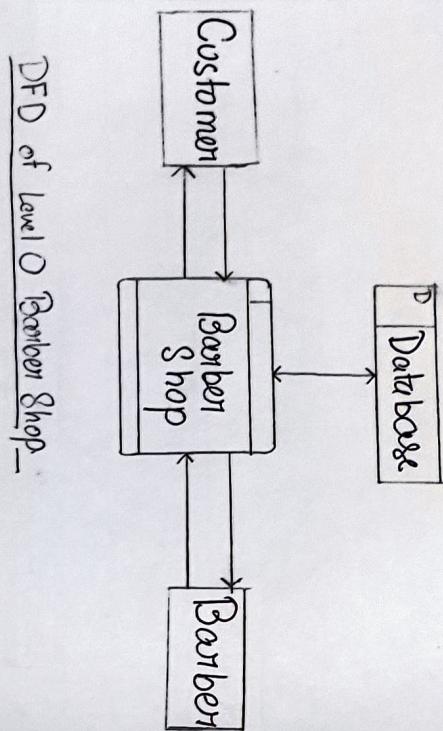


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## Week 1: Data Flow Diagram

### Diagram



1.) Problem Statement : Creation of data flow diagram of 0<sup>th</sup> Level Barber Shop, where the customer books a slot in shop and the database shows him whether a slot is available or not. Hence the rest of the process moves forward accordingly

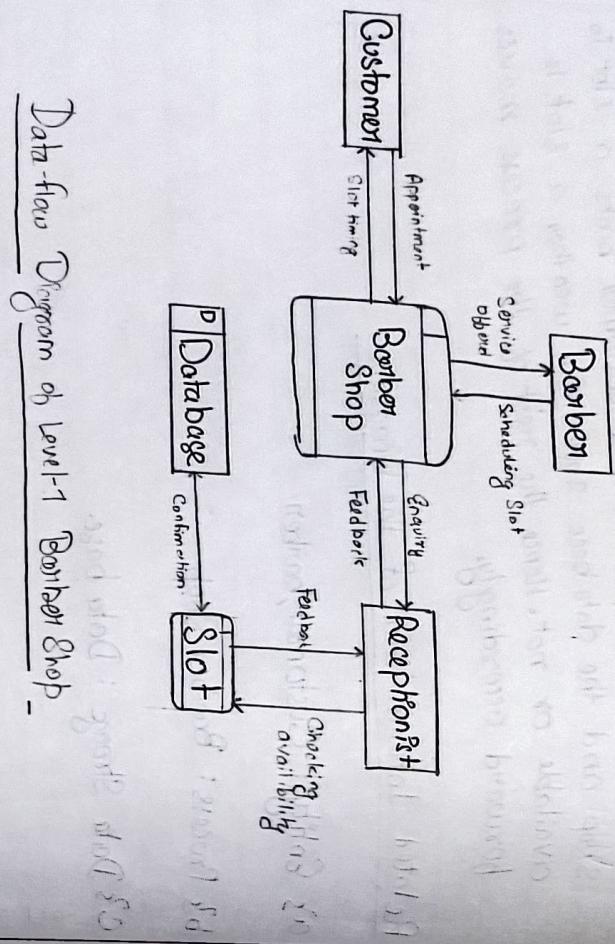
### Related Information of the Program

a) Entity : Customer, Barber.

b) Process : Barber Shop

c) Data Storage : Database.

## Diagram:



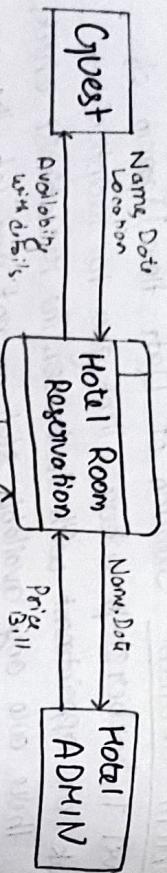
Data-flow Diagram of Level-1 Barber Shop -

- a) Problem Statement: Creation of Data flow Diagram of Level 1 barbershop where client goes to receptionist to book an appointment with the barber. The receptionist checks if there are any available slots or not and let the client know and the process moves forward.
- b) Related Information of the Diagram:
- c) Entity: Customer, Barber, Receptionist.
- d) Process: Barbershop, Slot
- e) Data Storage: Database
- f) Dataflows: Enquiry, Feedback, Confirmation, Slot timing, Appointment.

