This sheet is prepared by TechMaestro Community

TechMaestro is starting 75 days coding challenge to help you learn and expertise DSA and Coding.

This challenge is specially helpful for:
1. College students who have their upcoming placement or internship season.
2. Professionals who are struggling to prepare for interview consistently.
3. Anyone who wants to learn DSA.

We will solve topic-wise DSA question every day and have a discussion at the end of the day.

Apart from learnings and daily live classes you will also get rewards on completing the milestones.

Milestone 1 - 15 day - Free Resume review
Milestone 2 - 30 days - Free Mock interview
Milestone 3 - 45 days - Goodies
Milestone 4 - 60 days - Referrals
Milestone 5 - 75 days - Chance to get into 1:1 mentoring program

What is 75 days challenge		Share this challenge on linkedin to be eligible for the rewards	
Linkedin - Follow for regular updates		https://www.linkedin.com/company/techmaestrocommunity	
Youtube - Subscribe to our channel		https://www.youtube.com/channel/UCYoGW75avSvZF1fgmHEsROA	
Discord		https://discord.gg/EMS57UtakP	
Github		https://github.com/lmkgarg/Awesome-Software-Engineering-Interview	

Day	Date	Topic	Question
		Theroy	
			https://www.interviewbit.com/tutorial/time-complexity-of-a-computer-program/#time-complexity-of-a-computer-program
			https://www.geeksforgeeks.org/understanding-time-complexity-simple-examples/
			https://www.geeksforgeeks.org/g-fact-86/
		Questions	
			https://www.interviewbit.com/courses/programming/topics/time-complexity/
Arrays			
Day One	24/3/2022	Arrays	https://leetcode.com/problems/two-sum/
			https://leetcode.com/problems/best-time-to-buy-and-sell-stock/
			https://leetcode.com/problems/plus-one/
			https://leetcode.com/problems/move-zeroes/
Day Two	25/3/2022		https://leetcode.com/problems/squares-of-a-sorted-array/
			https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/
			https://leetcode.com/problems/find-pivot-index/
			https://leetcode.com/problems/majority-element/
Day Three	26/3/2022		https://leetcode.com/problems/pascals-triangle/
			https://leetcode.com/problems/remove-duplicates-from-sorted-array/
			https://leetcode.com/problems/merge-intervals/
			https://leetcode.com/problems/3sum/
Day Four	27/3/2022		https://leetcode.com/problems/insert-delete-getrandom-o1/
			https://leetcode.com/problems/subarray-sum-equals-k/
			https://leetcode.com/problems/next-permutation/
			https://leetcode.com/problems/container-with-most-water/
Day Five	28/3/2022		https://leetcode.com/problems/spiral-matrix/
			https://leetcode.com/problems/rotate-image/
			https://leetcode.com/problems/word-search/
Day Six	29/3/2022		https://leetcode.com/problems/3sum-closest/
			https://leetcode.com/problems/game-of-life/
			https://leetcode.com/problems/pairs-of-songs-with-total-durations-divisible-by-60/
			https://leetcode.com/problems/4sum/
Day Seven	30/3/2022		https://leetcode.com/problems/combination-sum/
			https://leetcode.com/problems/jump-game-ii/
			https://leetcode.com/problems/maximum-points-you-can-obtain-from-cards/
Day Eight	31/3/2022		https://leetcode.com/problems/maximum-area-of-a-piece-of-cake-after-horizontal-and-vertical-cuts/
			https://leetcode.com/problems/max-area-of-island/
			https://leetcode.com/problems/find-all-duplicates-in-an-array/
			https://leetcode.com/problems/k-diff-pairs-in-an-array/
Day Nine	1/4/2022		https://leetcode.com/problems/invalid-transactions/
			https://leetcode.com/problems/jump-game/
			https://leetcode.com/problems/subarray-sums-divisible-by-k/
Day Ten	2/4/2022		https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/
			https://leetcode.com/problems/first-missing-positive/
			https://leetcode.com/problems/largest-rectangle-in-histogram/
Day Eleven	3/4/2022		https://leetcode.com/problems/insert-delete-getrandom-o1-duplicates-allowed/
			https://leetcode.com/problems/max-value-of-equation/
Two Pointers			
Day Twelve	4/4/2022	Two Pointers	https://leetcode.com/problems/partition-labels/
			https://leetcode.com/problems/sort-colors/
		Sliding Window	
Day Thirteen	5/4/2022		https://leetcode.com/problems/longest-repeating-character-replacement/
			https://leetcode.com/problems/subarrays-with-k-different-integers/
Binary Search			
Day Fourteen	6/4/2022	Binary Search	https://leetcode.com/problems/count-negative-numbers-in-a-sorted-matrix/
			https://leetcode.com/problems/peak-index-in-a-mountain-array/
			https://leetcode.com/problems/time-based-key-value-store/
			https://leetcode.com/problems/search-in-rotated-sorted-array/
Day Fifteen	7/4/2022		https://leetcode.com/problems/powx-n/
			https://leetcode.com/problems/find-first-and-last-position-of-element-in-sorted-array/
			https://leetcode.com/problems/find-peak-element/
			https://leetcode.com/problems/search-a-2d-matrix/
Day Sixteen	8/4/2022		https://leetcode.com/problems/divide-two-integers/
			https://leetcode.com/problems/capacity-to-ship-packages-within-d-days/
			https://leetcode.com/problems/minimum-limit-of-balls-in-a-bag/
			https://leetcode.com/problems/median-of-two-sorted-arrays/
Day Seventeen	9/4/2022		https://leetcode.com/problems/count-of-smaller-numbers-after-self/
			https://leetcode.com/problems/split-array-largest-sum/

