Binary Tree  总结

<https://blog.csdn.net/Sengo_GWU/article/details/81879502>

**Linear Structure Basic**

**Includes: String, Array, Linked List**

**Difficulty Level: ( Easy | Medium )**

**Must-Do**

|  |
| --- |
| LeetCode88. Merge Sorted Array |
| LeetCode186. Reverse Words in a String II |
| LeetCode1. Two Sum |
| LeetCode143. Reorder List |
| LeetCode92. Reverse Linked List II |
| LeetCode56. Merge Intervals |
| LeetCode20. Valid Parentheses |
| LeetCode75. Sort Colors |
| LeetCode155. Min Stack |
| LeetCode277. Find the Celebrity |
| LeetCode281. Zigzag Iterator |
| 57. insert interval |
| 71. Simplify Path |
| 15. 3Sum |

**Optional**

|  |
| --- |
| LeetCode234. Palindrome Linked List |
| LeetCode283. Move Zeros |
| LeetCode242. Valid Anagram |
| 16. 3sum closest |
| 246. Strobogrammatic Number |
| 82. Remove Duplicates from Sorted list II |
| 380. Insert delete getrandom O(1) |
| 11 container with most water |
| 189 rotate array |
| 48 rotate image |
| 225 implement stack using queues |

**Linear Structure Advanced**

**Includes: String, Array, Linked List**

**Difficulty Level: ( Medium | Hard )**

**Must-Do**

|  |
| --- |
| **LeetCode259. 3Sum Smaller** |
| **LeetCode532. K-diff Pairs in an Array** |
| LeetCode567. Permutation in String |
| LeetCode76. Minimum Window Substring |
| LeetCode85. Maximal Rectangle |
| **LeetCode475. Heaters** |
| LeetCode340. Longest Substring with At Most K Distinct Characters |
| LeetCode42. Trapping Rain Water |
| LeetCode239. Sliding Window Maximum |
| LeetCode274. H-Index |
| LeetCode275. H-Index II |
| LC 26. Remove Duplicates from Sorted Array |
| LC 80. Remove Duplicates from Sorted Array II |
| LC 442. Find All Duplicates in an Array |
| LC 448. Find All Numbers Disappeared in an Array |
| LC 41. First Missing Positive |
| LC 268. Missing Number |
| LC 287. Find the Duplicate Number |
| **LC 54 Spiral Matrix** |
| **84. Largest Rectangle in Histogram (H)** |
| **105 Construct Binary Tree from Preorder and Inorder Traversal** |

**Optional**

|  |
| --- |
| LeetCode658. Find K Closest Elements |
| LeetCode159. Longest Substring with At Most Two Distinct Characters |
| LC 316. Remove Duplicate Letters |
| LC 142. Linked List Cyle II |
| LC 224 Basic Calculator |
| LC 227 Basic Calculator II |
| LC 59 Spiral Matrix II |

**Recursion + Search  -   Basic**

**Includes: Recursion + Binary Search + Tree**

**Difficulty Level: ( Easy | Medium )**

**Must-Do**

|  |
| --- |
| 206. Reverse Linked List |
| LeetCode278. First Bad Version |
| LeetCode34. Search for a Range |
| LeetCode450. Delete Node in a BST |
| LeetCode156. Binary Tree Upside Down |
| LeetCode98. Validate Binary Search Tree |
| LeetCode236. Lowest Common Ancestor of a Binary Tree |
| LeetCode153. Find Minimum in Rotated Sorted Array |
| LeetCode154. Find Minimum in Rotated Sorted Array II |
| LeetCode144. Binary Tree Preorder Traversal |
| 104. Maximum Depth of Binary Tree |
| 111. Minimum Depth of Binary Tree |
| 257. Binary Tree Paths |
| 101. Symmetric Tree |
| 110. Balanced Binary Tree |

