Department of Computer Science and Engineering
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CSL2020 - Data Structures and Algorithms

Lab - 3

1. **Using stack**, write a **C program** to convert a given **Postfix expression to Infix expression** and evaluate it. The following operators are allowed in the input:

   - +, –, *, / (with + and – having same level of precedence, which is lower than that of * and /)
   - ^ (unary squaring operator, having higher precedence than +, -, *, /). Example: 3^ evaluates to 9.
   - To avoid ambiguity of Infix expression we will extensively use parentheses ( ). Each operation in the Infix expression should be contained within ( ).

   Example Input1: 4, ^, 5, *, 6, -
   Example Output1 Line1: (((4^)*5)-6)
   Example Output1 Line2: 74

   Example Input2: 25, 9, 6, *, -, /, 3
   Example Output2 Line1: ((25-(9*6))/3)
   Example Output2 Line2: -9.67
   (rounded to 2 decimal places)

   You can assume that the input length is not more than 100 characters. In case the input is wrong, you should print an error message.