Hashing

Hashing				
Day Eighteen	10/4/2022	Hashing	Introduction	https://www.geeksforgeeks.org/hashing-set-1-introduction/
			Open Addressing	https://www.geeksforgeeks.org/hashing-set-3-open-addressing/
			Collision handling	https://www.geeksforgeeks.org/hashing-set-2-separate-chaining/
Day Nineteen	11/04/2022			https://leetcode.com/problems/verifying-an-alien-dictionary/
				https://leetcode.com/problems/design-hashmap/
				https://leetcode.com/problems/top-k-frequent-elements/
				https://leetcode.com/problems/design-twitter/

Linked List				
Day Twenty	12/04/2022	Linked List	Reverse a LinkedList	https://leetcode.com/problems/reverse-linked-list/
			Find middle of LinkedList	https://leetcode.com/problems/middle-of-the-linked-list/
			Merge two sorted Linked List	https://leetcode.com/problems/merge-two-sorted-lists/
			Remove N-th node from back of Lis	https://leetcode.com/problems/remove-nth-node-from-end-of-list/
Day Twenty One	13/04/2022		Delete a given Node when a node	https://leetcode.com/problems/delete-node-in-a-linked-list/
			Add two numbers as LinkedList	https://leetcode.com/problems/add-two-numbers-ii/
			Find intersection point of Y LinkedL	https://leetcode.com/problems/intersection-of-two-linked-lists/
			Check if a LinkedList is palindrome	https://leetcode.com/problems/palindrome-linked-list/
Day Twenty Two	14/04/2022		Reverse a LinkedList in groups.	https://leetcode.com/problems/reverse-nodes-in-k-group/
			Detect a cycle and removing loop(	https://leetcode.com/problems/linked-list-cycle-ii/
			Rotate a LinkedList	https://leetcode.com/problems/rotate-list/
Day Twenty Thr	15/04/2022		Flattening of a LinkedList	https://leetcode.com/problems/flatten-a-multilevel-doubly-linked-list/
			Clone a Linked List with random an	https://leetcode.com/problems/copy-list-with-random-pointer/
				https://leetcode.com/problems/find-the-duplicate-number/

