10/7/24, 7:20 PM Explore - LeetCode

re(/explore/) Problems(/problemset/all/) Contest(/contest/) Discuss(/discuss/) Interview ✓ Store ✓ ♣ o string-lengthremoving-sub:

◆ Back to Explore (/explore/)



Get Well Prepared for

# **Google Interview**



#### Overview

Google tech interviews are notoriously difficult and quite challenging. To get a phone screen, you will need to submit your resume to their online application system or via an internal referral from a Googler. Assuming you passed their resume screen, a recruiter will

#### Interview Process

You may receive an online assessment link as your first step of interview process. The assessment will expire within 7 days and contains two coding questions to be completed within an hour. Below are some Online Assessment questions for you to practice. Near the end

### Arrays and Strings

String manipulation problems are in the same category as arrays, because internally, a string is represented as an array of characters. Array problems usually do not require knowledge of advanced data structures, so just basic data structures such as Hash Tables and

#### Linked Lists

According to our user survey data, Linked List problems are not asked frequently at Google. Perhaps, most linked list problems are not that complex and it is harder to ask follow up and complexity analysis questions Nonetheless, we strongly recommend you to still

# ✓ Trees and Graphs

Tree is just a special case of graph. To understand the difference between trees and graphs, you can work on Graph Valid Tree. Graphs are generally breath-first search or depth-first search. The same applies to Trees, but trees never contain cycles. Graphs are generally

### Recursion

Recursion usually involves some kind of backtracking to enumerate all possibilities. Note that Recursion is a more general purpose algorithm. Depth-First search is a specific form of backtracking related to searching tree data structures. Therefore we categorize those

### Sorting and Searching

Interval related problems are quite often asked at Google interviews. Similar to "Arrays and Strings", interval related problems can be asked in the context of data stream.

### Opnic Programming

It can be tricky to identify the subproblems and connect them, which is essential in solving Dynamic Programming problems. Dynamic programming is not that scary as you might think, and you can improve your dynamic programming skills by practicing a lot of these

10/7/24, 7:20 PM Explore - LeetCode



#### Design

Google loves to ask lots of question variations based on the Iterator pattern, so make sure you are familiar with the concept of iterators and how iterators work in principle. A good way to learn is to read the open source code and try to code it yourself. For example, here is



#### Others

Here are other type of problems you may encounter in a Google interview, such as Bit Manipulation.



#### **Discuss**

31 topics - share ideas and ask questions about this card

(/discuss/explore/google)

# Introduction







Google tech interviews are notoriously difficult and quite challenging. To get a phone screen, you will need to submit your resume to their online application system or via an internal referral from a Googler.

Assuming you passed their resume screen, a recruiter will reach out to you. Usually there will be two phone screens, and if you do well, you'll be invited to onsite interviews.

Since Google operates at a large scale, be prepared to answer lots of follow up questions on how to scale the algorithm you wrote for multiple machines. Some examples are: Number of Islands (https://leetcode.com/problems/number-of-islands) and Intersection of Two Arrays II (https://leetcode.com/problems/intersection-of-two-arrays-ii/description/).



10/7/24, 7:20 PM Explore - LeetCode

✓ A Google Offer Review

| Arrays and Strings  | <b>⊙</b> |
|---|----------|
| ✓ 🖟 Longest Substring Without Repe  |          |
| ✓ ⓓ Container With Most Water   |          |
| ✓   |          |
| ✓   ☑ Next Permutation  |          |
| ✓  Multiply Strings   |          |
| <b>☑</b> Rotate Image   |          |
| ☑ ☑ Jump Game   |          |
| ✓   Ø Plus One  |          |
| ✓   |          |
| <b>☑</b> Read N Characters Given Read4 I  | <b>-</b> |
| ✓ ⓓ Longest Substring with At Most  | ₽        |
| ✓  Missing Ranges   | <b>-</b> |
| ✓   Mext Closest Time  Mext | ₽        |
| <b>☑</b>  |          |
| <b>☑</b> Find And Replace in String   |          |
| ✓   |          |
| <b>✓</b>  |          |
| ✓ Merge k Sorted Lists  |          |
| ☑ ☑ Trapping Rain Water   |          |
| ☑ ☑ Kth Largest Element in an Array   |          |
| ✓   Meeting Rooms II  | <b>-</b> |

