

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

Assistant Professor

Department of CSE

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Dr. Jyothi S Nayak

Professor and Head

Department of CSE

BMSCE, Bengaluru

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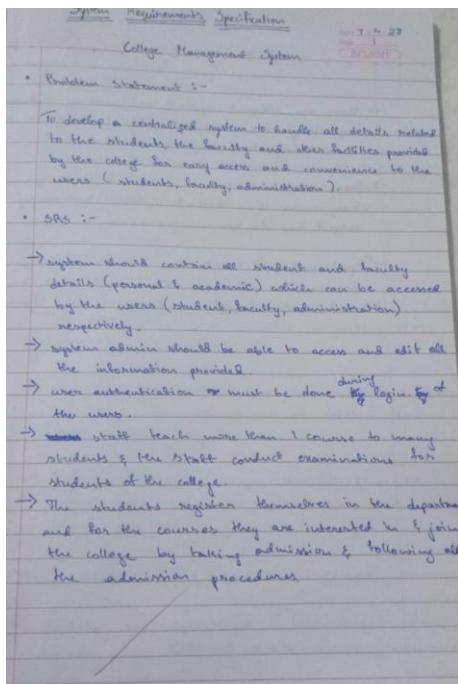
Sl. No.	Experiment Title	Page No.
1	COLLEGE MANAGEMENT SYSTEM	
2	HOSTEL MANAGEMENT SYSTEM	
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7	GRAPHICS EDITOR SYSTEM	

Course Outcome

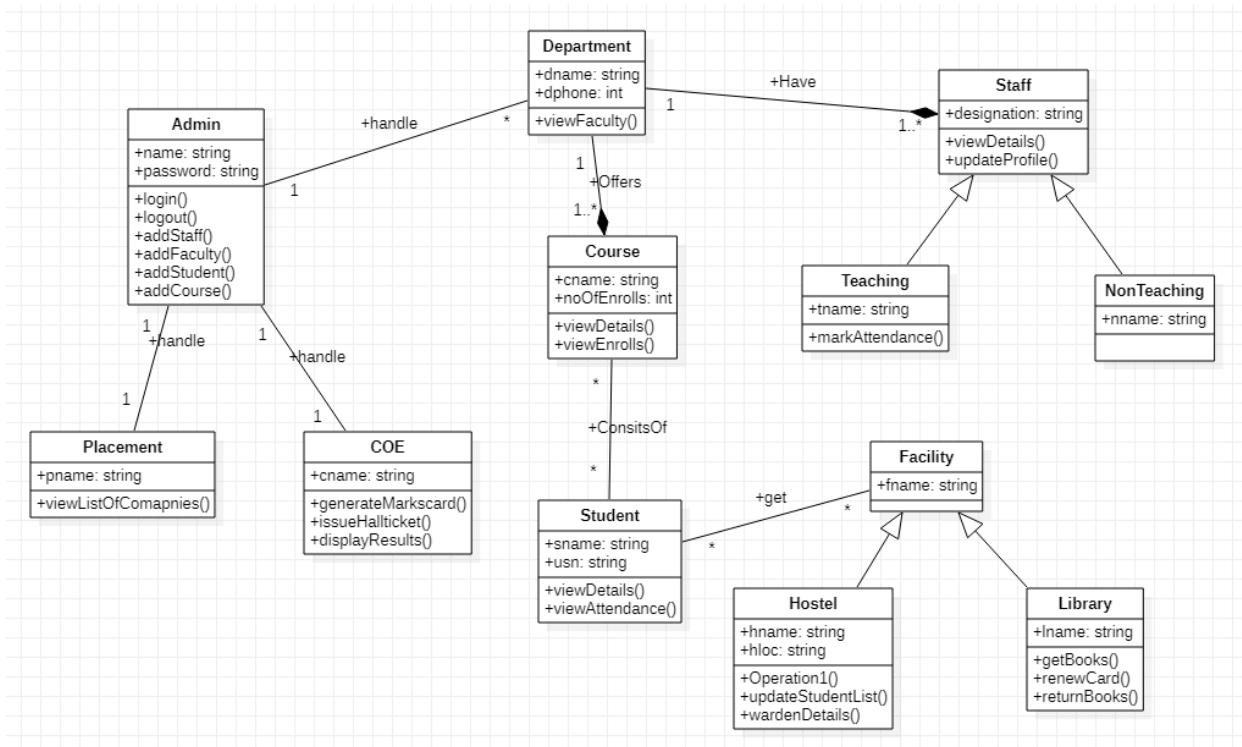
CO4	Ability to conduct practical experiment to solve a given problem using Unified Modeling language.
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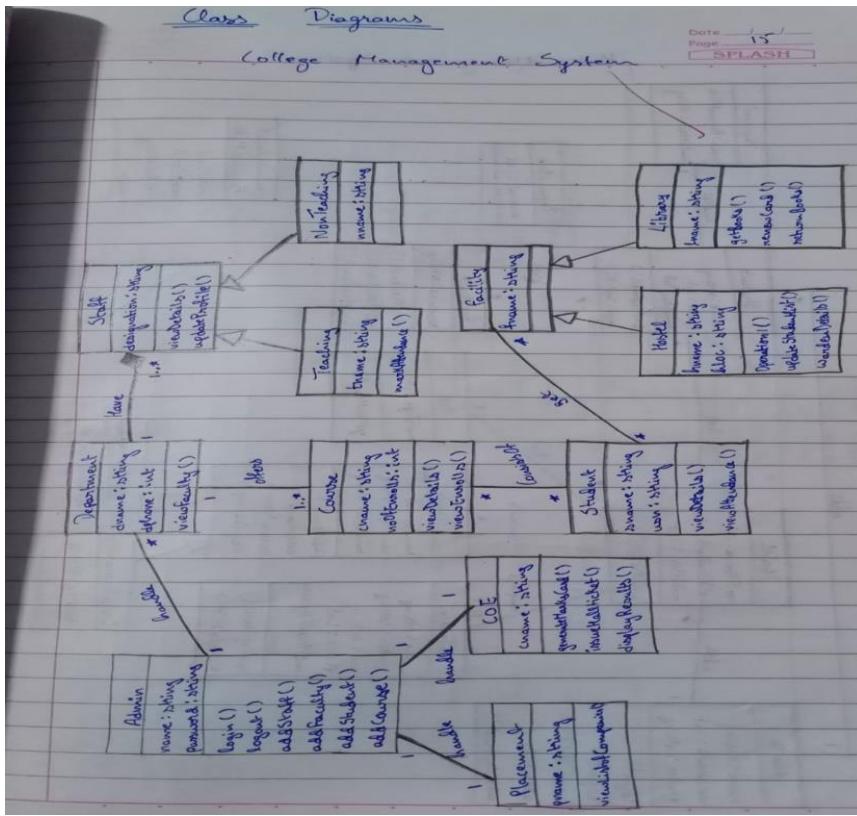
Exercise 1:

1. SRS

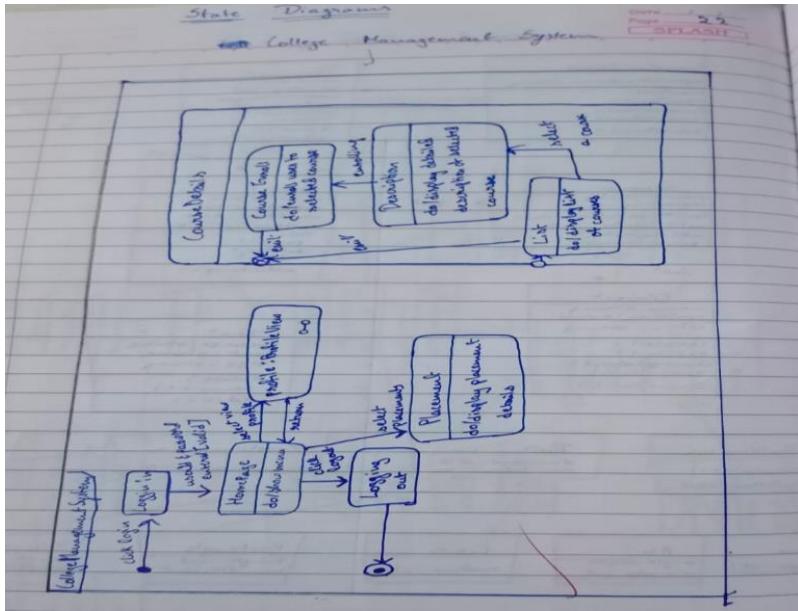


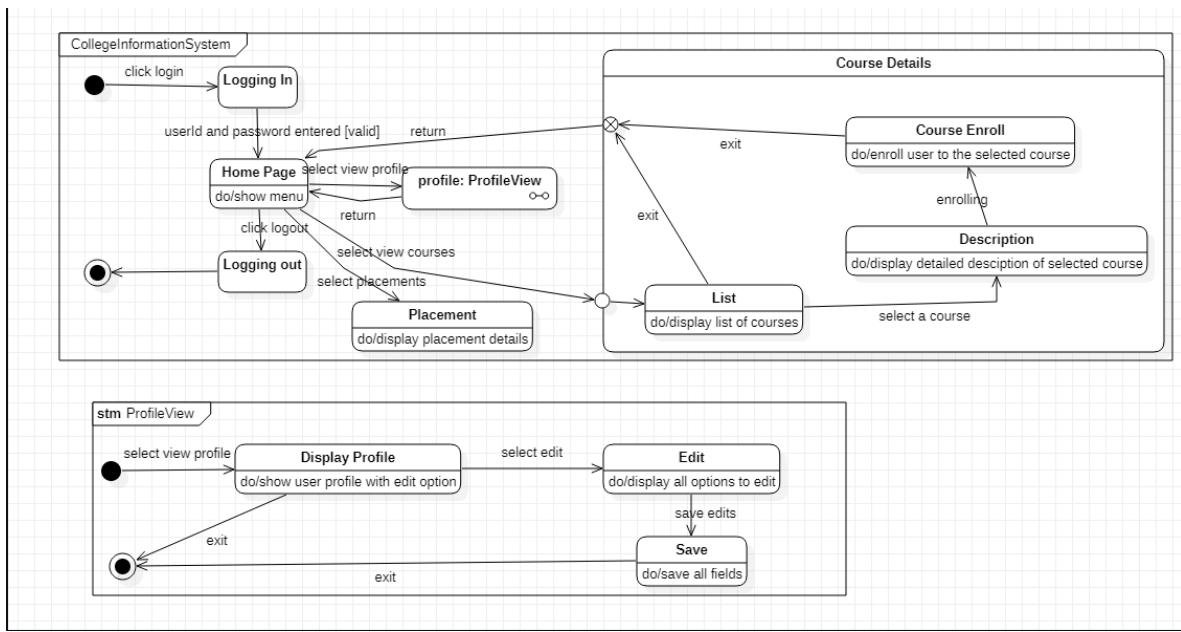
2. Advanced class diagram





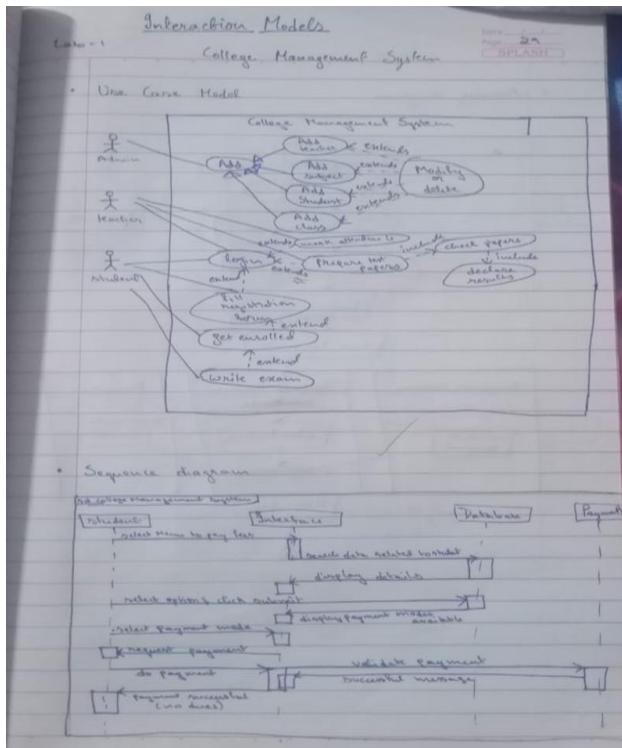
3. Advanced state diagram

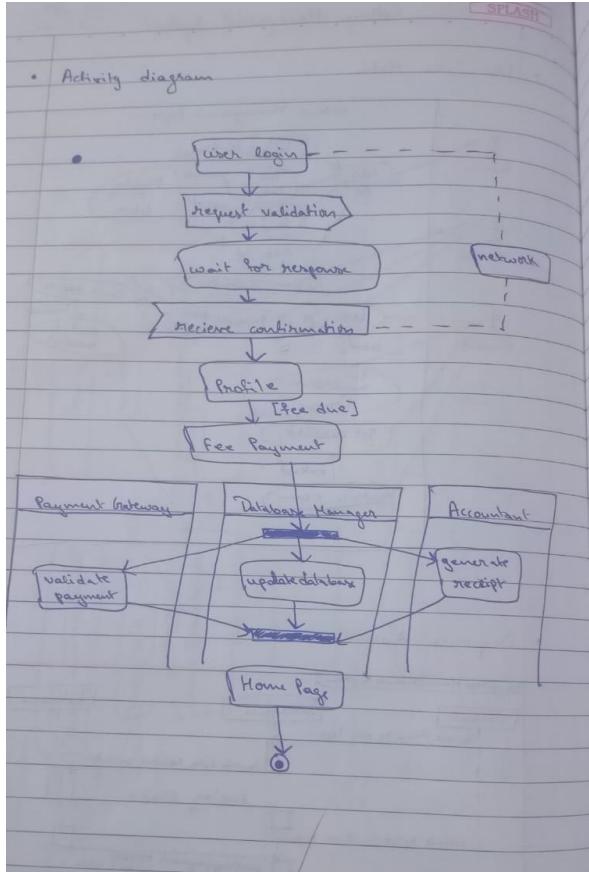




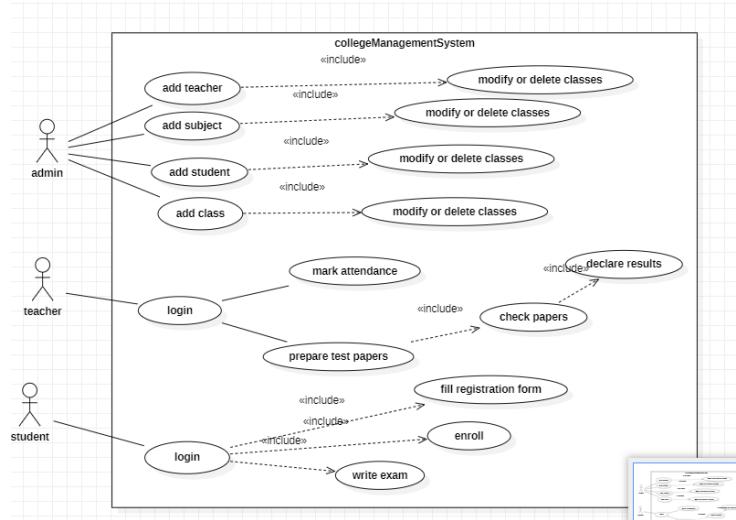
Scenario: system login, view home page, profile, placement, course list and enroll course.

