

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

ANS:

Client-side: Client-side development is a type of development that involves programs that run on a client's or user's device. It is sometimes referred to as front-end development.

Server-side: Server-side development is a type of development that involves programs that run on a server. It is sometimes referred to as back-end development. This type of programming is important because web browsers, or clients, interact with web servers to retrieve information. Users don't see this development because it happens on servers.

Differences:

Client-side	Server-side
1. Source code is visible to the user.	1. Source code is not visible to the user because its output of server-side is an HTML page.
2. Its main function is to provide the requested output to the end user.	2. Its primary function is to manipulate and provide access to the respective database as per the request.
3. It runs on the user's computer.	3. It runs on the webserver.
4. It usually depends on the browser and its version.	4. In this any server-side technology can be used and it does not depend on the client.
5. It reduces load on the processing unit of the server.	5. It increases the processing load on the server.
6. HTML, CSS, and javascript are used.	6. PHP, Python, Java, Ruby are used.

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

Ans:

HTTP request: HTTP (Hypertext Transfer Protocol) specifies a collection of request methods to specify what action is to be performed on a particular resource.

Types of HTTP request: Most commonly used HTTP requests are GET, POST, PUT, PATCH, and DELETE. These are equivalent to the CRUD operations (create, read, update, and delete).

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

Ans:

JSON: JSON stands for JavaScript Object Notation. JSON is a text format for storing and transporting data. JSON is "self-describing" and easy to understand.

JSON has become popular as a data format for developers because of its human-readable text, which is lightweight, requires less coding, and processes faster. JSON has gained momentum in API code programming and web services because it helps in faster data interchange and web service results. It is text-based, lightweight, and has an easy-to-parse data format requiring no additional code for parsing. For web services, the need to return and display a lot of data makes JSON the ideal choice.

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

Ans:

Middleware: Middleware is a term for any software or service that enables the parts of a system to communicate and manage data. It is the software that handles communication between components and input/output, so developers can focus on the specific purpose of their application.

Example: We can use translator middleware for any kind of translations.

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

Ans:

Controller: Controllers act as an interface between Model and View components.

The Model-View-Controller (MVC) is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. It processes all the business logic and incoming requests, manipulates data using the Model component and interacts with the Views to render the final output.