Stack and Queues				
Day Twenty Fou	16/04/2022	Stack		https://leetcode.com/problems/next-greater-element-ii/
				https://leetcode.com/problems/next-greater-element-ii/
				https://leetcode.com/problems/implement-stack-using-queues/
				https://leetcode.com/problems/implement-queue-using-stacks/
Day Twenty Five	17/04/2022			https://leetcode.com/problems/valid-parentheses/
				https://leetcode.com/problems/min-stack/
				https://practice.geeksforgeeks.org/problems/fab3dbbdce746976ba35c7b9b24afde40eae5a04/1/
				https://leetcode.com/problems/lru-cache/
Day Twenty Six	18/04/2022			https://leetcode.com/problems/largest-rectangle-in-histogram/
				https://leetcode.com/problems/sliding-window-maximum/
				https://leetcode.com/problems/lfu-cache/

Tree				
Day Twenty Sev	19/04/2022	Tree		https://leetcode.com/problems/diameter-of-binary-tree/
				https://leetcode.com/problems/invert-binary-tree/
				https://leetcode.com/problems/subtree-of-another-tree/
				https://leetcode.com/problems/symmetric-tree/
Day Twenty Eig	20/04/2022			https://leetcode.com/problems/convert-sorted-array-to-binary-search-tree/
				https://leetcode.com/problems/merge-two-binary-trees/
				https://leetcode.com/problems/maximum-depth-of-binary-tree/
				https://leetcode.com/problems/binary-tree-paths/
Day Twenty Nin	21/04/2022			https://leetcode.com/problems/same-tree/
				https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/
				https://leetcode.com/problems/path-sum/
				https://leetcode.com/problems/minimum-absolute-difference-in-bst/
Day Thirty	22/04/2022			https://leetcode.com/problems/sum-of-left-leaves/
				https://leetcode.com/problems/balanced-binary-tree/
				https://leetcode.com/problems/maximum-width-of-binary-tree/
				https://leetcode.com/problems/count-good-nodes-in-binary-tree/

Day Thirty One	23/04/2022			https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-tree/
				https://leetcode.com/problems/binary-tree-right-side-view/
				https://leetcode.com/problems/all-nodes-distance-k-in-binary-tree/
				https://leetcode.com/problems/serialize-and-deserialize-binary-tree/
Day Thirty Two	24/04/2022			https://leetcode.com/problems/binary-tree-zigzag-level-order-traversal/
				https://leetcode.com/problems/binary-search-tree-iterator/
				https://leetcode.com/problems/binary-tree-level-order-traversal/
				https://leetcode.com/problems/path-sum-iii/
Day Thirty Thre	25/04/2022			https://leetcode.com/problems/construct-binary-tree-from-preorder-and-postorder-traversal/
				https://leetcode.com/problems/populating-next-right-pointers-in-each-node/
				https://leetcode.com/problems/flatten-binary-tree-to-linked-list/
				https://leetcode.com/problems/maximum-width-of-binary-tree/

BST				
			Binary search tree	
Day Thirty Four	26/04/2022			https://www.geeksforgeeks.org/binary-search-tree-set-1-search-and-insertion/
				https://www.geeksforgeeks.org/binary-search-tree-set-2-delete/
				https://www.geeksforgeeks.org/floor-and-ceil-from-a-bst/
				https://leetcode.com/problems/range-sum-of-bst/
Day Thirty Five	27/04/2022			https://leetcode.com/problems/convert-sorted-array-to-binary-search-tree/
				https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/
				https://leetcode.com/problems/minimum-absolute-difference-in-bst/
				https://leetcode.com/problems/validate-binary-search-tree/
Day Thirty Six	28/04/2022			https://leetcode.com/problems/unique-binary-search-trees-ii/
				https://leetcode.com/problems/kth-smallest-element-in-a-bst/
				https://leetcode.com/problems/unique-binary-search-trees/
				https://leetcode.com/problems/recover-binary-search-tree/