- Interaction models



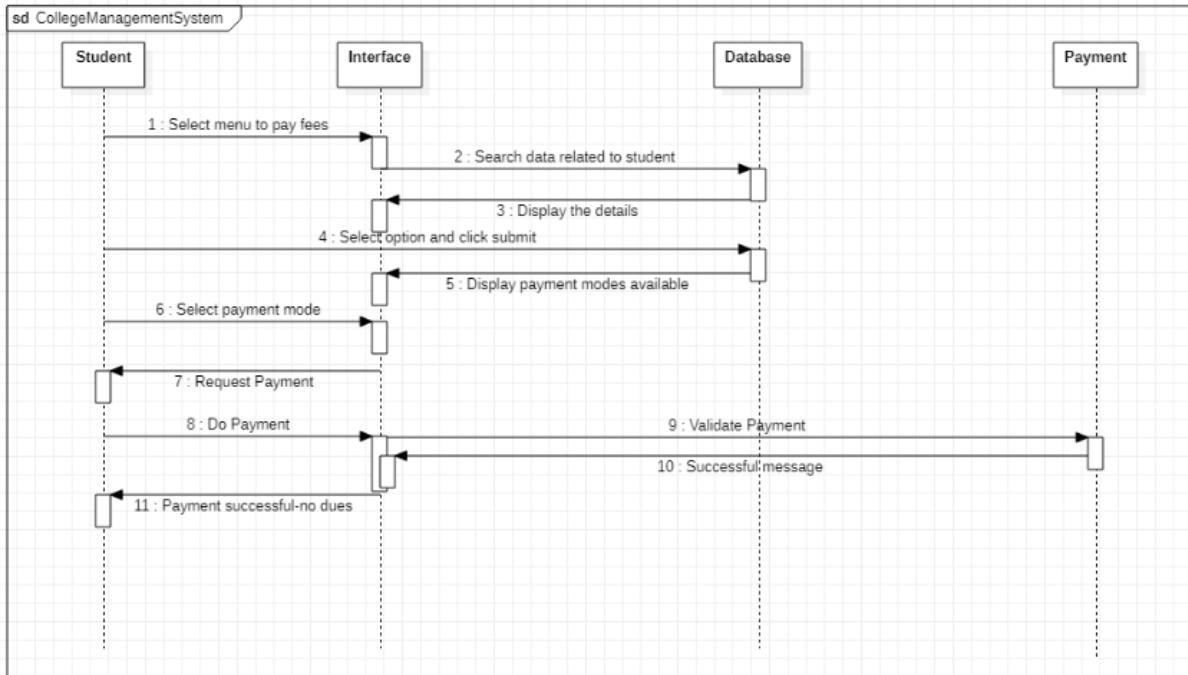


4. Advanced use case diagram



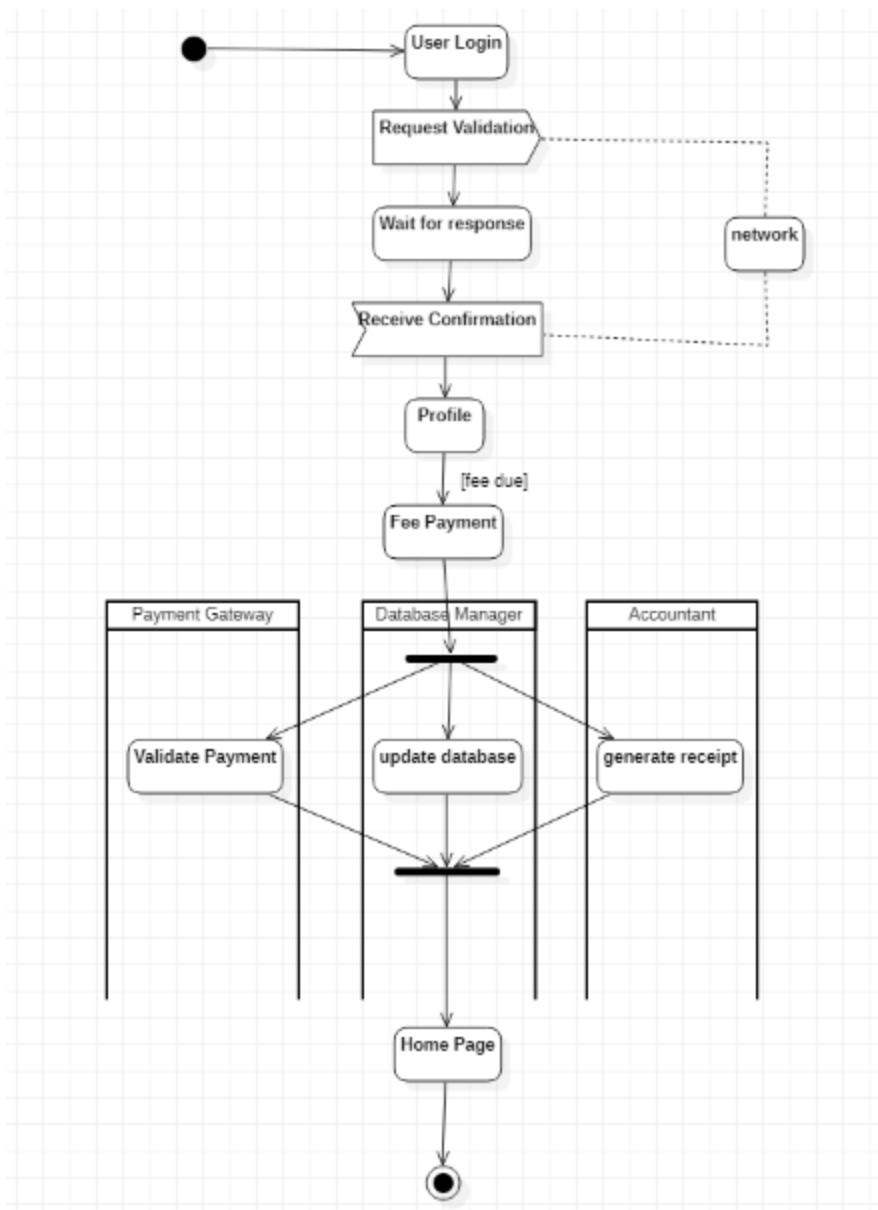
Scenario: teacher and student can login, teacher can mark attendance, can set papers. Student can write papers, enroll, fill registration form.

5. Advanced sequence diagram



Scenario: student fee payment

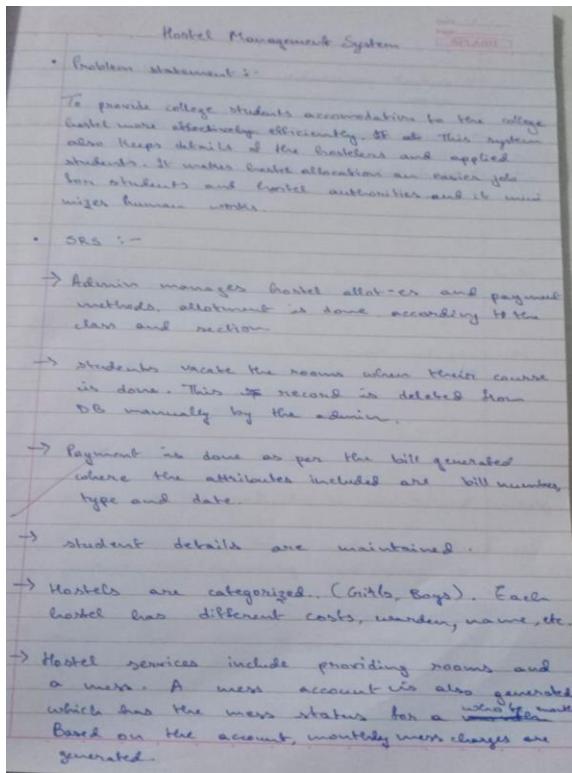
6. Advanced activity diagram



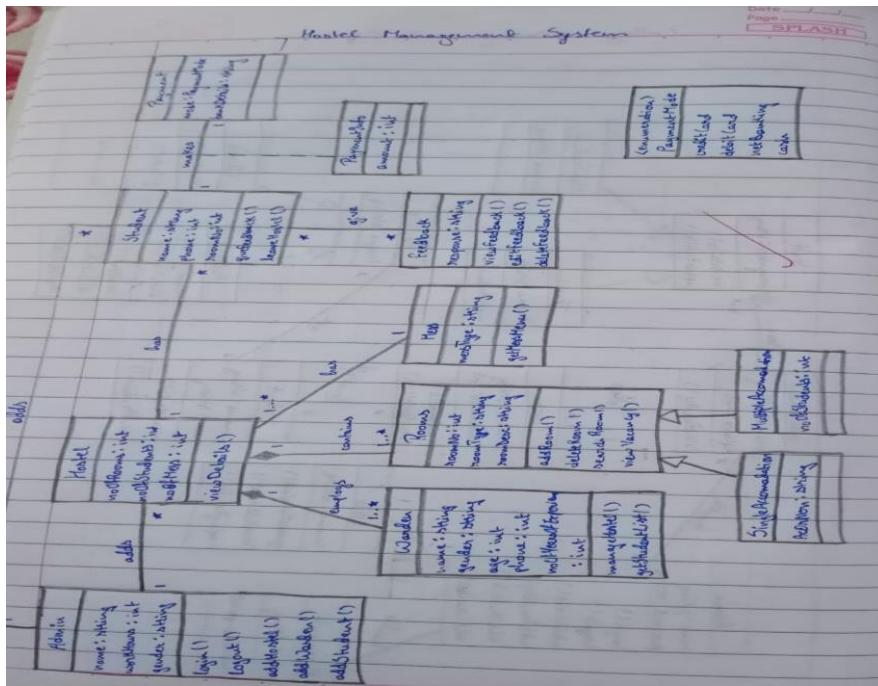
Scenario: student fees payment

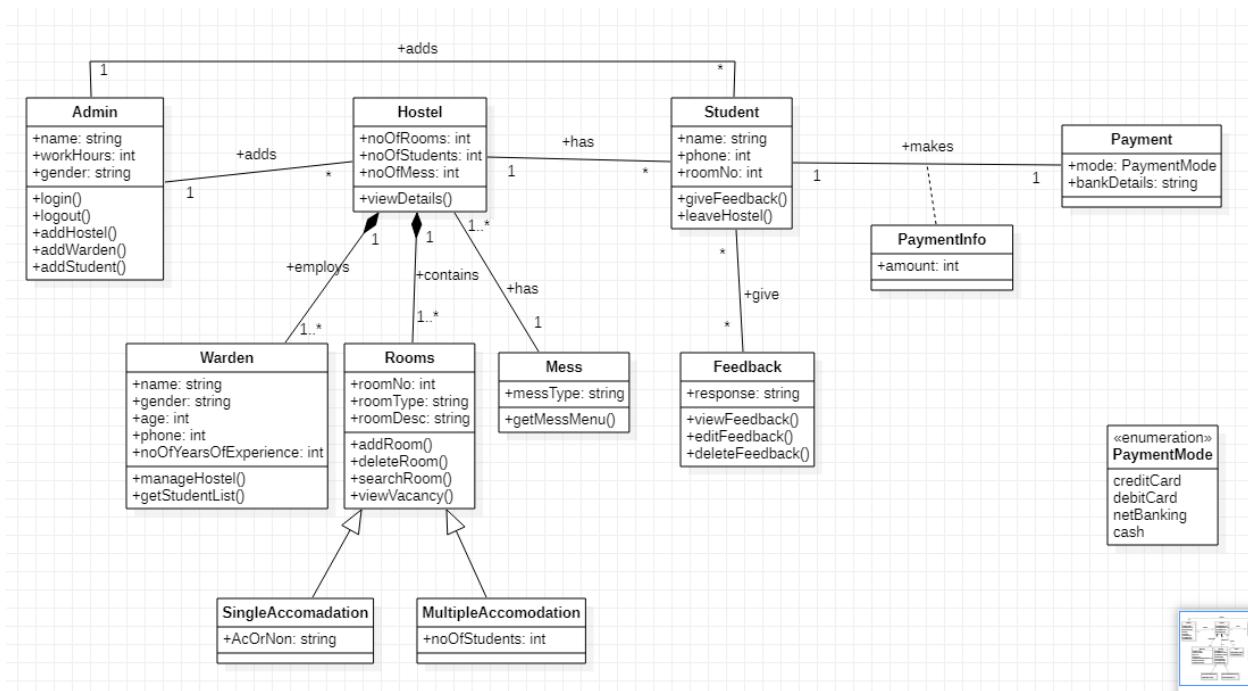
Exercise 2:

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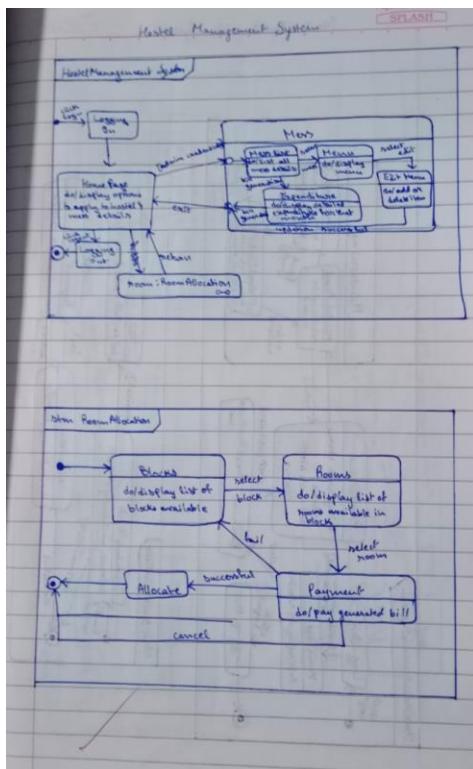


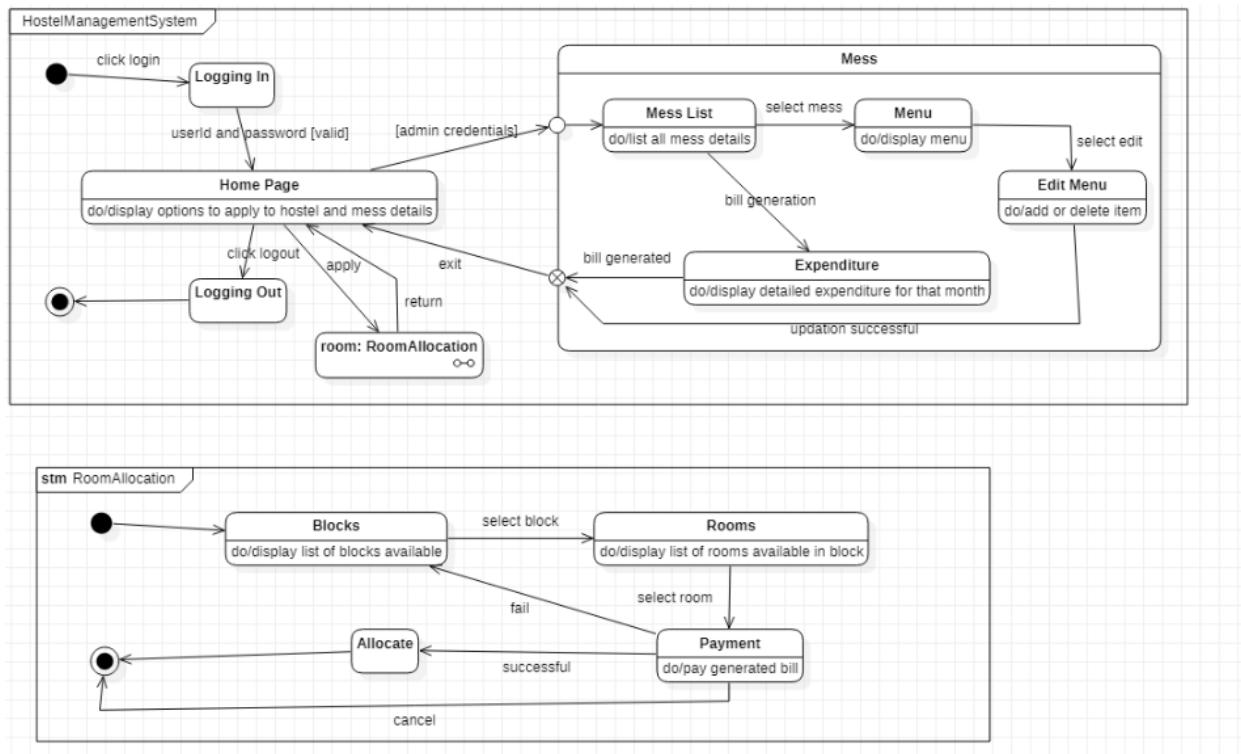
2. Advanced class diagram





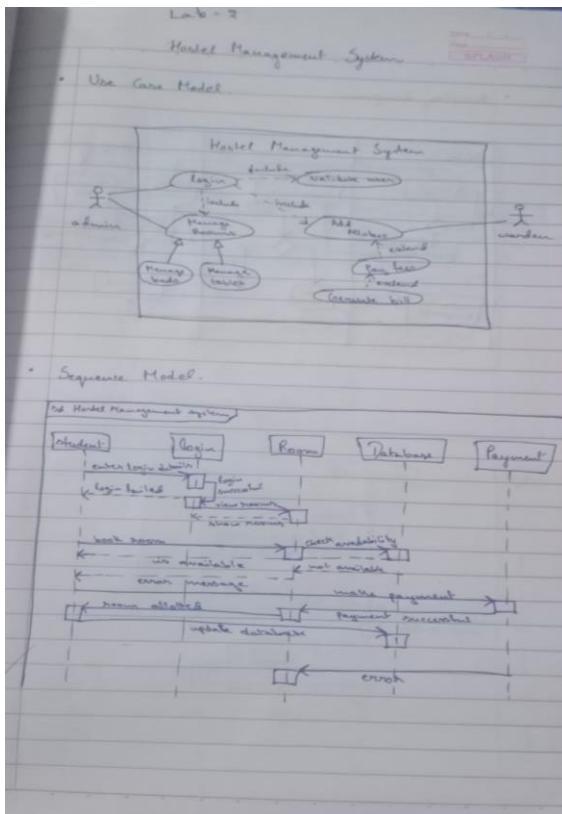
3. Advanced state diagram

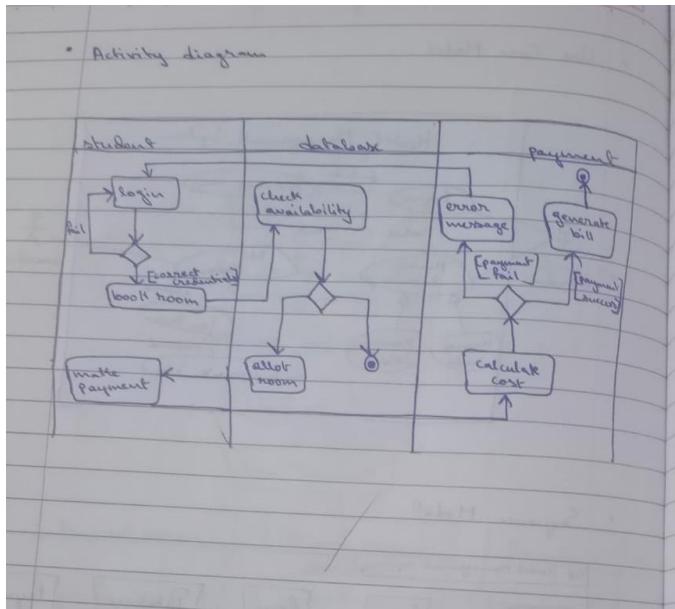




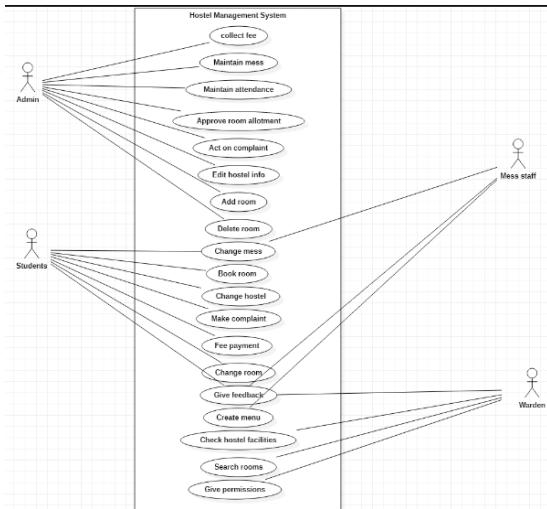
Scenario: admin can allot rooms and edit mess menu.

