Assignement No 2
Object Oriented System Analysis & Design

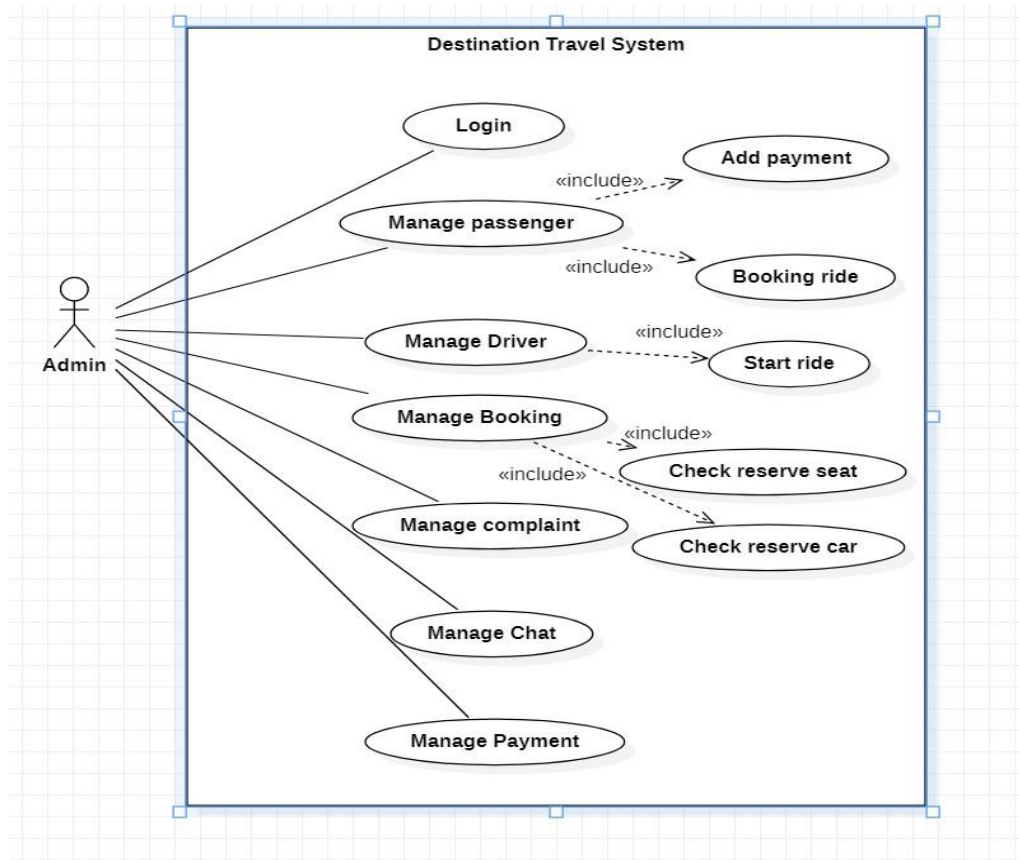| Name: saqib khan	ID #:13158

Semester: 8th
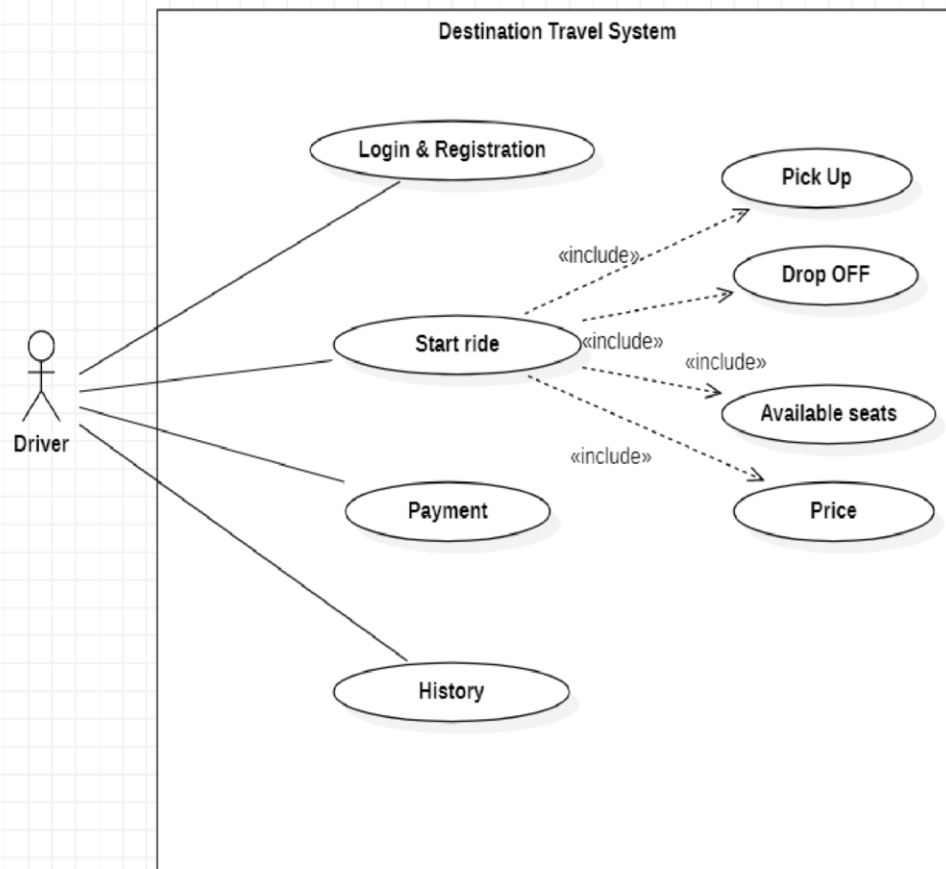Instructor: Sir Fahim ullah

Q1:   Draw detailed USECASE DIAGRAM of your FYP Project along with description

Ans:

- Admin is a by default entity of the system who will be able to manage the whole functionalities which includes:
- Admin will be able to manage passengers such as updating , deleting , bookings and payments
- Admin will be able to manage drivers such as updating , deleting , bookings and payments Admin will be able to manage bookings such as update bookings, delete bookings.
- Admin will be able to manage complaints such as approve complaints or delete complaints.
- Admin will be able to see and monitor all chats.   Admin will be to monitor all payments.

