

College Information System

Problem statement:

The college information is a system that maintains student, staff and department information system. It maintains courses taught by teacher and students enrolled in them. Admission records of students and examination details and other important information related to college management is maintained.

Software - Requirement - specification

- College information sys. has admin who manages staff, student and department.
- Administration can view and modify the student's records such as attendance, academic details etc.
- Faculty should be able to view all personal details and edit internal marks and attendance.
- COE should be able to view all student details, view and edit all marks and publish results.
- Management should be able to view, add and edit teaching and non-teaching staff.

→ Placement section should be ~~closed~~ ~~closed~~
all student details and add companies coming
to the campus for placement.

→ Students can view all the details.
For eg. different courses information etc.

- #classes:
- Administration
 - Department
 - Staff
 - Courses
 - Teaching and non-teaching staff
 - Non-teaching staff
 - Placement
 - COE
 - Student
 - Courses

#Problem statement

The system is also used by students to provide

#SRS:

- Adm
- Adm
- him
- Stu
- and
- Adm
- Stu
- Me
-

#class

Hostel Management System

Problem statement:

The system is to provide college students accommodation to the university hostel more efficiently. It also stores details of hostellers and applied students. It is headed by warden. It will be used to make hostel allocation easier by providing online application for hostel.

#SRS:

- Administration can allot rooms to students
- Admin can login using credentials provided to him/her.
- Students can login using credentials provided and give staff feedback or file complaints.
- Admin can appoint staff
- Student can provide mess feedback
- Mess manager can view feedback and updated menu list.

#classes:- Person / Student

- Administrator
- Warden
- Hostel
- Rooms
- Rooms-allocation
- Room-type

3. Stock Maintenance

Problem statement :

- The stock maintenance system is basically for the customers who access the information about the stock and retrieves the information. The stock maintenance system is to replace the existing maintenance system which is inefficient.
- The ~~new stock~~ vendor deals with the information about the details of the supplier giving product to the organization.

#S-R-S

- The customer can purchase one or more products on any day, which will have a code price and quantity.
- Customer will need to pay bill for the products before he/she has purchased.
- The stock of the product is maintained by separately. The stock deals with information about the details of the product that the concerned is handling.
- Stock consists of details such as name, product id, quantity and cost.
- Vendor deals with the information about the details of the supplier giving product.

classes: - est. coffee & producer no more than 1000 ft.
- product of beans or from various countries
- vendor est. of coffee market and

~~1. Sell, usually for profit top brands wear art
order - customer~~

was to follow up leads from message, etc.

and left 40 miles at 1100 so Hark. met us —
2000, and took us a distance of 10 miles.

4. Coffee Vending Machine

Problem statement:

- Design UML diagrams for ~~decentralized~~ coffee vending machine system provided with system requirements specification.

Software - Requirement - Specification

- The vending machine must have money box, coin slot, display screen, and products i.e. coffee for the machine to be used.
- The user on selecting a coffee, the coffee machine must be able to dispense the selected coffee to the user.
- The user should get empty cup placed right below the filter. The user shall be able to choose his preferred beverages from the list of options.
- The system must check the validity of coins.
- System shall be able to detect the low amount of ingredients and low no. of cups and indicate with an indicator.

- The system (machine) shall check for properly inserted coins.
- The machine shall be able to dispense coffee after coin has been inserted.
- A deposit mechanism must accept coins of diff.
- The system must compare the amount and the item cost with entered coin.

~~notified message transmitted - result~~

- # class
- item
 - selector
 - coffee machine
 - money box
 - coin slot
 - display
 - user
 - product

~~possibly not pure object oriented but with~~

- two get this method and

~~pure language so this will be used~~

- methods being in this bridge and
- can't this interface pure message I/O

5. Online shopping System

Problem Statement:

The online shopping system provides all kinds of products via application which is intended to provide complete solution for vendors as well as customers through a single gateway using internet.

Software - Requirement Specification

- The customer has an account in the online website where he/she can purchase products.
- Customer login to the system by entering valid user id and password.
- Customers can view all available products, compare them and make a choice for purchasing the products.
- After the payment of any product, the customer will log out.
- Secure billing will be prepared and have options like pre-paid, debit/credit card UPI options and security will be provided for payment gateway.

Classes:

→ Customer

→ Account

→ Payment type information provided

at point of sale → Order with new credit provided

information → Bill information of beginning of

→ Items

→ shopping cart information for storage

referred to as - Transaction - Receipt - Message

order is now blank now ready to
be sent.

Transactions must not occur now until e-
stablished with bank info, with info
of business and so on

Bank info, address etc. understood and ready to
be used.

and transaction will be understood with
the business and company info

and business will begin to understand what
is required with next step necessary to go
forward with business information now
this requirement is known as payment and
transaction will be done.

6. Railway reservation system

Problem Statement:

Railway reservation system is used to for booking tickets over the internet. Software to be developed for automating manual reservation systems of railways.

Software - Requirement - Specification

- Each user should have a user id and a password.
- Customer can view the trains available at any time, any day and the cost, and the no. of seats available.
- Tickets can be booked in 2 ways, i-ticket and e-ticket.
- After booking ticket the customer has to check-out by paying fare amount to clerk.
- For cancellation of ticket the customer has to go at reservation office then fill cancellation form, the refund is transferred into customers account.
- Tickets can be booked only if tickets are available.

Classes:

- Coach
- Train
- Admin
- Reservation
- Passenger
- Tickets → of ticket
- Payment

Transport modal

Passenger → who will take ticket and
will be subject of reservation

Reserve → have right of removing

Passenger

Tickets → of ticket

Payment

Transport modal

~~Reserve → have right of removing~~

~~Passenger → who will take ticket and
will be subject of reservation~~

Order power of the owner of transport A ←
must be below the authority and no higher

owner has also no right ←
to sell and assign part of ownership
without selling out first

Reserve → one object must work ←
to equal, between the two objects
better fit

Supply does not affect possession of A ←
transport, except that such transport
can't be used as object

7. Graphics editor

Problem statement:

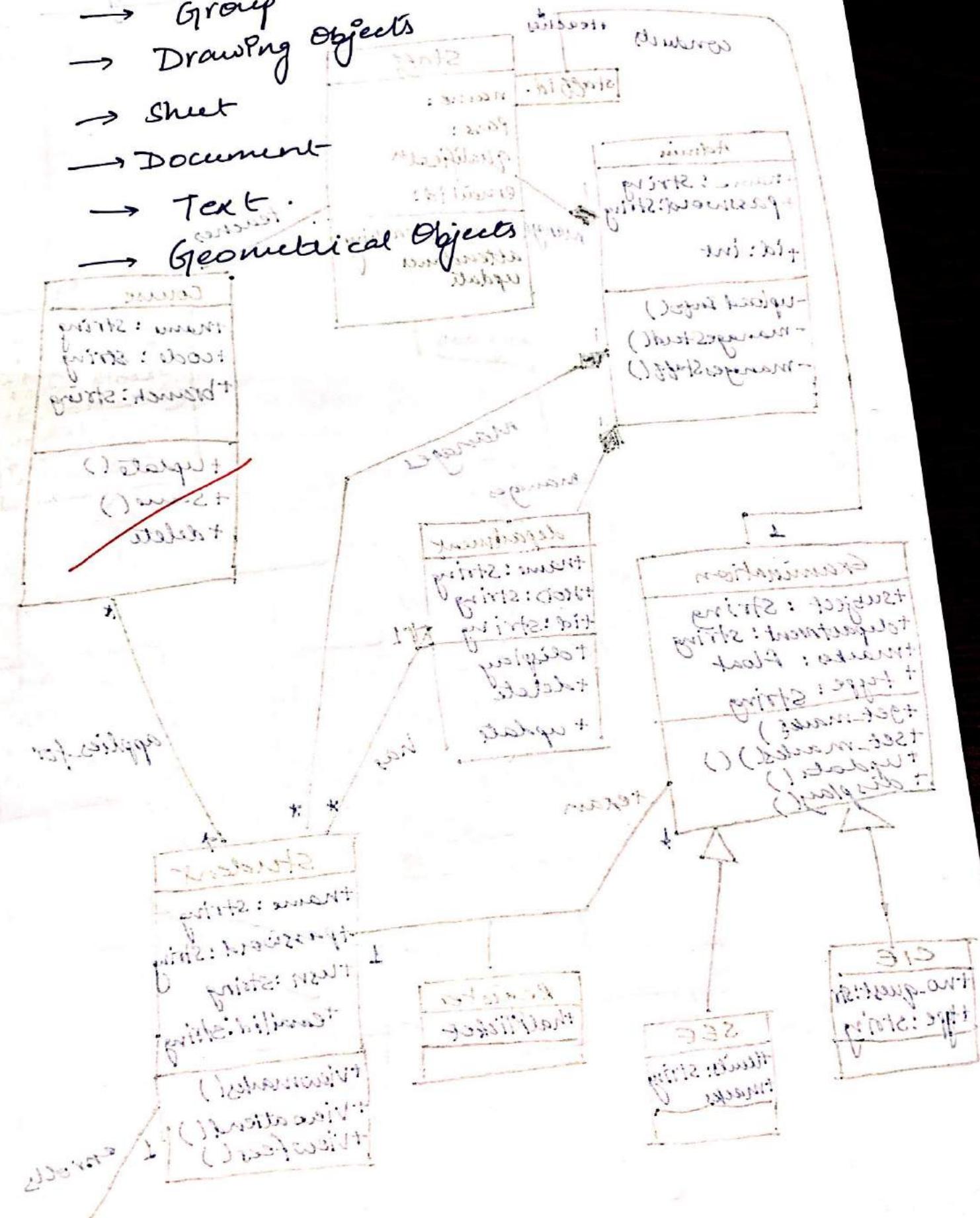
The graphics editor provides an Application Programmer's Interface that enables a programmer to develop their own graphical model editor for a specific type of model.

Software - Requirement - Specification

- The graphical editor consists of graphical document editor which can be used to create new document, delete, update, or view docs.
- A document is made up of many sheets which can have graphics included in them.
- The user can also add and remove connections b/w these objects as needed using the palette supplied.
- Sheets have multiple no. of drawing objects which can be created, grouped or formatted.
- A geometrical object includes circle, ellipse, rectangles, lines, and squares, trapeziums which are identified by their respective constraints.

Classes:

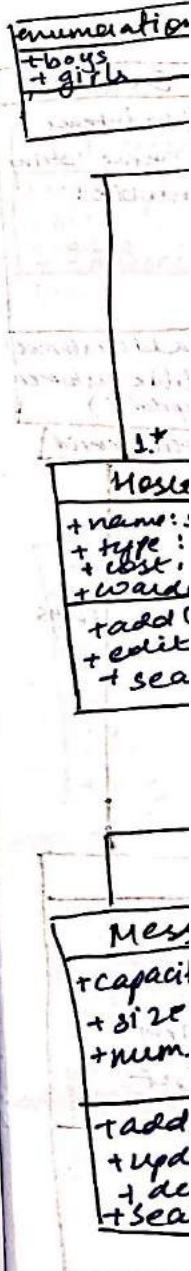
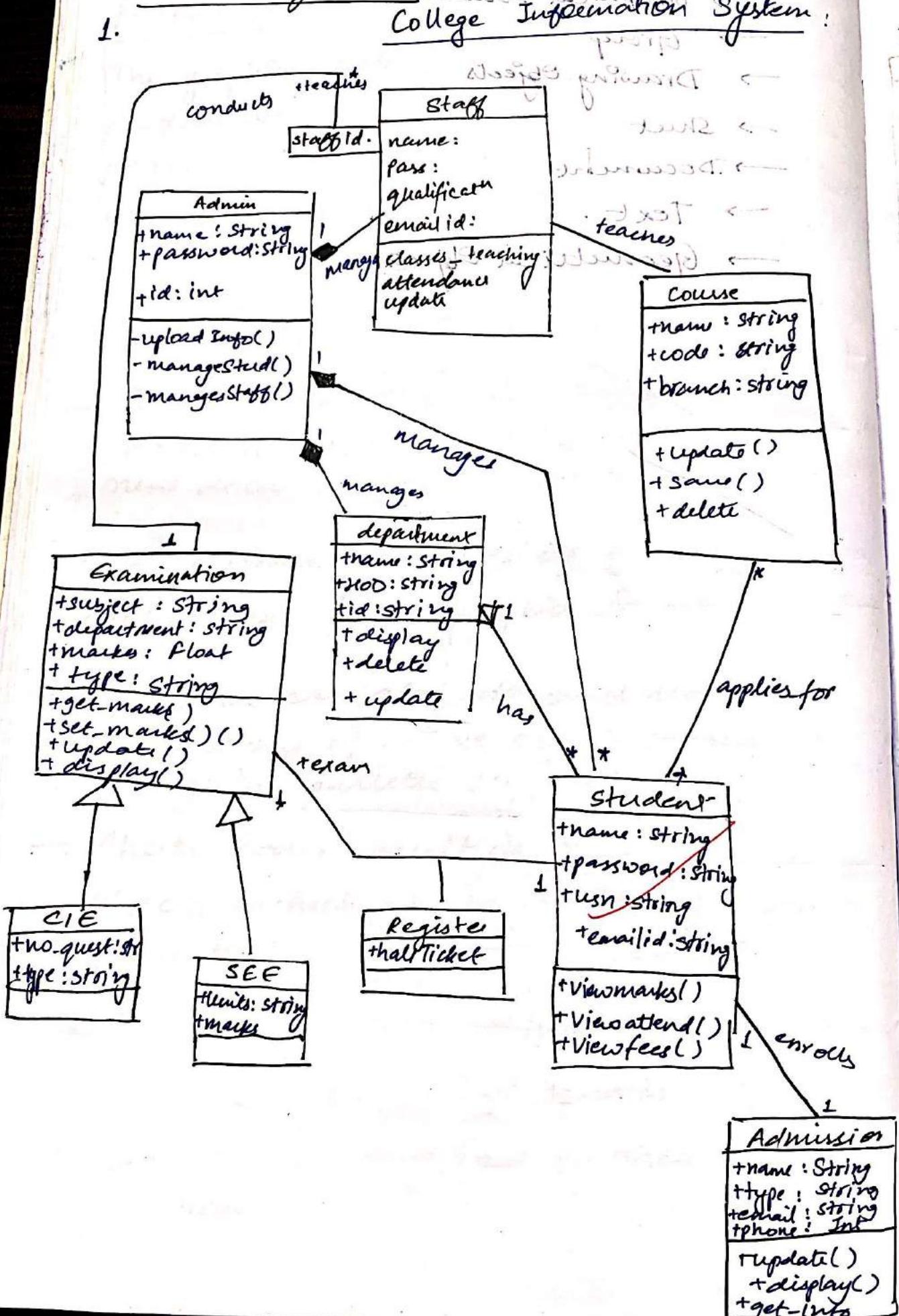
- Graphical Document Editor
- Group
- Drawing Objects
- Sheet
- Document
- Text
- Geometrical Objects



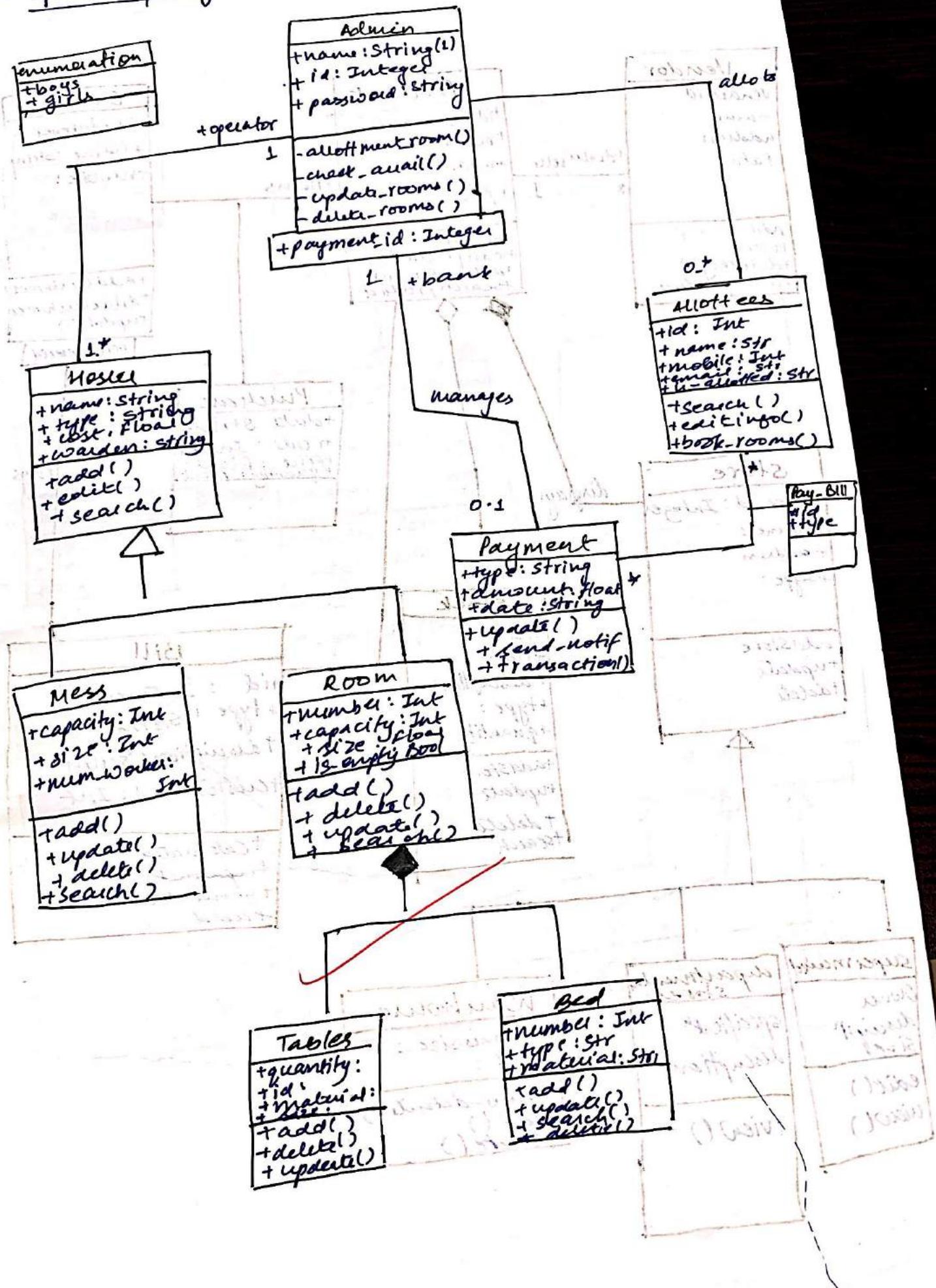
Lab - 2

Class diagrams :

