

# TOP 150

## DSA Interview Questions



Asked In Product-Based Companies & Startups



## \*Disclaimer\*

**EVERYONE LEARNS UNIQUELY.**

What matters is developing the problem solving ability  
to solve new problems.

This Doc will help you with the same.

# Introduction —

Preparing for coding interviews often requires both depth and focus. Companies, whether high-growth startups or established product-based organizations, expect strong command over Data Structures and Algorithms (DSA).

To help you prepare effectively, we have curated the **Top 150 DSA Interview Questions**, organized topic by topic for structured practice.

This resource is designed to provide:

- Clarity by topic with questions arranged systematically.
- Balanced coverage of patterns asked in both startups and product-based companies.
- Practical progression from fundamental to advanced problem-solving.

Whether you are revisiting core concepts or aiming to refine your advanced skills, this guide will help you approach interviews with confidence and precision.

## 01

## ARRAYS

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
01	Two Sum	 <a href="#">Link</a>	  
02	Best Time To Buy And Sell Stock	 <a href="#">Link</a>	  
03	Product Of Array Except Self	 <a href="#">Link</a>	  
04	Maximum Subarray	 <a href="#">Link</a>	  
05	Maximum Product Subarray	 <a href="#">Link</a>	  
06	Search In Rotated Sorted Array	 <a href="#">Link</a>	
07	3 Sum	 <a href="#">Link</a>	  

#	Algorithm	Practice Link	Asked in
08	Trapping Rain Water	 <a href="#">Link</a>	
09	Merge Intervals	 <a href="#">Link</a>	
10	Container With Most Water	 <a href="#">Link</a>	

## Startups:

#	Algorithm	Practice Link	Asked in
11	Rotate Array	 <a href="#">Link</a>	
12	Sort Colors (Dutch National Flag)	 <a href="#">Link</a>	
13	Equilibrium Index	 <a href="#">Link</a>	
14	Kth Largest Element In An Array	 <a href="#">Link</a>	

#	Algorithm	Practice Link	Asked in
15	Count Inversions	 <a href="#">Link</a>	
16	Maximum Sum Circular Subarray	 <a href="#">Link</a>	
17	Merge Sorted Arrays Without Extra Space	 <a href="#">Link</a>	
18	Find Duplicates In Array	 <a href="#">Link</a>	
19	Wave Array	 <a href="#">Link</a>	
20	Alternate High Low Array	 <a href="#">Link</a>	

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
21	Longest Substring Without Repeating Characters	 <a href="#">Link</a>	  
22	Group Anagrams	 <a href="#">Link</a>	 
23	Longest Palindromic Substring	 <a href="#">Link</a>	 
24	Smallest Window Containing All Characters	 <a href="#">Link</a>	 
25	Check For Anagram	 <a href="#">Link</a>	 
26	Longest Common Prefix	 <a href="#">Link</a>	 
27	String To Integer (Atoi)	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
28	Valid Palindrome	 <a href="#">Link</a>	 
29	Implement StrStr()	 <a href="#">Link</a>	 
30	Multiply Strings	 <a href="#">Link</a>	 

## Startups:

#	Algorithm	Practice Link	Asked in
31	Remove Duplicate Characters	 <a href="#">Link</a>	 
32	Check Balanced Parentheses	 <a href="#">Link</a>	 
33	Reverse Words In A Sentence	 <a href="#">Link</a>	 
34	Count And Say	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
35	Run-Length Encoding	 <a href="#">Link</a>	
36	Compare Version Numbers	 <a href="#">Link</a>	
37	Longest Prefix Suffix (KMP)	 <a href="#">Link</a>	
38	String Compression	 <a href="#">Link</a>	
39	Check If Rotations	 <a href="#">Link</a>	
40	Check If Strings Are Isomorphic	 <a href="#">Link</a>	

# 03

# MATRIX

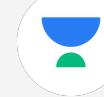
## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
41	Set Matrix Zeroes	 <a href="#">Link</a>	 
42	Spiral Matrix	 <a href="#">Link</a>	
43	Search A 2D Matrix	 <a href="#">Link</a>	 
44	Word Search	 <a href="#">Link</a>	 
45	Rotate Image (Matrix)	 <a href="#">Link</a>	 
46	Number Of Islands	 <a href="#">Link</a>	 
47	Max Area Of Island	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
48	Flood Fill	 <a href="#">Link</a>	
49	Matrix Block Sum	 <a href="#">Link</a>	 
50	Diagonal Traverse	 <a href="#">Link</a>	 

