

1.What is client-side and server-side in web development, and what is the main difference between the two?

Client-side refers to the front-end technology of web development, this is the visual part where the end user interacts with a web application using a browser, the front-end sends requests to the back-end in order to retrieve data or make updates to the database within the limited options predefined in the back-end.

Server-side refers to the back-end technology of web development, this is where most of the logic for the web application is written down, there should be no interaction with the end users, it is the back-bone of any software or website, it manages the database and also all the security measures for a web app or any software in general are contained in the back-end.

2.What is an HTTP request and what are the different types of HTTP requests?

HTTP stands for hyper-text transfer protocol, it is a set of rules used for transferring data over the internet, there are several types of HTTP requests, the most common ones are GET, POST, PUT, PATCH and DELETE.

3.What is JSON and what is it commonly used for in web development?

JSON stands for JavaScript Object Notation, it is a syntax used to organize data in a structured manner, it is also used for transmitting data using the HTTP requests and responses.

4.What is a middleware in web development and give an example of how it can be used.

A middleware is a function used in back-end development, it is a special type of controller used to filter and secure HTTP requests and responses. It is executed between requests and responses. There are two types of middleware, application level and route level, application level affects the entire application, route level middleware is used for handling specific HTTP routes. An example of practical usage of middleware would be a function that limits the number of times a user can send a specific HTTP request in a set time interval; another example would be a function that encrypts HTTP transmissions to prevent hackers from reading private messages from user to server.

5.What is a controller in web development, and what is its role in the MVC architecture?

MVC stands for Model, View and Controller, a controller is a piece of code responsible for handling HTTP requests and responses, it is like a bridge between a request and a response.