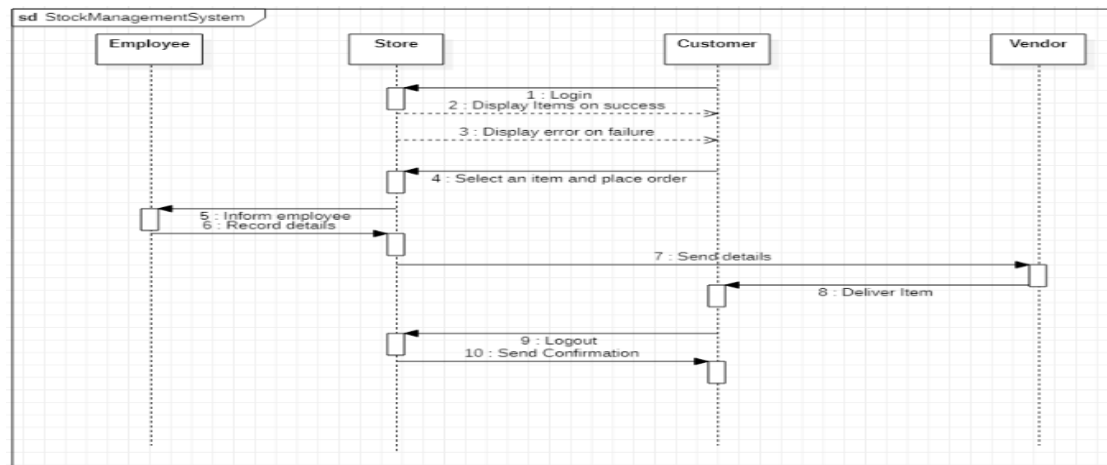
**Scenario: user can login, view home page, stock status and purchase stocks.**

#### 4. Advanced use case diagram



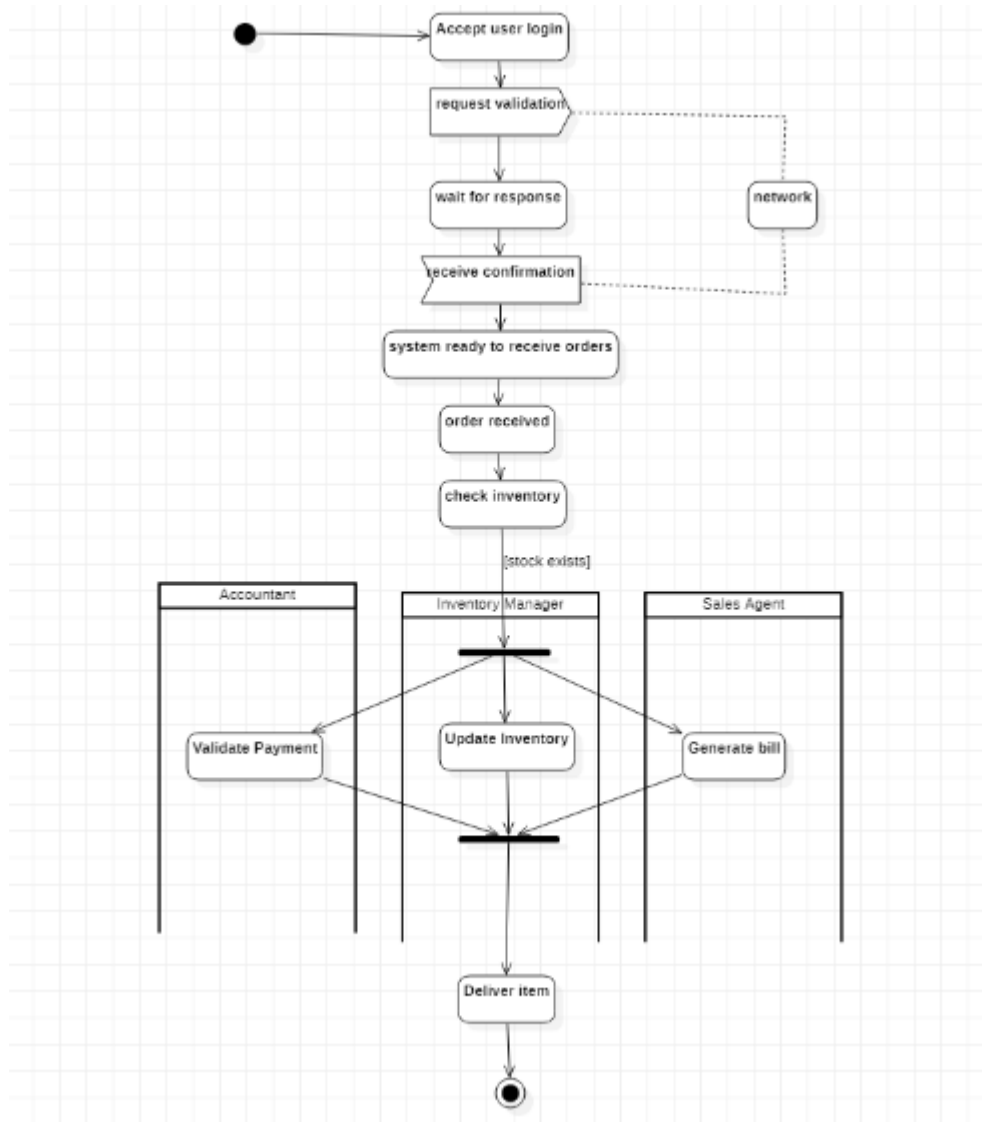
**Scenario: owner can sell or buy stock, warehouse worker can check product availability and update stock quality, customer can buy product.**

