Assignement No 2
Object Oriented System Analysis & Design

Name: Muhammad Omer	ID #: 13000

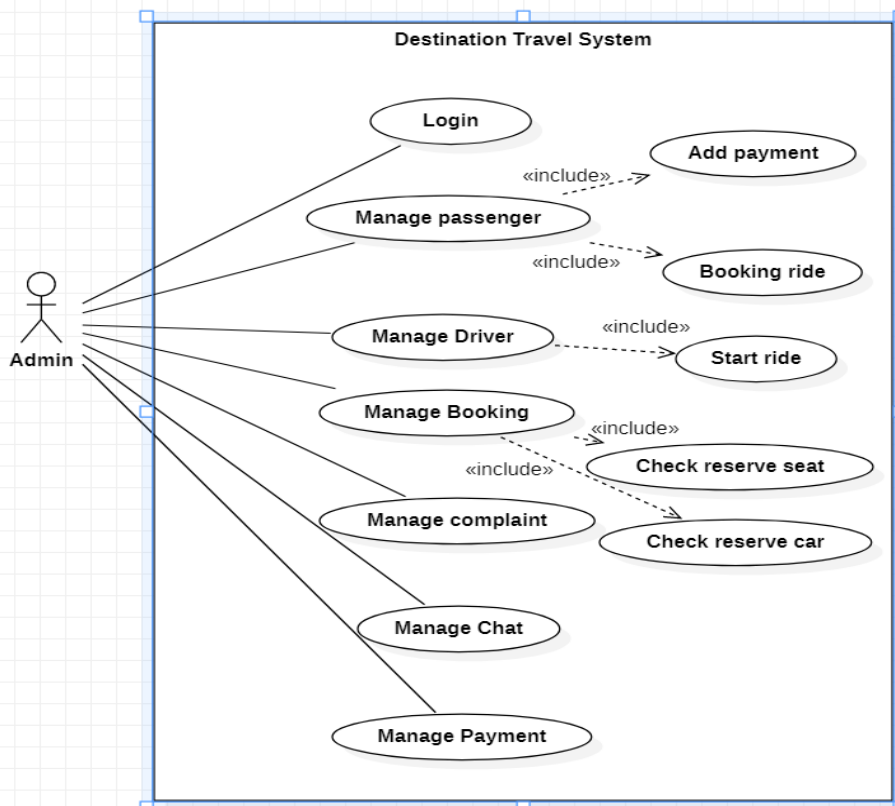**Semester: 8th**   **Date: 15 May, 2020**
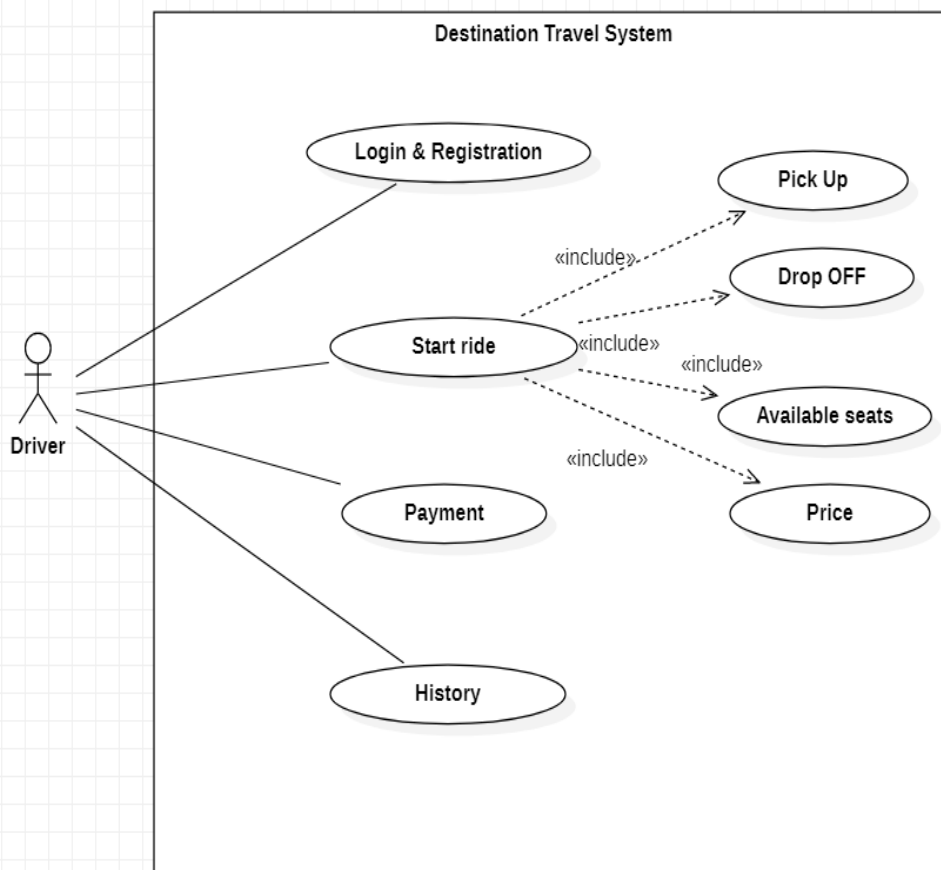
Instructor: Sir Fahim ullah