Heap and PQ				
Day Thirty Seve	29/04/2022	Heap	Implementation	
			Binary heap	https://www.geeksforgeeks.org/binary-heap/
			Time complexity of building a heap	https://www.geeksforgeeks.org/time-complexity-of-building-a-heap/
			Application of heap	https://www.geeksforgeeks.org/applications-of-heap-data-structure/
			Heap sort	https://www.geeksforgeeks.org/heap-sort/
			Priority Queue	https://www.geeksforgeeks.org/why-is-binary-heap-preferred-over-bst-for-priority-queue/
Day Thirty Eigh	30/04/2022			https://www.geeksforgeeks.org/merge-k-sorted-arrays/
				https://www.geeksforgeeks.org/nearly-sorted-algorithm/
				https://leetcode.com/problems/find-median-from-data-stream/

			https://leetcode.com/problems/kth-largest-element-in-an-array/			
Day Thirty Nine	01/05/2022		https://leetcode.com/problems/merge-k-sorted-lists/			
			https://leetcode.com/problems/the-skyline-problem/			
			https://leetcode.com/problems/top-k-frequent-elements/			
Day Fourty	02/05/2022		https://leetcode.com/problems/task-scheduler/			
			https://leetcode.com/problems/network-delay-time/			
			https://leetcode.com/problems/last-stone-weight/			

Greedy

Day Fourty One	03/05/2022	Greedy	N meeting in one room	https://practice.geeksforgeeks.org/problems/n-meetings-in-one-room-1587115620/1		
			Activity Selection	https://practice.geeksforgeeks.org/problems/activity-selection-1587115620/1		
			Greedy algorithm to find minimum	https://www.geeksforgeeks.org/greedy-algorithm-to-find-minimum-number-of-coins/		
Day Fourty Two	04/05/2022		Fractional Knapsack Problem	https://practice.geeksforgeeks.org/problems/fractional-knapsack-1587115620/1/		
			Minimum number of platforms requ	https://practice.geeksforgeeks.org/problems/minimum-platforms-1587115620/1		
			Job sequencing Problem	https://practice.geeksforgeeks.org/problems/job-sequencing-problem-1587115620/1		

Backtracking

Day Fourty Thre	05/05/2022	Backtracking	Rat In a Maze	https://www.geeksforgeeks.org/rat-in-a-maze-backtracking-2/		
			Knight Tour Problem	https://www.geeksforgeeks.org/the-knights-tour-problem-backtracking-1/		
			Subset Sum	https://www.geeksforgeeks.org/subset-sum-backtracking-4/		
Day Fourty Four	06/05/2022			https://leetcode.com/problems/letter-combinations-of-a-phone-number/		
				https://leetcode.com/problems/generate-parentheses/		
			Sudoku problem	https://www.geeksforgeeks.org/sudoku-backtracking-7/		
				https://leetcode.com/problems/sudoku-solver/		
Day Fourty Five	07/05/2022			https://leetcode.com/problems/permutations/		
				https://leetcode.com/problems/combinations/		
				https://leetcode.com/problems/combination-sum/		
				https://leetcode.com/problems/combination-sum-ii/		
Day Fourty Six	8/5/2022		N Queen problem	https://www.geeksforgeeks.org/n-queen-problem-backtracking-3/		
				https://leetcode.com/problems/subsets/		
				https://leetcode.com/problems/gray-code/		
				https://leetcode.com/problems/unique-binary-search-trees-ii/		