#### 5. Advanced sequence diagram



**Scenario: customer buying product and store delivering the product.**

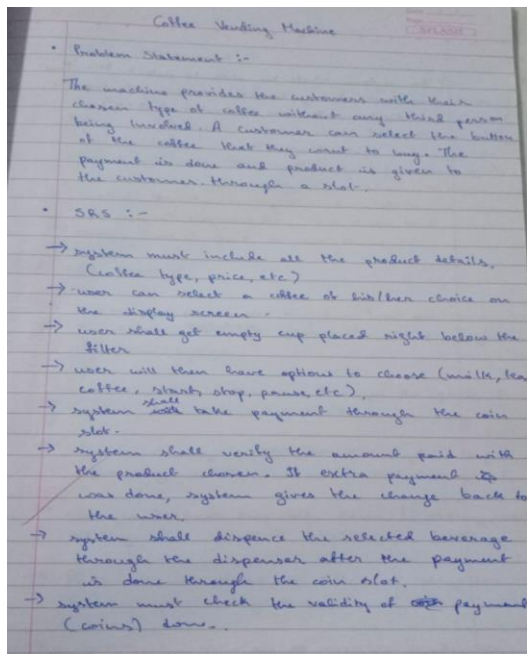
## **6. Advanced activity diagram**



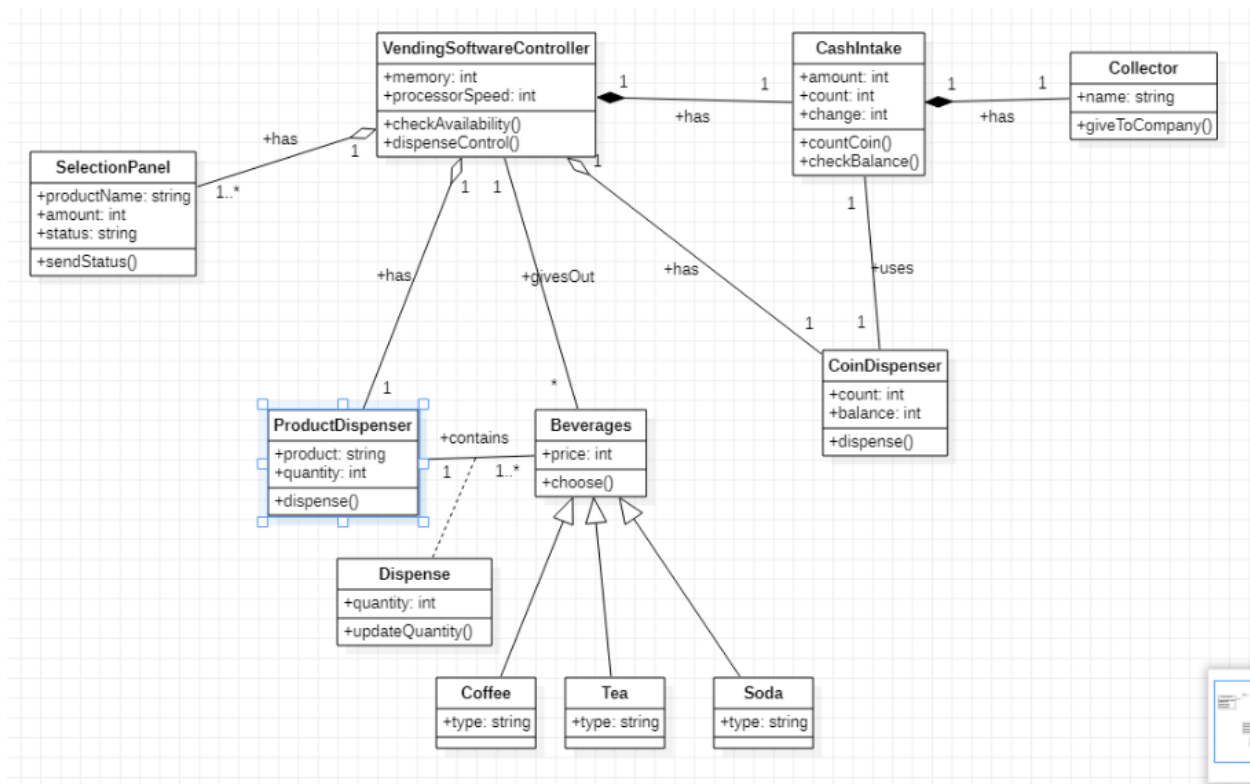
**Scenario: store receiving order and checking for product availability and deliver it.**

