Assignment 7

1. WAP to implement a stack which will support three additional operations in addition to push and pop:

   a) peekLowestElement - return the lowest element in the stack without removing it from the stack

   b) peekHighestElement - return the highest element in the stack without removing it from the stack

   c) peekMiddleElement - return the $(size/2+1)^{th}$ lowest element in the stack without removing it from the stack.

2. Write a menu driven program to implement queue operations such as Enqueue, Dequeue, Peek, Display of elements, IsEmpty, IsFull using static array.
3. Write a menu driven program to implement queue operations such as Enqueue, Dequeue, Peek, Display of elements, IsEmpty using linked list.
4. WAP using a function to reverse a queue by using stack.
5. Write a menu driven program to implement circular queue operations such as Enqueue, Dequeue, Peek, Display of elements, IsEmpty, IsFull using static array.
6. Write a menu driven program to implement circular queue operations such as Enqueue, Dequeue, Peek, Display of elements, IsEmpty using linked list.