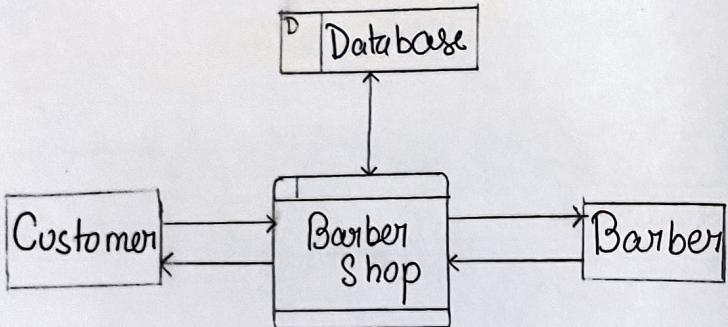


## Diagram



DFD of Level 0 Barber Shop.

Topic :

## Week 1: Data Flow 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.

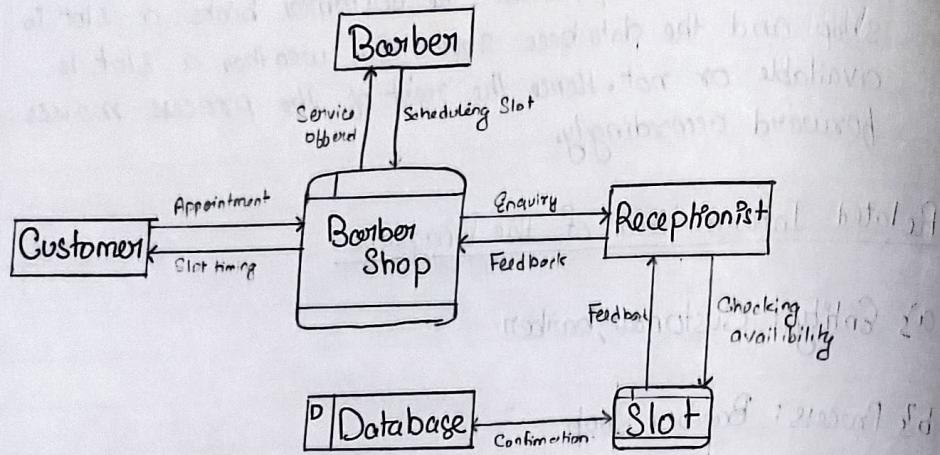
### Related Information of the Diagram

a) Entity : Customer,barber.

b) Process : Barber Shop

c) Data Storage : Database.

Diagram:



Data-flow Diagram of Level-1 Barber Shop

2) 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 lets the client know and the process moves forward.

Related Information of the Diagram:

a) Entity:

Customer, Barber, Receptionist.

b) Process:

Barbershop, Slot

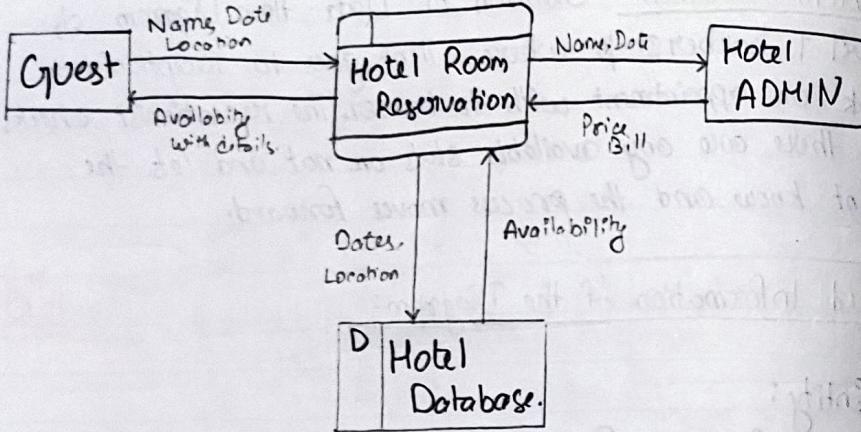
c) Data Storage:

Database

d) Dataflow:

Enquiry, Feedback, Confirmation, Slot timing, Appointment.

# Diagram



Data Flow Diagram of Level-0 Hotel Reservation System

Topic :

Page : 4  
Date : / /

36 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.

