

Web Development 2



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Introduction to PHP

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Introduction

- PHP (PHP: *Hipertext Preprocessor*):
 - A widely-used Open Source general-purpose scripting language
 - It is especially suited for Web development and can be embedded into HTML
 - The main goal of the language is to allow web developers to write dynamically

Introduction

- Based on C, C++, Java, Awk, Perl and Bash (*shell script* in Unix operating systems) → Easy to learn
- OO features: classes, objects, etc.
- Possible uses:
 - Web programming
 - Command line
 - Desktop applications with graphical interface (Qt o GTK+)

Introduction

- A little of history:
 - Start of the project: autumn 1994
 - PHP 1, 1995
 - Set of scripts written in Perl: PHP/FI.
 - PHP 2, 1995-1997
 - Scripts are rewritten in C
 - PHP 3, 1997-2000
 - Code is organized and Rewritten: PHP Hypertext Preprocessor
 - PHP 4, mayo 2000
 - Core is rewritten, development of Zend engine
 - Support for most of web servers
 - New language features
 - PHP 5, julio 2004
 - Performance and stability are improved
 - Zend engine is improved
 - Better support for OOP and MySQL
 - PHP 6, beta version

Advantages

- Support for different platforms
- Fast execution speed (the fastest?)
- Open source:
 - Free
 - Code is available
 - You can modify the code
- Big collection of extensions that improve functionality
- It is easy to learn, because it is based on very well known programming languages
- Extensive official documentation, as well as many web pages, books, etc.

Different platforms

- Works on different operating systems:
 - UNIX (Linux)
 - Win32 (NT/W95/W98/W2000/XP)
 - Mac, OS/2, BeOS
- Works on different web servers:
 - Apache (UNIX, Win32)
 - ISAPI (IIS, PWS)
 - NSAPI (Netscape iPlanet)
 - Java servlet
 - AOLServer
- Works on different DBMS:
 - Oracle, BD2, Informix, MySQL, PostgreSQL, Sybase, dBase
 - ODBC: MS-Access, SQL-Server, etc.

PHP files

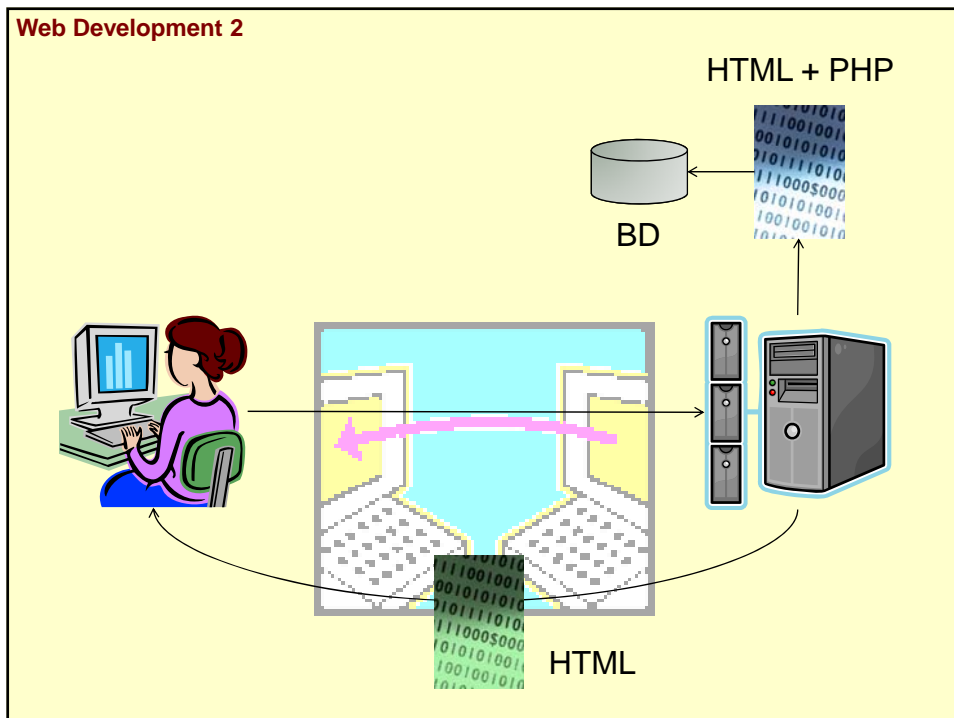
- PHP files need one of these extensions:
 - .php3, version 3
 - .php4, version 4
 - .php, generic and most used extension
 - .phtml, less used
- PHP4 is compatible with PHP3 (except some special features)

How it works (1)

- Web programming, code is embedded in the HTML code:
 - In the same file we can write HTML, CSS, JavaScript and PHP
 - Web server executes PHP code before sending the web page to the client (browser)
 - Browser doesn't get PHP code, only the result (normally HTML)

How it works (and 2)

