

DSA Sheet

By BossCoder

STRUCTURED. COMPREHENSIVE. RESULTS-DRIVEN.





Disclaimer

| Before you start with the sheet, a quick heads-up 

This sheet is here to help you master DSA the smart way. Every problem is carefully picked from **Leetcode** and **GeeksforGeeks** with guidance from experienced mentors.

But remember, Don't just skim through solutions.

**Take your time. Think through the problem.
Try solving it your way first.**

Only then check out different approaches, that's how you really grow.

Why Use This Sheet? —

Here's why we feel this sheet is right for you

STRUCTURED LEARNING PATH

Start from the basics and scale up to advanced topics. Each topic flows into the next so you're never lost or stuck.

1

PROVEN TRACK RECORD

Over 1000+ learners have used this exact sheet to crack roles at FAANG, Microsoft, and other top-tier companies.

2

TIME-EFFICIENT & FOCUSED

Every problem here has a purpose. No time-wasters, no duplicates, just what you need to know.

3

PATTERN-BASED APPROACH

You won't just solve problems, you'll understand how to spot patterns, reuse logic, and approach any unseen question with confidence.

4

01

ARRAYS

1-D Array

#	Algorithm	Practice Link	Asked in
01	Richest Customer Wealth	 Link	
02	Two Sum	 Link	
03	Count Negative Numbers In A Sorted Matrix	 Link	
04	Next Permutation	 Link	
05	Median Of Two Sorted Arrays	 Link	
06	Find Greatest Common Divisor Of Array	 Link	
07	Self Dividing Numbers	 Link	

#	Algorithm	Practice Link	Asked in
08	Inversion Of Array - 1587115620	Link	
09	Reverse Pairs	Link	

2-D Array

#	Algorithm	Practice Link	Asked in
10	Special Positions In A Binary Matrix	Link	
11	Transpose Matrix	Link	
12	01 Matrix	Link	
13	Spiral Matrix	Link	
14	Pascal's Triangle	Link	

Prefix Sum

#	Algorithm	Practice Link	Asked in
15	Minimum Size Subarray Sum	 Link	  
16	Running Sum Of 1d Array	 Link	  
17	Range Sum Query 2D Immutable	 Link	  

Kadane's Algorithm

#	Algorithm	Practice Link	Asked in
18	Maximum Subarray	 Link	  
19	Maximum Sum Circular Subarray	 Link	  
20	Longest Turbulent Subarray	 Link	  

Sliding Window (Fixed/Variable Size)

#	Algorithm	Practice Link	Asked in
21	Contains Duplicate II	 Link	  
22	Number Of Sub-Arrays Of Size K And Average ..	 Link	  
23	Minimum Size Subarray Sum	 Link	 
24	Longest Substring Without Repeating Characters	 Link	  
25	Longest Repeating Character Replacement	 Link	  

Two Pointers

#	Algorithm	Practice Link	Asked in
26	Container With Most Water	 Link	 

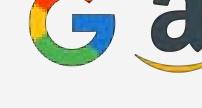
#	Algorithm	Practice Link	Asked in
27	Trapping Rain Water	 Link	  
28	Two Sum II - Input Array Is Sorted	 Link	  
29	K-Diff Pairs In An Array	 Link	  
30	Find K Closest Elements	 Link	  

BINARY SEARCH

#	Algorithm	Practice Link	Asked in
31	Search In Rotated Sorted Array	 Link	  
32	Remove Duplicates from Sorted Array	 Link	  
33	Find First And Last Position Of Element In Sorted Array	 Link	  
34	Search A 2D Matrix	 Link	  
35	Find Peak Element	 Link	  
36	Single Element In A Sorted Array	 Link	  
37	Preimage Size Of Factorial Zeroes Function	 Link	 

03

SORTING

#	Algorithm	Practice Link	Asked in
38	Check If Two Arrays Are Equal Or Not	 Link	 
39	Binary Array Sorting	 Link	
40	Sort Colors	 Link	
41	Kth Largest Element In An Array	 Link	 
42	Minimum Absolute Difference	 Link	 
43	K Closest Points To Origin	 Link	
44	Max Chunks To Make Sorted	 Link	 

