

Introduction to Server Sided Programming

The server side programming is the name given to all types of programs which run on the web server. They process the user input, interact with the databases and control what content is served back to the client as a response to his request

Getting started with server-side programming is usually easier than client-side development, because dynamic websites tend to perform a lot of very similar operations (retrieving data from a database and displaying it in a page, validating user-entered data and saving it in a database, checking user permissions and logging users in, etc.), and are constructed using web frameworks that make these and other common web server operations easy.

*All in all, Your home computer is designed for a human to computer contact while a server computer is designed to do a computer to coputer contact. A server is a **centralised machine** to which other computers connect via the Internet or via the local area network*

Writing programs to create dynamic pages is server-side programming since the programs run on the web server. The programming we have been doing in JavaScript, where the programs run in the user's web browser, is called client-side programming.

Now the client connects to a website to get served for a service. That service might be anything like:

- Triggering awebsite by URL
- Sending an Email viia the server
- Retrieving data from Database
- Storing Data in the Database

Server-side Uses

- It processes the user input
- Displays the requested pages

- Structure of web applications
- Interaction with servers/storages
- Interaction with databases
- Querying the database
- Encoding of data into HTML
- Operations over databases like delete, update.

Server-side programming is very useful because it allows us to efficiently deliver information tailored for individual users and thereby create a much better user experience.

Server Responses

Server always responds with a specific code to the client via the HTTP request whenever the client hits the server.

Eg: `Error 404, Success 200, Server Error 500`

Find details on the following link - <https://httpstatuses.com/>

Examples of Server Side Languages

- PHP
- Python
- Java
- Javascript
- Ruby

Examples of Server Side Frameworks

- Php Laravel
- Python Django
- Phtyon Flask

- NodeJS
- ASP.NET
- SpringBoot

A web server is a computer that runs websites. It's a computer program that distributes web pages as they are requisitioned. The basic objective of the web server is to store, process and deliver web pages to the users

Web Servers:

- Apache HTTP Server
- Nginx (Engine X)
- IIS (Internet Information Services) Microsoft