- **Interaction models**



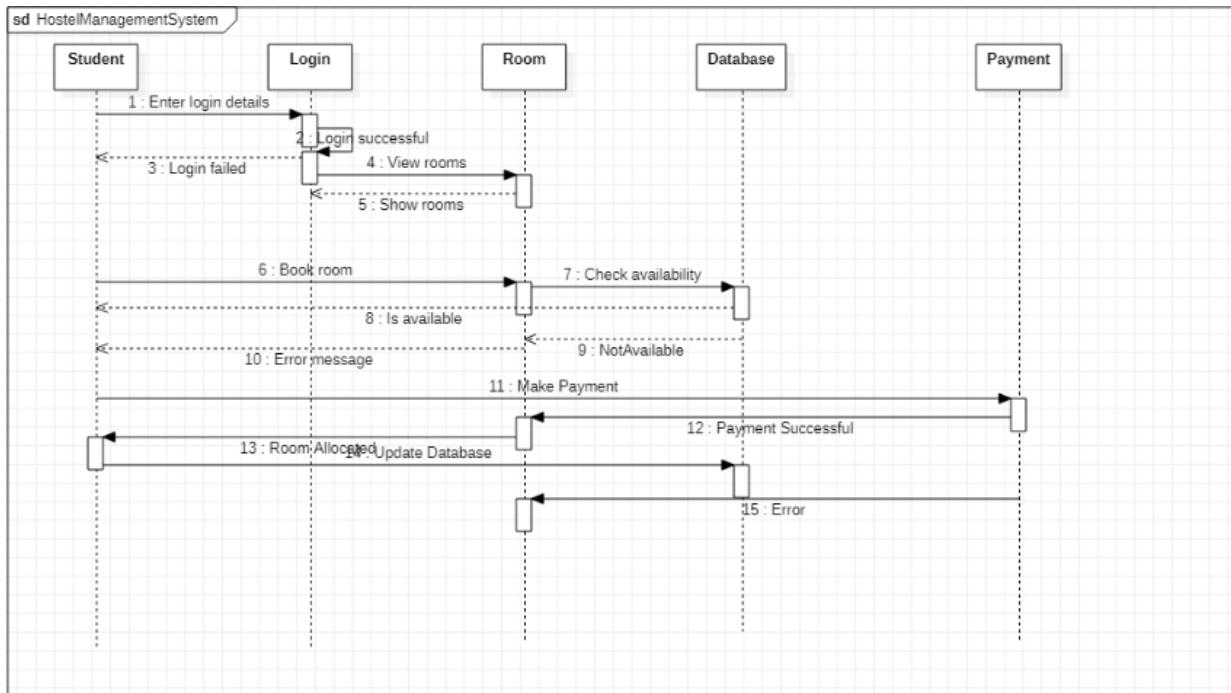


4. Advanced use case diagram



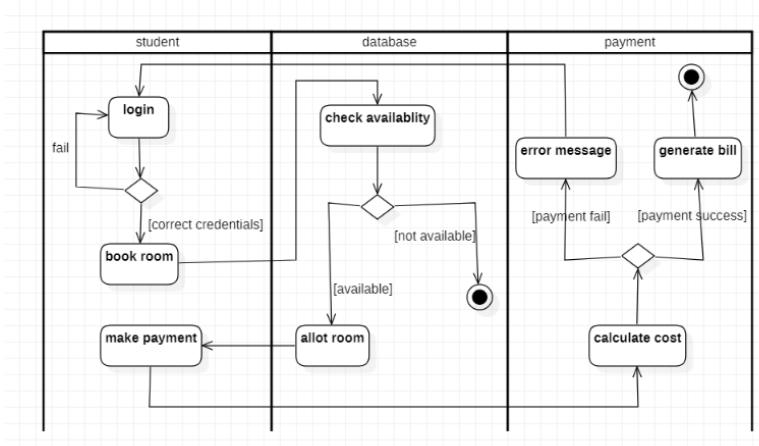
Scenario: admin can manipulate hostel data. Student can use hostel amenities, warden can monitor the hostel, mess staff can take care of the mess.

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

Stock Maintenance System

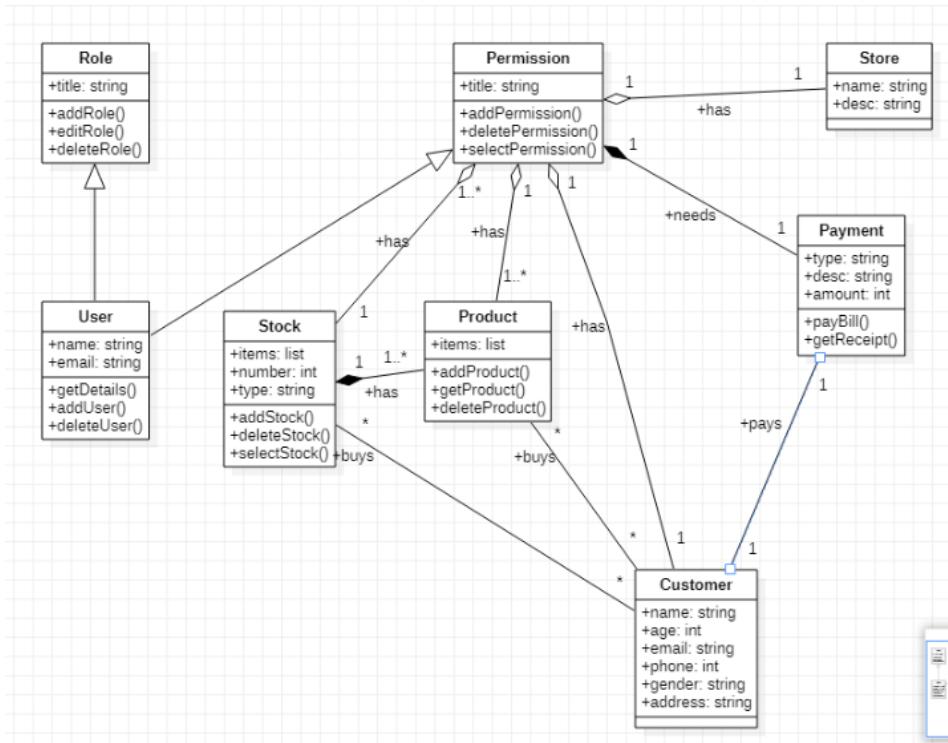
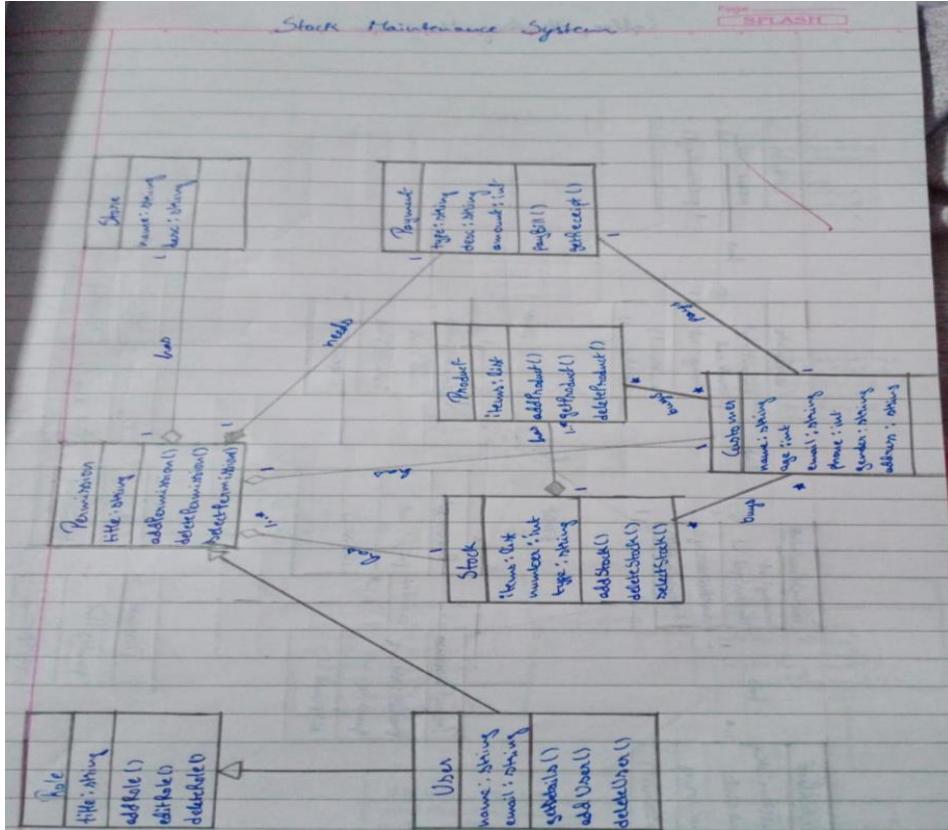
Problem Statement :-

To provide easy access to customers of stock information to customers. The system is more efficient as it will allow the employee to record information of the products available in the store and let the vendor deal with supplier details.

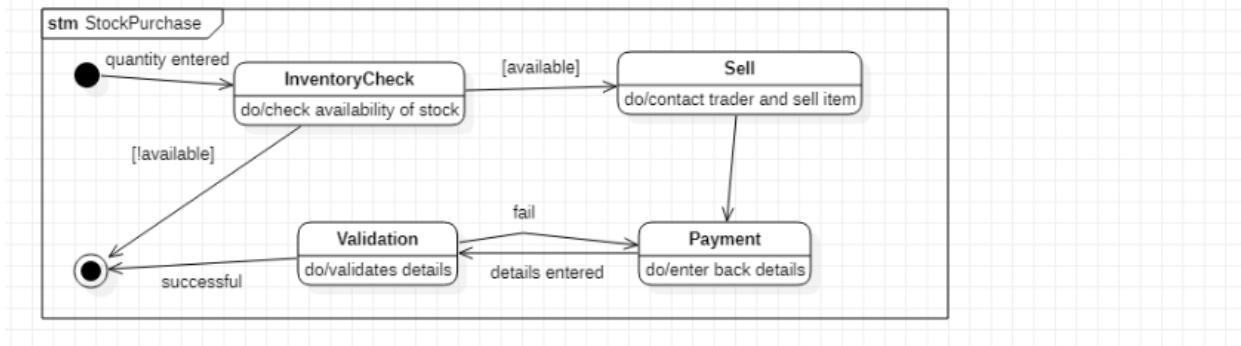
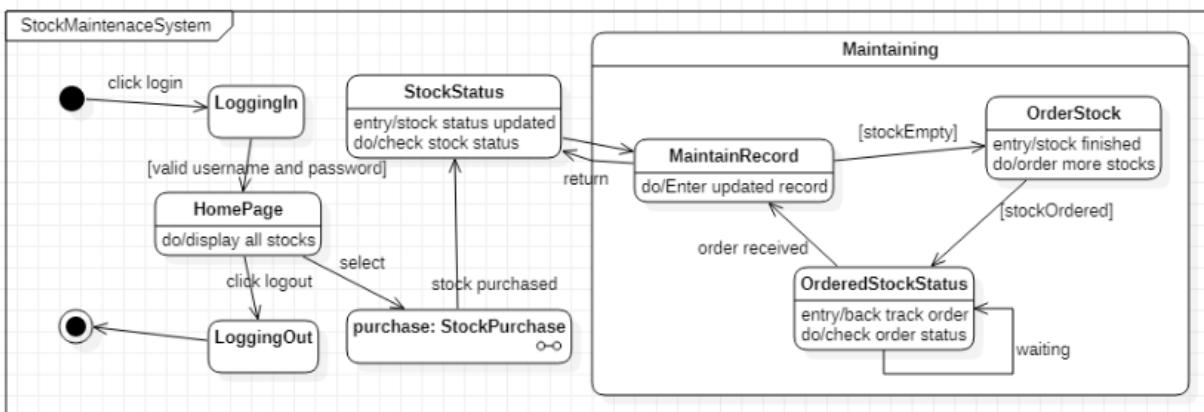
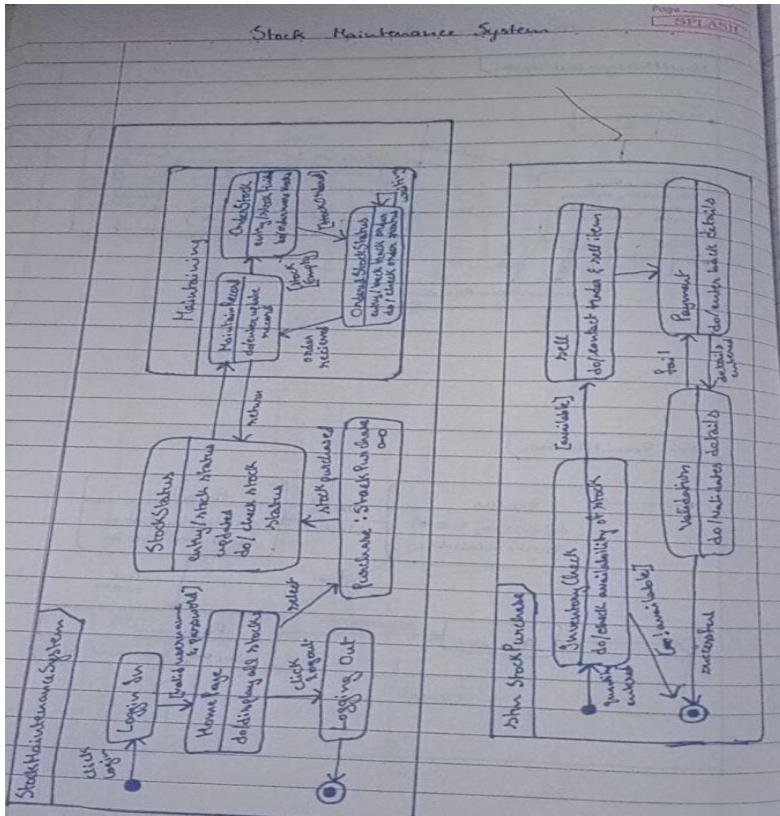
SRS :-

- customer can purchase one or more products any day, each product has a code, price and quantity.
- Bill generated for the purchased products has the following attributes :-
 - number (ID)
 - type ~~desc~~
 - desc
 - customer details.
- stock of the products is maintained separately
- Stock contains details such as product name, product ID, quantity, cost/piece, etc.
- Vendor deals with supplier details.

2. Advanced class diagram

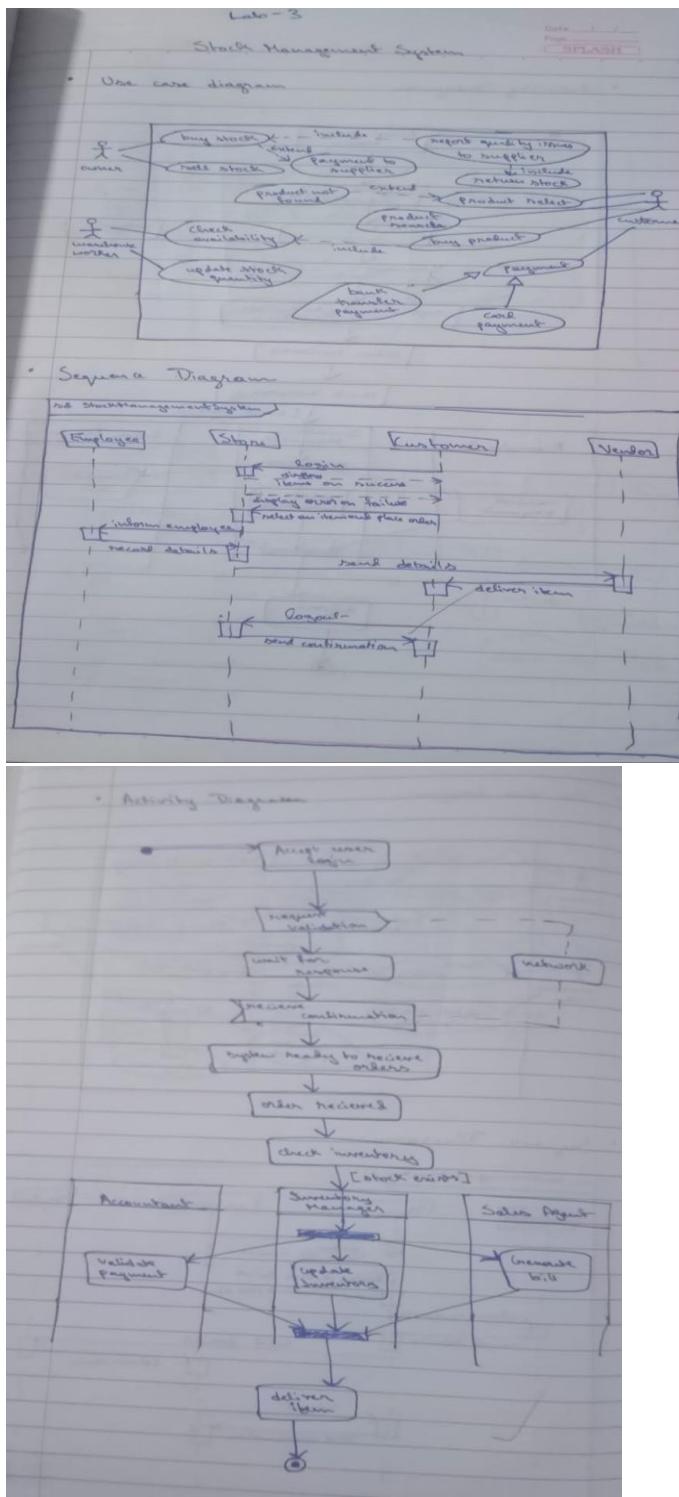


3. Advanced state diagram

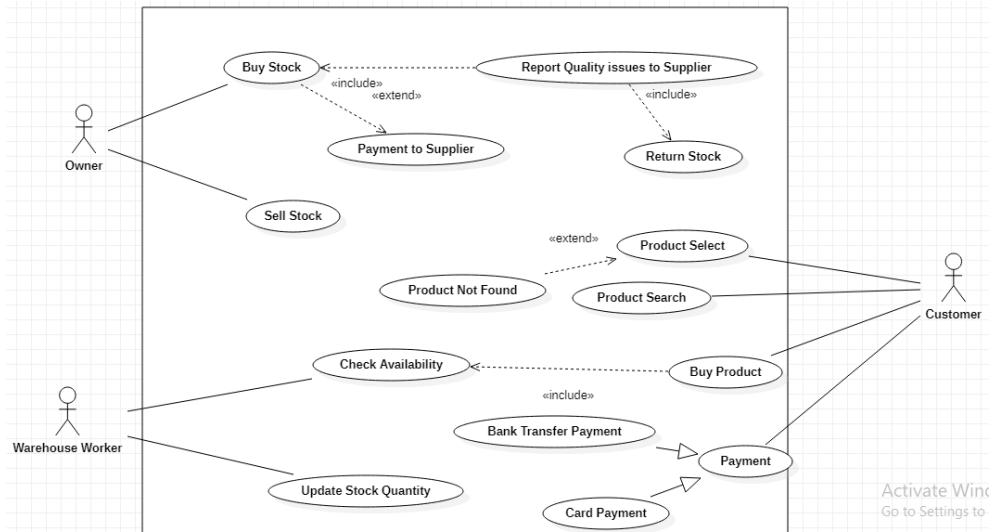


Scenario: user can login, view home page, stock status and purchase stocks.