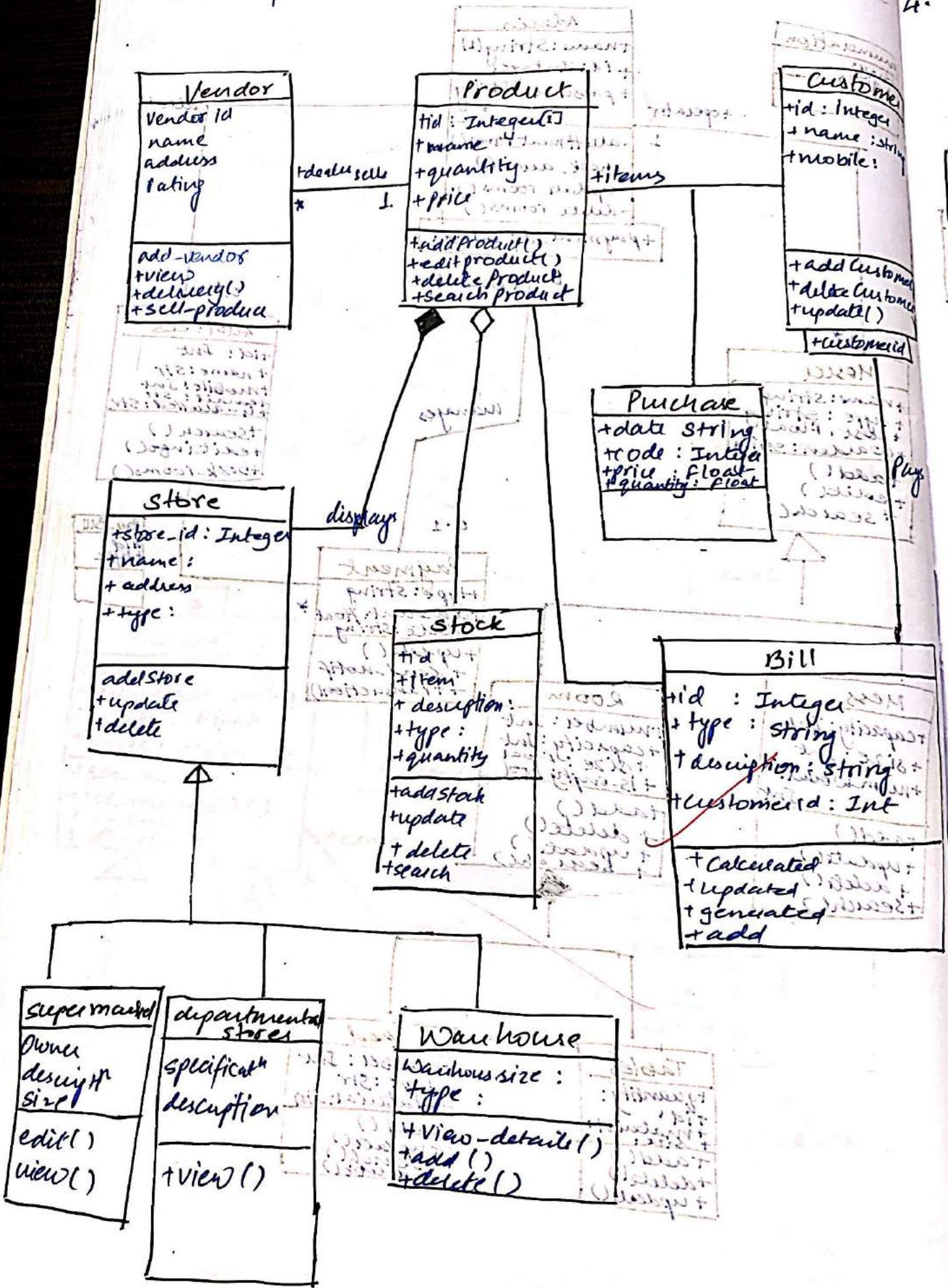
2. Hostel 1



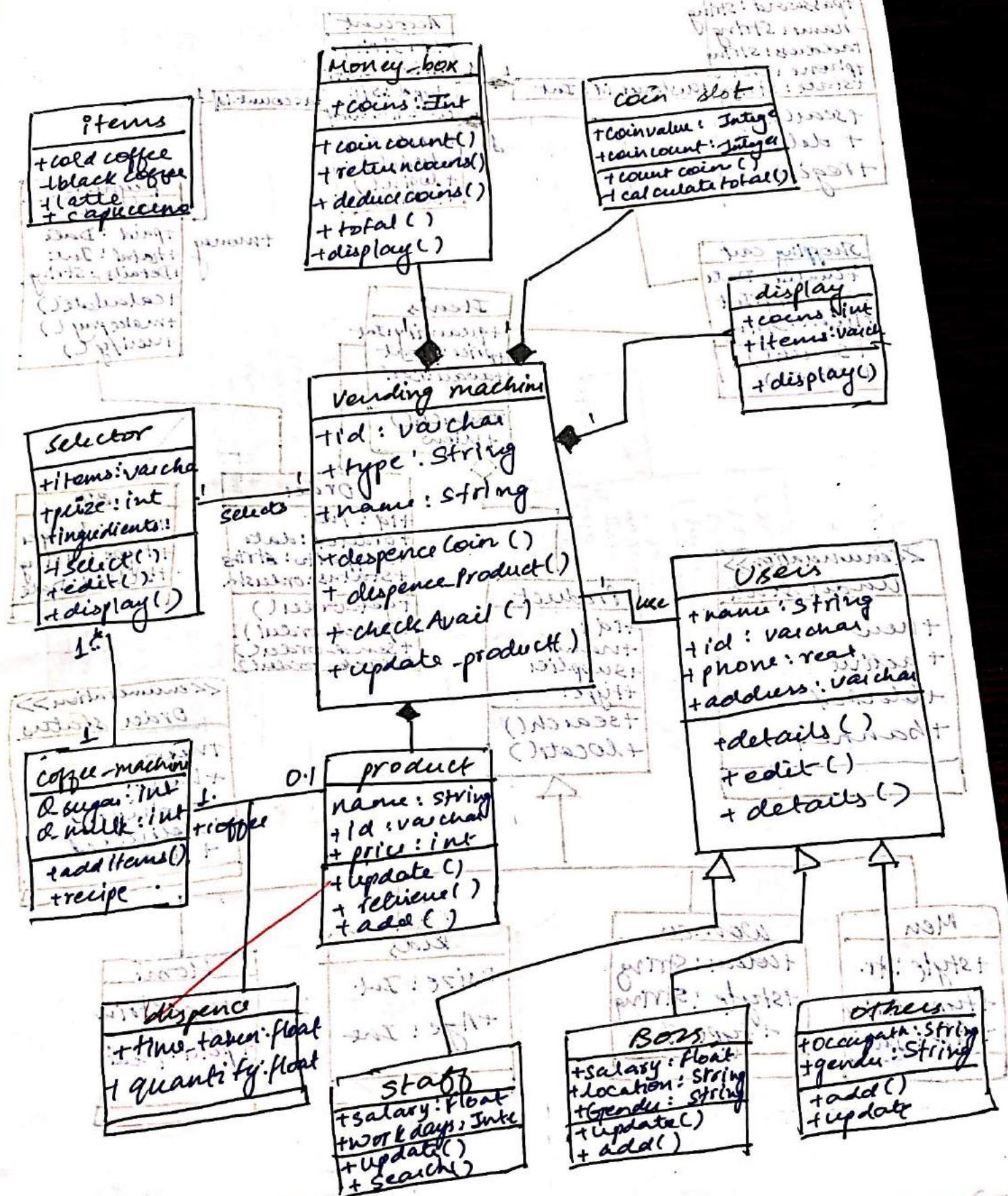
2. Hostel Management System



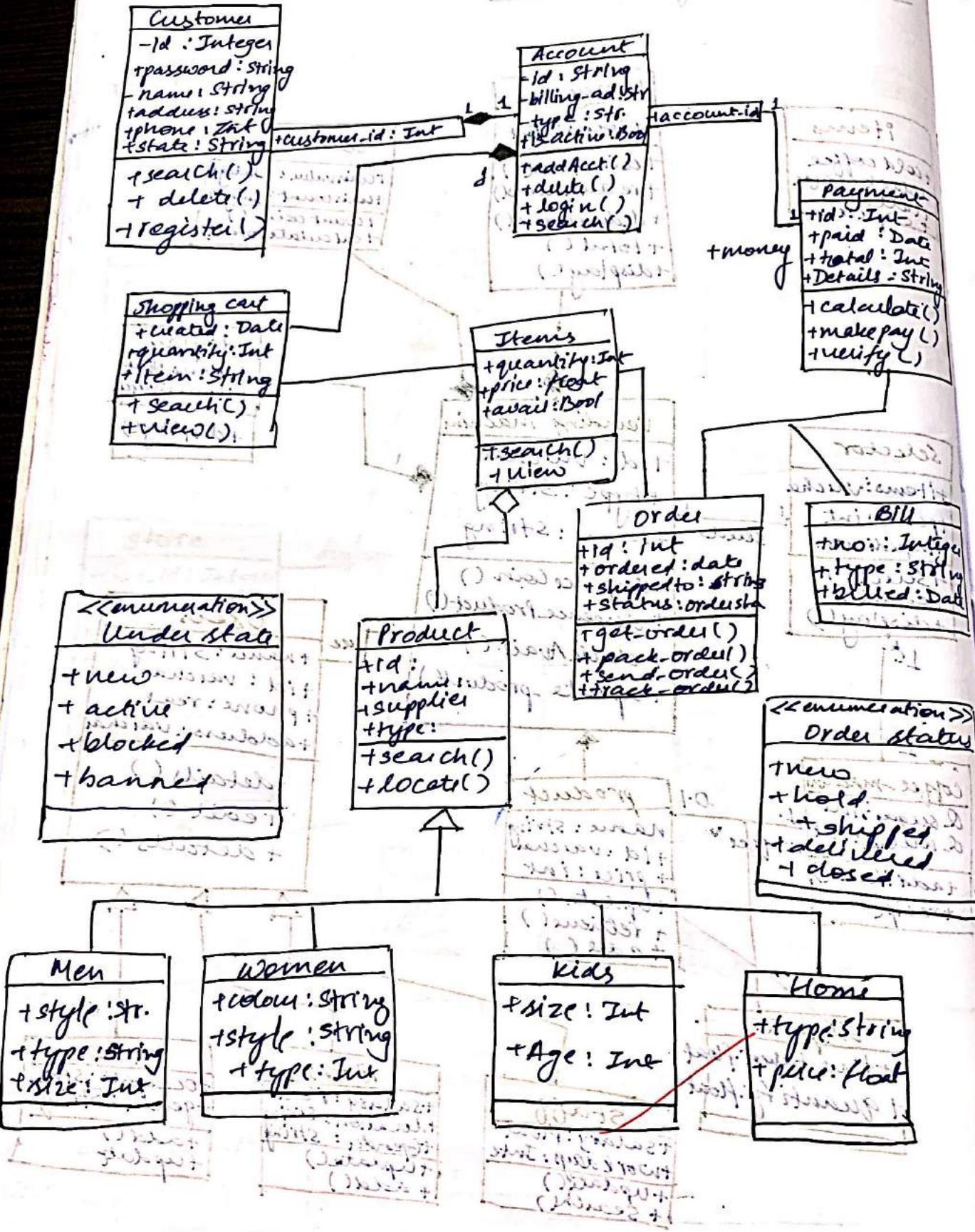
3. Stock Maintenance System



4. Coffee Vending Machine



5. Online shopping system



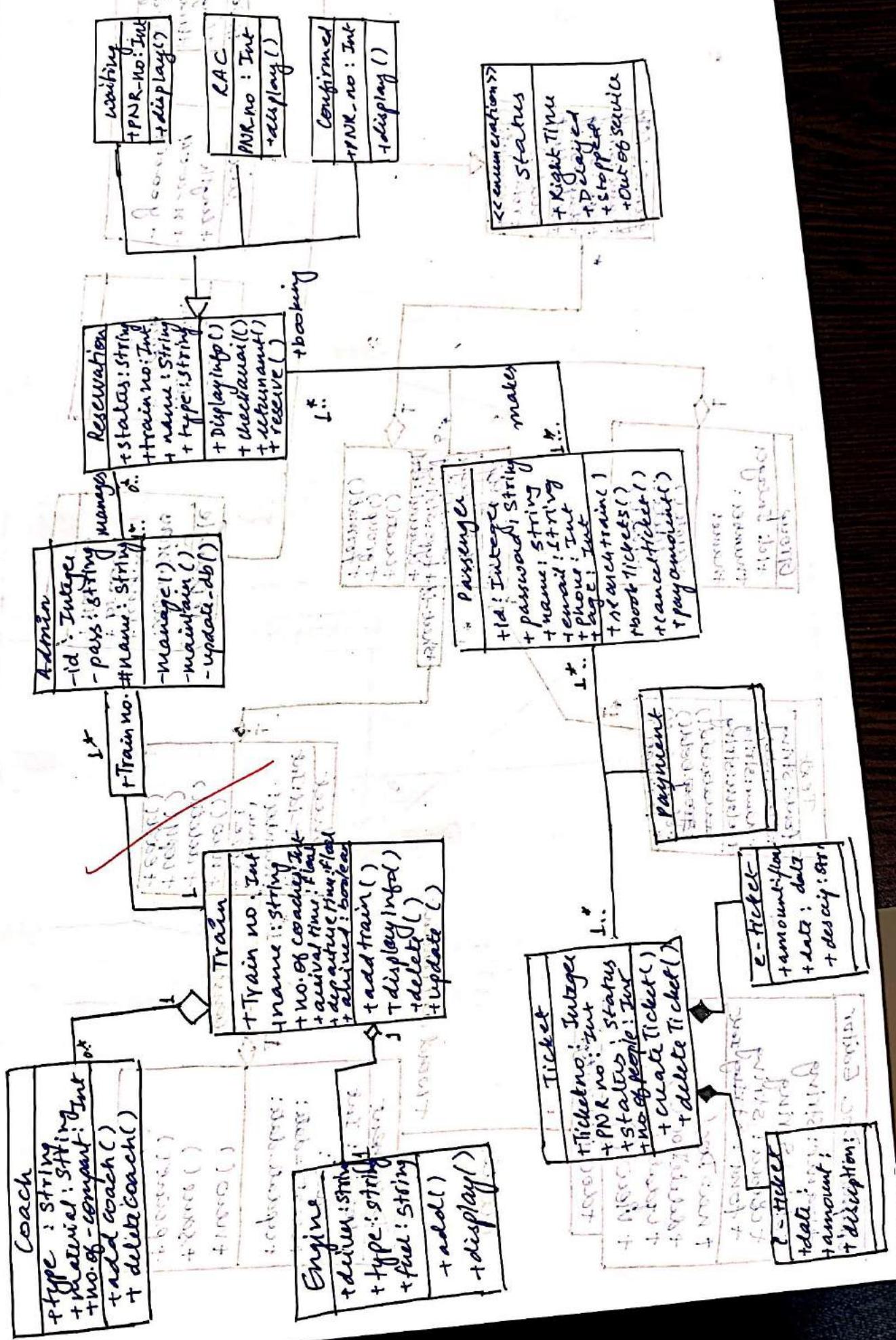
6. Railway

Waiting
PNR No : Int

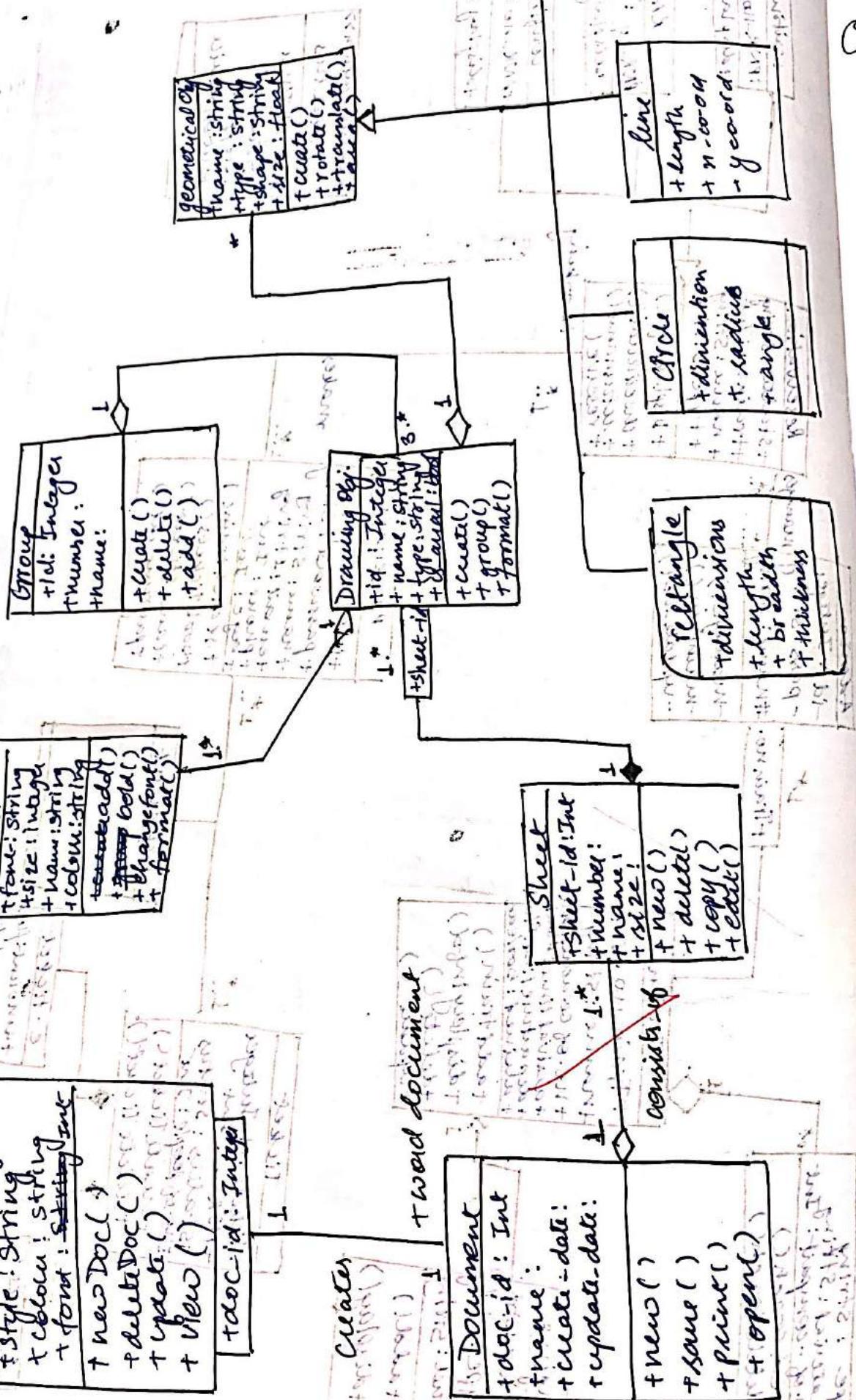
Reservation

Admission
id : Integer

6. Railway reservation system:



2. Graphics editor



① College Enquiry System

Manage

do/man

do/upload

Graphical Doc Editor



