Curious freaks CODING SHEET by Nandhini

Checkout this video to understand efficient way to use this sheet - https://youtu.be/ALpP5ZFokjQ
Youtube Channel - https://www.youtube.com/@curiousfreaks_
Lets use #CFCodingSheet tag to share with friends on social media - https://www.instagram.com/its_me_nandyy
Connect with me on LinkedIn - https://www.linkedin.com/in/nandhini-raja-8b71b4143/

Only sheet you need to get placed in super high paying companies including google, amazon, salesforce, microsoft, adobe, etc

Solving time - Easy Problems - 5 to 10mins
Solving time - Medium Problems - 15 to 20mins
Solving time - Hard problems - At max 45mins - 50mins

Imp Note: You can use tutorials to learn the pattern in each topics. For problems in similar pattern, once you learn first prob, so try to solve others in that pattern by yourself

TOPIC	Problem	Problem link	Solution Tutorial	Solution Article	Solved	Notes
Basics						
Beginners basic math probs						
	Find even or odd	https://practice.geeksforgeeks.org/problems/odd-or-even3618/1	Best Tutorial link - click to view	Article link-click to view		
	Find last digit in a number	https://www.geeksforgeeks.org/problems/find-last-digit-of-ab-for-large-numbers1936/1	Best Tutorial link - click to view	Article link-click to view		
	Count digits in a number(Solving above last digit prob wil make this easy for you)	https://practice.geeksforgeeks.org/problems/count-digits5716/1	Best Tutorial link - click to view	Article link-click to view		
	Reverse a number(Try thinking how you can use above logic in solving this)	https://www.geeksforgeeks.org/problems/reverse-digit0316/1	Best Tutorial link - click to view	Article link-click to view		
	Find power of a number	https://www.geeksforgeeks.org/problems/power-of-numbers-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
	GCD	https://practice.geeksforgeeks.org/problems/gcd-of-two-numbers3459/1	Best Tutorial link - click to view	Article link-click to view		
	Print all divisors of a number	https://www.codingninjas.com/studio/problems/print-all-divisors-of-a-number_1164188	Best Tutorial link - click to view	Article link-click to view		
	Prime number(Try solving by yourself)	https://practice.geeksforgeeks.org/problems/prime-number2314/1	Best Tutorial link - click to view	Article link-click to view		
	Armstrong number(Solving power of number, will make this easy for you)	https://www.geeksforgeeks.org/problems/armstrong-number2727/1	Best Tutorial link - click to view	Article link-click to view		
	Check palindrome of number(Use the techniques you learnt so far solving above probs and solve this by yourself)	https://practice.geeksforgeeks.org/problems/palindrome0746/1	Best Tutorial link - click to view	Article link-click to view		
	Square root of a number(Try to first figure out algo to solve this)	https://www.geeksforgeeks.org/problems/square-root/1	Best Tutorial link - click to view	Article link-click to view		
	Perfect number	https://www.geeksforgeeks.org/problems/perfect-numbers3207/1	Best Tutorial link - click to view	Article link-click to view		
Array - Data structure	This is a huge topic and array acts as base data structure for many concepts, so lets master the basics in this section. For all the data struture moving forward, make sure to visually note down and understand how it is represented					
Basics with traversal						
	What is an array? How is it represented?		Best Tutorial link - click to view	Article link-click to view		
	Find the maximum and minimum element in array(After solving the search , you can solve all probs in this basics by yourself	https://www.geeksforgeeks.org/problems/find-minimum-and-maximum-element-in-an-array4428/1	Best Tutorial link - click to view	Article link-click to view		
	Find third largest element in array	https://practice.geeksforgeeks.org/problems/third-largest-element/1	Best Tutorial link - click to view	Article link-click to view		
	Search an element in array(Understand how to traverse through the array and how to access the elements)	https://www.geeksforgeeks.org/problems/search-an-element-in-an-array-1587115621/1	Best Tutorial link - click to view	Article link-click to view		
	Find missing number in array	https://practice.geeksforgeeks.org/problems/missing-number-in-array1416/1	Best Tutorial link - click to view	Article link-click to view		
	Find repeating number in array		Best Tutorial link - click to view			
	Sort an array of 0s , 1s and 2s (You dont need to know any sorting algo, just using basics, once solved, definitely learn the optimal algo)	https://www.geeksforgeeks.org/problems/sort-an-array-of-0s-1s-and-2s4231/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Check if two arrays are equal or not	https://www.geeksforgeeks.org/problems/check-if-two-arrays-are-equal-or-not5847/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Rotate the array by 1	https://www.geeksforgeeks.org/problems/cyclically-rotate-an-array-by-one2614/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Rotate the array by k	https://www.codingninjas.com/studio/problems/rotate-array_1230543	Best Tutorial link - click to view	Article link-click to view		
	Array subset of another array	https://www.geeksforgeeks.org/problems/array-subset-of-another-array2317/1	Best Tutorial link - click to view	Article link-click to view		
	Learn what is map and how its represented before moving forward		Best Tutorial link - click to view	Article link-click to view		
	Count frequency of elements in array(Solve efficiently, try applying what you learnt about map)	https://practice.geeksforgeeks.org/problems/frequency-of-array-elements-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
Two pointer(This is very imp pattern, not just for these probs but very commonly you can use this technique)	Just like search, sort, this is also imp technique to learn					
	Find pair with given sum	https://www.geeksforgeeks.org/problems/key-pair5616/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	3 Sum	https://www.geeksforgeeks.org/problems/triplet-sum-in-array-1587115621/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	4 Sum	https://leetcode.com/problems/4sum/	Best Tutorial link - click to view	Article link-click to view		
	Find triplets with zero sum	https://www.geeksforgeeks.org/problems/find-triplets-with-zero-sum/1	Best Tutorial link - click to view	Article link-click to view		
	Find count of triplets	Count the triplets	Practice	GeeksforGeeks	Best Tutorial link - click to view	Article link-click to view		
	Union of two arrays(Learn the brute force & optimal soln, you will learn about set datastructure, which will be super useful in many probs in brute force)	https://www.geeksforgeeks.org/problems/union-of-two-arrays3538/1	Best Tutorial link - click to view	Article link-click to view		
	Intersection of two arrays	https://www.geeksforgeeks.org/problems/intersection-of-two-arrays2404/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Remove duplicates from array(Quite diff from above, try to solve on own, this actually shows that not always you will have pointers at start and end)	https://www.geeksforgeeks.org/problems/remove-duplicate-elements-from-sorted-array/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	kth element of 2 sorted arrays	https://www.geeksforgeeks.org/problems/k-th-element-of-two-sorted-array1317/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Length of longest subarray with sum k	https://www.geeksforgeeks.org/problems/longest-sub-array-with-sum-k0809/1?itm_source=geeksforgeeks&itm_medium=article&itm_campaign=bottom_sticky_on_article	Best Tutorial link - click to view	Article link-click to view		
	Trapping rain water	https://www.geeksforgeeks.org/problems/trapping-rain-water-1587115621/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
Must Solve						
	Majority element	https://leetcode.com/problems/majority-element/	Best Tutorial link - click to view	Article link-click to view		
	Kadane's algo(super imp)	https://practice.geeksforgeeks.org/problems/kadanes-algorithm-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
	Count inversions	https://practice.geeksforgeeks.org/problems/inversion-of-array-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
	Merge intervals	https://leetcode.com/problems/merge-intervals/	Best Tutorial link - click to view	Article link-click to view		
	Maximum product subarray	https://practice.geeksforgeeks.org/problems/maximum-product-subarray3604/1	Best Tutorial link - click to view	Article link-click to view		
	Next permutation	https://leetcode.com/problems/next-permutation/	Best Tutorial link - click to view	Article link-click to view		
	Seive of eranthoses(Popular algo for prime numbers)	https://www.geeksforgeeks.org/problems/sieve-of-eratosthenes5242/1	Best Tutorial link - click to view	Article link-click to view		
Time and space complexity	https://youtu.be/FPu9Uld7W-E?si=s_d6cjdb6UtlVg16					
Matrix - Data structure	Once you learn this, in many advanced topics like graphs, DP, backtracking, this is super imp. This section is to learn 2D array and to get grip on basics					
Traversal & Basic & Must solve						
	What is a 2D Array? How to access element?		Best Tutorial link - click to view	Article link-click to view		
	Search in a matrix	https://leetcode.com/problems/search-a-2d-matrix/	Best Tutorial link - click to view	Article link-click to view		
	Rotate by 90 degree	https://www.geeksforgeeks.org/problems/rotate-by-90-degree-1587115621/1	Best Tutorial link - click to view	Article link-click to view		
	Maximum num of 1's row	https://www.geeksforgeeks.org/problems/row-with-minimum-number-of-1s5430/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Left rotate matrix k times	https://practice.geeksforgeeks.org/problems/left-rotate-matrix-k-times2351/1	Best Tutorial link - click to view	Article link-click to view		
	Print matrix in diagonal pattern	https://www.geeksforgeeks.org/problems/print-matrix-in-diagonal-pattern/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Set matrix zeros	https://leetcode.com/problems/set-matrix-zeroes/	Best Tutorial link - click to view	Article link-click to view		
Recursion - Technique	Recursion is super important concept!! Lets first understand the basics of recursion in this section before moving forward					
Basics						
	Understand what recursion is and how it works(Draw the recursive tree for every recursive prob you solve)		Best Tutorial link - click to view	Article link-click to view		
	Print 1 to N using recursion	https://www.geeksforgeeks.org/problems/print-1-to-n-without-using-loops-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
	Factorial of N numbers	https://practice.geeksforgeeks.org/problems/factorial5739/1	Best Tutorial link - click to view	Article link-click to view		
	Fibonacci series using recursion	https://www.geeksforgeeks.org/problems/nth-fibonacci-number1335/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Power(x,n) Draw the recursion tree for all the probs for sure	https://www.geeksforgeeks.org/problems/power-of-numbers-1587115620/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Print pattern	https://www.geeksforgeeks.org/problems/print-pattern3549/1?page=1&category=Recursion&difficulty=Easy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view		
	Recursive implementation of atoi	https://practice.geeksforgeeks.org/problems/implement-atoi/1?utm_source=geeksforgeeks&utm_medium=ml_Article_practice_tab&utm_campaign=Article_practice_tab	Best Tutorial link - click to view	Article link -click to view		
	Pascal triangle	https://www.geeksforgeeks.org/problems/pascal-triangle0652/1?page=1&category=Recursion&difficulty=Easy&sortBy=submissions	Best Tutorial link - click to view	Article link -click to view		
Binary Search - Algo						
Basic pattern						
	Search in a sorted array(Efficiently -> So learn binary search for this)	https://www.geeksforgeeks.org/problems/who-will-win-1587115621/1?page=1&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view		
	Find floor and ceil in sorted array	https://www.geeksforgeeks.org/problems/floor-in-a-sorted-array-1587115620/1	Best Tutorial link - click to view	Article link-click to view		
	Find first and last occurence of element in sorted array	https://www.geeksforgeeks.org/problems/first-and-last-occurrences-of-x3116/1?page=1&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view		
	Find missing num from 1 to N	https://leetcode.com/problems/missing-number/	Best Tutorial link - click to view	Article link-click to view		
	Find square root	https://www.geeksforgeeks.org/problems/square-root/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Search for element in infinite array	https://www.codingninjas.com/studio/problems/search-in-infinite-sorted-0-1-array_696193	Best Tutorial link - click to view	Article link-click to view		
Sorted rotated array						
	Search element in sorted rotated array(With and without duplicate)	https://leetcode.com/problems/search-in-rotated-sorted-array-ii/	Best Tutorial link - click to view	Article link-click to view		
	Minimum element in sorted rotated array(With and without duplicate)A twist in normal BS is needed, once you learnt this, solve the below by yourself,even try to solve this also by yourself	https://www.geeksforgeeks.org/problems/minimum-number-in-a-sorted-rotated-array-1587115620/1?page=1&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view		
	Number of times array is sorted	https://www.geeksforgeeks.org/problems/rotation4723/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view		
	Maximum element in sorted rotated array		Best Tutorial link - click to view	Article link-click to view		