- **Interaction models**

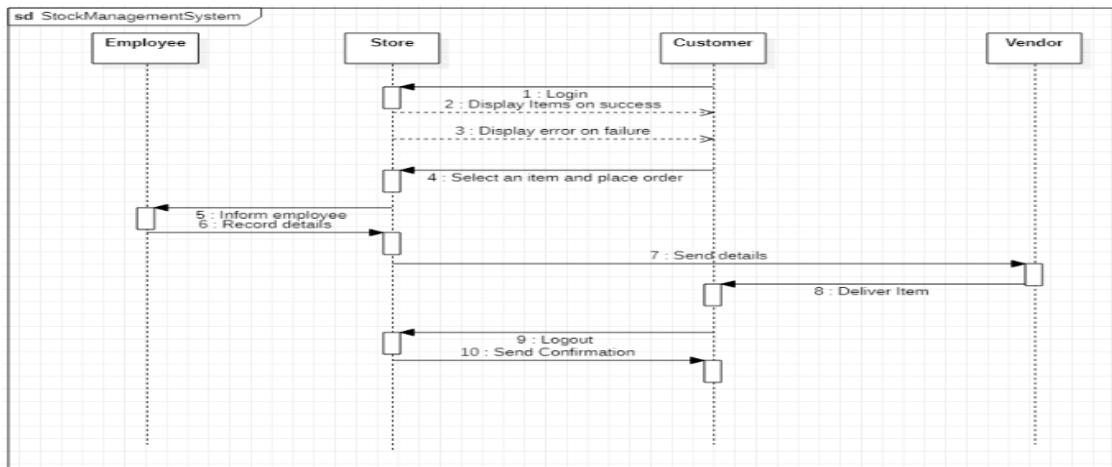


4. Advanced use case diagram



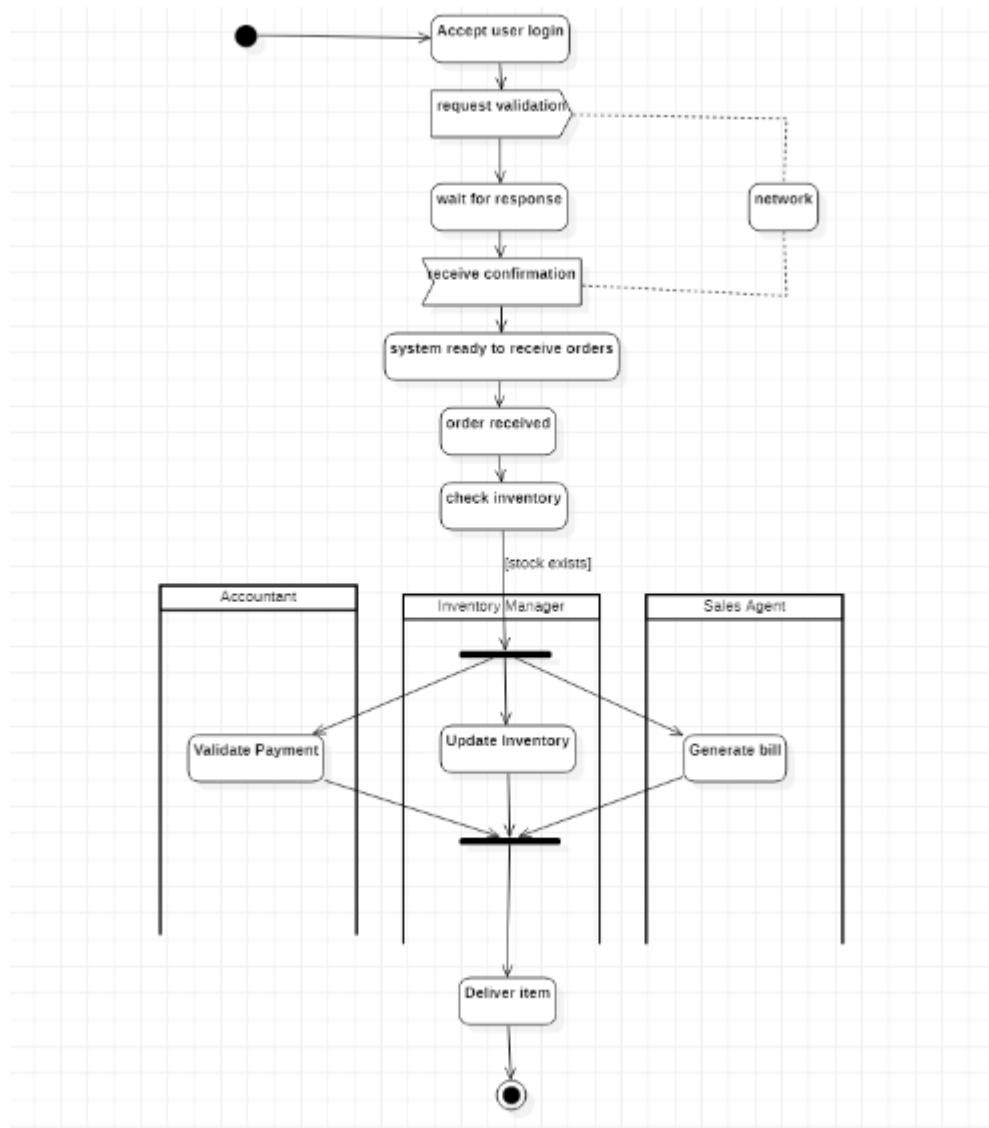
Scenario: owner can sell or buy stock, warehouse worker can check product availability and update stock quality, customer can buy product.

5. Advanced sequence diagram



Scenario: customer buying product and store delivering the product.

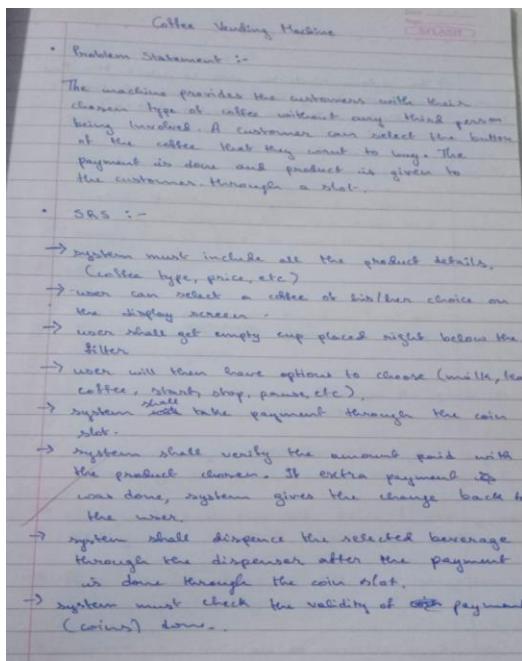
6. Advanced activity diagram



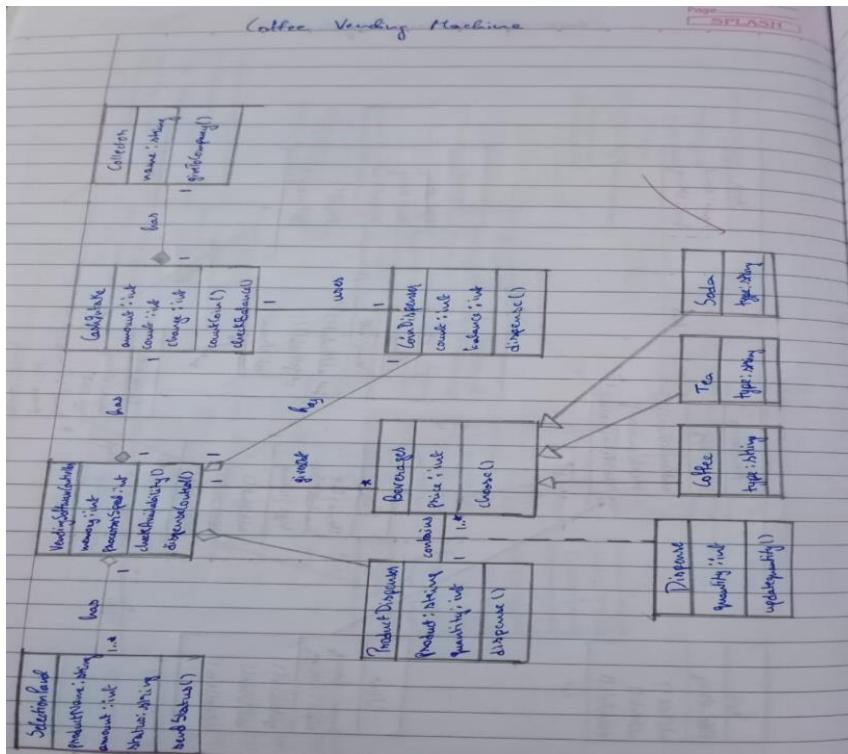
Scenario: store receiving order and checking for product availability and deliver it.

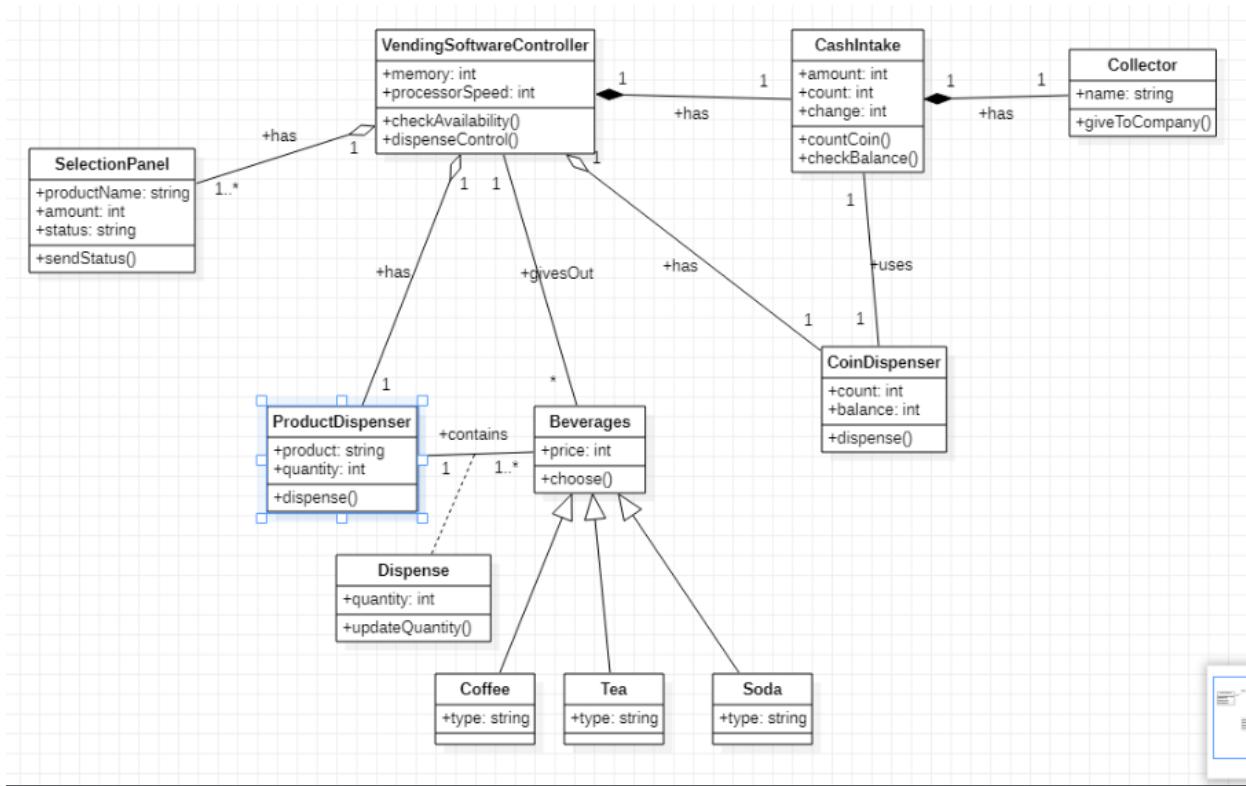
Exercise 4:

1. SRS

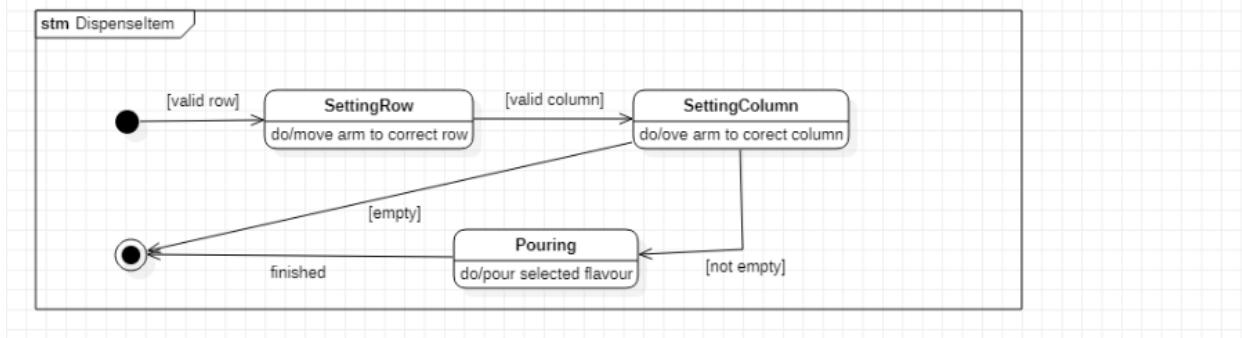
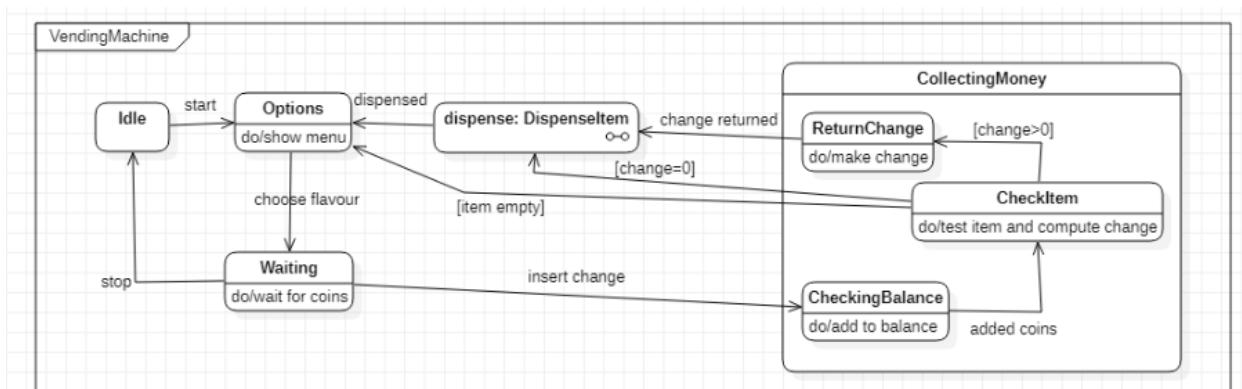
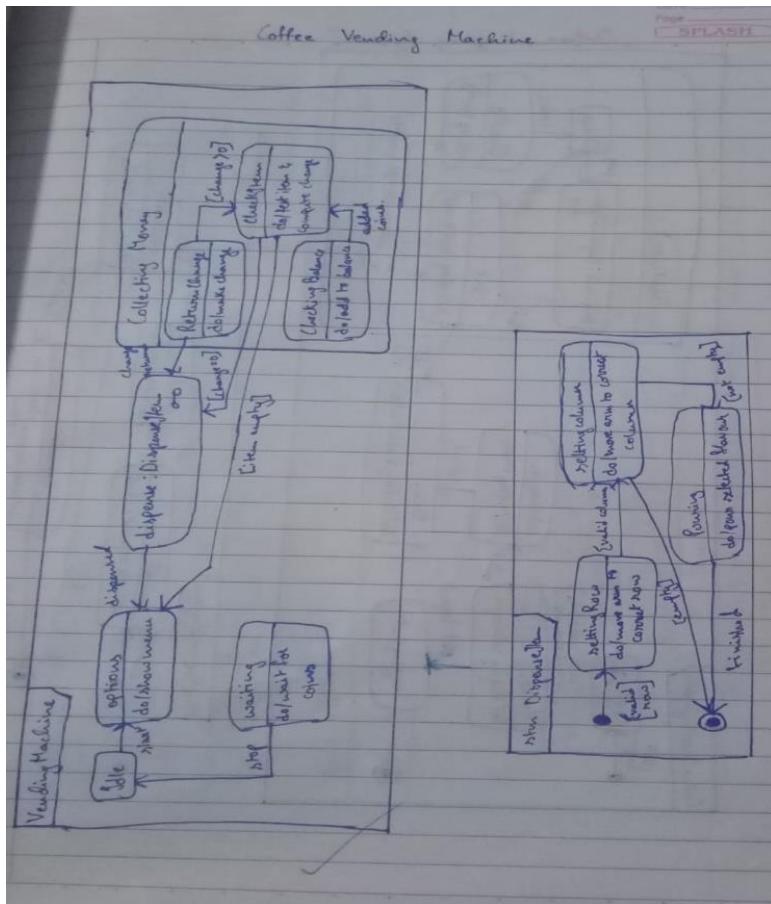


