# Top 100 Coding Questions (Exam Point of View)

## Arrays

1. Reverse an Array
2. Find Maximum and Minimum in Array
3. Check if Array is Sorted
4. Remove Duplicates from Sorted Array
5. Move All Zeros to End
6. Left Rotate Array by D Places
7. Kadanes Algorithm (Max Subarray Sum)
8. Find Missing Number
9. Find Duplicate Element
10. Merge Two Sorted Arrays
11. Union and Intersection of Arrays
12. Cyclically Rotate Array by One
13. Leaders in Array
14. Find Majority Element
15. Trapping Rain Water
16. Product of Array Except Self
17. Longest Consecutive Subsequence
18. Count Inversions in Array
19. Subarray with Given Sum
20. Equilibrium Point

## Strings

1. Check for Anagram
2. Reverse a String
3. Palindrome Check
4. Longest Palindromic Substring
5. Longest Common Prefix
6. Valid Parentheses
7. Count and Say
8. Group Anagrams

9. Implement strstr()
10. Remove Duplicates
11. Roman to Integer
12. Integer to Roman
13. First Non-Repeating Character
14. Atoi (String to Integer)
15. Check Isomorphic Strings

## Linked List

1. Reverse a Linked List
2. Detect Loop in Linked List
3. Find Middle Element
4. Remove N-th Node from End
5. Merge Two Sorted Linked Lists
6. Intersection Point in Y Shaped List
7. Check for Palindrome
8. Clone Linked List with Random Pointer
9. Add 1 to a Number Represented by LL
10. Flatten a Multilevel Linked List
11. Sort a Linked List
12. Remove Duplicates from Sorted List
13. Add Two Numbers Represented by LL
14. Detect and Remove Loop
15. LRU Cache (Linked List + Hashing)

## Stacks and Queues

1. Implement Stack using Array
2. Implement Queue using Array
3. Next Greater Element
4. Balanced Parentheses
5. Implement Two Stacks in an Array
6. Stack with GetMin in O(1)
7. Implement Queue using Stacks
8. Sliding Window Maximum

9. Circular Queue
10. Reverse a Stack using Recursion
11. Evaluate Postfix Expression
12. Decode a String
13. Largest Rectangle in Histogram
14. Stock Span Problem
15. Celebrity Problem

## Trees and BST

1. Inorder, Preorder, Postorder Traversal
2. Level Order Traversal
3. Height of Binary Tree
4. Diameter of Binary Tree
5. Lowest Common Ancestor
6. Check if Tree is Balanced
7. Left View / Right View
8. Check if Tree is BST
9. Serialize and Deserialize Binary Tree
10. ZigZag Traversal
11. Convert BST to DLL
12. Kth Smallest Element in BST
13. Vertical Order Traversal
14. Construct Tree from Inorder and Preorder
15. Morris Traversal

## Heaps / Greedy / Sorting

1. Heap Sort
2. K Largest Elements
3. Top K Frequent Elements
4. Median in a Stream
5. Minimum Platform Problem
6. Job Sequencing Problem
7. Huffman Encoding
8. Merge K Sorted Arrays

9. Sort Colors (Dutch National Flag)
10. Meeting Rooms / Interval Problems

## Graphs / DP / Misc

1. DFS and BFS of Graph
2. Detect Cycle in Undirected Graph
3. Topological Sort
4. Dijkstra's Algorithm
5. Prims Algorithm
6. Flood Fill Algorithm
7. Word Ladder
8. Longest Increasing Subsequence
9. 0/1 Knapsack
10. Edit Distance Problem