Category	Sub-topic	Problem	Problem Link	Best Tutorial	Article Link
Biotonic array					
		Find the peak element	https://www.geeksforgeeks.org/problems/peak-element/1?page=1&category=Arrays&difficulty=Medium&status=solved&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Search element in biotonic array	https://www.interviewbit.com/problems/search-in-bitonic-array/	Best Tutorial link - click to view	Article link-click to view
Matrix					
		Find row with maximum number of 1's	https://www.geeksforgeeks.org/problems/binary-matrix-having-maximum-number-of-1s--170647/1?page=2&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Search in row wise column wise sorted matrix	https://www.geeksforgeeks.org/problems/search-in-a-matrix-1587115621/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Search in sorted matrix II	https://leetcode.com/problems/search-a-2d-matrix-ii/	Best Tutorial link - click to view	Article link-click to view
		Find peak in sorted matrix	https://leetcode.com/problems/find-a-peak-element-ii/	Best Tutorial link - click to view	Article link-click to view
Application(Super imp)					Article link-click to view
		Aggressive cows	https://www.geeksforgeeks.org/problems/aggressive-cows/1?page=1&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Allocate minimum pages	https://www.geeksforgeeks.org/problems/allocate-minimum-number-of-pages0937/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Painter partition	https://www.geeksforgeeks.org/problems/the-painters-partition-problem1535/1?page=1&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Split array largest sum	https://www.geeksforgeeks.org/problems/split-array-largest-sum--141634/1?page=2&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Minimum num of days to make m bouquets	https://leetcode.com/problems/minimum-number-of-days-to-make-m-bouquets/	Best Tutorial link - click to view	Article link-click to view
		Capacity to ship packages within D days	https://www.geeksforgeeks.org/problems/capacity-to-ship-packages-within-d-days/1?page=2&category=Binary%20Search&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		koko eating bananas	https://leetcode.com/problems/koko-eating-bananas/	Best Tutorial link - click to view	Article link-click to view
		kth smallest number in matrix multiplication table	https://leetcode.com/problems/kth-smallest-number-in-multiplication-table/	Best Tutorial link - click to view	Article link-click to view
		kth smallest pair distance	https://leetcode.com/problems/find-k-th-smallest-pair-distance/	Best Tutorial link - click to view	Article link-click to view
		Ugly number II	https://leetcode.com/problems/ugly-number-ii/	Best Tutorial link - click to view	Article link-click to view
		Median of 2 sorted arrays	Median of 2 Sorted Arrays of Different Sizes	Practice	GeeksforGeeks	Best Tutorial link - click to view	Article link-click to view
		Find smallest divisor given threshold	Find the Smallest Divisor Given a Threshold - LeetCode	Best Tutorial link - click to view	Article link-click to view

Category	Sub-topic	Problem	Problem Link	Best Tutorial	Article Link
Basics		Bubble sort(very basic sorting technique)	https://www.geeksforgeeks.org/problems/bubble-sort/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Selection sort	https://www.geeksforgeeks.org/problems/selection-sort/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Insertion sort	https://www.geeksforgeeks.org/problems/insertion-sort/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Merge sort	https://www.geeksforgeeks.org/problems/merge-sort/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Quick sort	https://www.geeksforgeeks.org/problems/quick-sort/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view

