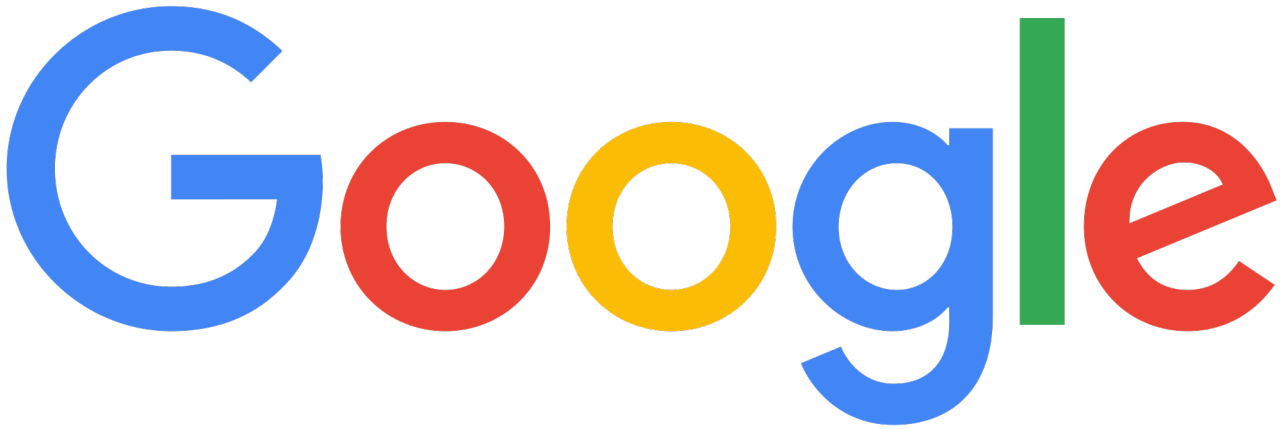

Company Preparation

Interview Process & Most Asked Questions in Technical interview and OA

Just simplified my experience here...
Hope it goona help you all...
Save this pdf and thanks me later

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Google Interview Process

Coding 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-Hard.
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 behavioral 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

This is when they ask computer science theory and behavioral 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

- Find all triplets with zero sum
- Generate all binary strings from given pattern
- Count of strings that can be formed using a, b and c under given constraints
- Find largest word in dictionary by deleting some characters of given string
- Find subarray with given sum | Set 1 (Nonnegative Numbers)
- Find the longest substring with k unique characters in a given string
- Find the two non-repeating elements in an array of repeating elements
- Flood fill Algorithm - how to implement fill() in paint?
- Meta Strings (Check if two strings can become same after a swap in one string)
- Print all Jumping Numbers smaller than or equal to a given value
- Sum of all the numbers that are formed from root to leaf paths
- The Celebrity Problem
- Unbounded Knapsack (Repetition of items allowed)

Medium Level

- Backtracking | Set 7 (Sudoku)
- Boggle | Set 2 (Using Trie)
- Check if a Binary Tree contains duplicate subtrees of size 2 or more
- Dynamic Programming | Set 33 (Find if a string is interleaved of two other stri
- Connect nodes at same level
- Count BST nodes that lie in a given range
- Dynamic Programming | Set 11 (Egg Dropping Puzzle)
- Dynamic Programming | Set 20 (Maximum Length Chain of Pairs)
- Dynamic Programming | Set 22 (Box Stacking Problem)
- Dynamic Programming | Set 27 (Maximum sum rectangle in a 2D matrix)
- Dynamic Programming | Set 28 (Minimum insertions to form a palindrome)
- Dynamic Programming | Set 3 (Longest Increasing Subsequence)
- Dynamic Programming | Set 31 (Optimal Strategy for a Game)
- Dynamic Programming | Set 4 (Longest Common Subsequence)
- Dynamic Programming | Set 5 (Edit Distance)
- Find a pair with given sum in a Balanced BST
- Find the first circular tour that visits all petrol pumps
- Find a triplet that sum to a given value

- Find distance between two given keys of a Binary Tree
- Find all distinct subsets of a given set
- Find the first non-repeating character from a stream of characters
- Find four elements that sum to a given value | Set 2 (O(n^2Logn) Solution)
- Find if a given string can be represented from a substring by iterating the substring “n
- Find k-th smallest element in BST (Order Statistics in BST)
- Dynamic Programming | Set 28 (Minimum insertions to form a palindrome)
- Dynamic Programming | Set 31 (Optimal Strategy for a Game)
- Dynamic Programming | Set 32 (Word Break Problem)
- Find four elements that sum to a given value | Set 2 (O(n^2Logn) Solution)
- Given a matrix of ‘O’ and ‘X’, replace 'O' with 'X' if surrounded by 'X'
- How to print maximum number of A's using given four keys
- Inplace rotate square matrix by 90 degrees | Set 1
- Maximum absolute difference between sum of two contiguous sub-arrays
- Merge two BSTs with limited extra space
- Merge Overlapping Intervals
- Modular Exponentiation (Power in Modular Arithmetic)
- Paper Cut into Minimum Number of Squares | Set 2
- Sum of bit differences among all pairs

Hard Level

- Allocate minimum number of pages
- Given an array arr[], find the maximum j - i such that arr[j] > arr[i]
- Given a sorted dictionary of an alien language, find order of characters
- Hungarian Algorithm for Assignment Problem | Set 1 (Introduction)
- Implement LRU Cache
- Length of the longest valid substring
- Median in a stream of integers (running integers)
- Sum of bit differences among all pairs
- Travelling Salesman Problem | Set 1 (Naive and Dynamic Programming)
- Word Break Problem using Backtracking

Tips for Google Interview Preparation

Now that we know all about the hiring process of Google, here are a few tips which you can use tocrack Google's interview and get a job

1. Understand the work culture at Google well
2. Be Thorough with Data Structures and Algorithms
3. Use the STAR method to format your Response
4. Know and Describe your Strengths
5. Discuss with your interviewer and keep the conversation

Other Important Links which also you'll find helpful:

1. Amazon 1- Link
2. Amazon 2- Link
3. Microsoft- Link
4. Adobe - Link

Sources Used: GFG (link) and Interview Bit (link)

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