40 Most Asked DSA Questions to Clear Your Next Interview

1. Reverse a linked list.
2. Find the middle element of a linked list.
3. Implement a stack using arrays/linked list.
4. Implement a queue using arrays/linked list.
5. Find the factorial of a number using recursion.
6. Implement binary search in an array.
7. Find the largest/smallest element in an array.
8. Implement merge sort.
9. Implement quick sort.
10. Detect a cycle in a linked list.
11. Find the intersection point of two linked lists.
12. Check if a binary tree is a binary search tree (BST).
13. Print all leaf nodes of a binary tree.
14. Reverse a binary tree.
15. Find the height of a binary tree.
16. Implement depth-first search (DFS) on a graph.

17. Implement breadth-first search (BFS) on a graph.

18. Check if a graph is connected.

19. Implement Dijkstra's algorithm for shortest path.

20. Implement Prim's algorithm for minimum spanning tree.

21. Implement Kruskal's algorithm for minimum spanning tree.

22. Find t athe longest common subsequence of two strings.

23. Find the longest increasing subsequence of an array.

24. Implement the Knuth-Morris-Pratt (KMP) algorithm for string matching.

25. Implement the Rabin-Karp algorithm for string matching.

26. Check if a string is a palindrome.

27. Check if two strings are anagrams of each other.

28. Find the next greater element in an array.

29. Find the kth smallest/largest element in an array.

30. Find the median of two sorted arrays.

31. Implement a trie (prefix tree).

32. Find all subsets of a set.

33. Find all permutations of a string.

34. Implement the Josephus Problem.

35. Implement an LRU (Least Recently Used) Cache.
36. Find the longest palindrome substring in a string.
37. Implement a priority queue.
38. Implement a hashmap (dictionary).
39. Count the number of inversions in an array.
40. Find the shortest path in a maze.