LinkedList - Data structure

Category	Sub-topic	Problem	Problem Link	Best Tutorial	Article Link
Basic patterns		Completely understand how Node in linkedList is represented and then go ahead with the patterns		Best Tutorial link - click to view	Article link-click to view
		Create, Insert, Delete Operations in LL		Best Tutorial link - click to view	Article link-click to view
		Search for an element in LL(Once create, insert is done, this should be easy)	https://www.geeksforgeeks.org/problems/search-in-linked-list-1664434326/1	Best Tutorial link - click to view	Article link-click to view
		Reverse a LL(Learn the O space approach, learn recursive & iterative soln)	https://www.geeksforgeeks.org/problems/reverse-a-linked-list/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Check if LL is a Palindrome(Once reversing is learnt, this should be easy)	https://www.geeksforgeeks.org/problems/check-if-linked-list-is-palindrome/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Middle element of LL (Learn efficient approach)	https://www.geeksforgeeks.org/problems/insert-in-middle-of-linked-list/1?page=2&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Find the intersection point of Y LL(Once you know traversal, apply node logic to solve this)	https://www.geeksforgeeks.org/problems/intersection-point-in-y-shapped-linked-lists/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Union and Intersection of LL	https://www.geeksforgeeks.org/problems/union-of-two-linked-list/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link - click to view
		Delete without head pointer	https://www.geeksforgeeks.org/problems/delete-without-head-pointer/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Count pairs with given sum	https://www.geeksforgeeks.org/problems/count-pairs-whose-sum-is-equal-to-x/1?page=2&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Reverse LL in groups of given size(Once you learn reverse of LL's efficient approach, you can try this)	https://www.geeksforgeeks.org/problems/reverse-a-linked-list-in-groups-of-given-size/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
Loop		Detect loop in LL(Once this is learnt, all the loop pattern probs below should be easy)	https://www.geeksforgeeks.org/problems/detect-loop-in-linked-list/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Find length of loop in LL	https://www.geeksforgeeks.org/problems/find-length-of-loop/1?page=1&category=Linked%20List&difficulty=Easy&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
		Find the starting point of loop	https://www.geeksforgeeks.org/problems/find-the-first-node-of-loop-in-linked-list--170645/1	Best Tutorial link - click to view	Article link - click to view
		Remove the loop	https://www.geeksforgeeks.org/problems/remove-loop-in-linked-list/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
Sorting, Merging & Related		Sort 0s, 1s, 2s in LL	https://www.geeksforgeeks.org/problems/given-a-linked-list-of-0s-1s-and-2s-sort-it/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Pairwise swap elements	https://www.geeksforgeeks.org/problems/pairwise-swap-elements-of-a-linked-list-by-swapping-data/1?page=2&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Merge k sorted LL(Merge two sorted is easy version of this ques, if you are finding it diff to come up with logic, first solve that)	https://www.geeksforgeeks.org/problems/Merge-two-sorted-linked-lists/1?page=1&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Merge sort in LL	https://www.geeksforgeeks.org/problems/sort-a-linked-list/1?page=2&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Quick sort in LL	https://www.geeksforgeeks.org/problems/quick-sort-on-linked-list/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
		Remove occurence of duplicates in sorted & unsorted LL	https://www.geeksforgeeks.org/problems/remove-duplicate-element-from-sorted-linked-list/1?page=1&category=Linked%20List&difficulty=Easy&sortBy=submissions https://www.geeksforgeeks.org/problems/remove-duplicates-from-an-unsorted-linked-list/1?page=1&category=Linked%20List&difficulty=Easy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Seggregate even and odd nodes in LL	https://practice.geeksforgeeks.org/problems/segregate-even-and-odd-nodes-in-a-linked-list5035/1	Best Tutorial link - click to view	Article link-click to view
Arithmetic(Reversal & traversal - Once you learnt these, you can solve probs in this pattern)		Add 1 to a number represented as LL	https://practice.geeksforgeeks.org/problems/add-1-to-a-number-represented-as-linked-list/1	Best Tutorial link - click to view	Article link-click to view
		Add 2 numbers represented as LL	https://practice.geeksforgeeks.org/problems/add-two-numbers-represented-by-linked-lists/1	Best Tutorial link - click to view	Article link-click to view
		Subtraction on LL(Comes under hard but should be solvable once the above ones are solved)	https://www.geeksforgeeks.org/problems/subtraction-in-linked-list/1?page=1&category=Linked%20List&difficulty=Hard&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Must solve other probs(Try to solve these probs on own, brute force atleast you can come up for most of them after solving above)		Rotate LL	https://www.geeksforgeeks.org/problems/reorder-list/1?page=3&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Flattening a LL(make sure to learn the efficient approach)	https://www.geeksforgeeks.org/problems/flattening-a-linked-list--170645/1?page=4&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Delete nodes having greater value on right	https://practice.geeksforgeeks.org/problems/delete-nodes-having-greater-value-on-right/1	Best Tutorial link - click to view	Article link-click to view
		Delete N nodes after M nodes	https://www.geeksforgeeks.org/problems/delete-n-nodes-after-m-nodes-of-a-linked-list/1?page=3&category=Linked%20List&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Delete all occurence of node		Best Tutorial link - click to view	
		Clone a LL	https://www.geeksforgeeks.org/problems/clone-a-linked-list-with-next-and-random-pointer/1?page=1&category=Linked%20List&difficulty=Hard&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Length of longest palindrome in LL	https://www.geeksforgeeks.org/problems/length-of-longest-palindrome-in-linked-list/1?page=2&category=Linked%20List&difficulty=Medium&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Learn the basics of circular LL		Best Tutorial link - click to view	Article link-click to view
Double Linked List		Learn the basic representation of the nodes in LL		Best Tutorial link - click to view	Article link-click to view
		Insert, Delete, Reverse DLL	https://www.geeksforgeeks.org/problems/reverse-a-doubly-linked-list/1?page=1&category=doubly-linked-list&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Pairs with given sum in DLL	https://www.geeksforgeeks.org/problems/find-pairs-with-given-sum-in-doubly-linked-list/1?page=1&category=doubly-linked-list&difficulty=Easy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view

Stack - Data structure

Category	Sub-topic	Problem	Problem Link	Best Tutorial	Article Link
Basic		What is stack? Learn how to represent the data structure and working of it	https://www.geeksforgeeks.org/problems/implement-stack-using-array/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Implement 2 stack using array	https://www.geeksforgeeks.org/problems/implement-two-stacks-in-an-array/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Check for balanced paranthesis	https://www.geeksforgeeks.org/problems/parenthesis-checker2744/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Get min from stack in O(1) space and time	https://www.geeksforgeeks.org/problems/get-minimum-element-from-stack1/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Next greater element		Next greater element	https://www.geeksforgeeks.org/problems/next-larger-element-1587115620/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Next greater element II	https://leetcode.com/problems/next-greater-element-ii/	Best Tutorial link - click to view	Article link-click to view
Next smallest element(Once above pattern is covered, try to solve this on own)		Next smallest element on left	https://www.geeksforgeeks.org/problems/help-classmates--141631/1?itm_source=geeksforgeeks	Best Tutorial link - click to view	Article link-click to view
		Next smallest element on right	https://www.codingninjas.com/studio/problems/next-smaller-element_1112581		
		Stock span problem(Implementation prob - Try to figure out the pattern from above next greater and smaller)	https://www.geeksforgeeks.org/problems/stock-span-problem-1587115621/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Trapping rainwater	https://www.geeksforgeeks.org/problems/trapping-rain-water-1587115621/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	
		Maximum rectangular area on histogram(Once next greater and next smallest pattern is covered, this can be solved easily)	https://www.geeksforgeeks.org/problems/maximum-rectangular-area-in-a-histogram-1587115620/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Max rectangle(Same as above, just a small twist)	https://www.geeksforgeeks.org/problems/max-rectangle/1?page=1&category=Stack&sortBy=submissions		

