Common DS Algo Interview questions:-

Linked List -

1- Find mid node of the given LinkedList*
2- Clone a linked list with next and random pointer
3- Detect loop in a linked list and remove that loop or return starting point of the loop.*
4- Addition of two linked list.*
5- Intersection point in linked list.
6- Return a linked list which is the product of the given two linked lists.
7 - Merge two sorted linked lists
8- Implement Stack using Linked List
9- Flattening a Linked List.
10 - Binary Tree to DLL.

Trees-

1- Common ancestor in tree
2-Zigzag tree traversal and other traversal of trees.*
3- Print top view/ left view / bottom view/ right view of a binary tree.*
4 Check if a Binary Tree is BST or not*
5- Check if a binary tree is balanced
6- Given a binary search tree. Find two numbers in the tree whose sum is k.
7- Kth largest element in BST.
8- Min distance between two given nodes of a Binary Tree.
9- Height of Binary Tree.
10- Determine if Two Trees are Identical.

Common questions:- DP, DFS, Array, Stack, Queue

1-Find a^b using recursion and further optimization.
2-Find all the substrings of the given string "abc".*
3- Write the algorithm to find the max number in a stack.*
4- Reverse an integer array with an optimized solution*
5- Greedy algorithm (problem ex - rotate an array by k places)*
6 - Sort string based on frequency of characters or print frequency of characters. *
7- Stock buy and sell.
8- Find Maximum sum in an array such that no 2 elements are adjacent

9- Minimum number of subsets with distinct elements.
10- Segregate 0s on left side and 1s on right side of the array.*
11- Check for balanced parenthesis.*
12- Magnificent Fountains
13- Find the maximum digit that occurred in a range of prime numbers.
14- Remove spaces in a string without using inbuilt functions and taking constant space.
15- Find the number of possibilities to move from one point to another point on a chess board.
16- Remove duplicates from a string, do it in-place.*
17- Given a rotated array, search for an element in it.*
18- Given an array, find a sub-array with sum=0.*
19- Given a string, find the longest sub-sequence which contains only unique characters.
20- Longest Common Subsequence.*
21- Given a string, find its first non-repeating character.
22- Count frequencies of all elements in an array with an optimized solution.*
23 - Print maximum number of 'A' using given four keys.
24- Count all the possible paths from top left to bottom right of a **m** X **n** matrix with the constraints that from each cell you can either move only to right or down**.**
25- Given a number K and string str of digits denoting a positive integer, build the largest number possible by performing swap operations on the digits of str at most K times.
26- Maximum width of a binary tree.
27- Quick Sort, Merge sort, Heap Sort
28- Permutations of a given string.
29- Minimum Cost Path.
30- Sum of all prime numbers between 1 and N.
31-Travelling Salesman Problem.
32 - 0 - 1 Knapsack Problem
33- Missing number in an integer array from 1 to n.
34- Triplet Sum in Array.