CSCI 1250 – Homework 6

Classes and Objects

Introduction

This lab will reinforce topics covered in the Classes & Objects lecture.

NOTE: Your programs must abide by the documentation standards discussed in the Coding Standards document on D2L. Make sure you include the method documentation on all methods.

Part 1 (50 points)

NOTE: Make sure to move the Car.java to the src folder (or the same folder as your other code files)

Using the provided *Car.java* class, create a complete program called *CarTest.java* that asks the user to enter the year and make of a car (make sure the data types match the fields of the Car class). Then create an object of the *Car* class using the constructor found in *Car.java*, passing in the values the user entered to the constructor.

Call the *accelerate* method on the new *Car* object 5 times and display the speed of the *Car* object to the screen (using the getter for the *speed* field) after each call to the *accelerate* method to the screen.

Call the *brake* method on the new *Car* object 5 times and display the speed of the *Car* object to the screen (using the getter for the *speed* field) after each call to the *accelerate* method.

Create a UML for the Car class and export it as a .png/.jpg file or save a screenshot of it.

Part 2 (50 points)

Using the provided UML for the *PersonalInformation* class, write the necessary code for the class. Make sure your fields, methods, and parameters match what is in the UML exactly. Your constructor should take the arguments shown in the UML and set the corresponding field values accordingly.

Create a complete program called *PersonalInformationTest.java* that asks the user to enter a name, address, age, and phone number (make sure the data types match the fields of the *PersonalInformation* class) and create a new object of the *PersonalInformation* class using the constructor shown in the UML, passing in the values the user entered to the constructor.

Then, display each of the field values to the screen, either by using the getter methods or by creating a *toString* method in the *PersonalInformation* class.

Submission

Submit each of the source code files (Car.java, CarTest.java, PersonalInformation.java, and PersonalInformationTest.java) as well as your UML screenshot of the Car class to the GitHub repository using the Homework 6 GitHub classroom link. Submit a text file with a link to the repository to D2L by the specified due date.