

# ■ DSA Roadmap Problem Set

## Phase 1 – Foundations

- Two Sum (LeetCode 1)
- Best Time to Buy and Sell Stock (LeetCode 121)
- Maximum Subarray (LeetCode 53)
- Move Zeroes (LeetCode 283)
- Valid Anagram (LeetCode 242)
- Longest Substring Without Repeating Characters (LeetCode 3)
- Single Number (LeetCode 136)
- Subarray Sum Equals K (LeetCode 560)

## Phase 2 – Intermediate

- Binary Search (LeetCode 704)
- Search in Rotated Sorted Array (LeetCode 33)
- Find First and Last Position of Element in Sorted Array (LeetCode 34)
- Coin Change (LeetCode 322)
- Non-overlapping Intervals (LeetCode 435)
- Subsets (LeetCode 78)
- Permutations (LeetCode 46)
- Sudoku Solver (LeetCode 37)
- Next Greater Element I (LeetCode 496)
- Min Stack (LeetCode 155)

## Phase 3 – Dynamic Programming

- Climbing Stairs (LeetCode 70)
- House Robber (LeetCode 198)
- House Robber II (LeetCode 213)
- Longest Increasing Subsequence (LeetCode 300)
- Coin Change II (LeetCode 518)
- Unique Paths (LeetCode 62)
- Minimum Path Sum (LeetCode 64)
- 0/1 Knapsack Problem (classic DP)
- Longest Common Subsequence (LeetCode 1143)
- Edit Distance (LeetCode 72)

## Phase 4 – Trees & Graphs

- Binary Tree Inorder Traversal (LeetCode 94)
- Binary Tree Level Order Traversal (LeetCode 102)
- Lowest Common Ancestor of a BST (LeetCode 235)
- Diameter of Binary Tree (LeetCode 543)
- Serialize and Deserialize Binary Tree (LeetCode 297)
- Number of Islands (LeetCode 200)
- Clone Graph (LeetCode 133)
- Course Schedule (LeetCode 207)
- Word Ladder (LeetCode 127)
- Graph Valid Tree (LeetCode 261)

## **Phase 5 – Advanced Topics**

- Range Sum Query – Mutable (LeetCode 307)
- Implement Trie (LeetCode 208)
- Word Search II (LeetCode 212)
- KMP Algorithm (classic string matching)
- Rabin-Karp Algorithm (string matching)
- Largest Rectangle in Histogram (LeetCode 84)
- Minimum Spanning Tree (Kruskal/Prim)
- Travelling Salesman Problem (Bitmask DP)