

1. PHP – INTRODUCTION

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.

- PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.
- It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- PHP is forgiving: PHP language tries to be as forgiving as possible.
- PHP Syntax is C-Like.

Common Uses of PHP

PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them. The other uses of PHP are:

- PHP can handle forms, i.e. gather data from files, save data to a file, thru email you can send data, return data to the user.
- You add, delete, modify elements within your database thru PHP.
- Access cookies variables and set cookies.
- Using PHP, you can restrict users to access some pages of your website.
- It can encrypt data.

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Characteristics of PHP

Five important characteristics make PHP's practical nature possible:

- Simplicity
- Efficiency
- Security
- Flexibility
- Familiarity

"Hello World" Script in PHP

To get a feel of PHP, first start with simple PHP scripts. Since "Hello, World!" is an essential example, first we will create a friendly little "Hello, World!" script.

As mentioned earlier, PHP is embedded in HTML. That means that in amongst your normal HTML (or XHTML if you're cutting-edge) you'll have PHP statements like this:

```
<html>
<head>
<title>Hello World</title>
<body>
    <?php echo "Hello, World!";?>
</body>
</html>
```

It will produce the following result:

```
Hello, World!
```

If you examine the HTML output of the above example, you'll notice that the PHP code is not present in the file sent from the server to your Web browser. All of the PHP present in the Web page is processed and stripped from the page; the only thing returned to the client from the Web server is pure HTML output.

All PHP code must be included inside one of the three special markup tags ate are recognized by the PHP Parser.

```
<?php PHP code goes here ?>

<?    PHP code goes here ?>

<script language="php"> PHP code goes here </script>
```

Most common tag is the <?php...?> and we will also use the same tag in our tutorial.

2. PHP – ENVIRONMENT SETUP

In order to develop and run PHP Web pages, three vital components need to be installed on your computer system.

Web Server - PHP will work with virtually all **Web Server** software, including Microsoft's Internet Information Server (IIS) but then most often used is freely available Apache Server. Download Apache for free here: <http://httpd.apache.org/download.cgi>

Database - PHP will work with virtually all database software, including Oracle and Sybase but most commonly used is freely available MySQL database. Download MySQL for free here: <http://www.mysql.com/downloads/index.html>

PHP Parser - In order to process PHP script instructions, a parser must be installed to generate HTML output that can be sent to the **Web Browser**. This tutorial will guide you how to install PHP parser on your computer.

PHP Parser Installation

Before you proceed, it is important to make sure that you have a proper environment setup on your machine to develop your web programs using PHP.

Type the following address into your browser's address box.

`http://127.0.0.1/info.php`

If this displays a page showing your PHP installation related information, then it means you have PHP and Webserver installed properly. Otherwise you have to follow given procedure to install PHP on your computer.

This section will guide you to install and configure PHP over the following four platforms:

- [PHP Installation on Linux or Unix with Apache](#)
- [PHP Installation on Mac OS X with Apache](#)
- [PHP Installation on Windows NT/2000/XP with IIS](#)
- [PHP Installation on Windows NT/2000/XP with Apache](#)

PHP Installation on Linux or Unix with Apache

If you plan to install PHP on Linux or any other variant of Unix, then here is the list of prerequisites:

- The PHP source distribution <http://www.php.net/downloads.php>
The latest Apache source distribution
<http://httpd.apache.org/download.cgi>
- A working PHP-supported database, if you plan to use one (For example MySQL, Oracle etc.)
- Any other supported software to which PHP must connect (mail server, BCMath package, JDK, and so forth)
- An ANSI C compiler
- Gnu make utility - you can freely download it at
<http://www.gnu.org/software/make>

Now here are the steps to install Apache and PHP5 on your Linux or Unix machine. If your PHP or Apache versions are different, then please take care accordingly.

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- If you haven't already done so, unzip and untar your Apache source distribution. Unless you have a reason to do otherwise, /usr/local is the standard place.

```
gunzip -c apache_1.3.x.tar.gz
tar -xvf apache_1.3.x.tar
```

- Build the apache Server as follows

```
cd apache_1.3.x
./configure --prefix=/usr/local/apache --enable-so
make
make install
```

- Unzip and untar your PHP source distribution. Unless you have a reason to do otherwise, /usr/local is the standard place.

```
gunzip -c php-5.x.tar.gz
tar -xvf php-5.x.tar
cd php-5.x
```

- Configure and Build your PHP, assuming you are using MySQL database.

```
./configure --with-apxs=/usr/sbin/apxs \
            --with-mysql=/usr/bin/mysql
make
make install
```

- Install the php.ini file. Edit this file to get configuration directives:

```
cd ../../php-5.x
cp php.ini-dist /usr/local/lib/php.ini
```