🡪Easy 🡪Medium 🡪Hard

**Practical 8 and 10** (Topic: Stacks & Queues)

**Class-work:**

* Write a program to create menu-driven program to create stack/queue operations using linked0-list.

**Home-work:**

1. Write a program to implement stack using array and perform push pop operations on it by implementing their functions separately.
2. Write a program to implement queue using array and perform insertion & deletion operations on it by implementing their functions separately.
3. Write a Program to implement a Priority Queue using linked list.

*Hint: Every node in the linked list will contain the Priority Number field and nodes in linked list will be inserted in sorted order of priority.*

1. Write a program to sort the elements of an array in descending order using Quick Sort.
2. Write a program to implement priority queue using linked-list.
3. Write a program to implement queue by using stack(s).
4. Write a program to generate solution moves for tower of Hanoi problem of n disk and count no. of moves required for operation.
5. Write a program to implement push() and pop() functions for insertion and deletion in a Stack using Array. Now implement a Queue using two stacks.

*Hint: enque() and deque() must use push() and pop()functions of Stack.*

1. Write a program to implement two stacks using an array of size n such that the space is utilized most efficiently.

*Hint: A stacks can have maximum n elements. So stack should be implemented such that they can use the space of the array efficiently.*

1. Write a program to evaluate a Postfix expression using Stack.