+ word document

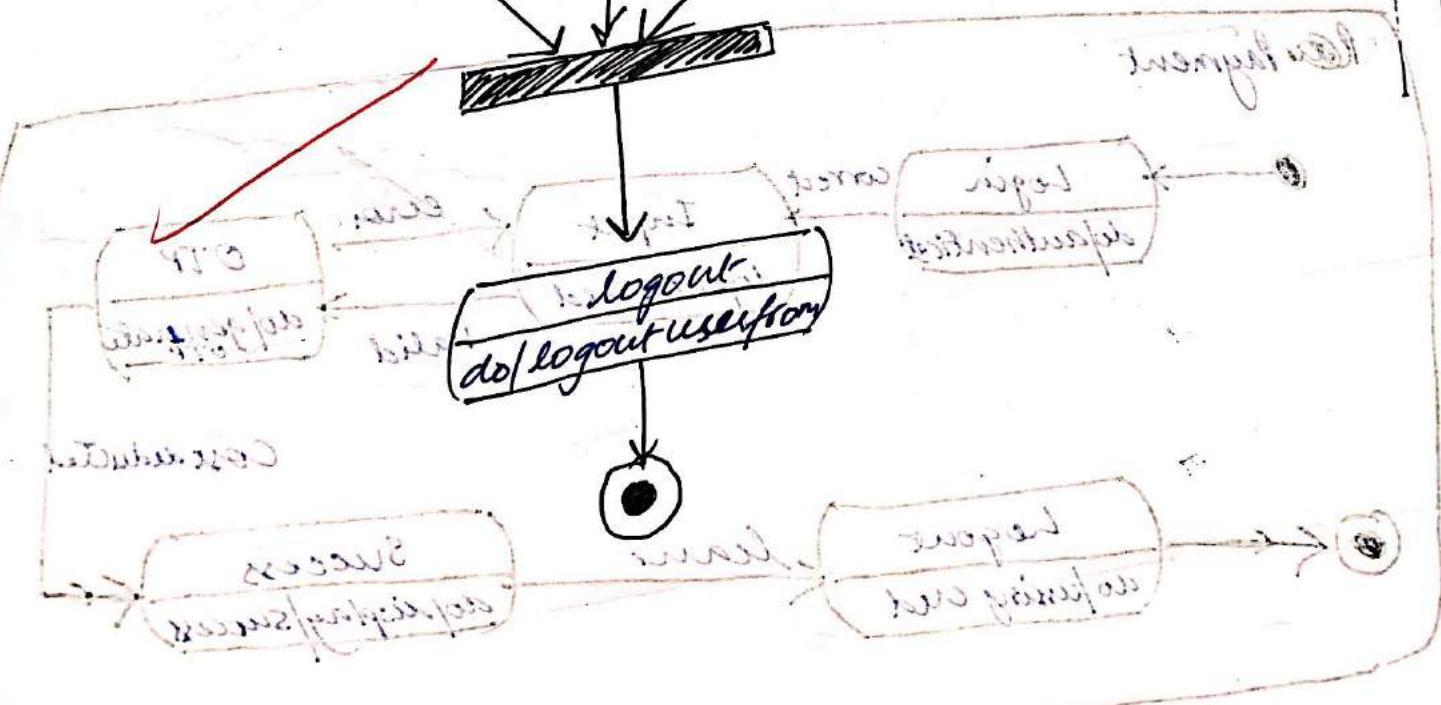
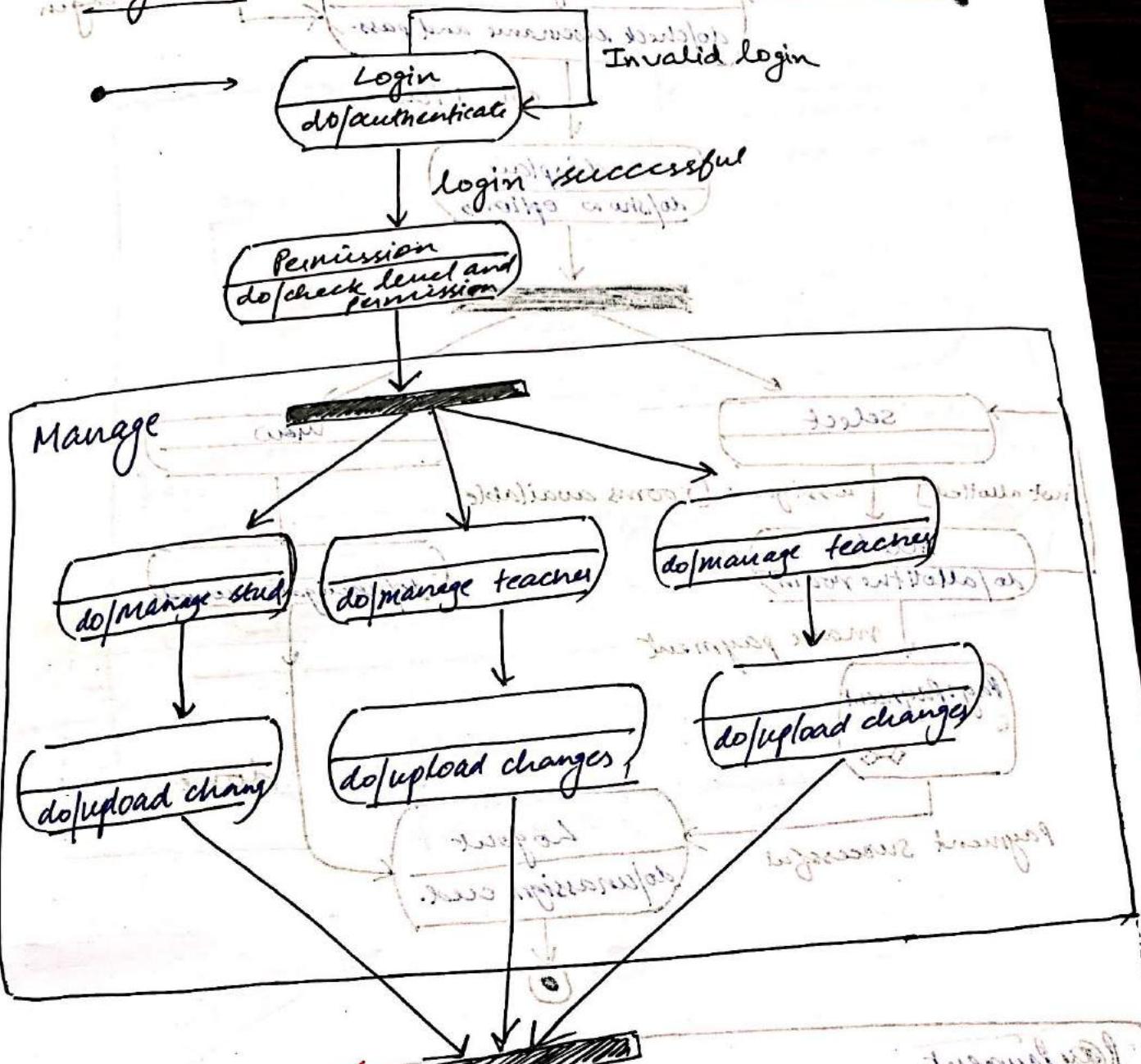
+ Geester

Document
+ docId: Int
+ name:
+ createDate:
+ updateDate:
+ new()
+ save()
+ print()
+ open()

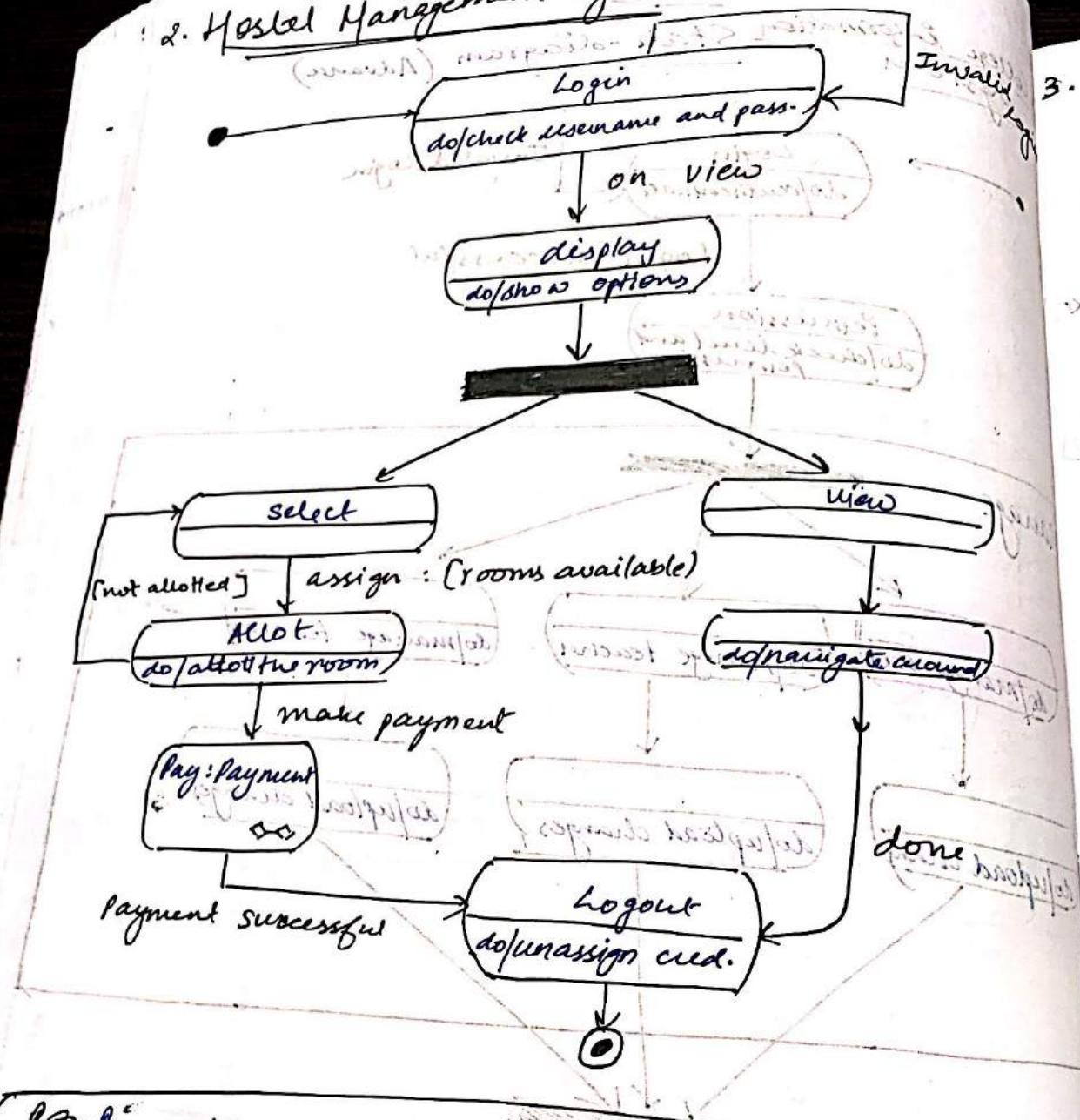
Consort
+ docId: Int
+ name:
+ docType:
+ docFormat:
+ docContent:
+ docSize: Long

Consort
+ docId: Int
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+ docType:
+ docFormat:
+ docContent:
+ docSize: Long

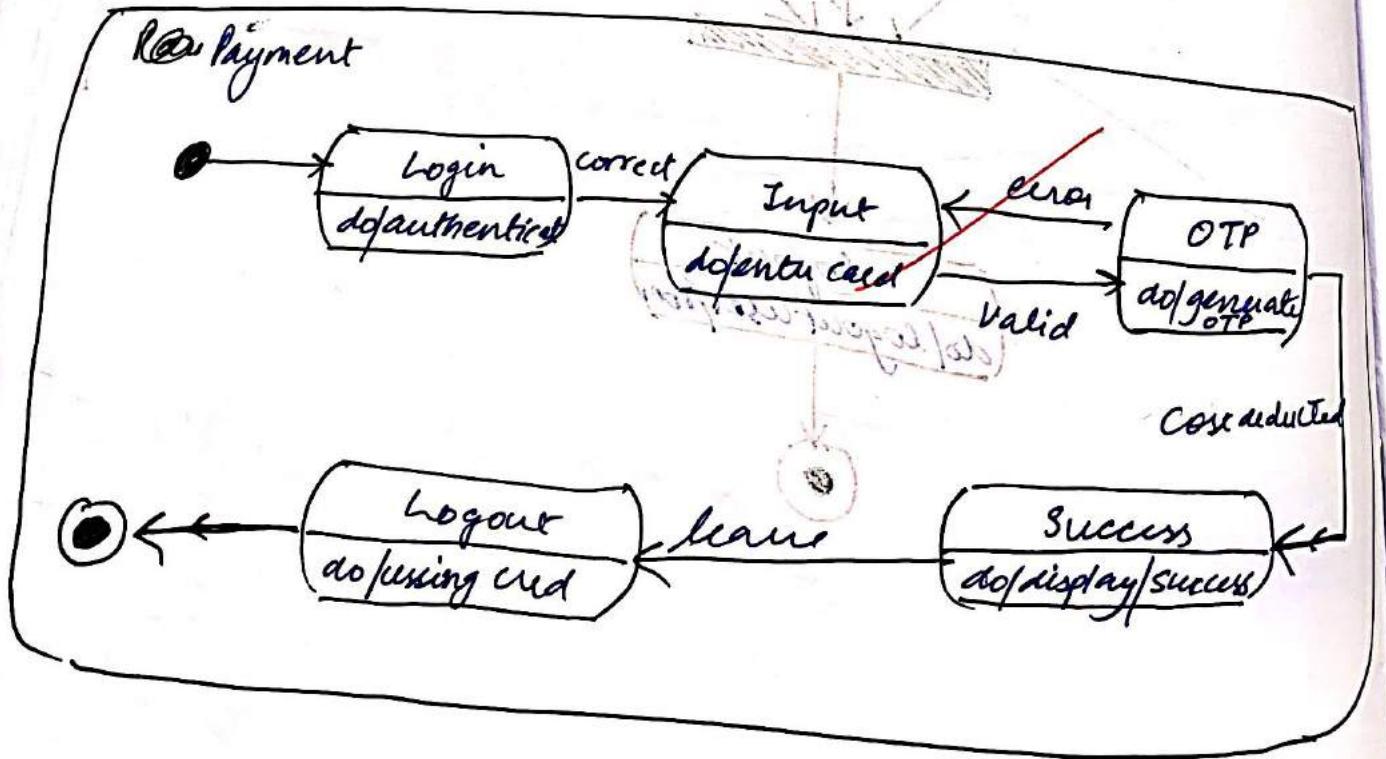
① College Information State-diagram (Advance)