2. Advanced class diagram



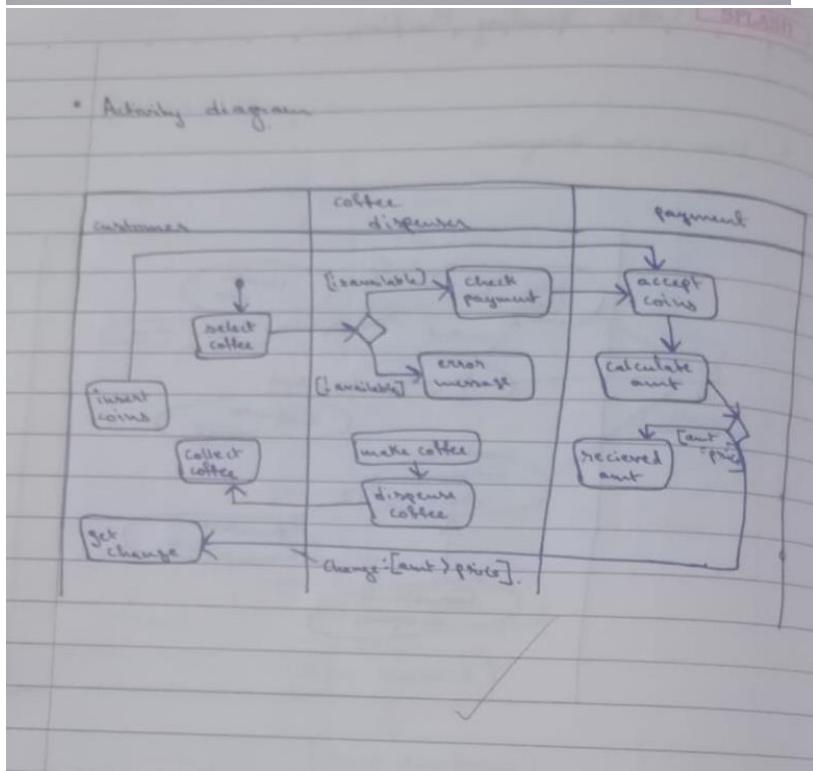
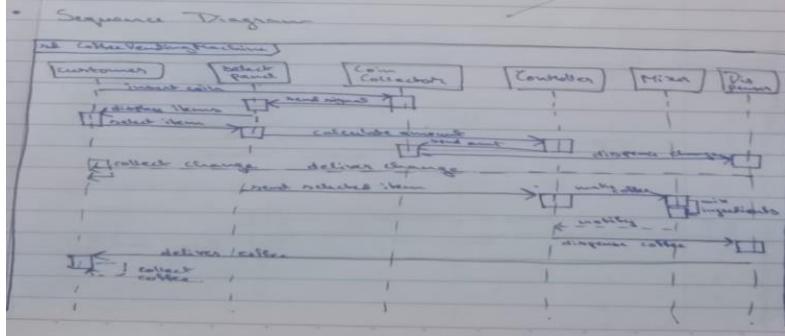
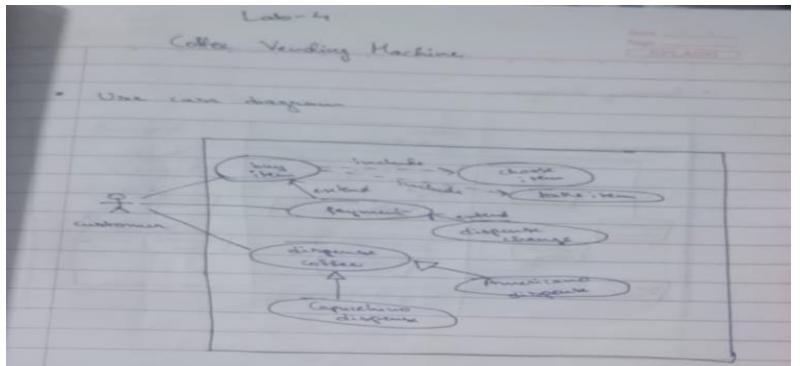


3. Advanced state diagram

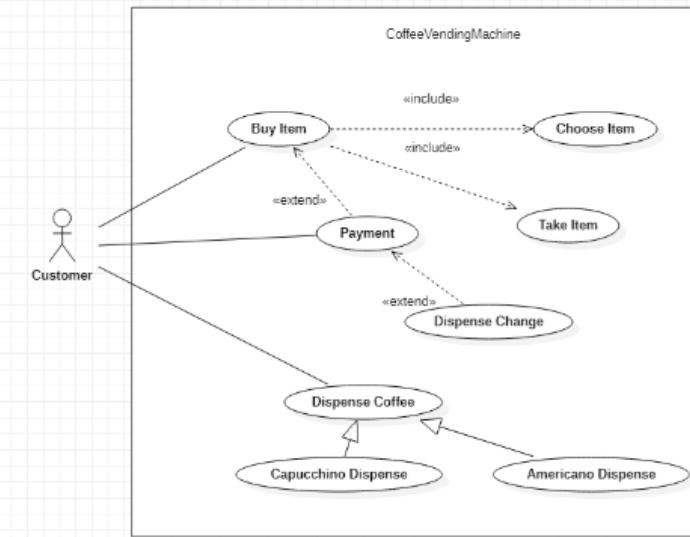


Scenario: system displays menu, dispense the chosen item.

- Interaction models

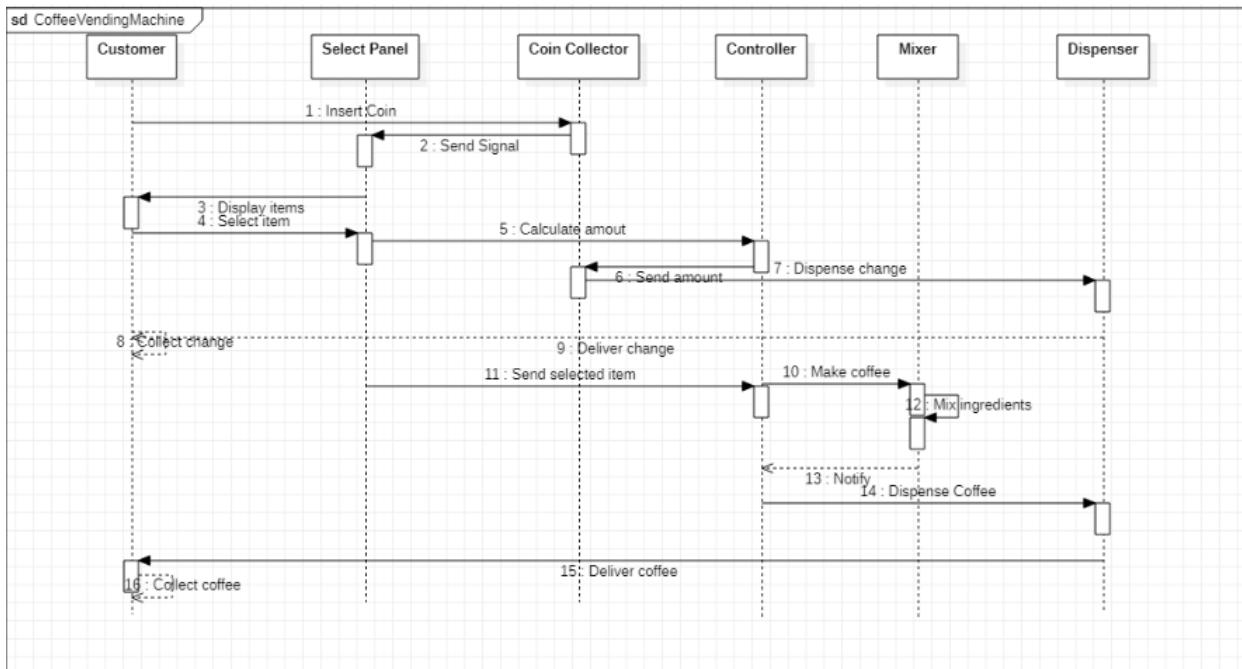


4. Advanced use case diagram



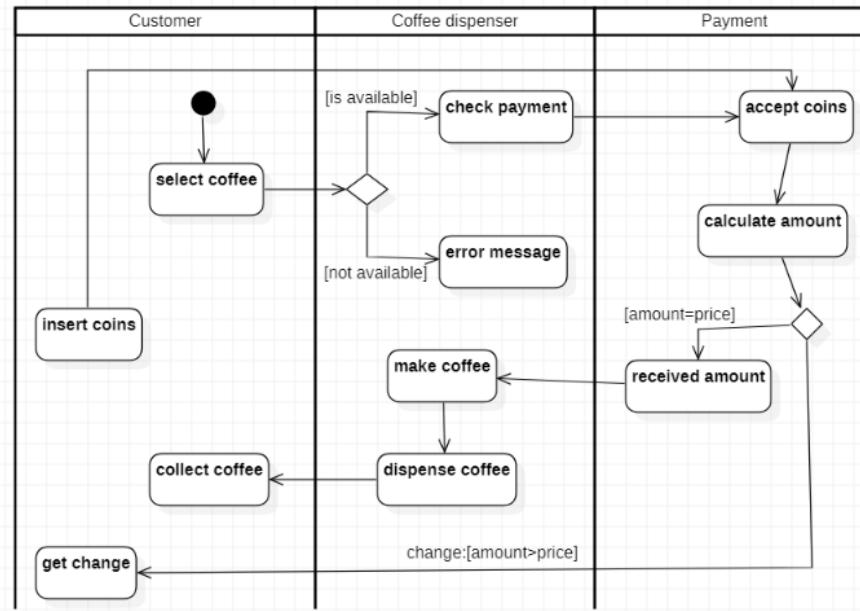
Scenario: customer can buy item.

5. Advanced sequence diagram



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

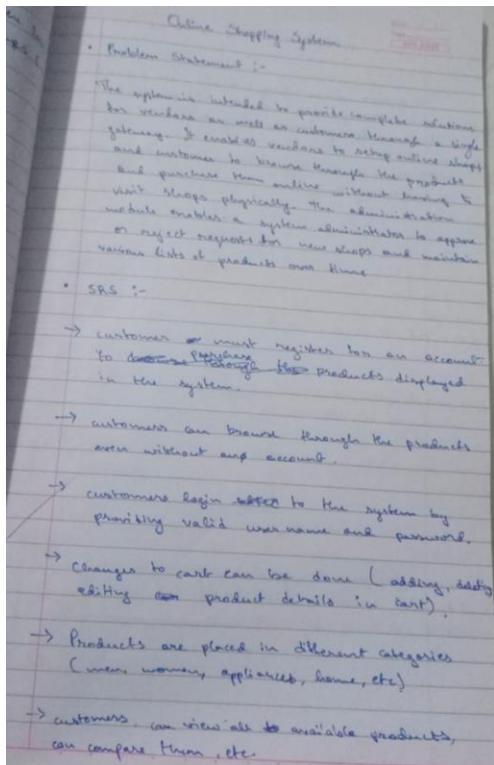
6. Advanced activity diagram



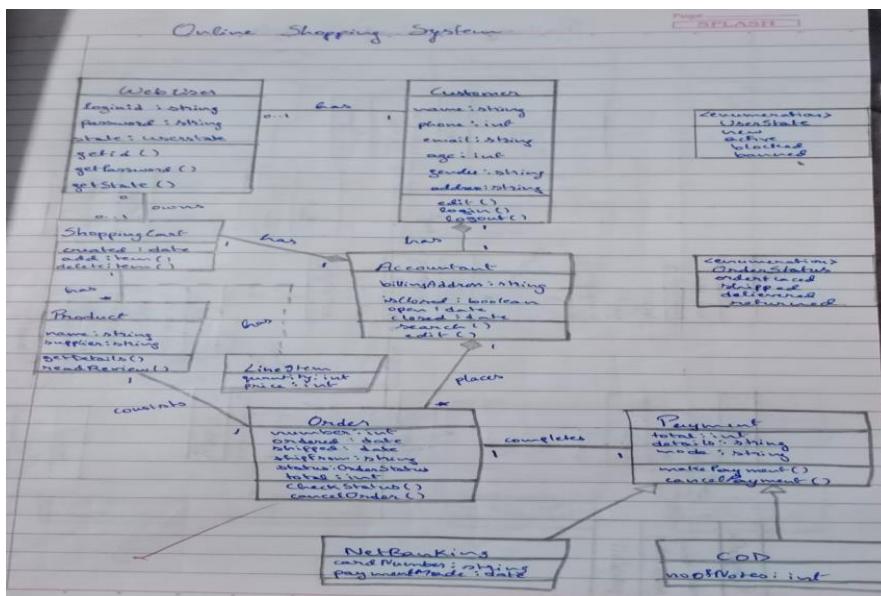
Scenario: customer can select and pay for the item, dispenser can dispense it.

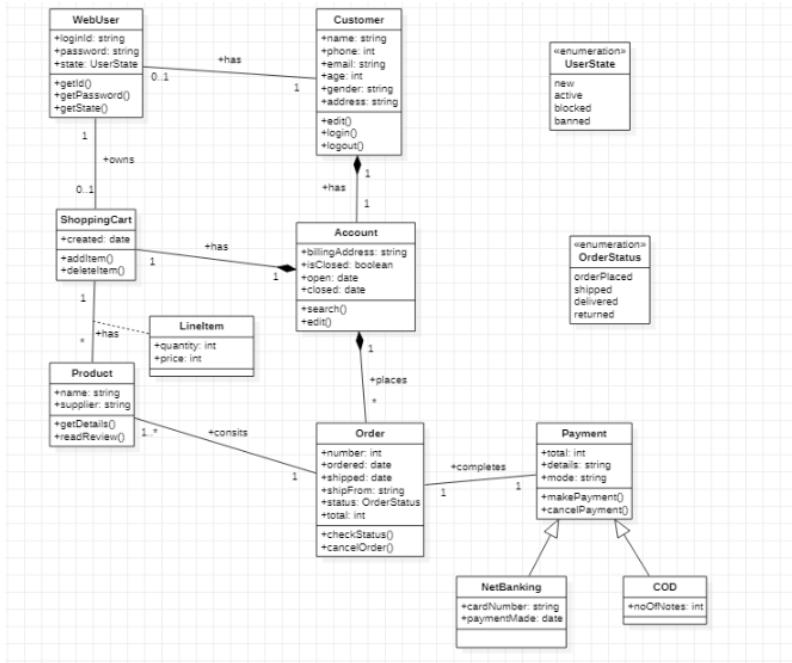
Exercise 5:

1. SRS

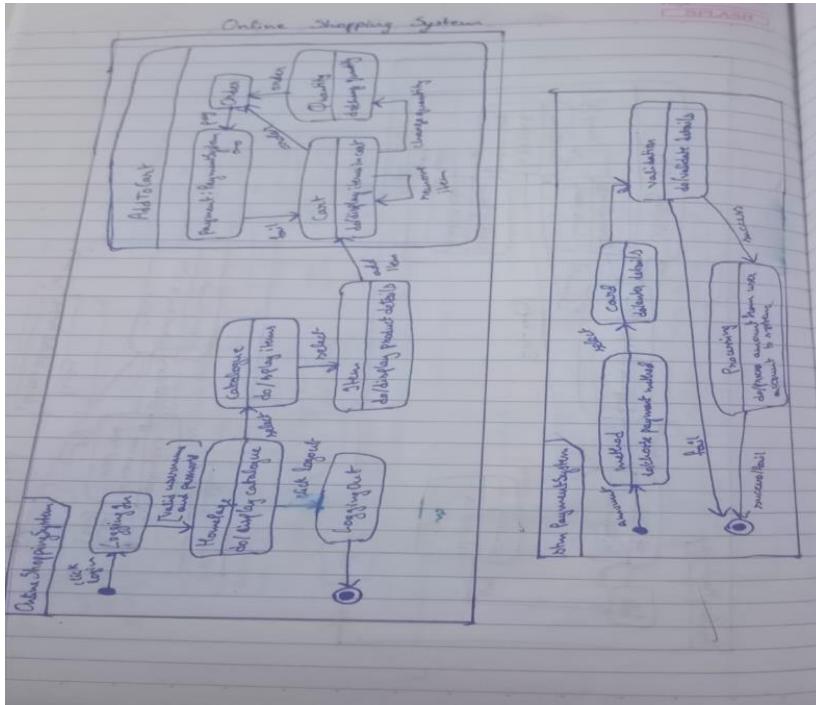


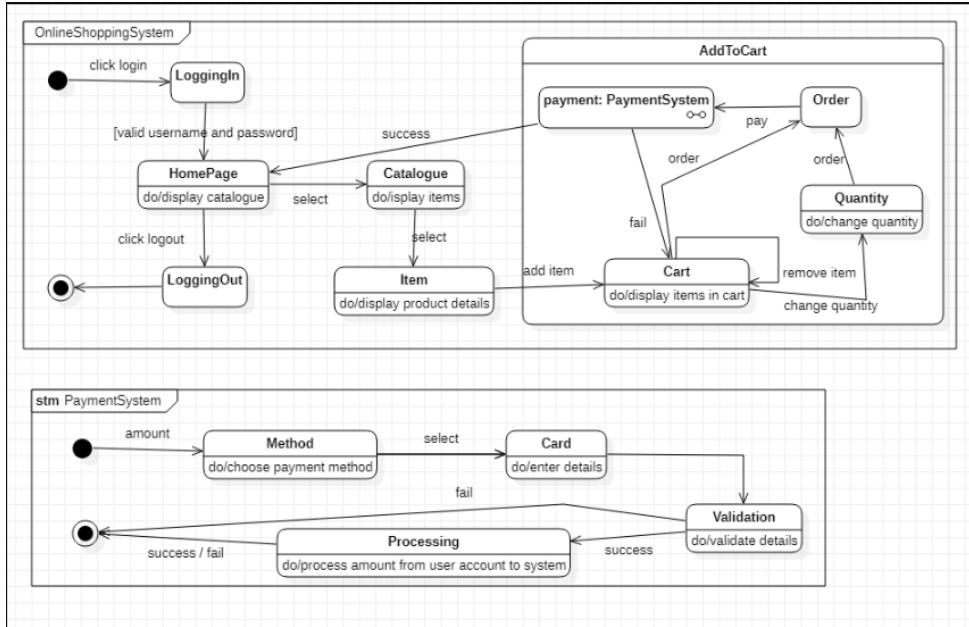
2. Advanced class diagram





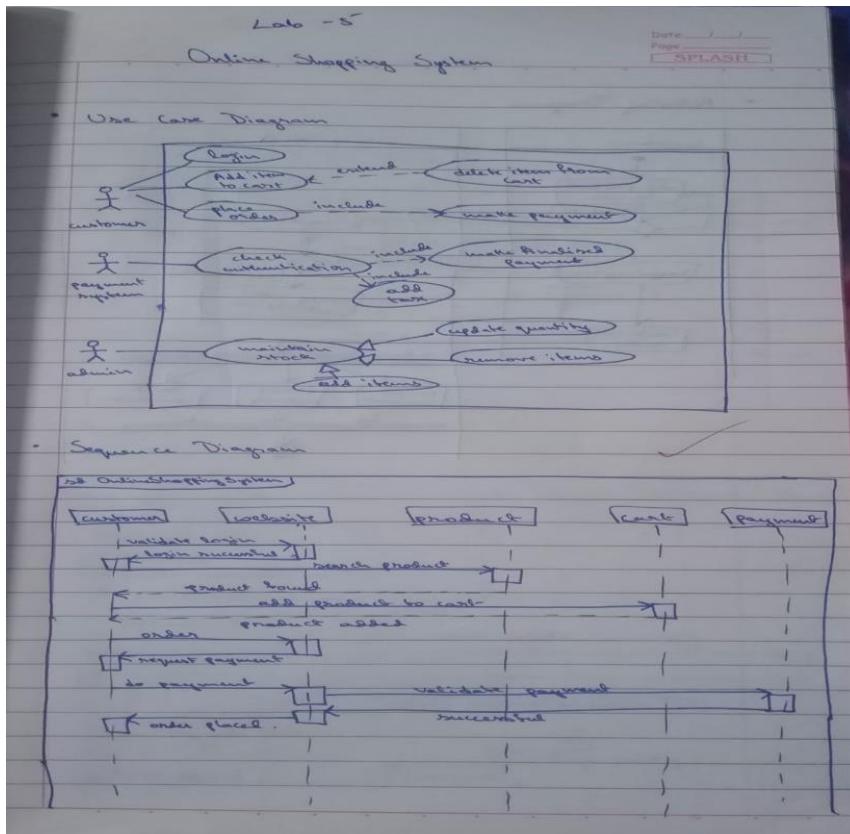
3. Advanced state diagram

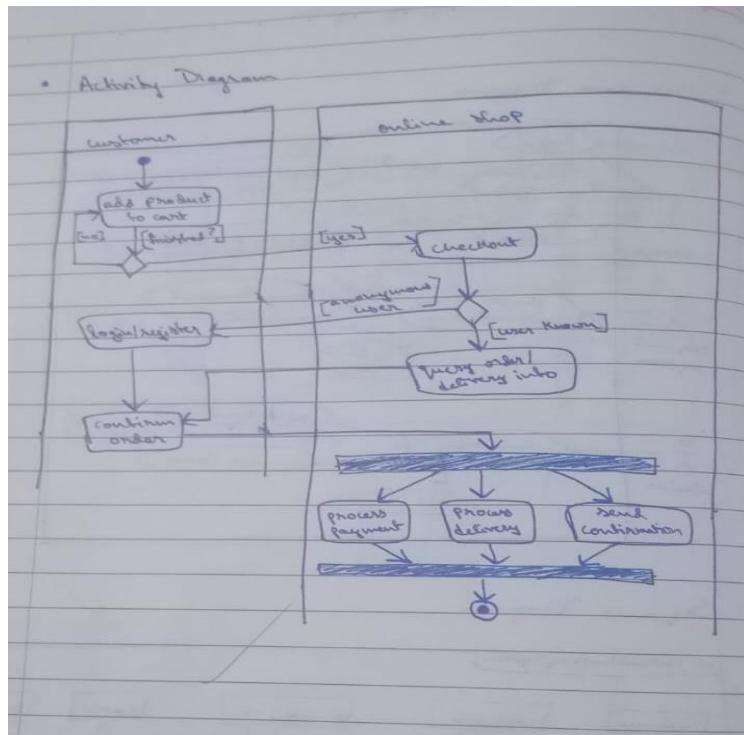




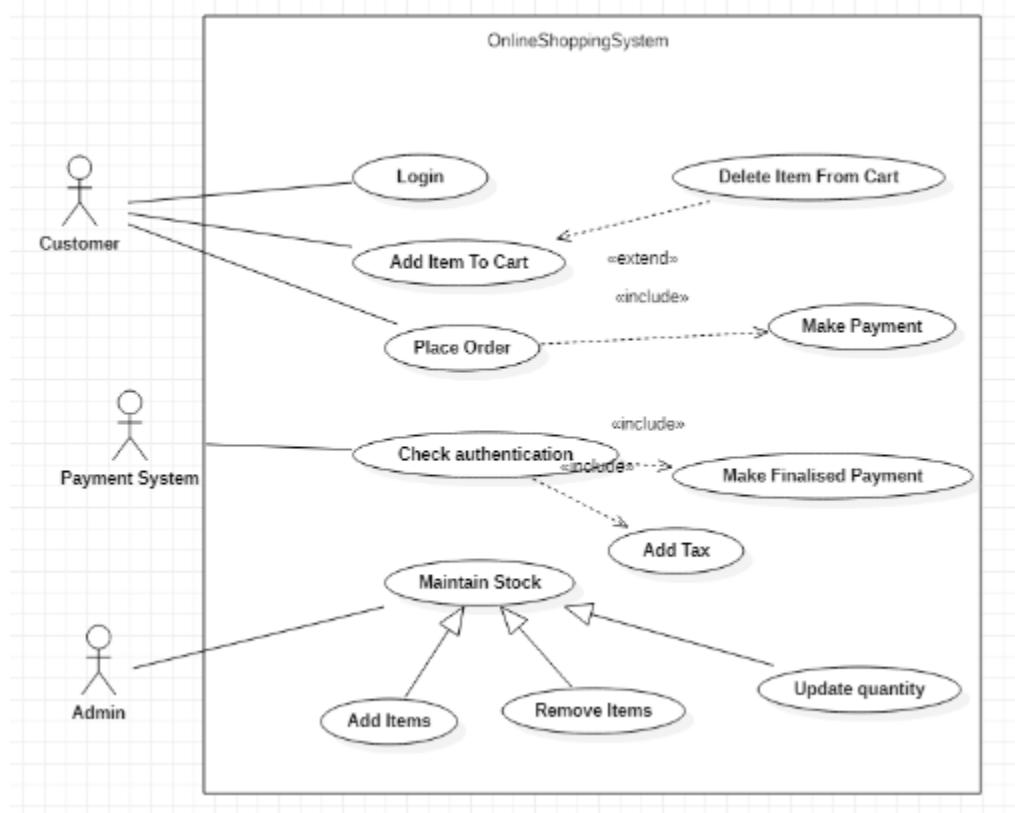
Scenario: user can view home page, add item to cart and pay for it.

- Interaction models



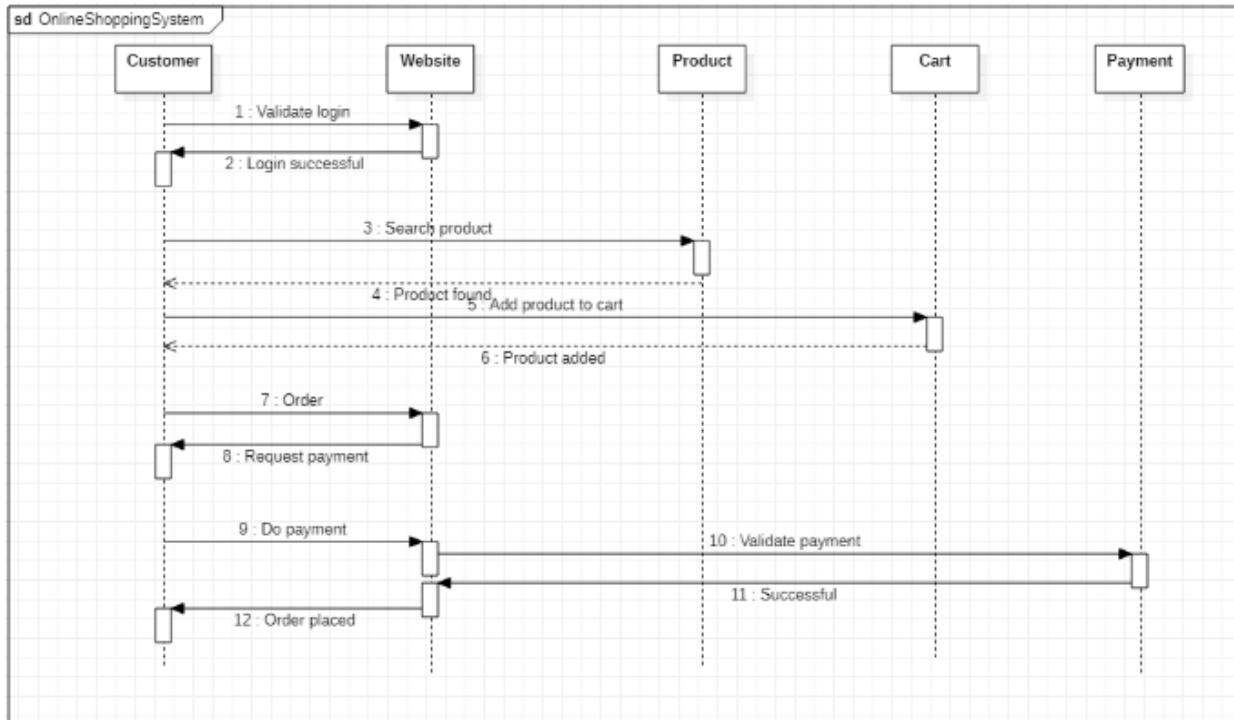


4. Advanced use case diagram



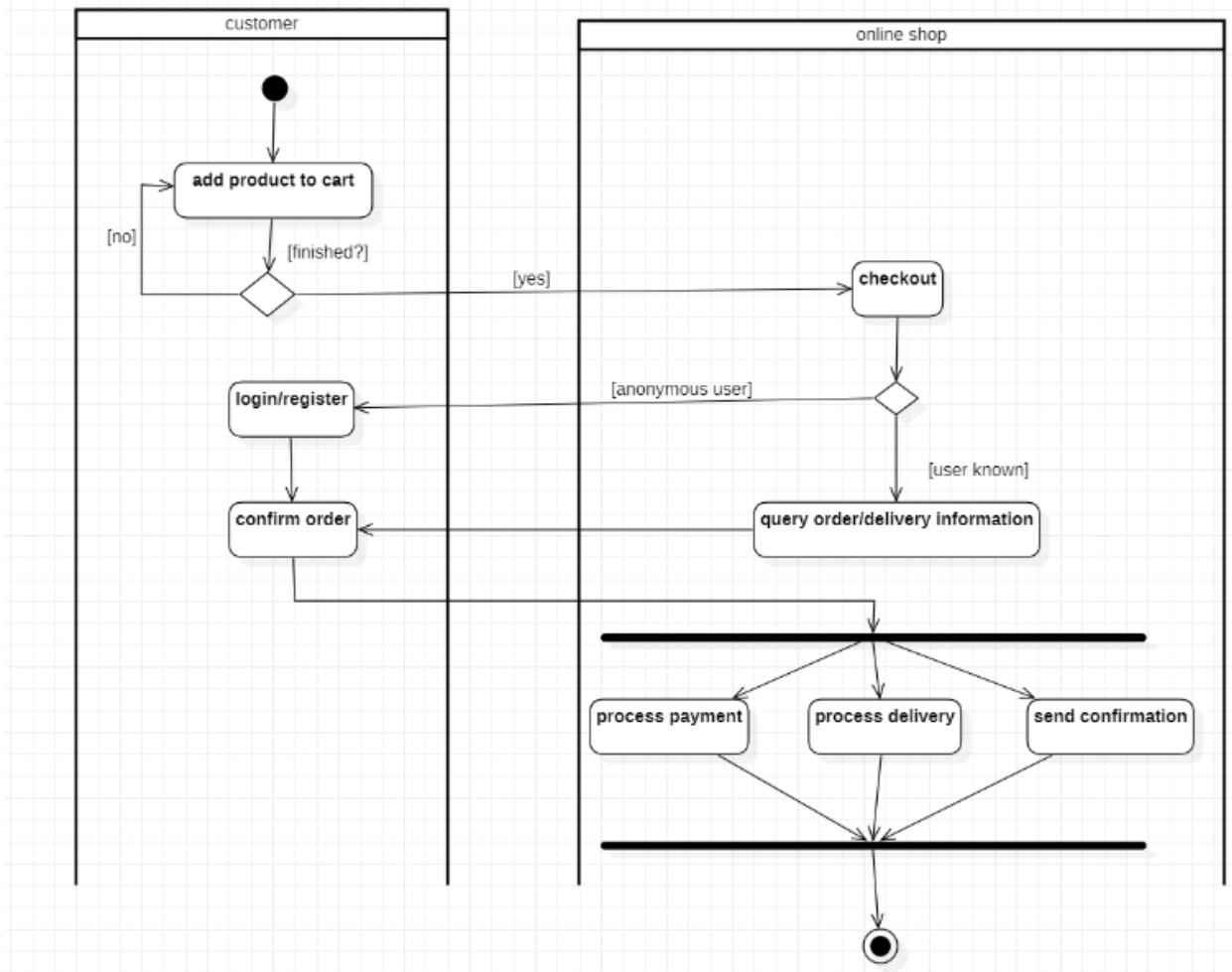
Scenario: admin maintains stock, payment system can authenticate, customer can login, place order.

5. Advanced sequence diagram



Scenario: customer orders a product.

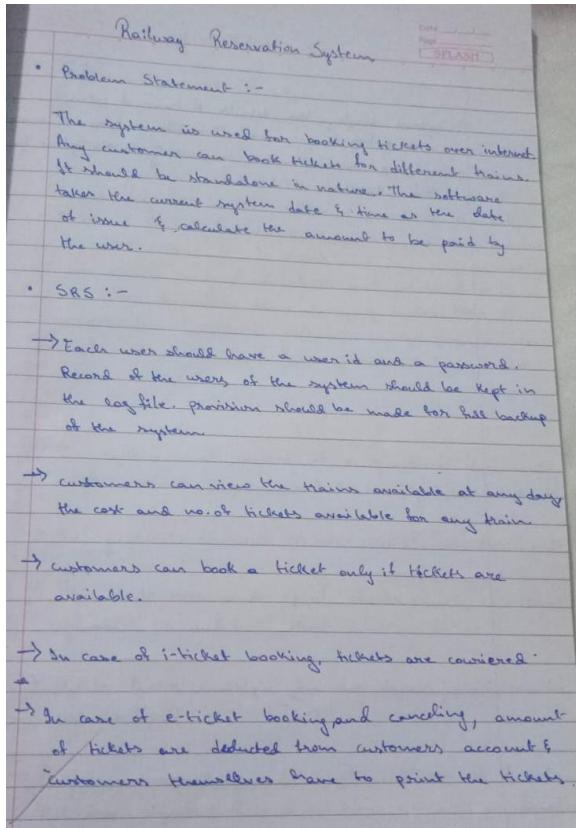
6. Advanced activity diagram



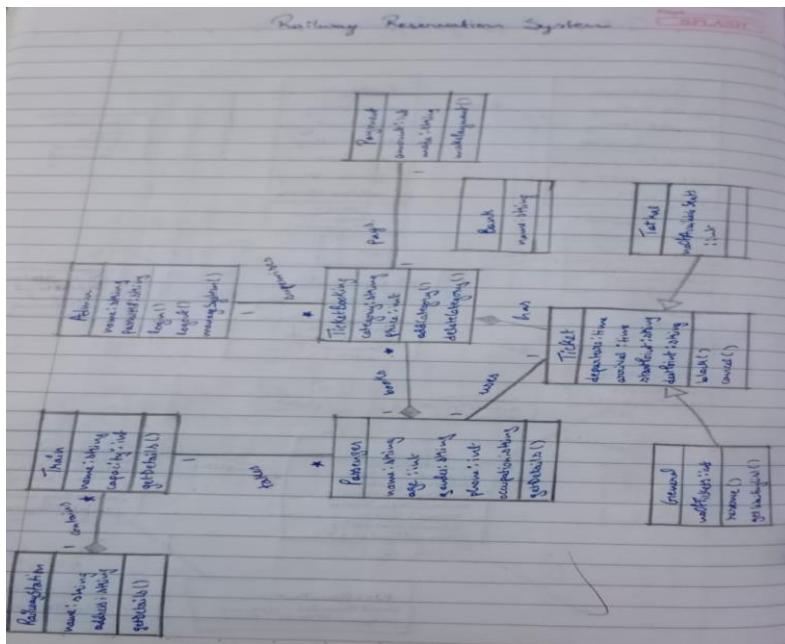
Scenario: customer ordering a product and online shop delivering it.

