

Project 2: Stack: Expression Evaluation

Problem Description

Given an Infix represented by a String, please write a program to evaluate it. The input expression supports binary operations, i.e., $+$, $-$, $*$, $/$ and parentheses $()$ or $\{\}$. Tokens in the expression are separated by space. All the following functions are required in your program:

- (1) Convert Infix to Postfix.
- (2) Take the result of function (1) and evaluate the Postfix.
- (3) Take as input an Infix and output the answer. (Do **NOT** just call (1) and (2) in your function (3), you need write a new function which fuses (1) and (2) skillfully).

Note: Assuming that parentheses are well-matched and syntax of the expression is correct.