

# DSA Industry Roadmap (500–600 Questions)

Focus: Product-Based Companies | Language Independent (JS / Python)

## Arrays & Strings (180 Questions)

- Two Sum, Move Zeroes, Rotate Array
- Two Pointer: Pair Sum, Container With Most Water
- Sliding Window: Longest Substring, Max Sum Subarray
- Prefix Sum: Range Sum Queries
- Sorting + Greedy: Merge Intervals, Meeting Rooms
- Subarrays & Substrings patterns

## HashMap / HashSet (80 Questions)

- Frequency Count problems
- Anagram & Group Anagram
- Longest Consecutive Sequence
- Subarray Sum = K
- First Unique Element

## Binary Search (60 Questions)

- First/Last Occurrence
- Lower Bound / Upper Bound
- Binary Search on Answer
- Search in Rotated Sorted Array
- 2D Matrix Search

## Stack & Queue (60 Questions)

- Valid Parentheses
- Monotonic Stack (NGE, Stock Span)
- Histogram Largest Rectangle
- Sliding Window Maximum

## Linked List (40 Questions)

- Reverse Linked List
- Detect Cycle (Floyd)
- Merge Two Lists
- Reverse in K Group

## Trees (70 Questions)

- Tree Traversals
- Height / Diameter
- LCA

- BST Validation & Search
- Level Order & Views

## **Heap / Priority Queue (40 Questions)**

- Top K Elements
- Merge K Sorted Lists
- Heap Sort Logic
- Kth Largest / Smallest

## **Graph (40 Questions)**

- BFS / DFS
- Cycle Detection
- Connected Components
- Shortest Path (Basic)

## **Dynamic Programming (40 Questions)**

- 1D DP (Climbing Stairs, House Robber)
- 0/1 Knapsack
- LIS
- DP on Strings (LCS)

## **■ Total Coverage: ~560 Questions**

If you complete this roadmap with pattern understanding, you are industry-ready for most Product-Based Companies (SDE-1 level).