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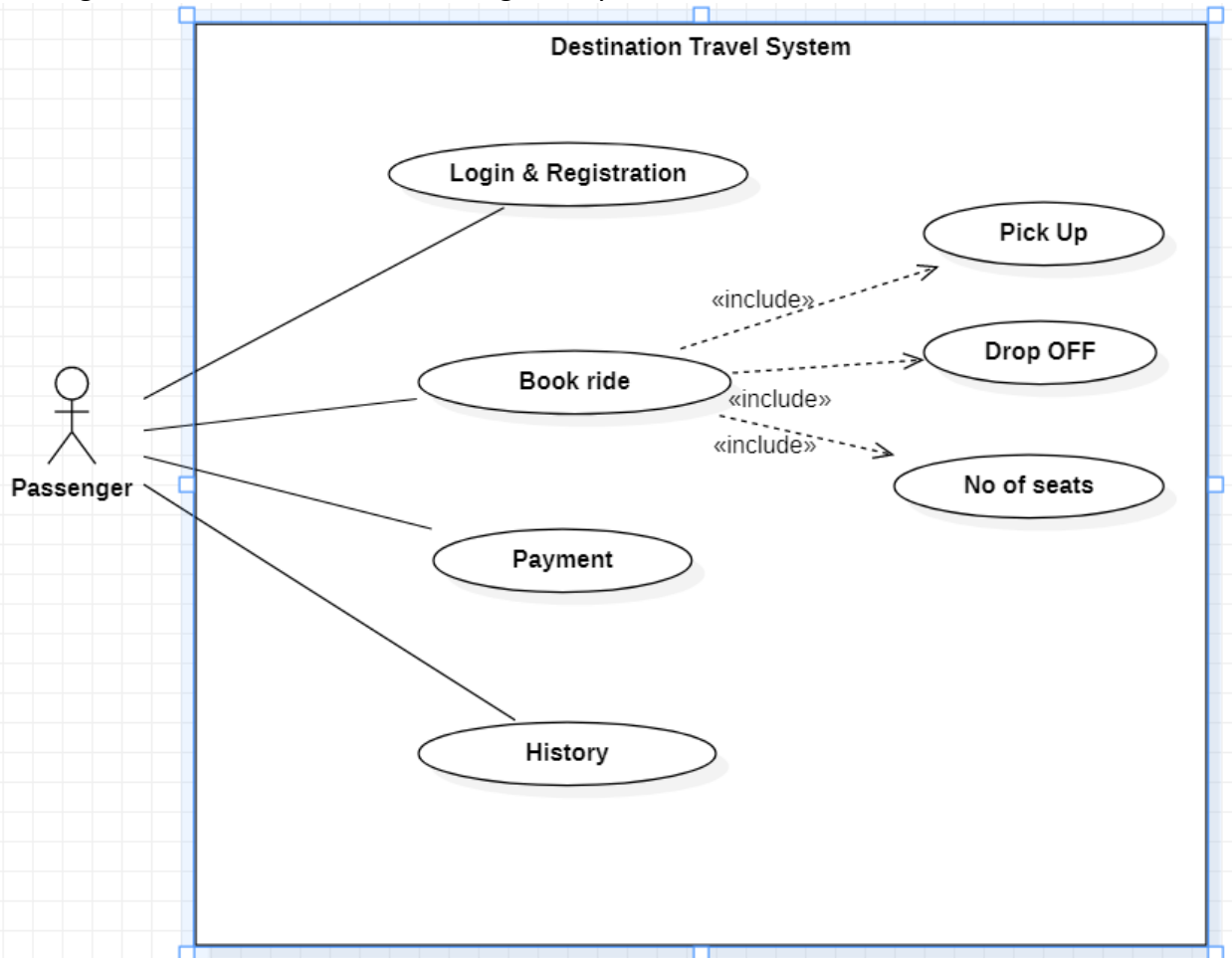
Ans:

- 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.

- 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.
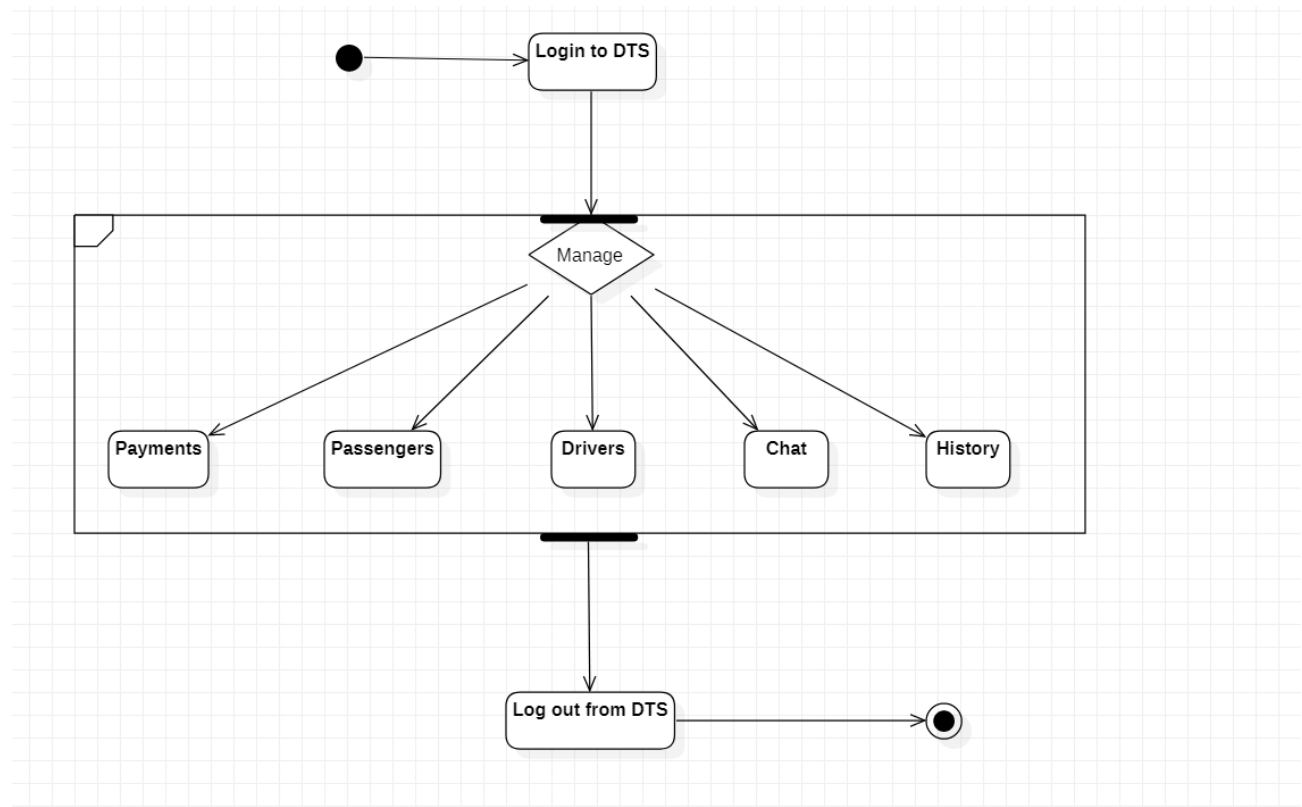- Driver can look over all his rides history.