Section	Problem	Problem Link	Tutorial	Article
Expressions				
	Infix to postfix	https://www.geeksforgeeks.org/problems/infix-to-postfix-1587115620/1?page=2&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Evaluation of postfix expression	https://www.geeksforgeeks.org/problems/evaluation-of-postfix-expression1735/1?page=2&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Prefix to postfix	https://practice.geeksforgeeks.org/problems/infix-to-postfix-1587115620/1	Best Tutorial link - click to view	Article link-click to view
	Arithmetic expression evaluation	https://www.codingninjas.com/studio/problems/arithmetic-expression-evaluation_1170517		Article link-click to view
Reversing stack				
	Insert at bottom of stack	https://www.geeksforgeeks.org/problems/insert-an-element-at-the-bottom-of-a-stack/1?page=4&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Reverse a stack	https://www.geeksforgeeks.org/problems/reverse-a-stack/1?page=2&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Sort stack(Solving above two can give you hint for this)	https://www.geeksforgeeks.org/problems/sort-a-stack/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Implementation probs				
	Celebrity problem	https://www.geeksforgeeks.org/problems/the-celebrity-problem/1?page=1&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Restrictive candy crush	https://www.geeksforgeeks.org/problems/restrictive-candy-crush--141631/1?page=2&category=Stack&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count the reversals	https://www.geeksforgeeks.org/problems/count-the-reversals0401/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Queue - Data structure				
Basic pattern				
	What is queue? Learn the basic representation and how its implemented?	https://www.geeksforgeeks.org/problems/implement-queue-using-array/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Implement queue using linkedlist	https://www.geeksforgeeks.org/problems/implement-queue-using-linked-list/1?page=1&category=Queue&sortBy=submissions		Article link-click to view
	Implement queue using stack(super imp)	https://www.geeksforgeeks.org/problems/queue-using-two-stacks/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Implement stack using queue(super imp)	https://www.geeksforgeeks.org/problems/stack-using-two-queues/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Reverse a queue	https://www.geeksforgeeks.org/problems/queue-reversal/1?page=1&category=Queue&sortBy=submissions		Article link-click to view
Implementation probs				
	Circular tour	https://www.geeksforgeeks.org/problems/circular-tour-1587115620/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	First non repeating char in stream	https://www.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream1216/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Reverse first k elements in queue	https://www.geeksforgeeks.org/problems/reverse-first-k-elements-of-queue/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	LRU Cache(super imp)	https://www.geeksforgeeks.org/problems/lru-cache/1?page=1&category=Queue&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum cost of ropes	https://www.geeksforgeeks.org/problems/minimum-cost-of-ropes-1587115620/1?page=1&category=Queue&sortBy=submissions		Article link-click to view
	Nearly sorted(Learn priority queue for sure)	https://www.geeksforgeeks.org/problems/nearly-sorted-1587115620/1?page=3&category=Arrays&difficulty=Medium	Best Tutorial link - click to view	Article link-click to view
Sliding Window - Technique (Dont skip this topic, I personally have been asked this topic in many interviews	GeekForGeeks has very limited probs in this topics, so use leetcode for this even if you practice on gfg generally			
Fixed Sliding Window(Size of the window will be provided)				
	Maximum sum subarray of size k	https://www.geeksforgeeks.org/problems/max-sum-subarray-of-size-k5313/1?utm_source=geeksforgeeks&utm_medium=Article&utm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
	Count distinct element in every window(Once you understoor handling window size fixed from above prob, this will be easy)	https://www.geeksforgeeks.org/problems/count-distinct-elements-in-every-window/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	First negative integer in every window of size k(Try to solve on own before looking for soln since you did above topics too already	https://www.geeksforgeeks.org/problems/first-negative-integer-in-every-window-of-size-k3345/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Maximum of all subarray of size k(Try to solve on own)	https://www.geeksforgeeks.org/problems/maximum-of-all-subarrays-of-size-k3101/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count substring of length k with k-1 distinct elements	https://www.geeksforgeeks.org/problems/substrings-of-length-k-with-k-1-distinct-elements/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Maximum of minimum for every window(Imp)	https://www.geeksforgeeks.org/problems/maximum-of-minimum-for-every-window-size3453/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Variable sliding window(Each prob will teach something in addition to the window so do solve everything)				
	Subarray with given sum	https://www.geeksforgeeks.org/problems/subarray-with-given-sum-1587115621/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest subarray with given sum k(Same as above with slight modification)	https://www.geeksforgeeks.org/problems/longest-sub-array-with-sum-k0809/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Subarray with 0 sum	https://www.geeksforgeeks.org/problems/subarray-with-0-sum-1587115621/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Smallest window of distinct elements	https://www.geeksforgeeks.org/problems/smallest-distant-window3132/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Smallest window containing 0,1,2	https://www.geeksforgeeks.org/problems/smallest-window-containing-0-1-and-2--170637/1?page=2&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Smallest window in string containing all chars of another string	https://www.geeksforgeeks.org/problems/smallest-window-in-a-string-containing-all-the-characters-of-another-string-1587115621/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Length of longest substring	https://www.geeksforgeeks.org/problems/length-of-the-longest-substring3036/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Largest subarray of 0s and 1s	https://www.geeksforgeeks.org/problems/largest-subarray-of-0s-and-1s/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count of anagram occurence(Super imp)	https://www.geeksforgeeks.org/problems/count-occurences-of-anagrams5839/1?page=1&category=sliding-window&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Max consecutive ones III	https://leetcode.com/problems/max-consecutive-ones-iii/	Best Tutorial link - click to view	Article link-click to view
	Fruit into basket	https://leetcode.com/problems/fruit-into-baskets/	Best Tutorial link - click to view	Article link-click to view
	Count number of nice subarrays	https://leetcode.com/problems/count-number-of-nice-subarrays/	Best Tutorial link - click to view	Article link-click to view
	Longest repeating char replacement	https://leetcode.com/problems/longest-repeating-character-replacement	Best Tutorial link - click to view	
	Minimum window substring	https://leetcode.com/problems/minimum-window-substring/description/	Best Tutorial link - click to view	Article link-click to view
	Minimum window subsequence(Understand the diff between subarray and subsequence before starting this prob)	https://leetcode.com/problems/minimum-window-subsequence/	Best Tutorial link - click to view	Article link-click to view
	Subarray with k diff integers	https://leetcode.com/problems/subarrays-with-k-different-integers/	Best Tutorial link - click to view	Article link-click to view
Trees - Data structure				
Traversals	Understand the basic of how tree data structure is represented		Best Tutorial link - click to view	
	PreOrder Traversal	https://www.geeksforgeeks.org/problems/preorder-traversal/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	InOrder Traversal	https://www.geeksforgeeks.org/problems/inorder-traversal/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	PostOrder Traversal	https://www.geeksforgeeks.org/problems/postorder-traversal/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Level Order Traversal	https://www.geeksforgeeks.org/problems/level-order-traversal/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Boundary Traversal(Once level traversal is learnt, this you can solve)	https://www.geeksforgeeks.org/problems/boundary-traversal-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Vertical Traversal(Once level traversal is learnt, this you can solve, lil extra logic is needed)	https://www.geeksforgeeks.org/problems/print-a-binary-tree-in-vertical-order/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Top View of BT(Once you have mastered level traversal, this should be easy)	https://www.geeksforgeeks.org/problems/top-view-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Bottom View of BT(Once you have mastered level traversal, this should be easy)	https://www.geeksforgeeks.org/problems/bottom-view-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Left View of BT(Once you have mastered vertical traversal, this should be easy)	https://www.geeksforgeeks.org/problems/left-view-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Right View of BT(Once you have mastered vertical traversal, this should be easy)	https://www.geeksforgeeks.org/problems/right-view-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Diagonal Traversal	https://www.geeksforgeeks.org/problems/diagonal-traversal-of-binary-tree/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Basic and Easy patterns(Try to solve these once you learnt traversals)				
	Insert node in a tree		Best Tutorial link - click to view	Article link-click to view
	Height of the tree	https://www.geeksforgeeks.org/problems/height-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Diameter of the tree	https://www.geeksforgeeks.org/problems/diameter-of-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Check if 2 trees are identical	https://www.geeksforgeeks.org/problems/determine-if-two-trees-are-identical/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Check if subtree	https://www.geeksforgeeks.org/problems/check-if-subtree/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Check for balanced tree	https://www.geeksforgeeks.org/problems/check-for-balanced-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Lowest common Ancestor in BT	https://www.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-binary-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Sum tree	https://www.geeksforgeeks.org/problems/sum-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Symmetric tree	https://www.geeksforgeeks.org/problems/symmetric-tree/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Mirror of a tree	https://www.geeksforgeeks.org/problems/mirror-tree/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Check if isomorphic	https://www.geeksforgeeks.org/problems/check-if-tree-is-isomorphic/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Path and Distance				
	Root to leaf paths	https://www.geeksforgeeks.org/problems/root-to-leaf-paths/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Root to leaf path sum (Once the root to leaf path is solved, this should be easy)	https://www.geeksforgeeks.org/problems/root-to-leaf-paths/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Maximum path sum from any node(Once the root to leaf path is solved, this should be easy)	https://www.geeksforgeeks.org/problems/maximum-path-sum-from-any-node/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	K Sum Paths (Once the root to leaf path is solved, this should be easy)	https://www.geeksforgeeks.org/problems/k-sum-paths/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Nodes at given distance	https://www.geeksforgeeks.org/problems/nodes-at-given-distance-in-binary-tree/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Range sum of BST(Solving nodes at given distance, will make this easy)		Best Tutorial link - click to view	Article link-click to view
	Minimum distance between 2 nodes(Solving nodes at given distance, will make this easy)	https://www.geeksforgeeks.org/problems/min-distance-between-two-given-nodes-of-a-binary-tree/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Maximum distance between node and ancestor(Must solve though distance pattern is covered)	https://www.geeksforgeeks.org/problems/maximum-difference-between-node-and-its-ancestor/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Min time to burn a tree(Using distance logic, this can be sovled)	https://www.geeksforgeeks.org/problems/burning-tree/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Binary Search Tree(Once the above patterns are covered, BST probs will become easy, but make sure to learn what BST is in general before starting with probs)	Understand what BST is?		Best Tutorial link - click to view	

