Target Corporation: SDE - 2 Frontend: 5 YOE

Round 1: 60 min : 2 Interviewers

What is a closure in JavaScript, and when would you use it in a real-world scenario?

What is the difference between `useMemo` and `useCallback`, and when should each be used?

In a single-page application with 50-100 components, is it a good practice to memoize every component? Why or why not?

How can unnecessary re-renders be prevented in a React application?

How can an AJAX call be canceled if it takes too long to respond?

What is currying in JavaScript, and is there any relation between the arguments passed?

When should a deep copy be used, and what are some real-world examples?

What are the different ways to implement deep copying in JavaScript?

How can we detect when a user scrolls to the bottom of a page and capture the scroll position using only native JavaScript?

If a page receives 60,000-70,000 rows of data from the backend and must render instantly without delaying FCP, how should it be handled? Where should the data be stored for optimal performance?

How can data be cached in IndexedDB to support offline functionality?

In a React application, how can user context be stored in Redux without using `persistReducer`?

In what format is Redux state data stored?

Does the `lazy` function in React support named exports?

Between default export and named export, which should be preferred and why?

What is the difference between `bind`, `call`, and `apply` in JavaScript?

What are the challenges of using class-based components in React?

How can the constructor parameters of a class be tested in unit tests?

For an enterprise application, is a microfrontend architecture recommended? What challenges can arise when implementing it?

How can an array be reversed after every fifth element?

Given an array:
`[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30]`
Transform it into:
`[1, 2, 3, 4, 5, 10, 9, 8, 7, 6, 11, 12, 13, 14, 15, 20, 19, 18, 17, 16, 21, 22, 23, 24, 25, 30, 29, 28, 27, 26]`

Round 2: Low level+High level System Design

Part 1: Low Level Design: 30 min

Design a grid where all blocks are initially white. Clicking on a block turns it green. Once all blocks are green, they should turn white in the reverse order of user interaction. The grid should have a "C" shape with two missing blocks in the middle row. How would you implement this in React?

Part 2: High Level Design: 30 min

For an eCommerce application built with React, outline the functional and nonfunctional requirements, including product listing, product details, cart management, and checkout.

What should be the component-level architecture for an eCommerce application in React?

List the APIs required for an eCommerce application, including their request payloads and response structures.

What are the best optimization approaches for improving the performance of an eCommerce application built with React?

Round 3: Hiring Manager: 60 min

The Hiring Manager interview covered standard **culture fit scenarios** and an in-depth **discussion about project-related aspects**.