## Exercise 4:

### 1. SRS

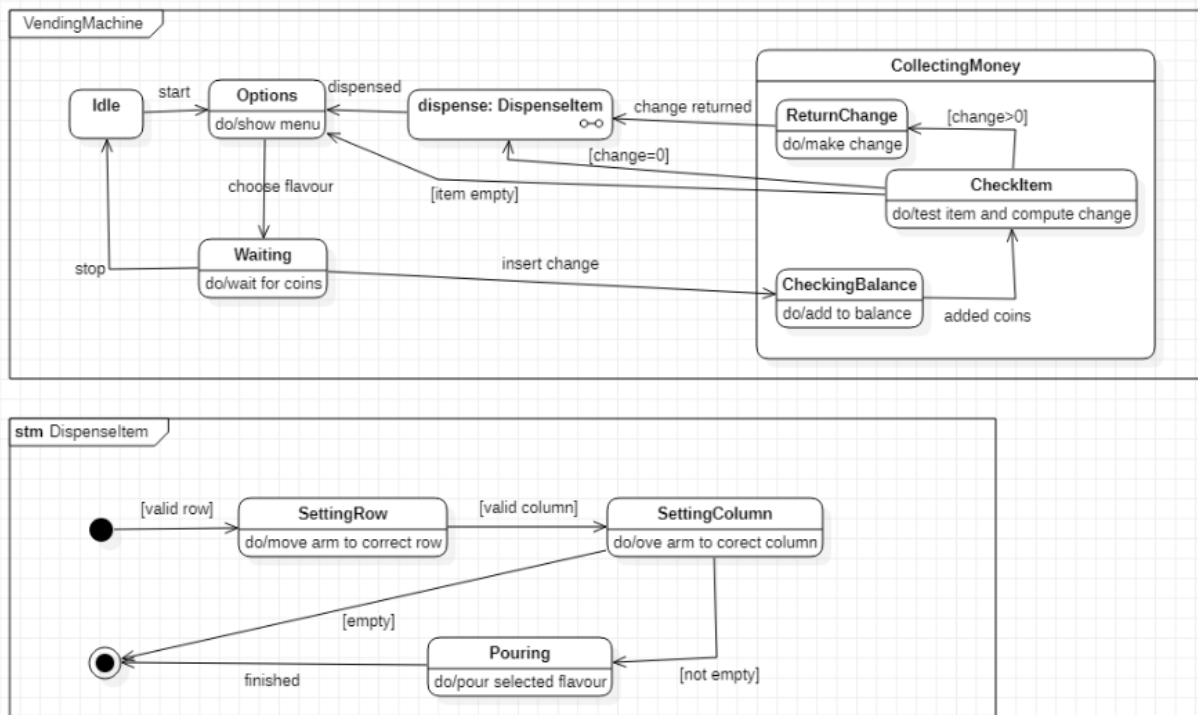


### 2. Advanced class diagram



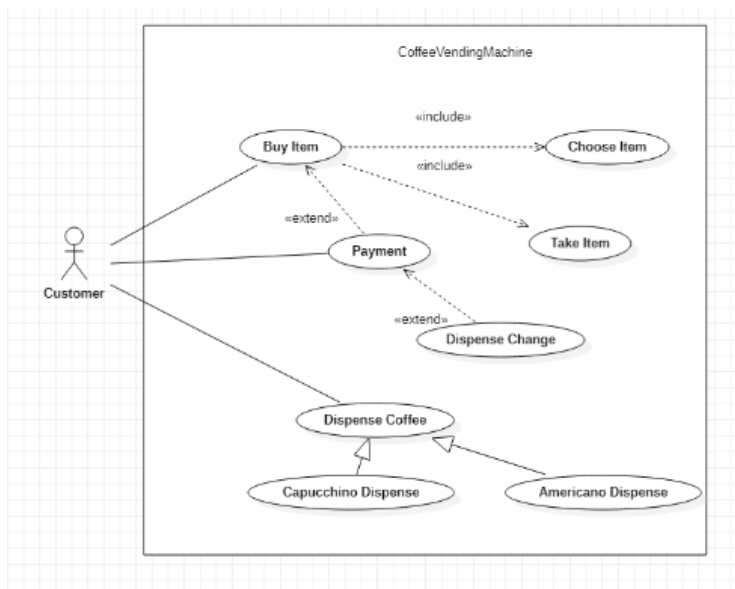


### 3. Advanced state diagram



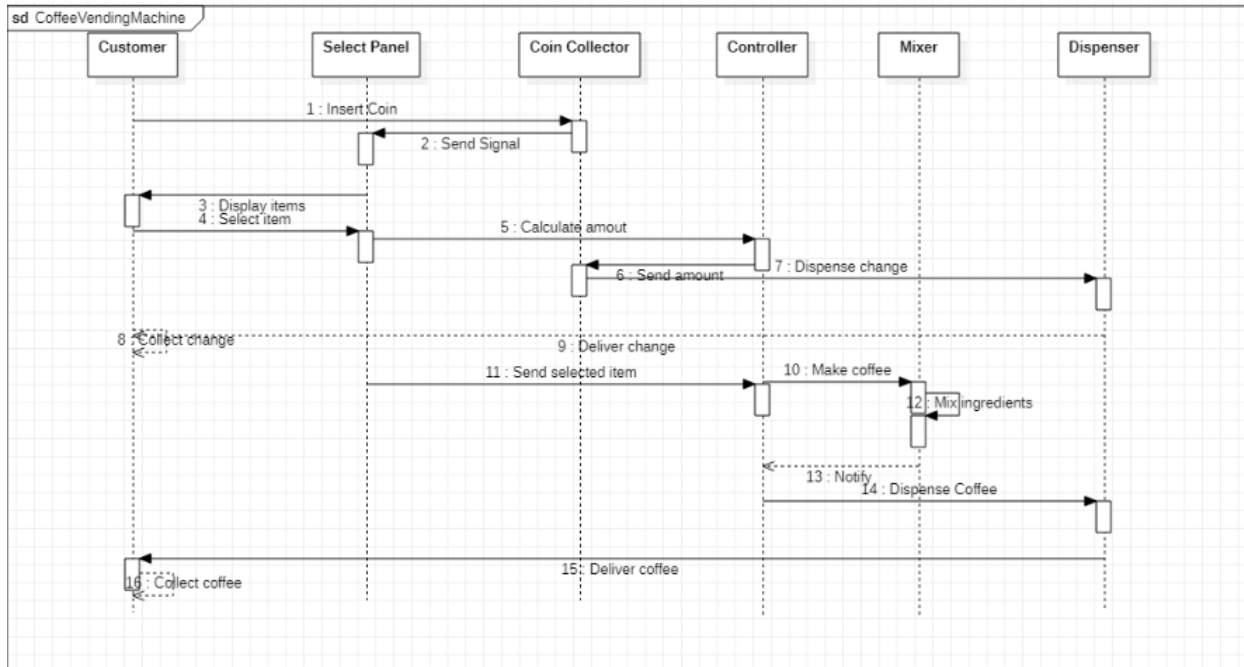
**Scenario:** system displays menu, dispense the chosen item.

### 4. Advanced use case diagram



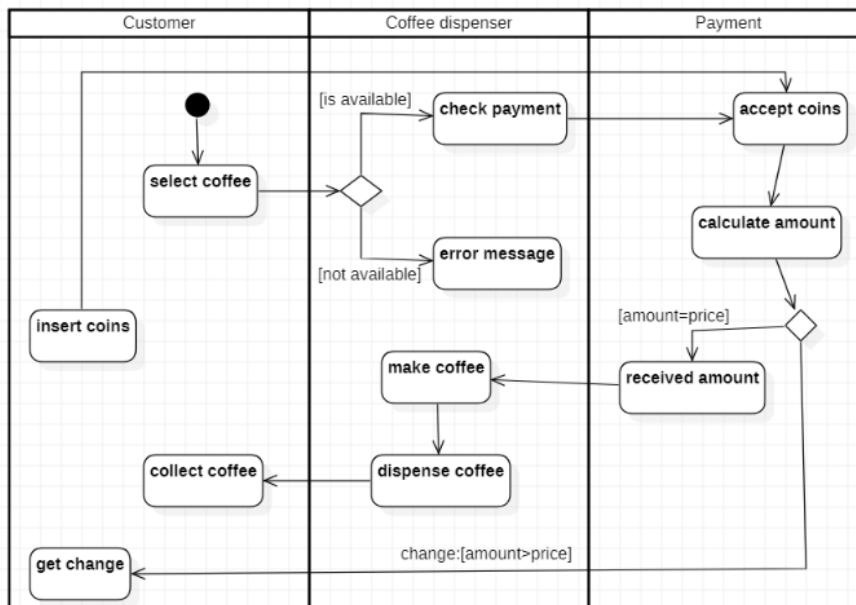
**Scenario:** customer can buy item.

## 5. Advanced sequence diagram



**Scenario:** customer can select item, dispense and pay for it.

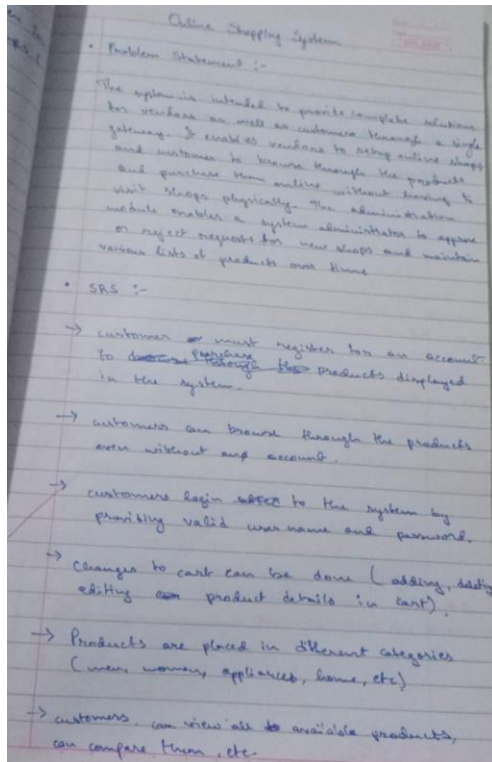
## 6. Advanced activity diagram



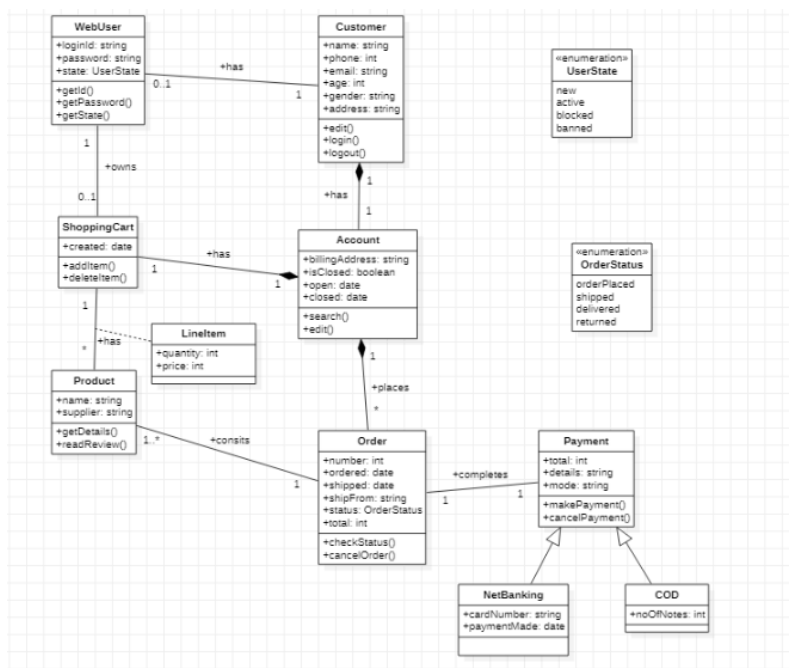
**Scenario:** customer can select and pay for the item, dispenser can dispense it.

