

## PHP in the Web Environment

PHP programs are written using a text editor, such as Notepad, Simple Text, or vi, just like HTML pages. However, unlike HTML, PHP files end with a `.php` extension. This extension signifies to the server that it needs to parse the PHP code before sending the resulting HTML code to the viewer's web browser. In PHP, *on the fly* method is adopted to publish the document. Hence, the PHP developer can generate not only web pages, but also other web embedding documents like PDF, PNG, GIF, etc. The PHP web environment is usually set with AMP (Apache, MySQL, and PHP/Perl/Python), which are linked together.

### How PHP Fits with HTML

PHP not only allows HTML pages to be created on the fly, but it is invisible to your web site visitors. The only thing they see when they view the source of your code is the resulting HTML output. In this respect, PHP gives you a bit more security by hiding your programming logic.

HTML can also be written inside the PHP code of your page, which allows you to format text while keeping blocks of code together. This will also help you write organized, efficient code, and the browser (and, more importantly, the person viewing the site) won't know the difference.

PHP can also be written as a standalone program with no HTML at all. This is helpful for storing your connection variables, redirecting your visitors to another page of your site, or performing other functions.

### How PHP Fits with MySQL

MySQL easily fits into server-side programming languages, through a domain. Before your MySQL functions will be recognizable, make sure to enable MySQL in your `php.ini` file. You can use MySQL commands within PHP code almost as seamlessly as you do with HTML. Numerous PHP functions work specifically with MySQL to make your life easier.

Some of the more commonly used functions are:

- `mysql_connect([$host[, $username[, $password]])`: Connects to the MySQL server and returns a resource which is used to reference the connection.
- `mysql_select_db($database[, $resource])`: Equivalent to the MySQL command USE and sets the active database.
- `mysql_query($query[, $resource])`: Used to send any MySQL command to the database server. In the case of SELECT queries, a reference to the result set will be returned.
- `mysql_fetch_array($result)`: Return a row of data from the query's result set as an associative array, numeric array or both.

- `mysql_fetch_assoc($result)` : Return a row of data from the query's result set as an associative array.
- `mysql_error([$resource])` : Shows the error message generated by the previous query.

### *Connecting to the MySQL Server*

Before you can do anything with MySQL, you must first connect to the MySQL server using your specific connection values. Connection variables consist of the following parameters:

- **Hostname:** In our case, this is `localhost` because everything has been installed locally. You will need to change this to whatever host is acting as your MySQL server, if MySQL is not on the same server.
- **Username and password:** This is to authenticate securely over server end.

You issue this connection command with the PHP function called `mysql_connect()`. As with all of your PHP/MySQL statements, you can either put the information into variables or leave it as text in your MySQL query.

Here's how you would do it with variables:

```
$host = 'localhost';
$user = 'user_name';
$pass = 'password';
$db = mysql_connect($host, $user, $pass);
```

The following statement has the same effect:

```
$db = mysql_connect('localhost', 'user_name', 'password');
```

For the most part, your specific needs and the way you are designing your table will dictate what piece of code you use. Most people use the first method for security 'sake and put the variables in a different file. Then they include them wherever they need to make a connection to the database.

## **Web Interface with Apache, MySQL, and PHP**

**phpMyAdmin** is a tool written in PHP intended to handle the administration of MySQL over the Web. Currently it can create and drop databases, create/drop/alter tables, delete/edit/add fields, execute any SQL statement, manage keys on fields.

Features provided by the program include:

1. Web interface
2. MySQL database management
3. Import data from CSV and SQL
4. Export data to various formats: CSV, SQL, XML, PDF (via the TCPDF library), ISO/IEC 26300 - OpenDocument Text and Spreadsheet, Word, Excel, LaTeX and others

5. Administering multiple servers
6. Creating PDF graphics of the database layout
7. Creating complex queries using Query-by-example (QBE)
8. Searching globally in a database or a subset of it
9. Transforming stored data into any format using a set of predefined functions, like displaying BLOB-data as image or download-link
10. Active query monitor (Processes)

### **AMP Bundles**

There are many AMP bundles such as LAMP, XAMP, PHPTriad, WAMP, MAMP, FoxServ, etc. consists of AMP build in itself. So, there is no need to configure AMPs manually. Some of the AMPs which are available for various operating systems are LAMP (for Linux); WAMP (for Windows); MAMP (for Macintosh); SAMP (for Solaris); and FAMP (for FreeBSD).