1 CheatSheet: Common Code Problems & Follow-ups

INTERVIEW

Updated: January 20, 2020

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

File me Issues or star this repo.

 $Git Hub: \ https://github.com/dennyzhang/cheatsheet.dennyzhang.com/tree/master/cheatsheet-followup-A4$

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1.1 66 Typical Code Problems & Follow-ups

Vum	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	# sorted matrix	Sorted 2D Matrix Problems & Follow-up
11	#endswith	Endswith Problems & Follow-up
12	#island, #dfs, #bfs, #unionfind	Island Problems & Follow-up
13	#matrixtraversal, #array	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	$\# { m subsequence}$	Find Subsequence In Strings & Follow-up
18	$\#\mathrm{lis}$	Longest increasing subsequence & Follow-up
19	$\#\mathrm{lcs}$	Longest common subsequence & Follow-up
20	$\# \mathrm{findduplicates}$	Find duplicates from a list & Follow-up
21	#coin	Coin Problems & Follow-Up
22	$\# \mathrm{wiggle}$	Wiggle Array Problems & Follow-up
23	$\# { m group elements}$	Seperate a list into several groups
24	#treetraversal, $#$ binarytree	Tree Traversal & Follow-up
25	$\# { m calculator}$	Calculator & Follow-up
26	$\# { m meeting conflict}$	Meeting Conflict Problems & Follow-up
27	$\# { m meeting point}$	Meeting Point Problems & Follow-up
28	# convertds	Convert Data Structure Problems & Follow-Up
29	$\#\mathrm{expression}$	Expression Problems & Follow-Up
30	$\# { m frogjump}$	Frog Jump Game & Follow-up
31	$\# { m houserobber}$	House Robber & Follow-up
32	$\#\mathrm{ipaddress}$	IP Address Problems & Follow-Up
33	$\# \mathrm{paintfence}$	Paint Fence & Follow-up
34	$\#\mathrm{poison}$	Poison Problems & Follow-up
35	$\# { m sliding puzzle}$	Sliding Puzzle & Follow-up
36	$\# { m trapping rain}$	Trapping Rain & Follow-up
37	# parentheses	Parentheses problems & Follow-up
38	#buystock	Buystock Problems & Follow-Up
39	$\# { m count distinct moves}$	Count of distinct moves Problems & Follow-Up
40	$\# ext{maxprofit with cost}$	Maximum profits with certain costs Problems & Follow-up
41	$\# { m constructstring}$	Construct string Problems & Follow-up
42	$\# { m constructarray}$	Construct array Problems & Follow-up
43	$\# { m colorgraph}$	Coloring graph nodes Problems & Follow-up
44	#graphchangecell	Change cells of graph Problems & Follow-up
45	#splitarray	Split Array Problems & Follow-up
46	#multiplechoices	Multiple Choices At Each Step Problems & Follow-Up
47	#rollinghash	Rolling Hash Problems & Follow-up
48	#lfu	LFU - Least Frequently Used Cache Problems & Follow-up
49	#geometry	Geometry Problems & Follow-up
	#reachpoint	Reach point Problems & Follow-Up
50		Get Median Problems & Follow-Up
	#get median	- r
51	#getmedian #mountainarray	Mountain Array Problems & Follow-Up
$\begin{array}{c} 51 \\ 52 \end{array}$	$\# { m mountainarray}$	Mountain Array Problems & Follow-Up Dynamic Programming On Interval Problems & Follow-up
51 52 53	#mountainarray #intervaldp	Dynamic Programming On Interval Problems & Follow-up
51 52 53 54	#mountainarray #intervaldp #treedp	Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-u
51 52 53 54 55	#mountainarray #intervaldp #treedp #possibilities	Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-up Possibilities Problems & Follow-up
51 52 53 54	#mountainarray #intervaldp #treedp	Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-up

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1.2 Review Problems By Category

Num	Name	Summary
1	$\# ext{binarytree}$	Review: Binary Tree Problems
2	# linkedlist	Review: Linked List Problems
3	$\# { m binary search}$	Review: Binary Search Problems
4	$\# { m dynamic} { m programming}$	Review: Dynamic Programming Problems
5	$\# { m twopointer}$	Review: TwoPointers Problems
6	#trie	Review: Trie Tree Problems
7	$\#\mathrm{string}$	Review: String Problems
8	$\#\mathrm{stack}$	Review: Stack Problems
9	$\#\mathrm{bfs}$	Review: BFS Problems
10	$\#\mathrm{dfs}$	Review: DFS Problems
11	#array	Review: Array/SubArray Problems
12	$\# { m hashmap}$	Review: Hashmap Problems
13	$\# \mathrm{minimax}$	Review: minimax Problems
14	$\# { m monotone}$	Review: Monotone Stack Or Monotone Queue Problems
15	$\#\mathrm{knapsack}$	Review: Knapsack Problems
16	$\#\mathrm{heap}$	Review: Heap Problems
17	$\# { m divideconquer}$	Review: Divide And Conquer Problems
18	$\# {\operatorname{backtracking}}$	Review: Backtracking Problems
19	$\# \mathrm{unionfind}$	Review: Union Find Problems
20	$\# \operatorname{greedy}$	Review: Greedy Problems
21	$\#\mathrm{gcd}$	Review: GCD Problems
22	$\# { m interval}$	Review: Interval Problems
23	$\# { m combination}$	Review: Combinations and Permutations Problems
24	$\#\mathrm{sql}$	Review: SQL Problems
25	$\#\mathrm{sqrt}$	Review: sqrt Problems
26	$\# { m bucketsort}$	Review: Bucketsort Problems
27	$\# { m countsort}$	Review: Countsort Problems
28	$\# { m topological sort}$	Review: Topological Sort Problems
29	$\#\mathrm{random}$	Review: Random Problems
30	$\# { m rectangle}$	Review: Rectangle Problems
31	# concurrency	Review: Concurrency Problems

1.3 More Resources

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