# Diagram

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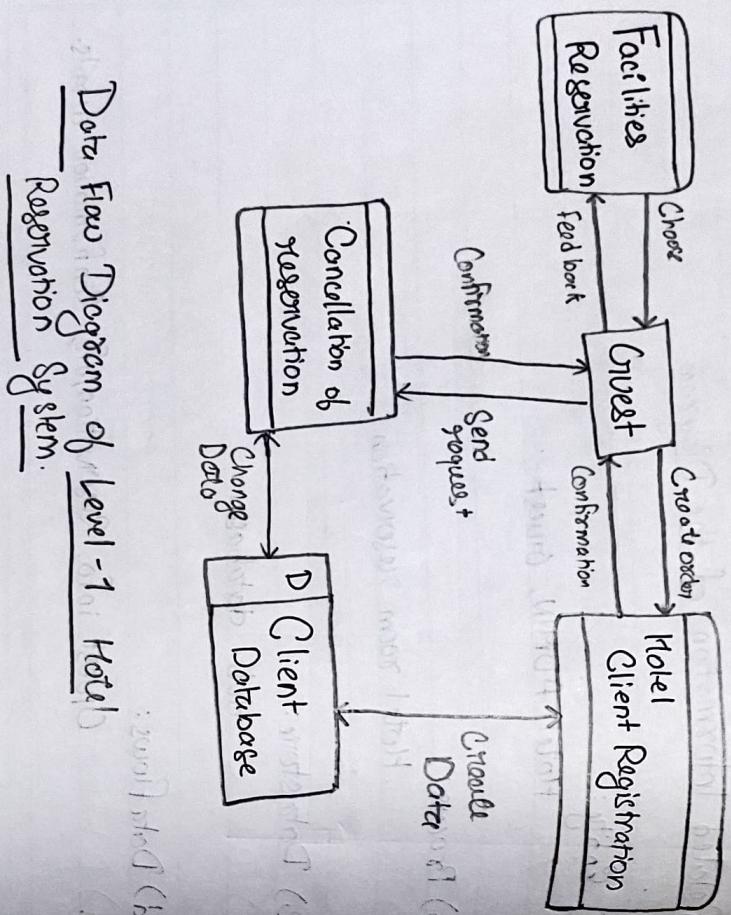
Data Flow Diagram of Level-0 Hotel Reservation System

## Related Information of the Diagram:

- Entity: Hotel ADMIN, Guest
- Process: Hotel room reservation
- Data store: Hotel database.
- Data flows: Guest info, Reservation info, Confirmation details.

3) Problem Statement: Creation of data flow diagram of Level 0 hotel reservation system where the guest tries to book a room in a hotel and he does so with the help of hotel admin and the process moves forward accordingly.

## Diagram



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Problem Statement: Creation of data-flow diagram of Level-1 hotel reservation system where the Guest books a room & chooses the facilities and upon the cancellation of reservation entity, the process moves forward accordingly.

### Related Information of the Diagram:

a) Entity : Guest

b) Process :

Facilities Reservation, Hotel Client Reservation, Cancellation of reservation.

c) Data Flows:

Change data, Create data, choose Facility, get confirmation

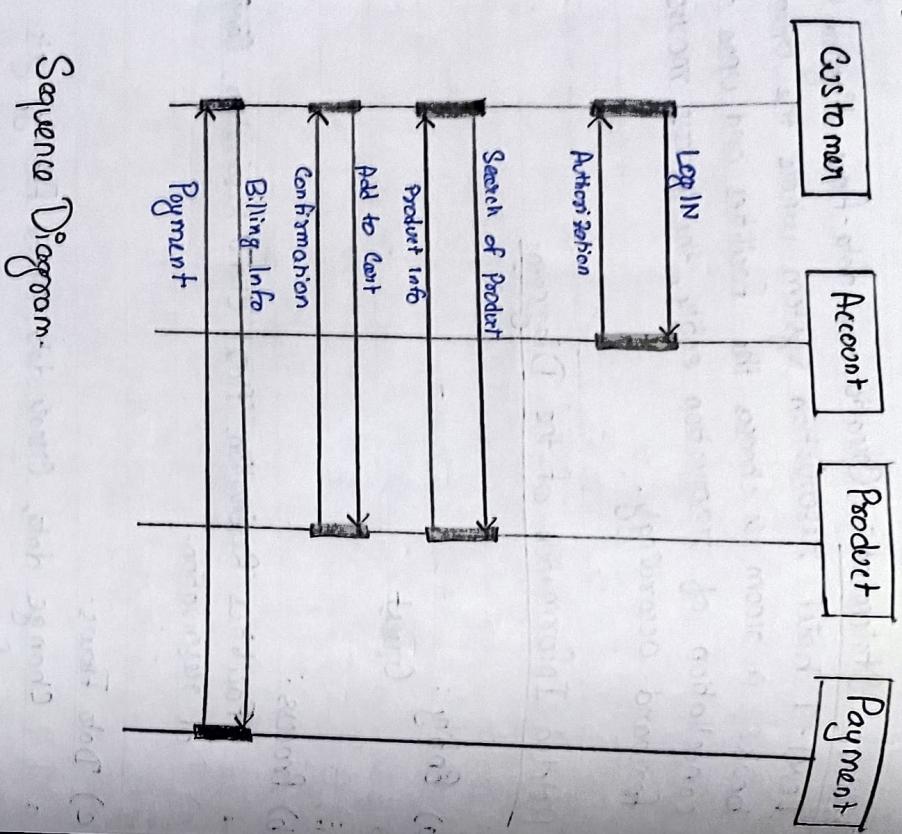
d) Database:

Client database.