Destination Travel System

Login
Add payment
Manage passenger
«include»
Booking ride
«include»
Manage Driver
«include»
Start ride
Manage Booking
«include»
Check reserve seat
«include»
Manage complaint
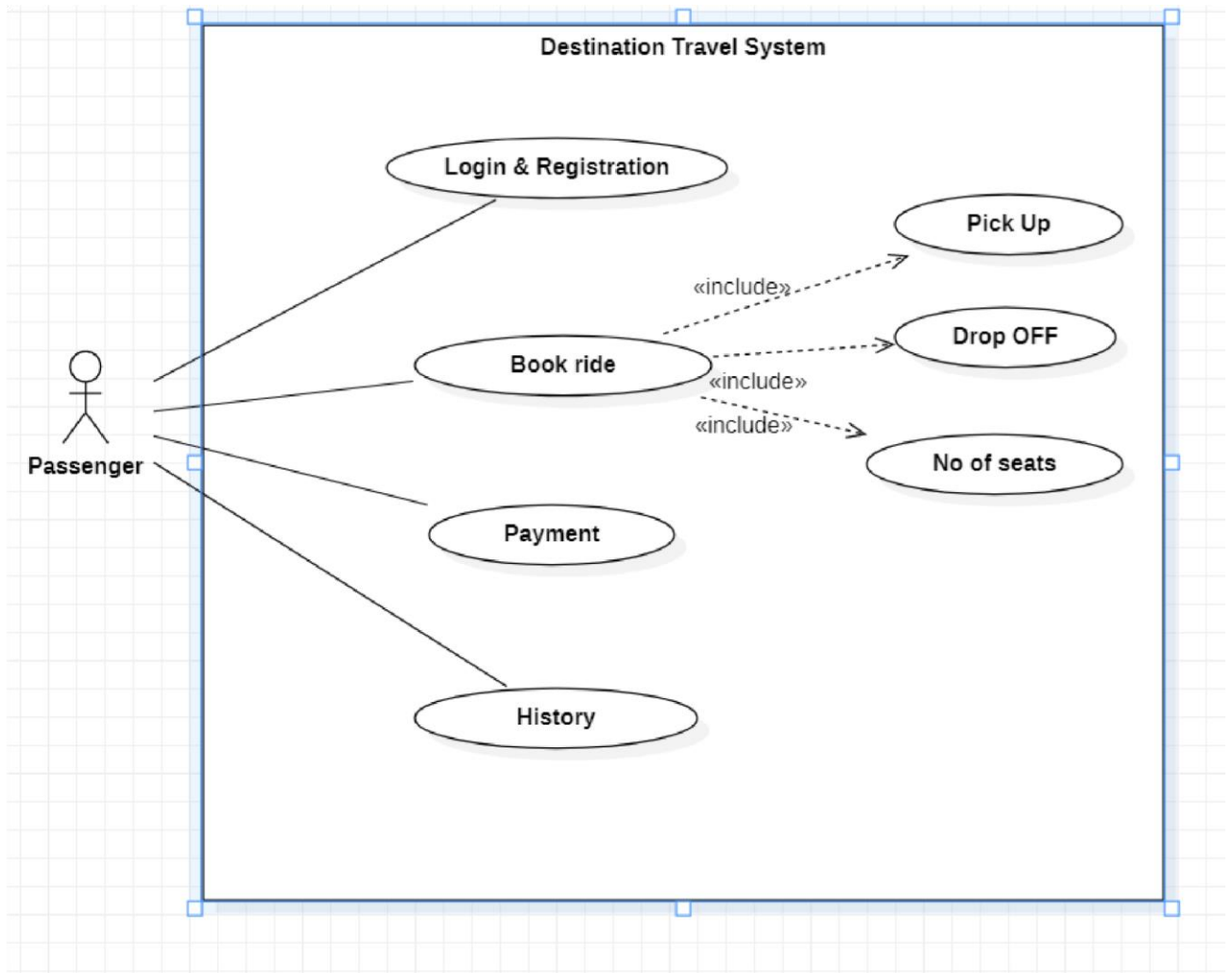Check reserve car
Manage Chat
Manage Payment

Admin

- Driver is the second important entity of destination travel system with following characteristics.
- Driver will register and login.
- Driver will provide services by starting ride with pick Up location, drop OFF location, available seats and price per seat.
- Driver can check his payment history such as incomes and withdrawls.   Driver can look over all his rides history.

Destination Travel System

Login & Registration

Pick Up

«include»

Drop OFF

Start ride   «include»

«include»

Available seats

«include»

