# Concept of Web Programming, An Overview of PHP Vol. 1

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**Abstract:** *computer science and its application have come this far and it is standing on a solid ground. But its strength is fully determined by the nature of controls being set in motion by its users. Most often, people tend to say one programming language is better compared to another. Yes; that is not disputed, but the beauty of a programming language is totally defined by the programmer who uses such language. This paper tries to bring out the concept of programming; covering php (hypertext preprocessor) in regards to web development. In this volume (1), the basic concept of this language is looked into so that those who tend to run off its usage should have reasons to say, indeed; programming is not about the software you use, but your skill and understanding of the subject matter.*

**Keywords:** *Programming, Program, Structure, Science, php, computer programming, computer science, overview, database, server, host, web servers, server side scripting language*

## 1.1 Introduction

Computer programming is a field that draws attention of so many in the field of computation science, computer engineering, information communication technology and many others. Even an end-user tend/wishes to have so programming capacity in order to instruct the computer to carry out a given task as deemed fit. Not too further from now, so many people would want to have the idea of what happens to a computer before any final output is seen on the screen. At all phase of human endeavour, there is a pronounced urge to knowing the why and how of any executable event. Without doubt, you have; at a moment went back into your school of thought with the following questions – i. How is the gadget am using made? ii. What instructions have the power to do all the things on my gadget? ii. Can I know how these things are done? This could range from hardware buildup to software development, which communicates with the system hardware to execute a given assignment. PHP is an important player in the software development market. Its popularity with both private software developers and corporate IT departments is having a growing impact on the market for commercial software as well. While PHP is heavily used in the development of web based software, it is not limited to this field. It is also used quite frequently to tie together different existing applications or application

modules. Such is the case with Yahoo that uses PHP to "glue" together code written in different languages[1].

The purpose of this paper is to summarize the history of PHP and offer an overview of its current status and market. We will then highlight the advantages of adopting PHP at the Enterprise level and how programmers and IT managers can benefit. Finally, we will give an outlook on the future development of PHP.

## 1.2 Overview of PHP

a. 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.

b. PHP is a recursive acronym for "PHP: Hypertext Preprocessor".

c. 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.

d. It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.

e. 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.

f. 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.

g. PHP is forgiving: PHP language tries to be as forgiving as possible.

h. PHP Syntax is C-Like.

PHP's penetration and market shares differ from region to region. Since the basic combination of Linux, Apache, MySQL and PHP (without additional commercial tools) provides an almost enterprise grade application platform without any licensing costs, PHP's market share is very high in developing countries. The Ukraine and Sao Tomé for example lead the list of countries with the highest market share for PHP with 69.7 and 68.2 percent Respectively[2]. In the leading industrial nations, USA, Germany and Japan hold

largest PHP markets, followed by France, UK, Canada, Italy and The Netherlands.

### 1.2.1 What analysts and press say about PHP

Forrester Research evaluated 13 leading open source software projects using approximately 40 criteria and found that six of the projects stand out as examples of excellence and are ready for corporate use**10**. PHP was the only dynamic programming language in this group and stood beside MySQL, Eclipse, Apache HTTP Server, Apache Tomcat, and the JBoss Application Server. US magazine eWeek attested that the LAMP-stack (and PHP in particular) gives excellent performance compared with commercial alternatives like Microsoft's. Net: "This stack's performance numbers suggest what many who have been using PHP for some time now (including some of the busiest blogs on the Web) know to be true — that a pure LAMP-based PHP system can easily handle enterprise-class traffic and loads."**3**

### 1.2.2 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:

a. 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.
b. You add, delete, and modify elements within your database thru PHP.
c. Access cookies variables and set cookies.
d. Using PHP, you can restrict users to access some pages of your website.
e. It can encrypt data.

### 1.2.3 Characteristics of PHP

Six important characteristics make PHP's practical nature possible:

- Simplicity
- Efficiency
- Security
- Flexibility
- Familiarity
- Server Side

### 1.2.4 PHP Tags

Just like every other programming or scripting languages, php is a language that can stand on its own or be incorporated into html code. But for it to work, it has to be within the right tag as shown below;

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

### 1.2.5 What to know

To execute a given code, you must fix your code in between the right tags

PHP is a server side scripting language

Every php file name must have a **.php** extension e.g. **profile.php**

You need a server to run php code

It can be converted into a stand-alone application

It runs either on local server or live server

PHP name style is like every other naming style but you must add a dollar ($) to the beginning of the name and you must not start the name with 1. E.g. $1ID (wrong). $ID (Right).

## 1.3. Preparing to work with PHP for web Application

PHP needs a database to work so we use it primary with DBMS like MySql and others. Because MySQL is a relational database management system, it allows you to separate information into tables or "areas of pertinent information." In non-relational database systems, all the information is stored in one big area, which makes it much more difficult and cumbersome to sort and extract only the data you want. In MySQL, each table consists of separate *fields,* which represent each bit of information.

For example, one field could contain a customer's first name, and another field could contain his last name. Fields can hold different types of data, such as text, numbers, dates, and so on.

You create database tables based on what type of information you want to store in them. The separate "areas" or *tables* of MySQL are then linked together with some common denominator, where the values of the common field are the same.

For an example of this structure, imagine a table that includes a customer's name, address, and ID number, and another table that includes the customer's ID number and past orders he has placed. The common field is the customer's ID number, and the information stored in the two separate tables would be linked together via fields where this number is equal. This enables you to see all the information related to this customer at one time[4].

The following need to configure as shown below;

**Server:** Make a choice of server to be used. E.g. Apache, WAMP, XAMP, IIS etc.

**Installation:** Install the server and configure it accordingly

**Page Setup:** Proceed into the root folder, which like to **c:\ AppServ\www\** and create you work folder therein.

```
1       <?PHP
2       //Defining connectivity criteria
3       $hostname = "localhost";
4       $user = "your defined name but by default it is root";
5       $paswrd = "your defined password";
6       $dbname = "your database name";
7       // Making the connection to the server
8       $servcon = MySqli_connect($hostname,$user,$paswrd,$dbname);
9       //Check for successful connection
10      IF(!$servcon)
11      {
13      Echo "<script>alert('sorry there was no connection, try again');</script>";
14      }
15      ?>
```

If you study the code carefully, you will see from line 3, 4, 5 and 6 that your criteria for connection were defined based on whatever your database name is and the user that you have defined. This information is now entered at line 8 to initiate the connection.

On lie 10, we try to see if the connection to the server is/was not successful (that is the meaning of the exclamation "!" mark therein), then the system should execute the instruction on line 13 accordingly. Note the structure of the code can be restricted in a way that connection will only use a single

**Connectivity:** Use your basic text editor to initiate the connection from your work environment to the server

formation open formation. For example;
$sconect = mysql_connect("localhost","root","pswrd");
From the code above, we have gone back to mysql native connectivity module and it is easy to use. If you are not ready to right a different module to check if the connection was successful or not, you can make you of **or die(mysql_error());** at the end of line 8 above. The question; how does the function above work both at the default stage and custom stage will be emphasized for clearer understanding in volume two.

## 1.4 Conclusion

PHP is a programming language that can do extremely great in terms web development.

It has come to stay and with availability of so many frameworks out there, you do whole lot with this hand tool and the end product will be so great.

PHP can handle application, which ranges from web-based to standalone and this can be converted fully into an installable format just like every other window application like office application. More will be on volume II

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