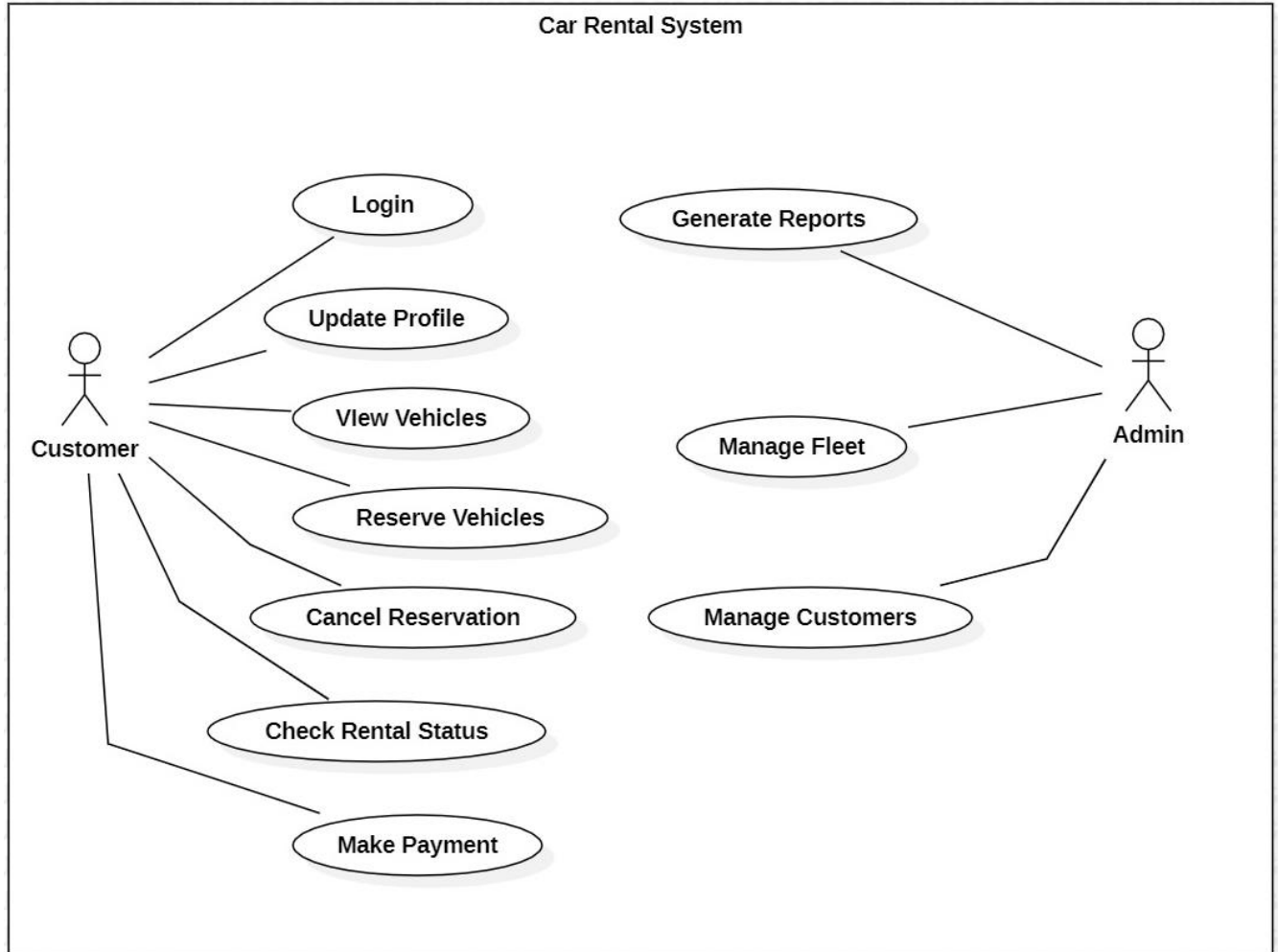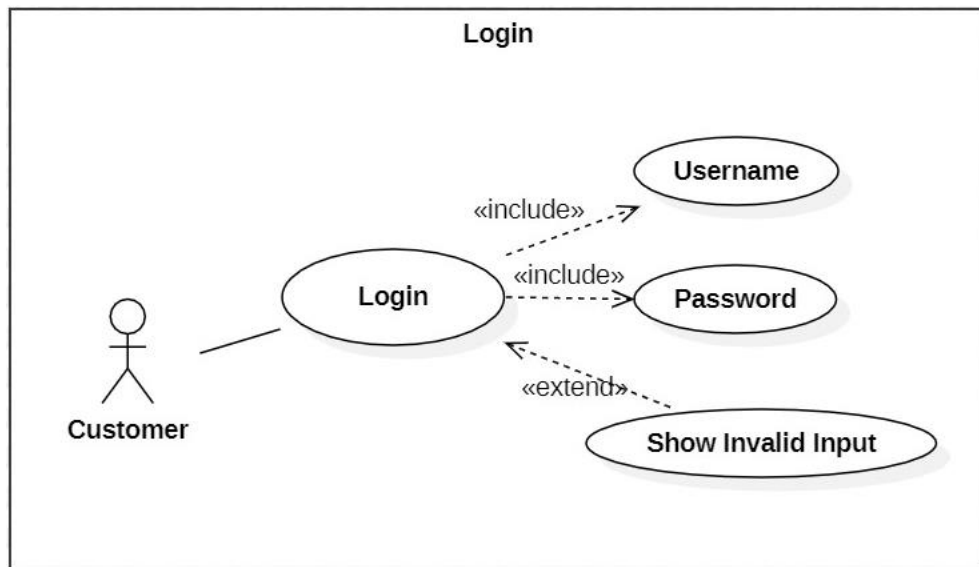A use case diagram is a visual representation of the interactions