- 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.

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.

- 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.

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                            ┌──────────────┐
            ●──────────────>│ Login to DTS │
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              ┌────────────┬──────┴──────┬──────────────┐
              ▼            ▼             ▼              ▼
        ┌──────────┐ ┌───────────┐ ┌──────────────┐ ┌─────────┐
        │Car Settings│ │ Start Ride│ │ Complete Ride│ │ Payment │
        └──────────┘ └───────────┘ └──────────────┘ └─────────┘
        ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

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                         │ Log out from DTS │──────────> ◉
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- 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.
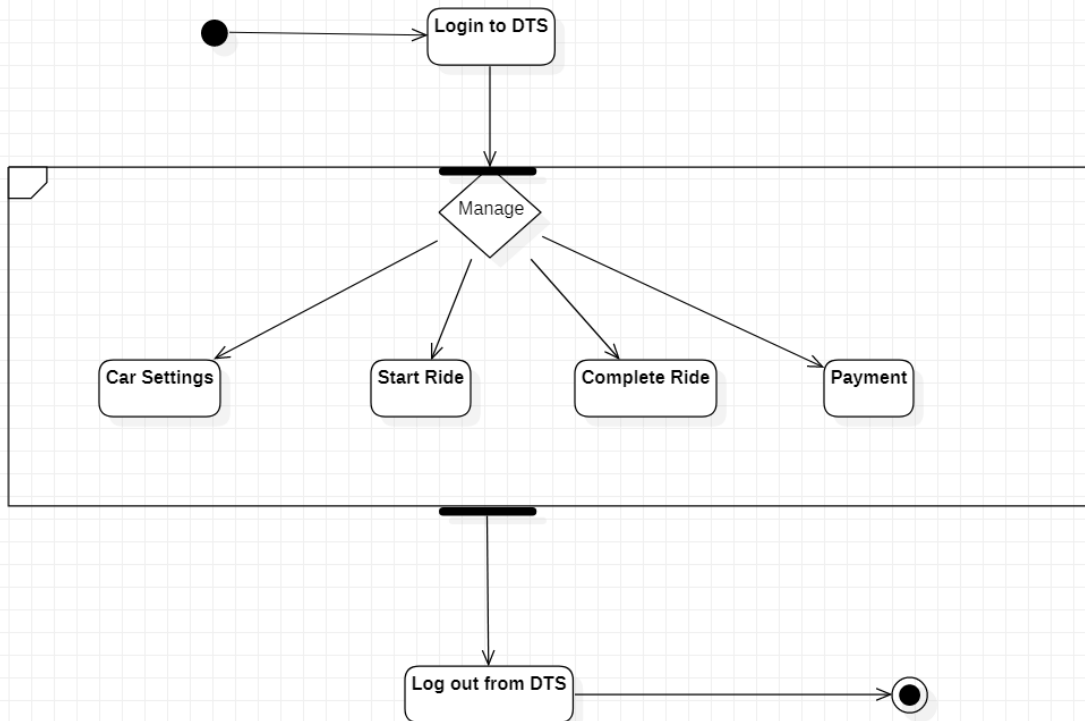- Passenger will be able to see his booking history.

