

DSA Revision Content

How to use this document?

Watch this quick video for a detailed guide: <https://bit.ly/dsa-onestop-video>

A. Quick Revision Topics

Topic	Revision Material	Videos	Important Questions & Links
Arrays	Revision Part 1: Arrays	Arrays	1. Equilibrium index of an array 2. Rain water trapped
Bit Manipulation	Bit Manipulation	bits.mp4	1. Single Number 2 2. Single Number 3
Sorting	Sorting	Sorting1.mov Sorting 2.mov	1. Merge Sort 2. B closest Point to Origin [Custom comparator]
Binary Search	Binary Search	Binary Search	1. Rotated Sorted Array Search 2. Painters Partition Problem
HashMap	Hashing:		1. Longest Subarray Zero Sum
Stacks	Stacks	Stacks.mp4	1. Balanced Parenthesis 2. Largest rectangle in histogram 3. LINK
Trees	Trees	Binary Trees	1. Zig Zag Level order 2. Binary Tree from In and Preorder 3. Diameter of Binary Tree 4. LINK
LinkedLists	LinkedList	Linked List.mp4	1. Remove Loop from Linked List 2. LINK
Dynamic Programming	Dynamic Programming	DP	1. 0-1 Knapsack 2. Fibonacci Sequence 3. N Stairs
Graph	Graph		1. LINK
Heaps	Heaps		1. K Places Apart 2. LINK
Greedy			1. LINK

B. Quick Practice Test & Material Access

Additional Resources	
Sample Question List for Mock Interview	Sample Question List for Mock Interview
Demo DSA Mock Interview	LINK
How to find particular assignment questions?	https://rb.gy/2e74f

C. Instructor Led Revision Sessions

Recorded Revision Sessions	
Greedy, Heaps, Backtracking	LINK
Tree & LinkedList	LINK
Sorting and Searching	LINK
Graphs	LINK
Dynamic Programming	LINK
DSA 1 & 2	LINK
DSA 3 & 4	LINK
Complete DSA Revision	LINK

D. 100 Sample Questions - Topic Wise

Arrays	
Find Perfect Numbers	www.scaler.com/academy/mentee/problems/29084
Array Rotation	www.scaler.com/academy/mentee/problems/29098
Range Sum Query - II	www.scaler.com/academy/mentee/problems/27366
Equilibrium index of an array	www.scaler.com/academy/mentee/problems/12826
Product array puzzle	www.scaler.com/academy/mentee/problems/4103
Closest MinMax	www.scaler.com/academy/mentee/problems/986
Bulbs	www.scaler.com/academy/mentee/problems/16728
Pick from both sides!	www.scaler.com/academy/mentee/problems/9900
Generate all subarrays	www.scaler.com/academy/mentee/problems/26732
Sum of All Subarrays	www.scaler.com/academy/mentee/problems/14363
Alternating Subarrays Easy	www.scaler.com/academy/mentee/problems/16123
Rotate Matrix	www.scaler.com/academy/mentee/problems/55
Anti Diagonals	www.scaler.com/academy/mentee/problems/293
Subarray with given sum and length	www.scaler.com/academy/mentee/problems/30351
Length of longest consecutive ones	www.scaler.com/academy/mentee/problems/4256
Majority Element	www.scaler.com/academy/mentee/problems/41388
Special Index	www.scaler.com/academy/mentee/problems/12828
Max Sum Contiguous Subarray	www.scaler.com/academy/mentee/problems/56
Sum of all Submatrices	www.scaler.com/academy/mentee/problems/4091
Search in a row wise and column wise sorted matrix	www.scaler.com/academy/mentee/problems/4092
Rain water trapped	www.scaler.com/academy/mentee/problems/47
Merge Intervals	www.scaler.com/academy/mentee/problems/58
First Missing Integer	www.scaler.com/academy/mentee/problems/65
Container With Most Water	www.scaler.com/academy/mentee/problems/169
Bit Manipulation	
Single Number 2	www.scaler.com/academy/mentee/problems/195
Single Number 3	www.scaler.com/academy/mentee/problems/9184

