# Introduction

PHP(PHP: Hypertext Preprocessor), originally named Personal Homepage, is a general purpose scripting language developed by Rasmus Lerdorf in 1994. PHP is now widely-used as a general-purpose scripting language, however, it is mostly used for back-end web development and can be embedded into HTML.

It is a server-side web scripting language which means, it runs in a web server. The php script is executed first on the server, generating the HTML and sent to the client.

PHP is a very popular scripting language, however, it is not a very disciplined language in a way that there’s a lot of inconsistencies in the language such as function names and there’s no central organization governing the development of PHP.

In php, there are 2 ways of coding, the Object Oriented and the Procedural Paradigm.

# PHP Fundamentals

## Basic Syntax

PHP Tags

When PHP parses a file, it looks for opening and closing tags, which are <?php and ?> which tells the parser the beginning and end of a php code. This allows PHP to be embedded anywhere in the HTML. This also allows php to be embedded in different documents aside from HTML.

Example:

<?php

Echo “Hello Webtech People!”;

</php>

Escaping from HTML

PHP can skip HTML lines in between php scripts using conditions.

Example:

<php if ($expression == true){ ?>

<p>This will be shown if the condition is met.</p>

<?php }else{ ?>

<p>Otherwise this will be shown.</p>

<?php } ?>

## Variables

Variables are represented by dollar sign($) followed by the name of the variable. PHP is a loosely typed language, meaning, that variable types are defined at run time, and can change at any time during execution.

### Predefined Variables

Predefined variables are variables that are already defined by php.

Superglobals - are built-in variables that are always available in all scopes. Superglobals are named in capital letters and starts with underscore(‘\_’) after the dollar sign with the exception of the $GLOBALS variable.

1. $GLOBALS - references all the variables that are in global scope.
2. $\_SERVER - an array containing information such as headers, paths, and script locations.
3. $\_GET - an associative array containing variables passed through the url
4. $\_POST - an associative array containing variables passed via the HTTP POST method.
5. $\_FILES - an associative array of items uploaded via the HTTP POST method.
6. $\_REQUEST - an associative array containing the value of HTTP Request variables ($\_GET, $\_POST and $\_COOKIE).
7. $\_SESSION - an associative array which contains session variables available to the current script.
8. $\_ENV - an associative array containing the variables passed via the environment method. These variables are coming from the environment under which the PHP parser is running.
9. $\_COOKIES - an associative array containing the cookies passed via HTTP Cookies

## Data Types

(Under String, add string concatenations)

### Conditional

If

If...else

If...else if...else

Switch

## Loops

Loops in PHP are closely similar to loops in other programming/scripting languages such as Java and JavaScript and it has almost the same syntax as the aforementioned languages.

|  |  |  |
| --- | --- | --- |
|  | **Basic Syntax** | **Sample Code** |
| While | while(condition){  // code } | <?php $i = 1; while($i <= 3){  $i++;  echo $i . "<br>"; } ?> |
| For | for(initialization; condition; increment){  // code  } | <?php for($i=1; $i<=3; $i++){  echo $i . "<br>"; } ?> |
| Foreach | foreach($array as $var){  // code } | <?php  $numbers = array(1, 2, 3);    foreach($numbers as $value){  echo $value . "<br>";  }  ?> |
| Do-while | do{  // code  }while(condition); | <?php  $i = 1;  do{  $i++;  echo $i . "<br>";  }  while($i <= 3);  ?> |

## Functions

## Handling Error Messages(HIDE)

# Sessions

## Handling Data Submissions

Using Post

Using Get

Handling other methods

(use $\_SERVER variable)

## Handling FIle Uploads

## Dynamic Content using AJAX and Databases