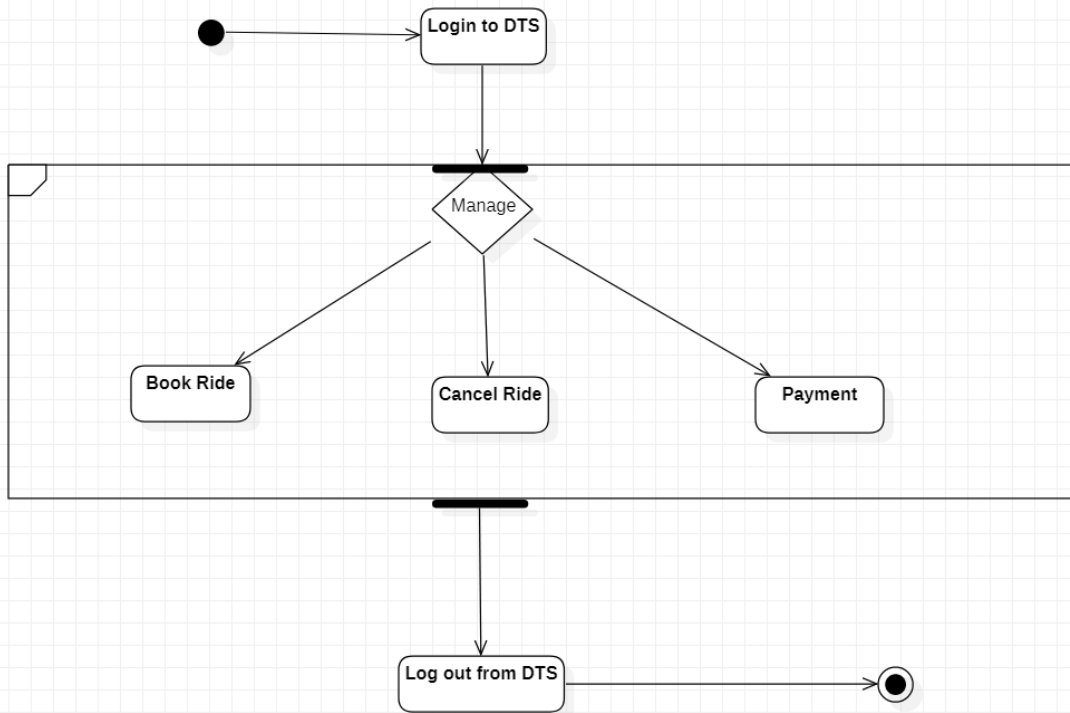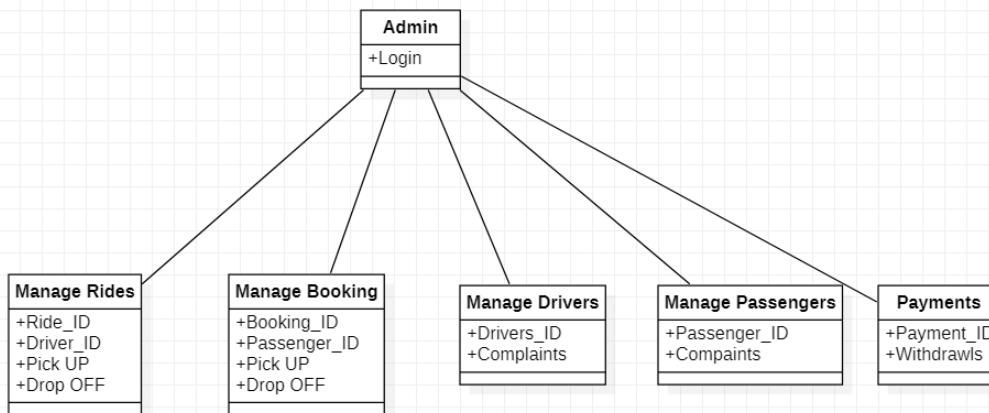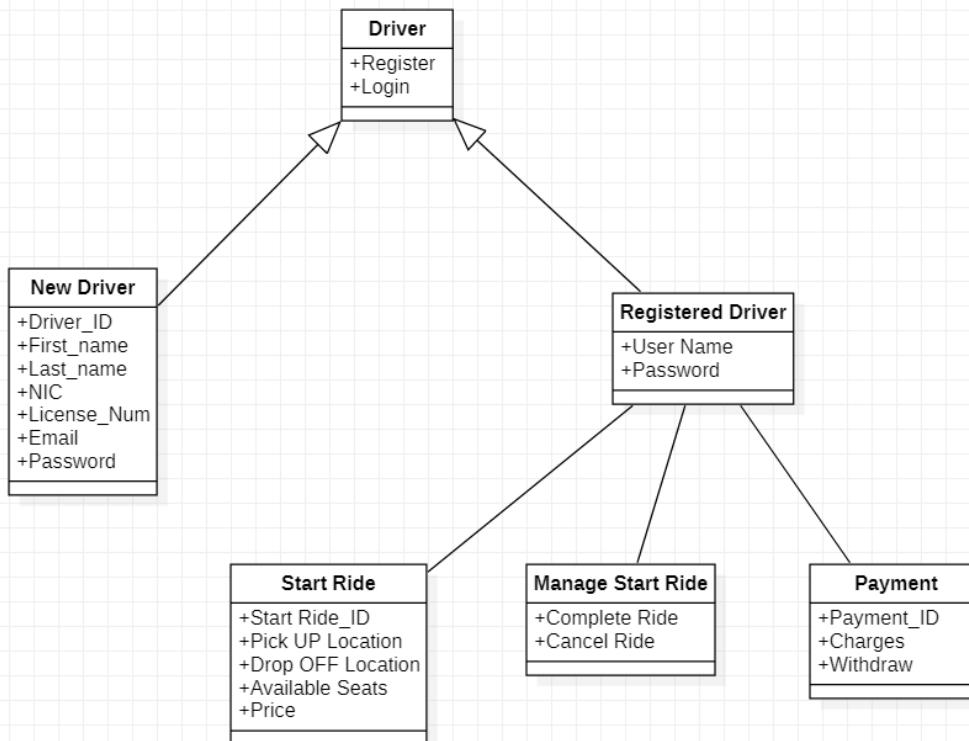**Q3:   