

1. Explain the use of JavaScript (or What you can do using a JavaScript)

=> JavaScript is a programming language that is designed to manipulate the website, we can say this in the initial days of JavaScript. In the initial days, this was the only programming language that could run in the browser, Its earliest releases suffered from notable performance and security issues, but developers had no alternatives. If they wanted to run programs in the browser, they had to use JavaScript. But after the release of the chrome v8 engine, provides a crucial turning point of JavaScript. It fixed its performance issues and security issues. But at this stage also it could only run in a browser. But after the release of the NodeJs engine Javascript can run outside the browser. Nowadays it evolves so much that it can do anything like we can use it in Client-side applications, Server side applications, for making mobile apps, and desktop apps.

2. What is the difference between client-side and server-side?

=> Client-side means the process run in the browser of users. Users interact with these pages. It gives developers more control over the website, We can also say Javascript is the brain of a website. In client-side source code is visible to the users

=> Server-side means the process which does not run on a user's computer browser, it is the process that runs on the server to give the website dynamic touch. In sever-side, the source code is not visible to the users. The server prepares the data as per the user's request and sends it to the client. It handles the backend of our websites and saves the computation of users' computers.

It serves us a good user experience

3. What is Nodejs?

=> NodeJs is a javascript engine that allows us to run javascript locally in our environment. It does not require any web browser to run our javascript program. Nodejs allows javascript to run on servers which allows us to run javascript in the server and anywhere nodejs is installed.

4. Explain Scope in JavaScript

=> There are two types of scopes in javascript. Global-Scope and local-scope. The variable declares outside of a function has global scope means we can use this variable anywhere in our javascript program, It has no restrictions. But in local scope, the variable is declared in a particular function and it has local scope means we only use these variables inside that particular function where it has declared. It can not accessible outside that function.

5. JavaScript is asynchronous or synchronous.

=> JavaScript is a synchronous, single-threaded language. The term synchronous means only one operation at a time. It has a single thread that's why it only executes one command at a time and the

other command needs to wait for execution until the previous command is completed. But this does not mean Javascript does not behave asynchronously. We can manipulate the behavior of javascript by using asynchronous operations like promises, and callbacks.

6. JavaScript is Single-threaded or Multi-threaded.

=> Java-Script is a single-threaded language. It means it only handles only one command at a time and the other needs to wait until the previous command is executed. We can manipulate the behavior of javascript by using asynchronous operations like promises, and callbacks. If we made it asynchronous this can handle multiple operations at a time but this does not mean it is multi-thread it is single-threaded.

7. Explain DOM in your word.

=> Document Object Model (Dom) we can perform DOM manipulation in javascript this means we can create, change, add, delete, get the HTML elements by DOM manipulation in javascript