Maximum AND Pair	www.scaler.com/academy/mentee/problems/19558
Maths	
Delete one	www.scaler.com/academy/mentee/problems/9103
Pubg	www.scaler.com/academy/mentee/problems/9104
Find All Primes	www.scaler.com/academy/mentee/problems/35398
Count of Divisors	www.scaler.com/academy/mentee/problems/4107
Sorted Permutation Rank	www.scaler.com/academy/mentee/problems/317
Excel Column Title	www.scaler.com/academy/mentee/problems/76
Sorting	
Inversion count in an array	www.scaler.com/academy/mentee/problems/4190
Unique Elements	www.scaler.com/academy/mentee/problems/26673
B Closest Points to Origin	www.scaler.com/academy/mentee/problems/4194
Sum the Difference	www.scaler.com/academy/mentee/problems/453
Maximum Unsorted Subarray	www.scaler.com/academy/mentee/problems/359
Hashing	
Pairs with given sum II	www.scaler.com/academy/mentee/problems/5097
Sub-array with 0 sum	www.scaler.com/academy/mentee/problems/4202
Longest Consecutive Sequence	www.scaler.com/academy/mentee/problems/152
First non-repeating character	www.scaler.com/academy/mentee/problems/4365
Longest Subarray Zero Sum	www.scaler.com/academy/mentee/problems/27742
Binary Search	
Find a peak element	www.scaler.com/academy/mentee/problems/4132
Rotated Sorted Array Search	www.scaler.com/academy/mentee/problems/203
Median of Array	www.scaler.com/academy/mentee/problems/198
Ath Magical Number	www.scaler.com/academy/mentee/problems/5697
Painter's Partition Problem	www.scaler.com/academy/mentee/problems/271
LinkedList	
Reverse Linked List	www.scaler.com/academy/mentee/problems/40
Remove Loop from Linked List	www.scaler.com/academy/mentee/problems/4226
Longest Palindromic List	www.scaler.com/academy/mentee/problems/4386

Palindrome List	www.scaler.com/academy/mentee/problems/331
LRU Cache	www.scaler.com/academy/mentee/problems/239
Reorder List	www.scaler.com/academy/mentee/problems/33
Add Two Numbers as Lists	www.scaler.com/academy/mentee/problems/38
Stack and Queue	
Evaluate Expression	www.scaler.com/academy/mentee/problems/46
Double Character Trouble	www.scaler.com/academy/mentee/problems/968
Largest Rectangle in Histogram	www.scaler.com/academy/mentee/problems/49
MAX and MIN	www.scaler.com/academy/mentee/problems/7042
Sliding Window Maximum	www.scaler.com/academy/mentee/problems/85621
Trees	
Right View of Binary tree	www.scaler.com/academy/mentee/problems/5714
Vertical Order traversal	www.scaler.com/academy/mentee/problems/378
Largest BST Subtree	www.scaler.com/academy/mentee/problems/4857
Valid Binary Search Tree	www.scaler.com/academy/mentee/problems/221
Recover Binary Search Tree	www.scaler.com/academy/mentee/problems/216
Morris Inorder Traversal	www.scaler.com/academy/mentee/problems/35988
Least Common Ancestor	www.scaler.com/academy/mentee/problems/218
Diameter of binary tree	www.scaler.com/academy/mentee/problems/9256
Path Sum	www.scaler.com/academy/mentee/problems/234
Dynamic Programming	
Stairs	www.scaler.com/academy/mentee/problems/30
Minimum Number of Squares	www.scaler.com/academy/mentee/problems/600
Dungeon Princess	www.scaler.com/academy/mentee/problems/17
Fractional Knapsack	www.scaler.com/academy/mentee/problems/35883
0-1 Knapsack	www.scaler.com/academy/mentee/problems/9292
Coin Sum Infinite	www.scaler.com/academy/mentee/problems/319
Cutting a Rod	www.scaler.com/academy/mentee/problems/9318
Graphs	
Number of islands	www.scaler.com/academy/mentee/problems/4702

Topological Sort	www.scaler.com/academy/mentee/problems/9328
Dijkstra	www.scaler.com/academy/mentee/problems/4706
Rotten Oranges	www.scaler.com/academy/mentee/problems/4704