Related Information of the Diagram:

a) Entity:

Hotel ADMIN, Guest

b) Process:

Hotel room reservation

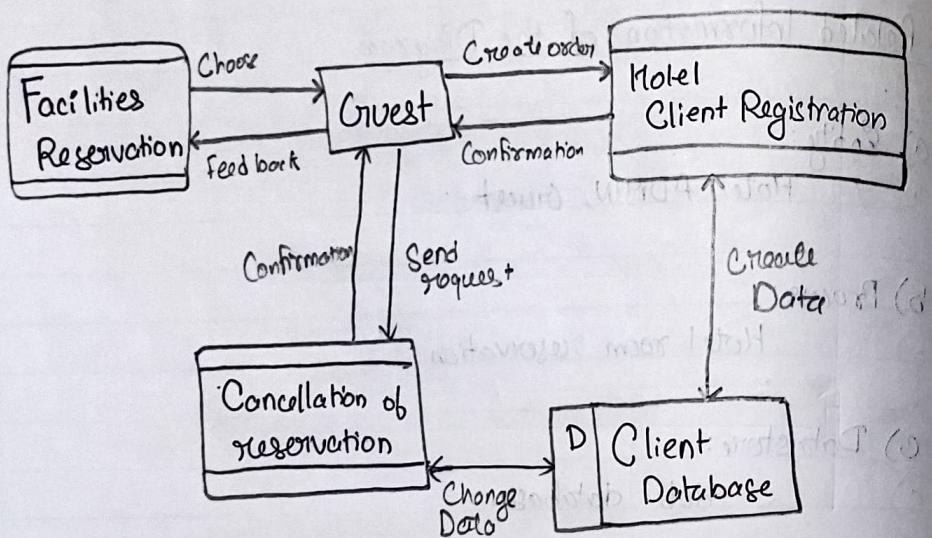
c) Data store:

Hotel database.

d) Data flows:

Guest info, Reservation info, Confirmation details.

## Diagram



Data Flow Diagram of Level-1 Hotel Reservation System.

Topic :

Page : 5  
Date : / /

4) 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 Registration, Cancellation of reservation.

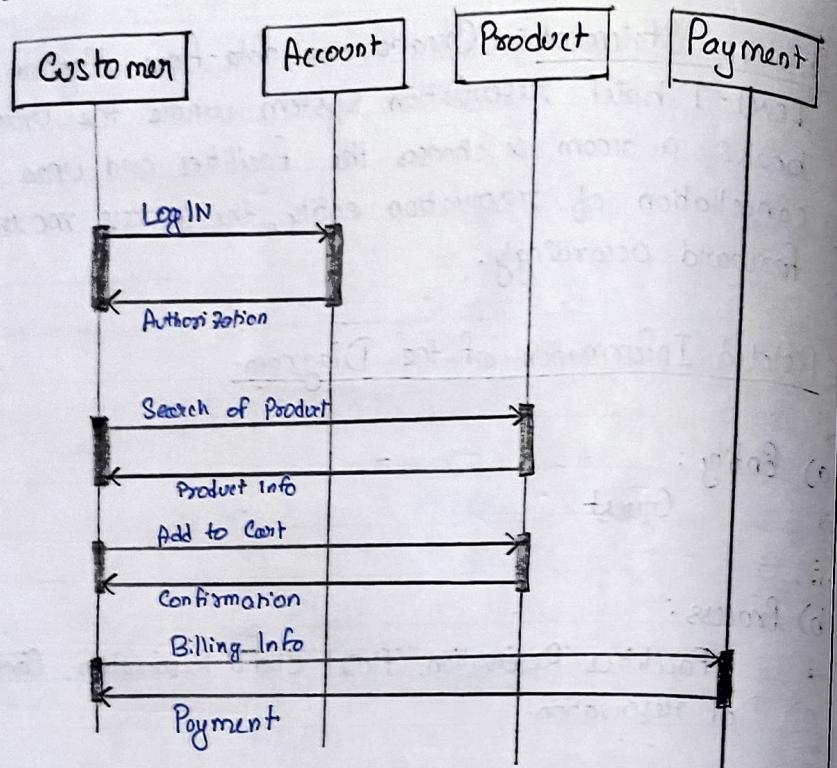
c) Data Flows:

change data, Create data, choose Facility, gets confirmation

d) Database:

Client database.

## Diagram



Sequence Diagram.

