

**Ex03**

**Project - Ex03.ConsoleUI:**

Classes -

1. **ConsoleUI** - Responsible for printing to the console, and receiving inputs from the user.
2. **ManageUI** - Responsible for the connection between the console and the garage management logic (in this class we created an object of the ManageGarage class that we will detail later)
3. **Program** – the entry point of the program.

**Project – Ex03.GarageLogic:**

Classes–

1. **Garage** - A class that represents the garage itself, includes a list of vehicles that are in the garage and some functions that represents the operations that are made in a garage.
2. **ManageGarage** - A class that represents the management of the garage, manage UI interacts with it.
3. **ManageVehicle** - A class that is responsible for the creation of all objects (all the vehicles that the garage can handle at the moment), has a list of all the vehicles that the garage can handle.
4. **Vehicle** - A class that represents a vehicle object, from this class the specific vehicle classes will inherit.
5. **Wheel** - A class that represents the wheel object, the vehicle class, has a list of wheels respectively to number of wheels that the vehicle has, in this class there are also functions that can be operate on the wheels(like fill air pressure .
6. **VehicleInGarage** - class that has a composition relationship with vehicle, contains a vehicle object and an owner object, the Garage class holds a list of this object.

**Enum eState** { UnderRepair, Fixed, Paid}

1. **Owner** - A class that represents the owner of the vehicle.
2. **FuelVehicle** - A class that represents a vehicle that runs on fuel. inherits from vehicle.  
   **Enum efuelType** - Shows the types of fuel that vehicles can refuel – {Solar, Octan95, Octan96, Octan98.}
3. **ElectricVehicle** - A class that represents a vehicle that charged with electricity,. inherits from vehicle.
4. **FuelCar** - A class that represents a car that runs on fuel. inherits from Fuelvehicle.

**Enum eColor** { Red , Blue, White, Gray }

1. **FuelMotorcycle** - A class that represents a motorcycle that runs on fuel. inherits from Fuelvehicle.

**Enum eLicenseType** { A , A1, AA, B}

1. **Truck** - A class that represents a Truck that runs on fuel. inherits from Fuelvehicle.
2. **ElectricCar** - A class that represents a car that runs on Electricity. inherits from Electricvehicle.

**Enum eColor** { Red , Blue, White, Gray }

1. **ElectricMotorcycle** - A class that represents a motorcyclethat runs on Electricity. inherits from Electricvehicle.

**Enum eLicenseType** { A , A1, AA, B}.

1. **ValueOutOfRangeException -** A class that inherits from exception, represents a class that allows a throw in the code in case of incorrect input in terms of a desired range of values.