Data Flow Diagram of Level -1 Hotel Reservation System.

## Diagram

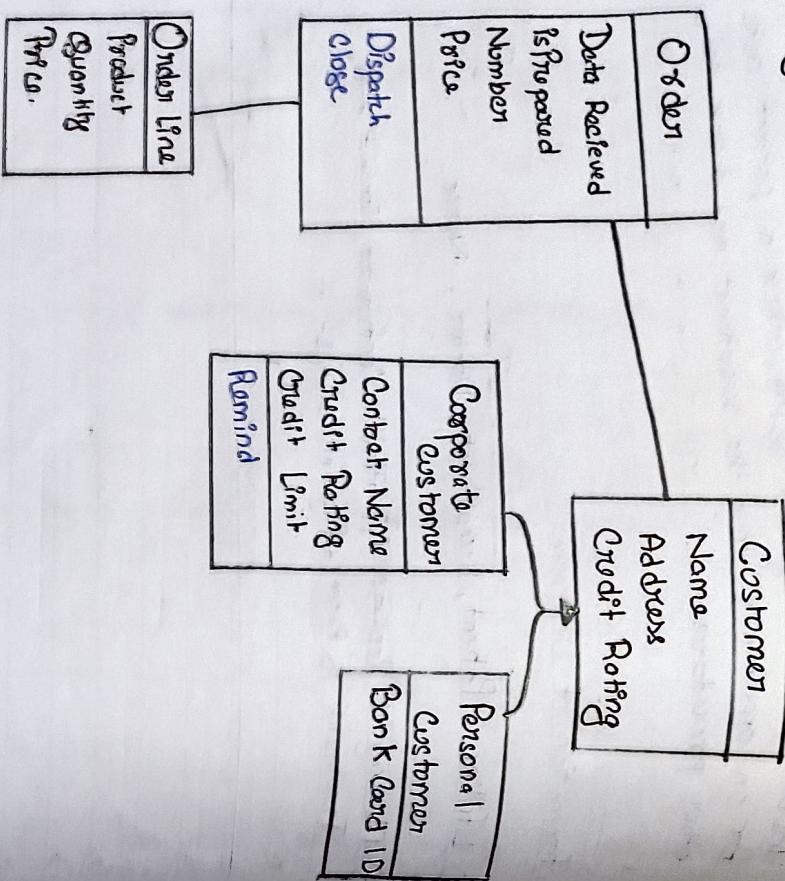
Topic: Week 2: Sequence Diagram



Q17 Problem Statement: Create a Sequence diagram for Online Shopping Management System, where a customer logs in, searches for a product, adds to the cart and pays to buy it.



## Diagram



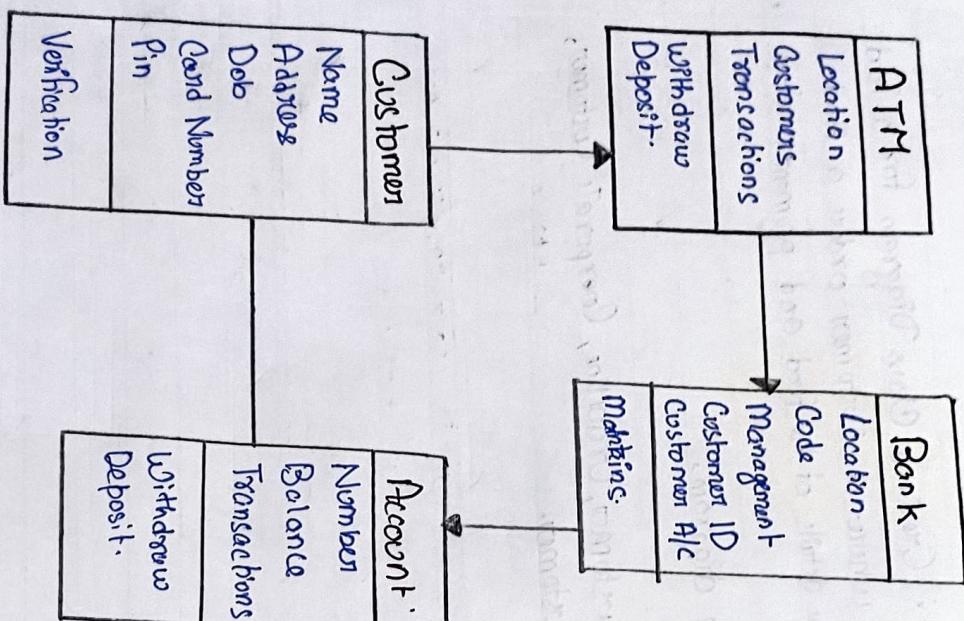
## Week 3: Class Diagram

Ques Problem Statement: Create a Class Diagram for a Food Ordering System, where a customer orders a food and inputs all the details of the food and payment.

