CompanyPreparation

Interview Process && Most Asked Questions in Technical interview and OA of -



Just simplified my experience here...

Hope it goona help you all...

Save this pdf and thanks me later





<u>Directi Interview process</u>

Directi interview process for a software engineer includes approximately 4-5 rounds depending on experience and other factors.

MCQ Round Coding Round Technical Rounds HR Round

MCQ Round

The first round is the basic yet structurally planned MCQ test. This round is a Directi online test that is designed to understand the coding, data structures and algorithm skills, efficiency and speed of the people sitting for the exam.

Online Assessment Round

Online assessment is the process of conducting a test online to gauge the participants' learning and mastery over a particular subject.

3 question have been asked and 75 min allotted.

Difficulty level is Medium

All problems should be done in order to get a call for technical interview rounds

Data Structures and Algorithms Rounds (3 Rounds)

The candidate is asked DS/Algo problems where production ready code might be expected from the candidate. It is not out of the realm of possibility to face minor behavioural questions here as well. The problems range from easy to hard but they are not the sole deciding factor for the final offer. Leadership principles also come into play here. The interviews are conducted on Amazon Chime.

The main focus of these technical rounds are to check problem solving ability of a candidate. Be Prepared it well

HR Round(1 Round)

This is when they ask computer science theory and behavioural questions to the candidate. The questions may enquire about the candidate's experience at previous companies and conflicts the candidate might have faced with colleagues/managers.

Should prepare all HR questions

Previously Asked Questions

Easy Level

- **♣** Binary Search Tree | Set 1 (Search and Insertion)
- Boundary Traversal of binary tree
- ♣ Breadth First Traversal or BFS for a Graph
- Check if binary representation of a number is palindrome
- **♣** Construct Tree from given Inorder and Preorder traversals
- **♣** Convert a given tree to its Sum Tree
- Merge two sorted linked lists
- ♣ Microsoft Interview experience | Set 100 (On Campus for Internship on IDC and IT)
- ♣ Minimum time required to rot all oranges
- ♣ Number of buildings facing the sun
- ♣ Pairwise swap elements of a given linked list
- ♣ Print a given matrix in spiral form
- ♣ Print a pattern without using any loop
- ♣ Print all Jumping Numbers smaller than or equal to a given value
- ♣ Print all subarrays with 0 sum
- ♣ Print BST keys in the given range

Length of the longest substring without repeating characters
Level order traversal in spiral form
Lowest Common Ancestor in a Binary Tree Set 1
♣ Converting Roman Numerals to Decimal lying between 1 to 3999
♣ Majority Element
Maximum Product Subarray
Maximum width of a binary tree
Merge two sorted linked lists such that merged list is in reverse order
Lowest Common Ancestor in a Binary Search Tree.
♣ Print nodes at k distance from root
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Find the minimum element in a sorted and rotated array
Find next greater number with same set of digits
Find N'th item in a set formed by sum of two arrays
Find the element that appears once
♣ Binary representation of a given number
Find max in struct array
Find if two rectangles overlap

♣ Print level order traversal line by line

▲ Intersection of two Sorted Linked Lists

♣ Delete middle of linked list

- **↓** Calculate the difficulty of a sentence
- ♣ Check if a linked list is Circular Linked List
- **↓** Converting Decimal Number lying between 1 to 3999 to Roman Numerals
- **↓** Count distinct elements in every window of size k
- ♣ Count all possible paths from top left to bottom right of a mXn matrix
- **♣** Find common elements in three sorted arrays
- ♣ Find the number closest to n and divisible by m
- **★** Find position of the only set bit
- ♣ Print the string by ignoring alternate occurrences of any character
- Program to add two binary strings
- ♣ Program to validate an IP address
- **↓** Implement Queue using Stacks
- \blacksquare Design a stack that supports getMin() in O(1) time and O(1) extra space
- ♣ Diameter of a Binary Tree
- **↓** Dynamic Programming | Set 10 (0-1 Knapsack Problem)
- ♣ Dynamic Programming | Set 15 (Longest Bitonic Subsequence)
- Find all strings that match specific pattern in a dictionary
 - Find Excel column name from a given column number
- **♣** Find the Missing Number
- **♣** Stack Data Structure (Introduction and Program)

- ♣ URLify a given string (Replace spaces is %20)
 ♣ Find the middle of a given linked list in C and Java
- ♣ Write an Efficient Function to Convert a Binary Tree into its Mirror Tree
- ₩ Write one line C function to find whether a no is power of two
- ♣ Write your own atoi()
- ♣ Add two numbers represented by linked lists | Set 1
- ♣ Anagram Substring Search (Or Search for all permutations)
- **♣** Find the row with maximum number of 1s
- Find the two non-repeating elements in an array of repeating elements
- ♣ Inplace rotate square matrix by 90 degrees | Set 1
- ♣ k largest(or smallest) elements in an array | added Min Heap method
- **★** Level Order Tree Traversal
- Merge Sort
- Run Length Encoding
- ♣ Sort all even numbers in ascending order and then sort all odd numbers in descending order
- **♣** Square root of an integer
- Function to check if a singly linked list is palindrome
- Generate n-bit Gray Codes
- ♣ Given only a pointer/reference to a node to be deleted in a singly lin
- How to determine if a binary tree is height-balanced?
- **♣** Sort an array of 0s, 1s and 2s