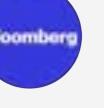
04

HASHING

#	Algorithm	Practice Link	Asked in
45	Contiguous Array	 Link	  
46	Longest Consecutive Sequence	 Link	  
47	Subarray Sum Equals K	 Link	  
48	Valid Anagram	 Link	  
49	Valid Sudoku	 Link	  
50	Ugly Number II	 Link	  
51	Subarray Sum Equals K	 Link	  

#	Algorithm	Practice Link	Asked in
52	Max Points On A Line	 Link	  
53	Palindrome Pairs	 Link	  

#	Algorithm	Practice Link	Asked in
54	Middle Of The Linked List	 Link	  
55	Maximum Twin Sum Of A Linked List	 Link	  
56	Merge Two Sorted Lists	 Link	  
57	Linked List Cycle	 Link	 
58	Reverse Nodes In K-Group	 Link	  
59	Remove Nth Node From End Of List	 Link	  
60	Linked List Cycle II	 Link	

#	Algorithm	Practice Link	Asked in
61	Delete Node In A Linked List	 Link	  
62	Reverse Linked List	 Link	  
63	Palindrome Linked List	 Link	  
64	Remove Linked List Elements	 Link	  
65	Convert Binary Number In A Linked List To Integer	 Link	  
66	Remove Duplicates From Sorted List II	 Link	 
67	Reverse Linked List II	 Link	  
68	Sort List	 Link	 

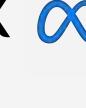
STACK AND QUEUE

#	Algorithm	Practice Link	Asked in
69	Implement Stack Using Queues	 Link	  
70	Implement Queue Using Stacks	 Link	
71	Backspace String Compare	 Link	  
72	Baseball Game	 Link	  
73	Longest Valid Parentheses	 Link	  
74	Evaluate Reverse Polish Notation	 Link	  
75	Daily Temperatures	 Link	  

#	Algorithm	Practice Link	Asked in
76	Largest Rectangle In Histogram	 Link	  
77	Min Stack	 Link	 
78	Minimum Remove To Make Valid Parentheses	 Link	  

#	Algorithm	Practice Link	Asked in
79	Find Median From Data Stream	 Link	  
80	Merge K Sorted Lists	 Link	  
81	Find K Pairs With Smallest Sums	 Link	  
82	Meeting Rooms II	 Link	  
83	Top K Frequent Elements	 Link	  
84	K Closest Points To Origin	 Link	  

Recursion

#	Algorithm	Practice Link	Asked in
85	Count Good Numbers	 Link	  
86	Permutations	 Link	  
87	Permutations II	 Link	  
88	Subsets	 Link	  
89	Basic Calculator	 Link	  
90	Wildcard Matching	 Link	  

Backtracking

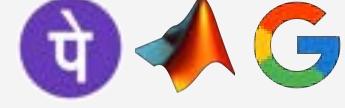
#	Algorithm	Practice Link	Asked in
91	Combinations	 Link	  
92	Combination Sum	 Link	  
93	Combination Sum III	 Link	  
94	Letter Combinations Of A Phone Number	 Link	  
95	Gray Code	 Link	  
96	Letter Case Permutation	 Link	  
97	N-Queens	 Link	  
98	Sudoku Solver	 Link	  

Binary Tree

#	Algorithm	Practice Link	Asked in
99	Construct Binary Tree From Inorder And Postorder Traversal	 Link	  
100	Construct Binary Tree From Preorder And Inorder Traversal	 Link	 
101	Path Sum	 Link	  
102	Same Tree	 Link	  

Level Order Traversal (BFS)

#	Algorithm	Practice Link	Asked in
103	Binary Tree Level Order Traversal	 Link	  

#	Algorithm	Practice Link	Asked in
104	Invert Binary Tree	 Link	
105	Minimum Cost Tree From Leaf Values	 Link	
106	Binary Tree Zigzag Level Order Traversal	 Link	

DFS (Recursive & Iterative)

#	Algorithm	Practice Link	Asked in
107	Maximum Depth Of Binary Tree	 Link	
108	Sum Of Left Leaves	 Link	
109	Binary Tree Right Side View	 Link	
110	Path Sum II	 Link	

#	Algorithm	Practice Link	Asked in
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111

Path Sum III

 [Link](#)

BST

#	Algorithm	Practice Link	Asked in
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112

Lowest Common
Ancestor Of A Binary
Search Tree [Link](#)