Draw detailed CLASS DIAGRAMS of your FYP Project along with description**
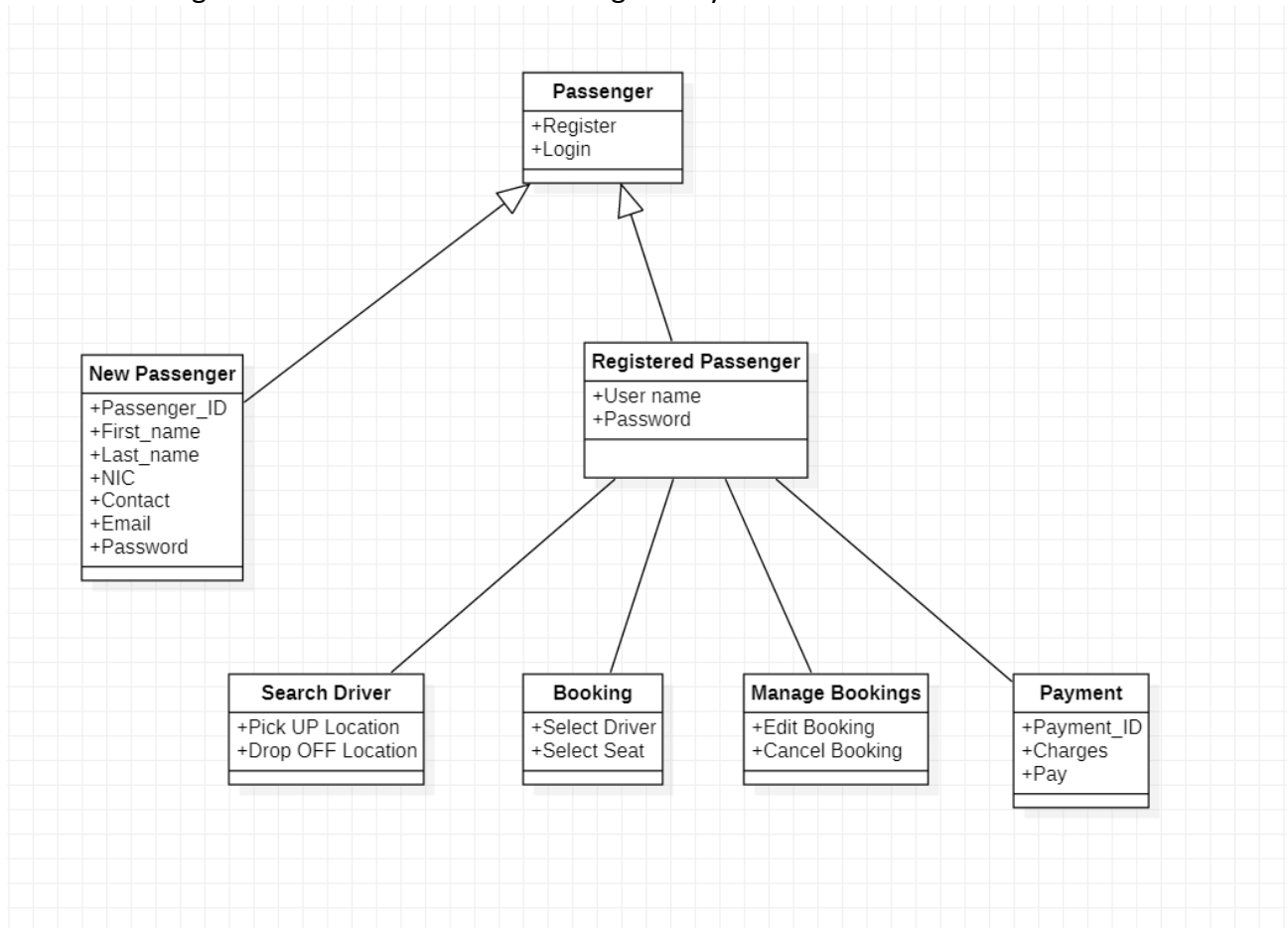
Ans:

- 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.

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                              ┌──────────────┐
                              │    Admin     │
                              ├──────────────┤
                              │ +Login       │
                              └──────────────┘

┌──────────────┐  ┌──────────────┐  ┌──────────────┐  ┌──────────────────┐  ┌──────────────┐
│ Manage Rides │  │Manage Booking│  │Manage Drivers│  │Manage Passengers │  │   Payments   │
├──────────────┤  ├──────────────┤  ├──────────────┤  ├──────────────────┤  ├──────────────┤
│ +Ride_ID     │  │ +Booking_ID  │  │ +Drivers_ID  │  │ +Passenger_ID    │  │ +Payment_ID  │
│ +Driver_ID   │  │ +Passenger_ID│  │ +Complaints  │  │ +Compaints       │  │ +Withdrawls  │
│ +Pick UP     │  │ +Pick UP     │  └──────────────┘  └──────────────────┘  └──────────────┘
│ +Drop OFF    │  │ +Drop OFF    │
└──────────────┘  └──────────────┘
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- 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.

Driver

+Register
+Login

New Driver

+Driver_ID
+First_name
+Last_name
+NIC
+License_Num
+Email
+Password

Registered Driver

+User Name
+Password

Start Ride

+Start Ride_ID
+Pick UP Location
+Drop OFF Location
+Available Seats
+Price

Manage Start Ride

+Complete Ride
+Cancel Ride
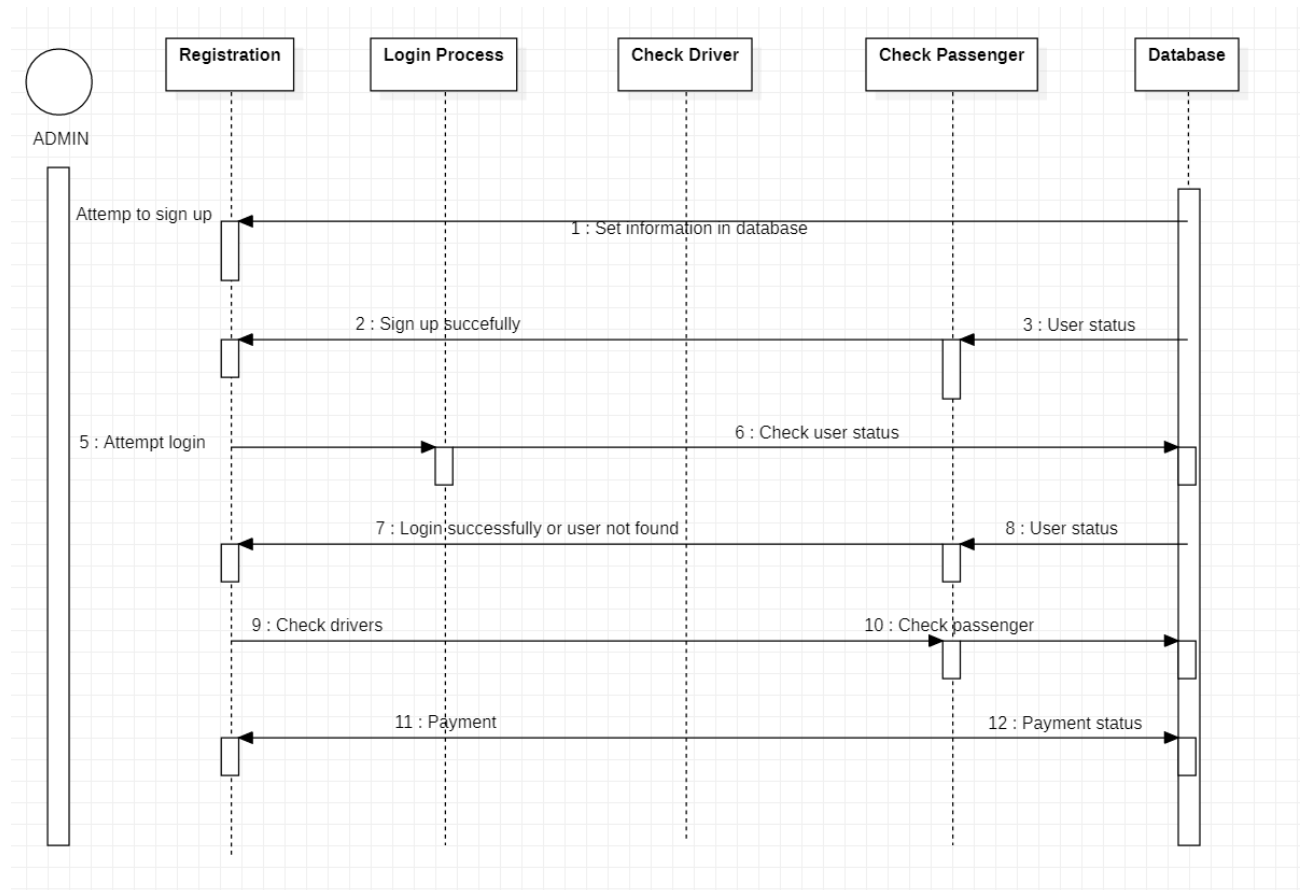
Payment

+Payment_ID
+Charges
+Withdraw

- 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.
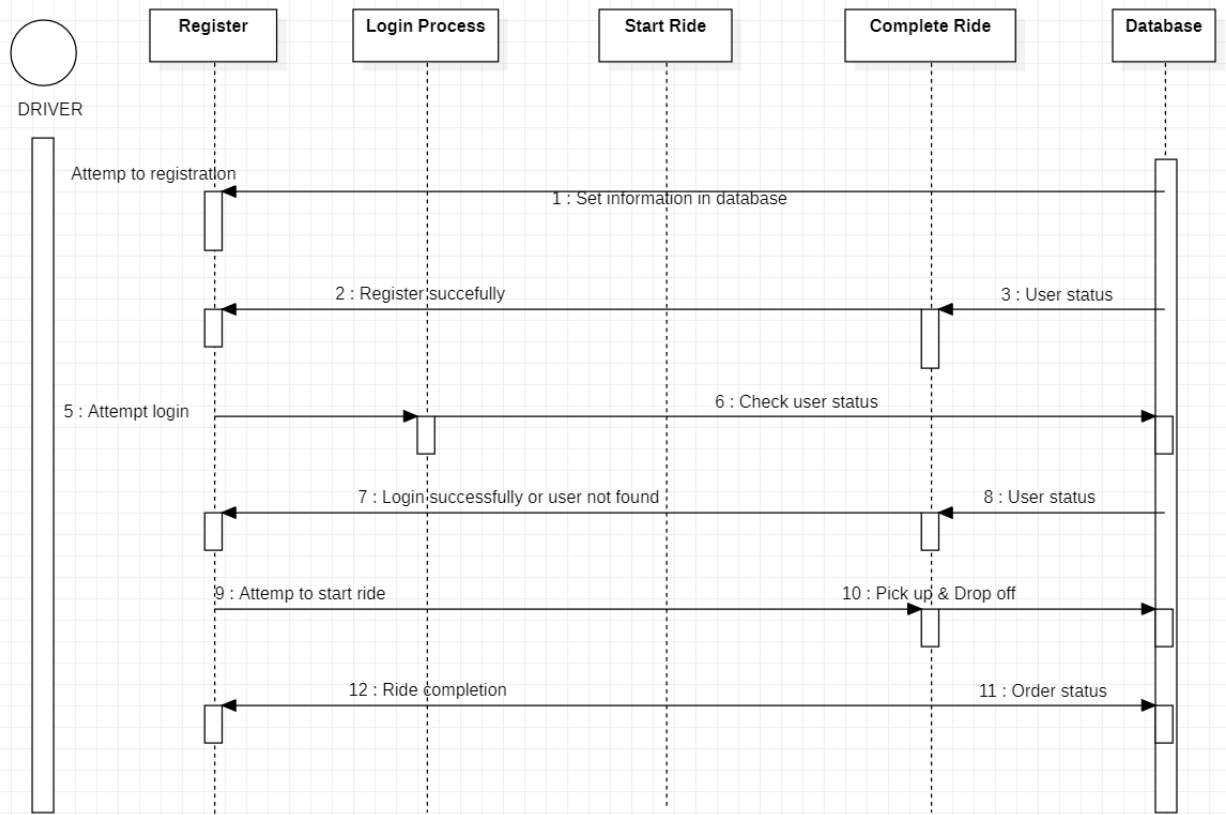- Passenger will be able to see his booking history.