- Different to other technologies:
 - Instead of writing a program with lots of commands to output HTML, you write an HTML script with some embedded code to do something
 - The PHP code is enclosed in special start and end tags that allow you to jump into and out of "PHP mode"



```
D:\Profe\PI\07-08\Ejemplo aplic-web\index.php - Notepad++
Archivo  Editar  Buscar  Ver  Formato  Lenguaje  Configurar  Macro  Ejecutar  TextFX  Plugins  Ventanas  ?
index.php  estilos.css  ficha.php  phpinfo.php
1  <? echo '<?xml version="1.0" encoding="iso-8859-1"?>!' ?>
2  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
3  <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="es" lang="es">
4  <head>
5  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
6  <title>Listado de alumnos</title>
7  <link rel="stylesheet" type="text/css" href="estilos.css" />
8  </head>
9  <body>
10 <h1>Listado de alumnos</h1>
11 <table>
12 <tr>
13 <th>Nombre</th><th>Apellidos</th><th>Correo</th>
14 </tr>
15 <?
16 $bd = "DRIVER={Microsoft Access Driver (*.mdb, *.accdb)}; DBQ=" . getcwd() . "\\alumnos.accdb";
17
18 $con = odbc_connect($bd, "", "");
19
20 $result = odbc_exec($con, "Select * From Alumnos");
21
22 while(($fila = odbc_fetch_array($result)))
23 {
24     $id = $fila["IdAlumnos"];
25     echo "<tr onclick='window.location.href='ficha.php?id=$id';>";
26     echo "<td> . $fila["Nombre"] . "</td>";
27     echo "<td> . $fila["Apellidos"] . "</td>";
28     echo "<td> . $fila["Correo"] . "</td>";
29     echo "</tr>\n";
30 }
31 ?>
32 </table>
33 </body>
34 </html>
PHP Hypertext Preprocessor file  nb char : 1089  Ln:1 Col:1 Sel:0  Dos/Windows  ANSI  INS
```



```
Código fuente de http://localhost/aplic-web/index.php - Mozilla Firefox
Archivo Editar Ver Ayuda

<?xml version="1.0" encoding="iso-8859-1"?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="es" lang="es">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Listado de alumnos</title>
<link rel="stylesheet" type="text/css" href="estilos.css" />
</head>
<body>
<h1>Listado de alumnos</h1>
<table>
<tr>
<th>Nombre</th><th>Apellidos</th><th>Correo</th>
</tr>
<tr onclick="window.location.href='ficha.php?id=1';"><td>José</td><td>Luis Pérez</td><td>jolupe@ua.es</td></tr>
<tr onclick="window.location.href='ficha.php?id=2';"><td>Pedro</td><td>Ábel Gómez</td><td>peabgo@ua.es</td></tr>
<tr onclick="window.location.href='ficha.php?id=3';"><td>María</td><td>López Pérez</td><td>maria@ua.es</td></tr>
<tr onclick="window.location.href='ficha.php?id=4';"><td>Pepito</td><td>de los Palotes</td><td></td></tr>
</table>
</body>
</html>
```

```
D:\Profe\PI\07-08\Ejemplo aplic-web\index.php - Notepad++
Archivo Editar Buscar Ver Formato Lenguaje Configurar Macro Ejecutar TextFX Plugins
index.php estilos.css ficha.php phpinfo.php

1 <? echo '<?xml version="1.0" encoding="iso-8859-1"?>';
2 <?DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//
3 <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="es"
4 <head>
5 <meta http-equiv="Content-Type" content="text/html; ch
6 <title>Listado de alumnos</title>
7 <link rel="stylesheet" type="text/css" href="estilos.c
8 </head>
9 <body>
10 <h1>Listado de alumnos</h1>
11 <table>
12 <tr>
13 <th>Nombre</th><th>Apellidos</th><th>Correo</th>
14 </tr>
15 <tr
16 $bd = "DRIVER={Microsoft Access Driver (*.mdb, *.acc
17
18 $con = odbc_connect($bd, "", "");
19
20 $result = odbc_exec($con, "Select * From Alumnos");
21
22 while( ($fila = odbc_fetch_array($result)) )
23 {
24 $id = $fila["IdAlumnos"];
25 echo "<tr onclick='\"window.location.href='ficha.ph
26 echo "<td>\" . $fila["Nombre"] . "</td>\"";
27 echo "<td>\" . $fila["Apellidos"] . "</td>\"";
28 echo "<td>\" . $fila["Correo"] . "</td>\"";
29 echo "</tr>\n";
30 }
31 <?>
32 </table>
33 </body>
34 </html>
```


Basic syntax (1)

- Opening and closing tags, which tell PHP to start and stop interpreting the code between them:

```
<? ... ?>
```

```
<?php ... ?>
```

```
<script language="php">...</script>
```

```
<% ... %>
```

- `<? y <%` are not always available, it depends on the configuration

Basic syntax (2)

- Is there any problem with `<? ... ?>` ?
- Where do you also use this syntax?

Basic syntax (3)

- XML processing instruction:

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-
strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xml:lang="en-US" lang="en-US">
```

(begging of W3C web page)

- Originates a parse error:

Parse error: syntax error, unexpected T_STRING in
C:\Web\index.php on line 1

Basic syntax (4)

- **Solution 1:**

Modify `php.ini` to deactivate the use of `<?>` as open tag
of PHP code:

```
short_open_tag=off
```

Then, you have to use `<?php ...?>`, `<script
language="php">...</script>` or `<% ...%>`

- **Solution 2:**

```
<? echo '<?xml version="1.0" encoding="iso-8859-
1"?>'; ?>
```

Basic syntax (5)

- End of instruction: semicolon (;) at the end of each sentence
- Comments:
 - `/* Multiline comment`
`as C, C++, Java */`
 - `// One line comment, as C, C++, Java`
 - `# One line comment as Bash/Perl`
- Upper and lower case:
 - Variable names, case-sensitive:
`$MiNumero` is different of `$minumero`
 - Function names and keywords, no case-sensitive:
`PRINT()` is the same as `print()`

Basic syntax (and 6)

- To print a string:
 - `echo "text string";`
 - `print "text string";`
 - `<?="text string"?>`
- If short open tag is on <?
- Differences between `echo` y `print`:
 - Both of them are language construct, not functions, but `print` behaves as a function
 - `echo` may have more than one parameter, but `print` not
 - `print` returns a value (always 1), but `echo` not
 - `echo` is a little bit faster than `print`, but it is not significant