Payment

Price

Driver

History

- Passenger is the 3rd most important entity of destination travel system which will have following characteristics.
- Passenger will register and login.
- Passenger will be able to book ride by providing pickup location, dropoff location and No of seats.
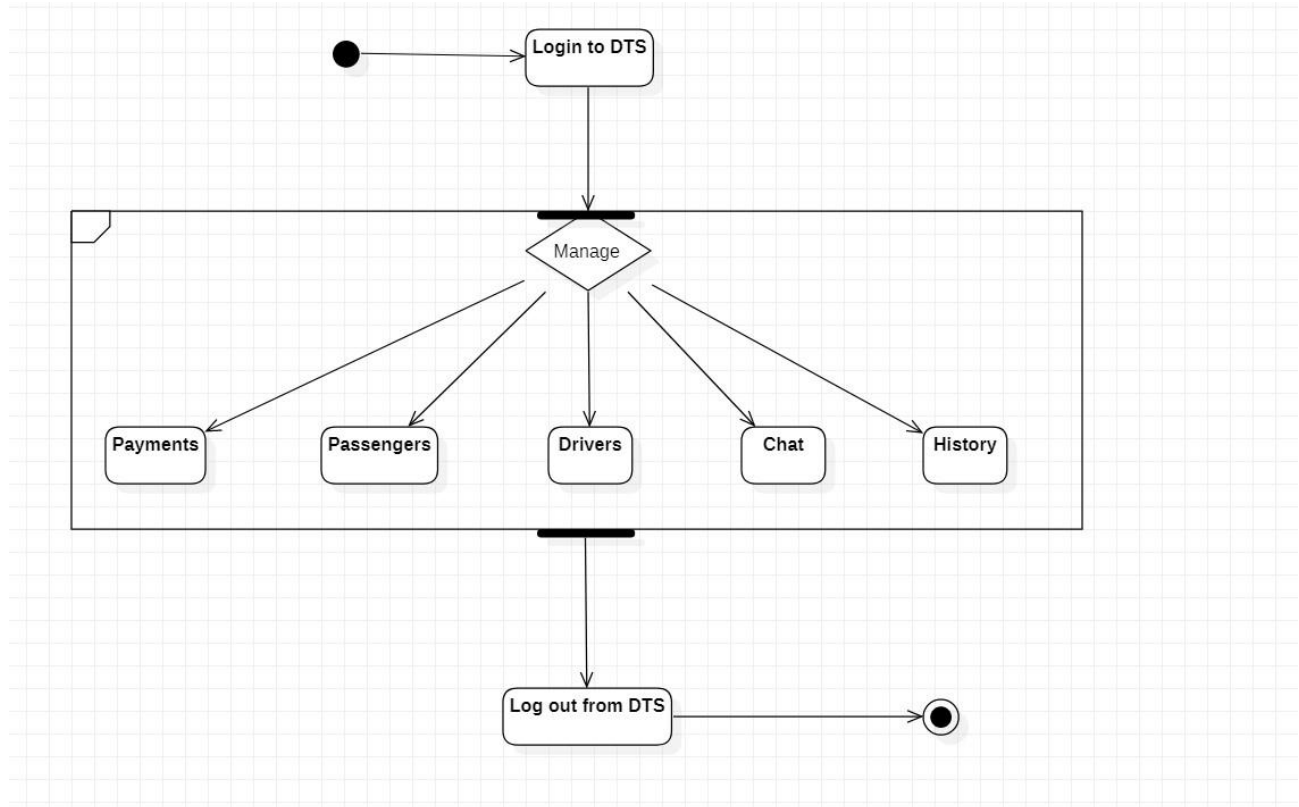
- Passenger will be able to pay for rides on monthly basis.   Passenger will be able to see his booking history.
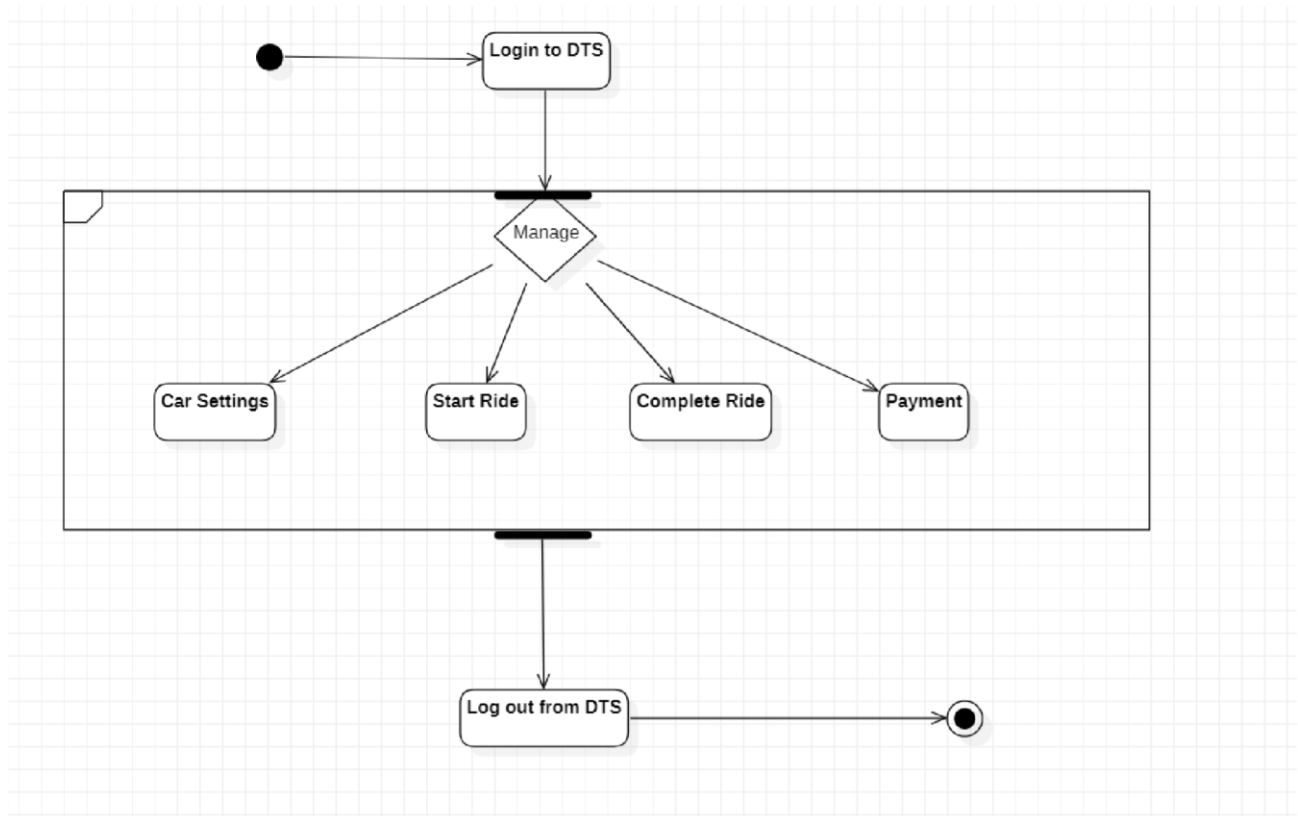

Q2:   Draw detailed ACTIVITY DIAGRAMS of your FYP Project along with description Ans:

- Admin is a by default entity of the system who will be able to manage the whole functionalities which includes:
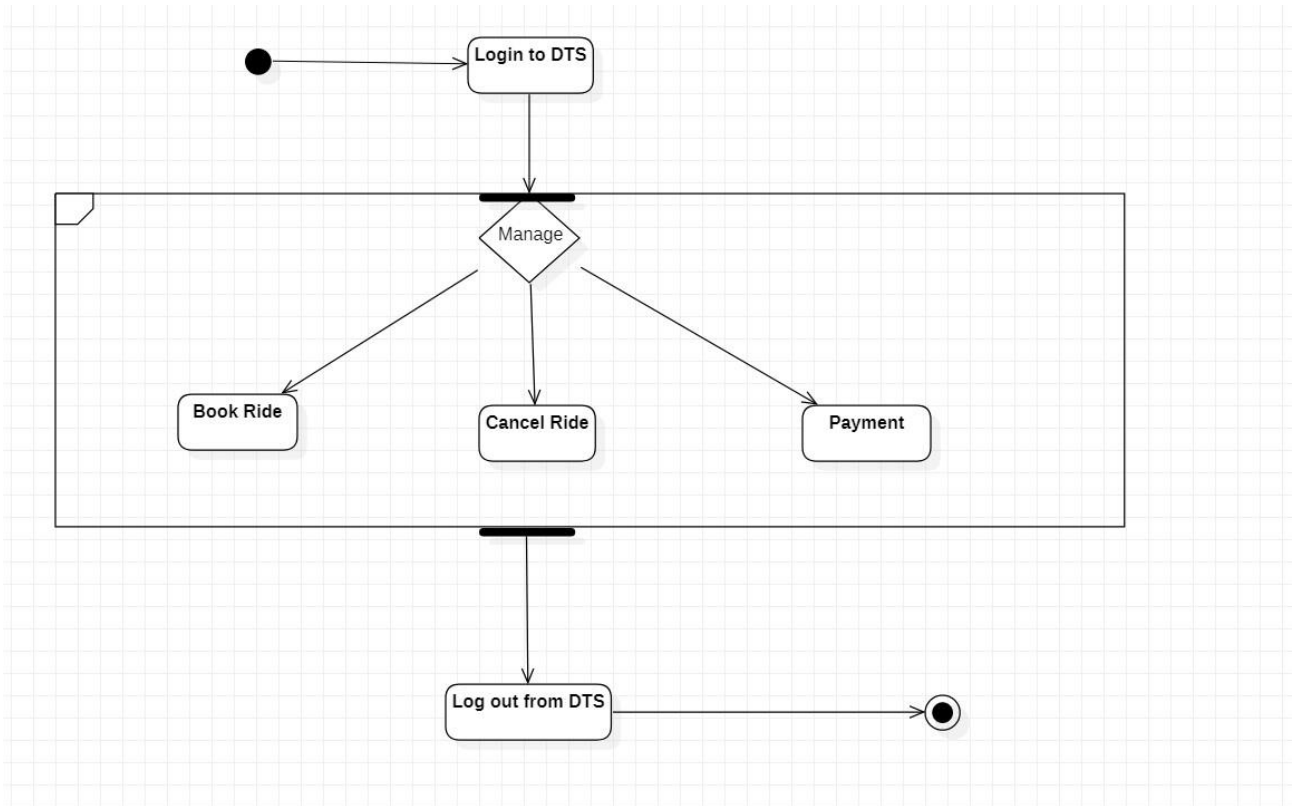
- Admin will be able to manage passengers such as updating , deleting , bookings and payments
- Admin will be able to manage drivers such as updating , deleting , bookings and payments
  Admin will be able to manage bookings such as update bookings, delete bookings.
- Admin will be able to manage complaints such as approve complaints or delete complaints.
- Admin will be able to see and monitor all chats.   Admin will be to monitor all payments.

```
          ● ──────→ ┌──────────────┐
                     │ Login to DTS │
                     └──────┬───────┘
                            │
                            ▼
     ┌──────────────────────████──────────────────────────┐
     │                    ◇ Manage ◇                        │
     │        ┌─────┬──────┬────────┬──────┬─────┐          │
     │        ▼     ▼      ▼        ▼      ▼                │
     │  ┌────────┐ ┌──────────┐ ┌───────┐ ┌──────┐ ┌─────────┐
     │  │Payments│ │Passengers│ │Drivers│ │ Chat │ │ History │
     │  └────────┘ └──────────┘ └───────┘ └──────┘ └─────────┘
     └──────────────────────████──────────────────────────┘
                            │
                            ▼
                  ┌──────────────────┐
                  │ Log out from DTS │ ──────→ ◉
                  └──────────────────┘
```

- Driver is the second important entity of destination travel system with following characteristics.
- Driver will register and login.
- Driver will provide services by starting ride with pick Up location, drop OFF location, available seats and price per seat.
- Driver can check his payment history such as incomes and withdrawls.
- Driver can look over all his rides history.

```
          ●──────────────→┌──────────────┐
                          │ Login to DTS │
                          └──────────────┘
                                  │
                                  ↓
        ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
      ┌─╮                        ◇
      │ │                     ╱Manage╲
      │ └────                ╲      ╱
      │              ╱─────────╳─────────╲
      │           ╱        ╱      ╲        ╲
      │        ↓        ↓          ↓        ↓
      │  ┌──────────┐ ┌─────────┐ ┌──────────────┐ ┌─────────┐
      │  │Car Settings│ │Start Ride│ │Complete Ride│ │ Payment │
      │  └──────────┘ └─────────┘ └──────────────┘ └─────────┘
      │
        ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
                                  │
                                  ↓
                          ┌──────────────────┐
                          │ Log out from DTS │──────────→◉
                          └──────────────────┘
```
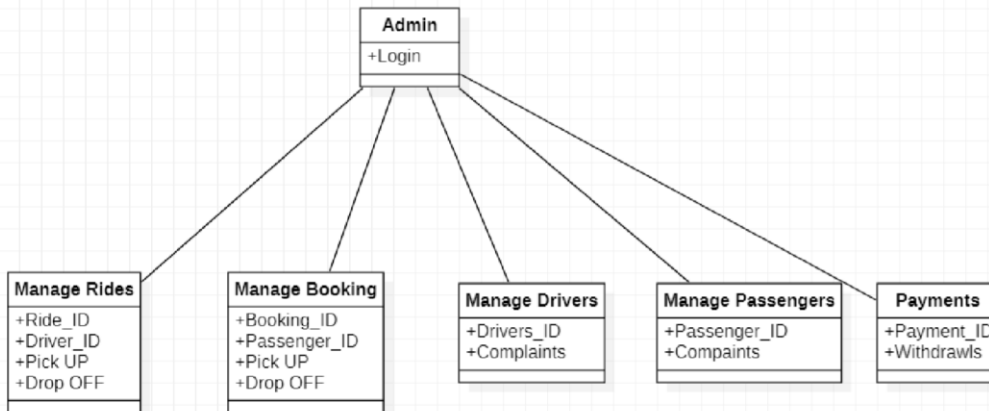
- Passenger is the 3rd most important entity of destination travel system which will have following characteristics.
- Passenger will register and login.
- Passenger will be able to book ride by providing pickup location, dropoff location and No of seats.
- Passenger will be able to pay for rides on monthly basis.   Passenger will be able to see his booking history.

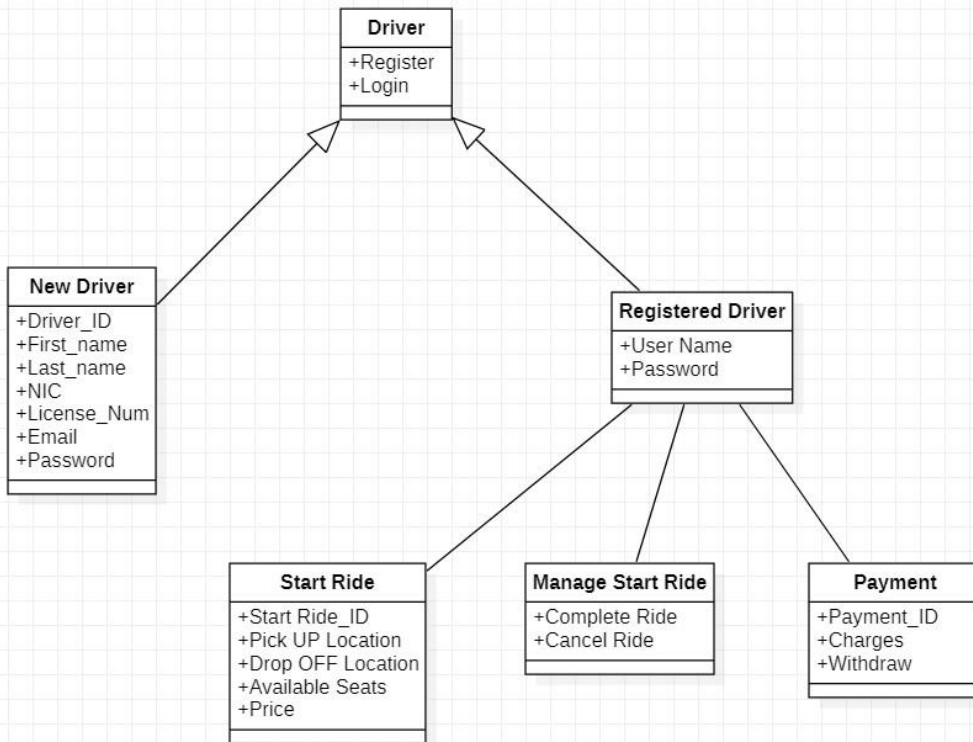**Q3:** **Draw detailed CLASS DIAGRAMS of your FYP Project along with description Ans:**

