1 CheatSheet: Common Code Problems & Follow-ups

INTERVIEW

Updated: June 7, 2020

- PDF Link: cheatsheet-followup-A4.pdf, Category: interview
- Blog URL: https://cheatsheet.dennyzhang.com/cheatsheet-followup-A4
- \bullet Related posts: Cheat Sheet: System Design For Job Interview, #denny-cheat sheets

File me Issues or star this repo.

1.1 Review Problems By Category

| Num | Name | Summary |
|-----|-------------------------|---|
| 1 | #binarytree | Review: Binary Tree Problems |
| 2 | # linked list | Review: Linked List Problems |
| 3 | $\# { m binary search}$ | Review: Binary Search Problems |
| 4 | #dynamic programming | Review: Dynamic Programming Problems |
| 5 | # two pointer | Review: TwoPointers Problems |
| 6 | $\#	ext{trie}$ | Review: Trie Tree Problems |
| 7 | $\#\mathrm{string}$ | Review: String Problems |
| 8 | $\#\mathrm{stack}$ | Review: Stack Problems |
| 9 | #bfs | Review: BFS Problems |
| 10 | $\#\mathrm{dfs}$ | Review: DFS Problems |
| 11 | #array | Review: Array/SubArray Problems |
| 12 | $\# \mathrm{hashmap}$ | Review: Hashmap Problems |
| 13 | $\# \mathrm{minimax}$ | Review: Minimax Problems |
| 14 | $\# \mathrm{monotone}$ | Review: Monotone Stack Or Monotone Queue Problems |
| 15 | $\# \mathrm{knapsack}$ | Review: Knapsack Problems |
| 16 | #heap | Review: Heap Problems |
| 17 | #divideconquer | Review: Divide And Conquer Problems |
| 18 | # backtracking | Review: Backtracking Problems |
| 19 | # union find | Review: Union Find Problems |
| 20 | $\# { m greedy}$ | Review: Greedy Problems |
| 21 | $\# \operatorname{gcd}$ | Review: GCD Problems |
| 22 | # interval | Review: Interval Problems |
| 23 | #combination | Review: Combinations and Permutations Problems |
| 24 | $\# \mathrm{sqrt}$ | Review: Sqrt Problems |
| 25 | # bucketsort | Review: Bucketsort Problems |
| 26 | # countsort | Review: Countsort Problems |
| 27 | # topological sort | Review: Topological Sort Problems |
| 28 | $\#\mathrm{random}$ | Review: Random Problems |
| 29 | #concurrency | Review: Concurrency Problems |
| 30 | # mergesort | Review: Mergesort Problems |
| 31 | #bitmanipulation | Review: Bit manipulation problems |
| 32 | #manydetails | Review: Problems With Many Details |
| 33 | $\#\mathrm{sql}$ | Review: SQL Problems |
| 34 | # oodesign | Review: Object-Oriented Design Problems |

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1.2 70 Typical Code Problems & Follow-ups

| Jum | Category/Tag | Example |
|----------|------------------------------|---|
| 1 | #atmostkdistinct, $#$ string | Substring with at most k distinct characters |
| 2 | #twosum, #array | TwoSum Problems & Follow-Up |
| 3 | #maxsubarraysum, #array | Maximum subarray problem |
| 4 | #nextpermutation, #string | Get the next permutation of an array |
| 5 | #editdistance, #string | Word Distance & Follow-up |
| 6 | #baseconversion | Base Conversion Problems & Follow-Up |
| 7 | #presum, #array | Caculate sum of a range quickly |
| 8 | #fibonacci | Fibonacci Problems & Follow-Up |
| 9 | #mergelist | Merge K Sorted List Problems & Follow-up |
| 10 | #sortedmatrix | Sorted 2D Matrix Problems & Follow-up |
| 11 | #endswith | Endswith Problems & Follow-up |
| 12 | #island | Island Problems & Follow-up |
| 13 | #matrixtraversal | Matrix Traversal & Follow-up |
| | | _ |
| 14 | #rangesum | Caculate range sum of a slice |
| 15 | #reverseitem | Reverse List/String & Follow-up |
| 16 | #topk, #heap | Top k elements of a problem domain |
| 17 | #subsequence | Find Subsequence In Strings & Follow-up |
| 18 | #findduplicates | Find duplicates from a list & Follow-up |
| 19 | $\#\mathrm{lis}$ | Longest increasing subsequence & Follow-up |
| 20 | $\#\mathrm{lcs}$ | Longest common subsequence & Follow-up |
| 21 | $\#\mathrm{coin}$ | Coin Problems & Follow-Up |
| 22 | $\# { m frogjump}$ | Frog Jump Game & Follow-up |
| 23 | $\# { m houserobber}$ | House Robber Problems & Follow-up |
| 24 | # paint fence | Paint Fence Problems & Follow-up |
| 25 | #rectangle | Rectangle Problems & Follow-up |
| 26 | #triangle | Triangle Problems & Follow-up |
| 27 | #geometry | Geometry Problems & Follow-up |
| 28 | #reachpoint | Reach point Problems & Follow-Up |
| 29 | #getmedian | Get Median Problems & Follow-Up |
| 30 | #kmp | KMP Problems & Follow-up |
| 31 | #wiggle | Wiggle Array Problems & Follow-up |
| 32 | #groupelements | Seperate a list into several groups |
| 33 | #treetraversal, #binarytree | Tree Traversal & Follow-up |
| 34 | #calculator | Calculator & Follow-up |
| 35 | #meetingconflict | Meeting Conflict Problems & Follow-up |
| 36 | #meetingcoint | Meeting Point Problems & Follow-up |
| | #convertds | |
| 37 | ** | Convert Data Structure Problems & Follow-Up |
| 38 | #expression | Expression Problems & Follow-Up |
| 39 | #ipaddress | IP Address Problems & Follow-Up |
| 40 | #poison | Poison Problems & Follow-up |
| 41 | #slidingpuzzle | Sliding Puzzle & Follow-up |
| 42 | #trappingrain | Trapping Rain & Follow-up |
| 43 | #parentheses | Parentheses problems & Follow-up |
| 44 | #buystock | Buystock Problems & Follow-Up |
| 45 | # count distinct moves | Count of distinct moves Problems & Follow-Up |
| 46 | # maxprofit with cost | Maximum profits with certain costs Problems & Follow-up |
| 47 | # constructstring | Construct string Problems & Follow-up |
| 48 | #constructarray | Construct array Problems & Follow-up |
| 49 | #colorgraph | Coloring graph nodes Problems & Follow-up |
| 50 | #graphchangecell | Change cells of graph Problems & Follow-up |
| 51 | #splitarray | Split Array Problems & Follow-up |
| 52 | #multiplechoices | Multiple Choices At Each Step Problems & Follow-Up |
| 53 | #rollinghash | Rolling Hash Problems & Follow-up |
| 54 | #lfu | LFU - Least Frequently Used Cache Problems & Follow-up |
| 55 | #mountainarray | Mountain Array Problems & Follow-Up |
| 56 | ** | · · · · · · · · · · · · · · · · · · · |
| | #intervaldp | Dynamic Programming On Interval Problems & Follow-up |
| 57 58 | #treedp #bitmaskdp | Dynamic Programming On Binary Tree Problems & Follow-u Dynamic Programming On Bitmask Problems & Follow-up |
| | π nitmaskan | Liveanic Programming Un Bitmask Problems & Follow-iin |

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1.3 More Resources

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