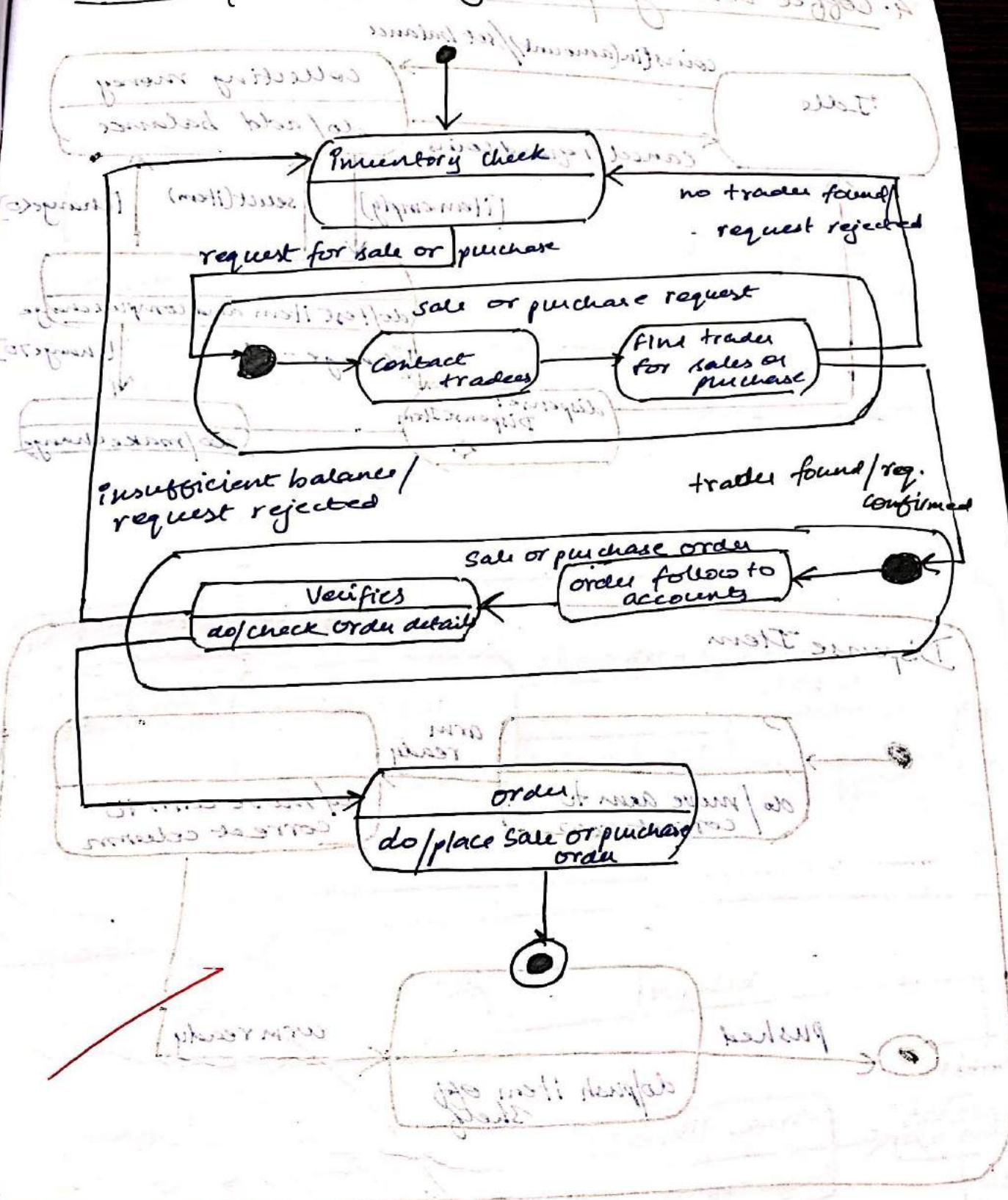
2. Hostel Management System



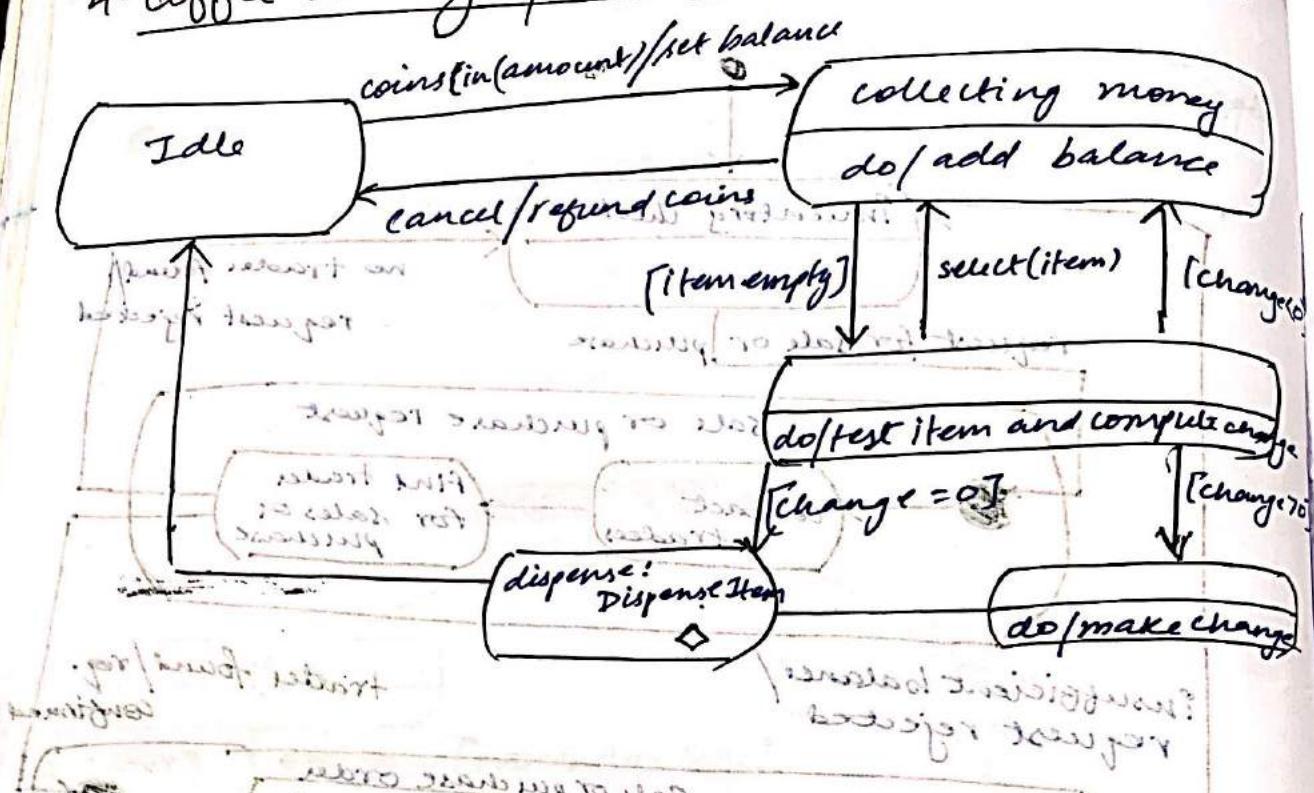
② Payment



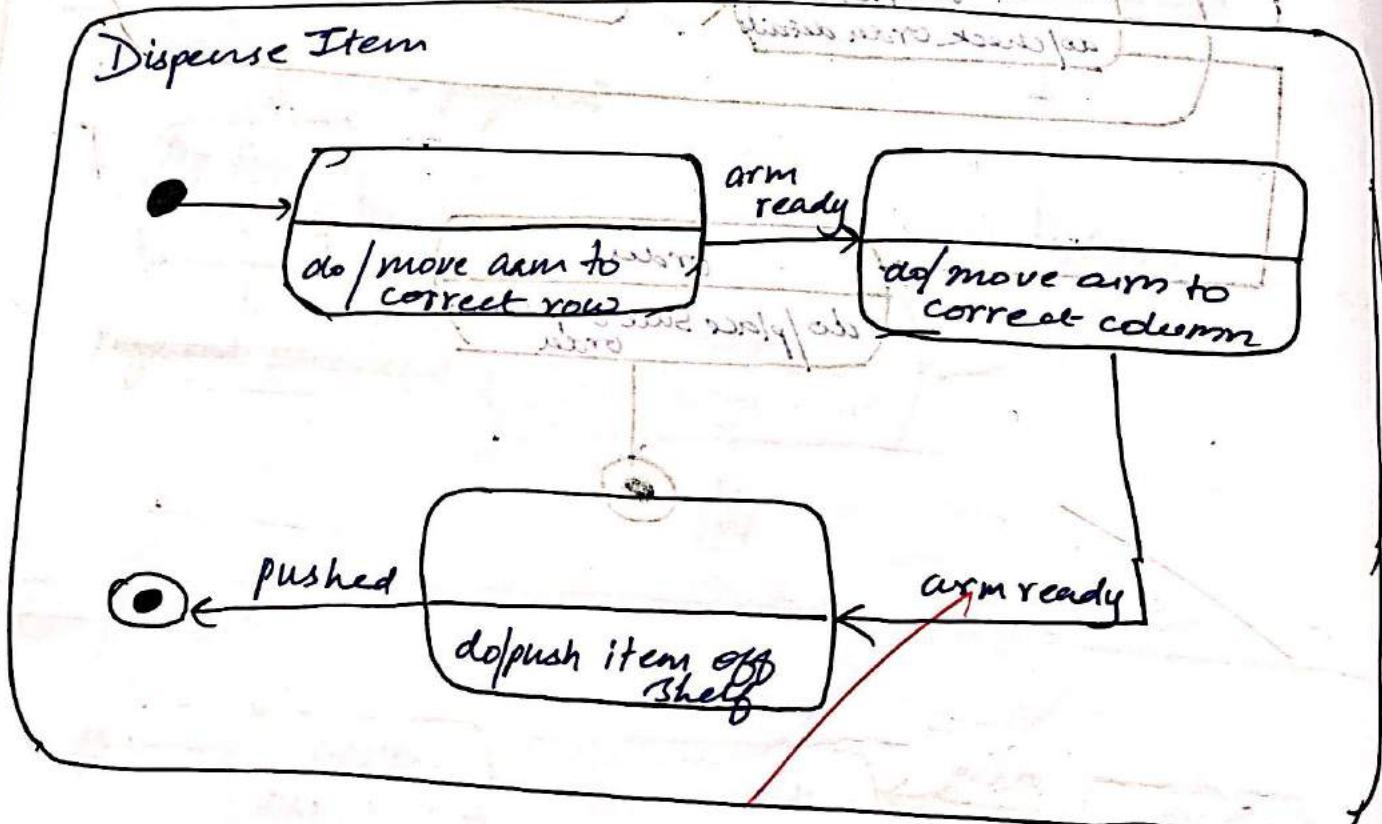
3. Stock Maintenance System



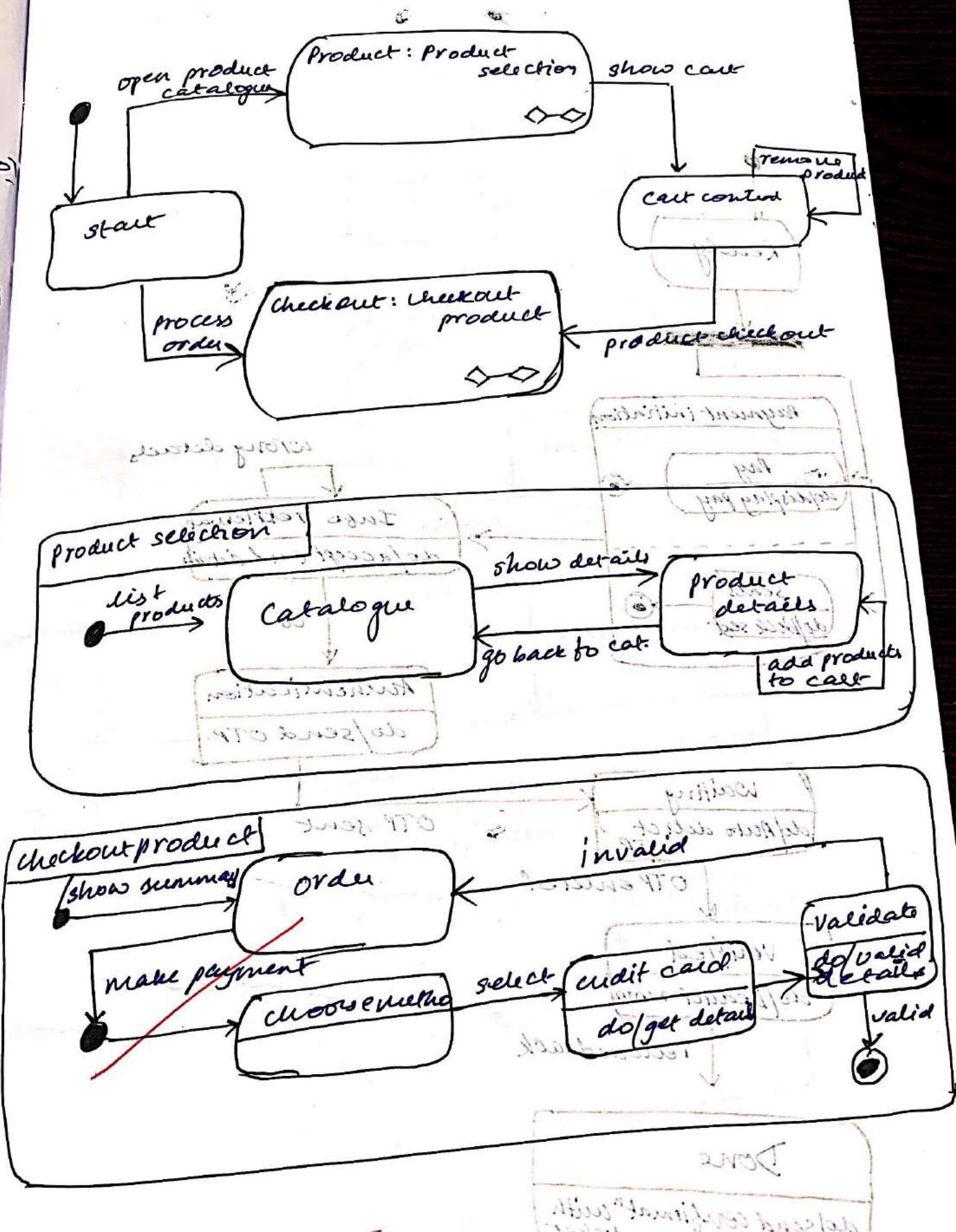
4. Coffee vending Machine



5. On

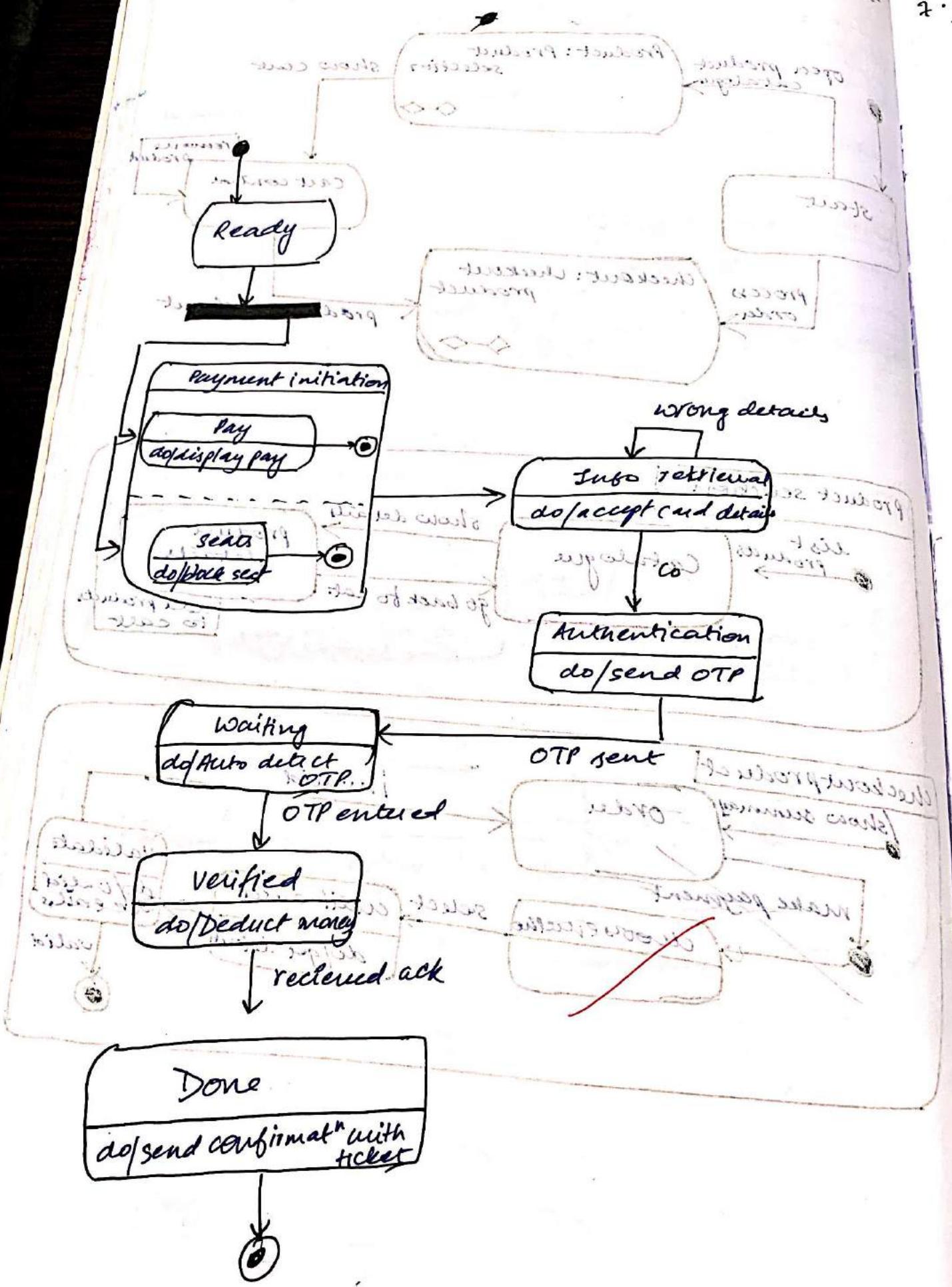


5. Online shopping system