Topic:

## Week 2: Sequence Diagram.

Page: 6  
Date: 11/8/22

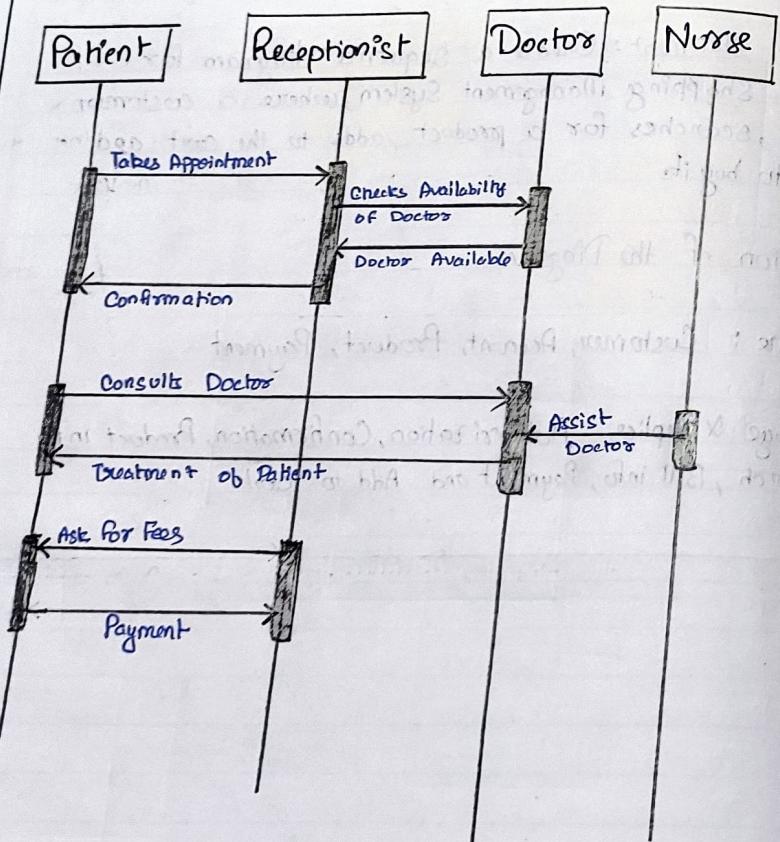
Q1's Problem Statement: Create a sequence diagram for Online Shopping Management System, where a customer logs in, searches for a product, adds to the cart and pays to buy it.

### Information of the Diagram.

a) Lifeline: Customer, Account, Product, Payment

b) Message & Replies: Authorization, Confirmation, Product info Search, Bill info, Payment and Add to cart.

## Diagram



Q2(b) Problem Statement: Create a sequence diagram for Hospital Management System, where a patient asks for an appointment from the receptionist and doctor and other procedures.

### Information of Diagram:

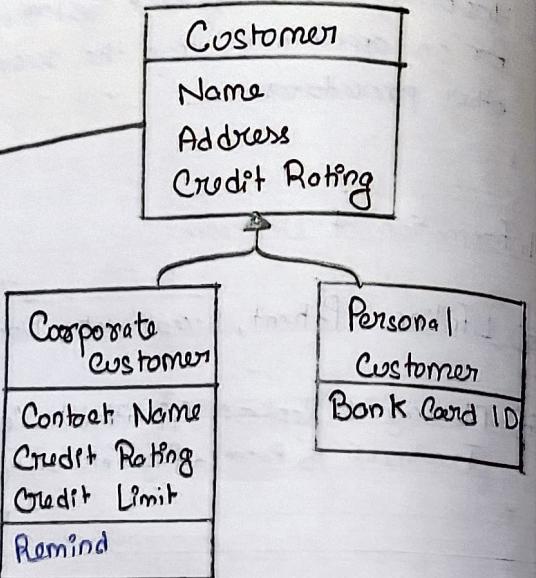
a) Lifeline: Patient, Receptionist, Doctor, Nurse

b) Message & Replies: Appointment, Confirmation, Consult Doctor, Treatment of Patient, Payment of Fees.

