

Create A Car Class in C++

Due Aug 20 by 11:59pm **Points** 200 **Submitting** a text entry box or a file upload
Available Aug 14 at 12am - Aug 22 at 11:59pm 9 days

This assignment was locked Aug 22 at 11:59pm.

As you review the lecture material on C++. You will see similarities and differences to the Java programming Language. Your task is to learn how C++ handles IPO and implementing User Define Classes. After doing this:

Write a class named Car that has the following member variables:

- **year** - An int that holds the car's model year.
- **make** - A string object that holds the make of the car
- **engine** - A string object that holds the type of engine of the car.
- **speed** - An int that holds the car's current speed.

In addition, the class should have the following member functions.

- **Constructor** - The constructor should accept the car's year and make as arguments and assign these values to the object's year and make member variables. The constructor should initialize the speed member variable to 0.
- **Accessors** - Appropriate accessor functions should be created to allow values to be retrieved from an object's year, make, engine and speed member variables.
- **Mutator** - Appropriate mutator function should be created to allow the value to be set of object's engine.
- **accelerate** -The accelerate function should add 5 to the speed member variable each time it is called
.
- **brake** - The brake function should subtract 5 from the speed member variable each time it is called
.
- **toString** - The toString function should return the entire state of the Car class using labels to identify the data values of the data members of the object

Demonstrate the class in a program that creates a Car object and then calls the accelerate function five times. After each call to the accelerate function, get the current speed of the car and display it. Then, call the brake

function five times. After each call to the brake function, get the current speed of the car and display it.

After testing the accelerate and brake functions, call the function to change the engine type and pass it a value for a different engine. display the state of the Car using the toString function

Submit the Source Text file containing C code

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