# **DSA Problem List (Complete Coverage)**

#### **Arrays & Strings (12 problems)**

- Contains Duplicate
- Missing Number
- Find All Numbers Disappeared in Array
- Two Sum
- How Many Numbers Are Smaller Than the Current Number
- Minimum Time Visiting All Points
- Spiral Matrix
- Number of Islands
- Best Time to Buy and Sell Stock
- Squares of a Sorted Array
- 3Sum
- Longest Mountain in Array

#### **Linked Lists (8 problems)**

- Middle of Linked List
- Linked List Cycle
- Reverse Linked List
- Remove Linked List Elements
- Reverse Linked List II
- Palindrome Linked List
- Merge Two Sorted Lists
- Linked List Sorting

### Stacks & Queues (10 problems)

- Min Stack
- Valid Parentheses
- Evaluate Reverse Polish Notation
- Stack Sorting
- Implement Stack using Queues
- Time Needed to Buy Tickets

- Reverse the First K Elements of a Queue
- Task Scheduler
- Letter Case Permutation
- Minimum Size Subarray Sum

#### **Trees & Graphs (18 problems)**

- Average of Levels
- Minimum Depth
- Min/Max Value
- Level Order Traversal
- Same Tree
- Path Sum
- Diameter of a Binary Tree
- Invert Binary Tree
- Lowest Common Ancestor
- Binary Search Tree
- Insert in Binary Search Tree
- Convert Sorted Array to Binary Search Tree
- Two Sum IV Input is a BST
- Lowest Common Ancestor (again)

### **Dynamic Programming (7 problems)**

- Coin Change
- Climbing Stairs
- Maximum Subarray (Kadane's Algorithm)
- Counting Bits
- Range Sum Query Immutable
- Cheapest Flights Within K Stops
- Minimum Absolute Difference

## **Backtracking (3 problems)**

- Subsets
- Combinations
- Permutations

#### **Sliding Window (4 problems)**

- Longest Substring Without Repeating Characters
- Maximum Sliding Window
- Permutation in String
- Minimum Window Substring

#### **Binary Search on Answer (4 problems)**

- Median of Two Sorted Arrays
- Koko Eating Bananas
- Capacity to Ship Packages Within D Days
- Find Kth Missing Positive Number

#### **Greedy (4 problems)**

- Jump Game
- Gas Station
- Non-overlapping Intervals
- Partition Labels

#### Heap / Priority Queue (4 problems)

- Top K Frequent Elements
- Kth Largest Element in Array
- Merge K Sorted Lists
- Reorganize String

### Trie (3 problems)

- Implement Trie (Prefix Tree)
- Word Search II
- Replace Words

### **Union Find (3 problems)**

- Number of Provinces
- Accounts Merge
- Graph Connectivity Problems

# **Advanced Concepts (5 topics)**

- Segment Trees
- Binary Indexed Tree (Fenwick Tree)
- Bit Manipulation Problems
- Topological Sort
- Articulation Point & Bridges