**Optional**

|  |
| --- |
| LeetCode235. Lowest Common Ancestor of a Binary Search Tree |
| LeetCode33. Search in Rotated Sorted Array |
| LeetCode94. Binary Tree Inorder Traversal |
| LeetCode145. Binary Tree Postorder Traversal |
| LeetCode102. Binary Tree Level Order Traversal |
| LeetCode81. Search in Rotated Sorted Array II |
| 129. Sum Root to Leaf Numbers |

**Recursion + Search  -   Advanced**

**Includes: Recursion + Binary Search + Tree**

**Difficulty Level: ( Medium | Hard )**

**Must-Do**

|  |
| --- |
| LeetCode772. Basic Calculator III |
| LeetCode255. Verify Preorder Sequence in Binary Search Tree |
| LeetCode105. Construct Binary Tree from Preorder and Inorder Traversal |
| **LeetCode436. Find Right Interval** |
| **LeetCode315. Count of Smaller Numbers After Self** |
| **LeetCode208. Implement trie tree** |
| **LeetCode29. Divide Two Integers** |
| **LeetCode307. Range Sum Query - Mutable** |
| LeetCode4. Median of Two Sorted Arrays |
| LeetCode297. Serialize and Deserialize Binary Tree |
| LeetCode776. Split BST |
| LeetCode114. Flatten Binary Tree to Linked List |
| LeetCode298. Binary Tree Longest Consecutive Sequence |
| LeetCode99. Recover Binary Search Tree |
| QuickSort implementation |
| LeetCode384. Shuffle an Array |
| LeetCode378. Kth Smallest Element in a Sorted Matrix |
| LeetCode74 Search in 2D Matrix |
| LeetCode240 Search in 2D Matrix II |

**Optional**

|  |
| --- |
| LeetCode303. Range Sum Query |
| LeetCode261. Graph Valid Tree |
| LeetCode230. Kth Smallest Element in a BST |
| LeetCode103. Binary Tree Zigzag Level Order Traversal |
| LeetCode367. Valid Perfect Square |
| LeetCode508. Most Frequent Subtree Sum |
| LeetCode250. Count Univalue Subtrees |

**Sorting | Graph  -   Basic**

**Includes: Sorting | Graph | DFS | BFS**

**Difficulty Level: ( Easy | Medium )**

**Must-Do**

|  |
| --- |
| 75. Sort Colors |
| LeetCode133. Clone Graph |
| LeetCode207. Course Schedule |
| LeetCode210. Course Schedule II |
| LeetCode490. The Maze |
| LeetCode505. The Maze II |
| LeetCode46. Permutations |
| LeetCode47. Permutations II |
| LeetCode200. Number of Islands |
| LeetCode305. Number of Islands II |
| 692. Top K Frequent Words |
| LeetCode286. Walls and Gates |
| LC 77 Combinations |
| LC 78 Subsets |
| 52. N-Queens II |

**Optional**

|  |
| --- |
| 22. Generate Parentheses |
| LeetCode787. Cheapest Flights Within K Stops |
| 499. The Maze III |
| 222. Count Complete Tree Nodes |
| 347. Top K Frequent Elements |
| 295. Find Median from Data Stream |
| 261. Graph Valid Tree |
| 253. Meeting Room II |
| 207. Course Schedule |
| 339. Nested List Weight Sum |
| 23. Merge k Sorted Lists |
| 199. Binary Tree Right Side View |
| 90. Subset II |
| 301. Remove invalid parentheses(DFS & BFS) |