Category	Subcategory	Problem	Problem Link	Tutorial	Article
		Insert a node in BST	https://leetcode.com/problems/insert-into-a-binary-search-tree/	Best Tutorial link - click to view	Article link-click to view
		Search a value in BST(Learn efficient algo to do it, since this can be handled efficiently in BST than BT)	https://practice.geeksforgeeks.org/problems/search-a-node-in-bst/1	Best Tutorial link - click to view	Article link-click to view
		Find minimum and maximum in BST	https://www.geeksforgeeks.org/problems/max-and-min-element-in-binary-tree/1?page=5&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Find the Kth largest element/kth Smallest in BST(Try to solve it without looking for soln, once you have mastered all the above patterns, this should be easy)	https://www.geeksforgeeks.org/problems/kth-largest-element-in-bst/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Check for BST(Try solving probs in this pattern by yourself till LCA once above are solved)	https://www.geeksforgeeks.org/problems/check-for-bst/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Find the closest element in BST	https://www.geeksforgeeks.org/problems/find-the-closest-element-in-bst/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Count BST nodes in the given range	https://www.geeksforgeeks.org/problems/count-bst-nodes-that-lie-in-a-given-range/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Largest BST in BT(Super imp - Must solve)	https://www.geeksforgeeks.org/problems/largest-bst/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Lowest Common Ancestor in BST	https://www.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-bst/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Merge two BST(Super imp - Must solve)	https://www.geeksforgeeks.org/problems/merge-two-bst-s/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Inorder successor and predecessor	https://www.geeksforgeeks.org/problems/predecessor-and-successor/1?page=2&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Populate inorder successor for all nodes	https://www.geeksforgeeks.org/problems/populate-inorder-successor-for-all-nodes/1?page=5&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to vieww
		BST to greater sum tree	https://www.geeksforgeeks.org/problems/bst-to-greater-sum-tree/1?page=8&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Delete given node from BST	https://leetcode.com/problems/delete-node-in-a-bst/	Best Tutorial link - click to view	Article link-click to view
Construct from given					
		Construct Binary Tree from Preorder and Inorder Traversal (First understand the concept of how to derive at the solution, then start coding it by yourself)	https://www.geeksforgeeks.org/problems/construct-tree-1/1?page=1&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Construct Binary Tree from Inorder and Postorder Traversal	https://leetcode.com/problems/construct-binary-tree-from-inorder-and-postorder-traversal/	Best Tutorial link - click to view	Article link-click to view
		Construct BST from given preorder traversal	https://www.geeksforgeeks.org/problems/construct-tree-from-preorder-traversal/1?page=7&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Construct BT from parent array	https://www.geeksforgeeks.org/problems/construct-binary-tree-from-parent-array/1?page=5&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Subtree & Other must do tree probs					
		Serialize and deserialize BT	https://www.geeksforgeeks.org/problems/serialize-and-deserialize-a-binary-tree/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Largest subtree sum in a tree	https://www.geeksforgeeks.org/problems/largest-subtree-sum-in-a-tree/1?page=6&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Maximum sum of non adjacent nodes	https://www.geeksforgeeks.org/problems/maximum-sum-of-non-adjacent-nodes/1?page=3&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Duplicate subtree	https://www.geeksforgeeks.org/problems/duplicate-subtrees/1?page=4&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Flatten BT to linked list	https://www.geeksforgeeks.org/problems/flatten-binary-tree-to-linked-list/1?page=5&category=Tree&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Backtracking & Recursion advanced - Technique	This is super imp topic before moving further!! Draw the recursion tree to understand the flow as the first step, this will help in visualization of the flow				
Basic patterns and must solve(Each prob in this pattern will teach you something and also as you solve, you will start mastering it though initially it takes sometime)		Understand the basics of backtracking and start solving			
		Permutations of a string	https://www.geeksforgeeks.org/problems/permutations-of-a-given-string2041/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Permutation II (You can solve on own once you solve above)	https://leetcode.com/problems/permutations-ii	Best Tutorial link - click to view	Article link-click to view
		Combination sum I	https://www.geeksforgeeks.org/problems/combination-sum-1587115620/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Combination sum II(Once you solve combination I, you should be able to solve this and below 2 probs too easily)	https://leetcode.com/problems/combination-sum-ii	Best Tutorial link - click to view	Article link-click to view
		Combination sum III	https://leetcode.com/problems/combination-sum-iii	Best Tutorial link - click to view	Article link-click to view
		Rat in maze(Once above probs are solved, you can do this easily)	https://www.geeksforgeeks.org/problems/rat-in-a-maze-problem/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Possible words from phone digits	https://www.geeksforgeeks.org/problems/possible-words-from-phone-digits-1587115620/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Subsets	https://www.geeksforgeeks.org/problems/subsets-1613027340/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Unique subset(Solving above, you will be able to solve this easily)	https://www.geeksforgeeks.org/problems/subsets-1587115621/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		N-Queen(Super imp)	https://www.geeksforgeeks.org/problems/n-queen-problem0315/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		N Queen II	https://leetcode.com/problems/n-queens-ii		
		Permutation with spaces	https://www.geeksforgeeks.org/problems/permutation-with-spaces3627/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Generate parantheses	https://www.geeksforgeeks.org/problems/generate-all-possible-parentheses/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Generate IP address	https://www.geeksforgeeks.org/problems/generate-ip-addresses/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Solve the sudoku	https://www.geeksforgeeks.org/problems/solve-the-sudoku-1587115621/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		kth permutation	https://www.geeksforgeeks.org/problems/find-kth-permutation/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Word search	https://www.geeksforgeeks.org/problems/word-search/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Palindrome partition of string	https://www.geeksforgeeks.org/problems/find-all-possible-palindromic-partitions-of-a-string/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Decode the string	https://www.geeksforgeeks.org/problems/decode-the-string2444/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Letter case permutation	https://leetcode.com/problems/letter-case-permutation/	Best Tutorial link - click to view	Article link-click to view
		sum string	https://www.geeksforgeeks.org/problems/sum-string3151/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		word boggle	https://www.geeksforgeeks.org/problems/word-boggle4143/1?page=2&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Largest number in k swaps	https://www.geeksforgeeks.org/problems/largest-number-in-k-swaps-1587115620/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Partition array to k subsets	https://www.geeksforgeeks.org/problems/partition-array-to-k-subsets/1?page=1&category=Backtracking&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Graphs - Data structure	Most of the probs in this topics can be solved once you learn first couple of probs in each pattern of this topics				
Traversals & Basic		Understand how graph is represented?		Best Tutorial link - click to view	
		BFS Traversal(Super imp and basic)	https://www.geeksforgeeks.org/problems/bfs-traversal-of-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		DFS Traversal(Super imp and basic)	https://www.geeksforgeeks.org/problems/depth-first-traversal-for-a-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Detect cycle in Directed graph	https://www.geeksforgeeks.org/problems/detect-cycle-in-a-directed-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Detect cycle in Undirected graph	https://www.geeksforgeeks.org/problems/detect-cycle-in-an-undirected-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Detect Negative cycle in graph	https://www.geeksforgeeks.org/problems/negative-weight-cycle3504/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Connected component(After traversal, this will be easy to solve)		Connected component(Once you master this , all the below using this pattern will become super easy)	https://practice.geeksforgeeks.org/problems/strongly-connected-components-tarjans-algo-1587115621/1	Best Tutorial link - click to view	Article link-click to view
		Number of Provinces(Learn how to solve this prob and solve the below in this pattern)	https://www.geeksforgeeks.org/problems/number-of-provinces/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Number of Islands	https://www.geeksforgeeks.org/problems/find-the-number-of-islands/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Number of distinct island	https://www.geeksforgeeks.org/problems/number-of-distinct-islands/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Number of closed island	https://www.geeksforgeeks.org/problems/find-number-of-closed-islands/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Bipartite					
		Bipartite graph	https://www.geeksforgeeks.org/problems/bipartite-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		M-colouring	https://practice.geeksforgeeks.org/problems/m-coloring-problem-1587115620/1	Best Tutorial link - click to view	Article link-click to view
Shortest Path		Find shortest path in UG(Once you learn this, try to solve other probs in this pattern by yourself)	https://www.codingninjas.com/studio/problems/shortest-path-in-an-unweighted-graph_981297	Best Tutorial link - click to view	Article link-click to view
		Find shortest path in DAG	https://www.geeksforgeeks.org/problems/shortest-path-in-undirected-graph/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Djikstra Algo	https://www.geeksforgeeks.org/problems/implementing-dijkstra-set-1-adjacency-matrix/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Step by Knight	https://www.geeksforgeeks.org/problems/steps-by-knight5927/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Shortest path source to destiny	https://www.geeksforgeeks.org/problems/shortest-source-to-destination-path3544/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Find if path exists	https://www.geeksforgeeks.org/problems/find-whether-path-exist5238/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Covid spread	https://www.geeksforgeeks.org/problems/covid-spread--141631/1?page=4&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Minimum cost path	https://www.geeksforgeeks.org/problems/minimum-cost-path3833/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Word ladder I	https://www.geeksforgeeks.org/problems/word-ladder/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Word ladder II	https://www.geeksforgeeks.org/problems/word-ladder-ii/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Floyd warshal algo	https://www.geeksforgeeks.org/problems/implementing-floyd-warshall2042/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Bellmanford algo(Imp - Will be used for negative cycle)	https://www.geeksforgeeks.org/problems/distance-from-the-source-bellman-ford-algorithm/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Multi Source					
		Flood fill	https://www.geeksforgeeks.org/problems/flood-fill-algorithm1856/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Replace O's with X's(Below can be solved easily in this pattern once you learnt flood fill)	https://www.geeksforgeeks.org/problems/replace-os-with-xs0052/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Unit area of largest region of 1s	https://www.geeksforgeeks.org/problems/length-of-largest-region-of-1s-1587115620/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Rotten Oranges	https://www.geeksforgeeks.org/problems/rotten-oranges2536/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Topological sort					
		Topological sort algo(Learning this algo, will make you solve all the probs in this pattern)	https://www.geeksforgeeks.org/problems/topological-sort/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Prerequisite tasks	https://www.geeksforgeeks.org/problems/prerequisite-tasks/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
		Course schedule I	https://www.geeksforgeeks.org/problems/course-schedule/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view

