## Array

- 1. Check if pair with the given Sum exists in Array
- 2. Best Time to Buy and Sell Stock
- 3. Find duplicates
- 4. Product of Array Except Self
- 5. Maximum Subarray
- 6. Maximum Product Subarray
- 7. Find Minimum in Rotated Sorted Array
- 8. Search in Rotated Sorted Array
- 9. <u>3 Sum</u>
- 10. Container With Most Water
- 11. Find the Factorial of a large number
- 12. Trapping Rain Water
- 13. Chocolate Distribution Problem
- 14.Insert Interval
- 15. Merge Intervals
- 16. Non-overlapping Intervals

#### Matrix

- 1. Set Matrix Zeroes
- 2. Spiral Matrix
- 3. Program to find the transpose of a matrix
- 4. Word Search

## **String**

- 1. Longest Substring Without Repeating Characters
- 2. Longest Repeating Character Replacement
- Smallest window in a String containing all characters of other
  String
- 4. Check whether two Strings are anagram of each other
- 5. print all anagrams together
- 6. Check if given Parentheses expression is balanced or not
- 7. <u>Sentence Palindrome</u>
- 8. Longest Palindromic Substring
- 9. Palindromic Substrings
- 10.Longest Common Prefix

### **Linked List**

- 1. Reverse a Linked List
- 2. Detect Cycle in a Linked List
- 3. Merge Two Sorted Lists
- 4. Merge K Sorted Lists
- 5. Remove Nth Node From End Of List
- 6. Reorder List
- 7. Add 1 to a number represented as linked list
- 8. Find the middle of a given linked list
- 9. Delete last occurrence of an item from linked list

### Stack & Queue

- 1. Convert Infix expression to Postfix expression
- 2. Next Greater Element
- 3. Delete middle element of a stack
- 4. Check mirror in n-ary tree
- 5. The Celebrity Problem
- 6. Length of the longest valid substring

- 7. Print Right View of a Binary Tree
- 8. Find the first circular tour that visits all petrol pumps

#### Tree

- 1. Maximum Depth of Binary Tree
- 2. Check if two trees have same structure
- 3. Invert/Flip Binary Tree
- 4. Binary Tree Maximum Path Sum
- 5. Binary Tree Level Order Traversal
- 6. Serialize and Deserialize Binary Tree
- 7. Subtree of Another Tree
- 8. Construct Binary Tree from Preorder and Inorder Traversal
- 9. Validate Binary Search Tree
- 10.Kth Smallest Element in a BST
- 11. Lowest Common Ancestor of BST
- 12.Implement Trie (Prefix Tree)
- 13.Add and Search Word

#### Heap

- 1. Top K Frequent Elements
- 2. Find Median from Data Stream
- 3. Largest triplet product in a stream
- 4. Connect n ropes with minimum cost

## Graph

- 1. Clone Graph
- 2. Course Schedule
- 3. Pacific Atlantic Water Flow
- 4. Number of Islands
- 5. Longest Consecutive Sequence
- 6. Snake and Ladder Problem
- 7. Detect Cycle in a Directed Graph
- 8. Bridges in a graph
- 9. Check whether a given graph is Bipartite or not
- 10. Find size of the largest region in Boolean Matrix
- 11. Flood fill Algorithm

- 12. Strongly Connected Components
- 13. Topological Sorting

## **Dynamic Programming**

- 1. Count ways to reach the n'th stair
- 2. Coin Change
- 3. 0/1 Knapsack Problem
- 4. Longest Increasing Subsequence
- 5. Longest Common Subsequence
- 6. Word Break Problem
- 7. Dice Throw
- 8. Egg Dropping Puzzle
- 9. Matrix Chain Multiplication
- 10.Combination Sum
- 11.Subset Sum Problem
- 12. Find maximum possible stolen value from houses
- 13. Count Possible Decodings of a given Digit Sequence
- 14. Unique paths in a Grid with Obstacles
- 15.Jump Game
- 16.Cutting a Rod
- 17. Maximum Product Cutting

# 18. Count number of ways to cover a distance

# **Bit Manipulations**

- 1. Number of 1 Bits
- 2. <u>Counting Bits</u>
- 3. Missing Number
- 4. Reverse Bits
- 5. Find XOR of all subsets of a set