**BRAC University**

**Department of Computer Science and Engineering**

**CSE 220: Data Structures**

**Assignment 04: Postfix Builder and Evaluator**

Follow the attached ‘CSE220Assignment04.java’ file that takes an infix expression as a string as input in the main method. For this assignment, you can assume that the given expression will not be invalid (user will always input a correct expression). Then, main method passes that string to ‘postFixBuilder’ method which converts the infix expression to postfix representation as returns the postfix expression to main method as a string. Main method then passes it to the ‘postFixEvaluator’ that returns the final result as an integer.

Note that,

User will NOT input a wrong infix expression.

Given infix expression will only carry integers ranging between 0~9.

Given infix expression will only be consisted of 5 binary operators: +, -, \*, /, %

**Sample Input 1**

1+2\*(3/4)

**Sample Output 1**

Post Fix Expression: 1234/\*+

Answer: 1

**Sample Input 2**

1+2\*[3\*3+{4-5+(6-(7/8/9)+0)}-1+(2\*8)/{1+3}]+4

**Sample Output 2**

Post Fix Expression: 1233\*45-678/9/-0+++1-28\*13+/+\*4++

Answer: 39

**Sample Input 3**

1+2\*(3/4)-5+(6\*(7/8/9)+1)

**Sample Output 3**

Post Fix Expression: 1234/\*5-678/9/\*1+++

Answer: -3