between actors (users or external systems) and the system being modeled.
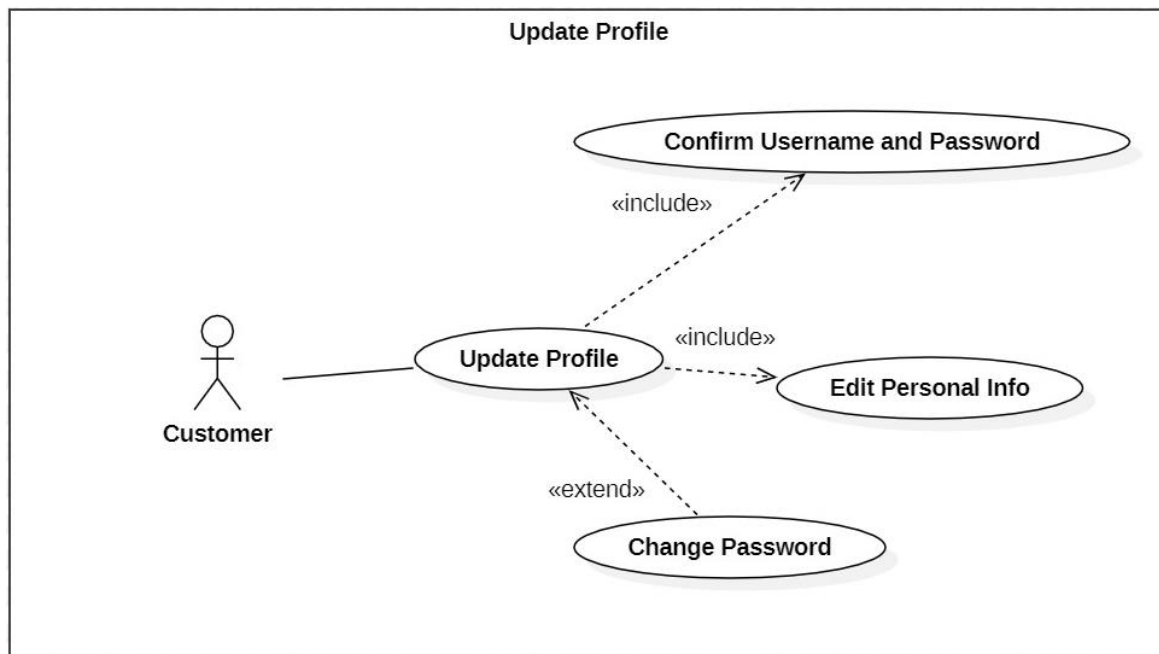
Car Rental System Use-Case Diagram

