Server-Side Scripting: Back-End Web Development Technology

Parts of Back end:

Server – serves as the powerful computer that runs the languages in the back end

Database – serve as the container or storage of the data

APIs – the one that controls the data and application a website shares with other applications

Back-end web application (server-side software) – includes the scripts and framework. What it does is to communicate between the Server, Database and the user with the help of languages. The Back-end web developers uses server-side script to create the server-side software of a website.

Server-side script basics

The script is embedded in the website’s code and it runs on a server. The script is intended to have a communication with the database and the information will be processed from the server to connect to the database. The facilitation of transferring data from server to the browser that bring pages to life in the browser is also the work of the Server-side script. The usual thing is that when a webpage is “called up” then it processes and turn back the data. On dynamic web applications, it empowers the functions like saving and getting the data and validation etc. It also creates APIs or application programming interfaces.

Server-Side Databases and Code

It is designed to be seamless, smooth and fast. The flow of work would be the server-side scripting processes the wants or the request of the user depending on what they are looking via using the server and locate the data getting the exact line of data and eventually deliver the information back to the browser. These things will always happen with the help of the middleware which the back-end developer writes and the server-side application. These two builds a channel from the website to the database. What makes it fast and secure is when until it is requested the information for the website reside on the server.

Popular server-side languages

Java

It is considered as a subset of the language C. On its core is a variation of the C++ language with much easier curve of learning. Because of Java Virtual Machine, the platform of it is independent. It is very excellent for the enterprise level software, android apps and high-traffic sites. It comes with a very big ecosystem of software components which are add-ons.

PHP

PHP will allow you to make websites, create dynamic web pages and develop dynamic content. The language that is designed to edit and pull information from the database. It can do all sort of things like building custom web content to be able to serve the browser, and evaluate data that is send from the browser, and even sending or receiving cookies. It is usually connected with databases that are written in SQL Language. It is strictly designed for the web and very easy to deploy and install. PHP is the foundation for a lot of content-management systems such as WordPress. Wikipedia and Facebook are one of the powered sites by PHP.

The Php is very familiar to you because it seems like it is an old HTML. PHP code is written inside the “<?php” and “?>”.

Example :

<div class="header"><h1>

<?php

$welcome = "PHP Example !";

echo $welcome;

?>

</h1></div>

Comparisons used in PHP

List of comparison operators:

> means Greater than

< means Less than

<= means Less than or equal to

>= means Greater than or equal to

== means Equal to

!= means Not equal to

Example :

<p>

<?php

6 < 7;

?>

</p>

Conditional Control Flow Statements

if/elseif/else statement

It is created with the “if” keyword and the curly braces that always comes in pair. If the condition is true then the code inside the curly braces will run otherwise the conditions is false and after the keyword “else” on the second pair of curly braces will run.

Example :

<p>

<?php

$items = 6

if($items < 5) {

echo "You got a free coffee!";

}else {

echo “You are not allowed to enter the coffee shop”

}

?>

</p>

Switch statement

You can use it if you have a series of Conditional if-else statements that has multiple expressions that depend on the same value. It helps the programmer to be more efficient and provide readability. It executes a block of code is it is true like what is happening on if statements. It is created by using “switch” keyword then the variable to be checked and a pair of curly braces. For each comparison, there will be a case block and it uses break to make an exit in the switch statement. “Falling through” is the term if there are cases right after another without having a break. If the condition is not met, then another case block will run and if all of the cases return false then it will execute the default case instead.

Example :

<?php

switch (20) {

case 0:

echo 'The value is 10';

break;

case 1:

echo 'The value is 15';

break;

case 2:

echo 'The value is 20';

break;

default:

echo "The value isn't 10, 15 or 20";

}

?>

For Loops in PHP

We can use it to repeat a series of instructions instead of typing a lot of print of echo many times.

Example:

This will print a list of leap years

<?php

for ($leap = 2004; $leap < 2050; $leap = $leap + 4) {

echo "<p>$leap</p>";

}

?>

Array

To store more than one item in only one variable, you make use of a text that starts with the $ sign to be followed by and = sign. For the declaration, we have to use array(). The array() will basically determine that $sample is an array and not a regular old variable.

Example :

<?php

$sample = array("Gusto", "ko", "na", “grumaduate” );

?>

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