

Topic	Problem Name With Link	Done	Mark For Revision	Notes	Codes
Arrays					
	Second Largest Element	FALSE	FALSE		
	Rotate An Array By K	FALSE	FALSE		
	Non Decreasing Array	FALSE	FALSE		
	Equilibrium Index	FALSE	FALSE		
	First Missing Positive	FALSE	FALSE		
String					
	Reverse String Word Wise	FALSE	FALSE		
	String encoding	FALSE	FALSE		
	Minimum Parenthesis	FALSE	FALSE		
	Beautiful Strings	FALSE	FALSE		
	Next smallest palindrome	FALSE	FALSE		
Multi-Dimensional arrays					
	Sum of zeroes	FALSE	FALSE		
	Matrix Symmetric	FALSE	FALSE		
	Inplace rotate matrix 90 degree	FALSE	FALSE		
	Set Matrix Zeroes	FALSE	FALSE		
	Spiral Order	FALSE	FALSE		
Maps/Sets					
	Make Unique Array	FALSE	FALSE		
	First Non Repeating Character in String	FALSE	FALSE		
	Longest Subarray Zero Sum	FALSE	FALSE		
	Count all sub-arrays having sum divisible by k	FALSE	FALSE		
	Group Anagrams	FALSE	FALSE		
Two Pointers					
	Pair Sum	FALSE	FALSE		
	Move Negative Number To Start	FALSE	FALSE		
	Container With Most Water	FALSE	FALSE		
	Check subsequence	FALSE	FALSE		
Basic Algorithms					
	Insertion Sort	FALSE	FALSE		
	Selection Sort	FALSE	FALSE		
	Bubble Sort	FALSE	FALSE		
	Kadane's Algorithm	FALSE	FALSE		
	Dutch National Flag Algorithm	FALSE	FALSE		
	Moore's Voting Algorithm	FALSE	FALSE		
Mixed Questions-1 (Concepts learned in topics above will be used in below questions. This is critical to become great in DSA.)					
	Check permutation	FALSE	FALSE		
	Intersection Of Two Arrays	FALSE	FALSE		
	N/3 repeated number in array	FALSE	FALSE		
	Counting Sort	FALSE	FALSE		
	Rotate Matrix To Right	FALSE	FALSE		
	Find Kth Character of Decrypted String	FALSE	FALSE		
	Move Zeros To End	FALSE	FALSE		
	Sum of Two Elements Equals Third	FALSE	FALSE		
	Minimum Operations to Make String Equal	FALSE	FALSE		
	Maximum Sum Circular Array	FALSE	FALSE		
	Longest Consecutive Sequence	FALSE	FALSE		
	Maximum Subarray Sum After K Consec	FALSE	FALSE		
	Maximum Product Count	FALSE	FALSE		
	Multiply Strings	FALSE	FALSE		
	Find All Subsequences of size K	FALSE	FALSE		
	Repeat And Missing Number Array	FALSE	FALSE		
	A Sues Problem	FALSE	FALSE		
	Count All Subarrays With Given Sum	FALSE	FALSE		
	Maximum Sum Rectangle	FALSE	FALSE		
	Nth element of spiral matrix	FALSE	FALSE		

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Binary Search					
	Search Sort	FALSE	FALSE		
	Search in Rotated Sorted Array	FALSE	FALSE		
	Find element that appears twice	FALSE	FALSE		
	Majority Median	FALSE	FALSE		
	Aggressive Cows	FALSE	FALSE		
Recursion Basics					
	Merge Sort	FALSE	FALSE		
	Quick Sort	FALSE	FALSE		
	Fibonacci Element	FALSE	FALSE		
	Family Structure	FALSE	FALSE		
	Binary String With no consecutive 1s	FALSE	FALSE		
Linked List					
	Reverse A Linked List	FALSE	FALSE		
	Mid Point in Linked List	FALSE	FALSE		
	Merge Sort	FALSE	FALSE		
	Add Two Linked Lists	FALSE	FALSE		
	Intersection Sort in Linked List	FALSE	FALSE		
	Delete nth Node from Linked List	FALSE	FALSE		
	Delete Node in Linked List	FALSE	FALSE		
	Reverse Nodes in K-Size	FALSE	FALSE		
	Remove Duplicates	FALSE	FALSE		
	Separate Odd Even	FALSE	FALSE		
Stacks & Queues					
	Implement Stack Using Array	FALSE	FALSE		
	Implement Stack Using Linked List	FALSE	FALSE		
	Implement Queue Using Array & Linked List	FALSE	FALSE		
	Implement Queue Using 2 Stacks	FALSE	FALSE		