Section	Problem	Problem Link	Best Tutorial	Article
	Course schedule II	https://leetcode.com/problems/course-schedule-ii	Best Tutorial link - click to view	Article link-click to view
	Eventual safe states	https://www.geeksforgeeks.org/problems/eventual-safe-states/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Alien dictionary	https://www.geeksforgeeks.org/problems/alien-dictionary/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
Minimum Spanning Tree				
	Minimum spanning tree(Once you learn this, then you will be able to solve the probs in this pattern by yourself)	https://www.geeksforgeeks.org/problems/minimum-spanning-tree/1?page=7&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Kruskals algo	https://www.codingninjas.com/studio/problems/code-kruskal-s-algorithm_6320	Best Tutorial link - click to view	Article link-click to view
	Minimum cost to connect cities	https://leetcode.com/problems/connecting-cities-with-minimum-cost	Best Tutorial link - click to view	Article link-click to view
	Minimum cost to connect all points	https://leetcode.com/problems/min-cost-to-connect-all-points/	Best Tutorial link - click to view	Article link-click to view
	Optimize water distribution	https://leetcode.com/problems/optimize-water-distribution-in-a-village		Article link-click to view
Disjoint set				
	Learn the disjoint set Algo		Best Tutorial link - click to view	Article link-click to view
	Union by rank, path compression(Super imp, dont skip)		Best Tutorial link - click to view	Article link-click to view
	Networks connected	https://leetcode.com/problems/number-of-operations-to-make-network-connected/	Best Tutorial link - click to view	Article link-click to view
	Minimum swaps to sort	https://www.geeksforgeeks.org/problems/minimum-swaps/1?page=1&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Santa Banta	https://www.geeksforgeeks.org/problems/santa-banta2814/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Number of pairs	https://www.geeksforgeeks.org/problems/number-of-pairs-1645358985/1?page=5&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Number of Island II	https://leetcode.com/problems/number-of-islands-ii/	Best Tutorial link - click to view	Article link-click to view
	Making a large island	https://leetcode.com/problems/making-a-large-island	Best Tutorial link - click to view	Article link-click to view
Must solve imp algos				
	Bridges in graph	https://www.geeksforgeeks.org/problems/bridge-edge-in-graph/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Articulation point	https://www.geeksforgeeks.org/problems/articulation-point-1/1?page=3&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Critical connection	https://www.geeksforgeeks.org/problems/critical-connections/1?page=5&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Kosaraja algo (Strongly connected component algo)	https://www.geeksforgeeks.org/problems/strongly-connected-components-kosaraju-algo/1?page=2&category=Graph&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Word boggle	https://www.geeksforgeeks.org/problems/word-boggle4143/1	Best Tutorial link - click to view	Article link-click to view
	Word boggle II	https://www.geeksforgeeks.org/problems/word-boggle-ii--141631/1	Best Tutorial link - click to view	Article link-click to view

Greedy - Technique

Section	Problem	Problem Link	Best Tutorial	Article
Basics and must solves				
	Minimum number of jumps	https://www.geeksforgeeks.org/problems/minimum-number-of-jumps-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum operations	https://www.geeksforgeeks.org/problems/find-optimum-operation4504/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimize the sum of product	https://www.geeksforgeeks.org/problems/minimize-the-sum-of-product1525/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Largest number possible	https://www.geeksforgeeks.org/problems/largest-number-possible5028/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Lemonade change	https://www.geeksforgeeks.org/problems/lemonade-change/1?page=2&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Activity selection prob(Super imp)	https://www.geeksforgeeks.org/problems/activity-selection-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	N meetings in a room(Super imp)	https://www.geeksforgeeks.org/problems/n-meetings-in-one-room-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum platforms	https://www.geeksforgeeks.org/problems/minimum-platforms-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimize the height	https://www.geeksforgeeks.org/problems/minimize-the-heights-i/1?page=2&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum number of coins using greedy(This can be solved using naive, DP also but make sure to use greedy here)	https://www.geeksforgeeks.org/problems/-minimum-number-of-coins4426/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Job sequencing prob	https://www.geeksforgeeks.org/problems/job-sequencing-problem-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Fractional knapsack	https://www.geeksforgeeks.org/problems/fractional-knapsack-1587115620/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Jump game	https://www.geeksforgeeks.org/problems/jump-game/1?page=2&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Insert interval	https://leetcode.com/problems/insert-interval/	Best Tutorial link - click to view	Article link-click to view
	Merge interval	https://leetcode.com/problems/merge-intervals/	Best Tutorial link - click to view	Article link-click to view
	Non overlapping interval	https://leetcode.com/problems/non-overlapping-intervals/	Best Tutorial link - click to view	Article link-click to view
	Minimum cost of ropes	https://www.geeksforgeeks.org/problems/minimum-cost-of-ropes-1587115620/1	Best Tutorial link - click to view	Article link-click to view
	Partition labels	https://leetcode.com/problems/partition-labels/	Best Tutorial link - click to view	Article link-click to view
	Cinema seat allocation	https://leetcode.com/problems/cinema-seat-allocation/	Best Tutorial link - click to view	Article link-click to view
	Max length chain	https://www.geeksforgeeks.org/problems/max-length-chain/1?page=1&category=Greedy&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Valid parantheses - Minimum	https://leetcode.com/problems/minimum-add-to-make-parentheses-valid/	Best Tutorial link - click to view	Article link-click to view
	Shortest job first	https://practice.geeksforgeeks.org/problems/shortest-job-first/1	Best Tutorial link - click to view	Article link-click to view
	Least recently used	https://practice.geeksforgeeks.org/problems/lru-cache/1?utm_source=youtube&utm_medium=collab_fraz_websitelink&utm_campaign=LRU+Cache	Best Tutorial link - click to view	Article link-click to view

Dynamic Programming - Technique

DP is super crucial topic and very commonly asked in many interviews!! One major thing you need to know is, dont start with tabulation approach directly, thats wrong way to learn DP. First find the solution using recursion, then memoization and then finally tabulation and space reduction in tabulation.

