Chapter 7: Car Class

Time required: 90 minutes

- Comment each line of code as shown in the tutorials and other code examples.
- Follow all directions carefully and accurately.
- Think of the directions as minimum requirements.

Pseudocode

1. Write pseudocode or TODO for the exercise
2. Save it in a document
3. Submit with the assignment

Requirements

NOTE: You can create any type of class you wish. A class is a noun, anything can be a class. Boat, Soccer Player, Airplane, Apple etc.

A variable with one underscore in front of it is private to the class only.

Example: **self._variable**

1. Create a class file named **car.py** (It could also be a tractor, plane, train, etc.)
    a. **Attributes:**
        i. **_color**
        ii. **_speed**
    b. Initialize the two attributes as parameters in the **__init__** method.
    c. **Methods:**
        i. **accelerate()** adds 5 to the speed attribute
        ii. **brake()** subtracts 5 from the speed attribute
        iii. **get_speed()** returns the current speed to the main program. Print out the speed in the main program.

iv. **get_color()** returns the color to the main program. Print out the color in the main program.

2. Create a Python program named: **car_go.py** that interactively demonstrates these methods and attributes as shown in the example run.

Example run:

```
What color is your car? Blue
The Blue car is going 50 mph.

(a)ccellerate or (b)rake: a
The Blue car is going 55 mph.

(a)ccelerate or (b)rake e(x)it: a
The Blue car is going 60 mph.

(a)ccelerate or (b)rake e(x)it: b
The Blue car is going 55 mph.

(a)ccelerate or (b)rake e(x)it: b
The Blue car is going 50 mph.

(a)ccelerate or (b)rake e(x)it: x
```

Assignment Submission

1. Attach the pseudocode.
2. Attach the program files.
3. Attach screenshots showing the successful operation of the program.
4. Submit in Blackboard.