

Homework – Topic 6 – Calculator:

Write a program which allows the user to perform simple tasks on a calculator. A series of methods allows the user to select an operation to perform and then enter operands.

The first method displays a menu, giving the user the choice of typing in any one of the following:

+, -, *, /, or %	representing the usual arithmetic operators
A	representing the average of two numbers
X	representing the maximum of two numbers
M	representing the minimum of two numbers
S	representing the square of a number
Q	indicating the user wants to quit the program

The program reads the user's response into a variable of type `char`. Using a `switch` statement, the program determines which method to call to process the user's request. For example, if the user enters `+`, **a method is called which prompts the user to enter two integers. The method then finds the sum of the two integers and the method prints the results of the operation.** If the user enters `X`, a method asks for two integers and finds the larger of the two. If the user enters `S`, a method asks for one value and finds the square of that value. If the user enters `Q`, the program stops.

For each calculation performed, **the method** prints the operation requested, the user's original input, and the result.

Note: All output must be sent to a file

Note: The program must be properly tested

Note: The program will iterate until the user quits the program

Sample Output:

Operation: addition

augend: 25

addend: 35

sum: 60

Required Submission:

1. The Java source code file (e.g., HW6.java)
2. The test cases input file (e.g., testCases.txt)
3. The program generated output file (e.g., output.txt)