Car Rental System Use-Case Diagram showing Customer actor connected to Login, Update Profile, View Vehicles, Reserve Vehicles, Cancel Reservation, Check Rental Status, and Make Payment use cases; Admin actor connected to Generate Reports, Manage Fleet, and Manage Customers use cases.
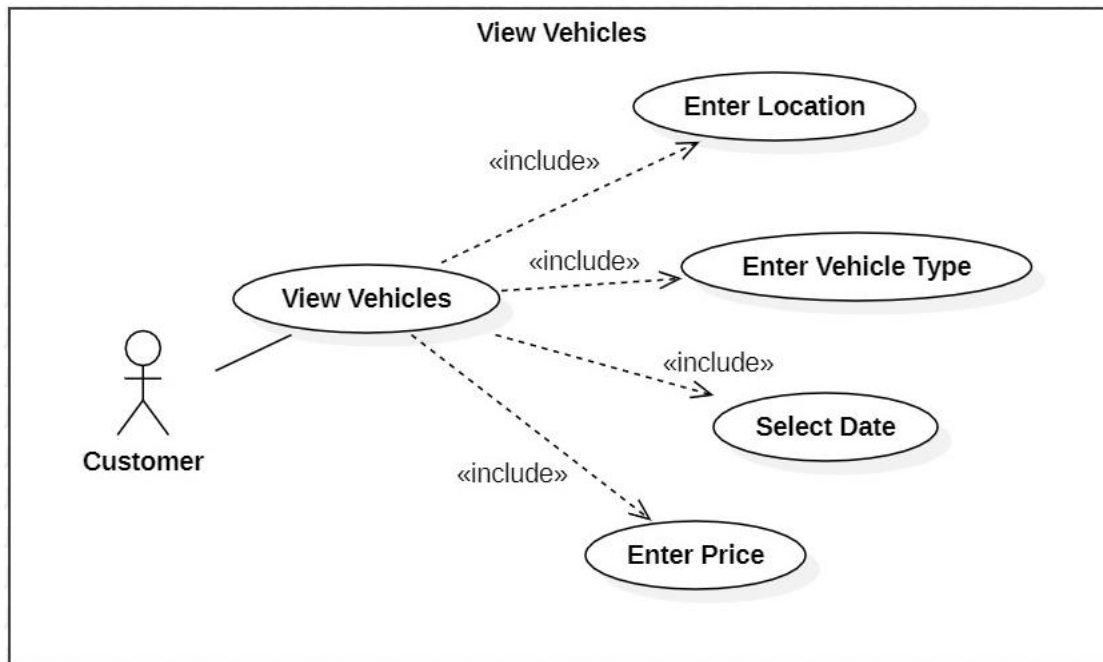
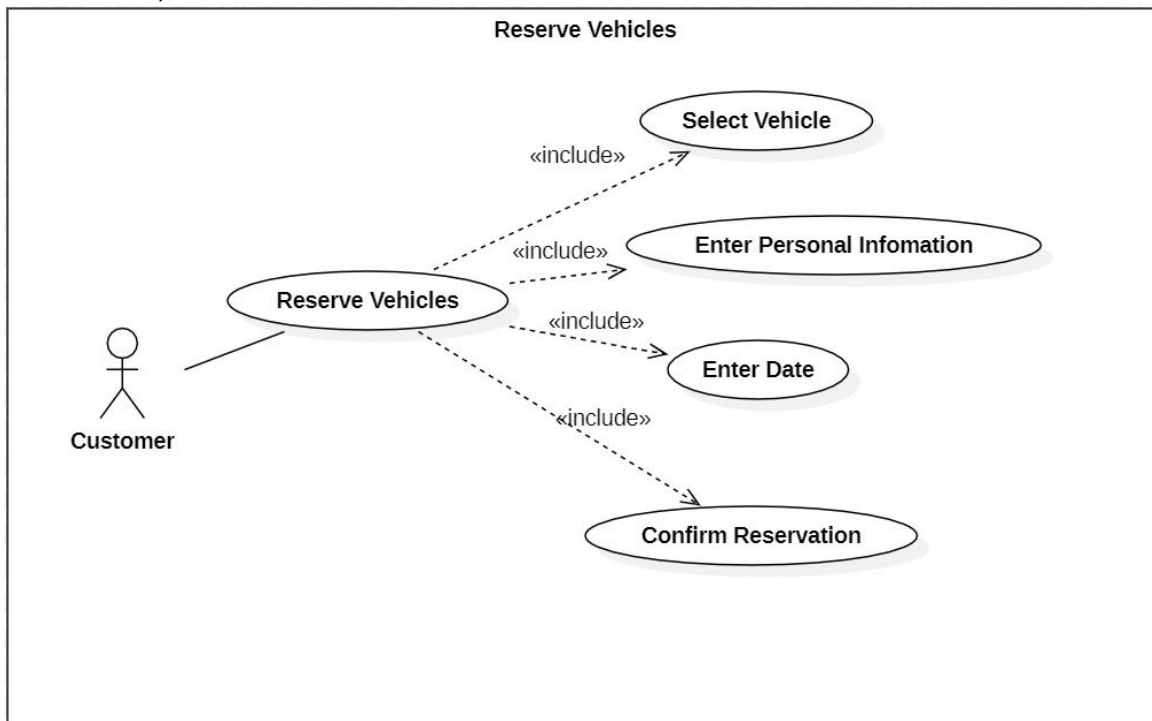Login: Customers can login with valid username and password.