- **♣** Sorted insert for circular linked list
- **♣** Stock Buy Sell to Maximize Profit
- ♣ The Celebrity Problem
- **★** Tree Isomorphism Problem
- **★** Two elements whose sum is closest to zero
- ↓ Union and Intersection of two Linked Lists
- ♣ Given an a

- ♣ Remove all duplicates from a given string
- ♣ Remove every k-th node of the linked list
- ♣ Reverse Level Order Traversal
- ♣ Reverse words in a given string
- ♣ Root to leaf path sum equal to a given number
- **♣** Search a Word in a 2D Grid of characters
- ♣ Search an element in a sorted and rotated array
- ♣ Sort a linked list of 0s, 1s and 2s

Medium Level

- **♣** Implement LRU Cache
- Manacher's Algorithm Linear Time Longest Palindromic Substring Part 1
- Median in a stream of integers (running integers)
- ♣ Travelling Salesman Problem | Set 1 (Naive and Dynamic Programming)
- **★** How to design a tiny URL or URL shortener?
- **★** K'th Smallest/Largest Element in Unsorted Array | Set 2 (Expected Linear Time)
- **↓** Largest Rectangular Area in a Histogram | Set 2
- Largest Sum Contiguous Subarray
- ♣ Length of longest palindrome list in a linked list using O(1) extra space
- ♣ Dynamic Programming | Set 29 (Longest Common Substring)
- ♣ Longest Even Length Substring such that Sum of First and Second Half is same
- **♣** Maximum size rectangle binary sub-matrix with all 1s
- Find four elements that sum to a given value | Set 2 (O(n^2Logn) Solution)
- Find next greater number with same set of digits
- **♣** Find the number of islands | Set 1 (Using DFS)
- Flattening a Linked List
- **♣** Find Recurring Sequence in a Fraction
- **↓** Two nodes of a BST are swapped, correct the BST
- **↓** Implement a Phone Directory
- ♣ Merge k sorted arrays | Set 1

- Merge two BSTs with limited extra space
 Minimum steps to reach a destination
- ♣ Check if a binary tree is subtree of another binary tree | Set 2
- ♣ Dynamic Programming | Set 33 (Find if a string is interleaved of two other stri
- ♣ Clone a linked list with next and random pointer | Set 2
- ♣ Combinational Sum
- **↓** Connect nodes at same level
- **↓** Construct Binary Tree from given Parent Array representation
- ♣ Program to convert a given number to words
- **♣** Count number of binary strings without consecutive 1's
- ♣ Detect and Remove Loop in a Linked List
- ♣ Detect Cycle in a Directed Graph
- ♣ Factorial of a large number
- Find the first circular tour that visits all petrol pumps
- Multiply Large Numbers represented as Strings
- ♣ Placements | QA | Progressions
- ♣ Print all nodes that are at distance k from a leaf node
- Printing brackets in Matrix Chain Multiplication Problem
- Reverse a Linked List in groups of given size
- Given an a

- ♣ Write a function to get the intersection point of two Linked Lists.
- ₩ Write an Efficient Method to Check if a Number is Multiple of 3
- ♣ Backtracking | Set 7 (Sudoku)
- ♣ A program to check if a binary tree is BST or not
- ♣ Boggle | Set 2 (Using Trie)
- Find all distinct subsets of a given set
- Find Excel column name from a given column number
- Find the first non-repeating character from a stream of characters
- **↓** Dynamic Programming | Set 37 (Boolean Parenthesization Problem)
- ♣ Sort an array according to the order defined by another array
- Topological Sorting
- Trapping Rain Water
- ♣ Dynamic Programming | Set 22 (Box Stacking Problem)
- **↓** Dynamic Programming | Set 8 (Matrix Chain Multiplication)

Tips for Directi Interview Preparation

By this time of your read you have understood that the Directi interview process for the software engineer is not a cakewalk. It is something that needs proper planning and efficient execution.

- 1. **Make a strategic plan for your preparations:** It is not a general interview. Even for Directi internship questions, make a plan for everything. Starting from study material, timetable to practice time.
- Make time for a structured CV: Your CV is a reflection of your past and present. It even for some
 recruiters can give a fruitful insight for your future performances based on your achievements and
 projects. So structure it well.
- 3. Check out Interview Experiences at Directi: Exploring the company site and external sites like Quora, Glassdoor and more for interview experiences will help you prepare better. It would give you an understanding on what type of questions to expect in the interview.
- 4. Ask questions to your recruiter: This might seem odd as if the tables have turned. But, this is the best part to show your confidence and interest. Asking questions about your expectations from the company, your future, how this position will benefit you etc, will display your curiosity and leave an amazing experience behind.
- 5. **Show your Expertise:** Be confident about your CV and the projects you have worked on. Learn about them thoroughly and deliver the answer with 100% surety. Show them your expertise in different languages, your skills-set and how your experience can help you grow in this company.

Took help of the sites (GFG,leetcode premium,Interviewbit)

Amazon part1 - Link Amazon part2 - Link Microsoft- Link Adobe - Link Google - Link

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