Section	Problem	Problem Link	Best Tutorial	Article
Basic				
	Understand the basics!!		Best Tutorial link - click to view	Article link-click to view
1D - Linear DP				
	Count num of hops	https://www.geeksforgeeks.org/problems/count-number-of-hops-1587115620/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count way to reach nth stair(Order matters)	https://www.geeksforgeeks.org/problems/count-ways-to-reach-the-nth-stair-1587115620/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count way to reach nth stair(Order doesn't matter)	https://www.geeksforgeeks.org/problems/count-ways-to-nth-stairorder-does-not-matter5639/1?page=4&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	House robber	https://leetcode.com/problems/house-robber/		Article link-click to view
	House robber II	https://leetcode.com/problems/house-robber-ii/	Best Tutorial link - click to view	Article link-click to view
2D Grid DP				Article link-click to view
	Count paths - grid	https://www.geeksforgeeks.org/problems/count-the-paths4332/1?page=5&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Unique paths II	https://leetcode.com/problems/unique-paths-ii/	Best Tutorial link - click to view	Article link-click to view
	Count all possible paths with condition(You can solve this by yourself once above two are solved)	https://www.geeksforgeeks.org/problems/count-all-possible-paths-from-top-left-to-bottom-right3011/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum path sum in grid	https://leetcode.com/problems/minimum-path-sum/	Best Tutorial link - click to view	Article link-click to view
	Max path sum	https://www.geeksforgeeks.org/problems/path-in-matrix3805/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum path sum in triangular grid	https://leetcode.com/problems/triangle/	Best Tutorial link - click to view	Article link-click to view
	Number of paths with k coins	https://www.geeksforgeeks.org/problems/number-of-paths-in-a-matrix-with-k-coins2728/1?page=7&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum/Maximum falling path sum	https://leetcode.com/problems/minimum-falling-path-sum	Best Tutorial link - click to view	Article link-click to view
	Minimum falling path sum II	https://leetcode.com/problems/minimum-falling-path-sum-ii	Best Tutorial link - click to view	Article link-click to view
DP on subsequence				
	Subset sum problem	https://www.geeksforgeeks.org/problems/subset-sum-problem-1611555638/1?page=1&status=solved&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
	Count subset with given sum k	https://www.geeksforgeeks.org/problems/perfect-sum-problem5633/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link - click to view
	Partition equal subset sum(Try to do it on own after solving above two, just a small trick)	https://www.geeksforgeeks.org/problems/subset-sum-problem2014/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum sum partition	https://www.geeksforgeeks.org/problems/minimum-sum-partition3317/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count partition with given diff		Best Tutorial link - click to view	Article link-click to view
	0-1 Knapsack	https://www.geeksforgeeks.org/problems/0-1-knapsack-problem0945/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Maximum non adjacent subsequence	https://www.geeksforgeeks.org/problems/max-sum-without-adjacents2430/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Coin change	https://www.geeksforgeeks.org/problems/coin-change2448/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Min number of coins	https://www.geeksforgeeks.org/problems/number-of-coins1824/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Rod cutting	https://www.geeksforgeeks.org/problems/rod-cutting0840/1?page=2&category=Dynamic%20Programming&status=solved&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Target sum	https://leetcode.com/problems/target-sum/	Best Tutorial link - click to view	
	Minimum cost to fill given weight in bag(Solving the above probs in this pattern will make this super easy)	https://www.geeksforgeeks.org/problems/minimum-cost-to-fill-given-weight-in-a-bag1956/1?page=3&category=Dynamic%20Programming&status=solved&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Knapsack with duplication items	https://www.geeksforgeeks.org/problems/knapsack-with-duplicate-items4201/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
DP on Increasing subsequence				Article link-click to view
	Longest increasing subsequence	https://leetcode.com/problems/longest-increasing-subsequence/	Best Tutorial link - click to view	Article link-click to view
	Print longest increasing subsequence		Best Tutorial link - click to view	Article link-click to view
	Longest bitonic subsequence(Solve on own, definitely you can do it once the above two are solved)	https://www.geeksforgeeks.org/problems/longest-bitonic-subsequence0824/1?page=4&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest divisible subset(This and the below are just extended version of longest increasing subsequence, so try on own	https://leetcode.com/problems/largest-divisible-subset/	Best Tutorial link - click to view	Article link-click to view
	Longest string chain	https://leetcode.com/problems/longest-string-chain/	Best Tutorial link - click to view	Article link-click to view
	Num of longest increasing subsequence	https://leetcode.com/problems/number-of-longest-increasing-subsequence/	Best Tutorial link - click to view	Article link-click to view
DP on strings(Using Longest common subsequence pattern)				
	Longest common subsequence(Once you learn this pattern, all probs under this pattern can be solved by yourself)	https://www.geeksforgeeks.org/problems/longest-common-subsequence-1587115620/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Print Longest common subsequence(Here you will need to print the string so must solve)	https://www.geeksforgeeks.org/problems/print-all-lcs-sequences3413/1?page=7&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest palindromic subsequence	https://leetcode.com/problems/longest-palindromic-subsequence	Best Tutorial link - click to view	Article link-click to view
	Form a palindrome with minimum insertions	https://leetcode.com/problems/minimum-insertion-steps-to-make-a-string-palindrome	Best Tutorial link - click to view	Article link-click to view

Category	Problem	Problem Link	Tutorial	Article
	Min num of deletions and insertions to make string s1 equal to s2	https://www.geeksforgeeks.org/problems/minimum-number-of-deletions-and-insertions0209/1?page=4&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Shortest common supersequence	https://www.geeksforgeeks.org/problems/shortest-common-supersequence0322/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest common substring/subarray	https://www.geeksforgeeks.org/problems/longest-common-substring1452/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest palindromic substring	https://www.geeksforgeeks.org/problems/longest-palindrome-in-a-string3411/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest repeating subsequence	https://www.geeksforgeeks.org/problems/longest-repeating-subsequence2004/1?page=2&category=Dynamic%20Programming&status=solved&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
DP on string				
	Edit distance (All the probs in this pattern are super imp, each prob is different so do solve all)	https://www.geeksforgeeks.org/problems/edit-distance3702/1?page=1&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Distinct occurence	https://www.geeksforgeeks.org/problems/distinct-occurrences/1?page=3&category=Dynamic%20Programming&status=solved&sortBy=submissions	Best Tutorial link - click to view	
	Wildcard pattern matching	https://www.geeksforgeeks.org/problems/wildcard-pattern-matching/1?page=4&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Longest valid parentheses	https://www.geeksforgeeks.org/problems/longest-valid-parentheses5657/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Word break	https://www.geeksforgeeks.org/problems/word-break1352/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Word break II	https://www.geeksforgeeks.org/problems/word-break-part-23249/1?page=5&category=Dynamic%20Programming&sortBy=submissions		Article link-click to view
	Word wrap	https://www.geeksforgeeks.org/problems/word-wrap1646/1?page=4&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Interleaved strings	https://www.geeksforgeeks.org/problems/interleaved-strings/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
DP on stocks(Was asked in one of my interview too, so dont miss any ques from this pattern)				
	Best time to buy and sell stock	https://leetcode.com/problems/best-time-to-buy-and-sell-stock/	Best Tutorial link - click to view	Article link-click to view
	Best time to buy and sell stock II(Once you solve the above prob, all probs in this pattern are extend	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/	Best Tutorial link - click to view	Article link-click to view
	Best time to buy and sell stock III	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/	Best Tutorial link - click to view	Article link-click to view
	Best time to buy and sell stock IV	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv/	Best Tutorial link - click to view	Article link-click to view
	Best time to buy and sell stock with cooldown	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown/	Best Tutorial link - click to view	Article link-click to view
	Best time to buy and sell stock with transaction fee	https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee/	Best Tutorial link - click to view	Article link-click to view
DP on partition and MCM				
	Matrix chain multiplication(Quite tricky pattern, every prob is diff and teaches something so do solve all)	https://www.geeksforgeeks.org/problems/matrix-chain-multiplication0303/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Minimum cost to cut stick	https://leetcode.com/problems/minimum-cost-to-cut-a-stick/	Best Tutorial link - click to view	Article link-click to view
	Burst balloons	https://www.geeksforgeeks.org/problems/burst-balloons/1?page=8&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Boolean Parenthesization	https://www.geeksforgeeks.org/problems/boolean-parenthesization5610/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Palindrom partitioning	https://www.geeksforgeeks.org/problems/palindromic-patitioning4845/1?page=2&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Partition array for max sum	https://leetcode.com/problems/partition-array-for-maximum-sum/	Best Tutorial link - click to view	Article link-click to view
	Max rectangles area with all 1s	https://www.geeksforgeeks.org/problems/max-rectangle/1?page=3&category=Dynamic%20Programming&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Count square submatrices	https://leetcode.com/problems/count-square-submatrices-with-all-ones/	Best Tutorial link - click to view	Article link-click to view

