**Ex03:**

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**GarageLogic**

1. GarageManager :

Public class that holds all the registered vehicles of the garage, and provides an API for the UI to use the Garage features.  
2. RegisteredVehicle :

Public class that each instance of it represent a registered vehicle that is inside of the garage.

3. GarageCard :

Public class that each instance of it holds the owner name, owner phone number and the owner’s vehicle status

4. Vehicle :

An abstract class that holds the shared vehicle properties such as Modelname, Engine, Wheels[], EnergyPercentage and license plate, This is the shared structure between all the different vehicle types.  
  
5. Truck :

Public class the inherits from Vehicle and holds all the additional relevant fields for Truck.

6. Car :

Public class the inherits from Vehicle and holds all the additional relevant fields for Car.

7. Motorcycle :

Public class the inherits from Vehicle and holds all the additional relevant fields for Motorcycle.

8. Wheel :

Public Class that represent the wheel properties.

9. Engine :

An abstract class that holds the mutual information of an engine – (MaxCapacity).

10. FuelEngine :

Public class that inherits from Engine and has the relevant attributes of a Fuel Engine (such as FuelType, current fuel amount).

11. ElectricEngine :

Public class that inherits from Engine and has the relevant attributes of a Fuel Engine (such as CurrentBatteryLife).

12. VehicleProperties :

a Static class that has all the Vehicle Predefined properties that we’re given in the assignment.

13. VehicleGenerator :

A static class that creates a new instance of Vehicle with the matching wheels and the matching engine using VehicleProperties.

14. ValueOutOfRangeException :

An exception for values that are trying to be set from the user that are not in the valid range, holds two fields {minValue, maxValue}.

**ConsoleUI**

15. ConsoleRenderer :

A static class that responsible for all the rendering that appears in the console.

16. Runner :

a static class that runs the program, uses ConsoleRenderer for communication with the user and a static instance of GarageManager for communication with the GarageLogic, and creates the program flow.

17. UiValidator :

a static class that validates certain inputs of the user to make the UI more friendly .

**ENUMS**

18. GarageCard.eVehicleStatus :

ENUM for all the possible statuses that a vehicle can be inside of the Garage.

19. Car.eCarDoors :

ENUM for all the possible options for the number of doors of a Car in the garage.

20. Car.eCarColor :

ENUM for all the possible options for the colors of a Car in the garage.

21. Motorcycle.eMotorcycleLicense :

ENUM for all the possible options a motorcycle license.

22. Wheel.eWheelMaxPSI :

ENUM for all the possible options a wheel maximum PSI.

23. FuelEngine.eFuelType :

ENUM for all the possible fuel types.