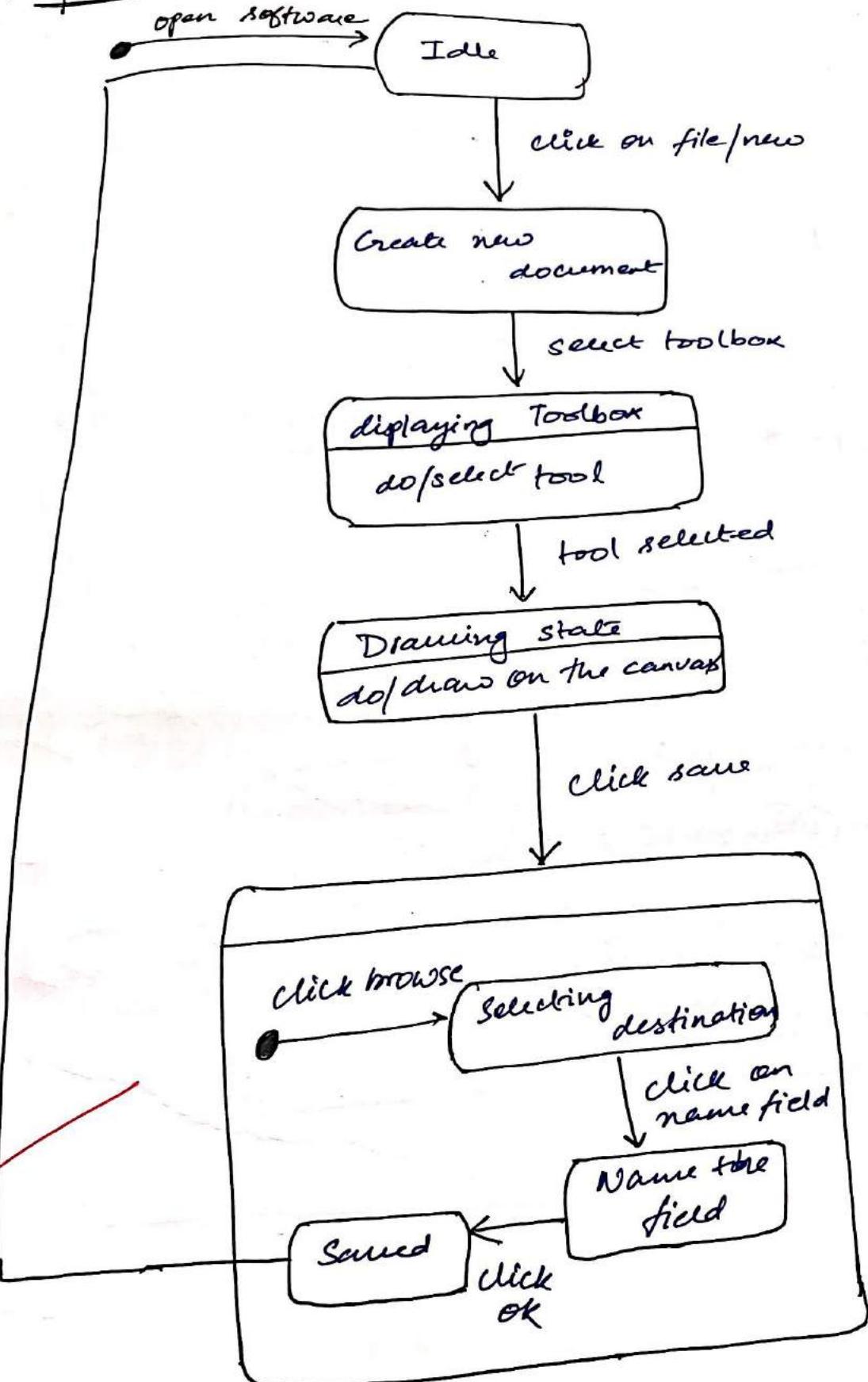


6. Railway reservation system

7. Graph

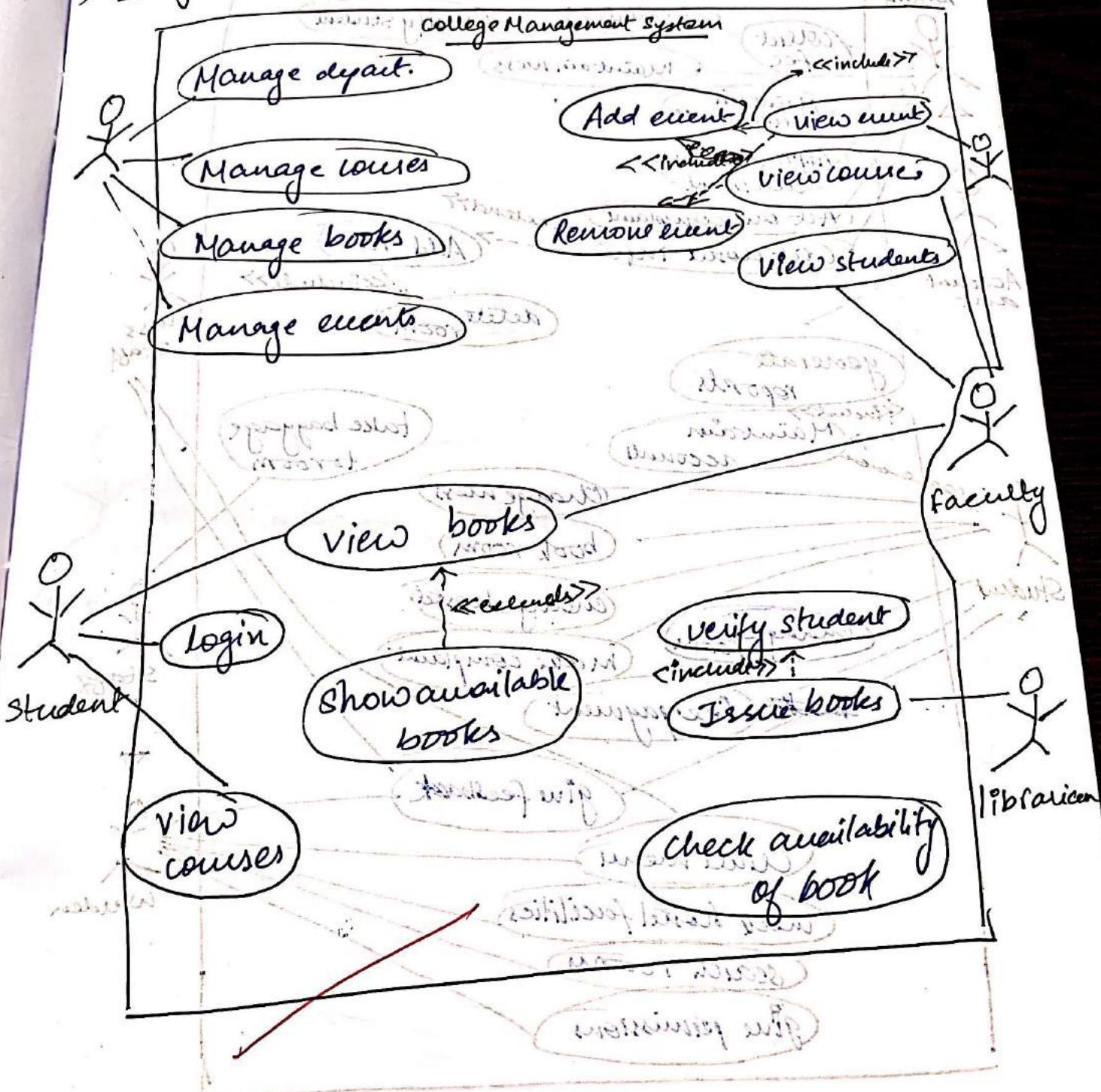


2. Graphics editor



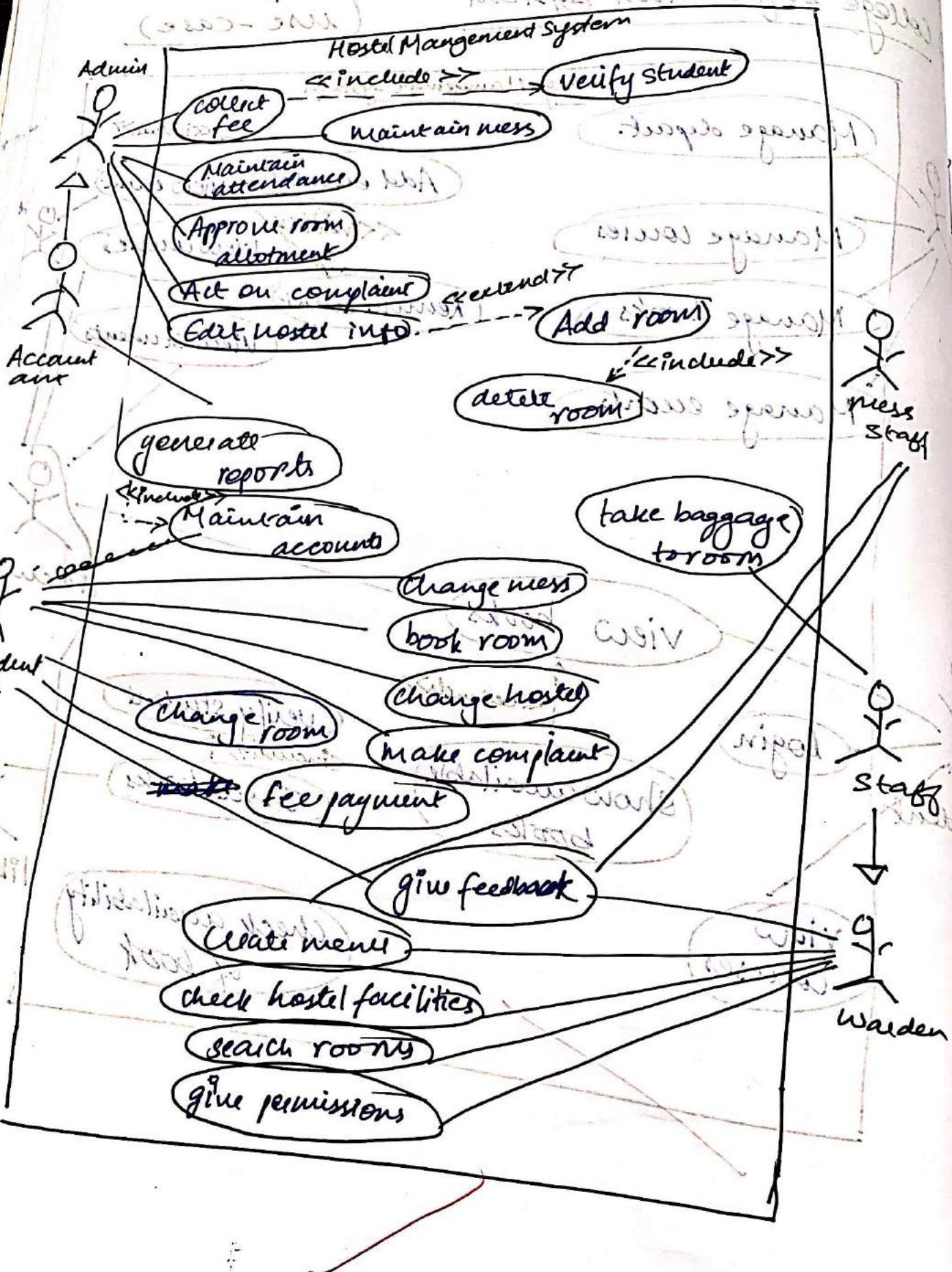
See
16/22

Lab-4 College Information System (use-case)

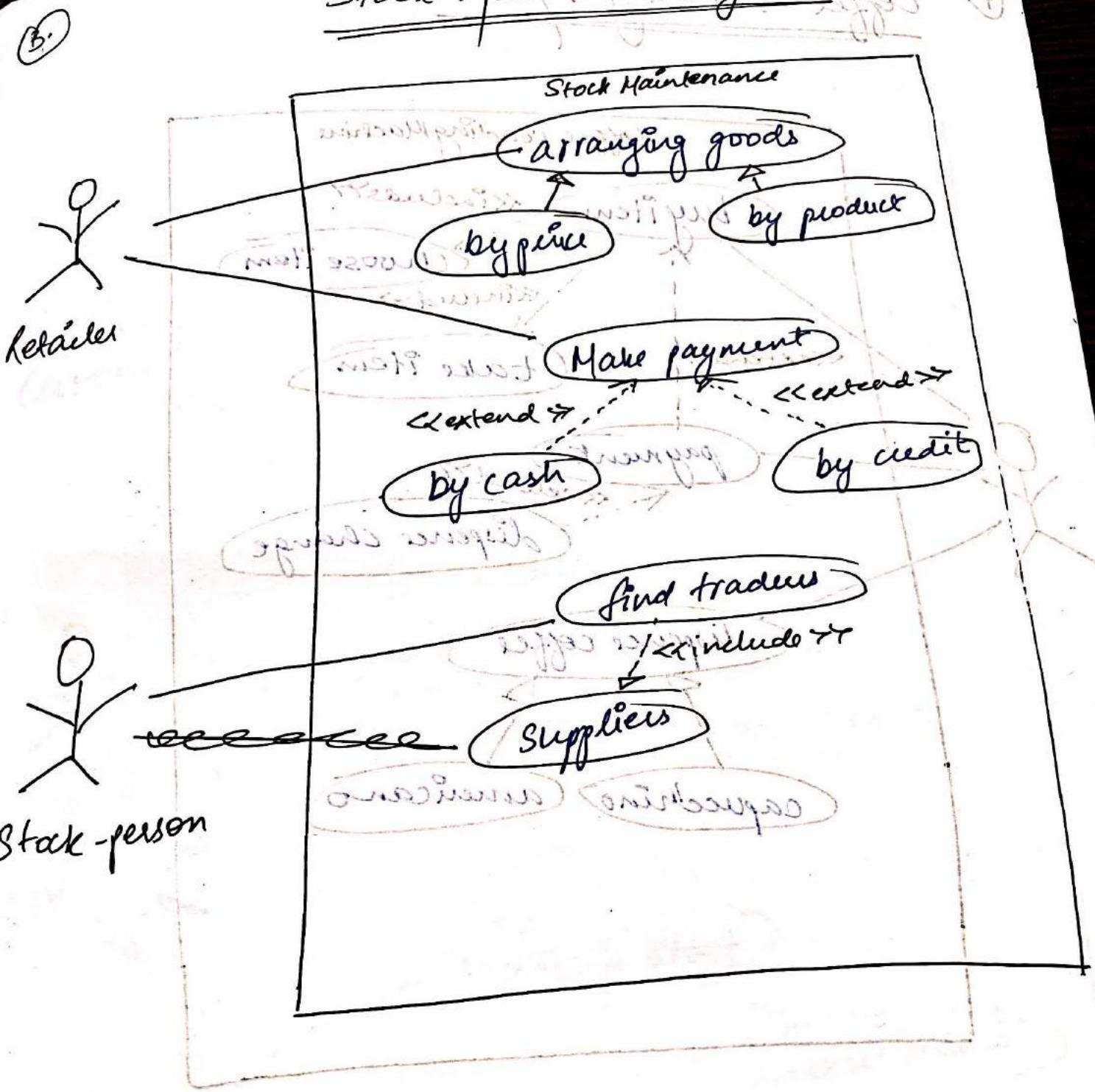


(2)

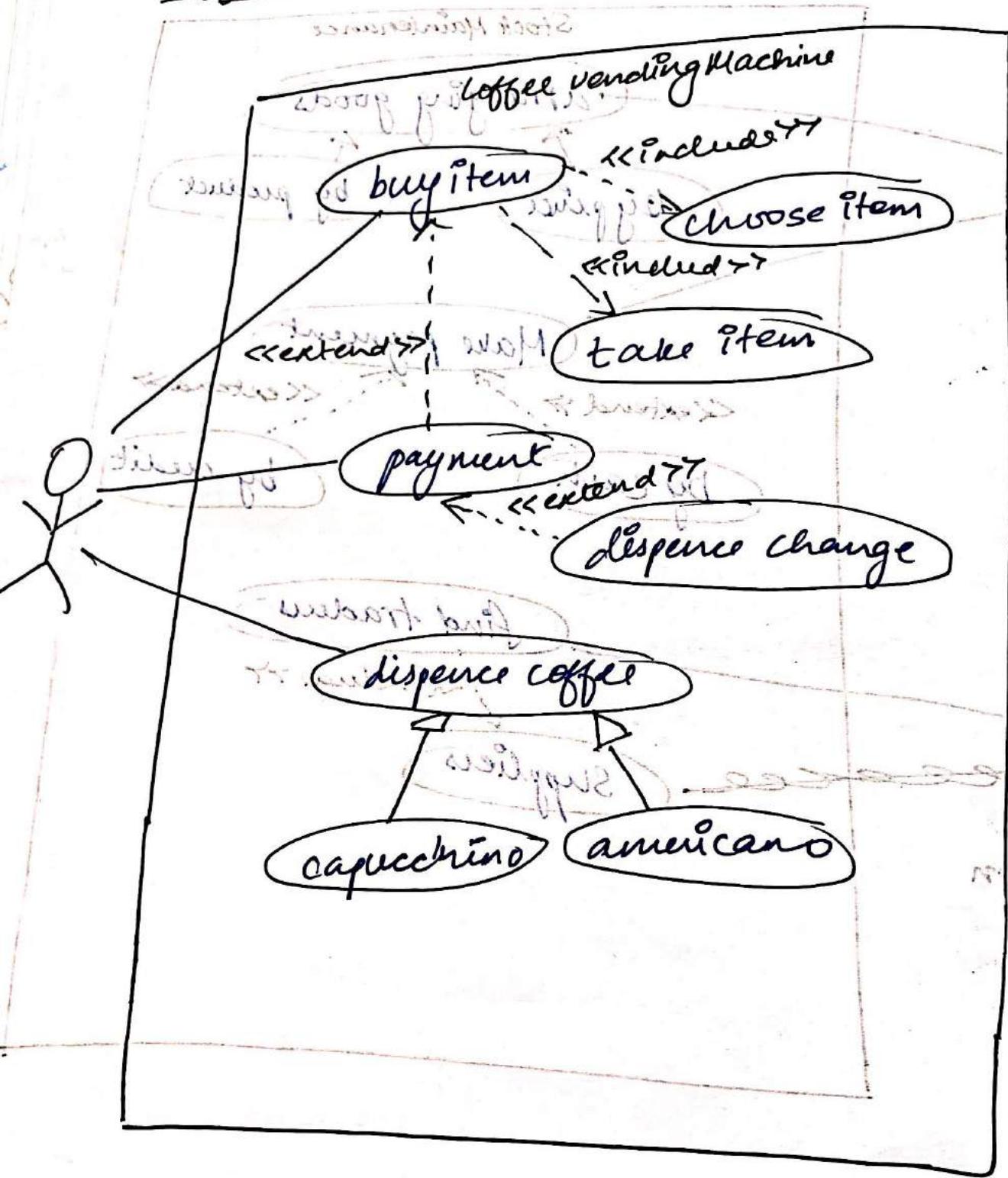
Hostel Management System.