Update Profile: Customers can edit personal information or change password.
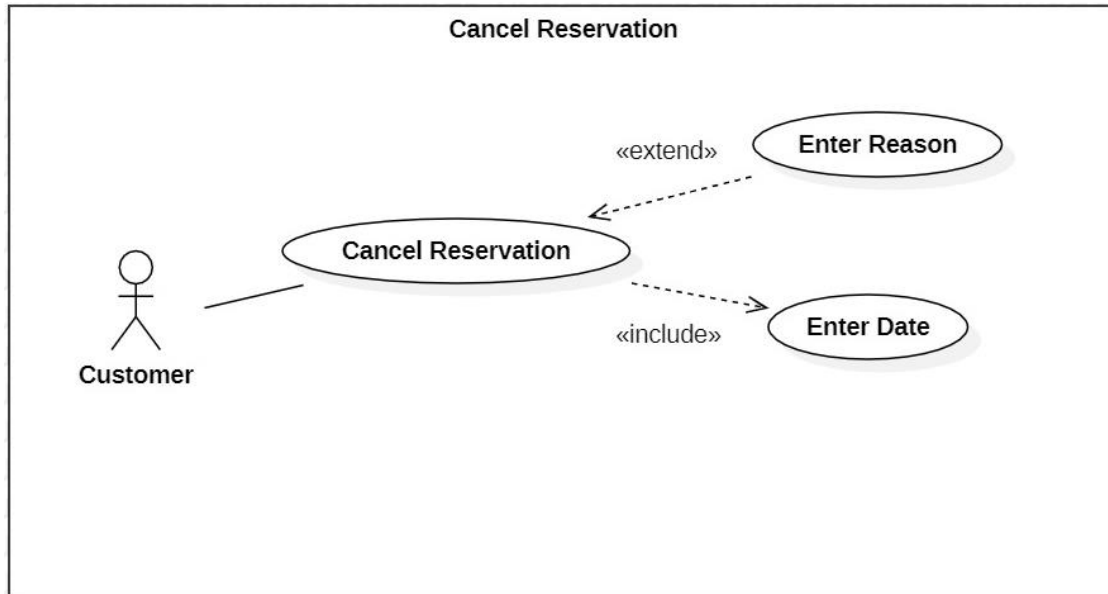
View Vehicles: Customers can view available vehicles, filtered by criteria such as location, type and price.
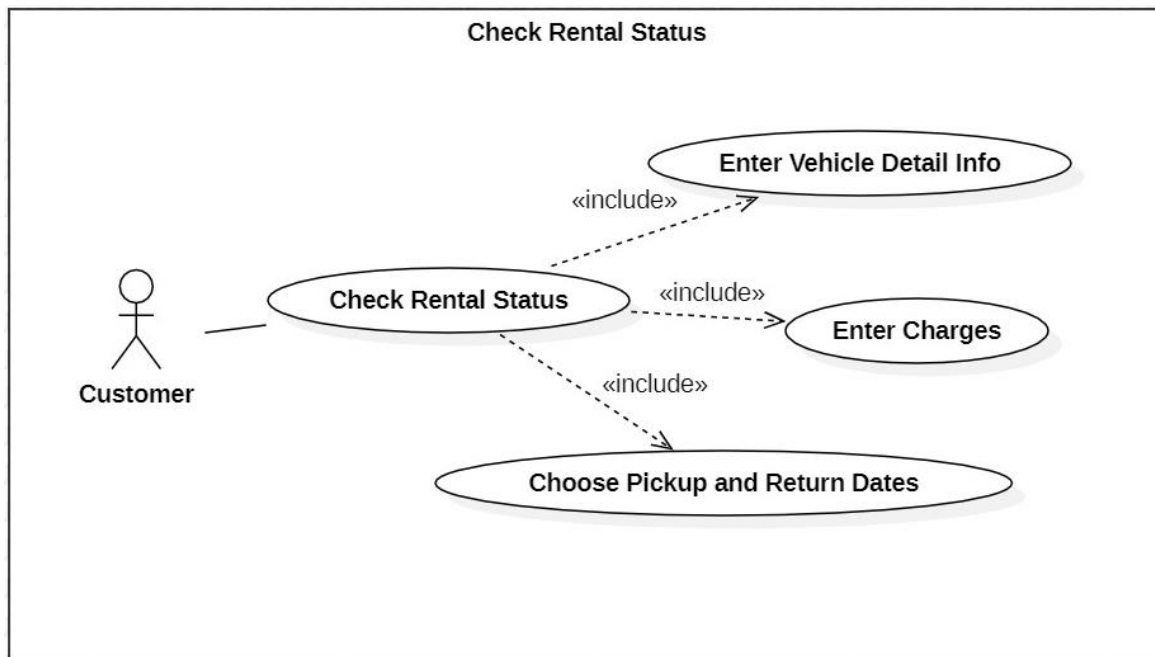