- Admin is a by default entity of the system who will be able to manage the whole functionalities which includes:

- Admin will be able to manage passengers such as updating , deleting , bookings and payments
- Admin will be able to manage drivers such as updating , deleting , bookings and payments
  Admin will be able to manage bookings such as update bookings, delete bookings.
- Admin will be able to manage complaints such as approve complaints or delete complaints.
- Admin will be able to see and monitor all chats.   Admin will be to monitor all payments.
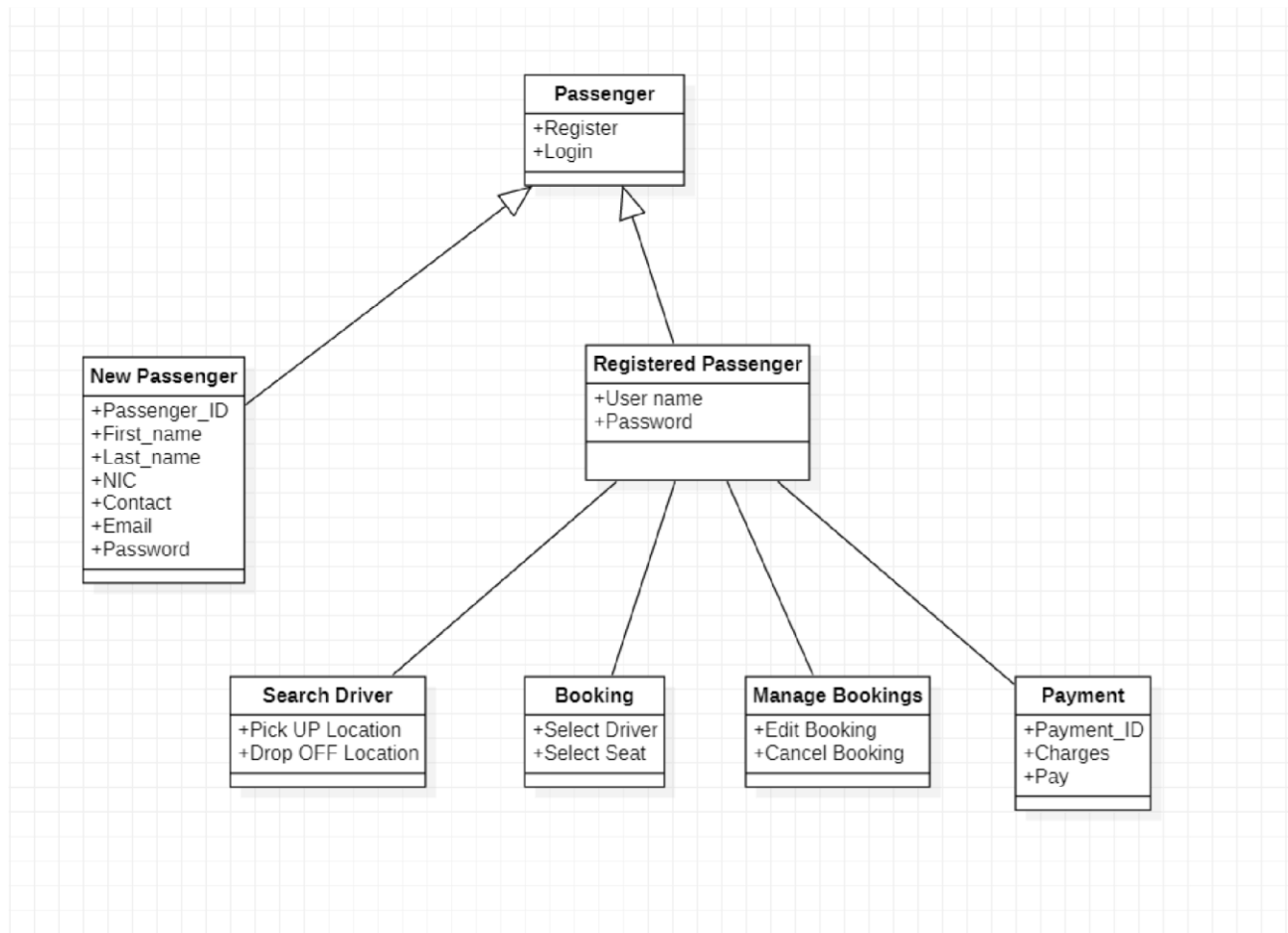

