Assignment 10

1. Implement a stack using an array. Write functions for push, pop, and display operations.

2. Implement a stack using a linked list. Write functions to push, pop, and display stack elements.

3. Write a program to reverse a string using a stack. Demonstrate how each character is pushed and then popped to achieve the reversal.

4. Evaluate a postfix expression using a stack. For example, evaluate the expression 6 2 + 5 \* 8 4 / -.

5. Convert an infix expression to postfix notation using a stack (e.g., converting (A + B) \* (C - D)).

6. Check for balanced parentheses in an expression using a stack. This includes (), {}, and [] pairs.

7. Implement a function to sort a stack. The function should use only one additional stack for assistance.

8. Write a program to find the minimum element in a stack at any point, with push and pop operations.

9. Write a program to find the maximum element in a stack at any point, with push and pop operations.

10. Convert a given postfix expression to infix notation using a stack.