	Implement Stack Using 2 Queues	FALSE	FALSE		
	Min Stack	FALSE	FALSE		
	Next Greater Element	FALSE	FALSE		
	Stack Space Complexity	FALSE	FALSE		
	Reverse Queue	FALSE	FALSE		
	Valid Parentheses	FALSE	FALSE		
Binary Trees & BST					
	Diameter Of Binary Tree	FALSE	FALSE		
	LCA Of Binary Tree	FALSE	FALSE		
	Level Order Traversal Binary Tree	FALSE	FALSE		
	Zigzag Order Traversal Binary Tree	FALSE	FALSE		
	Left View Of Binary Tree	FALSE	FALSE		
	Top View Of Binary Tree	FALSE	FALSE		
	Construct Binary Tree From Preorder And Postorder	FALSE	FALSE		
	Vertical Order Traversal Of Binary Tree	FALSE	FALSE		
	Inorder Traversal Binary Tree Using Stacks	FALSE	FALSE		
	LCA of Two nodes in BST	FALSE	FALSE		
	BST Details	FALSE	FALSE		
	Check if Binary Tree is BST?	FALSE	FALSE		
	Is an unrooted element in BST?	FALSE	FALSE		
	Predecessor And Successor in BST	FALSE	FALSE		
	Path sum in BST	FALSE	FALSE		
Mixed Questions - 2 (Concept learned in BASIC DSA and topics above will be used here. This is critical to become great in DSA.)					
	Find whether array is subset of another array	FALSE	FALSE		
	Median of 2 sorted arrays	FALSE	FALSE		
	LCA of 3 nodes	FALSE	FALSE		
	Remove Node Outside Given Range	FALSE	FALSE		
	Search in a row wise and column wise sorted	FALSE	FALSE		
	Check Linked List is Palindrome?	FALSE	FALSE		
	K-Reversed Linked List	FALSE	FALSE		
	Sum of nodes	FALSE	FALSE		
	BST Iterator	FALSE	FALSE		
	Convert Binary Tree to Linked List	FALSE	FALSE		
	Serialize Linked List	FALSE	FALSE		
	Largest Rectangle in Histogram	FALSE	FALSE		
	Check Sort Of Linked List	FALSE	FALSE		
	Sorted Linked List to Balanced BST	FALSE	FALSE		
	Binary Tree to Doubly Linked List	FALSE	FALSE		
	Bottom Right View Of Binary Tree	FALSE	FALSE		
	Merge Two BST's	FALSE	FALSE		
	Merge Two Binary Trees	FALSE	FALSE		
	Sort A Stack	FALSE	FALSE		
	Boundary Traversal of Binary Tree	FALSE	FALSE		
	Longest Substring with K Distinct Characters	FALSE	FALSE		
	Hashing Implementation	FALSE	FALSE		
	Count Character Pairs	FALSE	FALSE		
	Time to burn tree	FALSE	FALSE		
	Clone A Linked List With Random Next and Previous	FALSE	FALSE		
	Fix BST	FALSE	FALSE		
	Nil List of Integer	FALSE	FALSE		
	Sum of the largest BST	FALSE	FALSE		
	LRU Cache	FALSE	FALSE		

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Greedy Techniques					
	Fractional Knapsack	FALSE	FALSE		
	Gas Stop	FALSE	FALSE		
	Job Scheduling	FALSE	FALSE		
	Next Greater Number	FALSE	FALSE		
	Minimum Cows Line	FALSE	FALSE		
Trees					
	Implement A Trie (Fast Search)	FALSE	FALSE		
	Low LCA (Binary)	FALSE	FALSE		
	Count distinct subtrees	FALSE	FALSE		
	Spell Checker	FALSE	FALSE		
	Maximum XOR	FALSE	FALSE		
Sliding Window & Deque					
	Smallest Subarray With K distinct Elements	FALSE	FALSE		
	Count distinct Element in Every K Size Window	FALSE	FALSE		
	Longest Substring Without Repeating Characters	FALSE	FALSE		
	Relative Sort Array	FALSE	FALSE		
	Implement Dequeue	FALSE	FALSE		
	Sliding Maximum	FALSE	FALSE		
	Maximum In Subarray of length K	FALSE	FALSE		
Priority Queues & Heaps					
	Implement Priority Queue	FALSE	FALSE		
	Connect n1 tree To n2 tree Using	FALSE	FALSE		
	Kth Smallest & Largest Element	FALSE	FALSE		
	Kth Largest Sum Subarray	FALSE	FALSE		
	Merge K Sorted Array	FALSE	FALSE		
	Binary Median	FALSE	FALSE		
	Connect n nodes with minimum cost	FALSE	FALSE		
