Lab 05

IMPORTANT

Update the lab number in comments below your name.

Update your output in comments at the bottom of your cpp file.

INSTRUCTIONS

Revise Lab 3 with the following changes:

Car class:

Add a private static integer variable: nbrOfCars.

Note: be sure to initialize your static variable as shown in the online example.

Increment nbrOfCars in your constructors.

Decrement nbrOfCars in your destructor.

Add a static void function with no parameters to display your new static variable.

Add a void friend function with a constant Car reference object parameter. Your friend function will access the class private pointers to display information about the Car object.

Inside carExample function:

Call your static function to display the number of cars before instantianting any Car objects.

Call your static function after instantianting each car.

Replace your cout statements to display your Car objects by using your friend function instead – pass your pointer to the friend function.

In the main function:

Call your static function to display the number of Car objects before exiting your program.

Save your cpp file as lab05.txt and upload lab05.txt to Canvas.

Your program should produce the below output, including blank lines.

```
Number of cars: 0
Normal constructor.
Number of cars: 1
Normal constructor.
Number of cars: 2
Copy constructor.
Number of cars: 3

car 1 with defaults:
Escape has 4 doors and gets 32 miles per gallon.

Enter new car1 info
Model: Mustang
Number of doors: 2
MPG: 28

car 1 with new details (using pointer):
Mustang has 2 doors and gets 28 miles per gallon.

car 2 (using pointer):
Escort has 5 doors and gets 36 miles per gallon.

car 3 (using pointer):
Escape has 4 doors and gets 32 miles per gallon.

End of carExample function.
Deleting pointers for Escape
Deleting pointers for Escort
Deleting pointers for Mustang
Number of cars: 0
End of main function.
```