Diagram

Order
Data Received
is Prepared
Number Price

Order Line
Product
Quantity
Price



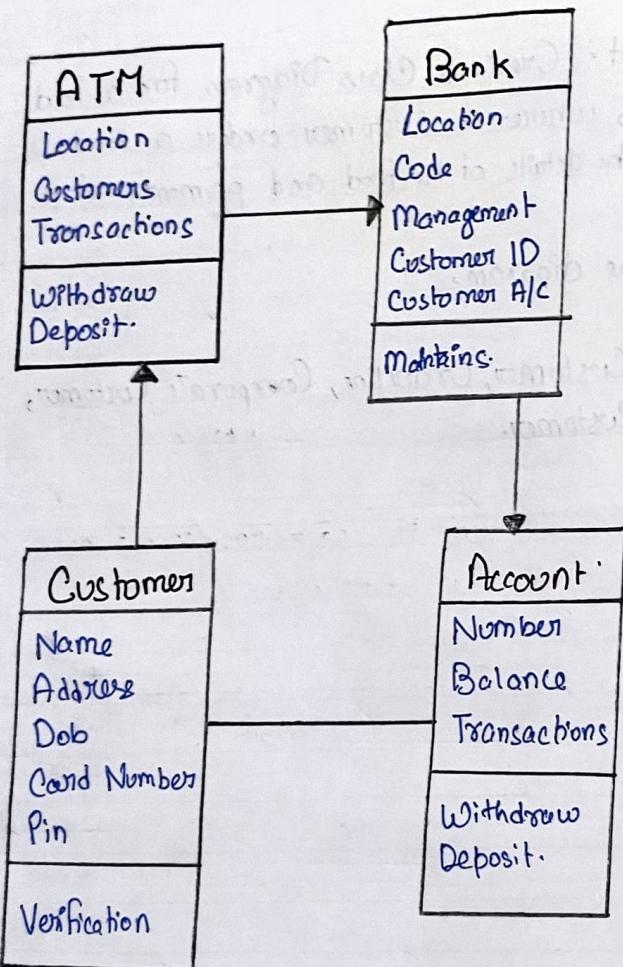
## Week 3: Class Diagram

Q1's 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 program:

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

## Diagram



Q2

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 diagram.

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

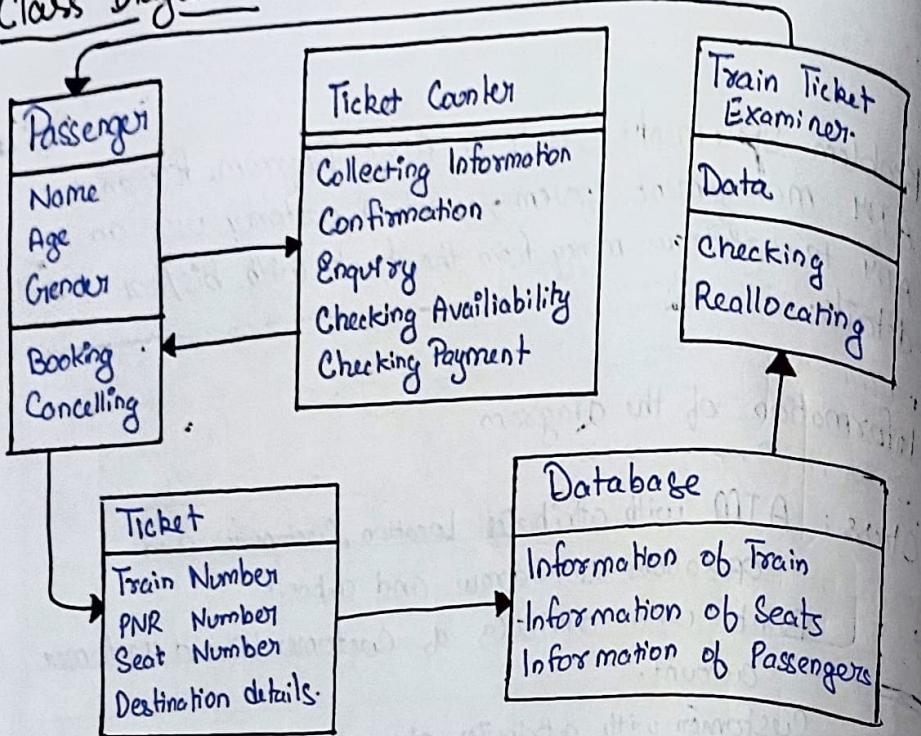
Bank with attributes of Customer ID and customer account.

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

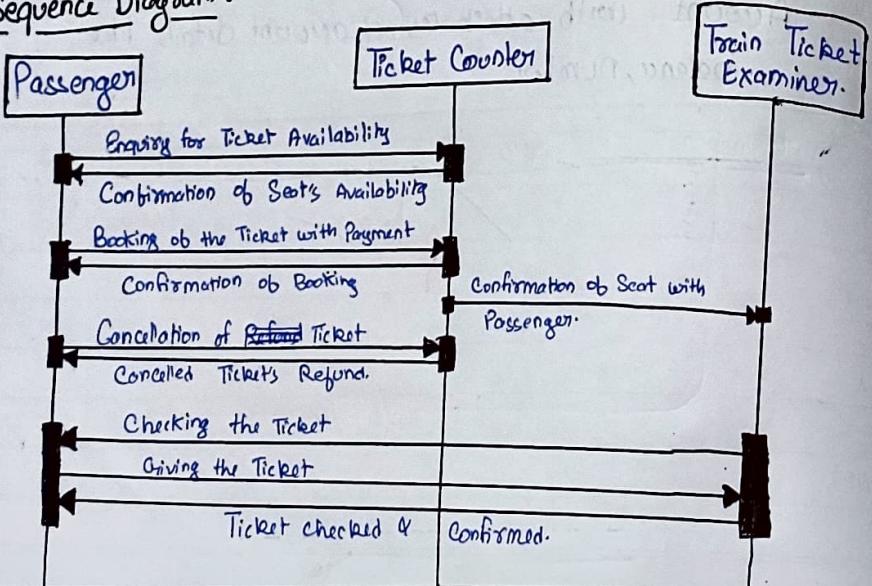
Account with attributes of account details like balance, number.