Advanced Recursion & Backtracking					
	N Queens Problem	FALSE	FALSE		
	Building Block	FALSE	FALSE		
	Eat In a Mass	FALSE	FALSE		
	Letter Combination Of Phone Number	FALSE	FALSE		
	Subsequences of String	FALSE	FALSE		
	Combination Sum	FALSE	FALSE		
	Find Permutations	FALSE	FALSE		
	Partition IP Addresses	FALSE	FALSE		
Dynamic Programming					
	Count ways to reach nth stair	FALSE	FALSE		
	House Robber	FALSE	FALSE		
	Ways to make coin change	FALSE	FALSE		
	Best Cutting Problem	FALSE	FALSE		
	Minimum Jumps To Reach End	FALSE	FALSE		
	Minimum steps to reach target by Knight	FALSE	FALSE		
	Longest Increasing Subsequence	FALSE	FALSE		
	Longest Common Subsequence	FALSE	FALSE		
	Edit Distance	FALSE	FALSE		
	Interleave 2 strings	FALSE	FALSE		
	Maximum Coins	FALSE	FALSE		
	0-1 Knapsack	FALSE	FALSE		
	Best Time to buy and sell stock	FALSE	FALSE		
	Matrix Chain Multiplication	FALSE	FALSE		
	Partition Equal Subset Sum	FALSE	FALSE		
Graphs					
	Largest Island	FALSE	FALSE		
	Is Graph A Tree?	FALSE	FALSE		
	Snakes & Ladders Problem	FALSE	FALSE		
	Shortest path in Binary Matrix	FALSE	FALSE		
	Cheapest Flights	FALSE	FALSE		
	MIT Using Prim's Algorithm (With Priority Queue)	FALSE	FALSE		
	MIT Using Kruskal's Algorithm (With Disjoint Set)	FALSE	FALSE		
	Topological Sort	FALSE	FALSE		
	M Coloring Problem	FALSE	FALSE		
	Delete Cords in Connected Graph	FALSE	FALSE		
	Breadth First	FALSE	FALSE		
	BFS on Graph	FALSE	FALSE		
	Depth First Search	FALSE	FALSE		
Mixed Questions - 3 (Concept learned in Basic DSA , Intermediate DSA and topics above will be used here. This is critical to become great in DSA.)					
	Minimum Swaps	FALSE	FALSE		
	Minimum Coins	FALSE	FALSE		
	Implement Aho Function	FALSE	FALSE		
	Generate Palindromes	FALSE	FALSE		
	Minimum Jumps to make string palindromic	FALSE	FALSE		
	Convert BST to Min Heap	FALSE	FALSE		
	Find Area Elements	FALSE	FALSE		
	Subset Sum	FALSE	FALSE		
	Path With Good Nodes	FALSE	FALSE		
	Longest Path in Directed Graph	FALSE	FALSE		
	Minimum Moves Subsequence	FALSE	FALSE		
	Longest Binary Subsequence	FALSE	FALSE		
	Longest Palindromic Substring	FALSE	FALSE		
	Number of subarray having zero sum	FALSE	FALSE		
	Merge Intervals	FALSE	FALSE		
	Merge 2 Sorted Linked List	FALSE	FALSE		
	List of Intervals	FALSE	FALSE		
	Clone Graph	FALSE	FALSE		
	Minimum K removed	FALSE	FALSE		
	Longest Increasing Path in a Matrix	FALSE	FALSE		
	City With Smallest Number of Neighbors	FALSE	FALSE		
	Non Overlapping Intervals	FALSE	FALSE		
	K Closest Elements	FALSE	FALSE		
	Maximum Equal Stack Sum	FALSE	FALSE		
	Minimum subset sum difference	FALSE	FALSE		
	Word Break Problem	FALSE	FALSE		
	Find all occurrences of multiple patterns	FALSE	FALSE		
	Unsubscribed Elements	FALSE	FALSE		
	Fast Count Sum	FALSE	FALSE		
	Palindrome Partitioning	FALSE	FALSE		
	Subset Matrix	FALSE	FALSE		
	Aho Corasick	FALSE	FALSE		
	Word Ladder	FALSE	FALSE		
	Scramble String	FALSE	FALSE		
	Palindromic Partition	FALSE	FALSE		
	Longest Characted Palindromic Decomposition	FALSE	FALSE		
	Most Stones Removed	FALSE	FALSE		
	Buy And Sell Stock (Advanced)	FALSE	FALSE		
	Maximum Size Rectangle Sub-matrix With All 1's	FALSE	FALSE		
	Path With Minimum Edges	FALSE	FALSE		

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Bit Manipulation					
	Find a value whose XOR with a given value is 0	FALSE	FALSE		
	Set 0 Bits	FALSE	FALSE		
