**GOOGLE**

Since it's Google, candidates can expect to be tested on fundamental Computer Science concepts as well as their front end knowledge/skills.

Web Front End: ​You should be ready to cover topics like front end latency and implementation of standard CS algorithms using idiomatic JavaScript. You should be able to articulate Javascript strengths and shortcomings and ready to cover any of the following: Web security issues (XSS, XSRF), Prototypal inheritance, DOM API & manipulation, CSS manipulation, Browser / DOM events & event handling, XHR requests & HTTP headers, JavaScript closures

Refer to Google's official interview preparation guides for:

* [Front End or Mobile Software Engineers](https://www.frontendinterviewhandbook.com/assets/files/google-front-end-2a2cb9958791bf943f0ca8b62d90263c.pdf/)
* [Front End/Mobile Software Engineers (Old)](https://www.frontendinterviewhandbook.com/assets/files/google-front-end-old-638b46478611b3a06cf16409667586ae.pdf/)
* [Non-technical interviews](https://www.frontendinterviewhandbook.com/assets/files/google-non-technical-58ec1da4a54a5c6823784b2815d73e9e.pdf/).

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/google-front-end-interview-questions#javascript)

* How do you make a function that takes a callback function fn and returns a function that calls fn on a timeout?
  + ( )
* Implement the outline view for a Google doc.
* DFS on HTML nodes.
* Implement throttle.
* How do you make a function that only calls input function f every 50 milliseconds?
* Given a timeline write the JavaScript to select all nodes within selection of timeline.

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/google-front-end-interview-questions#user-interface-coding)

* Design a slider component.
* Design a Tic-Tac-Toe game/design an algorithm for Tic-Tac-Toe game.
* Implement nested checkboxes (when the parent is checked, children are checked and vice versa. Use <input type="checkbox">). Similar to [Indeterminate checkboxes](https://css-tricks.com/indeterminate-checkboxes/).
* Design a webpage which can auto load new posts when you reach the bottom of the page by using JavaScript. You may use AJAX and JavaScript event listeners.
* Write a UI using HTML, CSS, JavaScript that allows uses to enter the number of rows and columns in text input fields within a form and renders a table.

  + Example: Number of rows: 4, Number of columns: 5, "Submit" button. Clicking on the "Submit" button will show the following table (ignore the styling):

| **1** | **8** | **9** | **16** | **17** |
| --- | --- | --- | --- | --- |
| 2 | 7 | 10 | 15 | 18 |
| 3 | 6 | 11 | 14 | 19 |
| 4 | 5 | 12 | 13 | 20 |

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/google-front-end-interview-questions#trivia)

* Explain the CSS Box Model.
* What happens when you type a URL into the browser and hits enter?
* Given some text on a web page, how many ways can you make the text disappear?
* How do you send data from a web page to a server without a page refresh?

## **System design**[**​**](https://www.frontendinterviewhandbook.com/companies/google-front-end-interview-questions#system-design)

* Design emoji autocomplete.
* Design JS Bin.
* How would you create a Google Analytics SDK used by webpages?

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/google-front-end-interview-questions#algorithm)

* Minesweeper problem. Write a function reveal() that outputs the number of tiles shown when a user clicks on a tile. Each tile shows the number of bombs as its neighbor. If the user click on a tile that is a bomb, the game is over. If that tile is 0, reveal all its neighbors.
* You are given four numbers (type int), and have four basic math operators at your disposal (+, -, x, /). Given arbitrary ways to group the numbers and using any of the operators, determine if you can make the number 24 from the four numbers. The numbers must be processed in the order they appear.
* Find k-nearest points.

**AMAZON**

Front End Interview Handbook is now part of [GreatFrontEnd](https://www.greatfrontend.com/)! We are working to migrate the content over and you may find the latest version of this page on [GreatFrontEnd](https://www.greatfrontend.com/prepare).

Amazon is known to focus a lot on behavioral questions and their Leadership Principles. Hence be well-prepared in the non-technical aspects too.

Refer to Amazon's official interview preparation guides for:

* [Front End Engineers](https://www.frontendinterviewhandbook.com/assets/files/amazon-ce35e3c6c090ddbd6d4b0613eb99e4e9.pdf/)
* [Software Development Engineer](https://amazonsdeinterviewprep.splashthat.com/)

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/amazon-front-end-interview-questions/#trivia)

* What is the CSS box model?
  + ( )
* What is a JavaScript closure?
  + ( )
* What happens when you type URL into a browser and hit enter?