DP

Day Fourty Seve	9/5/2022	Dynamic Programming		https://www.geeksforgeeks.org/dynamic-programming/	https://youtu.be/PHmgvQVKduc	
				https://www.hackerearth.com/practice/algorithms/dynamic-programming/introduction-to-dynamic-programming-1/tut	https://www.youtube.com/watch?v=tyB0ztf0DNY&list=PLgUwDviBfl0qUtl5H_kIKYaNSqJ81PMMY&index=2	
				https://www.discuss/general-discussion/458695/dynamic-programming-patterns	https://www.youtube.com/watch?v=mmjDZGSr7EA&list=PLqM7alHXFySGbXhWx7sBJEwY2DnhDjmxm	
				https://www.discuss/general-discussion/662866/Dynamic-Programming-for-Practice-Problems-Patterns-an		
Day Fourty Eigh	10/5/2022		Max Product Subarray	https://leetcode.com/problems/maximum-product-subarray/		
			Longest Increasing Subsequence	https://leetcode.com/problems/longest-increasing-subsequence/		
			Longest Common Subsequence	https://leetcode.com/problems/longest-common-subsequence/		
Day Fourty Nine	11/5/2022		0-1 Knapsack	https://practice.geeksforgeeks.org/problems/0-1-knapsack-problem0945/1		
			Edit Distance	https://leetcode.com/problems/edit-distance/		
			Maximum sum increasing subsequ	https://practice.geeksforgeeks.org/problems/maximum-sum-increasing-subsequence4749/1		
Day Fifty	12/5/2022		Matrix Chain Multiplication	https://practice.geeksforgeeks.org/problems/matrix-chain-multiplication0303/1/		
			Maximum sum path in matrix, (cou	https://leetcode.com/problems/minimum-path-sum/		
Day Fifty One	13/5/2022		Coin change	https://leetcode.com/problems/coin-change/		
			Subset Sum	https://practice.geeksforgeeks.org/problems/subset-sum-problem-1611555638/1/		
			Rod Cutting	https://practice.geeksforgeeks.org/problems/rod-cutting0840/1		
Day Fifty Two	14/5/2022		Egg Dropping	https://leetcode.com/problems/super-egg-drop/		
			Word Break	https://leetcode.com/problems/word-break/		
			Palindrome Partitioning (MCM Vari	https://leetcode.com/problems/palindrome-partitioning-iii/		

Graph

Day Fifty Three	15/5/2022	Graph	Inroduction	https://www.geeksforgeeks.org/graph-and-its-representations/		
			Representation	https://www.geeksforgeeks.org/graph-and-its-representations/		
			Breadth First Search	https://www.geeksforgeeks.org/breadth-first-search-or-bfs-for-a-graph/		
			Depth First Search	https://www.geeksforgeeks.org/depth-first-search-or-dfs-for-a-graph/		
Day Fifty Four	16/5/2022		Shortest path in Directed Acyclic Grap	https://www.geeksforgeeks.org/shortest-path-for-directed-acyclic-graphs/		
			Prim's Algorithm/Minimum Spanning T	https://www.geeksforgeeks.org/prims-minimum-spanning-tree-mst-greedy-algo-5/		
Day Fifty Five	17/5/2022		Dijkstra's Algorithm	https://www.geeksforgeeks.org/dijkstras-shortest-path-algorithm-greedy-algo-7/		
			Bellman-Ford shortest path algorithm	https://www.geeksforgeeks.org/bellman-ford-algorithm-dp-23/		
Day Fifty Six	18/5/2022		Kruskal's Algorithm	https://www.geeksforgeeks.org/kruskals-minimum-spanning-tree-algorithm-greedy-algo-2/		
			Boruvka's algorithm	https://www.geeksforgeeks.org/boruvkas-algorithm-greedy-algo-9/		
Day Fifty Seven	19/5/2022		Floyd Warshall	https://www.geeksforgeeks.org/floyd-warshall-algorithm-dp-16/		
			Kosaraju's algorithm	https://www.geeksforgeeks.org/connectivity-in-a-directed-graph/		
Day Fifty Eight	20/5/2022		Articulation point	https://www.geeksforgeeks.org/articulation-points-or-cut-vertices-in-a-graph/		
			Bridges in graph	https://www.geeksforgeeks.org/bridge-in-a-graph/		
Day Fifty Nine	21/05/2022		Tarjan's ALgorithm	https://www.geeksforgeeks.org/tarjan-algorithm-find-strongly-connected-components/		
			Eulerian path and circuit	https://www.geeksforgeeks.org/eulerian-path-and-circuit/		
			Topological Sort	https://www.geeksforgeeks.org/topological-sorting/		