Information of the diagram:

Classes: Order, Customer, OrderLine, CorporateCustomer, PersonalCustomer.

# Diagram



Q23

**Problem Statement:** Create a Class Diagram for an ATM management system, where a customer uses an ATM to withdraw money from the bank with his/her details.

Information of the program.

**Class:** ATM with attributes Location, Customers and operations withdraw and deposit.

Bank with attributes of Customer ID and customer account.

Customer with attributes of personal details like name, date of birth, pin.

Account with attributes of account details like balance, number.

Verification

Topic

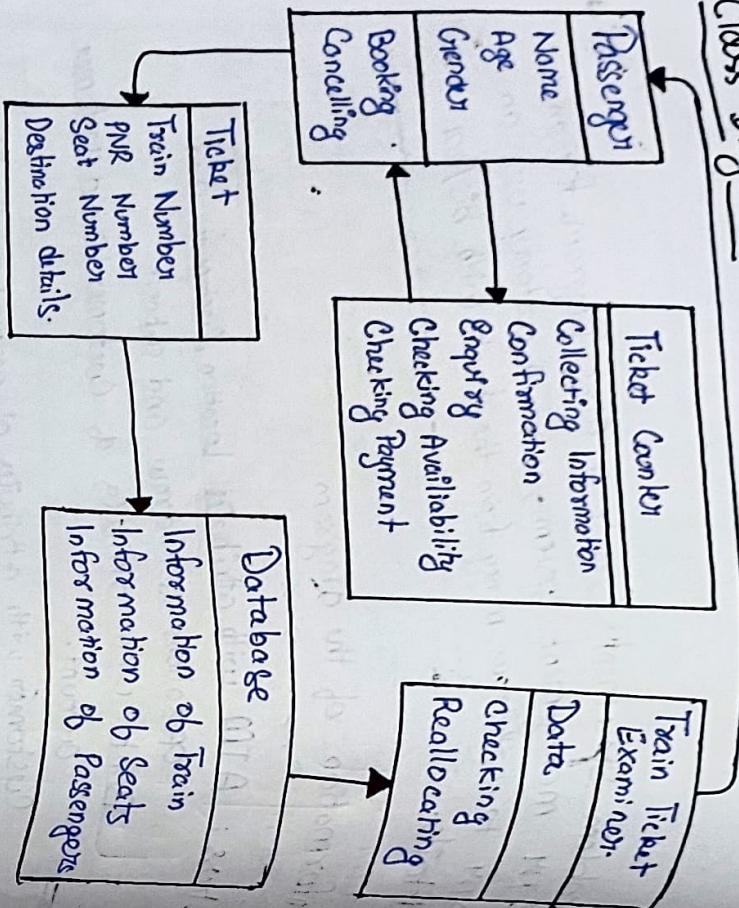
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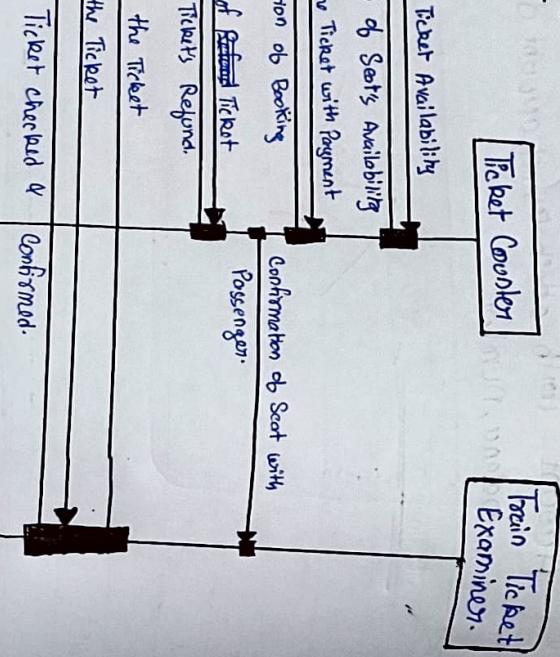
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Pioneer

## Class Diagram:



## Sequence Diagram:



Q3

Week 4

PRACTICE  
ID: X'8'22

Problem Statement: Create a Class Diagram and Sequence Diagram of Railway Management System and compare them.

Information of the diagram:

Class Diagram:

Class: Passenger, Ticket Counter, Train Ticket Examiner,

Ticket Counter.

Attributes: Data of Passenger and Trains.

