PHP Data Types

Variables can store data of different types, and different data types can do different things.

PHP supports the following data types:

* String
* Integer
* Float (floating point numbers - also called double)
* Boolean
* Array
* Object
* NULL
* Resource

## PHP String

A string is a sequence of characters, like "Hello world!".

A string can be any text inside quotes. You can use single or double quotes:

### Example

<?php   
$x = "Hello world!";  
$y = 'Hello world!';  
  
echo $x;  
echo "<br>";   
echo $y;  
?>

## PHP Integer

An integer data type is a non-decimal number between -2,147,483,648 and 2,147,483,647.

Rules for integers:

* An integer must have at least one digit
* An integer must not have a decimal point
* An integer can be either positive or negative
* Integers can be specified in three formats: decimal (10-based), hexadecimal (16-based - prefixed with 0x) or octal (8-based - prefixed with 0)

In the following example $x is an integer. The PHP var\_dump() function returns the data type and value:

### Example

<?php   
$x = 5985;  
var\_dump($x);  
?>

**PHP Float**

A float (floating point number) is a number with a decimal point or a number in exponential form.

In the following example $x is a float. The PHP var\_dump() function returns the data type and value:

### Example

<?php   
$x = 10.365;  
var\_dump($x);  
?>

PHP Boolean

A Boolean represents two possible states: TRUE or FALSE.

$x = true;  
$y = false;

Booleans are often used in conditional testing.

## PHP Array

An array stores multiple values in one single variable.

In the following example $cars is an array. The PHP var\_dump() function returns the data type and value:

### Example

<?php   
$cars = array("Volvo","BMW","Toyota");  
var\_dump($cars);  
?>

## PHP Object

An object is a data type which stores data and information on how to process that data.

In PHP, an object must be explicitly declared.

First we must declare a class of object. For this, we use the class keyword. A class is a structure that can contain properties and methods:

### Example

<?php  
class Car {  
    function Car() {  
        $this->model = "VW";  
    }  
}  
  
// create an object  
$herbie = new Car();  
  
// show object properties  
echo $herbie->model;  
?>

## PHP NULL Value

Null is a special data type which can have only one value: NULL.

A variable of data type NULL is a variable that has no value assigned to it.

**Tip:** If a variable is created without a value, it is automatically assigned a value of NULL.

Variables can also be emptied by setting the value to NULL:

### Example

<?php  
$x = "Hello world!";  
$x = null;  
var\_dump($x);  
?>