Union Find

Day Sixty	22/5/2022	Disjoint set				
			Find and Union operations	https://www.geeksforgeeks.org/union-find/		
			Union by rank	https://www.geeksforgeeks.org/union-find-algorithm-union-rank-find-optimized-path-compression/		
			Path compression	https://www.geeksforgeeks.org/union-find-algorithm-union-rank-find-optimized-path-compression/		
Day Sixty One	23/5/2022		Questions	https://leetcode.com/problems/clone-graph/		
				https://leetcode.com/problems/course-schedule/		
				https://leetcode.com/problems/minimum-height-trees/		
				https://leetcode.com/problems/reconstruct-itinerary/		
Day Sixty Two	24/5/2022			https://leetcode.com/problems/evaluate-division/		
				https://leetcode.com/problems/number-of-provinces/		
				https://leetcode.com/problems/redundant-connection/		
				https://leetcode.com/problems/network-delay-time/		

Day Sixty Three	25/2/2022			https://leetcode.com/problems/is-graph-bipartite/
				https://leetcode.com/problems/cheapest-flights-within-k-stops/
				https://leetcode.com/problems/find-eventual-safe-states/
				https://leetcode.com/problems/keys-and-rooms/
Day Sixty Four	26/5/2022			https://leetcode.com/problems/reachable-nodes-in-subdivided-graph/
				https://leetcode.com/problems/possible-bipartition/
				https://leetcode.com/problems/satisfiability-of-equality-equations/
				https://leetcode.com/problems/find-the-town-judge/
Day Sixty Five	27/5/2022			https://leetcode.com/problems/critical-connections-in-a-network/
				https://leetcode.com/problems/number-of-operations-to-make-network-connected/
				https://leetcode.com/problems/frog-position-after-t-seconds/
				https://leetcode.com/problems/parallel-courses-ii/
Day Sixty Six	28/5/2022			https://leetcode.com/problems/word-ladder/
				https://leetcode.com/problems/word-ladder-ii/
				https://leetcode.com/problems/reachable-nodes-in-subdivided-graph/
				https://leetcode.com/problems/regions-cut-by-slashes/

Strings

Day Sixty Seven		Strings		
	29/5/2022		KMP	https://www.geeksforgeeks.org/kmp-algorithm-for-pattern-searching/
			Robin Karp	https://www.geeksforgeeks.org/rabin-karp-algorithm-for-pattern-searching/
			Z Algo	https://www.geeksforgeeks.org/z-algorithm-linear-time-pattern-searching-algorithm/
				https://leetcode.com/problems/add-strings/
Day Sixty Eight	30/5/2022			https://leetcode.com/problems/longest-common-prefix/
				https://leetcode.com/problems/valid-palindrome-ii/
				https://leetcode.com/problems/roman-to-integer/
Day Sixty Nine	31/5/2022			https://leetcode.com/problems/implement-strstr/
				https://leetcode.com/problems/longest-substring-without-repeating-characters/
				https://leetcode.com/problems/minimum-remove-to-make-valid-parentheses/
				https://leetcode.com/problems/longest-palindromic-substring/
Day Seventy	1/6/2022			https://leetcode.com/problems/group-anagrams/
				https://leetcode.com/problems/generate-parentheses/
				https://leetcode.com/problems/longest-substring-with-at-least-k-repeating-characters/
				https://leetcode.com/problems/sliding-window-median/

Trie

Day Seventy On	2/6/2022	Trie		
			Insert and Search	https://www.geeksforgeeks.org/trie-insert-and-search/
			Delete	https://www.geeksforgeeks.org/trie-delete/
				https://leetcode.com/problems/implement-trie-prefix-tree/
Day Seventy Tw	3/6/2022			https://www.geeksforgeeks.org/print-unique-rows/
				https://www.geeksforgeeks.org/longest-prefix-matching-a-trie-based-solution-in-java/
				https://www.geeksforgeeks.org/implement-reverse-dns-look-cache/
				https://www.geeksforgeeks.org/implement-forward-dns-look-cache/
Day Seventy Th	4/6/2022			https://leetcode.com/problems/stream-of-characters/
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Maths

Day Seventy Four		Maths		https://leetcode.com/problems/happy-number/
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