## Startups:

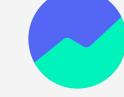
#	Algorithm	Practice Link	Asked in
51	Transpose Of A Matrix	 <a href="#">Link</a>	
52	Boolean Matrix Problem	 <a href="#">Link</a>	 
53	Find Row With Max 1s	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
54	Search Element In Sorted Matrix	 <a href="#">Link</a>	 
55	Count Total Set Bits In Matrix	 <a href="#">Link</a>	 
56	Rotate Matrix By 90 Degree	 <a href="#">Link</a>	 
57	Find Median In Row-Wise Sorted Matrix	 <a href="#">Link</a>	 
58	Count Squares In Binary Matrix	 <a href="#">Link</a>	
59	Kth Smallest Element In Sorted Matrix	 <a href="#">Link</a>	 
60	Matrix Diagonal Sum	 <a href="#">Link</a>	 

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
61	Next Greater Element	 <a href="#">Link</a>	  
62	Valid Parentheses	 <a href="#">Link</a>	 
63	Evaluate Reverse Polish Notation	 <a href="#">Link</a>	 
64	Implement Queue Using Stacks	 <a href="#">Link</a>	 
65	The Celebrity Problem	 <a href="#">Link</a>	 

## Startups:

#	Algorithm	Practice Link	Asked in
66	Stock Span Problem	 <a href="#">Link</a>	 
67	Sliding Window Maximum	 <a href="#">Link</a>	 
68	Implement Stack Using Queues Companies: Curefit, PhonePe	 <a href="#">Link</a>	 
69	First Non-Repeating Character In Stream	 <a href="#">Link</a>	 
70	LRU Cache (Design)	 <a href="#">Link</a>	

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
71	Maximum Depth Of Binary Tree	 <a href="#">Link</a>	
72	Validate Binary Search Tree	 <a href="#">Link</a>	 
73	Lowest Common Ancestor Of BST	 <a href="#">Link</a>	 
74	Binary Tree Level Order Traversal	 <a href="#">Link</a>	
75	Invert/Flip Binary Tree	 <a href="#">Link</a>	 
76	Serialize And Deserialize Binary Tree	 <a href="#">Link</a>	 
77	Construct Binary Tree From Preorder And Inorder	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
78	Path Sum	 <a href="#">Link</a>	
79	Symmetric Tree	 <a href="#">Link</a>	
80	Subtree Of Another Tree	 <a href="#">Link</a>	

## Startups:

#	Algorithm	Practice Link	Asked in
81	Print Boundary Of Binary Tree	 <a href="#">Link</a>	 
82	Right View Of Binary Tree	 <a href="#">Link</a>	 
83	Left View Of Binary Tree	 <a href="#">Link</a>	 
84	Convert Binary Tree To DLL	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
85	K Distance From Root	 <a href="#">Link</a>	 
86	Zigzag Level Order Traversal	 <a href="#">Link</a>	
87	Print All Root To Leaf Paths	 <a href="#">Link</a>	 
88	Flatten Binary Tree To Linked List	 <a href="#">Link</a>	 
89	Diagonal Traversal Of Binary Tree	 <a href="#">Link</a>	 
90	Bottom View Of Binary Tree	 <a href="#">Link</a>	 

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
91	Top K Frequent Elements	 <a href="#">Link</a>	  
92	Find Median From Data Stream	 <a href="#">Link</a>	 
93	Kth Largest Element In An Array	 <a href="#">Link</a>	 
94	Merge K Sorted Lists	 <a href="#">Link</a>	 

## Startups:

#	Algorithm	Practice Link	Asked in
95	Rearrange Characters By Frequency	 <a href="#">Link</a>	 

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
96	Number Of Islands	 <a href="#">Link</a>	  
97	Clone Graph	 <a href="#">Link</a>	 
98	Course Schedule	 <a href="#">Link</a>	 
99	Pacific Atlantic Water Flow	 <a href="#">Link</a>	 
100	Detect Cycle In Directed Graph	 <a href="#">Link</a>	 
101	Check Bipartite Graph	 <a href="#">Link</a>	 
102	Topological Sorting	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
---	-----------	---------------	----------

103

Flood Fill Algorithm

 [Link](#)

## Startups:

#	Algorithm	Practice Link	Asked in
---	-----------	---------------	----------

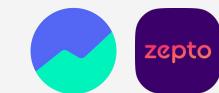
104

Snake And Ladder Problem

 [Link](#)