~~Chandru~~

## Class Diagram:



## Sequence Diagram:



Topic: Week 4

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Date: 25/8/22

Q3 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, Database.

Attributes: Data of Passenger and Trains.

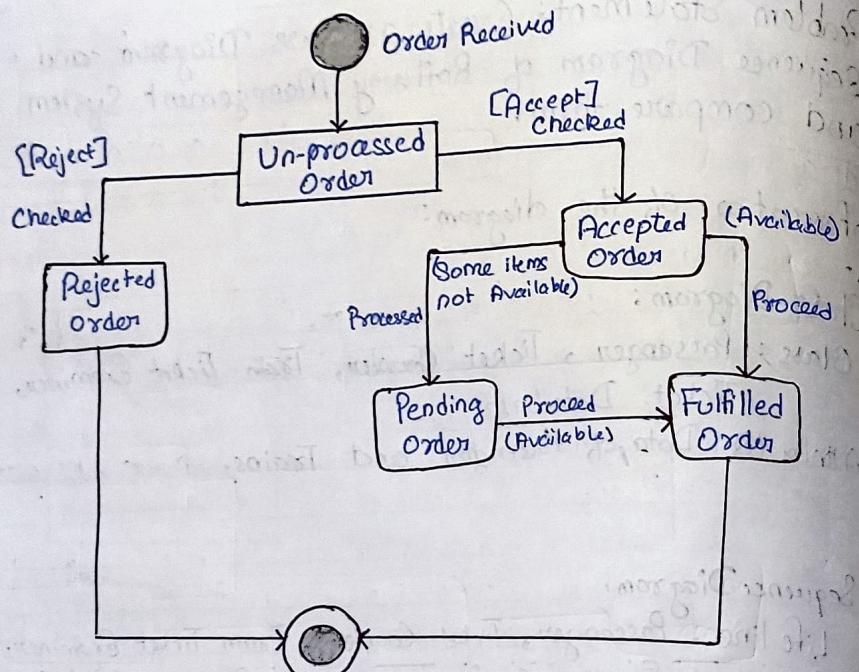
Sequence Diagram:

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.

DiagramState Chart Diagram for Online Order Management.

Topic:

Week: 5

a) Problem Statement: Create a state chart diagram for online order management system, where the user gives an order for an item or removes an order. The order is then accepted or is left with the cart.

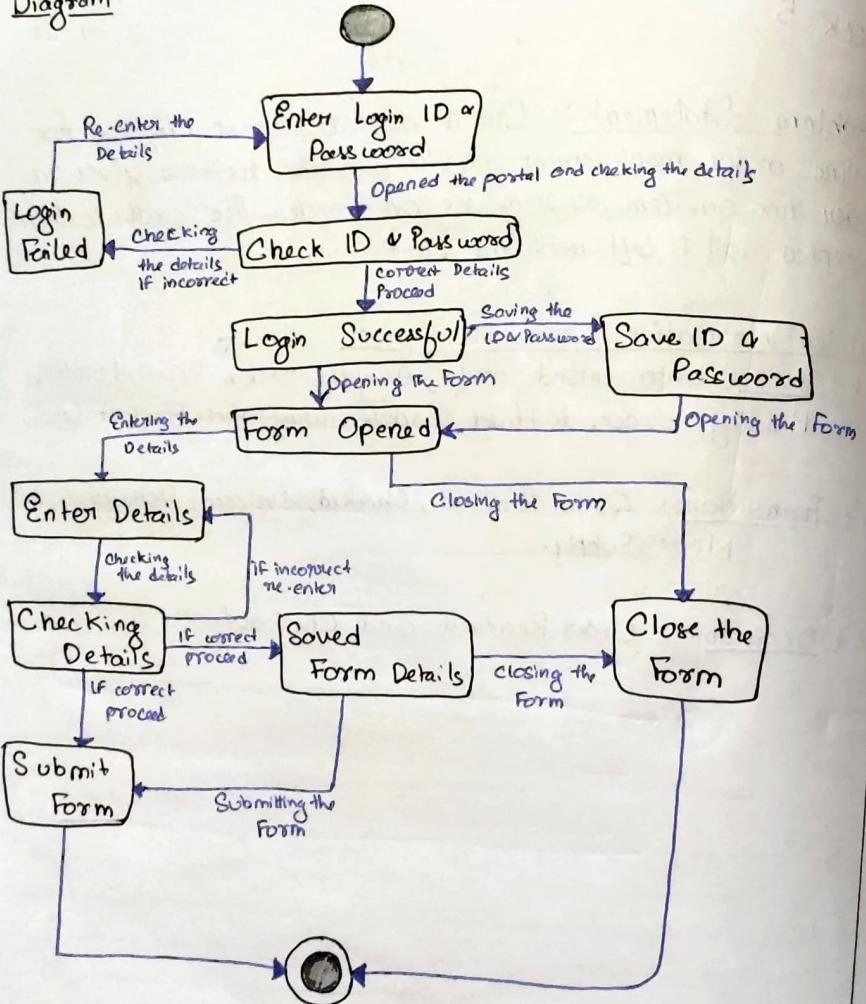
Related information about the diagram:

