**Garage system management**

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| **Ex03.ConsoleUI** | | |
| **Type** | **Type Name** | **Description** |
| Class | CheckUI | Accepts exceptions from the logical part, handles and displays a message accordingly. |
| Class | GarageMenu | This is the class that connects the user interface to the program logic. Introduces options and absorbs inputs. |
| Class | Messages | Includes messages displayed to the user |
| Class | Program | The Main function is there and serves as the beginning of the program |

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| **Ex03.GarageLogic** | | |
| **Type** | **Type Name** | **Description** |
| Abstract Class | Vehicle | An abstract class representing a vehicle. Contains all the common data members of vehicles and inherit to them. |
| Class | Car | A class extending Vehicle. It adds information and logic which are unique to cars in addition to those of vehicle. |
| Class | Truck | A class extending Vehicle. It adds information and logic which are unique to trucks in addition to those of vehicle. |
| Class | Motorcycle | A class extending Vehicle. It adds information and logic which are unique to motorcycles in addition to those of vehicle. |
| Class | Wheel | A class of single wheel, every vehicle contains list of wheels. |
| Class | VehicleOwnerDetails | A class for the owner of the vehicle, every vehicle contains owner. |
| Abstract Class | Engine | An abstract class representing an engine. Used for polymorphism.  Every Vehicle contain engine. |
| Class | FuelEngine | A class extending Engine. It adds information and logic which are unique to fuel engine in addition to those of engine. |
| Class | ElectricEngine | A class extending Engine. It adds information and logic which are unique to electric engine in addition to those of engine. |
| Class | VehicleFactory | A class responsible for the production of the objects. Does not turn the user either directly or indirectly. |
| Class | GarageSystem | Responsible for managing the garage logically. Contains the list of vehicles in the garage and responsible for the actions performed on them. |
| Class | CheckLogic | A class responsible for testing parameters from the user. Checks if the logic is correct and throws an exception accordingly. |
| Class | ValueOutOfRangeException | A class extending Exception. A new ValueOutOfRangeException is thrown when an input exceeds the allowed range. |
| Enum | eCarColor | Represents the possible car colors for a car |
| Enum | eDoorsAmount | Represents the amount of doors possible for a car. |
| Enum | eFuelType | Represents the possible fuel types for a fuel engine |
| Enum | eLicenseType | Represents the possible license types for motorcycle. |
| Enum | eVehicleStatus | Represents the possible statuses for every vehicle in garage. |
| Enum | eVehicleType | Represents the possible types for vehicles in the garage. |