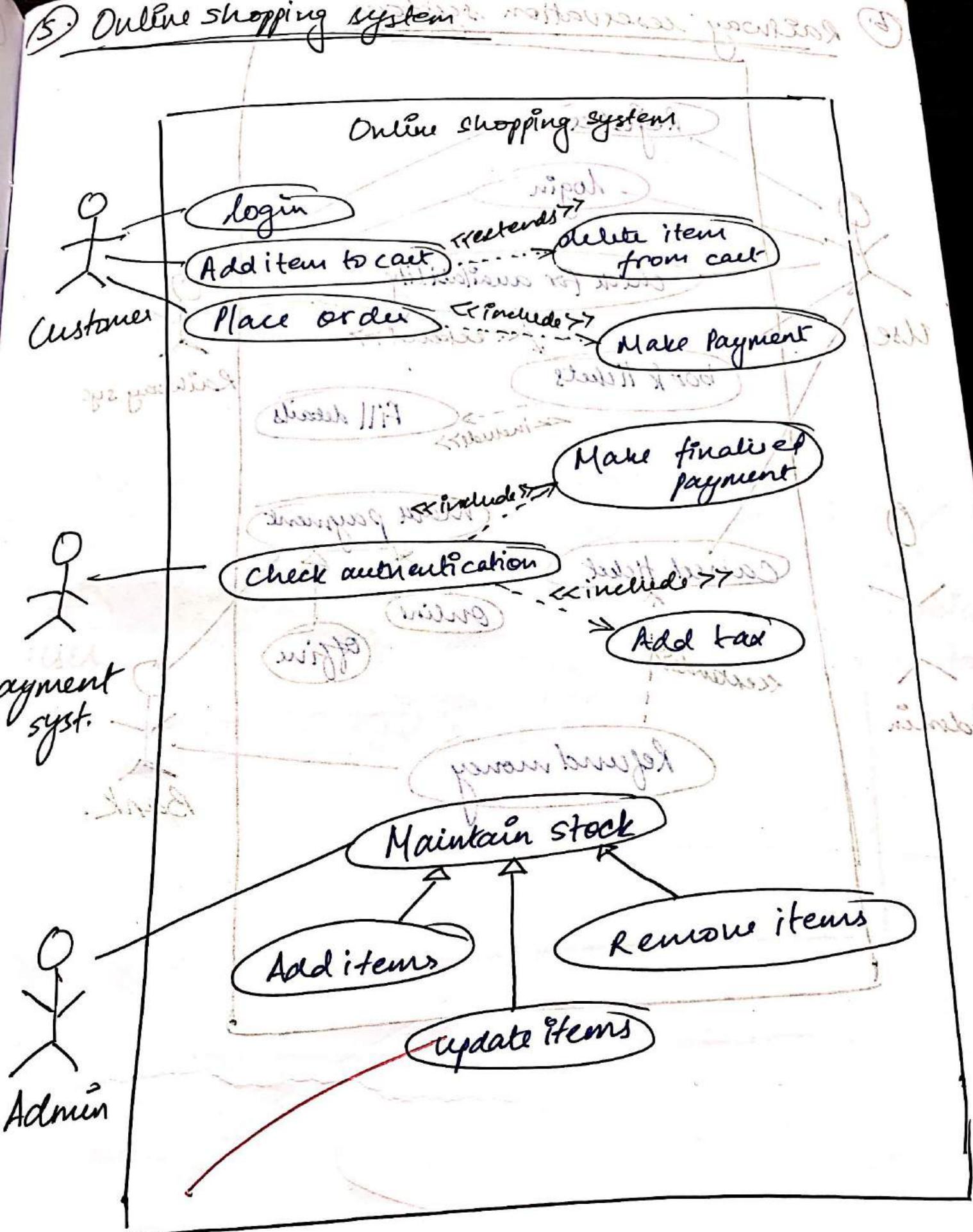


Stock Maintenance system

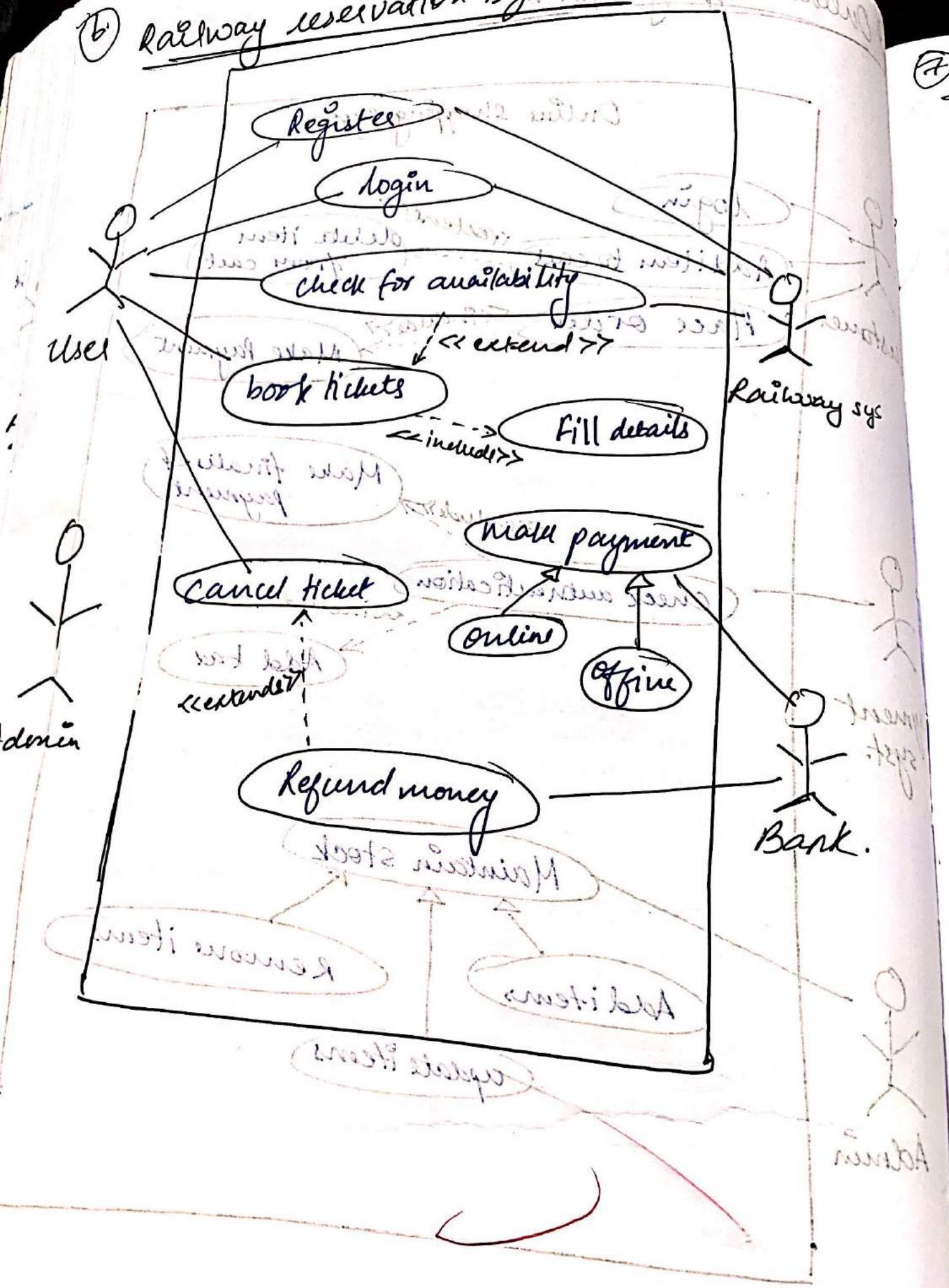


④ Coffee Vending Machine

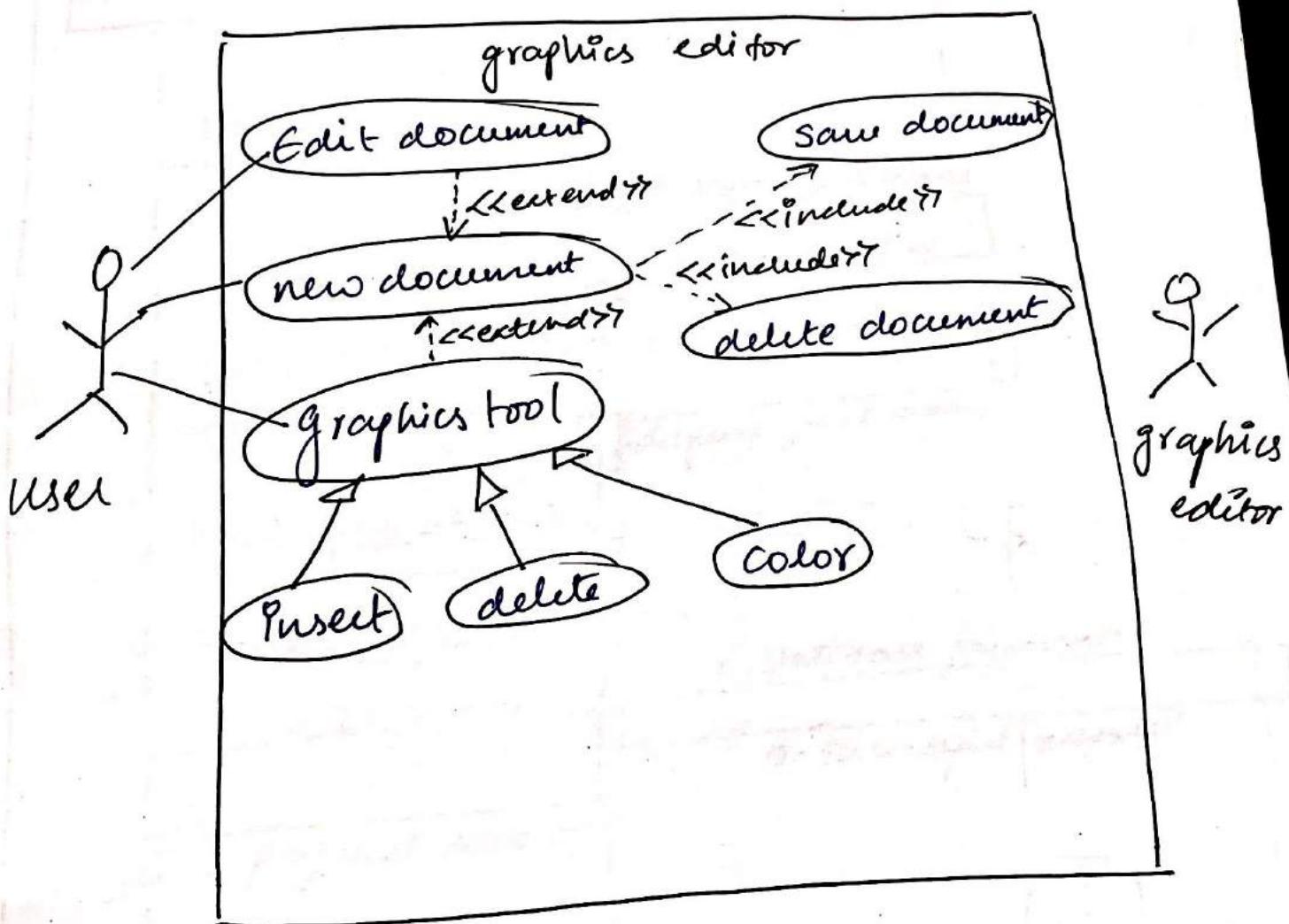




b) Railway reservation system

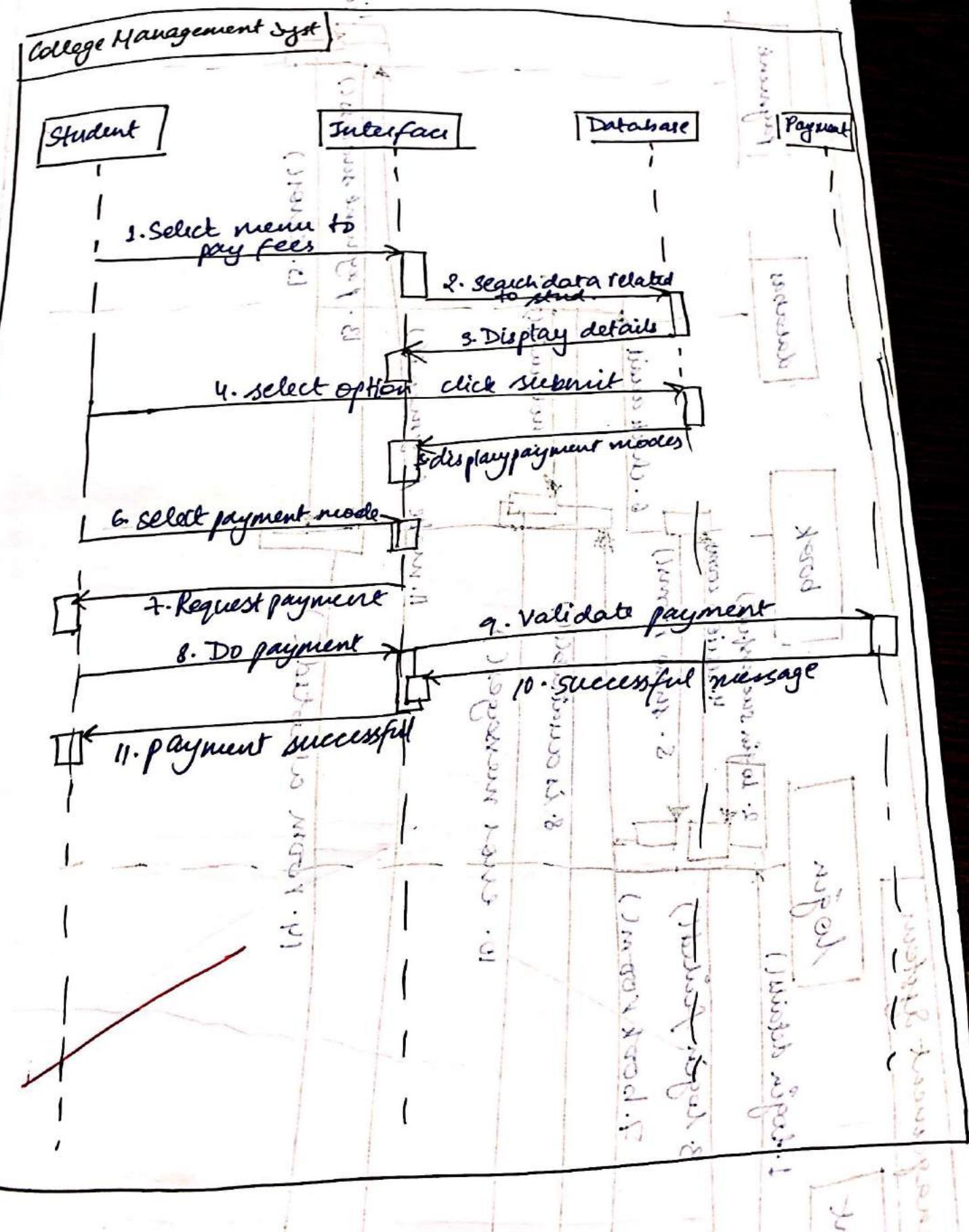


⑦ Graphics editor



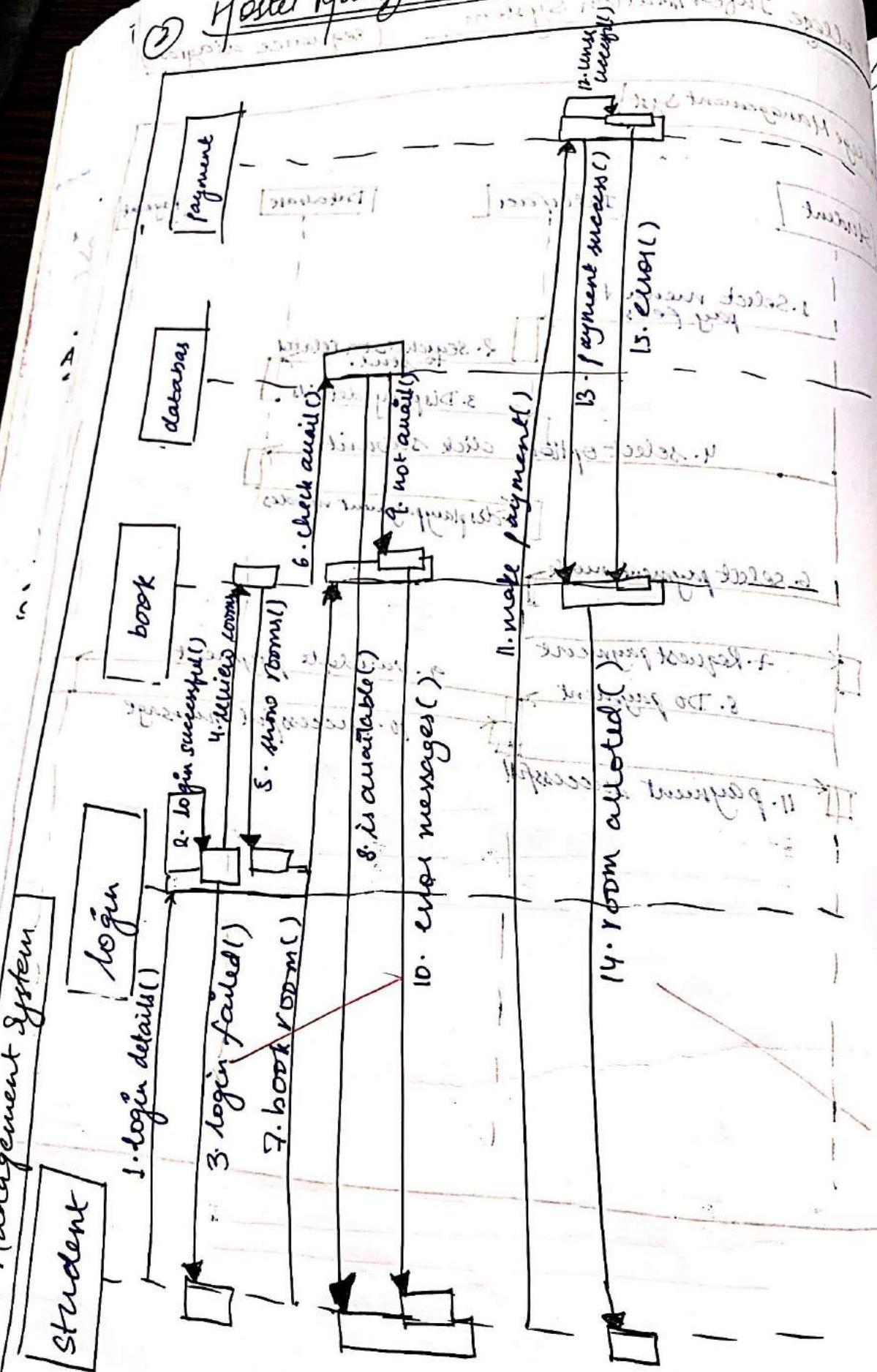
Lab-51. College Information System

(sequence diagram)



Hostel Management System

Student



Stock

logistics

place

8:10 a

Stock Maintenance subsystem

logistics

administration

trader

accounts

finances

1. places order for sale()

2. contact trader()

3. trader confirms()

4. confirmed purchase/sale()

5. purchase/sale approved()

6. purchase/sale approved()

check available
possibilities

7. purchase/sale approved()

8. purchase/sale approved()

9. confirm buyer()

10. correct customer()

11. correct price()

12. correct quantity()

13. correct date()

14. correct time()

15. correct location()

16. correct reason()

17. correct value()

18. correct date()

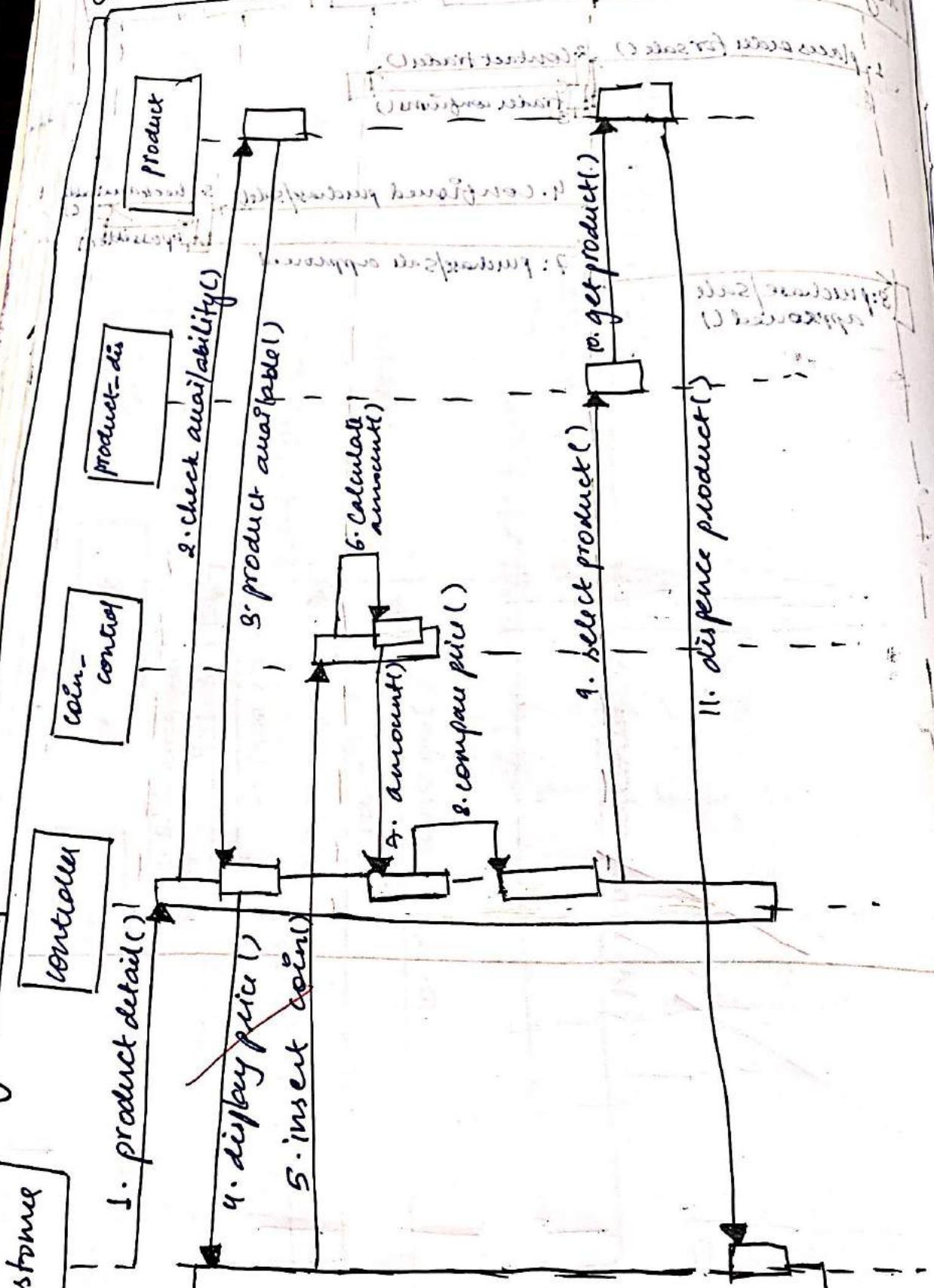
19. correct time()

20. correct location()

21. correct reason()

22. correct value()

