Express MongoDB Back End Development 01

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

Answer: Client-side and server-side in web development refer to the two different environments where code executes. Client-side refers to code that runs in the user's web browser, handling the user interface and interactions. Server-side refers to code that runs on the server, handling data processing, business logic, and database operations. The main difference is that client-side code is executed on the user's device, while server-side code is executed on the server.

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

Answer: An HTTP request is a communication protocol used by web browsers to request resources from a web server. There are several types of HTTP requests, including:

- ❖ GET: Requests a specific resource from the server.
- ❖ POST: Sends data to the server to create a new resource.
- ❖ PUT: Updates an existing resource on the server.
- ❖ DELETE: Deletes a resource from the server.
- ❖ PATCH: Partially updates an existing resource on the server.

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

Answer: JSON (JavaScript Object Notation) is a lightweight data interchange format commonly used in web development. It is a text-based format that represents data as key-value pairs. JSON is used for data transmission between a server and a web application. It is easy to read, write, and parse, making it a popular choice for APIs and data exchange.

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

Answer: In web development, a middleware is a software component that sits between the client and the server. It intercepts and manipulates incoming or outgoing requests and responses. Middleware can be used for various purposes, such as logging, authentication, error handling, and request transformation. For example, in a Node.js application, the Express framework provides middleware functions that can be used to parse request bodies, handle authentication, or enforce security measures.

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

Answer: In web development, a controller is a component that handles user interactions and manages the flow of data between the model (data) and the view (user interface) in the Model-View-Controller (MVC) architecture. The controller receives input from the user, processes it, interacts with the model to fetch or modify data, and updates the view accordingly. It acts as an intermediary between the user and the underlying data and plays a crucial role in separating the concerns of data manipulation and user interaction within an application.