

## Part-One

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

**A: Client-side:** When processing is client-side, it happens on the user's computer. It necessitates that browsers execute the scripts locally, without utilizing any server-side processing.

**Server-side:** Server-side refers to the fact that the processing happens on a web server. The user's requested online chores must be completed through this processing. The client can see the client-side script because it runs on their computer. The server-side script, on the other hand, runs on the server and is not accessible to users.

### Difference between client-side and server-side:

#### Client-side

- Does not need interaction with the server
- Runs on the user's computer
- Reduces load on the server's processing unit
- Languages used: HTML, CSS, JavaScript

#### Server-side

- Requires interaction with the server
- Runs on the web server
- Allows the server to provide dynamic websites tailored to the user. Increases the processing load on the server.
- Languages used: PHP, ASP.net, Python

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

**A:**The HTTP (Hypertext Transfer Protocol) standard offers a number of request methods to describe the actions that should be taken in relation to a given resource. The HTTP request methods that are most frequently used are GET, POST, PUT, PATCH, and DELETE. These are the same as CRUD (create, read, update, and delete) actions. The HTTP (Hypertext Transfer Protocol) standard offers a number of request methods to describe the actions that should be taken in relation to a given resource. The HTTP request methods that are most frequently used are GET, POST, PUT,

PATCH, and DELETE. These are the same as CRUD (create, read, update, and delete) actions.

**Q.3.** A text-based standard for encoding structured data based on JavaScript object syntax is called JavaScript Object Notation (JSON). It is frequently used in online applications to transport data (such as passing data from the server to the client so it may be displayed on a web page, or vice versa).

It is frequently used in online applications to transport data (such as passing data from the server to the client so it may be displayed on a web page, or vice versa).

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

**A.** Middleware is a piece of software that connects many applications.

Your computer transmits the request to the web server in XML or JSON when you submit a form on a website.

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

**A.** When business-related actions are initiated in ASP.NET sites, a controller acts as a middleman between the user and the application.

The parts that make up the request pipeline are collectively referred to as middleware. This pipeline is set up in a chain-like fashion. Until a response is received, the middleware either responds to the request or forwards it to the next one.