105

Dijkstra's Algorithm

 [Link](#)

106

Bellman-Ford Algorithm

 [Link](#)

107

Detect Cycle In Undirected Graph

 [Link](#)

108

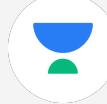
Union-Find Cycle Detection

 [Link](#)

109

Minimum Spanning Tree (Prim's)

 [Link](#)

#	Algorithm	Practice Link	Asked in
110	Kruskal's Algorithm	 <a href="#">Link</a>	 
111	Detect Cycle In A Graph Using DFS	 <a href="#">Link</a>	 

# 08

## BIT MANIPULATION

### Product-Based Companies (PBC):

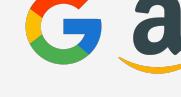
#	Algorithm	Practice Link	Asked in
112	Single Number	 <a href="#">Link</a>	
113	Power Of Two	 <a href="#">Link</a>	
114	Sum Of Two Integers (No + Or -)	 <a href="#">Link</a>	
115	Number Of Steps To Reduce A Number To Zero	 <a href="#">Link</a>	 

### Startups:

#	Algorithm	Practice Link	Asked in
116	Check If A Number Is Sparse	 <a href="#">Link</a>	

#	Algorithm	Practice Link	Asked in
117	Swap All Odd And Even Bits	 <a href="#">Link</a>	 
118	Check If Power Of 4	 <a href="#">Link</a>	 

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
119	0/1 Knapsack Problem	 <a href="#">Link</a>	
120	Longest Increasing Subsequence	 <a href="#">Link</a>	
121	Longest Common Subsequence	 <a href="#">Link</a>	
122	Word Break	 <a href="#">Link</a>	
123	Coin Change	 <a href="#">Link</a>	
124	Decode Ways	 <a href="#">Link</a>	
125	Unique Paths With Obstacles	 <a href="#">Link</a>	

#	Algorithm	Practice Link	Asked in
---	-----------	---------------	----------

126	Rod Cutting	 <a href="#">Link</a>	 
-----	-------------	--	---

## Startups:

#	Algorithm	Practice Link	Asked in
---	-----------	---------------	----------

127	Subset Sum Problem	 <a href="#">Link</a>	 
-----	--------------------	--	---

128	Combination Sum	 <a href="#">Link</a>	 
-----	-----------------	--	---

129	Jump Game	 <a href="#">Link</a>	 
-----	-----------	--	---

130	Count Number Of Ways To Cover Distance	 <a href="#">Link</a>	 
-----	--	--	---

131	Climbing Stairs (Nth Stair Problem)	 <a href="#">Link</a>	 
-----	-------------------------------------	--	---

132	House Robber (Max Stolen Value)	 <a href="#">Link</a>	 
-----	---------------------------------	--	---

#	Algorithm	Practice Link	Asked in
133	Minimum Cost Climbing Stairs	 <a href="#">Link</a>	 
134	Minimum Path Sum	 <a href="#">Link</a>	 

## Product-Based Companies (PBC):

#	Algorithm	Practice Link	Asked in
135	Activity Selection Problem	<a href="#">Link</a>	
136	Job Sequencing Problem	<a href="#">Link</a>	
137	Fractional Knapsack	<a href="#">Link</a>	
138	Minimum Number Of Platforms	<a href="#">Link</a>	
139	Huffman Coding	<a href="#">Link</a>	
140	Dijkstra's Algorithm (Greedy + Graph)	<a href="#">Link</a>	
141	Minimum Cost Of Ropes	<a href="#">Link</a>	

#	Algorithm	Practice Link	Asked in
142	Candy	 <a href="#">Link</a>	
143	Gas Station	 <a href="#">Link</a>	 

## Startups:

#	Algorithm	Practice Link	Asked in
144	Coin Change (Min Number Of Coins)	 <a href="#">Link</a>	 
145	Jump Game II	 <a href="#">Link</a>	 
146	Lemonade Change	 <a href="#">Link</a>	 
147	Assign Cookies	 <a href="#">Link</a>	 
148	Maximum Units On A Truck	 <a href="#">Link</a>	 

#	Algorithm	Practice Link	Asked in
149	Minimum Add To Make Parentheses Valid	 <a href="#">Link</a>	 
150	Partition Labels	 <a href="#">Link</a>	 



# 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,  
Amazon

2 Years  
Experience

**Infosys**  
Software Engineer

Hike  
 **550%** 

**Amazon**  
SDE 2

[EXPLORE MORE](#)