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
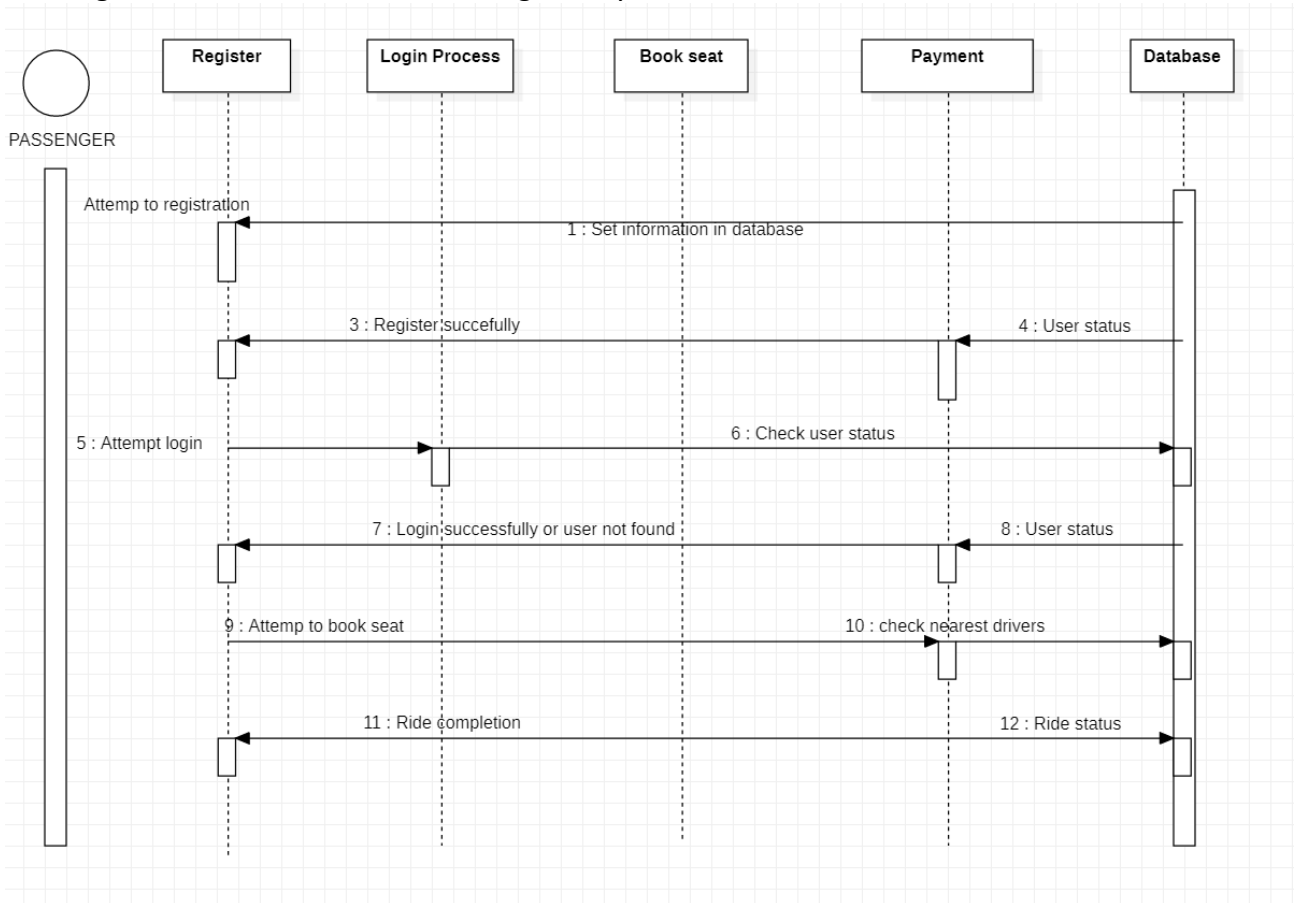
Ans:

- 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.