Coffee Vending Machine

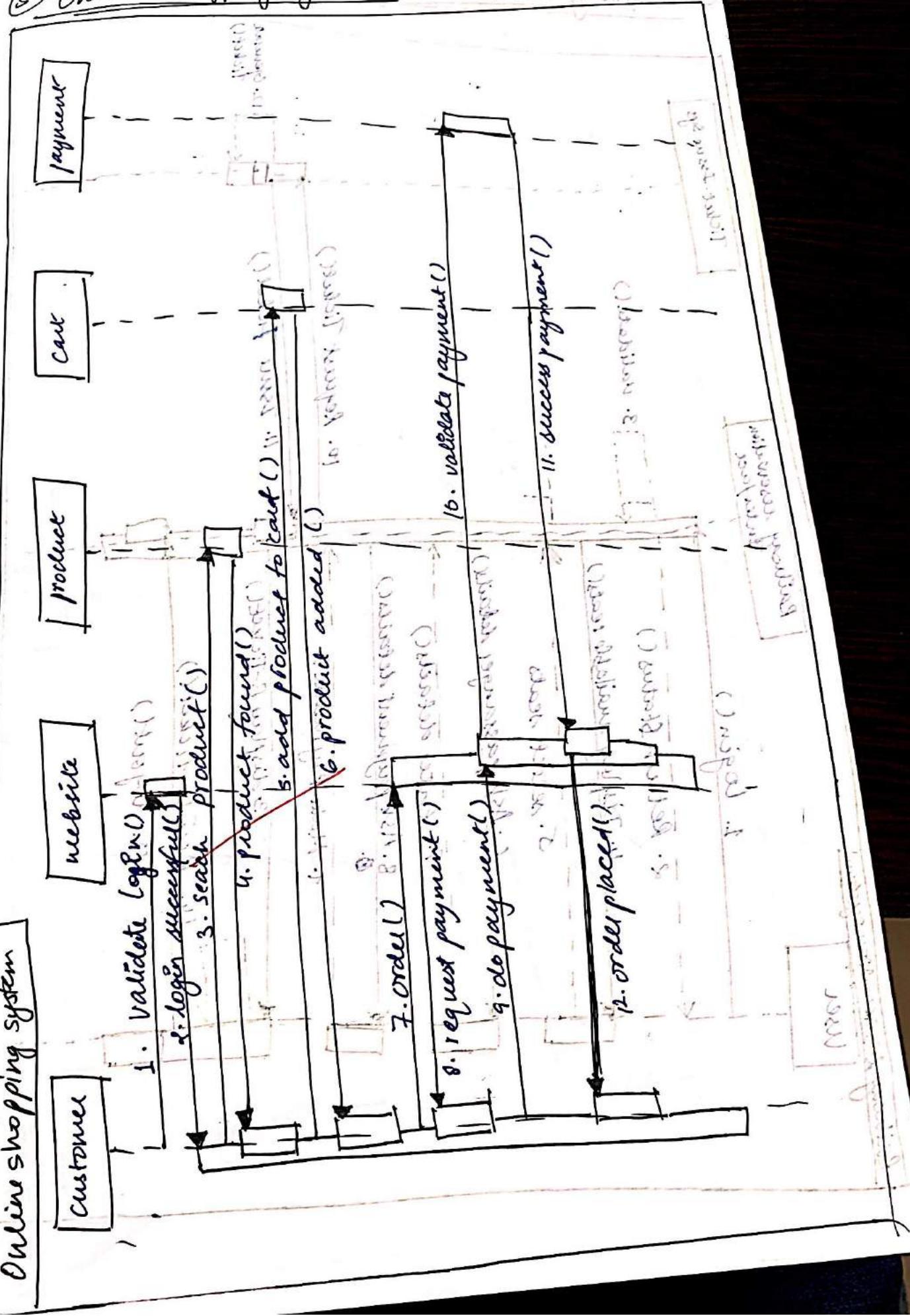


Online Shopping System

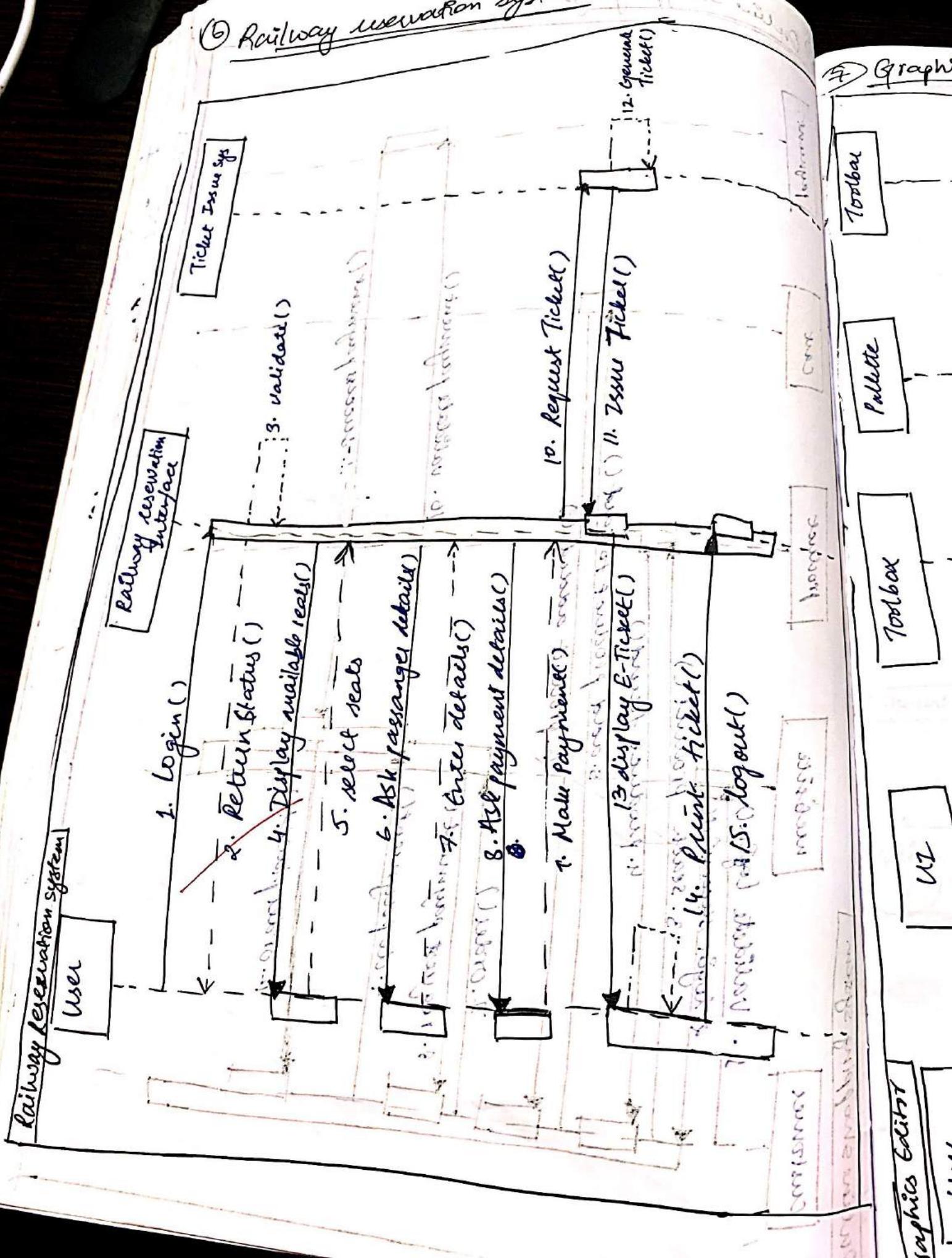


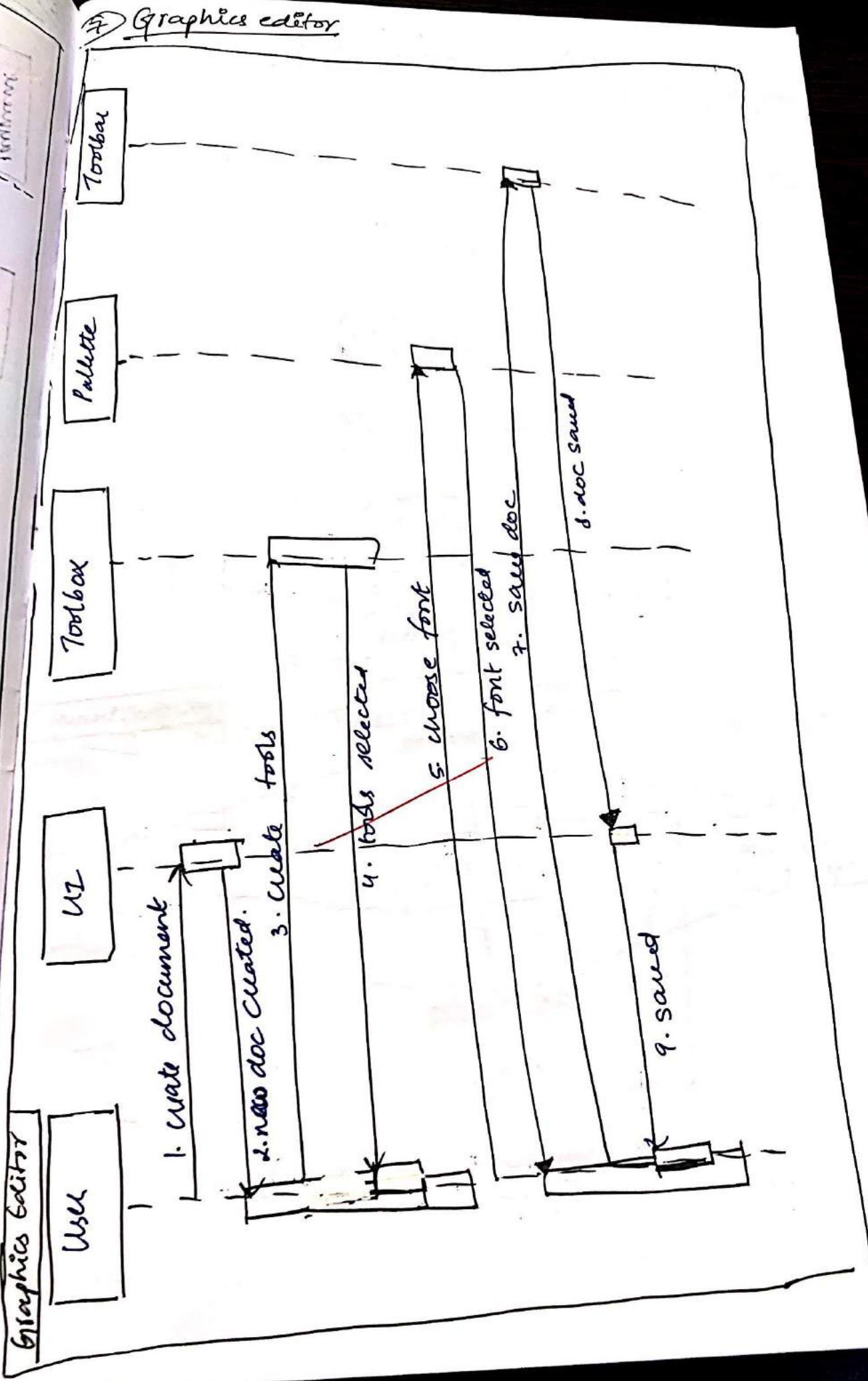
Online shopping system

⑤ Online shopping system



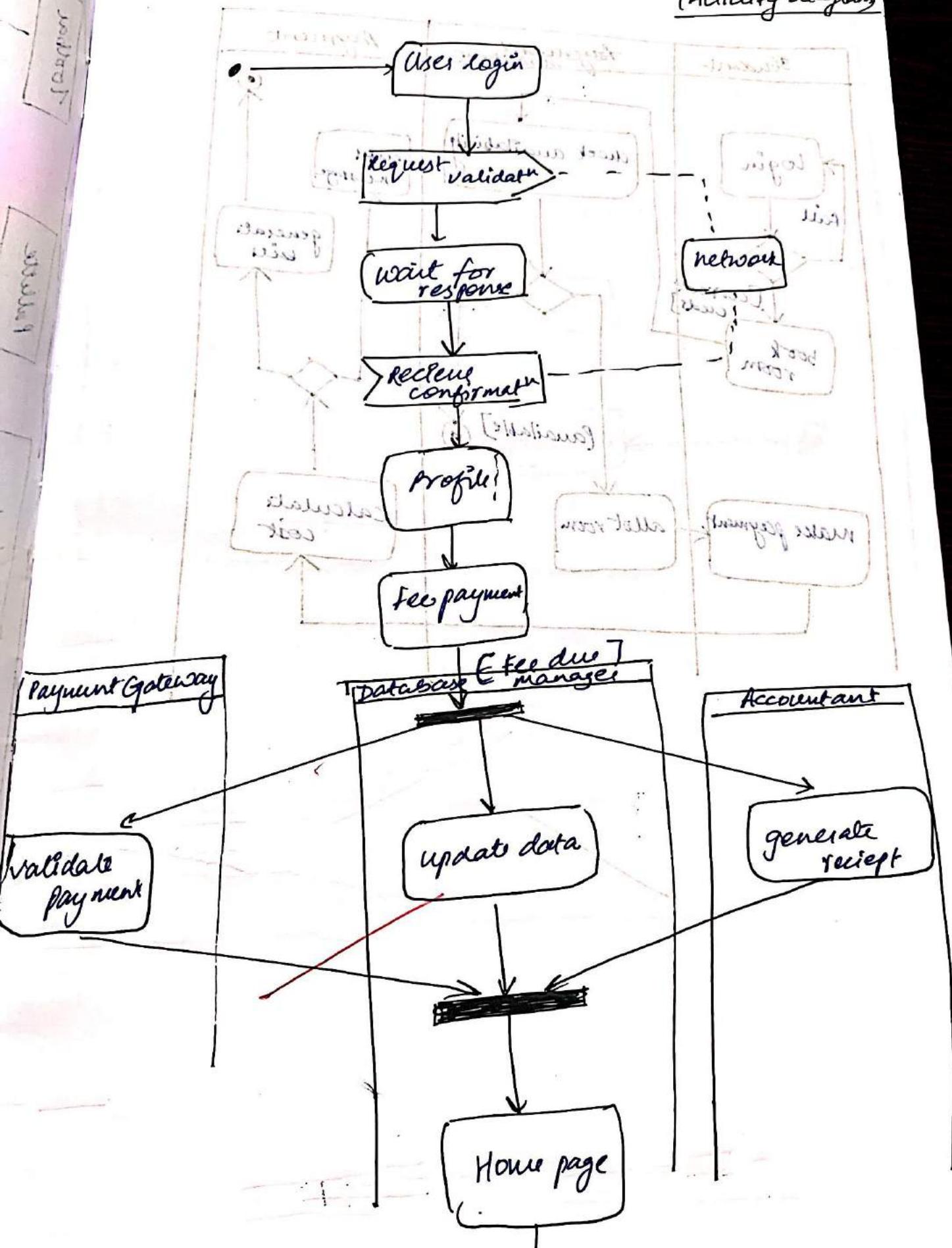
⑥ Railway reservation system





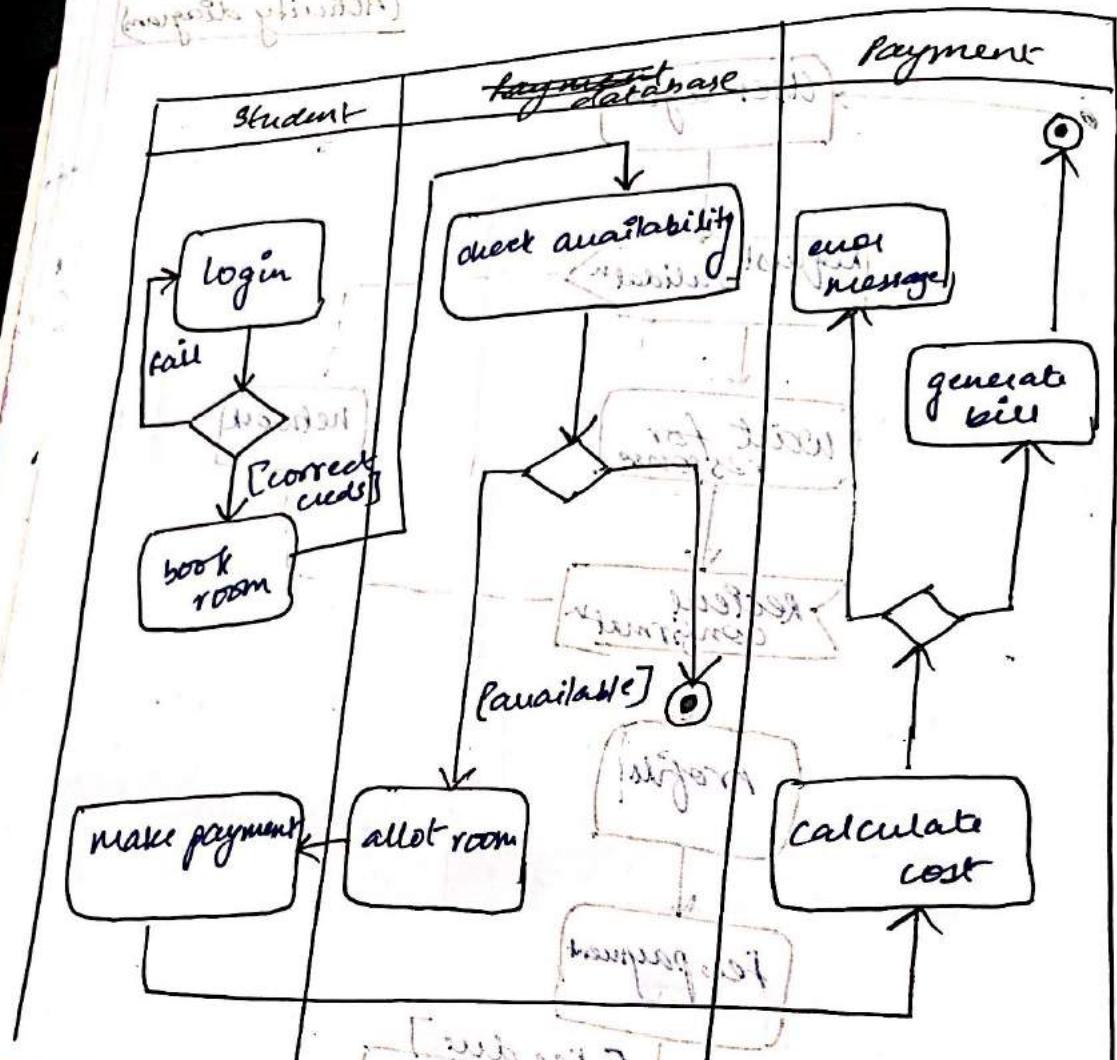
⑨ Lab-6
College Management System

(Activity diagram)

