Top 100 Questions of Codeforces for Placements

1. Arrays

- Cutting Ribbon
- > Cheap Travel
- Dreamoon and WiFi
- > Cards
- ➤ Three Pairwise Maximums

2. Linked Lists

- ➤ Binary String Reconstruction
- Arpa's Hard Exam and Mehrdad's Naive Cheat
- Printing Your Company Name
- ➤ Hilbert's Hotel
- ➤ Instant View of Big Bang

3. Stacks and Queues

- > Two Bags of Potatoes
- > Sort the Array
- > Xenia and Ringroad
- Social Distance
- Buying Torches

4. Trees

- ➤ George and Tree
- Fafa and the Gates
- > Centroid Decomposition
- > Tree Queries
- Leaf Removal

5. Graphs

- Beautiful Graph
- Bipartite Graph Check
- Maximum Bipartite Matching
- Unreachable Nodes
- ➤ Shortest Path in Graph

6. Heaps

- Heap Operations
- Merging Heaps
- Heap Operations for Maximum
- Median Heaps
- Heap-based Task Scheduling

7. Hashing

- ➤ Hashmap and Strings
- String Compression with Hashing
- ➤ Hash Functions
- **▶** Hash Collisions
- ➤ Hash-Based Encryption

8. Dynamic Programming

- > Knapsack Problem
- ➤ Longest Common Subsequence
- > Fibonacci DP
- > Minimum Path Sum
- ➤ Longest Increasing Subsequence

9. Segment Trees

- ➤ Range Minimum Query
- Sum Over Range
- ➤ Max Query with Segment Trees
- Range Updates and Queries
- ➤ K-th Smallest Element

10. Binary Indexed Trees (Fenwick Tree)

- Counting Inversions
- > Range Sum Queries
- Update and Query BIT

Binary Indexed Tree for Max Query

11. Trie

- > Implement Trie
- > Search Prefix in Trie
- Trie for Longest Prefix
- Optimal Trie Data Structure
- > Trie-based String Matching

12. Disjoint Set Union (DSU)

- **Union-Find Basics**
- > Optimized DSU with Path Compression
- > Cycle Detection using DSU
- Rishabh Singh Sahil > DSU for Connected Components
- > DSU with Size Balancing