c) Status: Unprocessed order, Accepted order, Rejected orders, Pending order, full-filled order. Initial and Final state.

b) Transitions: Order Received, Checked, Proceed, Deliver, New Supply.

c) Decision: Order Received and Checkout.

## Diagram



Statechart Diagram for University Form Fill up.

Topic :

a23 Problem Statement: Create a state chart diagram for the University Form-Fillup System where the user fills up a form by login & Entering password. Then the user fills up the form and then the process is successful.

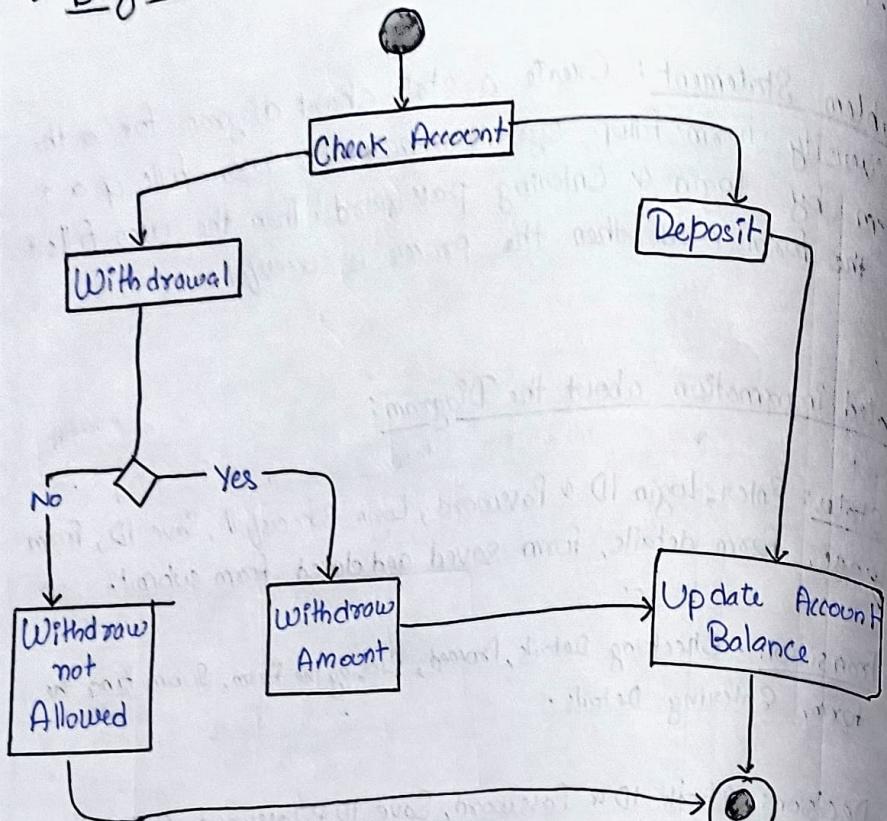
Related Information about the Diagram:

a2 States: Enter: Login ID & Password, Login Successfull, Save ID, Form page, form details, form saved and closed, form submit.

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

c2 Decisions: Check ID or Password, Save ID & Password, Close the Form, Submit the form.

