

National Institute of Technology Silchar

Dept. of CSE

Semester: 3rd. Branch: CSE

Data Structures Lab :: *Assignment 3*

Date: 24/8/2018

Submission due: August 31, 2018

1. Write a C program to convert an infix string to postfix. Name the function for converting the infix string to postfix as postfix.
2. Write a C program to evaluate a postfix expression. Name the function for evaluating the postfix expression as eval.
3. Write a single program combining the features of eval and postfix to evaluate an infix string. Use two stacks one for operands and the other for operators. Do not first convert the infix string to postfix and then evaluate the postfix string, but rather evaluate as you go along.
4. Modify the routine eval to accept as input character string of operands and operators representing a postfix expression and to create the fully parenthesized infix form from the original postfix expression. For example, AB+ would be transformed to into (A + B) and AB + C- would be transformed into ((A + B) - C).
5. Write a C program to convert
 - (a) a prefix string to postfix
 - (b) a prefix string to infix