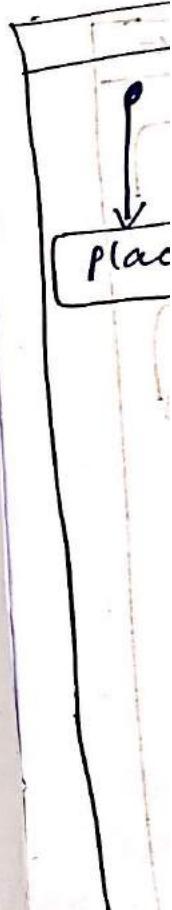


(2) Hostel Management System

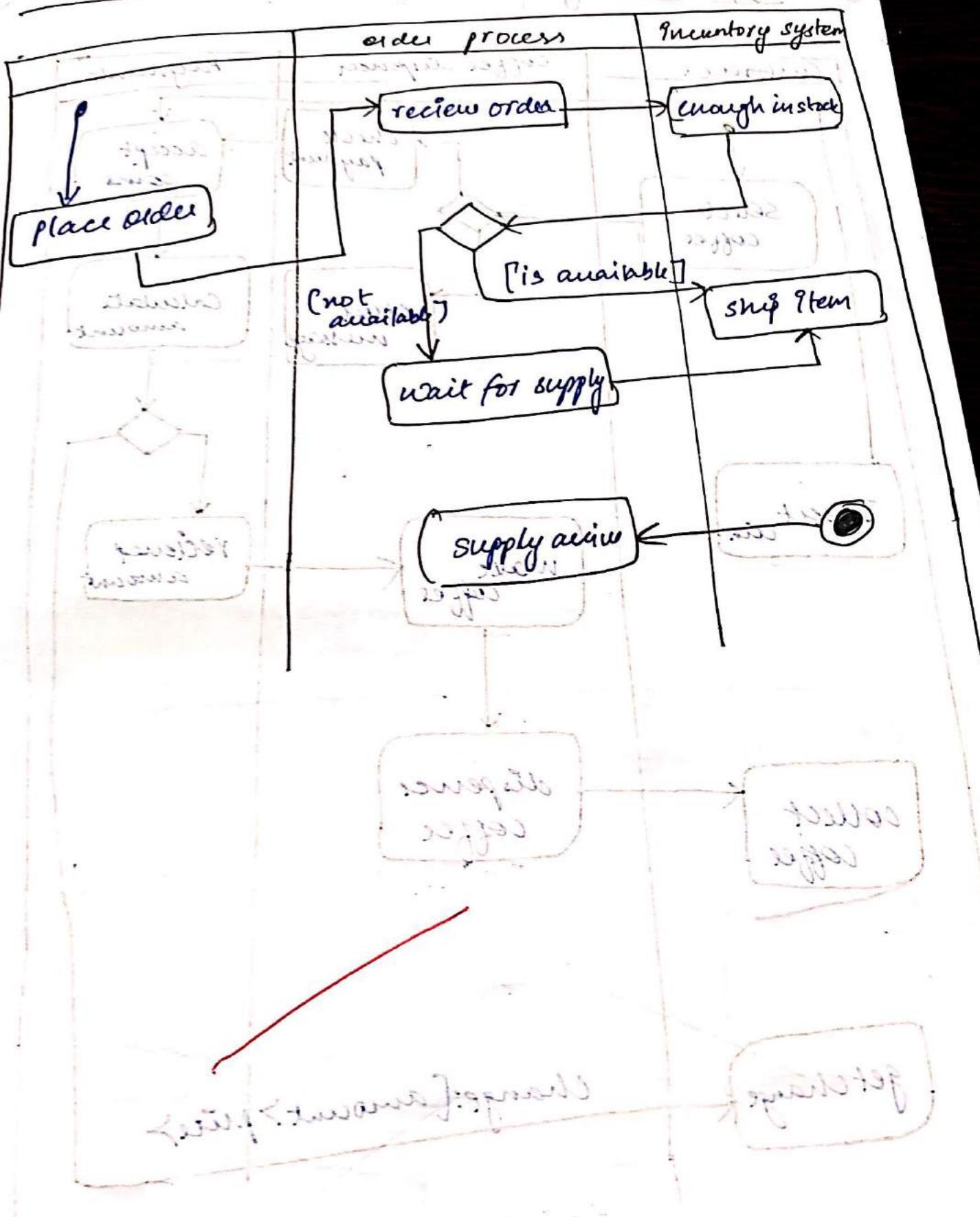
(using ER diagram)

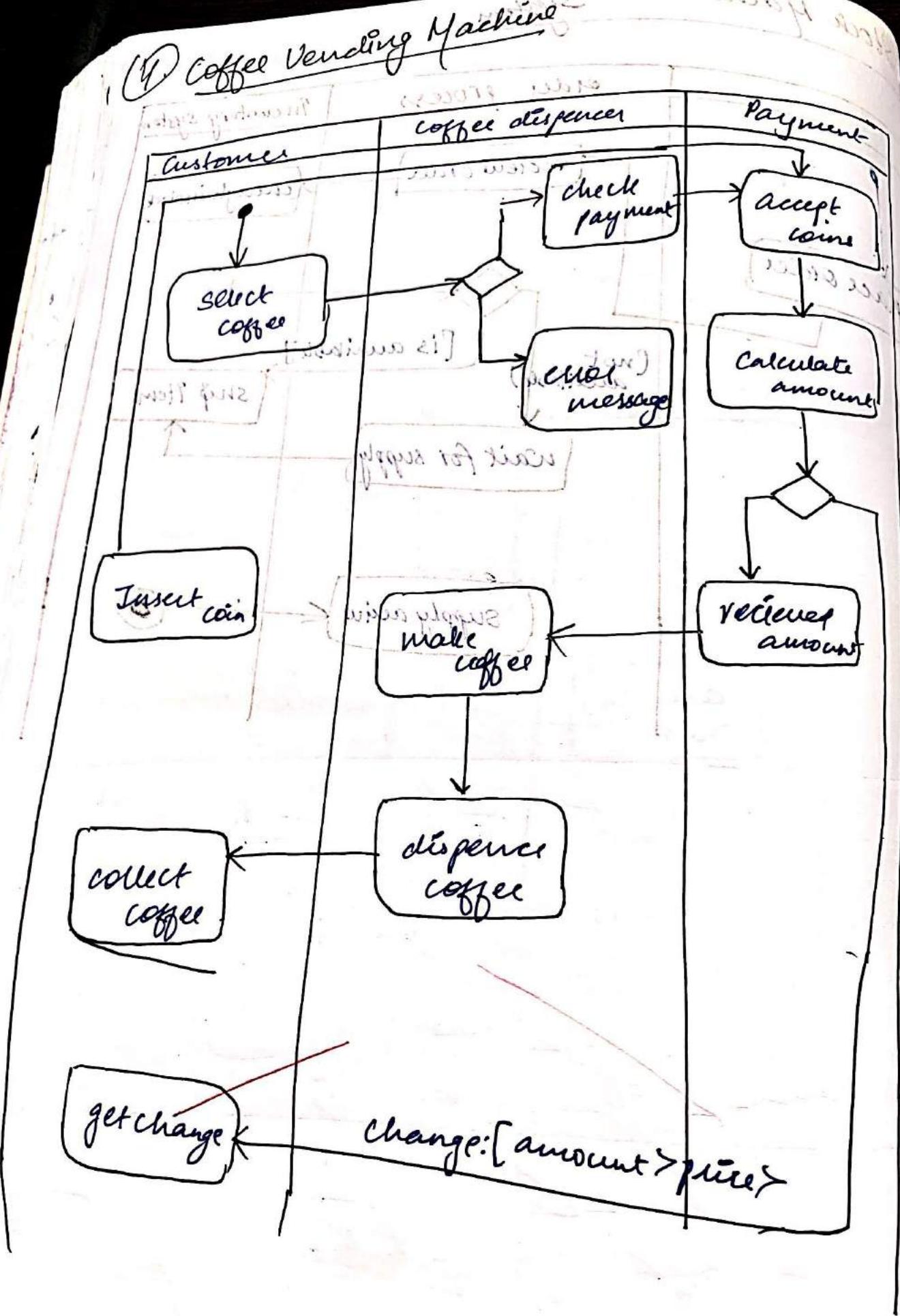


(3) Stock

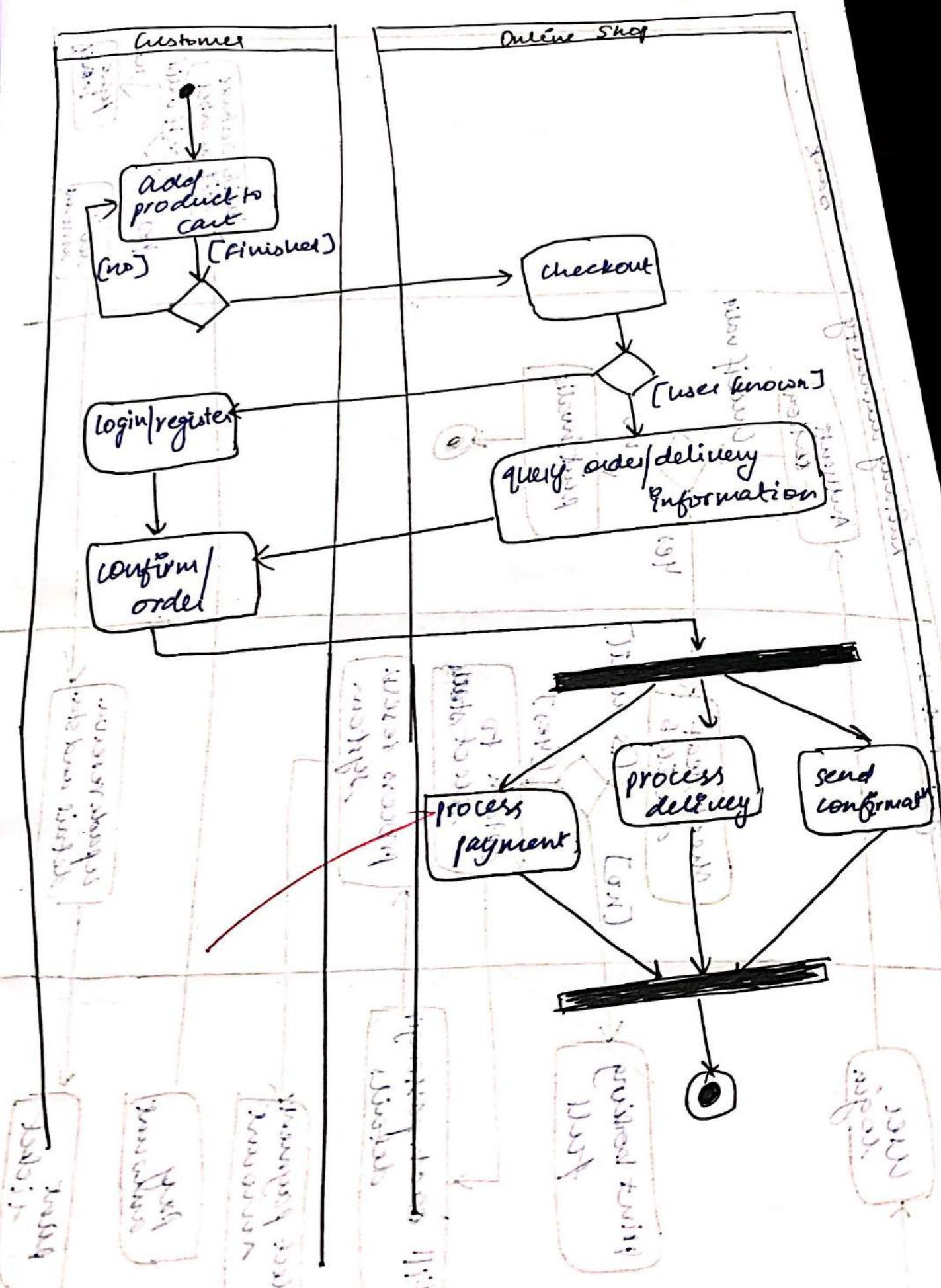


3) Stock Maintenance System

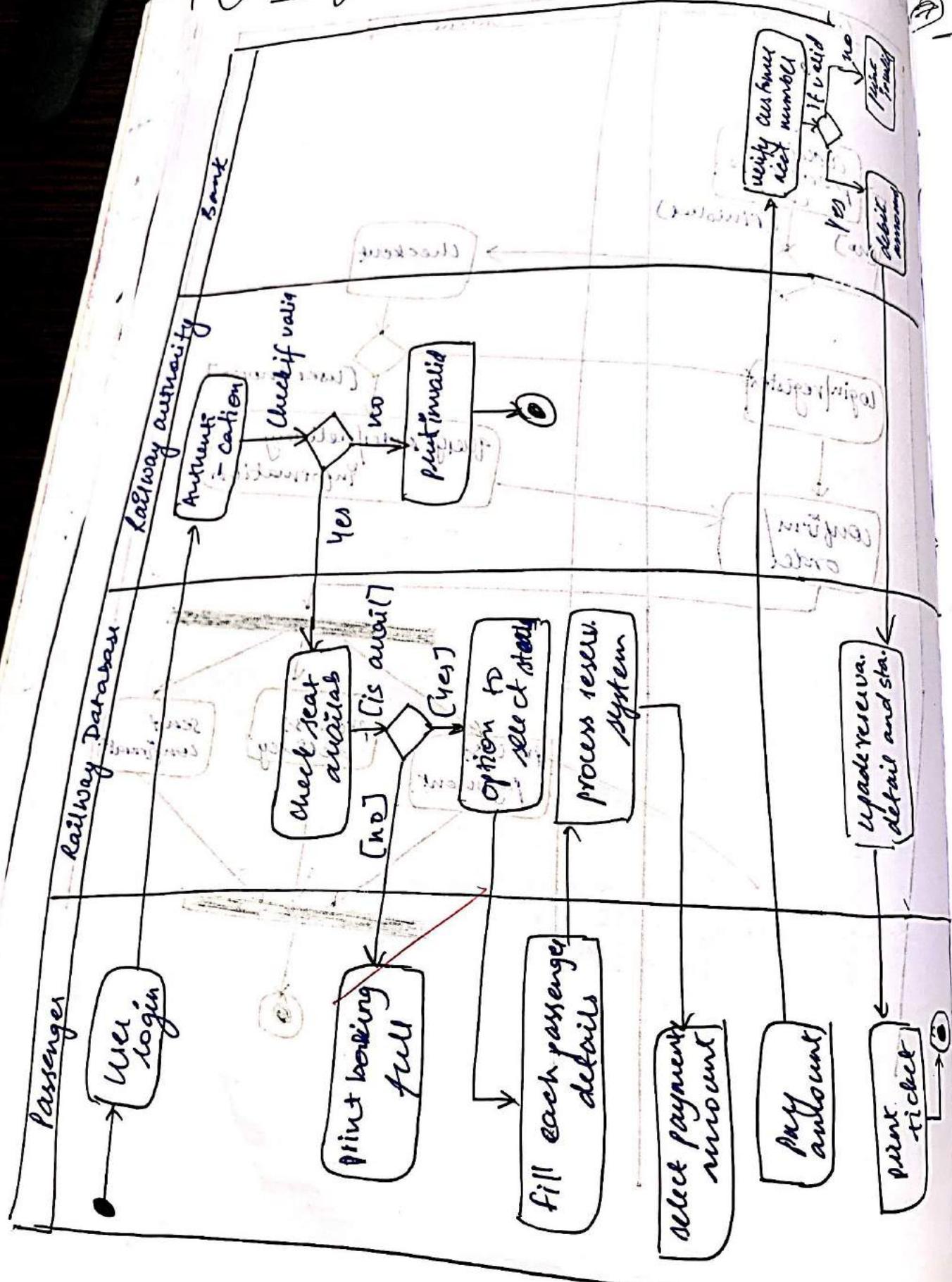




3) Online shopping system



(b) Railway reservation system



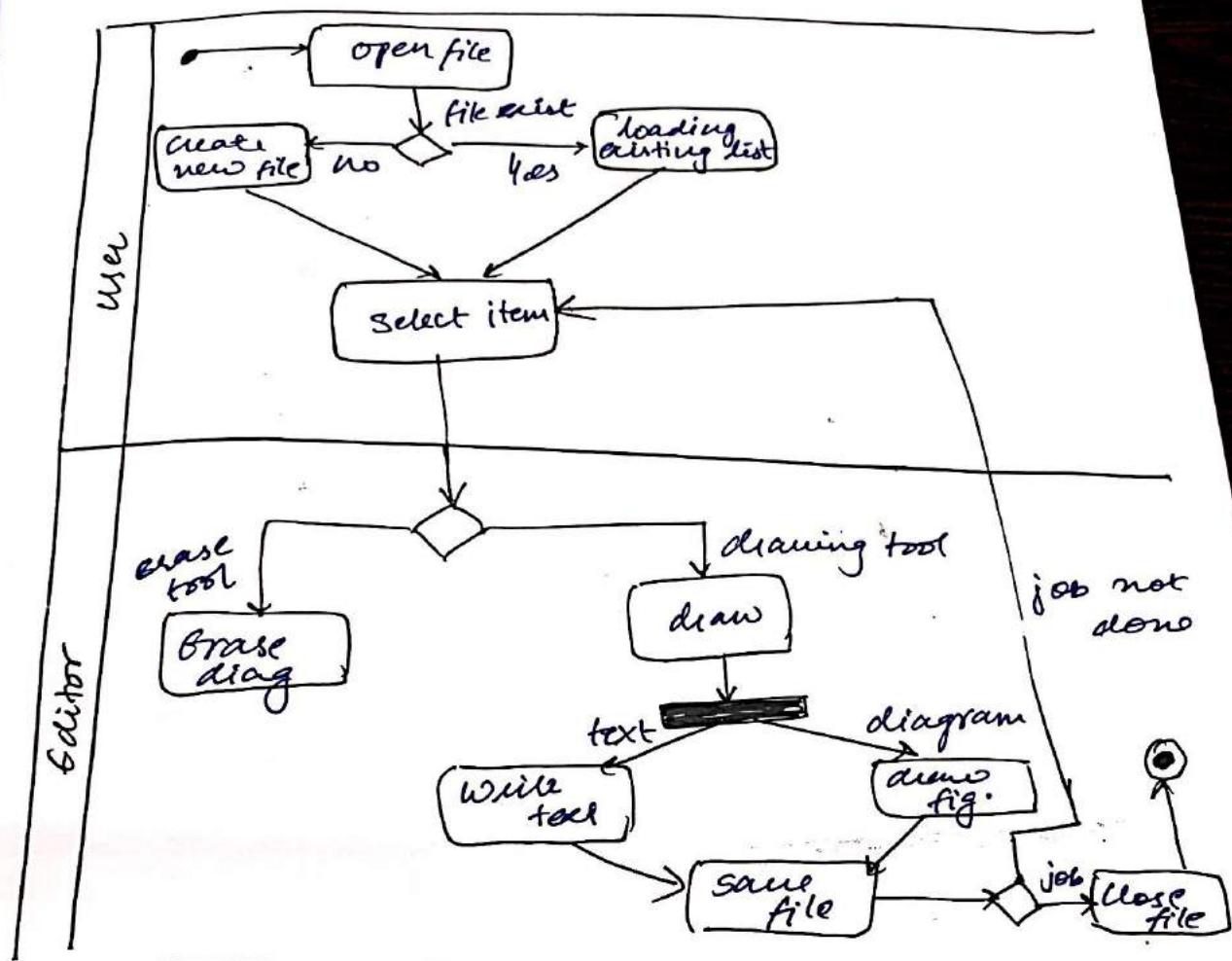
graphics

use

cre
me

editor

⑦ graphics editor



See
11/7/22