## 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 50 Typical Code Problems & Follow-ups

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#atmostkdistinct, #string #twosum, #array #maxsubarraysum, #array #nextpermutation, #string #editdistance, #string #baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin #wiggle	Substring with at most k distinct characters TwoSum Problems & Follow-Up Maximum subarray problem Get the next permutation of an array Word Distance & Follow-up Base Conversion Problems & Follow-Up Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#maxsubarraysum, #array #nextpermutation, #string #editdistance, #string #baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Maximum subarray problem  Get the next permutation of an array  Word Distance & Follow-up  Base Conversion Problems & Follow-Up  Caculate sum of a range quickly  Fibonacci Problems & Follow-Up  Island Problems & Follow-up  Matrix Traversal & Follow-up  Caculate range sum of a slice  Reverse List/String & Follow-up  Top k elements of a problem domain  Find Subsequence In Strings & Follow-up  Longest increasing subsequence & Follow-up  Longest common subsequence & Follow-up  Find duplicates from a list & Follow-up  Coin Problems & Follow-Up
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#nextpermutation, #string #editdistance, #string #baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Get the next permutation of an array Word Distance & Follow-up Base Conversion Problems & Follow-Up Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#editdistance, #string #baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Word Distance & Follow-up Base Conversion Problems & Follow-Up Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Base Conversion Problems & Follow-Up Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#baseconversion #presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Base Conversion Problems & Follow-Up Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
7 8 9 10 11 12 13 14 15 16 17 18 19 20 1	#presum, #array #fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Caculate sum of a range quickly Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
8 9 10 11 12 13 14 15 16 17 18 19 20 1	#fibonacci #island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Fibonacci Problems & Follow-Up Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
9 10 11 12 13 14 15 16 17 18 19 20	#island, #dfs, #bfs, #unionfind #matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Island Problems & Follow-up Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
10 11 12 13 14 15 16 17 18 19 20 1	#matrixtraversal, #array #rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Matrix Traversal & Follow-up Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
11 12 13 14 15 16 17 18 19 12 20 11	#rangesum #reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Caculate range sum of a slice Reverse List/String & Follow-up Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
12	#reverseitem #topk, #heap #subsequence #lis #lcs #findduplicates #coin	Reverse List/String & Follow-up  Top k elements of a problem domain  Find Subsequence In Strings & Follow-up  Longest increasing subsequence & Follow-up  Longest common subsequence & Follow-up  Find duplicates from a list & Follow-up  Coin Problems & Follow-Up
13 : 14 : 15 : 16 : 17 : 18 : 19 : 20 : :	#topk, #heap #subsequence #lis #lcs #findduplicates #coin	Top k elements of a problem domain Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
14 : 15 : 16 : 17 : 18 : 19 : 20 : :	#subsequence #lis #lcs #findduplicates #coin	Find Subsequence In Strings & Follow-up Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
15 = 16 = 17 = 18 = 19 = 20 = 1	#lis #lcs #findduplicates #coin	Longest increasing subsequence & Follow-up Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
16 = 17 = 18 = 19 = 20 = 1	#lcs #findduplicates #coin	Longest common subsequence & Follow-up Find duplicates from a list & Follow-up Coin Problems & Follow-Up
17 = 18 = 19 = 20 = 1	#findduplicates #coin	Find duplicates from a list & Follow-up Coin Problems & Follow-Up
18 = 19 = 20 =	#coin	Coin Problems & Follow-Up
19 20		
20 =	#wiggle	TT7: 1 A D 11 0 D 11
		Wiggle Array Problems & Follow-up
	#groupelements	Seperate a list into several groups
	#treetraversal, #binarytree	Tree Traversal & Follow-up
	#calculator	Calculator & Follow-up
	#meetingconflict	Meeting Conflict Problems & Follow-up
	#meetingpoint	Meeting Point Problems & Follow-up
25	#convertds	Convert Data Structure Problems & Follow-Up
26	#expression	Expression Problems & Follow-Up
27	#frogjump	Frog Jump Game & Follow-up
28	#houserobber	House Robber & Follow-up
29	#ipaddress	IP Address Problems & Follow-Up
30 =	#paintfence	Paint Fence & Follow-up
31	#poison	Poison Problems & Follow-up
32	#slidingpuzzle	Sliding Puzzle & Follow-up
33	#trappingrain	Trapping Rain & Follow-up
34	#parentheses	Parentheses problems & Follow-up
35	#buystock	Buystock Problems & Follow-Up
	#countdistinctmoves	Count of distinct moves Problems & Follow-Up
	#maxprofitwithcost	Maximum profits with certain costs Problems & Follow-u
	#constructstring	Construct string Problems & Follow-up
	#constructarray	Construct array Problems & Follow-up
	#colorgraph	Coloring graph nodes Problems & Follow-up
	#graphchangecell	Change cells of graph Problems & Follow-up
	#splitarray	Split Array Problems & Follow-up
	#multiplechoices	Multiple Choices At Each Step Problems & Follow-Up
	#endswith	Endswith Problems & Follow-up
	#sortedmatrix	Sorted 2D Matrix Problems & Follow-up
	#rollinghash	Rolling Hash Problems & Follow-up
	#Ifu	LFU - Least Frequently Used Cache Problems & Follow-u
	$\# ext{geometry}$	Geometry Problems & Follow-up

## 1.2 Review Problems By Category

Num	Name	Summary
1	#binarytree	Review: Binary Tree Problems
2	# linked list	Review: Linked List Problems
3	# binary search	Review: Binary Search Problems
4	#dynamic programming	Review: Dynamic Programming Problems
5	# two pointer	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	$\# \mathrm{hashmap}$	Review: Hashmap Problems
13	$\# \mathrm{monotone}$	Review: Monotone Stack Or Monotone Queue Problems
14	$\#\mathrm{knapsack}$	Review: Knapsack Problems
15	$\#\mathrm{heap}$	Review: Heap Problems
16	#divideconquer	Review: Divide And Conquer Problems
17	# backtracking	Review: Backtracking Problems
18	# union find	Review: Union Find Problems
19	# greedy	Review: Greedy Problems
20	$\#\mathrm{gcd}$	Review: GCD Problems
21	# interval	Review: Interval Problems
22	# combination	Review: Combinations and Permutations Problems
23	$\#\mathrm{sql}$	Review: SQL 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	#rectangle	Review: Rectangle Problems
30	# multithread	Review: Multi-threaded Problems

## 1.3 More Resources

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