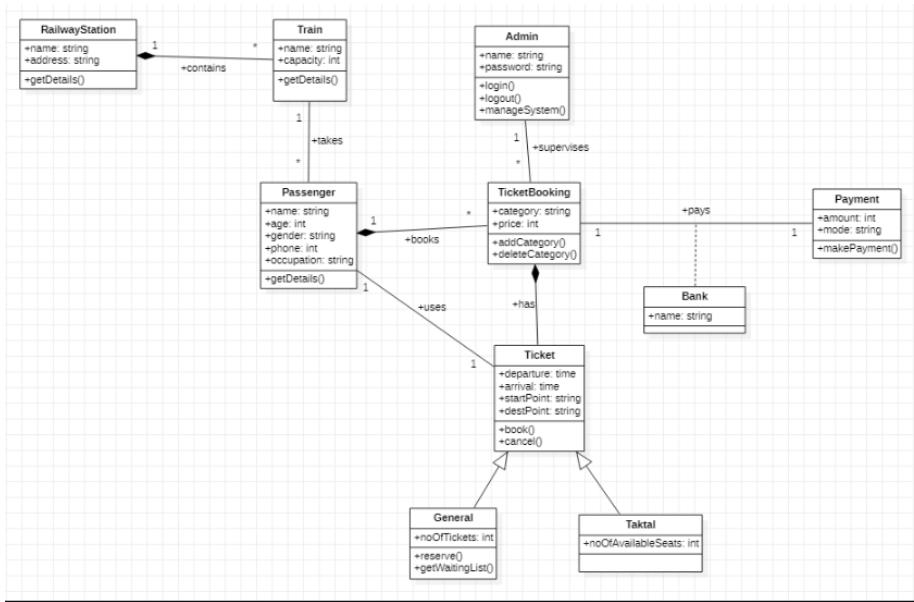
Exercise 6:

1. SRS

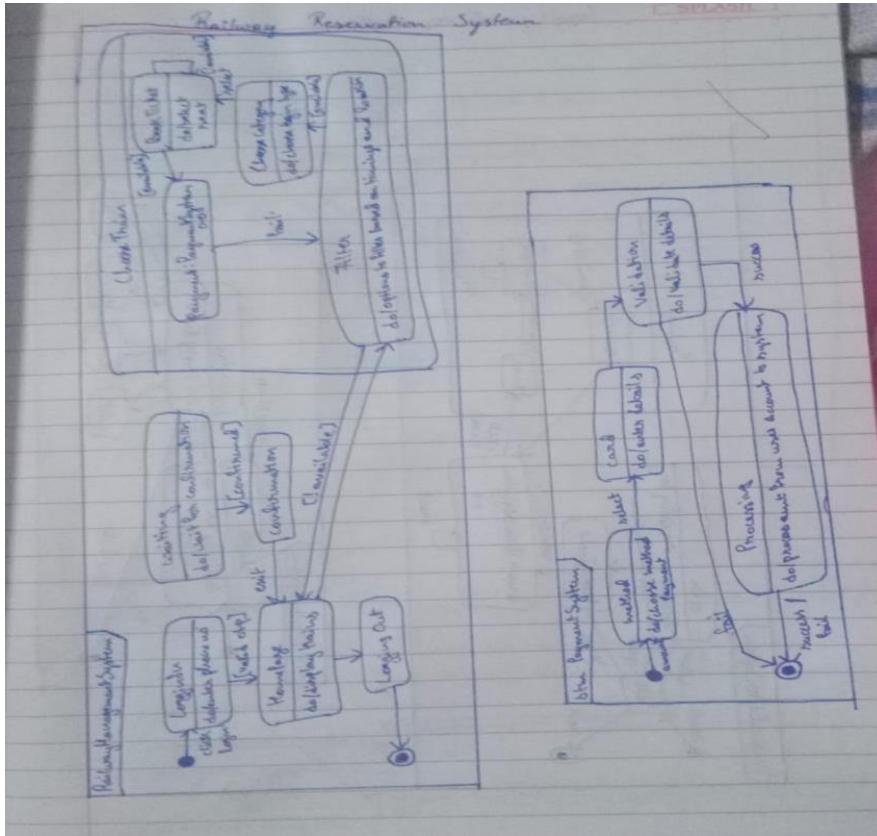


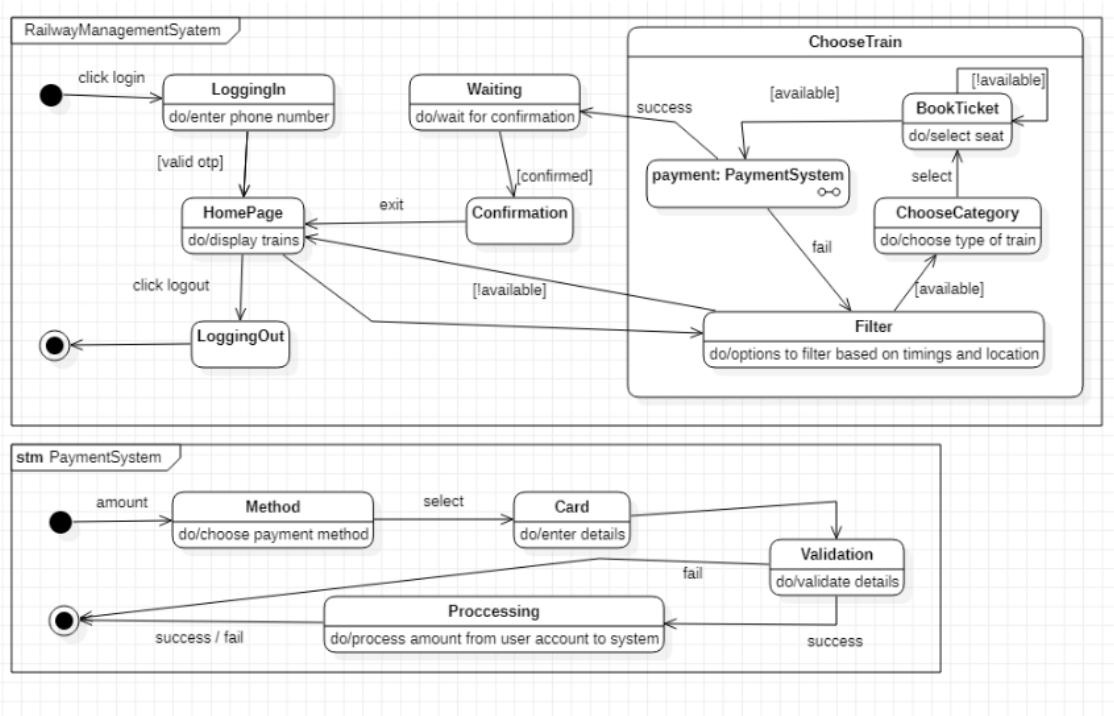
2. Advanced class diagram





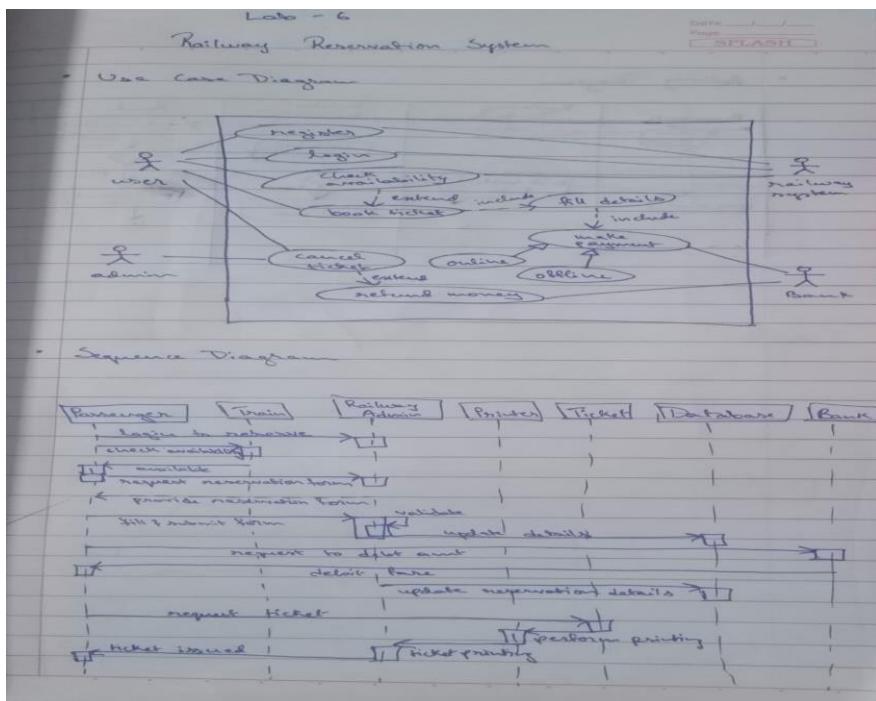
3. Advanced state diagram

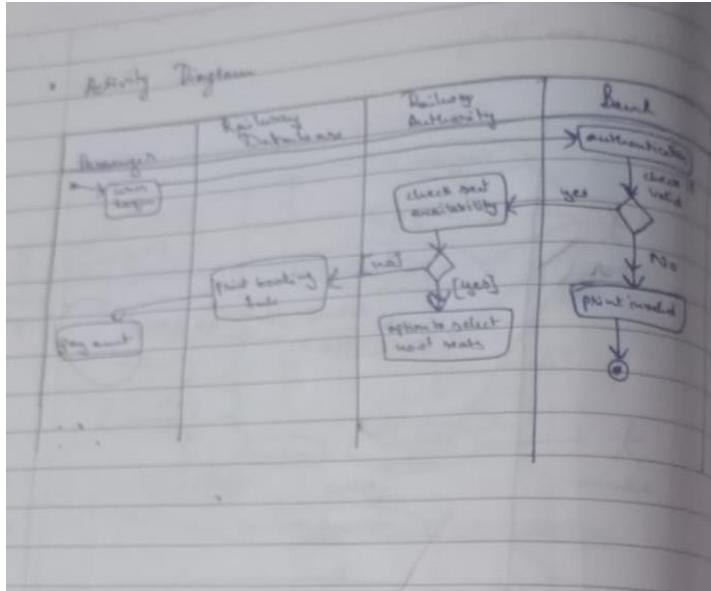




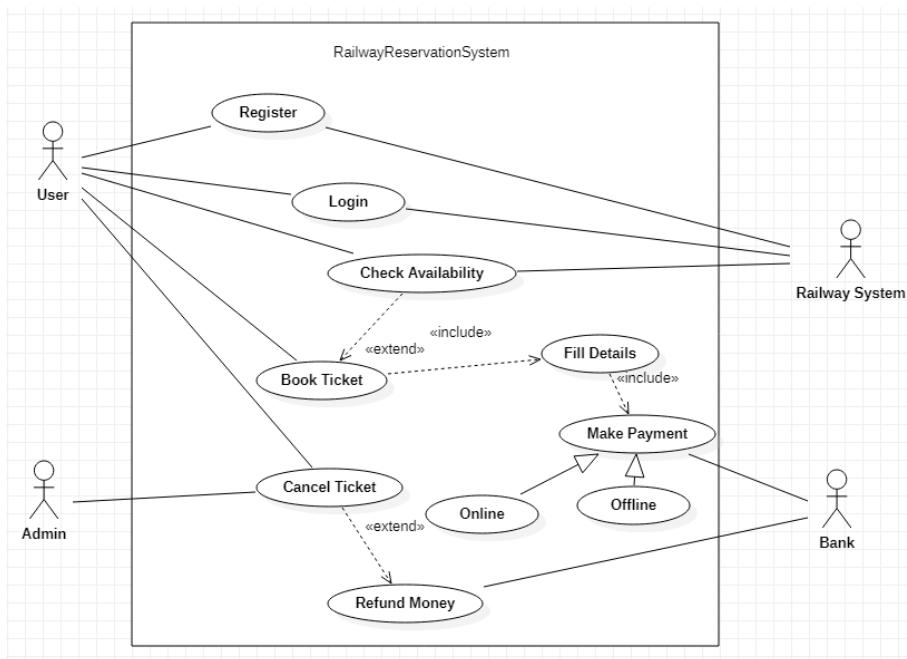
Scenario: user can login, view home page book ticket and pay for it.

- **Interaction models**



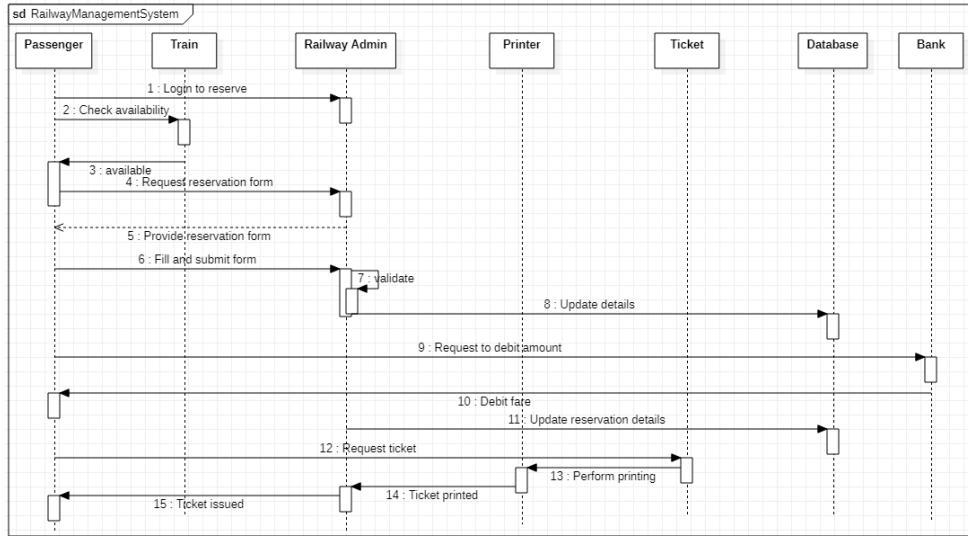


4. Advanced use case diagram



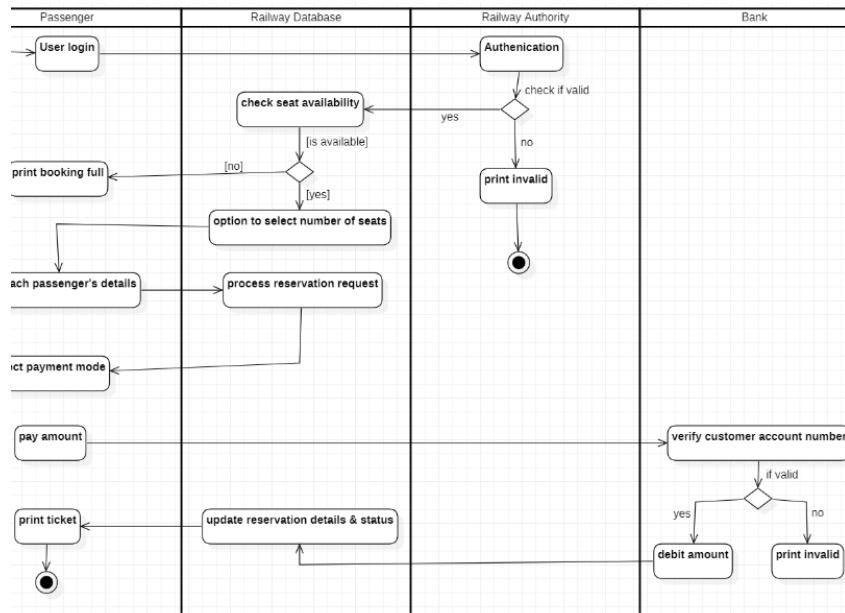
Scenario: user can register, login, and book tickets. Admin can cancel ticket. Bank can refund money. Railway system can check available tickets.

5. Advanced sequence diagram



Scenario: passenger can reserve a seat.

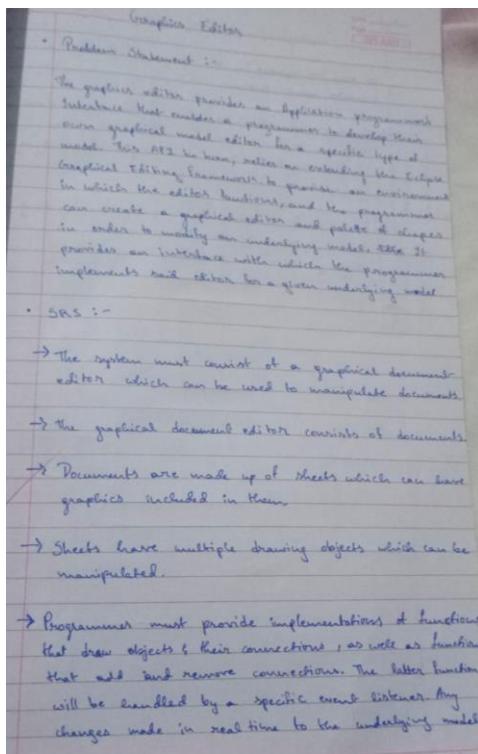
6. Advanced activity diagram



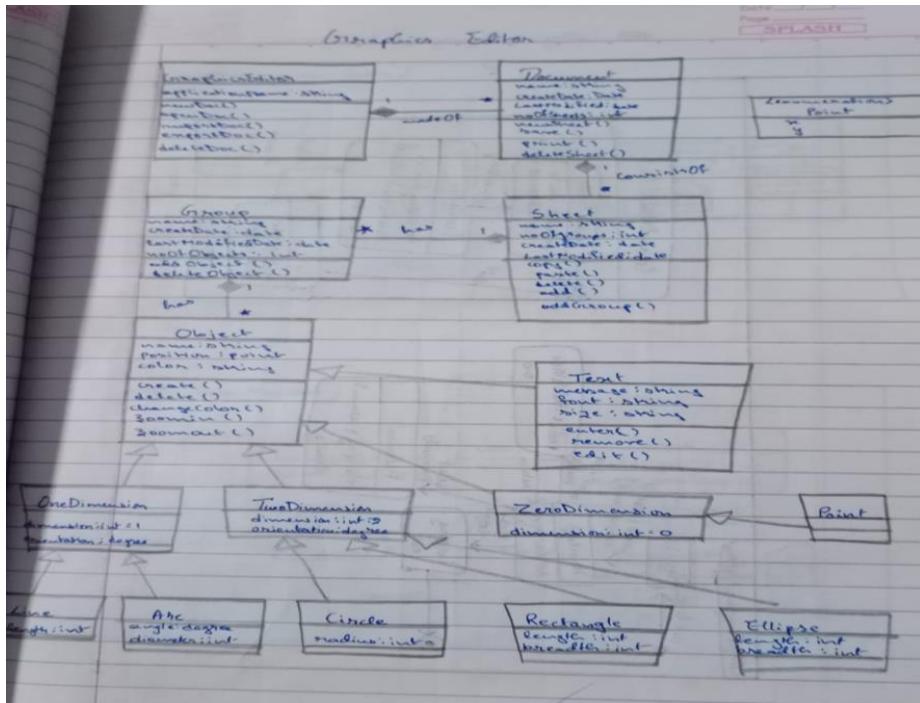
Scenario: passenger reserving and paying for the seat.