113

Closest Binary Search
Tree Value II [Link](#)

114

Trim A Binary Search
Tree [Link](#)

115

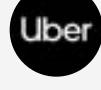
Search In A Binary
Search Tree [Link](#)

BBST(AVL Tree)

#	Algorithm	Practice Link	Asked in
116	Queue Reconstruction By Height	 Link	  
117	Binary Tree Pruning	 Link	  
118	Balance A Binary Search Tree	 Link	  
119	Balanced Binary Tree	 Link	  

Trie

#	Algorithm	Practice Link	Asked in
120	Implement Trie (Prefix Tree)	 Link	  

#	Algorithm	Practice Link	Asked in
121	Design Add And Search Words Data Structure	 Link	  
122	Word Search II	 Link	  

#	Algorithm	Practice Link	Asked in
123	Redundant Connection	 Link	  
124	Accounts Merge	 Link	  

Segment Tree (Range Queries)

#	Algorithm	Practice Link	Asked in
125	Range Sum Query Mutable	 Link	  

#	Algorithm	Practice Link	Asked in
126	Longest Increasing Subsequence II	 Link	

10

GRAPHS

BFS & DFS

#	Algorithm	Practice Link	Asked in
127	Rotting Oranges	 Link	  
128	Word Ladder	 Link	  
129	Number Of Provinces	 Link	  
130	Number Of Enclaves	 Link	  

Detect Cycle in Undirected/ Directed Graph

#	Algorithm	Practice Link	Asked in
131	Detect Cycle In An Undirected Graph	 Link	  

#	Algorithm	Practice Link	Asked in
132	Detect Cycle In A Directed Graph	 Link	  
133	Course Schedule	 Link	  
134	Course Schedule II	 Link	 
135	Find Eventual Safe States	 Link	  
136	Alien Dictionary	 Link	  

Dijkstra's Algorithm (SSSP)

#	Algorithm	Practice Link	Asked in
137	Network Delay Time	 Link	  
138	Shortest Path In Binary Matrix	 Link	  

#	Algorithm	Practice Link	Asked in
139	Path With Minimum Effort	 Link	  
140	Cheapest Flights Within K Stops	 Link	  

Prim's & Kruskal's (MST)

#	Algorithm	Practice Link	Asked in
141	Min Cost To Connect All Points	 Link	  
142	Find Critical And Pseudo-Critical Edges In Minimum Spanning Tree	 Link	 
143	Connecting Cities With Minimum Cost	 Link	

Floyd-Warshall (APSP)

#	Algorithm	Practice Link	Asked in
144	Course Schedule IV	 Link	  
145	Find The City With The Smallest Number Of Neighbors At A...	 Link	  
146	Number Of Ways To Arrive At Destination	 Link	  

10

GREEDY

#	Algorithm	Practice Link	Asked in
147	Non-Overlapping Intervals	🔗 Link	  
148	Minimum Platforms	🔗 Link	  
149	Maximize Sum Of Array After K Negations	🔗 Link	 
150	Assign Mice To Holes	🔗 Link	  
151	Maximum Product Of Three Numbers	🔗 Link	  
152	Bulb Switcher	🔗 Link	  
153	Candy	🔗 Link	  
154	Maximum Swap	🔗 Link	  

10

DYNAMIC PROGRAMMING

Climbing Stairs

#	Algorithm	Practice Link	Asked in
155	Climbing Stairs	 Link	  
156	Decode Ways	 Link	  
157	Frog Jump	 Link	  

Coin Change (1D DP)

#	Algorithm	Practice Link	Asked in
158	Coin Change	 Link	  
159	Minimum Jumps To Reach Home	 Link	  

Buy and Sell Stock

#	Algorithm	Practice Link	Asked in
160	Best Time To Buy And Sell Stock	 Link	 
161	Best Time To Buy And Sell Stock II	 Link	  
162	Best Time To Buy And Sell Stock III	 Link	  
163	Best Time To Buy And Sell Stock IV	 Link	  
164	Best Time To Buy And Sell Stock With Cooldown	 Link	  
165	Best Time To Buy And Sell Stock With Transaction Fee	 Link	  

0/1 Knapsack

#	Algorithm	Practice Link	Asked in
166	Partition Equal Subset Sum	 Link	  

#	Algorithm	Practice Link	Asked in
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167	Ones And Zeroes	 Link	
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Unbounded Knapsack