Reserve Vehicles: Customer can select a vehicle, enter their rental dates and personal information, and confirm the reservation.
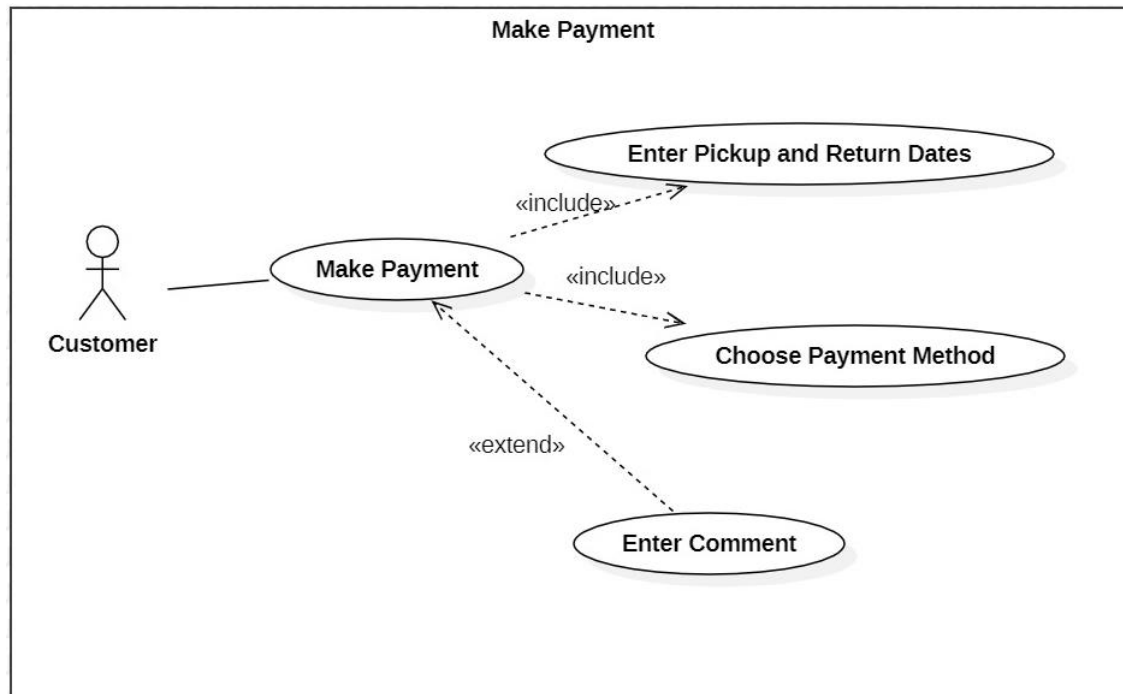
Cancel Reservation: Customer can cancel a previously made reservation.