- Driver is the second important entity of destination travel system with following characteristics.
- Driver will register and login.
- Driver will provide services by starting ride with pick Up location, drop OFF location, available seats and price per seat.
- Driver can check his payment history such as incomes and withdrawls.   Driver can look over all his rides history.
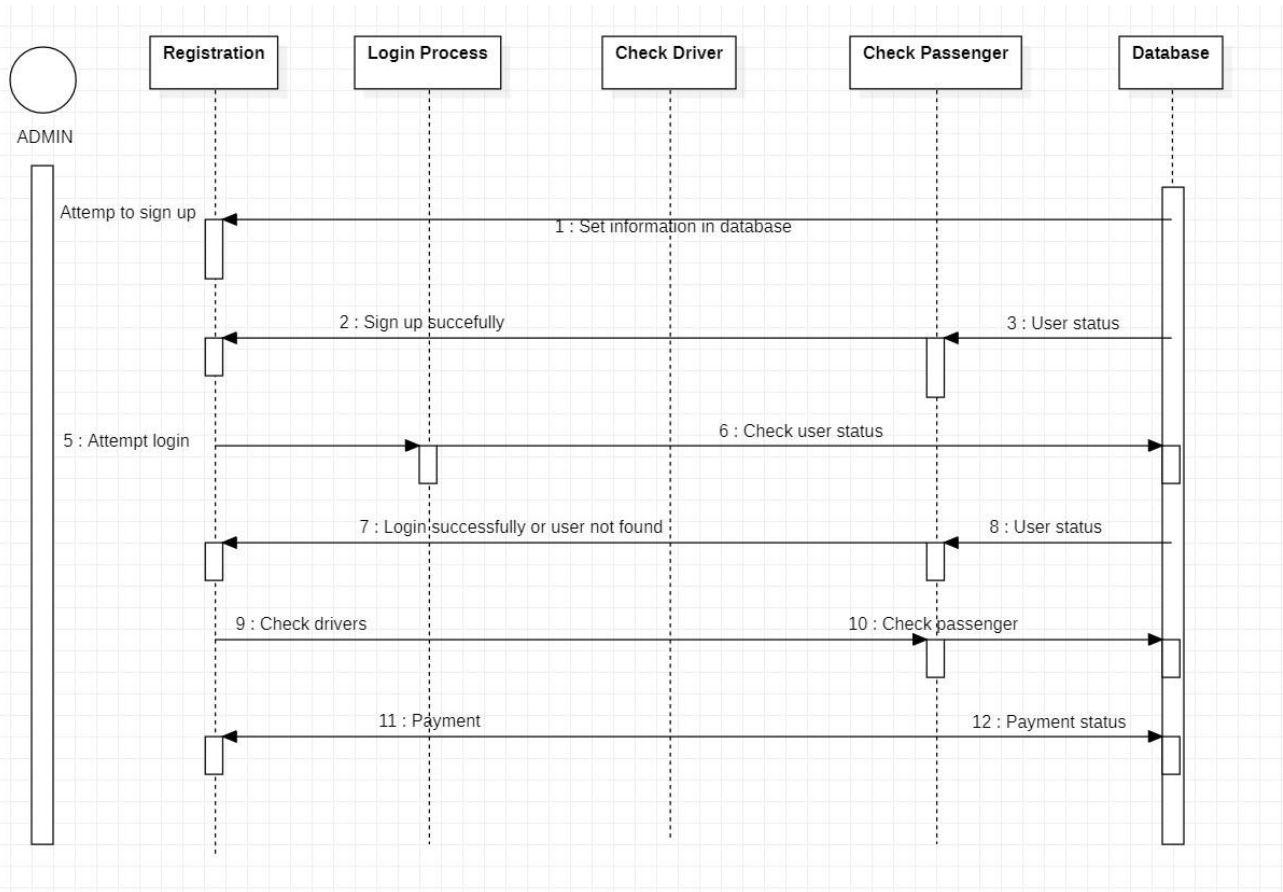
- Passenger is the 3rd most important entity of destination travel system which will have following characteristics.
- Passenger will register and login.
- Passenger will be able to book ride by providing pickup location, dropoff location and No of seats.
- Passenger will be able to pay for rides on monthly basis.   Passenger will be able to see his booking history.

Passenger
+Register
+Login

New Passenger
+Passenger_ID
+First_name
+Last_name
+NIC
+Contact
+Email
+Password

Registered Passenger
+User name
+Password

Search Driver
+Pick UP Location
+Drop OFF Location

Booking
+Select Driver
+Select Seat

Manage Bookings
+Edit Booking
+Cancel Booking

Payment
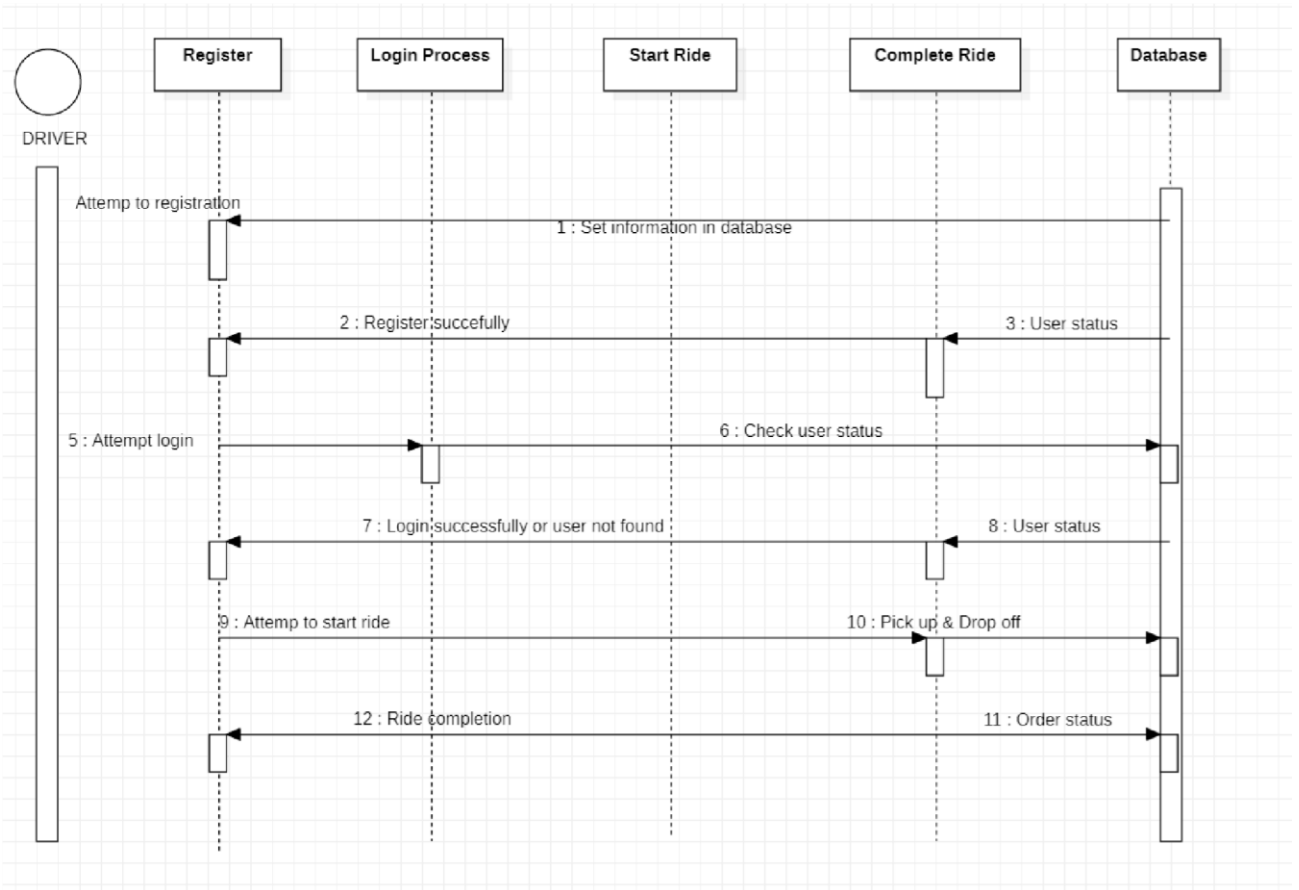+Payment_ID
+Charges
+Pay

Q4:   Draw detailed SEQUENCE DIAGRAMS of your FYP Project along with description Ans:

- Admin is a by default entity of the system who will be able to manage the whole functionalities which includes:
- Admin will be able to manage passengers such as updating , deleting , bookings and payments
- Admin will be able to manage drivers such as updating , deleting , bookings and payments
  Admin will be able to manage bookings such as update bookings, delete bookings.
- Admin will be able to manage complaints such as approve complaints or delete complaints.
- Admin will be able to see and monitor all chats.   Admin will be to monitor all payments.

