

COP-3337 Programming II

Programming Assignment 6

Knight Foundation School of Computing and Information Sciences

In this assignment, you implement a simple calculator supporting integer values with only two operations addition and subtraction. The program receives an expression like $95 - (12 + 33)$ from the keyboard and prints out the result (50 in this case) on the screen.

Please note that the input expression may include nested parentheses like

$$2 + (1 - (3 + ((4 - 1) + (12 - 6))))$$

Therefore, your program needs to use the stack data structure (like `java.util.Stack`) to store the intermediate results of inner parentheses and/or the operators.

1 Sample Input/Output

Here are some examples of how your program should operate:

input expression	output
$((2))$	2
-0022	-22
$-(2 - 3 - 4)$	5
$(+34)$	34
$2 + (1 - (3 + ((4 - 1) + (12 - 6))))$	-9
$1 + (2 - (3 + 4 - (5 + (6 - (7 + (8 - 9)))))$	1

2 Submissions

You need to submit a *.zip* file compressing the Java source file(s) of your program (*.java* files).