# PE11 – Defining Classes

1. Define the following terms.

inheritance:

parent/base class:

child/derived class:

1. What is wrong with the following code?

public sealed class MyClass

{

// class members

}

public class myDerivedClass : MyClass

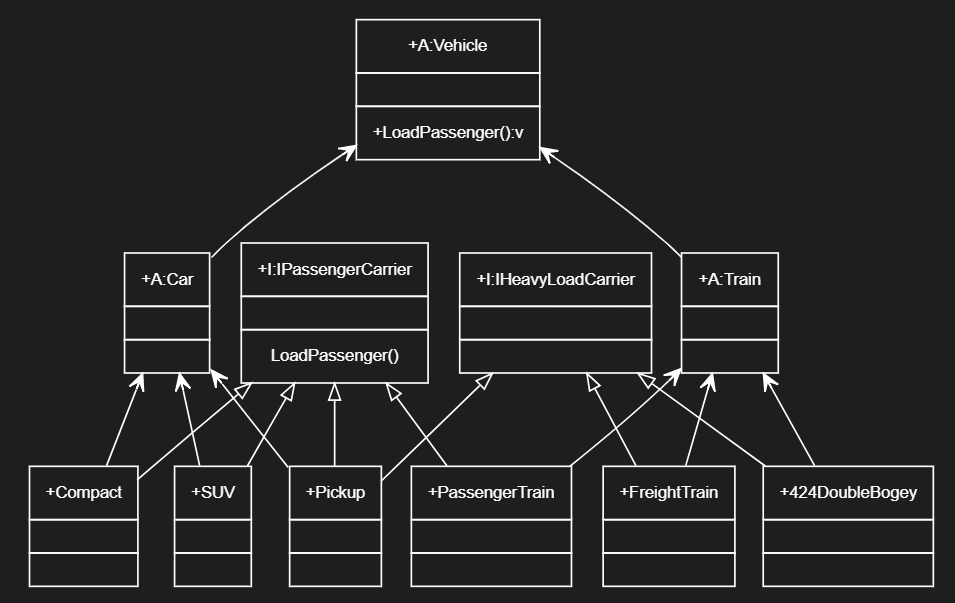
{

// class members

}

1. How would you define a non-creatable class?
2. Why are non-creatable classes still useful? How do we make use of their capabilities? Give an example of a non-creatable class that we have used.
3. Write code in a class library project (.NET .DLL) called Vehicles that implements the Vehicle family of objects as outlined below (\_424DoubleBogey as the class identifier). There are nine objects and two interfaces (IPassengerCarrier and IHeavyLoadCarrier) that require implementation. The virtual method should be an empty function:

public virtual void LoadPassenger() { }



GitHub URL:

1. Create a console application project, Traffic, which references Vehicles.dll (created in Q5 above). Include a function called AddPassenger() that accepts any object with the IPassengerCarrier interface. Within the AddPassenger() function, call the LoadPassenger() method using a reference to the interface. Also add a line to call the ToString() method inherited from [System.Object](#_bookmark591)  (ie. if vehicleObject is passed to the function, call Console.WriteLine(vehicleObject.ToString()). Also try passing an object that did not inherit the IPassengerCarrier interface and see what happens.

GitHub URL:

## Submission

Upload this completed document and GutHub URL's for #5 and #6 to the corresponding MyCourses dropbox.