• Program



Activity Diagram for Checking an Account

Topic:

Week: 6

PIONEER<sup>®</sup>

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Date: 8 / 9 / 22

13 Activity Diagram for Account check

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

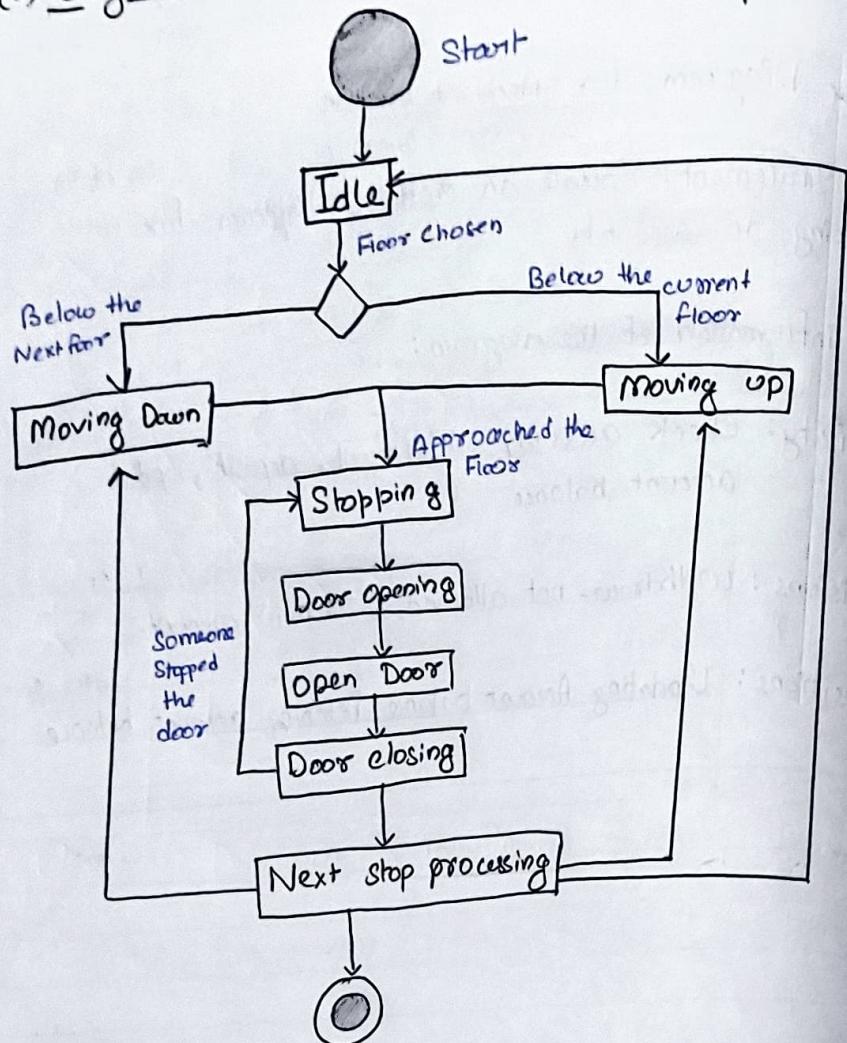
(b) Related information of the diagram:

(i) Activity: Check account, withdrawal, deposit, update account balance

(ii) Decisions: Withdraw not allowed, withdraw amount.

(iii) Transitions: Updating Account balance, Fetching account balance

(a) Diagram



Activity Diagram for an Elevator System

2) Elevator System

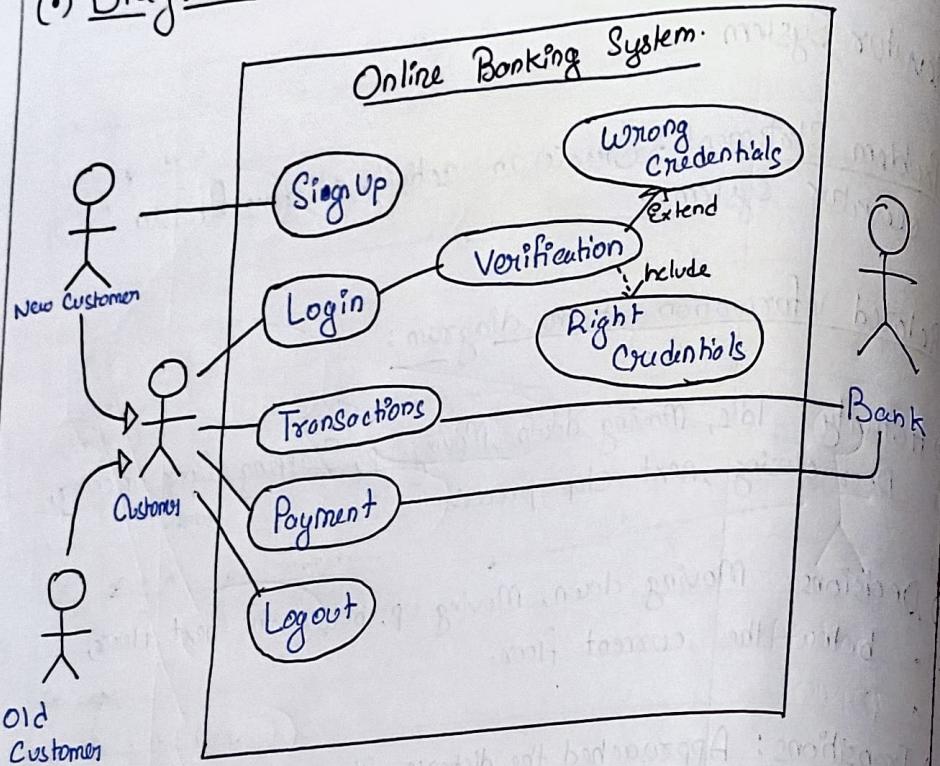
(a) Problem Statement: Create an activity diagram for an elevator system.