Sequence Diagram:

Life line: Passenger, Ticket Counter, Train Ticket Examiner.

Messages: Enquiry, Confirmation and Booking.

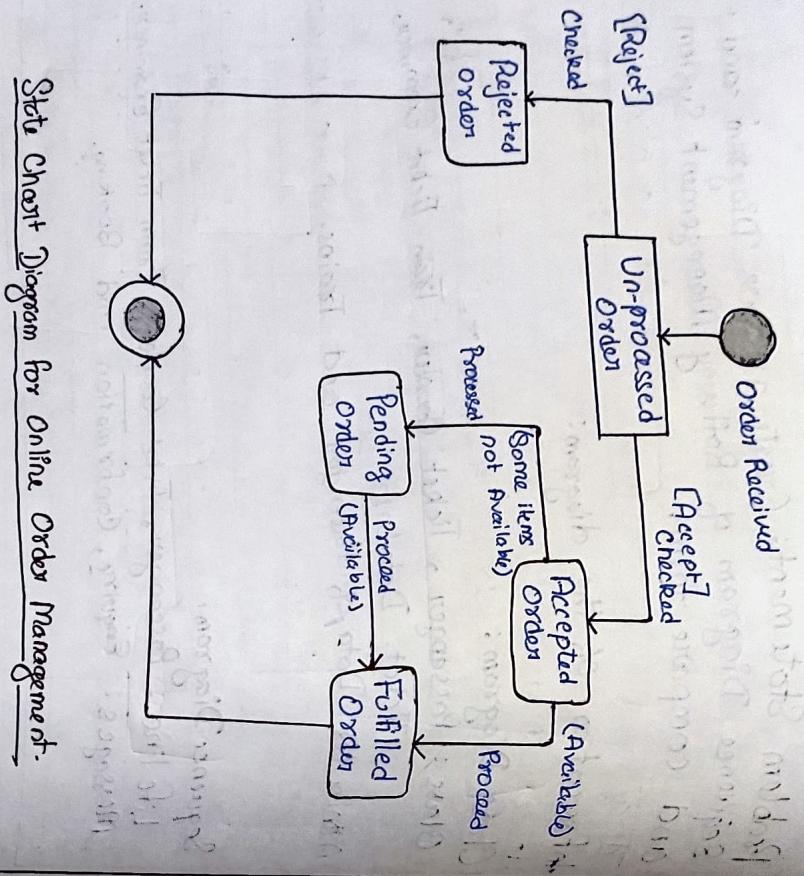
Comparison:

Class diagram and Sequence diagram both display the same data and process but Class Diagram mainly covers and looks after the attributes and processes, Sequence diagram looks after the data flow and replies.

# Program

Topic: Week: 5

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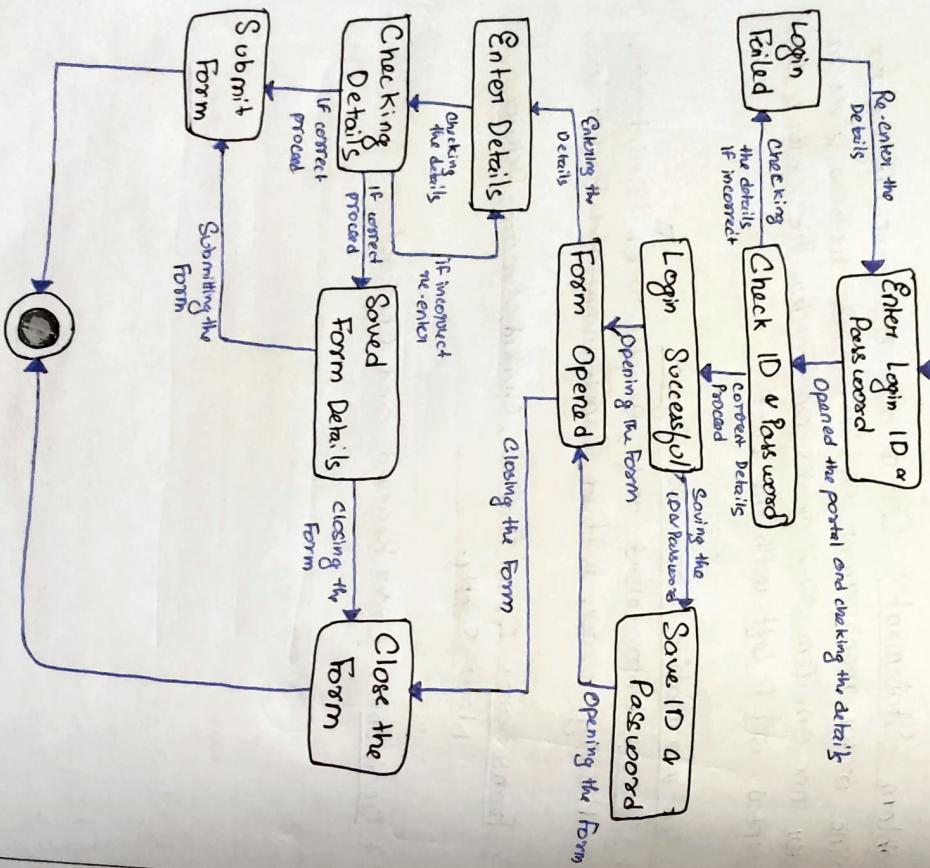
State Chart Diagram for Online Order Management.

