**Lesson: 07 (PHP Basic)**

**PHP**

* PHP is a scripting language originally designed for producing dynamic web pages and interactive Web pages. It has evolved to include a command line interface capability and can be used in standalone graphical applications. PHP scripts are executed on the server.
* PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML.
* PHP stands for PHP: Hypertext Preprocessor.
* PHP supports many databases (MySQL, Informix, Oracle, Sybase, Solid, PostgreSQL, Generic ODBC, etc.).
* PHP is open source software and free to download and use.

**PHP File**

* PHP files can contain text, HTML tags and scripts and PHP files are returned to the browser as plain HTML.
* PHP files have a file extension of ".php", ".php3", or ".phtml"

**PHP Example**



**MySQL**

* MySQL is a database server and ideal for both small and large applications.
* MySQL supports standard SQL and compiles on a number of platforms.
* MySQL is free to download and use.
* PHP combined with MySQL are cross-platform (you can develop in Windows and serve on a UNIX platform).

**Advantage of using PHP for web development**

* PHP runs on different platforms (Windows, Linux, Unix, etc.)
* PHP is compatible with almost all servers used today (Apache, IIS, etc.)
* PHP is FREE to download from the official PHP resource: www.php.net
* PHP is easy to learn and runs efficiently on the server side

**PHP Installation**

* Install Apache (or IIS) on your own server, install PHP, and MySQL
* Or find a web hosting plan with PHP and MySQL support

***Download PHP for free here:*** http://www.php.net/downloads.php

***Download MySQL for free here:*** http://www.mysql.com/downloads/index.html

***Download Apache for free here:*** http://httpd.apache.org/download.cgi

**PHP Syntax**

A PHP scripting block always starts with <?php and ends with ?>. A PHP scripting block can be placed anywhere in the document.

On servers with shorthand support enabled you can start a scripting block with <? and end with ?>.

|  |
| --- |
| <?php ?> |

|  |
| --- |
| <html>  <body>  <?php  echo "Hello World";  ?>  </body>  </html> |

**Comments in PHP**

In PHP, we use // to make a single-line comment or /\* and \*/ to make a large comment block.

|  |
| --- |
| <html>  <body>  <?php  //This is a comment  /\*  This is  a comment  block  \*/  ?>  </body>  </html> |

**PHP Variables**

Variables are used for storing values, like text strings, numbers or arrays.When a variable is declared, it can be used over and over again in your script.

All variables in PHP start with a $ sign symbol.

The correct way of declaring a variable in PHP:

|  |
| --- |
| $var\_name = value;  <?php  $txt="Hello World!";  $x=16;  ?> |

PHP is a Loosely Typed Language, Which means In PHP, a variable does not need to be declared before adding a value to it.

**Naming Rules for Variables**

* A variable name must start with a letter or an underscore "\_"
* A variable name can only contain alpha-numeric characters and underscores (a-z, A-Z, 0-9, and \_ )
* A variable name should not contain spaces. If a variable name is more than one word, it should be separated with an underscore ($my\_string), or with capitalization ($myString)

**PHP Operators**

Operators are used to operate on values.

***Arithmetic Operators:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Operator** | **Description** | **Example** | **Result** |
| + | Addition | x=2 x+2 | 4 |
| - | Subtraction | x=2 5-x | 3 |
| \* | Multiplication | x=4 x\*5 | 20 |
| / | Division | 15/5 5/2 | 3 2.5 |
| % | Modulus (division remainder) | 5%2 10%8 10%2 | 1 2 0 |
| ++ | Increment | x=5 x++ | x=6 |
| -- | Decrement | x=5 x-- | x=4 |

***Note: Example One***

***Assignment Operators:***

|  |  |  |
| --- | --- | --- |
| **Operator** | **Example** | **Is The Same As** |
| = | x=y | x=y |
| += | x+=y | x=x+y |
| -= | x-=y | x=x-y |
| \*= | x\*=y | x=x\*y |
| /= | x/=y | x=x/y |
| .= | x.=y | x=x.y |
| %= | x%=y | x=x%y |

***Note: Example Two***

***Comparison Operators:***

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| == | is equal to | 5==8 returns false |
| != | is not equal | 5!=8 returns true |
| > | is greater than | 5>8 returns false |
| < | is less than | 5<8 returns true |
| >= | is greater than or equal to | 5>=8 returns false |
| <= | is less than or equal to | 5<=8 returns true |

***Logical Operators:***

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| && | and | x=6 y=3  (x < 10 && y > 1) returns true |
| || | or | x=6 y=3  (x==5 || y==5) returns false |
| ! | not | x=6 y=3  !(x==y) returns true |

**Conditional Statements**

Conditional statements are used to perform different actions based on different conditions. PHP have the following conditional statements:

* if statement - use this statement to execute some code only if a specified condition is true
* if...else statement - use this statement to execute some code if a condition is true and another code if the condition is false
* if...elseif....else statement - use this statement to select one of several blocks of code to be executed
* switch statement - use this statement to select one of many blocks of code to be executed

***if Statement:***  if statement is use to execute some code only if a specified condition is true.

***Syntax:***

if (condition) {code to be executed if condition is true};

***Note: Example Three***

***if...else Statement:*** if....else statement use to execute some code if a condition is true and another code if a condition is false.

***Syntax:***

if (condition){ code to be executed if condition is true; }

else {code to be executed if condition is false;}

***Note: Example Four***

|  |  |
| --- | --- |
| **<!--Example one-->**  <html>  <head>  </head>  <body>  <?php  $x=10;  $y = 3;  $z = $x % $y;  echo "$z <br/>\n";  echo (10 % 3)." <br />\n";  ?>  </body>  </html> | **<!--Example Two-->**  <html>  <head>  </head>  <body>  <?php  $a = 3;  $a += 5;  $b = "Hello ";  $b .= "There!";  echo "$a <br/>";  echo "$b <br/>";  ?>  </body>  </html> |
| **<!--Example Three-->**  <html>  <head>  </head>  <body>  <?php  $d=date("D");  if ($d=="Fri") echo "Have a nice weekend!";  ?>  </body>  </html> | **<!--Example Four-->**  <html>  <head>  </head>  <body>  <?php  $d=date("D");  if ($d=="Fri")  echo "Have a nice weekend!";  else  echo "Have a nice day!";  ?>  </body>  </html> |