## Exercise 5:

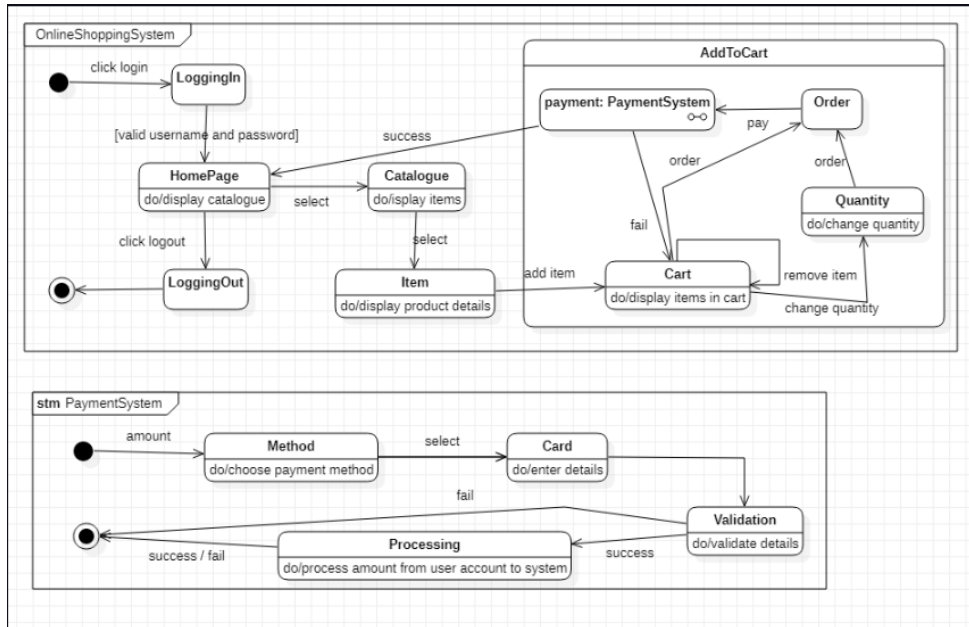
### 1. SRS



### 2. Advanced class diagram

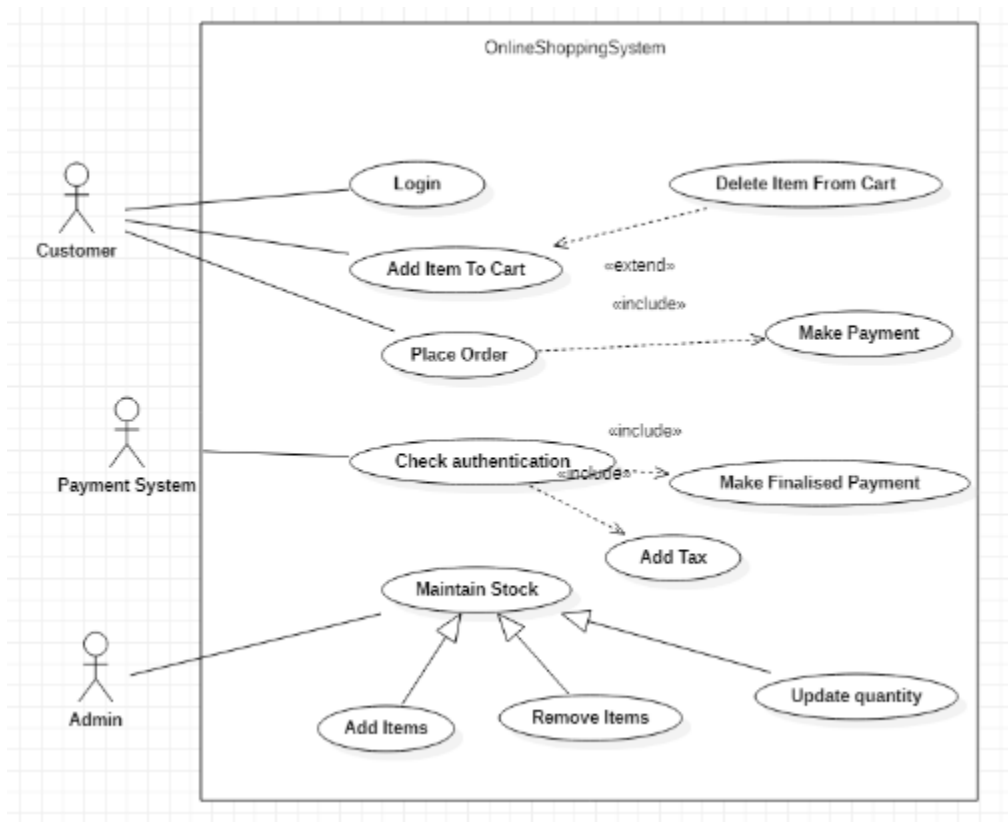


### 3. Advanced state diagram



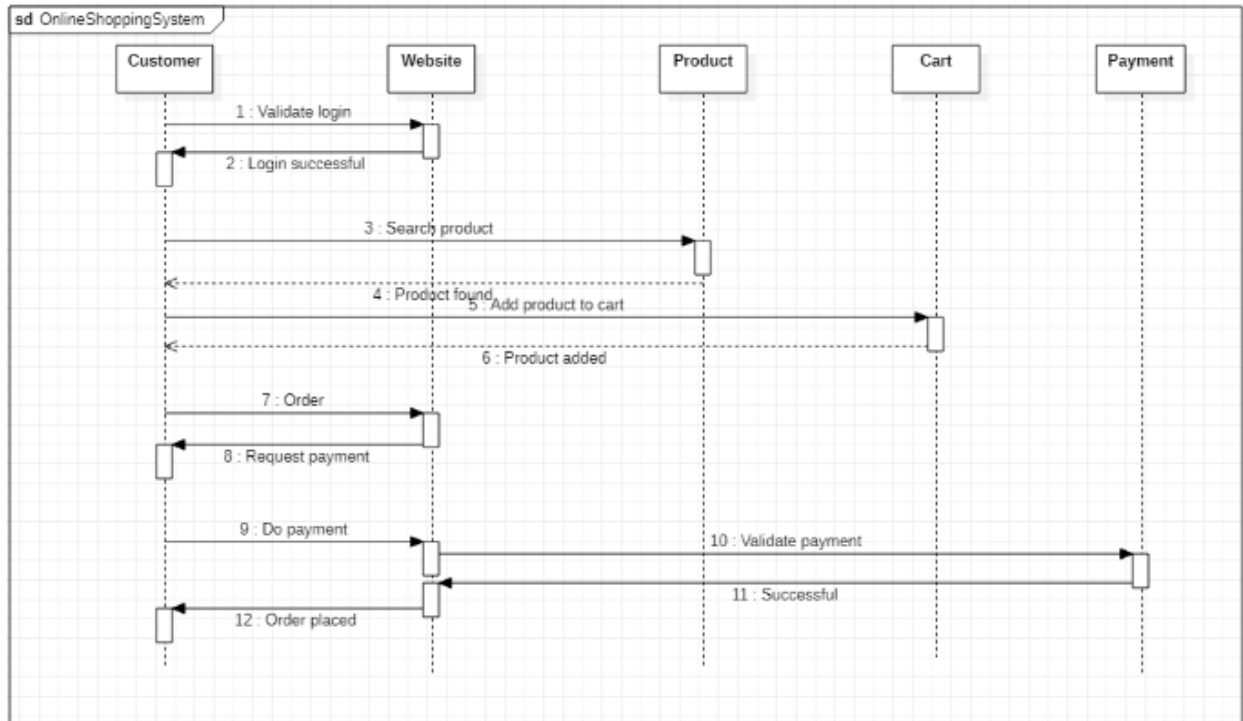
**Scenario: user can view home page, add item to cart and pay for it.**

