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Week 2
Variables and Operators

Variables

A variable is an information container in which we can insert integers, decimals, characters... the content in the variables can be parsed (read) and can be changed while running a PHP page.

In PHP all variables begin with the symbol \$ and it is not necessary to define a variable before using it. There are no variable types either; this means that one variable may contain a number and then characters

```
<!-- PHP Tutorial WebEstilo.com -->
<html>
<head>
  <title>PHP Example</title>
</head>
<body>
<?php
  $a = 1;
  $b = 3.34;
  $c = "Hello World";
  echo $a,"<br>",$b,"<br>",$c;
?>
</body>
</html>
```

Output:

```
1
3.34
Hello World
```

In this example, we have defined three variables, \$a, \$b and \$c, and with the echo statement, we have printed the value contained in them inserting a line break between them.

There are 2 kinds of variables, local variables that can only be used inside the functions, and global variables that can be used outside the functions. We can access a global variable from a function using the instruction `global variable_name`;

Arithmetic Operators

PHP operators are very similar to C and JavaScript operators, if you know these languages, operators will be familiar and easy to recognize.

These are the operators that can be applied to variables and numeric constants.

Operator	Name	Example	Description
+	Addition	5 + 6	Adds two numbers
-	Subtraction	7 - 9	Subtracts two numbers
*	Multiplication	6 * 3	Multiplies two numbers
/	Division	4 / 8	Divides two numbers
%	Modulus	7 % 2	Returns the remainder from dividing both numbers, in this example the result is 1.
++	Increment	\$a++	Adds 1 to the content of a variable.
--	Decrement	\$a--	Subtracts 1 to the content of a variable.

```
<!-- PHP Tutorial WebEstilo.com -->
<html>
<head>
  <title>PHP Example</title>
```

```

</head>
<body>
<?php
    $a = 8;
    $b = 3;
    echo $a + $b,"<br>";
    echo $a - $b,"<br>";
    echo $a * $b,"<br>";
    echo $a / $b,"<br>";
    $a++;
    echo $a,"<br>";
    $b--;
    echo $b,"<br>";
?>
</body>
</html>

```

Output:

```

11
5
24
2.666666666667
9
2

```

Comparison Operators

Comparison operators are used to compare values in order to make decisions.

Operator	Name	Example	Returns true when:
==	Equal	\$a == \$b	\$a is equal to \$b
!=	Not equal	\$a != \$b	\$a is not equal to \$b
<	Less than	\$a < \$b	\$a is less than \$b
>	Greater than	\$a > \$b	\$a is greater than \$b
<=	Less or equal	\$a <= \$b	\$a is less than or equal to \$b
>=	Greater or equal	\$a >= \$b	\$a is greater than or equal to \$b

```

<!-- PHP Tutorial WebEstilo.com -->
<html>
<head>
    <title>PHP Example</title>
</head>
<body>
<?php
    $a = 8;
    $b = 3;
    $c = 3;
    echo $a == $b,"<br>";
    echo $a != $b,"<br>";
    echo $a < $b,"<br>";
    echo $a > $b,"<br>";
    echo $a >= $c,"<br>";
    echo $b <= $c,"<br>";
?>
</body>
</html>

```

Output:

```

1
1
1
1

```

Logical Operators

Logical operators are used to evaluate several comparisons, by combining their possible values.

Operator	Name	Example	Returns true when:
&&	Y	(7>2) && (2<4)	Returns true when both conditions are true.
and	Y	(7>2) and (2<4)	Returns true when both conditions are true.
	O	(7>2) (2<4)	Returns true when at least one of the two conditions is true.
or	O	(7>2) or (2<4)	Returns true when at least one of the two conditions is true.
!	No	! (7>2)	Denies the value of the expression.

```

<!-- PHP Tutorial WebEstilo.com -->
<html>
<head>
    <title>PHP Example</title>

```

```
</head>
<body>
<?php
    $a = 8;
    $b = 3;
    $c = 3;
    echo ($a == $b) && ($c > $b),"<br>";
    echo ($a == $b) || ($b == $c),"<br>";
    echo !($b <= $c),"<br>";
?>
</body>
</html>
```

Output:

1