	Set n Y	FALSE	FALSE		
	Convert Binary CDE of all substrings	FALSE	FALSE		
	Count of 0	FALSE	FALSE		
	Calculate Bits	FALSE	FALSE		
	Brian's Kernels	FALSE	FALSE		
String Algorithms					
	Boyer-Moore Algorithm	FALSE	FALSE		
	Z Algorithm	FALSE	FALSE		
	KMP Algorithm	FALSE	FALSE		
	Rabin-Karp Algorithm	FALSE	FALSE		
	Manacher's Algorithm	FALSE	FALSE		
Segment Tree					
	Range Minimum Query	FALSE	FALSE		
	Range Sum	FALSE	FALSE		
	Maximum Subarray Sum Query	FALSE	FALSE		
	Range and Merging	FALSE	FALSE		
	Range Sum	FALSE	FALSE		
	AC Queries	FALSE	FALSE		
Number Theory					
	Sieve of Eratosthenes	FALSE	FALSE		
	Sum Of Factors	FALSE	FALSE		
	Extended Euclid Algorithm	FALSE	FALSE		
	Modular Calculations	FALSE	FALSE		
	Modular Exponentiation	FALSE	FALSE		
DP with Trees					
	Maximum Length Tree	FALSE	FALSE		
	Nodes and Edges	FALSE	FALSE		

Revision Problems		
Problem Name	Problem Link	Status (Not Done Yet, Need To Review Again, Done And Deleted)

Most Important Things While Following This Roadmap :			
Don't Miss this video :It's a one time effort, but that will give you lot of clarity behind this roadmap. That will really motivate you to follow this roadmap and make you best in DSA.	Video link : https://youtu.be/qqvYFIBJMSw		
Important : If you have not created a copy, you will not be able to make changes in the sheet. Make your own copy by choosing 'Make Copy' option from 'File' Menu.	Make your own copy by choosing 'Make Copy' option from 'File' Menu.		
Deadlines are set according to the start date from the top. If you are starting today, you can change the start date and deadlines will be set accordingly.	Change Start Date From Here		
Also, for each topic deadline is assigned according to the number of days. I have set according to my own experience. But you can increase or decrease it, and deadlines will be changed accordingly.	Change Deadlines According To Days Here		
Whichever problem, you will mark for revision, will start getting updated in the revision problem section, which you can navigate from the bottom.	Check Revision Problems Here		
You can sync your calendar with the topic deadlines by changing your email id and clicking sync google calendar from top. Sometimes we need to do sync multiple times. So if in first time it will not show. Try second time again. If you still face issue, please create a new copy from original link : https://parikh.club/dsa-251-yt and try again. It should work.	Change Email Id To Sync With Google Calendar		
Last Request, this has been made with a lot of efforts and experience of learning and teaching DSA. But there can be lot of suggestions/feedback from your side which you want to improve.	Suggestion Form Link : https://forms.gle/Qb3QpZac6Xh7FvEo8		
Also, it would be a great motivation for me if you will share it on social media platforms like LinkedIn, Instagram etc. that you have started following this DSA-251 Roadmap. It will be great to know that people are actually doing it.			
Other Important Videos Helpful For You			
How to Make Notes in DSA?	https://youtu.be/lp0LcF5a1xQ		
How How Not To Learn DSA? Most Common Mistakes.	https://youtu.be/RRjekv8D-O8		
How To Learn To Code in 2023 From Scratch?	https://youtu.be/cTwALtdYmCo		
How To Manage DSA, Development, College or Office Together?	https://youtu.be/TLAARB9v9lE		