

Program 3 Overview

Description

- Program 3 is a Infix to Postfix expression algorithm. Making use of a stack data structure implemented using a linked list. The program takes a properly formatted infix expression and returns the postfix of the said expression ex: $(3+4) = 3\ 4\ +$

Main Functions

- `string getInfix();`
 - This function gets user input for the infix string
 - Function uses `getline()` to avoid whitespace errors
- `int getPrecedence(char);`
 - This function determines precedence of a operator
 - Making use of a switch statement, we return a 1 if '+' or '-', 2 if '*' or '/', and 0 by default
- `string inToPost(string);`
 - This is the main function of the program and implements the algorithm we were given by Professor Bolden
 - We iterate through the given infix string and return a postfix string once we complete all steps required.
- `string addWhitespaceBetweenChars(string str);`
 - This function adds whitespace between the characters of a string
 - Ex: '34+' -> '3 4 +'