| <b>☑</b> Backspace String Compare     |
|---------------------------------------|
| Minimum Cost to Hire K Workers        |
| <b>✓ ⓑ</b> K Closest Points to Origin |
| Linked Lists                          |
| LITIKEU LISIS                         |
| Add Two Numbers                       |
| Remove Nth Node From End of           |
| <b>✓</b> Merge Two Sorted Lists       |
| Copy List with Random Pointer         |
|                                       |
| Trees and Graphs                      |
| <b>☑</b> Binary Tree Maximum Path Sum |
| <b>☑</b> Word Ladder                  |
| ✓ Ӣ Number of Islands                 |
| Course Schedule II                    |
| <b>☑</b> Count Complete Tree Nodes    |
| ✓                                     |
| <b>☑</b> Decode String                |
| <b>☑</b>                              |
| ☑ Diameter of Binary Tree             |
| ✓ ⓓ Cracking the Safe                 |
| <b>☑</b> Robot Room Cleaner           |
| Most Stones Removed with Sam          |
| Flip Equivalent Binary Trees          |

| Recursion                          | $\odot$  |
|------------------------------------|----------|
| <b>☑</b> Word Squares              | •        |
| ✓   ✓ Strobogrammatic Number II    | •        |
| ☑ ☑ Word Search II                 |          |
| ☑ Android Unlock Patterns          | •        |
| ☑ Letter Combinations of a Phone   |          |
| <b>☑</b>                           |          |
| Sorting and Searching              | <b>⊘</b> |
| ✓ Median of Two Sorted Arrays      |          |
| Find First and Last Position of El |          |
| ✓ Merge Intervals                  |          |
| ☑ Insert Interval                  |          |
| ✓ Ӣ Valid Anagram                  |          |
| ✓ ☑ Count of Smaller Numbers After |          |
| Peak Index in a Mountain Array     |          |
| Dynamic Programming                | <b>⊘</b> |
| ☑ Longest Palindromic Substring    |          |
| <b>☑</b> Maximum Subarray          |          |
| Best Time to Buy and Sell Stock    |          |
| Maximum Product Subarray           |          |
| <b>☑</b> M Coin Change             |          |
| Split Array Largest Sum            |          |

| Design   | 0        |
|--|----------|
| ☑ LRU Cache  |          |
| ☑ Min Stack  |          |
| Serialize and Deserialize Binary T   |          |
| <b>☑</b> Logger Rate Limiter   | <b>•</b> |
| ☑ Insert Delete GetRandom O(1)   |          |
| ☐ ☑ Design Search Autocomplete Sys   | <b>-</b> |
| Others   | 0        |
| <b>☑</b>   |          |
| <b>☑</b>   |          |
| <b>☑</b> Isomorphic Strings  |          |
| Strobogrammatic Number   | <b>-</b> |
| ☐ Ӣ Bulls and Cows   |          |
| ☐ Ӣ Range Sum Query 2D - Mutable   | •        |
| ☐ ☑ My Calendar II   |          |
| ☐ ☑ Jewels and Stones  |          |
| ☐ ☑ Swap Adjacent in LR String   |          |
| ☐ ⓓ Guess the Word   |          |
| ☐ ☑ Minimum Area Rectangle   |          |
| Copyright © 2024 LeetCode  Help Center (/support)   Jobs (/jobs)   Bug Bounty (/bugbounty)   Online Interview (/interview/)   Students (/student)   Terms (/terms)    Privacy Policy (/privacy)  United States (/region) |          |