Sequence diagram with lifelines: ADMIN, Registration, Login Process, Check Driver, Check Passenger, Database

- Attemp to sign up → Registration
- 1 : Set information in database (Database → Registration)
- 2 : Sign up succefully
- 3 : User status (Database → Check Passenger)
- 5 : Attempt login (ADMIN → Login Process)
- 6 : Check user status (→ Database)
- 7 : Login successfully or user not found
- 8 : User status
- 9 : Check drivers
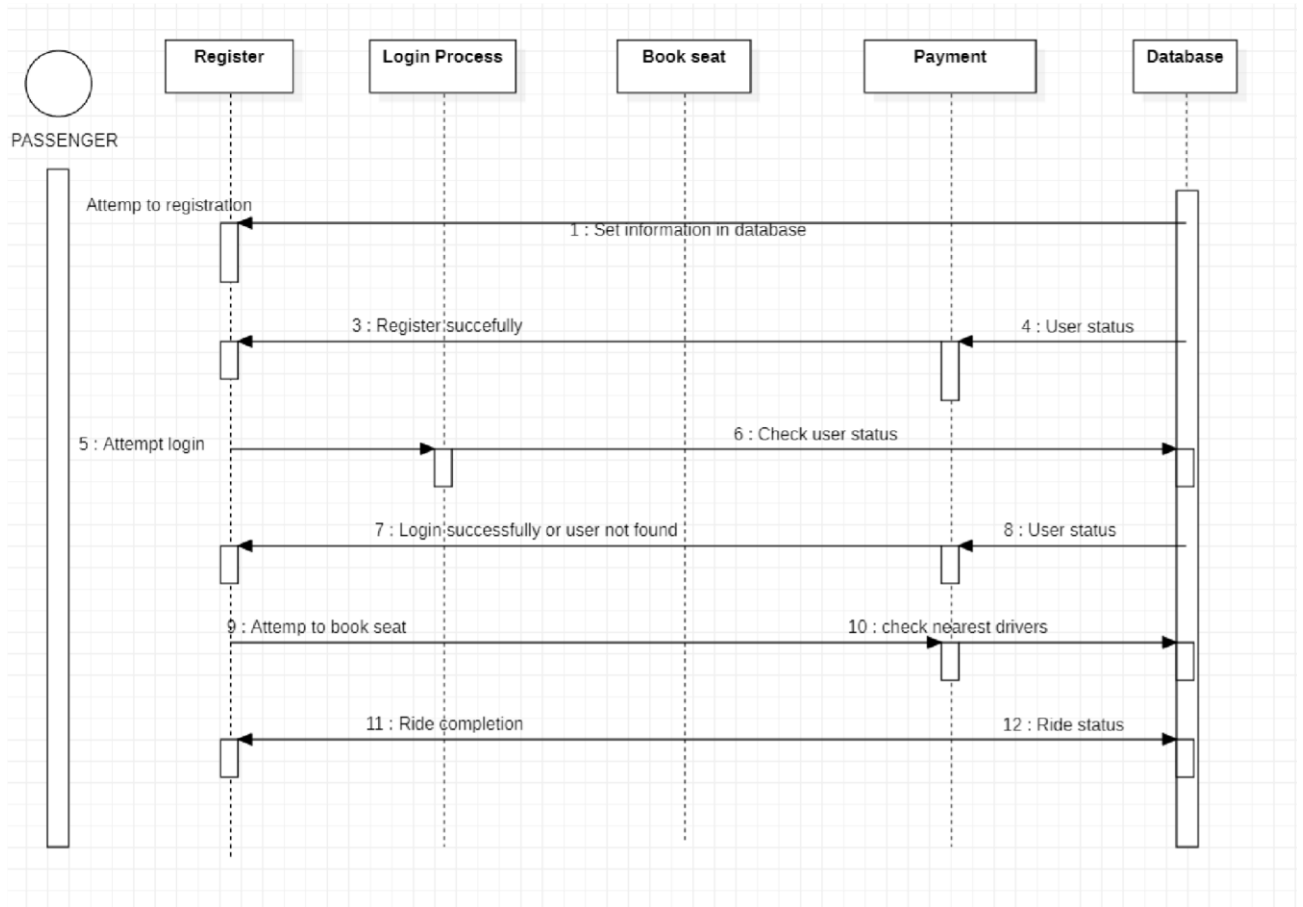- 10 : Check passenger
- 11 : Payment
- 12 : Payment status