### 4. Advanced use case diagram



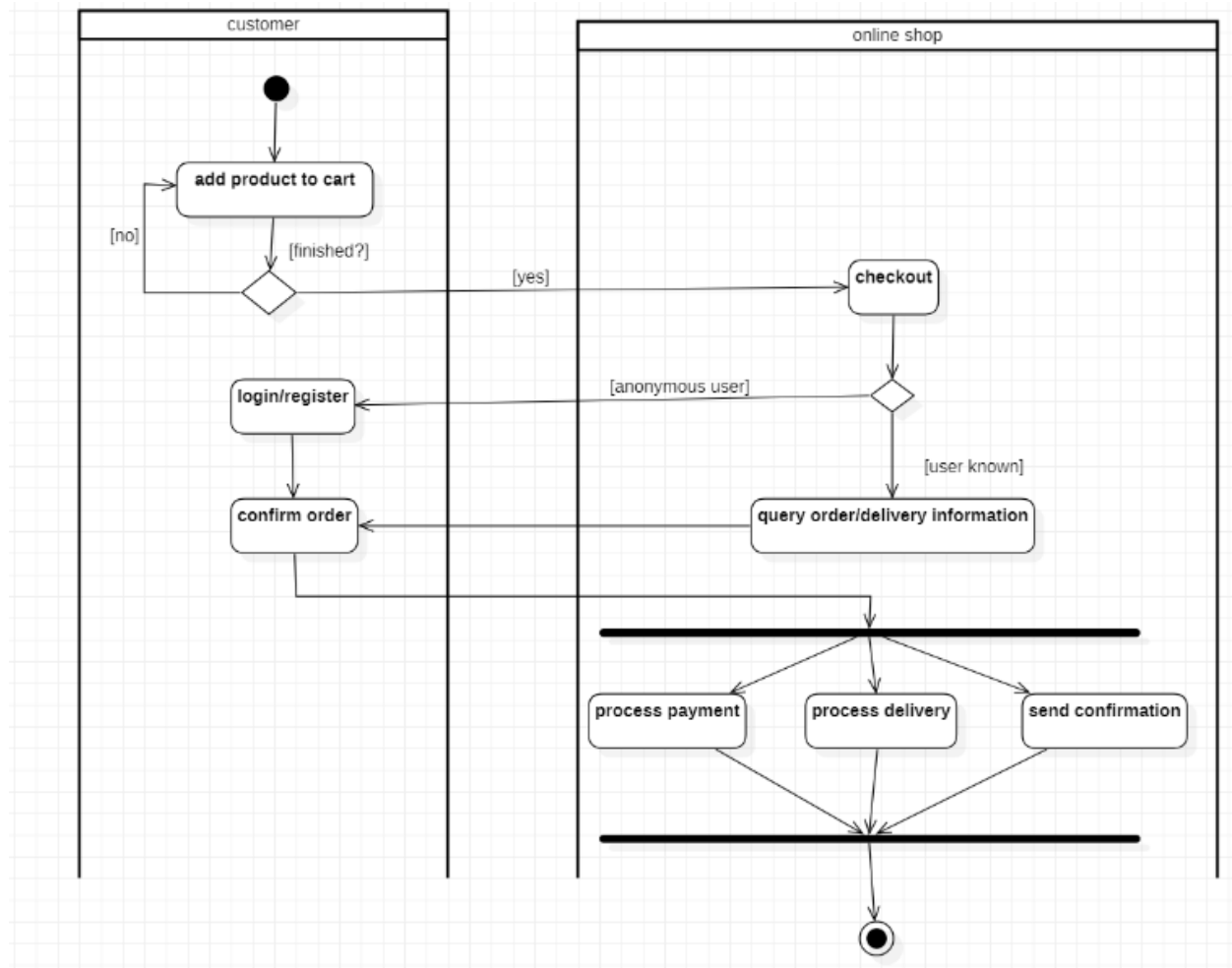
**Scenario: admin maintains stock, payment system can authenticate, customer can login, place order.**

## 5. Advanced sequence diagram



**Scenario: customer orders a product.**

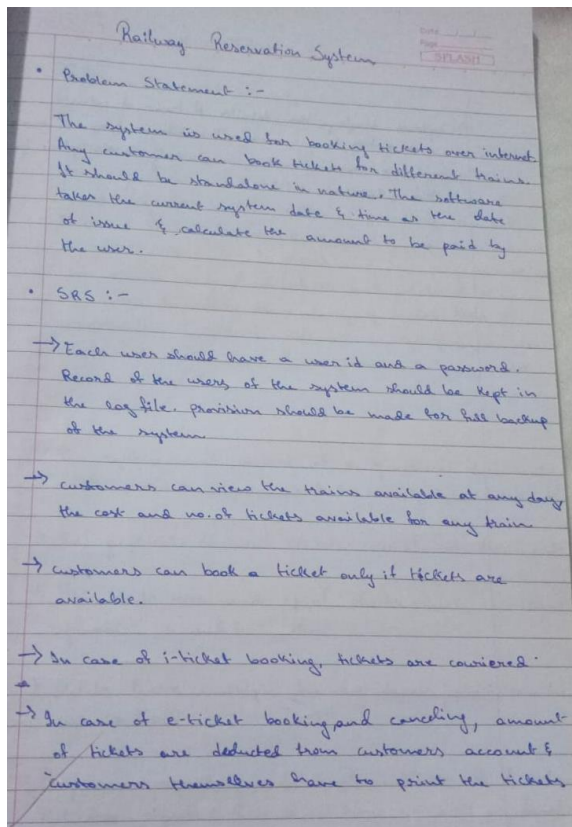
## 6. Advanced activity diagram



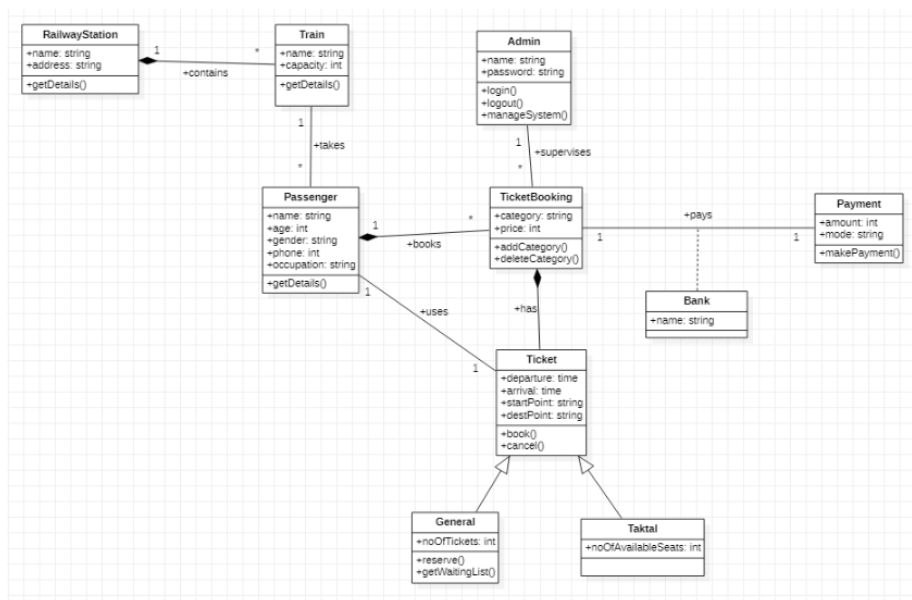
**Scenario:** customer ordering a product and online shop delivering it.