Cancel Reservation

Enter Reason

«extend»

Cancel Reservation

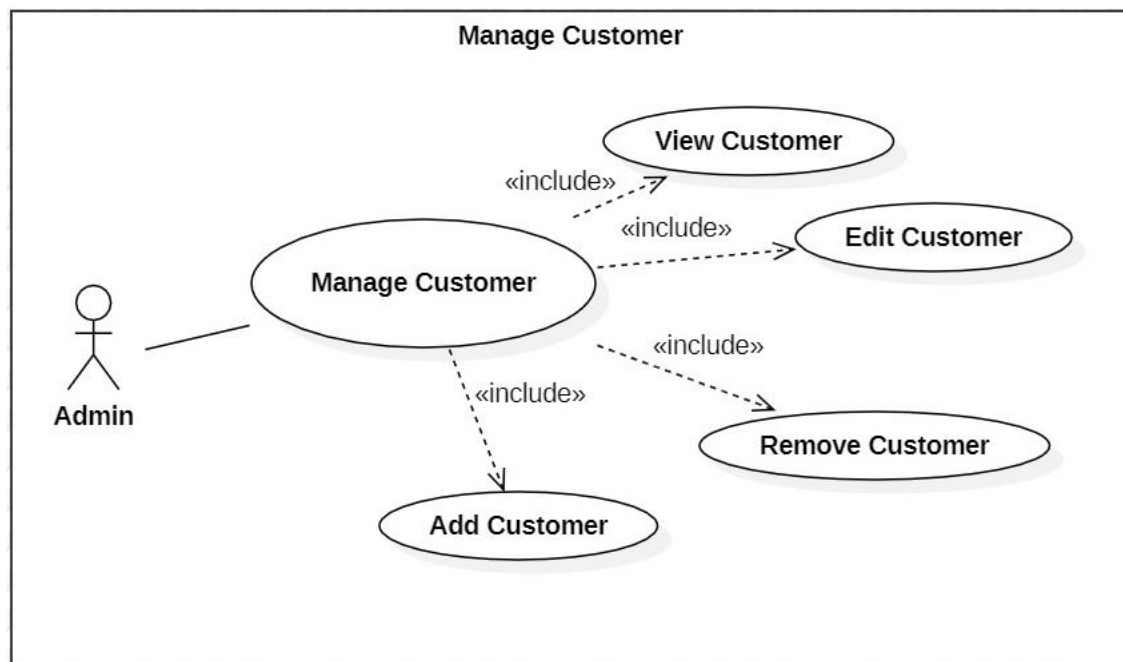«include»