**Sorting | Graph  -   Advanced**

**Includes: Sorting | Graph | DFS | BFS**

**Difficulty Level: ( Medium | Hard )**

**Must-Do**

|  |
| --- |
| LeetCode74. Search in 2D Matrix |
| LeetCode240. Search in 2D Matrix II |
| LeetCode127. Word Ladder |
| LeetCode126. Word Ladder II |
| LeetCode286. Walls and Gates |
| LeetCode305. Number of Island II |
| LeetCode323. Number of Connected Components in an Undirected Graph |
| LeetCode353. SNAKE |
| LeetCode269. Alien Dictionary |
| LeetCode417. Pacific Atlantic Water Flow |
| LeetCode773. Sliding Puzzle |
| LeetCode547. Friend Circles |
| LeetCode425. Word Squares |
| LeetCode444. Sequence Reconstruction |
| LeetCode373. Find K Pairs with Smallest Sums |
| LeetCode45. Jump Game II |

**Optional**

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| --- |
| LeetCode785. Is Graph Bipartite |
| LeetCode839. Similar String Groups |
| LeetCode352. Data Stream as Disjoint Intervals |
| LeetCode973. Kth Closest Points |
| LeetCode684. Redundant Connection |
| LeetCode802. Find Eventual Safe States |
| LeetCode737. Sentence Similarity II |
| LeetCode317. Shortest Distance from All Buildings |
| LeetCode399. Evaluate Division |

**Memorization f| DP  -  Basic**

**Includes: Sorting | Graph | DFS | BFS**

**Difficulty Level: ( Easy | Medium )**

**Must-Do**

|  |
| --- |
| LeetCode198. House Robber |
| LeetCode213. House Robber II |
| LeetCode322. Coin Change |
| LeetCode518. Coin Change II |
| 39. Combination Sum |
| 40. Combination Sum II |
| 377. Combination Sum IV |
| 72. Edit Distance |
| 403. Frog Jump |
| 309. Best Time to Buy and Sell Stock with Cooldown |
| LeetCode53. Maximum Subarray |
| LeetCode486. Predict the Winner =Pot of Gold Game |
| LeetCode139. Word Break |
| LeetCode300. Longest Increasing Subsequence |
| LeetCode152. Maximum Product Subarray |

**Optional**

|  |
| --- |
| 542 01 matrix |
| LeetCode.10 Regular Expression Matching |
| LeetCode.64 Minimum Path Sum |
| LeetCode.291 Word Pattern II |
| LeetCode.79 word search |
| 216. Combination Sum III |
| 70. Climbing Stairs |
| LeetCode279. Perfect Squares |
| LeetCode673. Number of Longest Increasing Subsequence |
| LeetCode140. Word Break II |

**Memorization | DP  -  Advanced**

**Includes: Sorting | Graph | DFS | BFS**

**Difficulty Level: ( Medium | Hard )**

**Must-Do**

|  |
| --- |
| LeetCode801. Minimum Swaps To Make Sequences Increasing |
| LeetCode790. Domino and Tromino Tiling |
| LeetCode764. Largest Plus Sign |
| LeetCode750. Number Of Corner Rectangles |
| LeetCode413. Arithmetic Slices |
| LeetCode446. Arithmetic Slices II - Subsequence |
| LeetCode132. Palindrome Partitioning II |
| LeetCode91. Decode Ways |
| LeetCode639. Decode Ways II |
| LeetCode354. Russian Doll Envelopes |
| LC 32. Longest Valid Parentheses |
| LC 55. Jump Game |
| LC 375. Guess Number Higher or Lower II |
| LC 363. Max Sum of Rectangle No Larger Than K |
| LC 44. Wildcard Matching |

**Optional**

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| --- |
| LC337. House Robber III |
| LC525. Contiguous Array |
| LC174. Dungeon Game |
| LC410. split array largest sum |
| LC5. Longest Palindromic Substring |
| LC516. Longest Palindromic Subsequence |
| LC312. burst balloons |
| LC212. Word Pattern II |
| LC 464. Can I Win |
| LeetCode787. Cheapest Flights Within K Stops |
| LC95. Unique Binary Search Trees II |
| LC96. Unique Binary Search Trees |
| LC97. Interleaving String |
| LC135. Candy |
| LC329. Longest Increasing Path in Matrix |