#	Algorithm	Practice Link	Asked in
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168	Coin Change II	 Link	  
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169	Last Stone Weight II	 Link	 
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Longest Common Subsequence (LCS)

#	Algorithm	Practice Link	Asked in
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170	Longest Common Subsequence	 Link	  
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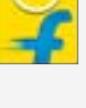
171	Edit Distance	 Link	  
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#	Algorithm	Practice Link	Asked in
172	Longest Palindromic Subsequence	 Link	  
173	Minimum Insertion Steps To Make A String Palindrome	 Link	  

Longest Increasing Subsequence (LIS)

#	Algorithm	Practice Link	Asked in
174	Longest Increasing Subsequence	 Link	  <small>SAMSUNG</small>
175	Largest Divisible Subset	 Link	  
176	Longest String Chain	 Link	  

Matrix Chain Multiplication (MCM)

#	Algorithm	Practice Link	Asked in
177	Minimum Cost To Cut A Stick	 Link	  
178	Burst Balloons	 Link	  
179	Parsing A Boolean Expression	 Link	  
180	Palindrome Partitioning II	 Link	  

DP on Grids and Trees

#	Algorithm	Practice Link	Asked in
181	Shortest Path Visiting All Nodes	 Link	  
182	Unique Paths	 Link	  

#	Algorithm	Practice Link	Asked in
183	Unique Paths II	 Link	  
184	Minimum Path Sum	 Link	  
185	Russian Doll Envelopes	 Link	  

#	Algorithm	Practice Link	Asked in
186	Find Greatest Common Divisor Of Array	 Link	  
187	Self Dividing Numbers	 Link	 
188	Number Of Good Pairs	 Link	  
189	Four Divisors	 Link	
190	Day Of The Week	 Link	 
191	Subtract The Product And Sum Of Digits Of An Integer	 Link	 
192	Count Of Matches In Tournament	 Link	  

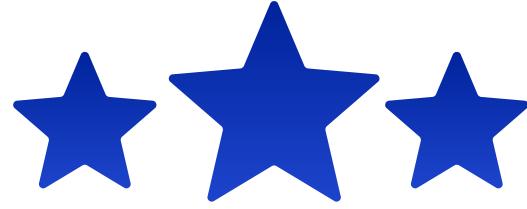
#	Algorithm	Practice Link	Asked in
193	Max Consecutive Ones	 Link	 
194	Rectangle Overlap	 Link	  
195	Excel Sheet Column	 Link	  
196	Unique Paths	 Link	  
197	Rectangle Area	 Link	  
198	Check If Array Pairs Are Divisible By K	 Link	  
199	Factorial Trailing Zeroes	 Link	  
200	Nth Magical Number	 Link	  
201	Permutation Sequence	 Link	  

Bit Manipulation Tricks

#	Algorithm	Practice Link	Asked in
202	Single Number	 Link	  
203	Reverse Bits	 Link	  
204	Single Number II	 Link	  
205	Number Of 1 Bits	 Link	  
206	Factorial Trailing Zeros	 Link	  
207	Binary Number With Alternating Bits	 Link	 
208	Number Of Even And Odd Bits	 Link	  

Rabin-Karp (Rolling Hash)

#	Algorithm	Practice Link	Asked in
209	Find The Index Of The First Occurrence In A String	 Link	 
210	Repeated DNA Sequences	 Link	 
211	Longest Duplicate Substring	 Link	  



WHY BOSSCODER?

01

STRUCTURED INDUSTRY-VETTED CURRICULUM

Our curriculum covers everything you need to get become a skilled software engineer & get placed.

02

1:1 MENTORSHIP SESSIONS

You are assigned a personal mentor currently working in Top product based companies.

03

2200+ ALUMNI PLACEMENT

2200+ Alumni placed at Top Product-based companies.

04

24 LPA AVERAGE PACKAGE

Our Average Placement Package is **24 LPA** and highest is **98 LPA**



Niranjan Bagade

Software Engineer,
British Petroleum

10 Years
Experience

NICE
Software Eng.
Specialist

Hike
 **83%** 

British Petroleum
Software Engineer



Dheeraj Barik

Software Engineer 2,
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Infosys
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