

# Data Structures and Algorithms - Assignment 3

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1. Write a program to implement descending stack. (Initialize top = SIZE)
2. Insert 5 elements in stack and find maximum value in stack without traversing it.
3. Create an array of integers. Reverse the array using stack
4. Implement circular queue using counter method
5. Implement following algorithms for multi digit numbers i. postfix evaluation ii. prefix evaluation
- Optional
6. Implement following algorithms for multi digit numbers i. infix to postfix ii. infix to prefix
7. Paperwork: Convert following examples from Infix to Prefix and Postfix.  $K + L - M * N + (O * P) * W / U / V * T + Q (A + B) * C - (D - E) * (F + G)$
8. Paperwork: Convert following expression to Postfix and Prefix using stack.  $5+9-4*(8-6/2)+1*(7-3)$