ASSIGNMENT 2

In this assignment, you will need to apply the knowledge of object oriented design taught in class. You can get familiar with the text of the assignment at any time. However, the assignment is based on the material from Week 3 and Week 4. Do not attempt to complete it before all instructions are finished.

The problems, presented in this assignment require you to use all concept of Object Oriented Design and class modeling learnt in this class. You must also show the knowledge of arrays and/or collections when you complete it.

# Problem 1.

You must model the operations of the rural car mechanic shop. The shop can attract passenger cars, school busses, pickup trucks and tractors. There are common tasks for all these vehicles

* Oil Change
* Engine Tuneup
* Transmission Cleanup

All vehicles have the following properties:

* Year of make
* Company making it (John Deere, GM, Toyota…). You can use names you know from your country
* Model of the vehicle (LX120, Silverado, Turbowagon…). Again, the names from your country can be used
* Record credit card number (16 digits)

There are significant differences between the vehicles

* For cars, the mechanic makes body tuneup
* School busses require constant cleanup of the interior
* Pickup trucks require installation of cover
* Tractors require PTO maintenance

For each operation, you must create a method, which has one line: Console.WriteLine(…operation…)

# Problem 2.

You must model the operations of the interior/exterior decorator. The customers are owners of the small businesses, house owners and farmers. The common properties they have:

* Age of the house
* Size of the house
* Size of the paddock
* Record credit card number (16 digits)

All of the customers need to

* Create the Design
* Estimate the work
* Arrange the workers

However, there are significant differences, which need to be taken into account:

* House Owners need a design of sun rooms
* Business owners need the design of the customer lobbies
* Farmers need the design of the grain storage areas

# Required for Both Tasks.

You must create a list of customers, where each one possesses their own information. At the end of the program execution you must display the list of customers, providing all information on one line. You must also call all methods for each customer, which must provide the output of operations. The credit card must be seen on the schedule as 4511 XXXX XXXX 1111