Heaps - Data structure

Basic patterns

Category	Problem	Problem Link	Tutorial	Article
	What is heap? Understand the data structure		Best Tutorial link - click to view	Article link-click to view
	Min heap implementation	Min Heap Implementation - Coding Ninjas	Best Tutorial link - click to view	Article link-click to view
	Max heap implementation	https://www.gatevidyalay.com/tag/max-heap-questions/	Best Tutorial link - click to view	Article link-click to view
	Convert min heap to max heap	https://www.geeksforgeeks.org/problems/convert-min-heap-to-max-heap-1666385109/1	Best Tutorial link - click to view	Article link-click to view
Top k pattern				
	kth largest in array	https://www.geeksforgeeks.org/problems/k-largest-elements4206/1?page=1&category=Heap&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	kth smallest in array		Best Tutorial link - click to view	Article link-click to view
	Top k frequent elements	https://leetcode.com/problems/top-k-frequent-elements/	Best Tutorial link - click to view	Article link-click to view
	Top k frequent words	https://leetcode.com/problems/top-k-frequent-words/	Best Tutorial link - click to view	Article link-click to view
	Frequency sort	https://leetcode.com/problems/sort-characters-by-frequency/	Best Tutorial link - click to view	Article link-click to view
	kth largest num in streams	https://www.geeksforgeeks.org/problems/kth-largest-element-in-a-stream2220/1?page=1&category=Heap&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Reorganize string	https://leetcode.com/problems/reorganize-string/	Best Tutorial link - click to view	Article link-click to view
	Reorganize string k distance apart	https://leetcode.com/problems/rearrange-string-k-distance-apart	Best Tutorial link - click to view	Article link-click to view
	kth smallest sum of matrix	https://leetcode.com/problems/find-the-kth-smallest-sum-of-a-matrix-with-sorted-rows/	Best Tutorial link - click to view	Article link-click to view
	ugly num II	https://leetcode.com/problems/ugly-number-ii/	Best Tutorial link - click to view	Article link-click to view
Merge k sorted pattern				
	Merge k sorted array	https://practice.geeksforgeeks.org/problems/merge-k-sorted-arrays/1	Best Tutorial link - click to view	Article link-click to view
	k pairs with smallest sum	https://leetcode.com/problems/find-k-pairs-with-smallest-sums/	Best Tutorial link - click to view	Article link-click to view
	k smallest nums in M sorted list	https://leetcode.com/problems/kth-smallest-element-in-a-sorted-matrix/	Best Tutorial link - click to view	Article link-click to view
Two heaps pattern				
	Find median from data stream	https://www.geeksforgeeks.org/problems/find-median-in-a-stream-1587115620/1?page=1&category=Heap&sortBy=submissions	Best Tutorial link - click to view	Article link-click to view
	Sliding window median	https://leetcode.com/problems/sliding-window-median/	Best Tutorial link - click to view	Article link-click to view
	Maximum capital/IPO	https://leetcode.com/problems/ipo/	Best Tutorial link - click to view	Article link-click to view
Minimum number pattern				
	Minimum cost to connect ropes	https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes-1587115620/1	Best Tutorial link - click to view	Article link-click to view
	Meeting room II	https://leetcode.com/problems/meeting-rooms-ii	Best Tutorial link - click to view	Article link-click to view
	Minimum cost to hire k workers	https://leetcode.com/problems/minimum-cost-to-hire-k-workers/	Best Tutorial link - click to view	Article link-click to view
	Minimum num of CPU	https://leetcode.com/problems/task-scheduler/	Best Tutorial link - click to view	Article link-click to view
	Minimum num of refueling stops	https://leetcode.com/problems/minimum-number-of-refueling-stops/	Best Tutorial link - click to view	Article link-click to view

Trie - Data structure

Basic and must solve

Category	Problem	Problem Link	Tutorial	Article
	Implement Trie from scratch	https://www.codingninjas.com/studio/problems/implement-trie_631356	Best Tutorial link - click to view	Article link-click to view
	Word break (Do solve it using trie, though you had solved this already)	https://www.geeksforgeeks.org/problems/word-break-trie--141631/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
	Longest string with all prefixes	https://leetcode.com/problems/longest-common-prefix/	Best Tutorial link - click to view	Article link-click to view
	Maximum XOR of two numbers in array	https://www.geeksforgeeks.org/problems/maximum-xor-of-two-numbers-in-an-array/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
	Unique rows in boolean matrix	https://www.geeksforgeeks.org/problems/unique-rows-in-boolean-matrix/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
	Prefix match with other strings	https://www.geeksforgeeks.org/problems/prefix-match-with-other-strings/1	Best Tutorial link - click to view	Article link-click to view

String

Most of the imp problems in strings involves diff techniques, algos which are already covered. In this section, we will focus on string specific imp probs and algos

Must solve and Algos specific to string

Category	Problem	Problem Link	Tutorial	Article
	Implement Atoi	https://www.geeksforgeeks.org/problems/implement-atoi/1	Best Tutorial link - click to view	Article link-click to view
	Count and say	https://leetcode.com/problems/count-and-say/	Best Tutorial link - click to view	Article link-click to view
	Minimum bracket reversals	https://www.geeksforgeeks.org/problems/count-the-reversals0401/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view
	Rabin karp algo(Pattern searching, super imp, this was infact asked in one of my interview)	https://practice.geeksforgeeks.org/problems/search-pattern-rabin-karp-algorithm--141631/1	Best Tutorial link - click to view	Article link-click to view
	Boyer moor algo (Pattern searching)	https://www.codingninjas.com/studio/problems/boyer-moore-algorithm-for-pattern-searching_1116634	Best Tutorial link - click to view	Article link-click to view
	KMP algo (Longest prefix suffix, super imp)	https://practice.geeksforgeeks.org/problems/longest-prefix-suffix2527/1	Best Tutorial link - click to view	Article link-click to view
	Longest happy prefix	https://www.geeksforgeeks.org/longest-prefix-also-suffix/	Best Tutorial link - click to view	Article link-click to view
	Remove all adjacent duplicates	https://leetcode.com/problems/remove-all-adjacent-duplicates-in-string/	Best Tutorial link - click to view	Article link-click to view
	Hashing in strings	https://www.geeksforgeeks.org/practice-problems-on-hashing/	Best Tutorial link - click to view	Article link-click to view
	Print all anagrams	https://leetcode.com/problems/group-anagrams/	Best Tutorial link - click to view	Article link-click to view
	Z - Function	https://practice.geeksforgeeks.org/problems/search-pattern-z-algorithm--141631/1	Best Tutorial link - click to view	Article link-click to view
	Shortest palindrome	Shortest Palindrome - LeetCode	Best Tutorial link - click to view	Article link-click to view
	Circle of strings	https://www.geeksforgeeks.org/problems/circle-of-strings4530/1	Best Tutorial link - click to view	Article link-click to view
	Roman numerals to decimals	https://www.geeksforgeeks.org/problems/roman-number-to-integer3201/1?itm_source=geeksforgeeks&itm_medium=Article&itm_campaign=bottom_sticky_on_Article	Best Tutorial link - click to view	Article link-click to view

There are couple of more topics, bit manipulation, segment trees and AVL trees which has limited number of probs, so do check that out if you have good amount of time still left

Checkout this for bit tricks - https://leetcode.com/discuss/general-discussion/1073221/All-about-Bitwise-Operations-Beginner-Intermediate

Leetcode Article for behavioural rounds	https://leetcode.com/discuss/interview-experience/1532708/tips-for-answering-few-tricky-behavioural-interview-questions
Leetcode Article for major patterns	https://leetcode.com/discuss/general-discussion/665604/Important-and-Useful-links-from-all-over-the-LeetCode
Resume standard template	https://www.overleaf.com/Articles/ravi-kukretis-resume/cxprrkxbccgb

Try to solve atleast 5+ problems per day to master it at the earliest