(b) Related information of the diagram:

- Activity: Idle, Moving down, Moving up, Stopping, Door opening, Door closing, next stop process.
- Decisions: Moving down, Moving up, below the next floor, below the current floor.
- Transitions: Approached the distance, Stopped on the floor, door fully open, open door timer, closed door, Someone stopped.

refined

## (c) Diagram



Use Case Diagram of an Online Banking System.

Topic:

Week: 7

PIONEER®  
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Date: 15/9/22

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

Related information about the diagram:

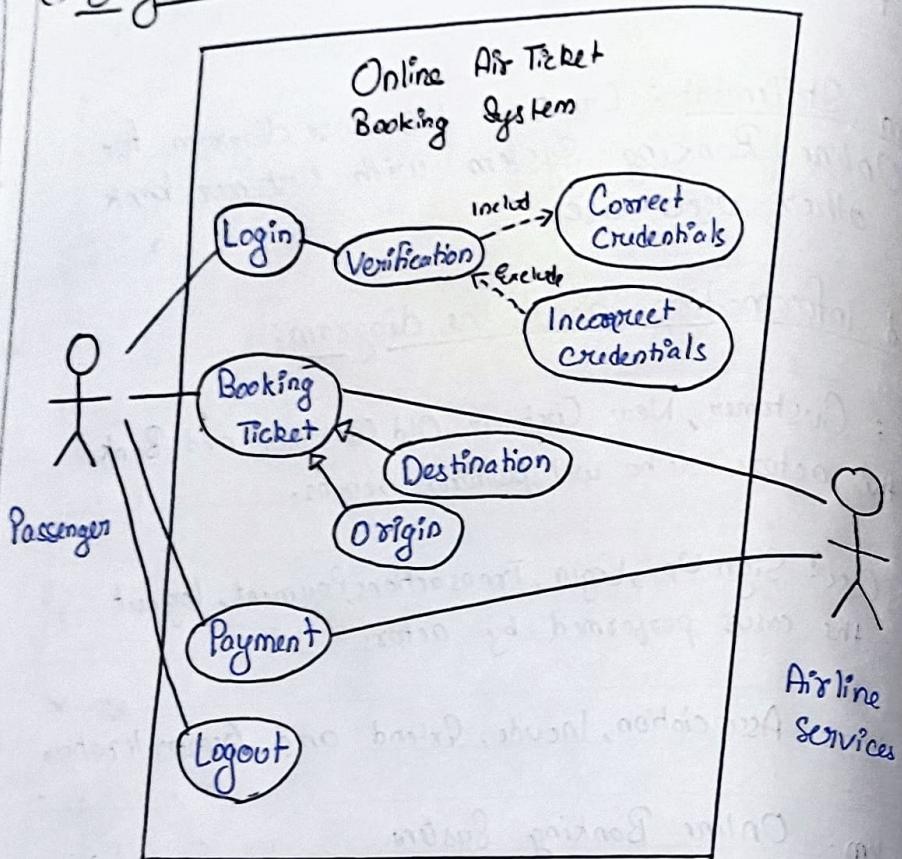
1. Actor: Customer, New Customer, Old Customer and Bank  
the actors who will perform actions.

2. Use Case: SignUp, Login, Transactions, Payment, Logout  
the cases performed by actors

3. Relations: Association, Include, Extend and Generalization

4. System: Online Banking System

## (e) Diagram



Use Case diagram of Online Air Ticket Booking System

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

Related information of the Diagram :

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

→ Use Case : Login, Booking Ticket, Payment, logout and verification.

→ Relationships: Association, Include, Exclude and Generalization.

→ System : Online Air Ticket Booking System.