## Exercise 6:

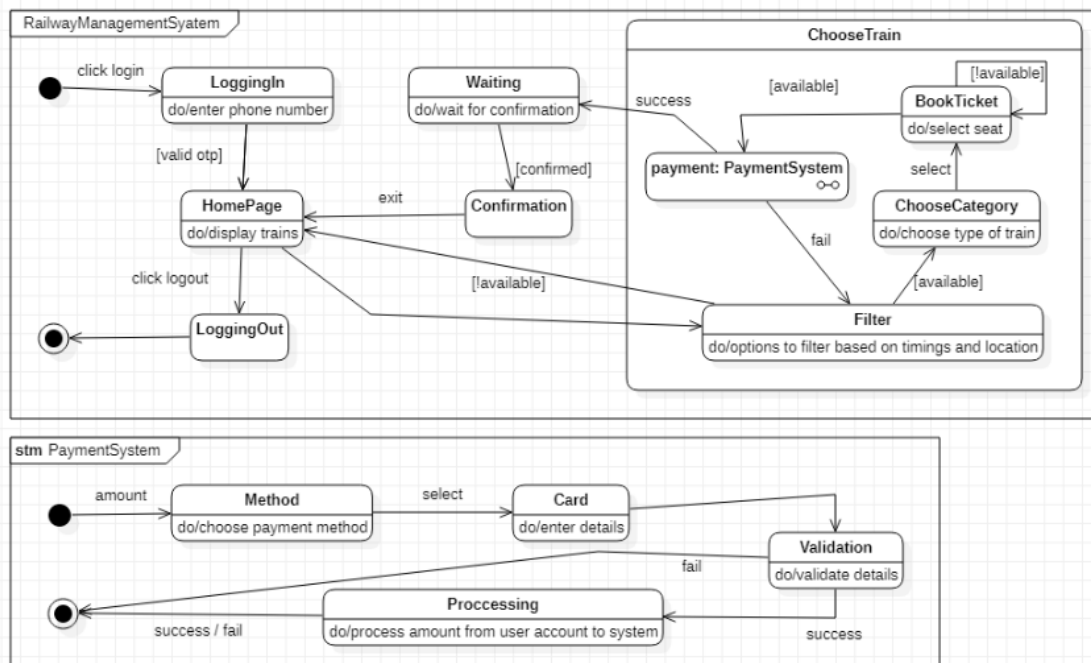
### 1. SRS



### 2. Advanced class diagram

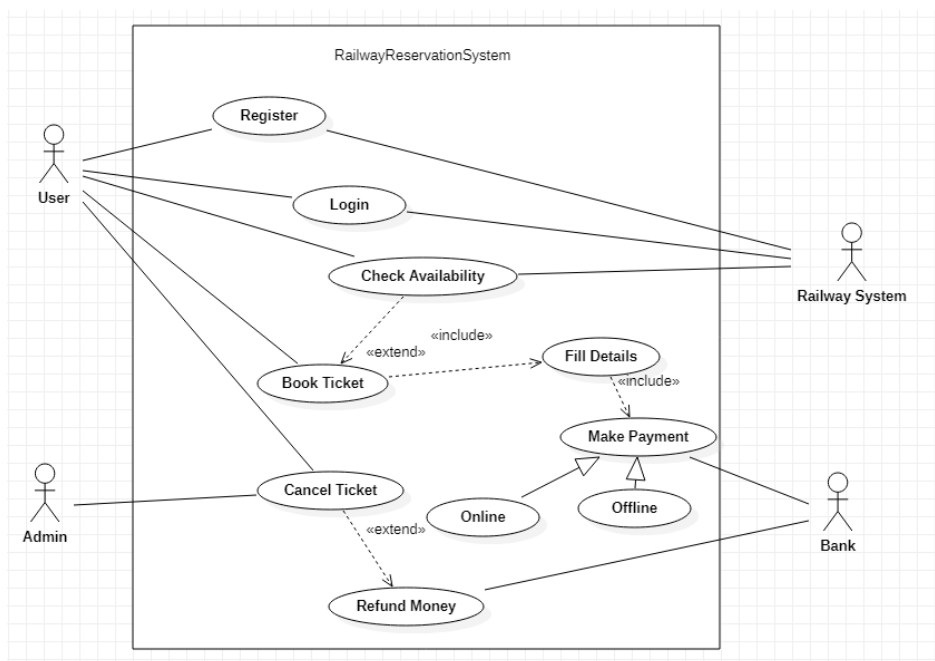


### 3. Advanced state diagram



**Scenario:** user can login, view home page book ticket and pay for it.

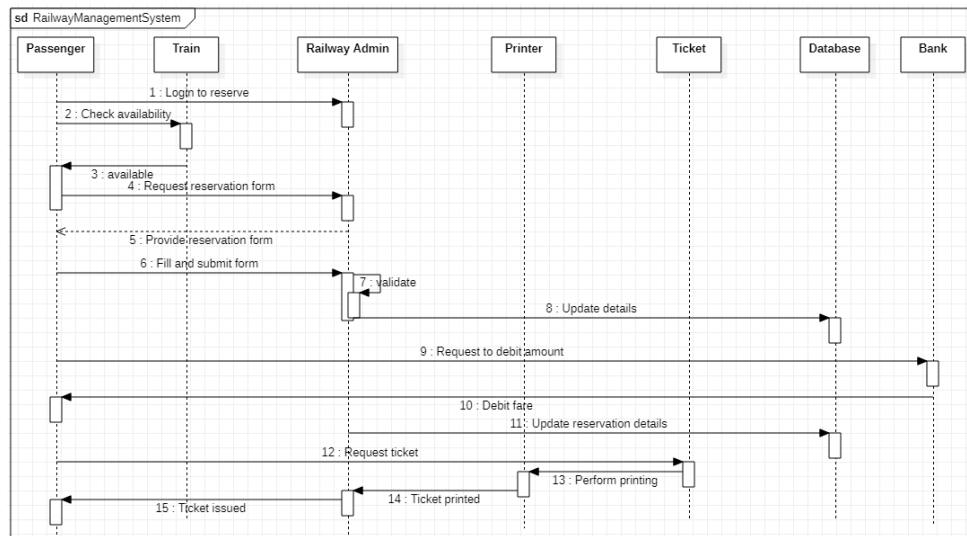
### 4. Advanced use case diagram





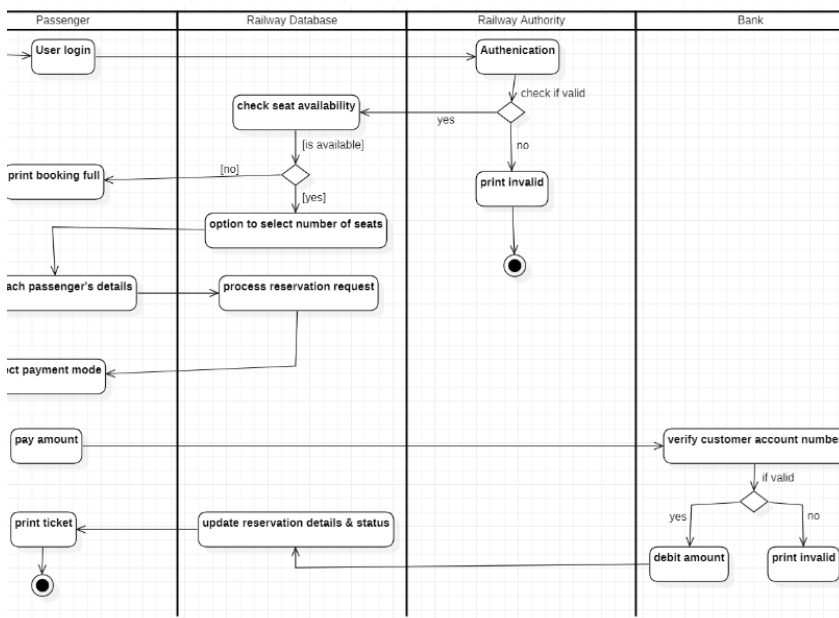
**Scenario: user can register, login, and book tickets. Admin can cancel ticket. Bank can refund money. Railway system can check available tickets.**