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/amazon-front-end-interview-questions/#javascript)

* Implement Array.prototype functions like map, reduce, filter, sort.
* Given an object and a filter function, write a function that recursively filters the object, returning only values which return true when called with the filter function (like Array.prototype.filter but for objects).
* Implement a function getElementsByStyle(property, value) that returns all elements in the DOM that match that style.
  + E.g. getElementsByStyle("color", "#fff") will return all elements in the DOM with white text.
* Promisify a function.

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/amazon-front-end-interview-questions/#user-interface-coding)

* Implement a data table from an array of objects using HTML/CSS and JavaScript with searching and sorting.
* Implement Material UI Chips with auto-suggest. When sending an e-mail, auto-suggest people and convert them into a chip with their avatar on the right
* Implement a Like button.
* Code a paginated widget of addresses. Imagine you are a seller with a list of address you ship to an need to view them 5 address per page, with the possibility to go previous and next.
* Implement a search bar using HTML, CSS and JavaScript.
* Implement a star rating widget.
* Implement tic-tac-toe.
* Recreate an adaptive layout with flexbox. Ensure accessibility.
* Implement a chess board with movable pieces.
* How do you render text on a banner image?
* Render a directory tree given a nested JSON object.

## **System design**[**​**](https://www.frontendinterviewhandbook.com/companies/amazon-front-end-interview-questions/#system-design)

* Design a restaurant listing application where user can make orders and customize their orders by adding additional stuffs like toppings, salads etc.
* Design an accordion component.

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/amazon-front-end-interview-questions/#algorithm)

Amazon does have rounds evaluating your Computer Science fundamentals by asking LeetCode-style questions. Do be prepared for them.

**MICROSOFT**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/microsoft-front-end-interview-questions/#javascript)

* **Tic-tac-toe implementation using vanilla JavaScript, HTML and CSS.**
* **Create a chat interface like Microsoft teams.**
* **Use OOP to implement a Chess game.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/microsoft-front-end-interview-questions/#user-interface-coding)

* **Create a notification interface like Microsoft teams**
* **Image slider implementation.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/microsoft-front-end-interview-questions/#trivia)

* **What is a prototype?**
* **What is a closure?**
* **What is the difference between let, const, and var?**
* **What is DOM?**

## **System Design**[**​**](https://www.frontendinterviewhandbook.com/companies/microsoft-front-end-interview-questions/#system-design)

* **Design an email client like Microsoft Outlook.**

**APPLE**

# **Apple front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/apple-front-end-interview-questions/#javascript)

* **Implement Array.prototype methods (flat, map, reduce, concat) by yourself using JavaScript.**
* **How can you execute an array of promise in sequence?**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/apple-front-end-interview-questions/#user-interface-coding)

* **Implement a simple photo ordering tool with vanilla JS and no libraries.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/apple-front-end-interview-questions/#trivia)

* **How do you build an npm package?**
* **What is a compositing layer in CSS?**

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/apple-front-end-interview-questions/#algorithm)

* **Given an array, return an array where the each value is the product of the next two items: E.g. [3, 4, 5] -> [20, 15, 12]**

**AIRBNB**

# **Airbnb front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/airbnb-front-end-interview-questions/#javascript)

* **Write a simple promise.**
* **Implement a StoreData class that add key/value pairs and listen to value changes for keys.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/airbnb-front-end-interview-questions/#user-interface-coding)

* **Given an input and an endpoint which returns a JSON list, as a result, extend it to autocomplete on change, handle key navigation through the results.**
* **Given a star widget embedded in a form write the code to select the stars and submit the correct value through a normal form action. Make reusable for multiple star widgets.**

***:*** [***Glassdoor Airbnb Front End Engineer Interview Questions***](https://www.glassdoor.sg/Interview/Airbnb-Front-End-Engineer-Interview-Questions-EI_IE391850.0,6_KO7,25.htm)

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/airbnb-front-end-interview-questions/#algorithm)

**Airbnb does have rounds evaluating your Computer Science fundamentals by asking LeetCode-style questions. Do be prepared for them.**

**TIKTOK**

# **ByteDance/TikTok front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/bytedance-tiktok-front-end-interview-questions/#javascript)

* **Implement Promise.all.**
* **Implement a function which extends Array.prototype.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/bytedance-tiktok-front-end-interview-questions/#user-interface-coding)

* **Implement a dropdown component.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/bytedance-tiktok-front-end-interview-questions/#trivia)

* **Difference between localStorage and cookies.**

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/bytedance-tiktok-front-end-interview-questions/#algorithm)