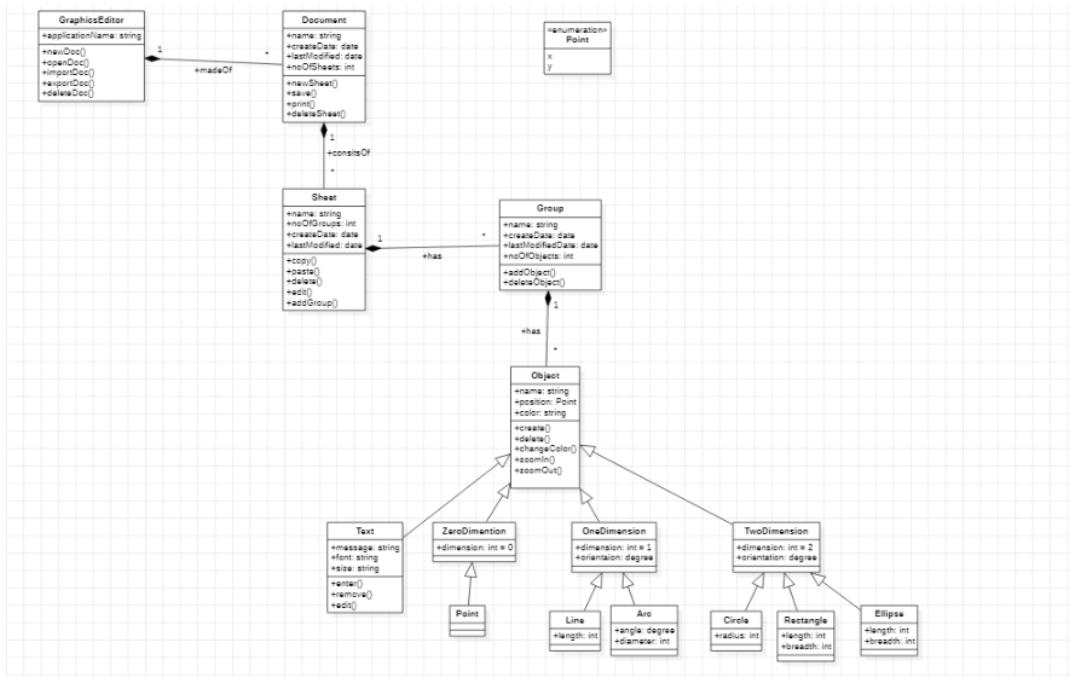
Exercise 7:

1. SRS

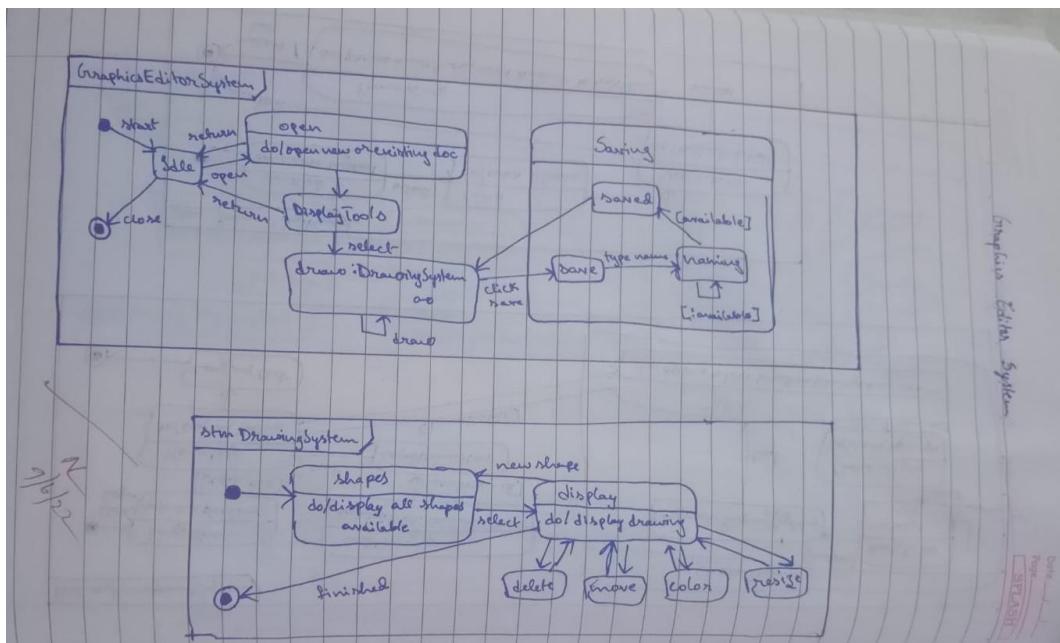


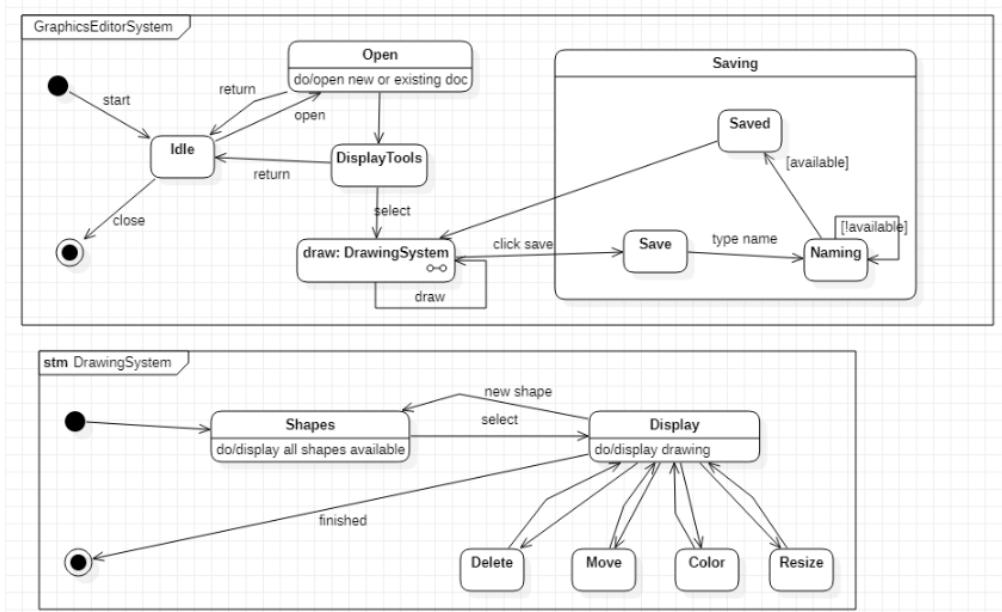
2. Advanced class diagram





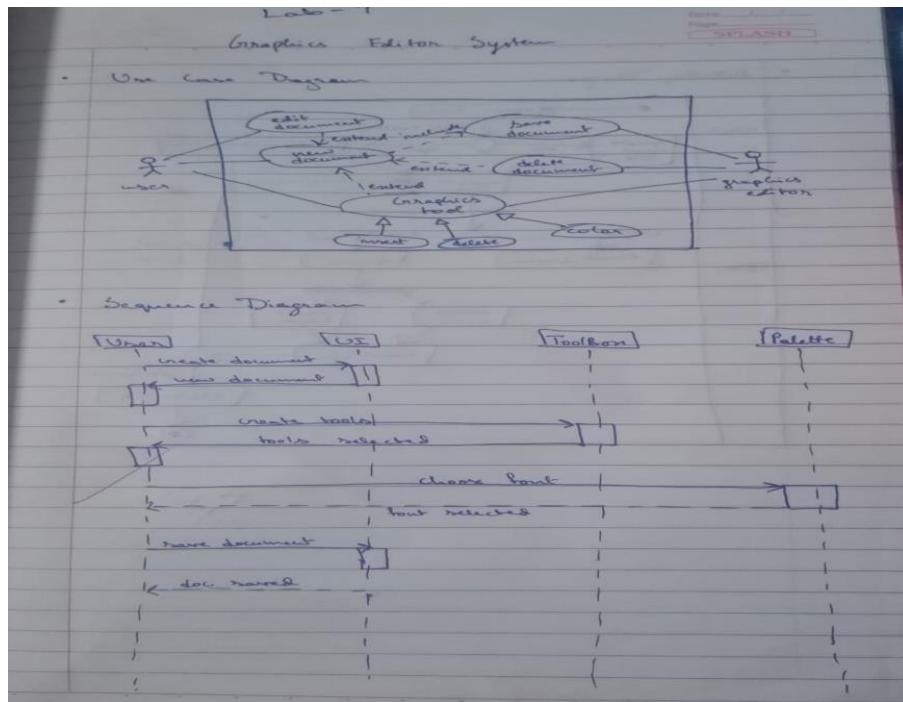
3. Advanced state diagram

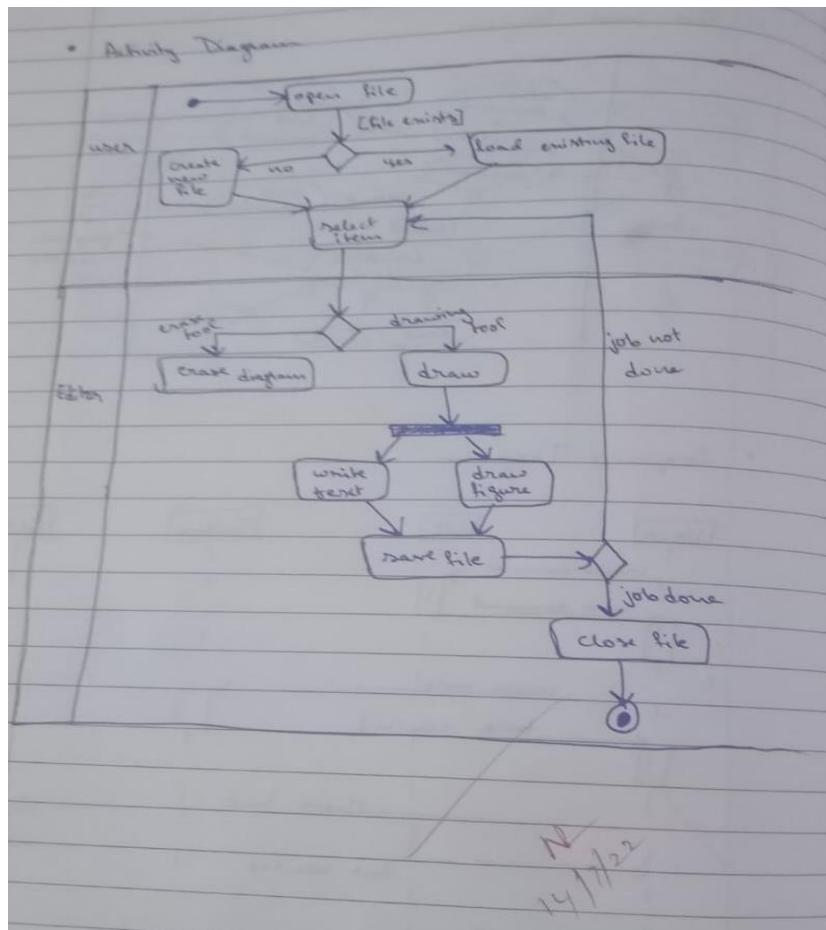




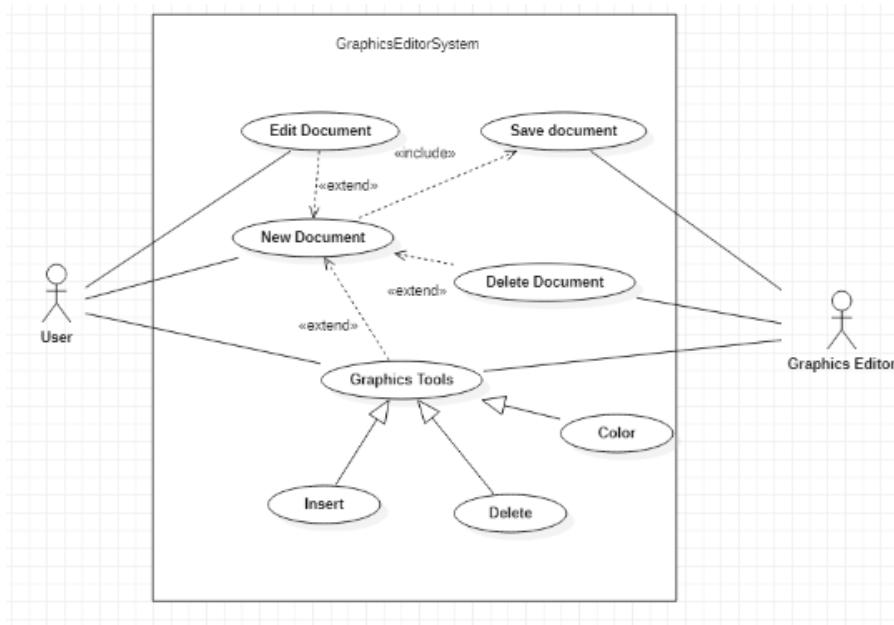
a. Give a description of the scenario considered for developing the model

- **Interaction models**



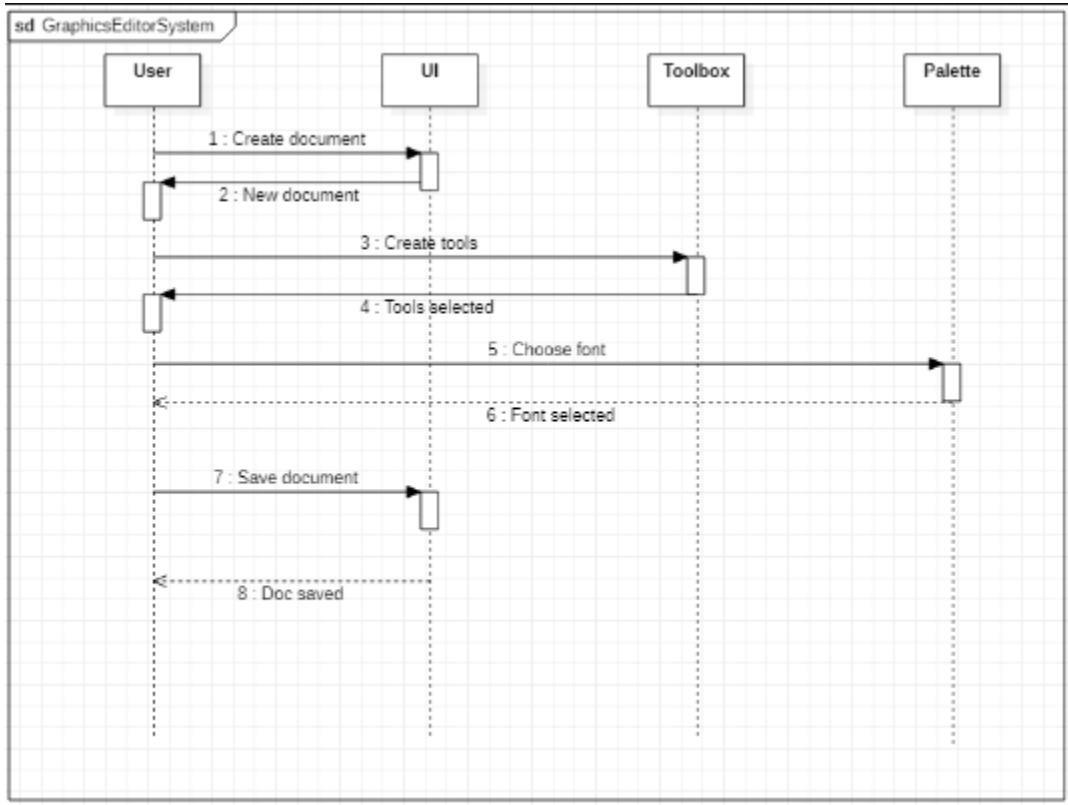


4. Advanced use case diagram



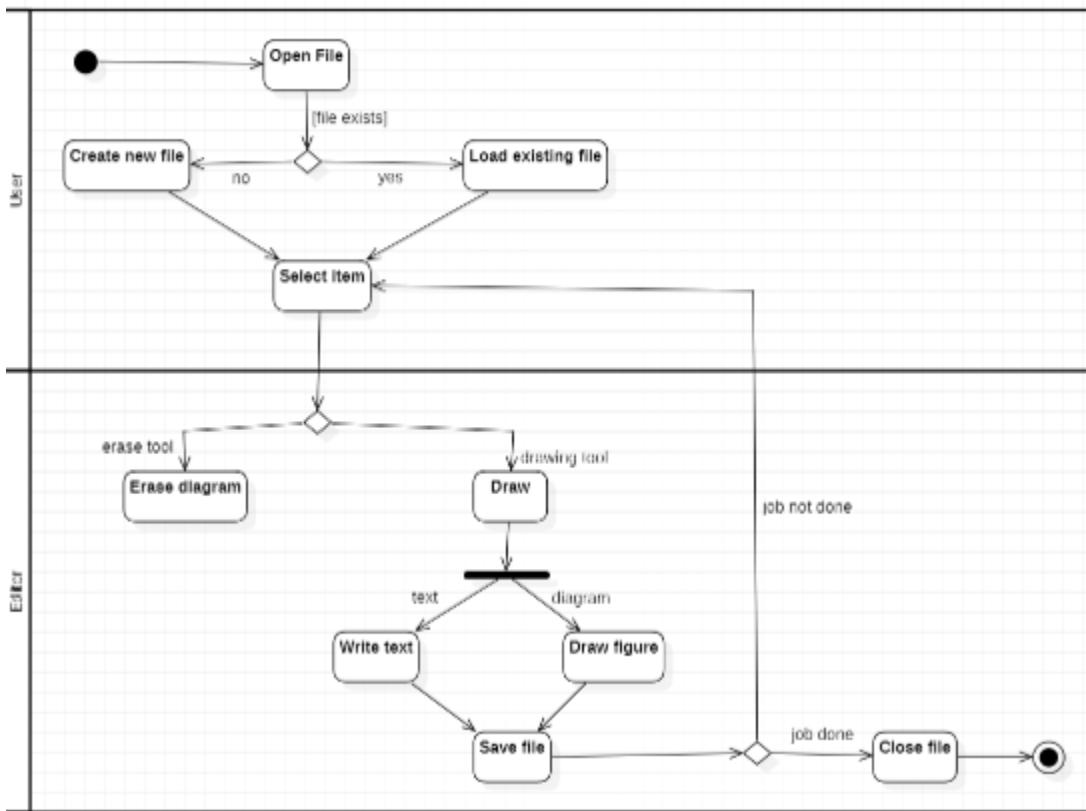
Scenario: user can edit, create document and use graphic tools. graphics editor can save and delete document and provide graphics tool.

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.