## 5. Advanced sequence diagram



**Scenario: passenger can reserve a seat.**

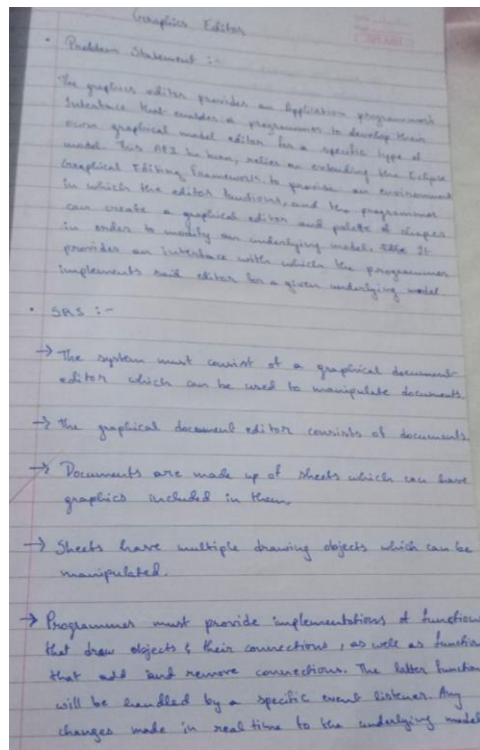
## 6. Advanced activity diagram



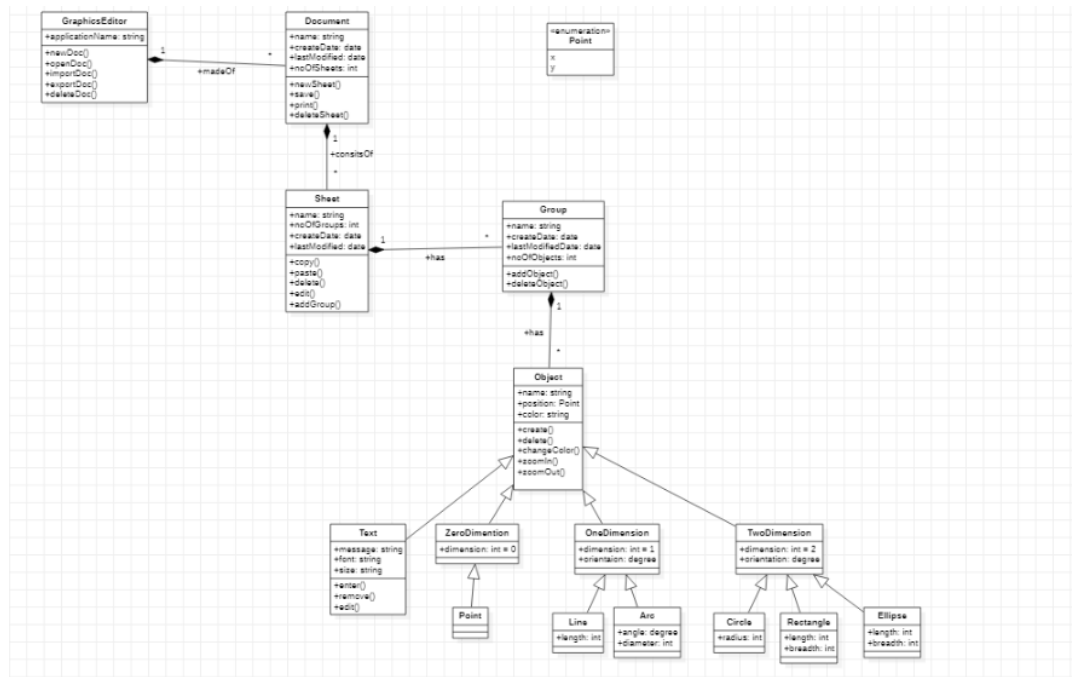
**Scenario: passenger reserving and paying for the seat.**

