

PRG655

(Marks: 4%)

LAB ASSIGNMENT #2

Due: Week 5 lab class

Design a **C# Windows Forms Application** that uses two classes and an **interface** named `Vehicle`, `Service` and `ITest` respectively. The third class will be a Windows Form class.

The `ITest` interface should contain two properties and a method. The first property will be used to read/write a description of a service to be done on a vehicle. The second property will be used to read/write a number of months between two services for a specific vehicle/service. In addition to these two properties the `ITest` interface should also contain a method that will be used to compute the date when a specific vehicle is due for the next service.

The `Vehicle` class should contain data fields to store a vehicle model, year, licence plate number, and date of the most recent service. This class should also contain all necessary properties and/or methods to set and get values of these data fields.

The `Service` class should inherit `Vehicle` and `ITest`. An object of this class will contain the data about a specific vehicle and the data about the service to be done on this vehicle. Please note that this class must implement/define the two properties and the method from the `ITest` interface. Please note also that the method implemented from the `ITest` interface will compute the date of the next service given the date of the current service and the number of months between two services.

Design a `Windows Form` class that will process the vehicles/services data, i.e. `Service` objects. The form will contain all necessary controls that can be used to obtain the vehicle and service data from the user, as well as to compute and display when a selected vehicle is due for the next service. This form will also create and use a **text file** to write/read the vehicle and service data into or from the file. The user should be able to search for a vehicle/service data by the license plate number as well as by the date of the next service. Design your own Windows form(s). Please note that you could design and use more than one Windows form in this project.

BONUS: Add an option for the user to use **Console** for the input.