- 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.
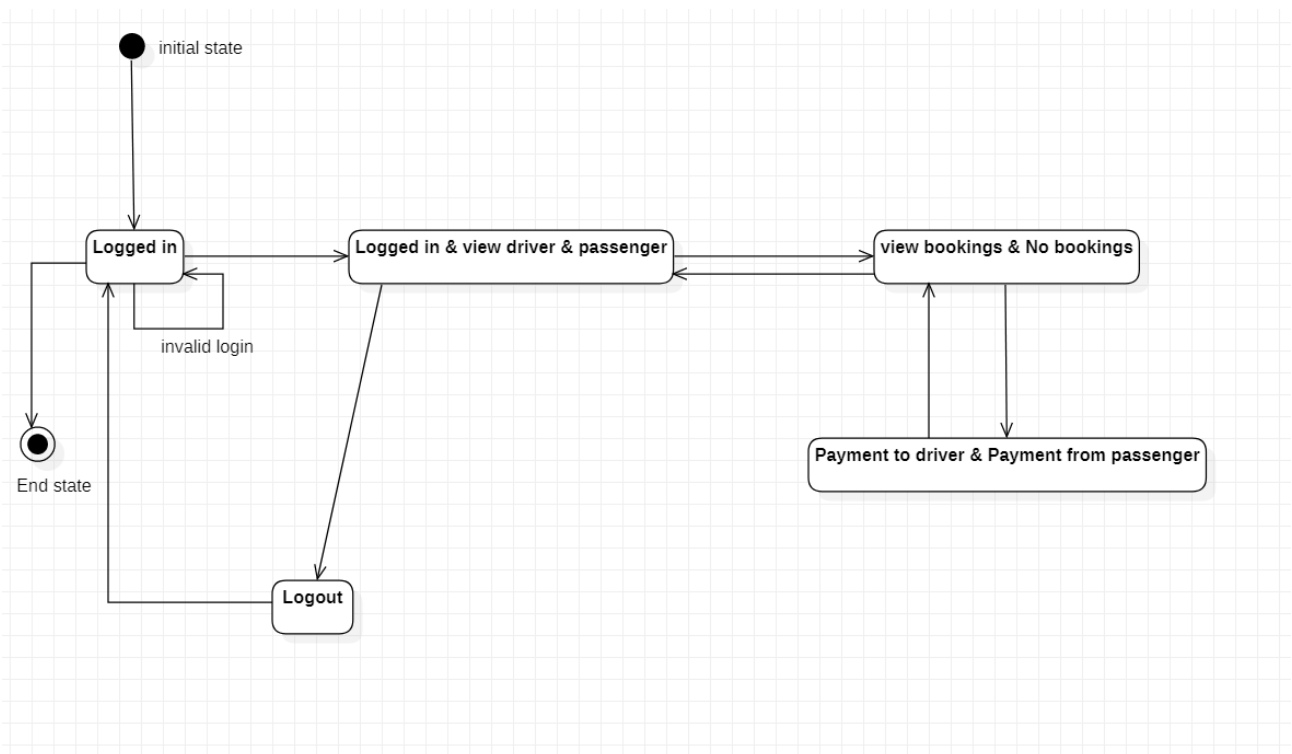- Driver can look over all his rides history.

- 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.
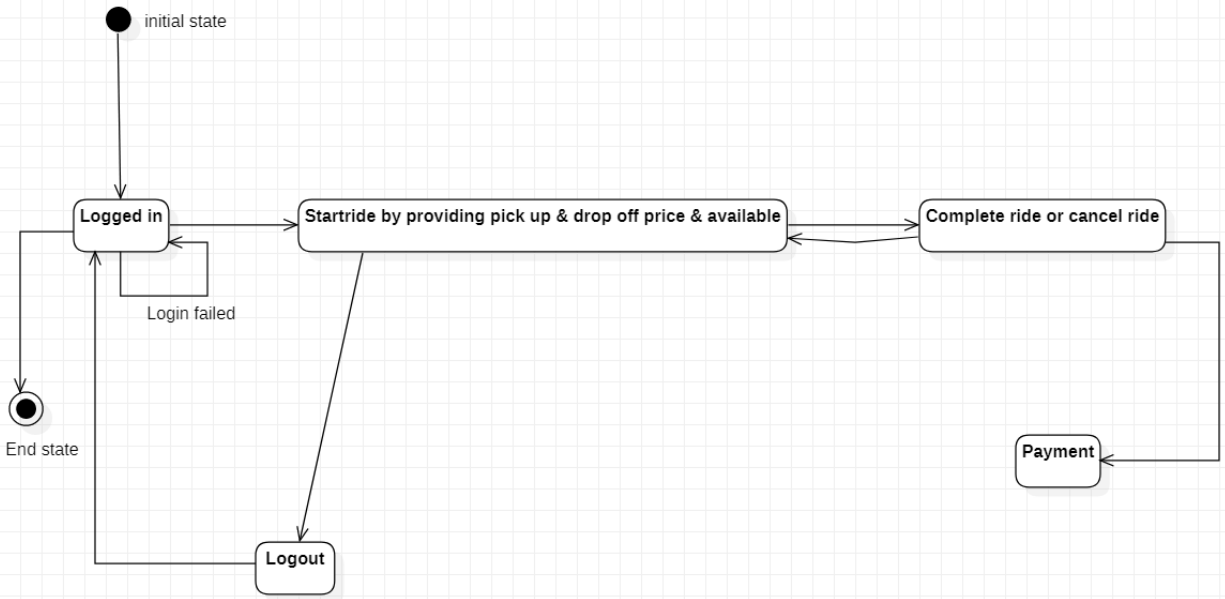- Passenger will be able to see his booking history.

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.
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- 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.

initial state

Logged in

Startride by providing pick up & drop off price & available

Complete ride or cancel ride

Login failed

End state

Payment

Logout

- 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.