程序员面试必备的10个算法

**1. Recursion / Backtracking**

a. 39. Combination Sum https://leetcode.com/problems/combina...

b. 40. Combination Sum II https://leetcode.com/problems/combina...

c. 78. Subsets https://leetcode.com/problems/subsets/

d. 90. Subsets II https://leetcode.com/problems/subsets...

e. 46. Permutations https://leetcode.com/problems/permuta...

f. 47. Permutations II https://leetcode.com/problems/permuta...

**2. Graph Traversal - DFS, BFS, Topological Sorting**

a. 133. Clone Graph https://leetcode.com/problems/clone-g... BFS / DFS

b. 127. Word Ladder https://leetcode.com/problems/word-la... BFS

c. 490. The Maze https://leetcode.com/problems/the-maze/

d. 210. Course Schedule II https://leetcode.com/problems/course-... (Topological Sorting)

e. 269. Alien Dictionary https://leetcode.com/problems/alien-d... (Topological Sorting)

**3. Binary Tree / Binary Search Tree (BST)**

a. 94. Binary Tree Inorder Traversal https://leetcode.com/problems/binary-...

b. 236. Lowest Common Ancestor of a Binary Tree https://leetcode.com/problems/lowest-...

c. 297. Serialize and Deserialize Binary Tree https://leetcode.com/problems/seriali...

d. 98. Validate Binary Search Tree https://leetcode.com/problems/validat...

e. 102. Binary Tree Level Order Traversal https://leetcode.com/problems/binary-... (BFS)

**4. Binary Search**

a. 34. Find First and Last Position of Element in Sorted Array https://leetcode.com/problems/find-fi...

b. 162. Find Peak Element https://leetcode.com/problems/find-pe...

c. 69. Sqrt(x) https://leetcode.com/problems/sqrtx/

**5. Data Structure**

a. 242. Valid Anagram https://leetcode.com/problems/valid-a... (Hash Table)

b. 133. Clone Graph https://leetcode.com/problems/clone-g... (Hash Table)

c. 127. Word Ladder https://leetcode.com/problems/word-la... (Hash Table)

d. 155. Min Stack https://leetcode.com/problems/min-stack/ (Stack)

e. 225. Implement Stack using Queues https://leetcode.com/problems/impleme... (Stack / Queue)

f. 215. Kth Largest Element in an Array https://leetcode.com/problems/kth-lar... (PriorityQueue)

g. 23. Merge k Sorted Lists https://leetcode.com/problems/merge-k... (PriorityQueue)

**6. Linked List Manipulation**

a. 237. Delete Node in a Linked List https://leetcode.com/problems/delete-...

b. 92. Reverse Linked List II https://leetcode.com/problems/reverse...

c. 876. Middle of the Linked List https://leetcode.com/problems/middle-...

d. 143. Reorder List <https://leetcode.com/problems/reorder>...

**7. Pointer Manipulation**

a. 239. Sliding Window Maximum https://leetcode.com/problems/sliding...

b. 3. Longest Substring Without Repeating Characters https://leetcode.com/problems/longest...

c. 76. Minimum Window Substring https://leetcode.com/problems/minimum...

**8. Sorting**

a. Time -- O(N log N)

b. Merge Sort -- Space O(N)

c. Quick Sort

d. 148. Sort List https://leetcode.com/problems/sort-list/

**9. Convert Real Life Problem to Code**

a. 146. LRU Cache https://leetcode.com/problems/lru-cache/

b. 1066. Compus Bike https://leetcode.com/problems/campus-...

c. 490. The Maze https://leetcode.com/problems/the-maze/

**10. Time Space Complexity**

a. 一般面试的时候 你说完算法 就要说 这个算法的 time / space complexity是什么

b. 每次你做完一道题 给自己养成一个习惯 就是想一下他的时间空间复杂度是多少