DSA Viva Questions & Answers (C++)

# 1) Stack Push, Pop, Display

* Q: What is a stack?

A: A stack is a linear data structure which follows LIFO (Last In First Out) principle.

* Q: What operations are performed on a stack?

A: Push, Pop, Peek, and Display.

* Q: What is stack overflow and underflow?

A: Overflow: inserting into full stack. Underflow: removing from empty stack.

# 2) Queue Enqueue, Dequeue, Display

* Q: What is a queue?

A: A queue is a linear data structure that follows FIFO (First In First Out) principle.

* Q: What operations are performed on a queue?

A: Enqueue, Dequeue, and Display.

* Q: Difference between stack and queue?

A: Stack: LIFO, Queue: FIFO.

# 3) Singly Linked List Insert, Delete, Display

* Q: What is a linked list?

A: A collection of nodes where each node contains data and a pointer to the next node.

* Q: Why use linked list over array?

A: Dynamic size and ease of insertion/deletion.

* Q: What is the time complexity of inserting at the end?

A: O(n), as we traverse to the end.