- b3 Problem Statement: Create a state chart diagram for online order management sys km, where the user gives an order for an item or removes an order. The order is then accepted or is left with the cont.
- b3 Related information about the diagram:
- b3 Status: Unprocessed order, Accepted order, Rejected orders, Pending order, fulfilled order. Initial and Final state.

b3 Transitions: Order Received, Checked, Proceed, Deliver, New Supply.

b3 Decision: Order Received and Checkout.

## Diagram



Topic:

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PIONEER

Q23 Problem Statement: Create a state chart diagram for the University Form Fillup system where the user fills up a form by login & Entering Pass word. Then the user fills up the form and then the process is successful.

Related Information about the Diagram:

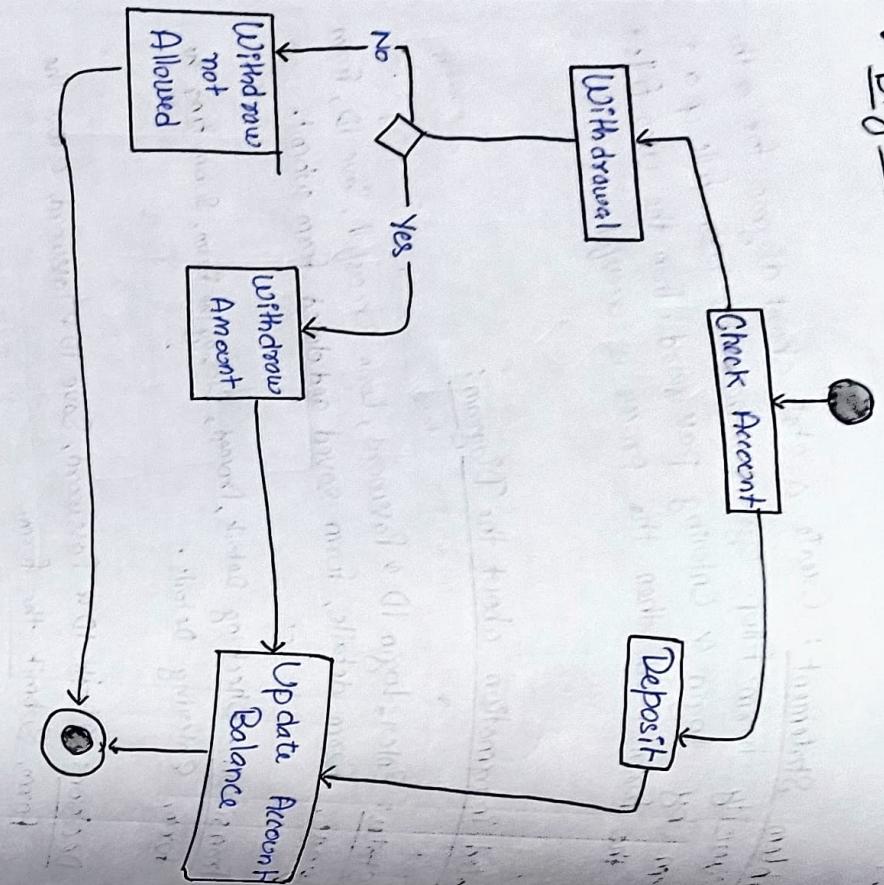
States: Enter, Login ID & Password, Login Successful, Save ID, Form page, form details, form saved and closed, form submit.

b2 Transition: Checking Details, Proceed, Closing the Form, Submitting the form, Entering Details.

c2 Decision: Check ID or Pass word, Save ID & Pass word, Close the Form, Submit the form.

Start Chart Diagram for University Form Fill up:

• Diagram



Activity Diagram for Checking an Account

Week : 6

13  
Activity Diagram for Account check

(a) Problem Statement: Create an activity diagram for checking an account.

