

## Capgemini Technical Interview:

- 1) What do you mean by a Data structure?
- 2) What are some of the applications of DS?
- 3) What are the advantages of a Linked list over an array?
- 4) Write the syntax in C to create a node in the singly linked list.
- 5) What is the use of a doubly-linked list when compared to that of a singly linked list?
- 6) What is the difference between an Array and Stack?
- 7) What are the minimum number of Queues needed to implement the priority queue?
- 8) What are the different types of traversal techniques in a tree?
- 9) Why it is said that searching a node in a binary search tree is efficient than that of a simple binary tree?
- 10) What are the applications of Graph DS?
- 11) Can we apply Binary search algorithm to a sorted Linked list?
- 12) When can you tell that a Memory Leak will occur?
- 13) How will you check if a given Binary Tree is a Binary Search Tree or not?
- 14) Which data structure is ideal to perform recursion operation and why?
- 15) What are some of the most important applications of a Stack?
- 16) Convert the below given expression to its equivalent Prefix And Postfix notations.
- 17) Sorting a stack using a temporary stack
- 18) Program to reverse a queue
- 19) Program to reverse first k elements of a queue
- 20) Program to return the nth node from the end in a linked list
- 21) Reverse a linked list
- 22) Replace each element of the array by its rank in the array
- 23) Check if a given graph is a tree or not

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**24) Find out the Kth smallest element in an unsorted array**

**25) How to find the shortest path between two vertices**