CSE1322L - Lab 7

Concept Summary:

1. Object-Oriented programming concepts
2. Interfaces

For this project you will develop a calculator that can do simple arithmetic operations such as addition, subtraction, multiplication and division.

You'll begin by creating an interface CalcOp which has 4 methods: add(), subtract(), multiply() and divide().

Next you'll create a Calculator class which implements the interface. This class should be concrete, as such all methods should be concrete.

Finally you'll write a main method which instantiates a calculator, and presents the user with a menu.   Prompt the user for 2 numbers and perform the appropriate operation based on their choice. Continue until the user chooses to exit.

Specifications:

The **CalcOp** interface should include the following items:
   • Four methods: add( ), subtract( ), multiply( ) and divide( )
   • Each method should take in two floating point numbers and return a float.

The **Calculator** class should:
   ● Implement the methods defined in the interface.

Write a driver program which contains the following items:
   ● A menu with options for exiting the program, addition, subtraction, multiplication and division.
   ● All Input / Output statements should be in the driver program only.

Test your program by running through all operations at least once.

Sample Output:

0 - Exit
1 - Addition
2 - Subtraction
3 - Multiplication
4 - Division

Please Choose an Option: **1**
Please enter the first number **67**
Please enter the second number **89**
156.0

0 - Exit
1 - Addition
2 - Subtraction
3 - Multiplication
4 - Division
Please Choose an Option: **2**
Please enter the first number **90**
Please enter the second number **89**
1.0

0 - Exit
1 - Addition
2 - Subtraction
3 - Multiplication
4 - Division
Please Choose an Option: **3**
Please enter the first number **65**
Please enter the second number **12**
780.0

0 - Exit
1 - Addition
2 - Subtraction
3 - Multiplication
4 - Division
Please Choose an Option: **4**
Please enter the first number **18**
Please enter the second number **2**
9.0

0 - Exit
1 - Addition
2 - Subtraction
3 - Multiplication
4 - Division
Please Choose an Option: **0**

Submission Guidelines:

Write the interface, the class and the driver program for the project.

Please follow the posted submission guidelines here:
https://ccse.kennesaw.edu/fye/submissionguidelines.php

Ensure you submit before the deadline listed on the lab schedule for CSE1322L here:
https://ccse.kennesaw.edu/fye/courseschedules.php