## Exercise 7:

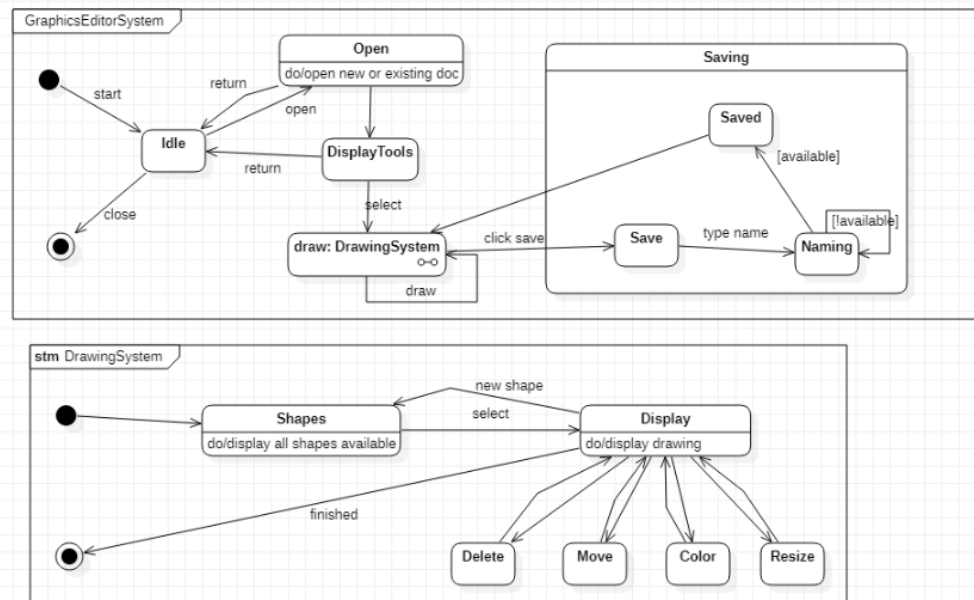
### 1. SRS



### 2. Advanced class diagram

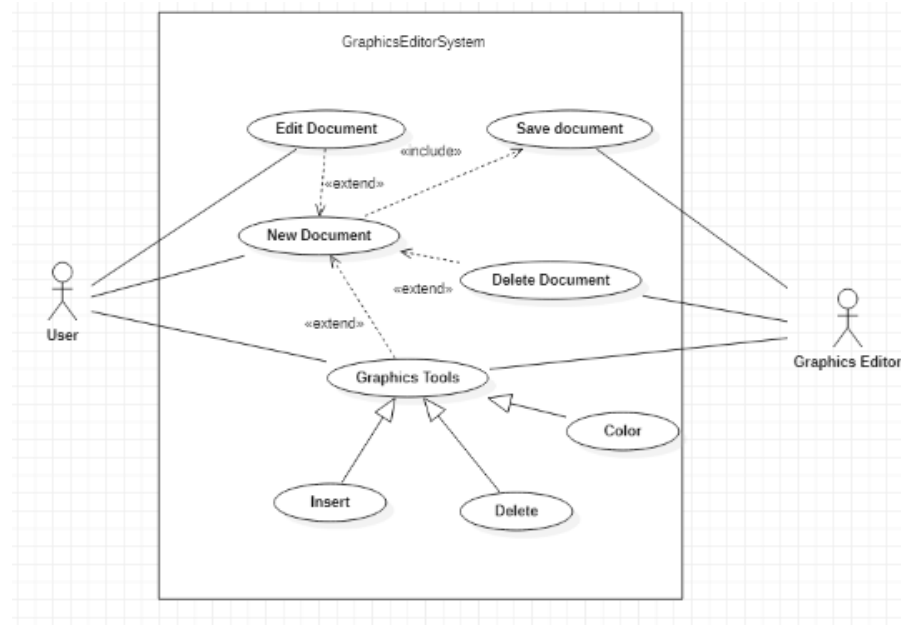


### 3. Advanced state diagram



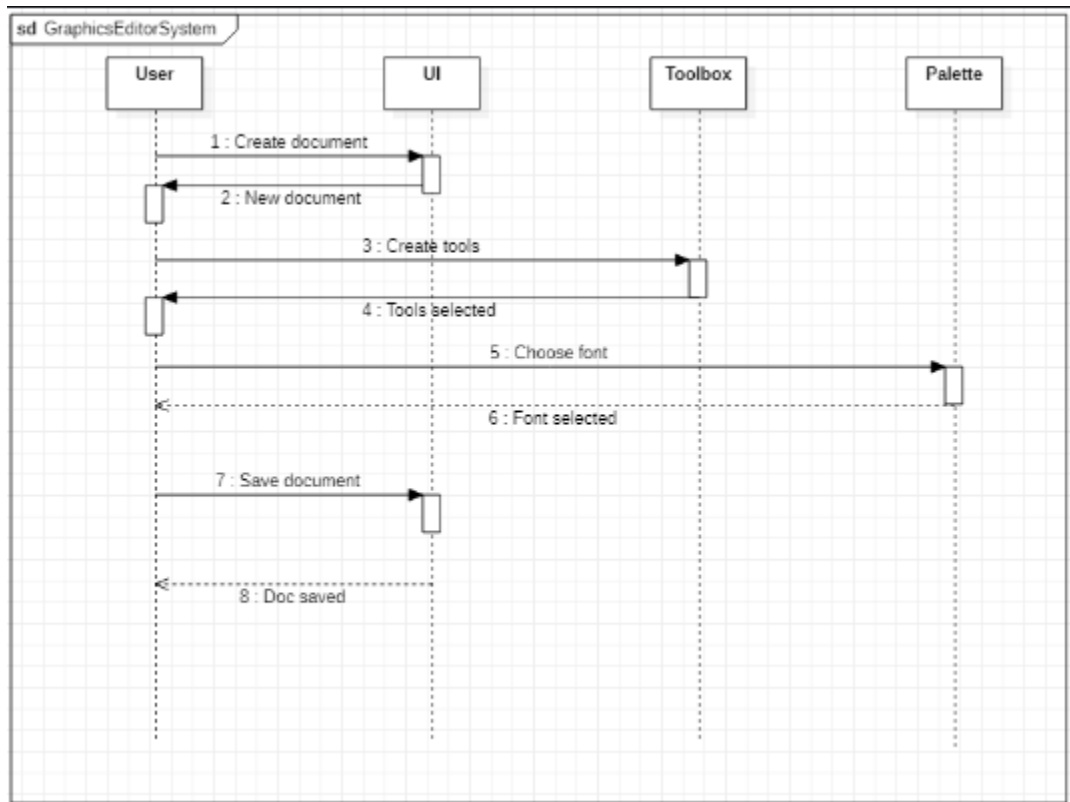
a. Give a description of the scenario considered for developing the model

### 4. Advanced use case diagram



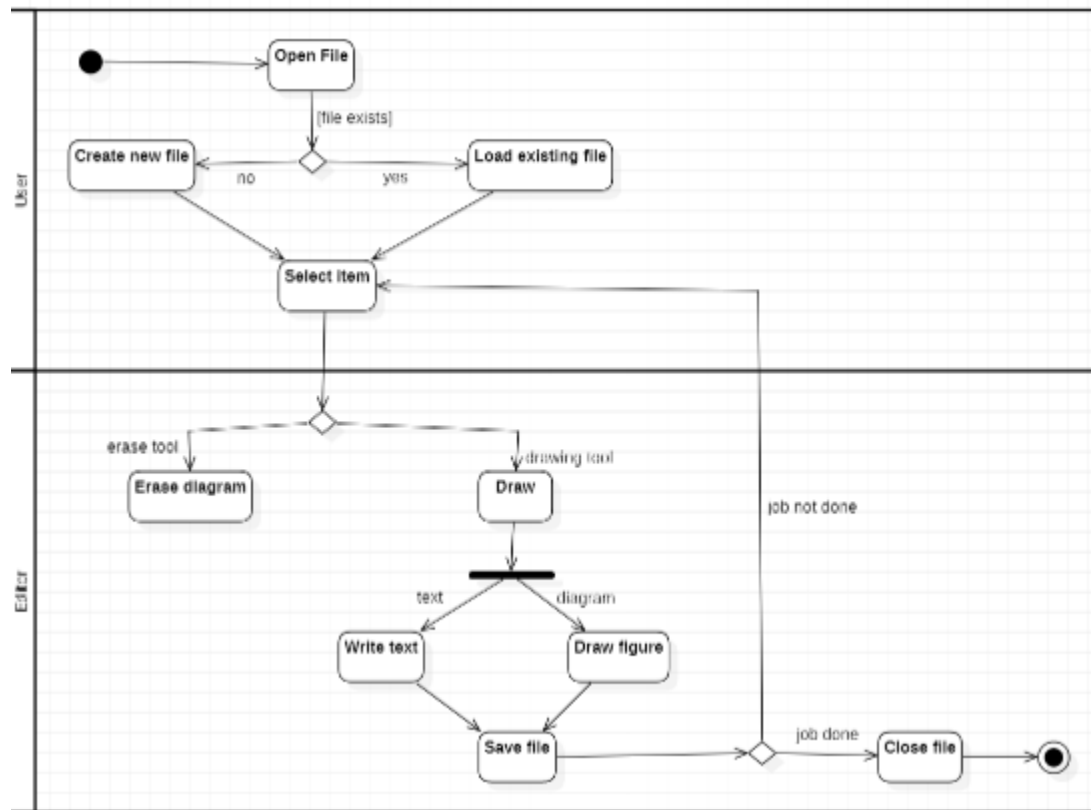
**Scenario: user can edit, create document and use graphic tools.  
graphics editor can save and delete document and provide graphics tool.**

## **5. Advanced sequence diagram**



**Scenario: user can create document, tools and save document.**

## 6. Advanced activity diagram



**Scenario:** user can write text or draw figure in new or existing file and save it.