* **Merge two sorted integer arrays, remove duplicates.**
* **You have an image on a page, write css and js so that when mouse is over the image, it rotates 180 deg with 1 sec animation.**
* **Given a list of points, find out if any four of them form a square. Return 'true' if possible, else 'false'.**
  + **Examples: [[0, 0], [2, 0], [1, 1], [0, -1], [-1, -1], [0, 2], [0, 1], [1,0]] -> true**
* **Check for balanced brackets in a string.**
* **Given two nodes, return the section of the tree between these two nodes.**
* **Find the islands in a grid of land and sea.**

# **Dropbox front end interview questions**

**Dropbox focuses on practical questions for their Front End Engineering interview loop rather than on raw algorithmic coding.**

**Our web developer interviews focus on practical application of HTML/CSS/JS for building web UI. The questions are based on real-world examples rather than raw coding exercises. You will be given a design spec and asked to build the best solution you can that demonstrates your experience and grasp of web development technologies.**

**Refer to the** [**full official Dropbox Web Developer Interview Preparation Guide**](https://www.frontendinterviewhandbook.com/assets/files/dropbox-3f6c55defecef2c1aa501786c63603c0.pdf/)**.**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/dropbox-front-end-interview-questions/#javascript)

* **Implement** [**getByClassName() and getByClassnameHierarchy()**](https://leetcode.com/discuss/interview-question/427896/Dropbox-or-Phone-Screen-or-Implement-getByClassName-and-getByClassnameHierarchy)
* **OOP-based class management system.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/dropbox-front-end-interview-questions/#user-interface-coding)

* **Build an image gallery using JavaScript, HTML, CSS.**
* **Forming words from mobile keypad.**
* **Build a UI that fetches data from a weather API that is matching a design spec.**
* **Build a UI that matches a design spec of one of the pages on the Dropbox homepage.**

## **System design**[**​**](https://www.frontendinterviewhandbook.com/companies/dropbox-front-end-interview-questions/#system-design)

* **Design Google calendar.**

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/dropbox-front-end-interview-questions/#algorithm)

* **You want to log the number of hits to a site. Implement two functions, log\_hit() which gets called when a hit is registered, and get\_hits\_in\_last\_five\_minutes() which returns the total number of hits in the last five minutes.**

# **LinkedIn front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/linkedin-front-end-interview-questions/#javascript)

* **Write a getElementsByClassName function.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/linkedin-front-end-interview-questions/#user-interface-coding)

* **Create a tooltip component.**
* **Create a cross browser Linkedin top navigation bar.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/linkedin-front-end-interview-questions/#trivia)

* **Difference between CSS padding and margin.**
* **Difference between promise and callback?**
* **Difference between event bubbling and capturing?**
* **Difference between callback and closure in JavaScript?**
* **What are the advantages of using preprocessors? e.g. Sass, Stylus, Less.**
* **What is event delegation?**

## **Algorithm**[**​**](https://www.frontendinterviewhandbook.com/companies/linkedin-front-end-interview-questions/#algorithm)

* **Reverse a doubly-linked list.**

**LYFT**

# **Lyft front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/lyft-front-end-interview-questions/#javascript)

* **Implement Promise.all.**
* **Write the logic for minesweeper using vanilla JS.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/lyft-front-end-interview-questions/#user-interface-coding)

* **Implement an autocomplete.**

# **Salesforce front end interview questions**

## **Coding**[**​**](https://www.frontendinterviewhandbook.com/companies/salesforce-front-end-interview-questions/#coding)

* **Flatten a nested array.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/salesforce-front-end-interview-questions/#trivia)

* **What is the event loop?**
* **What is a closure?**
* **Positioning in CSS.**

**TWITTER**

# **Twitter front end interview questions**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/twitter-front-end-interview-questions/#user-interface-coding)

* **Implement a typeahead.**
* **Add features to a tic-tac-toe game.**

## **Trivia**[**​**](https://www.frontendinterviewhandbook.com/companies/twitter-front-end-interview-questions/#trivia)

* **What is the difference between Array.prototype.map and Array.prototype.forEach?**

# **Uber front end interview questions**

## **JavaScript**[**​**](https://www.frontendinterviewhandbook.com/companies/uber-front-end-interview-questions/#javascript)

* **Implement a rate limiter attribute/decoration/annotation on top of an API endpoint. Caps to N requests per minute with a rolling window.**

## **User interface coding**[**​**](https://www.frontendinterviewhandbook.com/companies/uber-front-end-interview-questions/#user-interface-coding)

* **Create a button that when clicked, adds a progress bar onto the page. The progress bar would then fill up in a given amount of time (think 3 to 5 seconds). If you get past the first part, you will be asked to do throttling how many progress bars can be running at once. For example, if the limit is 3 progress bars, and the user clicks on the button 4 times, the fourth progress bar only starts after the very first one finishes.**
* **Overlapping circles app.**