Faculty of Engineering and Technology
Computer Science Department
COMP2321/COMP242

Project #2

You are required to implement a program using the concepts of **Stack** data structure.

There is a file contains a set of infix expressions. At the beginning, read all expressions in this file and check if each expression is valid or not (see examples below). If the infix expression is valid, convert it to the postfix expression, then make evaluation to the postfix expression.

Your program should include an appropriate menu to the user that shows the available options.

1- Read file.
2- Print the set of infix expressions, and state if it is valid or not.

   e.g.

   2*5+(7/2+10)-3 valid
   8-5+*2 invalid
   3*(8/2 invalid
   (2-5)4 invalid
3- Print the postfix expressions.
4- Evaluate the postfix expressions and print the results.
5- Write each valid infix expression with its postfix expression and result on file.

   Please use the following format.

   {infix expression} ==> {postfix expression} ==> {Result}

   e.g.

   {5+2*7/(6-4)} ==> {5 2 7 * 6 4 - / +} ==> {12}
6- Exit

This project due date is Saturday 4/11/2017. Late submissions will not be accepted for any reason. Please make sure that your application is running properly on your laptop before the lecture. Project discussions will take place in the lecture room.