(b) Related information of the diagram:

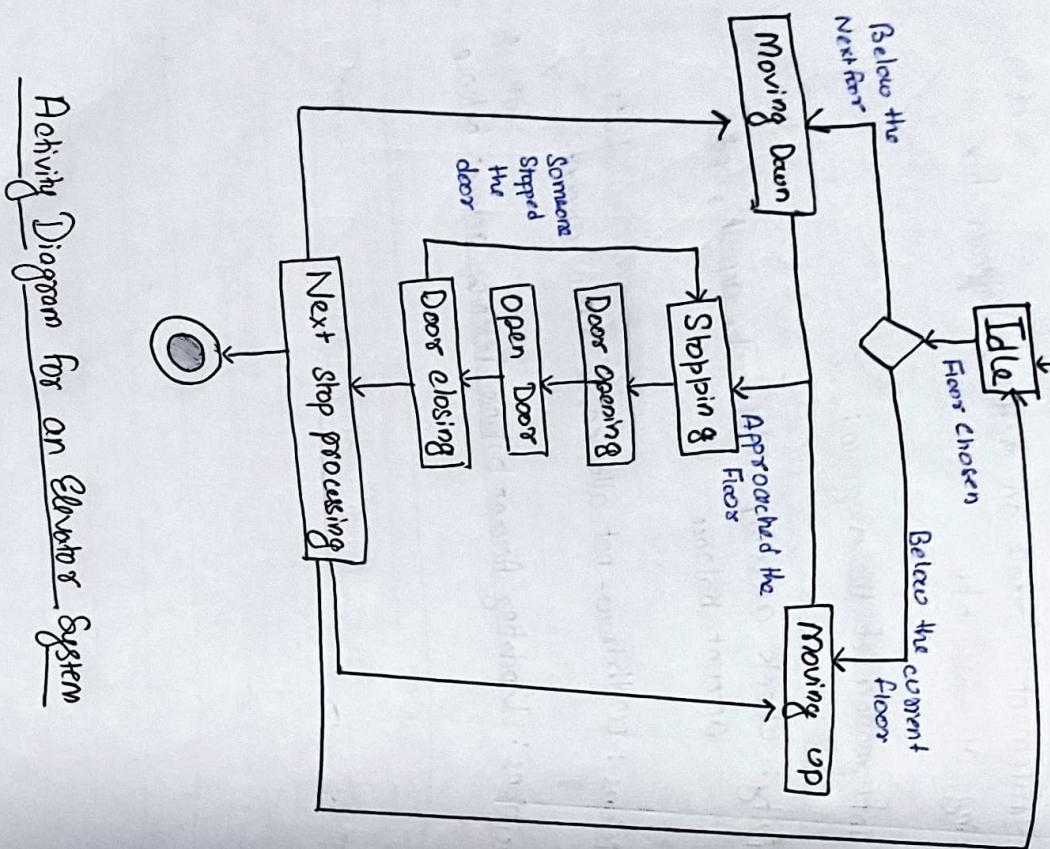
Activity: Check account, withdrawal, deposit, update account balance

b) Decisions: Withdraw not allowed, withdraw amount.

c) Transitions: Updating Account balance, Fetching account balance

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(a) Diagram



Activity Diagram for an Elevator System

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(b) Elevator System

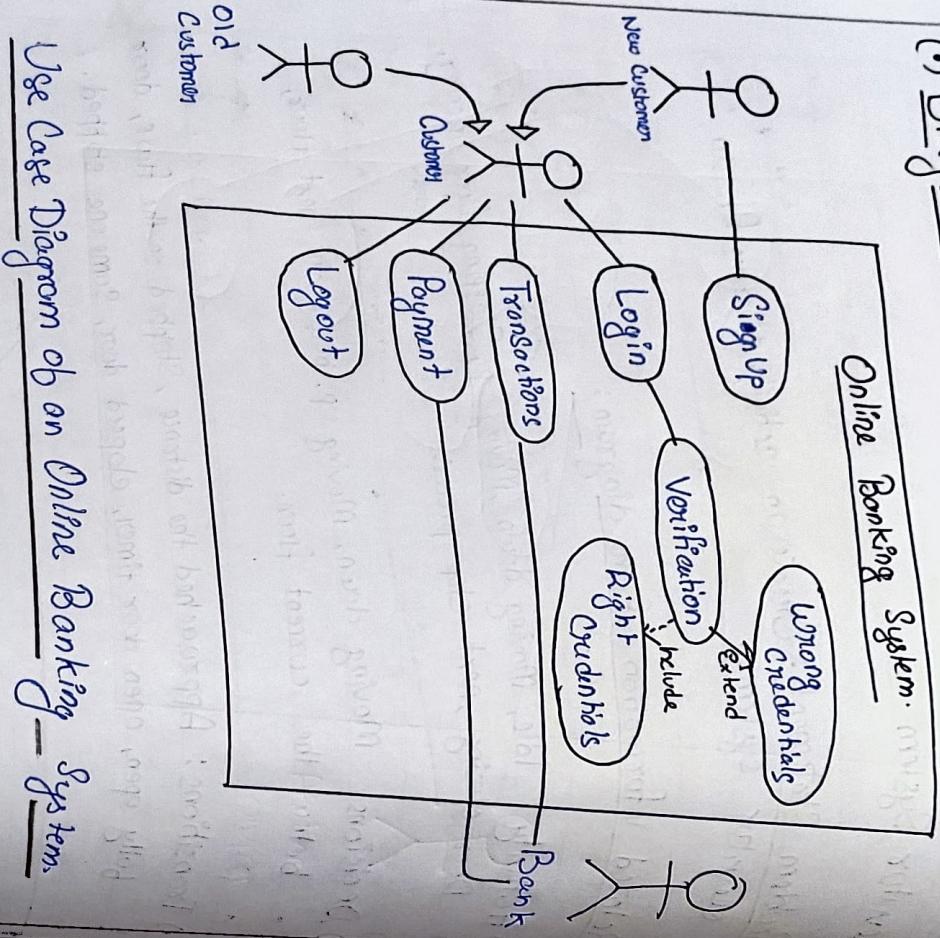
(c) Problem Statement: Create an activity diagram for an elevator system.

