## 1 CheatSheet: Common Code Problems & Follow-ups

INTERVIEW

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- 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

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## 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	$\# { m twopointer}$	Review: TwoPointers Problems
6	$\#\mathrm{trie}$	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	$\#\mathrm{array}$	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	# backtracking	Review: Backtracking Problems
19	$\# \mathrm{unionfind}$	Review: Union Find Problems
20	$\# { m greedy}$	Review: Greedy Problems
21	$\#\mathrm{gcd}$	Review: GCD Problems
22	# interval	Review: Interval Problems
23	# combination	Review: Combinations and Permutations Problems
24	$\#\mathrm{sql}$	Review: SQL Problems
25	$\#\mathrm{sqrt}$	Review: sqrt Problems
26	# bucketsort	Review: Bucketsort Problems
27	$\# { m countsort}$	Review: Countsort Problems
28	# topological sort	Review: Topological Sort Problems
29	$\#\mathrm{random}$	Review: Random Problems
30	#concurrency	Review: Concurrency Problems

## $1.2\quad 70\ {\rm Typical\ Code\ Problems\ \&\ Follow-ups}$

Num	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, #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	#subsequence	Find Subsequence In Strings & Follow-up	
18	#findduplicates	Find duplicates from a list & Follow-up	
19	#lis	Longest increasing subsequence & Follow-up	_
20	#lcs	Longest common subsequence & Follow-up	
21	#coin	Coin Problems & Follow-Up	
22	#frogjump	Frog Jump Game & Follow-up	
23	#houserobber	House Robber & Follow-up	
24	#paintfence	Paint Fence & Follow-up	
25	#rectangle	https://code.dennyzhang.com/followup-rectangle	_
26	#geometry	Geometry Problems & Follow-up	
27	$\# { m reach point}$	Reach point Problems & Follow-Up	
28	#getmedian	Get Median Problems & Follow-Up	
29	#wiggle	Wiggle Array Problems & Follow-up	_
30	$\# { m groupelements}$	Seperate a list into several groups	
31	#treetraversal, $#$ binarytree	Tree Traversal & Follow-up	
32	$\# { m calculator}$	Calculator & Follow-up	
33	#meetingconflict	Meeting Conflict Problems & Follow-up	
34	#meetingpoint	Meeting Point Problems & Follow-up	
35	#convertds	Convert Data Structure Problems & Follow-Up	
36	#expression	Expression Problems & Follow-Up	
37	#ipaddress	IP Address Problems & Follow-Up	
38	#poison	Poison Problems & Follow-up	
39	#slidingpuzzle	Sliding Puzzle & Follow-up	
40	#trappingrain	Trapping Rain & Follow-up	
41	#parentheses	Parentheses problems & Follow-up	
42	#buystock	Buystock Problems & Follow-Up	
43	#countdistinctmoves	Count of distinct moves Problems & Follow-Up	
44	#maxprofitwithcost #constructstring	Maximum profits with certain costs Problems & Follow-up	
45	##CONSTRUCTSTRING	Construct string Problems & Follow-up	
10			
46	#constructarray	Construct array Problems & Follow-up	
47	#constructarray #colorgraph	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up	
47 48	#constructarray #colorgraph #graphchangecell	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up	
47 48 49	#constructarray #colorgraph #graphchangecell #splitarray	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up	
47 48 49 50	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up	
47 48 49 50 51	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up	
47 48 49 50 51 52	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up	
47 48 49 50 51 52 53	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu #mountainarray	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up Mountain Array Problems & Follow-Up	
47 48 49 50 51 52 53 54	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu #mountainarray #intervaldp	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up Mountain Array Problems & Follow-Up Dynamic Programming On Interval Problems & Follow-up	
47 48 49 50 51 52 53 54 55	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu #mountainarray #intervaldp #treedp	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up Mountain Array Problems & Follow-Up Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-up	
47 48 49 50 51 52 53 54 55 56	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu #mountainarray #intervaldp #treedp #possibilities	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up Mountain Array Problems & Follow-Up Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-up Possibilities Problems & Follow-up	
47 48 49 50 51 52 53 54 55	#constructarray #colorgraph #graphchangecell #splitarray #multiplechoices #rollinghash #lfu #mountainarray #intervaldp #treedp	Construct array Problems & Follow-up Coloring graph nodes Problems & Follow-up Change cells of graph Problems & Follow-up Split Array Problems & Follow-up Multiple Choices At Each Step Problems & Follow-Up Rolling Hash Problems & Follow-up LFU - Least Frequently Used Cache Problems & Follow-up Mountain Array Problems & Follow-Up Dynamic Programming On Interval Problems & Follow-up Dynamic Programming On Binary Tree Problems & Follow-up	

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## 1.3 More Resources

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