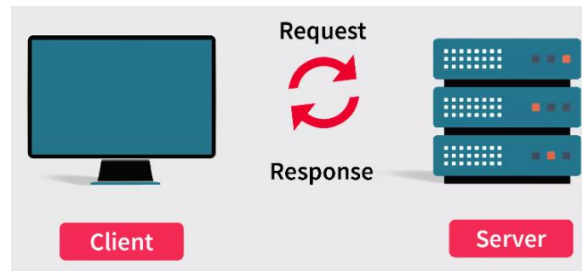


1. What is client-side and server-side in web development, and what is the main difference between the two?

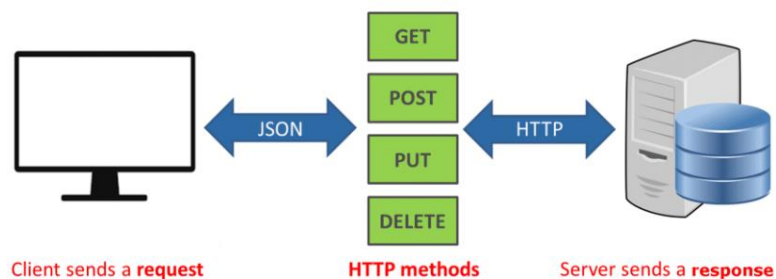
Answer: The terms "server-side" and "client-side" describe the areas of a web application where specific operations or procedures are carried out. Client-side processes run on the user's device, whereas server-side processes run on the web server.



Server-Side	Client-Side
Offers secure access to sensitive data and resources.	Offers faster response times for user interactions.
Communicates with databases and other server-side resources.	Can operate independently of the server after the initial page load.
Involves programming languages like Python, Ruby, Java, PHP, etc.	Involves programming languages like HTML, CSS, and JavaScript.
Handles business logic, data storage, and processing.	Responsible for user interface rendering and interactivity.

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

Answer: An HTTP request is an action to be performed on a resource identified by a given Request-URL.



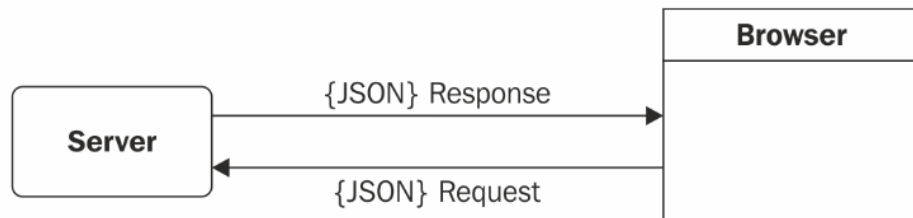
The primary or most commonly-used HTTP methods are:

- POST,

- GET,
- PUT,
- PATCH, and
- DELETE.

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

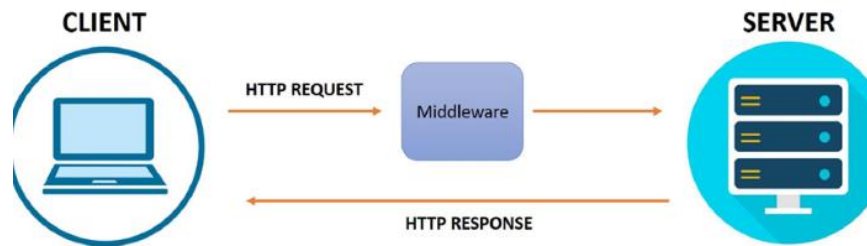
Answer: JavaScript Object Notation, or JSON. It is a simple data interchange format that is simple for both humans and machines to read, write, parse, and produce. Data communication between a server and a client-side computer is primarily accomplished using JSON.



- JSON's syntax is made up of key-value pairs and is short and to the point. Various data types, such as strings, numbers, booleans, arrays, and nested objects are supported.
- JSON is frequently used for data transmission between a server and a client application.
- JSON is a popular web data format that is used by many web APIs (like RESTful APIs) to exchange data between clients and servers.
- To enable data retrieval and updating in online applications without necessitating a complete page reload, JSON is frequently used in conjunction with AJAX (Asynchronous JavaScript and XML).

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

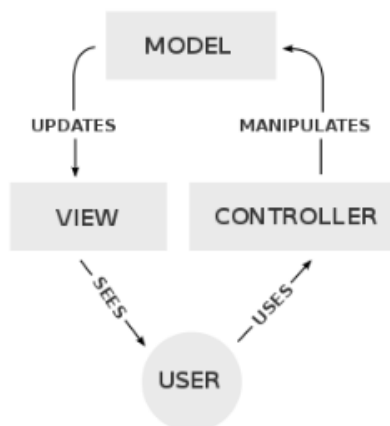
Answer: Middleware is a term used in web development to describe a piece of software or a task that resides in between the server and the logic of the web app. It performs a variety of activities, including authentication, logging, error handling, and processing incoming requests and outgoing responses.



In example, in a web application that clients want to restrict access to only non-Android users for some specific reason. Developer can create a middleware that checks the user agent of incoming requests and denies access if the request is coming from an Android device.

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

Answer: A controller is a part of a program that handles the application's business logic and acts as a mediator between the user and the application.



The role of a controller in the MVC architecture are as follows:

- The controller receives requests from users or external systems. It analyzes the incoming request.
- The controller interacts with the model component in the MVC architecture.
- After processing the request and interacting with the model, the controller updates the view component.