(d) Related Information of the program:

- 1) Activity : Idle, Moving down, Moving up, Stopping, Door opening, Door closing, next stop process.
- 2) Decisions: Moving down, Moving up, below the next floor, below the current floor.
- 3) Transitions: Approached the distance, stopped on the floor, door fully open, open door timer, closed door, some one stopped.

Answer

## (e) Diagram



Use Case Diagram of an Online Banking System

Week: 7

Topic:

### Related information about the diagram:

1) Problem Statement: Create a Use Case diagram for an Online Banking System with customer book and other use cases.

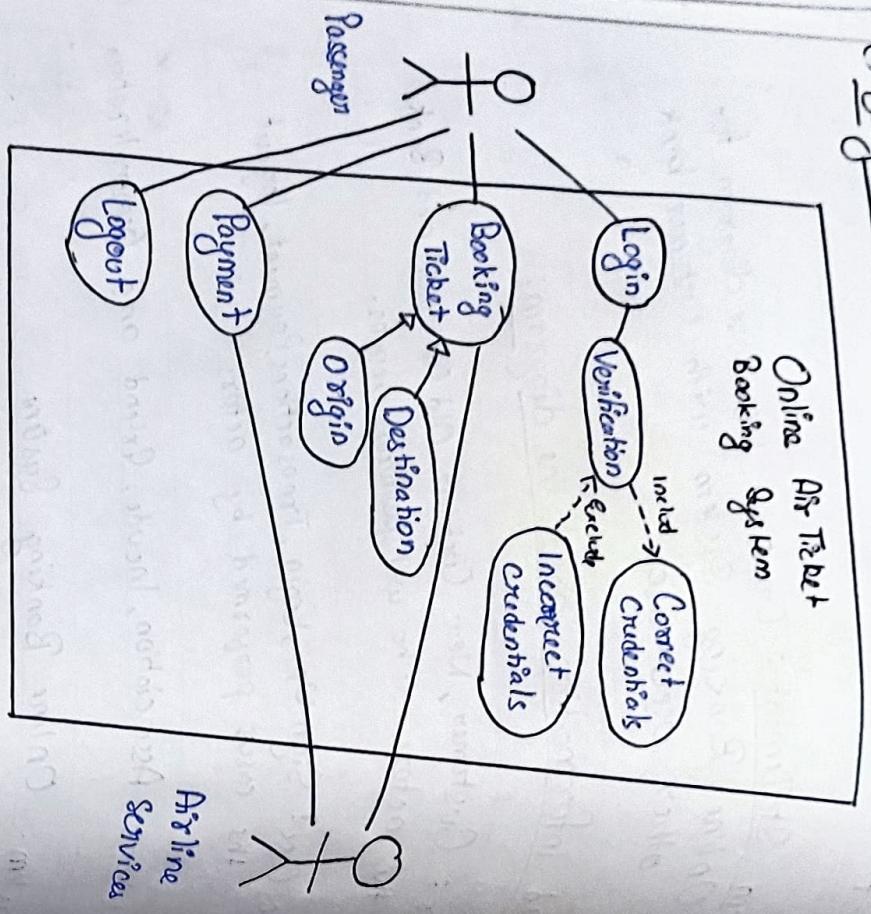
2) Actor: Customer, New Customer, Old Customer and Bank the actors who will perform actions.

3) Use Case: Sign Up, Login, Transactions, Payment, Logout the cases performed by actors

4) Relations: Association, Include, Extend and Generalization

5) System: Online Banking System

(c) Diagram



Use Case Diagram of Online Air Ticket Booking System

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PROGRESS

2) Problem Statement: Create a Use Case Diagram for an Online AirTicket Booking System.

Related information of the Program:

Actor: Passenger and Airline Service, the ones carrying out the operations.

Use Case: Login, Booking Ticket, Payment, Logout and Verification.

Relationships: Association, Inclusion, Exclusion and Generalization.

System: Online Air Ticket Booking System.