**Excercise 03**

Created by:  
Itay Aharoni, ID: 208277574  
Nimrod Boazi, ID: 208082735  
  
Class / Enums List:  
  
**ConsoleUI**  
ConsoleUi: Handles the interface with the console user  
Program: Where the main is located, this is where the program starts  
UserInputValidation: checks if the user input is techniclly good, without knowing the logic

**GarageLogic**  
Vehicle: holds the properties that every vehicle has, and few general methods  
Car: inherit from vehicle, holds the car properties  
Motorcycle: inherit from Vehicle, holds the motorcycle properties  
Truck: inherit from Vehicle, holds the truck properties  
OwnerData: holds the data of every car owner that put his car to the garage  
Tire: handles all the tire methods, every vehicle has a set of tires  
VehicleEngine: abstract class, holds general engine members and decides what methods every engine should implement according to his own conditions  
FuelEngine: inherit from VehicleEngine, handles the methods related to fuel and engine in vehicles that are powered by petrol  
ElectricEngine: inherit from VehicleEngine, implements the methods in a way thats relevant to electric vehicles  
VehicleCreator: "creates" new vehicles when they are coming to the garage for the first time. Built in a way that adding a new type of vehicle is hanled easily  
ValueOutOfRangeException: handles the exceptions that are related to a given value (such as fuel to add or air pressure to add) cant be added logiclly.  
GarageLogicManager: running the garage. All the methods that ConsoleUI is holding for the user are handled by calling this class

Solution Diagram:  
  
added picture also in the folder for better visibility.