- Driver is the second important entity of destination travel system with following characteristics.
- Driver will register and login.
- Driver will provide services by starting ride with pick Up location, drop OFF location, available seats and price per seat.
- Driver can check his payment history such as incomes and withdrawls.   Driver can look over all his rides history.
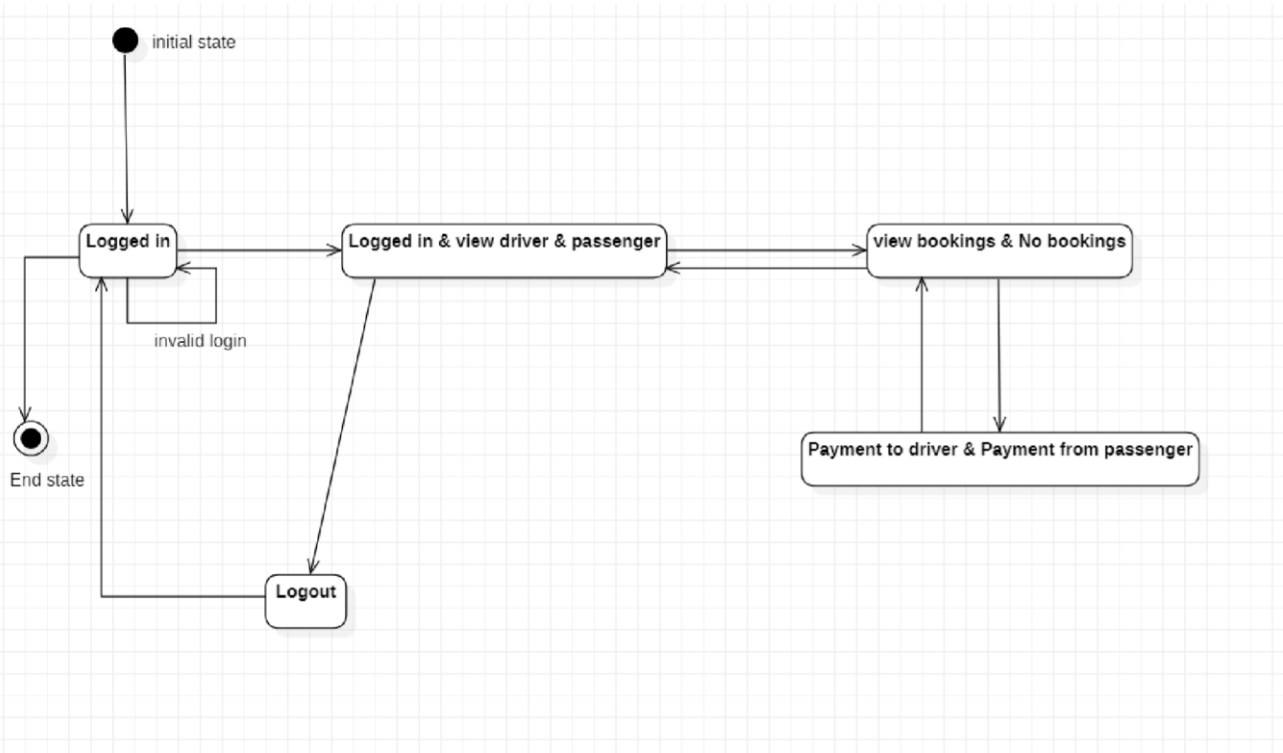
- Passenger is the 3rd most important entity of destination travel system which will have following characteristics.
- Passenger will register and login.
- Passenger will be able to book ride by providing pickup location, dropoff location and No of seats.

- Passenger will be able to pay for rides on monthly basis.   Passenger will be able to see his booking history.

| PASSENGER | Register | Login Process | Book seat | Payment | Database |

Attemp to registration

1 : Set information in database

3 : Register succefully   4 : User status

5 : Attempt login   6 : Check user status

7 : Login successfully or user not found   8 : User status

9 : Attemp to book seat   10 : check nearest drivers

11 : Ride completion   12 : Ride status
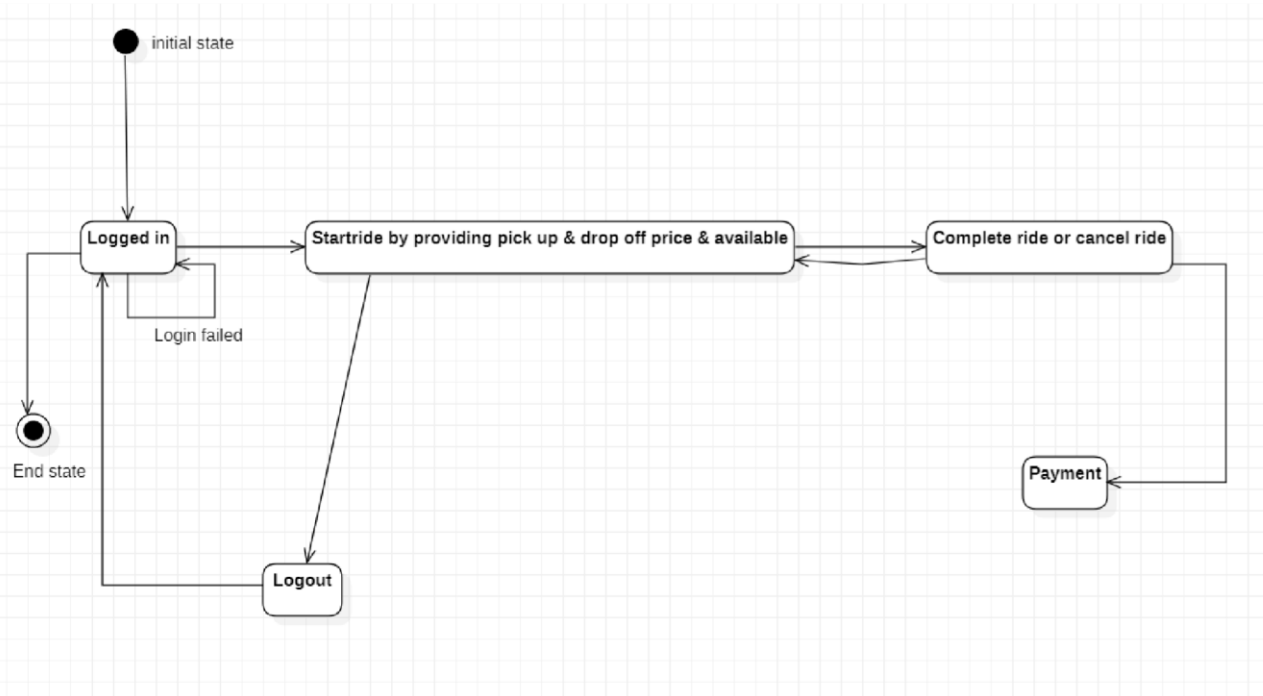
Q5:   Draw detailed STATE CHART DIAGRAM of your FYP Project along with description Ans:

- Admin is a by default entity of the system who will be able to manage the whole functionalities which includes:
- Admin will be able to manage passengers such as updating , deleting , bookings and payments
- Admin will be able to manage drivers such as updating , deleting , bookings and payments Admin will be able to manage bookings such as update bookings, delete bookings.
- Admin will be able to manage complaints such as approve complaints or delete complaints.
- Admin will be able to see and monitor all chats.   Admin will be to monitor all payments.

- Driver is the second important entity of destination travel system with following characteristics.
- Driver will register and login.
- Driver will provide services by starting ride with pick Up location, drop OFF location, available seats and price per seat.
- Driver can check his payment history such as incomes and withdrawls.   Driver can look over all his rides history.

- Passenger is the 3rd most important entity of destination travel system which will have following characteristics.
- Passenger will register and login.
- Passenger will be able to book ride by providing pickup location, dropoff location and No of seats.
- Passenger will be able to pay for rides on monthly basis.   Passenger will be able to see his booking history.

initial state

Logged in → Search driver by pickup and drop off → view drivers

invalid login

Cancel

Book driver by selecting seats

End state

Logout

Payment