Part 01

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

 ANS: In web development, client-side refers to the execution of code on the user's device (usually in a web browser), while server-side refers to the execution of code on the server. The main difference is that client-side code is downloaded and run on the user's device, allowing for dynamic interactions and rendering, while server-side code is executed on the server and primarily handles data processing, storage, and communication.

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

ANS: An HTTP request is a message sent by a client (such as a web browser) to a server to initiate a specific action. There are several types of HTTP requests, including:

● GET: Get resource from the server.

 ● POST: Submits data in the server.

 ● PUT: Updates a resource on the serve.

● DELETE: Removes a resource from the server.

 ● HEAD: Retrieves metadata about a resource without fetching the entire content.

● PATCH: Partially update a resource on the server.

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

 ANS: JSON (JavaScript Object Notation) is a lightweight data interchange format commonly used in web development. It is a text-based format that represents structured data as key-value pairs, arrays, and nested objects. JSON is often used for transmitting data between a server and a client, as it is easy to read, write, and parse by humans and machines alike.

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

 ANS: In web development, a middleware is a piece of code that sits between the web application's server and the client. It intercepts and handles requests and responses, adding functionality or modifying them before they reach their final destination. For example, a logging middleware can be

used to log information about incoming requests, such as the request method, URL, and timestamp, for debugging or Analysis purposes.

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

ANS: In web development, a controller is a component that handles user interactions and acts as an intermediary between the model (data) and the view (user interface). It receives input from the user, processes it, interacts with the model to retrieve or update data, and then renders the appropriate view. Controllers play a central role in the Model-View-Controller (MVC) architecture, which helps separate concerns and organize code in a modular and maintainable way.