# **CAR RENTAL MANAGEMENT SYSTEM**

## CarRentalMain

- Number of Days
- Display Available Cars
- Filter Cars by Criteria
- Rent a Car
- Return a Car
- Exit

#### **Methods:**

- Main method to execute the car rental system.
- Contains the user interface for interacting with the car rental system, displaying available cars, filtering cars, renting, and returning cars.

## Car

#### **Attributes:**

- index
- make
- model
- year
- transmissionType
- seatingCapacity
- fuelType
- available
- pricePerDay

#### **Methods:**

- Constructor that initializes the car attributes.
- Getters and setters for all attributes.

# CarRentalSystem

#### **Attributes:**

cars: List<Car>

#### **Methods:**

- Constructor to initialize the car list.
- addCar(Car car): Adds a car to the car list.
- rentCar(int carIndex, int days): Rents a car for the given number of days and marks it as unavailable.
- returnCar(int carIndex, int days): Returns a rented car and marks it as available again.
- displayAvailableCars(): Displays all available cars.
- filterCars(String make, String model, int year, String transmissionType, int seatingCapacity, String fuelType): Filters cars based on the provided criteria and returns a list of matching cars