Assignment 6

1. WAP Write a menu driven program to perform the following operations of a stack using array by using suitable user defined functions for each case.
   a) Check if the stack is empty b) Display the contents of stack c) Push d) Pop
2. WAP Write a menu driven program to perform the following operations of a stack using linked list by using suitable user defined functions for each case.
3. WAP to convert an infix expression into its equivalent postfix notation
4. WAP to convert an infix expression into its equivalent prefix notation.
5. Two brackets are considered to be a matched pair if the an opening bracket (i.e., (, [, or {) occurs to the left of a closing bracket (i.e.,),], or }) of the exact same type. There are three types of matched pairs of brackets: [], {}, and (). A matching pair of brackets is not balanced if the set of brackets it encloses are not matched. WAP to determine whether the input sequence of brackets is balanced or not. If a string is balanced, it print YES on a new line; otherwise, print NO on a new line.
   Example: Input: {[()]} and Output: YES
   Input: {[(]} and Output: NO
6. WAP to reverse a stack with using extra stack.
7. WAP to sort the elements inside a stack using only push and pop operation. Any number of additional stacks may be used.