Enter Date

Customer

Check Rental Status: Customer can check the status of a current or past rental, including pickup and return dates, vehicle details, and rental charges.

Check Rental Status

Enter Vehicle Detail Info

«include»

Check Rental Status

«include»

Enter Charges

«include»

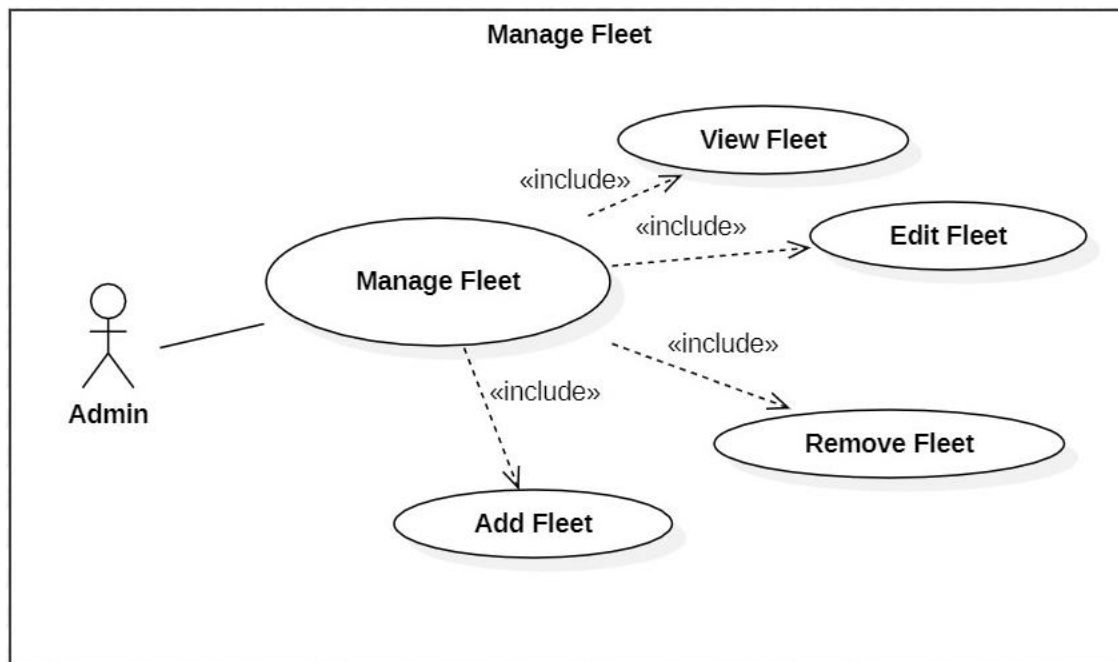Choose Pickup and Return Dates

Customer

Make Payment: Customer make a payment for a reservation or rental.

Manage Customers: An administrator can view, add, edit, or remove customer information.

Manage Fleet: An administrator can add, edit, or remove vehicles from the fleet, and view fleet-wide statistics such as usage and maintenance status.

Generate reports: an administrator generates reports on rental activity, revenue, and fleet usage for a given time period.