**CHAPTER 2:**

**SYSTEM REQUIREMENTS**

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**2.1 HARDWARE REQUIREMENTS:**

* Processor: Intel CORE i3
* RAM: 1 GB
* Hard Disk Drive: 80 GB

**2.2 SOFTWARE REQUIREMENTS:**

* Internet Explorer, Google Chrome, Mozilla Firefox
* Operating System: Windows 7
* WAMP (Windows Apache MySQL PHP) server

**WAMP (Windows Apache MySQL) server**

**WAMP (Windows Apache MySQL) Server:**

WAMP is a variation of LAMP for Windows systems and is often installed as a software bundle (Apache, MySQL, and PHP). It is often used for web development and internal testing, but may also be used to serve live websites.

The most important part of the WAMP package is Apache (or "Apache HTTP Server") which is used run the web server within Windows. By running a local Apache web server on a Windows machine, a web developer can test webpages in a web browser without publishing them live on the Internet.

WAMP also includes MySQL and PHP, which are two of the most common technologies used for creating dynamic websites. MySQL is a high-speed database, while PHP is a scripting language that can be used to access data from the database. By installing these two components locally, a developer can build and test a dynamic website before publishing it to a public web server.

While Apache, MySQL, and PHP are open source components that can be installed individually, they are usually installed together. One popular package is called "WampServer," which provides a user-friendly way to install and configure the "AMP" components on Windows.

**PHP**

**PHP:**

Stands for "Hypertext Preprocessor." (It is a recursive acronym, if you can understand what that means.) PHP is an HTML-embedded Web scripting language. This means PHP code can be inserted into the HTML of a Web page. When a [PHP page](https://fileinfo.com/extension/php) is accessed, the PHP code is read or "parsed" by the server the page resides on. The output from the PHP functions on the page are typically returned as HTML code, which can be read by the browser. Because the PHP code is transformed into HTML before the page is loaded, users cannot view the PHP code on a page. This make PHP pages secure enough to access databases and other secure information.

A lot of the syntax of PHP is borrowed from other languages such as C, Java and Perl. However, PHP has a number of unique features and specific functions as well. The goal of the language is to allow Web developers to write dynamically generated pages quickly and easily. PHP is also great for creating database-driven Web sites.

The best things in using PHP are that it is extremely simple for a newcomer, but offers many advanced features for a professional programmer. Don't be afraid reading the long list of PHP's features. You can jump in, in a short time, and start writing simple scripts in a few hours.

**PHP**

**Features of PHP:**

* Simple
* Faster
* Interpreted
* Open Source
* Case Sensitive
* Simplicity
* Efficiency
* Platform Independent
* Security
* Flexibility
* Familiarity
* Error Reporting
* Loosely Typed Language
* Real-Time Access Monitoring

**Simple**

It is very simple and easy to use, compare to other scripting language it is very simple and easy, this is widely used all over the world.

**Interpreted**

It is an interpreted language, i.e. there is no need for compilation.

**Faster**

It is faster than other scripting language e.g. asp and jsp.

**Open Source**

Open source means you no need to pay for use php, you can free download and use.

**Platform Independent**

PHP code will be run on every platform, Linux, Unix, Mac OS X, Windows.

**Case Sensitive**

PHP is case sensitive scripting language at time of variable declaration. In PHP, all keywords (e.g. if, else, while, echo, etc.), classes, functions, and user-defined functions are NOT case-sensitive.

**Error Reporting**

PHP have some predefined error reporting constants to generate a warning or error notice.

**Real-Time Access Monitoring**

PHP provides access logging by creating the summary of recent accesses for the user.

**Loosely Typed Language**

PHP supports variable usage without declaring its data type. It will be taken at the time of the execution based on the type of data it has on its value.

**MySQL**

**Features of MySQL:**

**Relational Database System:** Like almost all other database systems on the market, MySQL is a relational database system.

**Client/Server Architecture:** MySQL is a [client/server system](https://searchdatamanagement.techtarget.com/feature/Understanding-and-comparing-six-types-of-processing-systems). There is a database server (MySQL) and arbitrarily many clients (application programs), which communicate with the server; that is, they query data, save changes, etc. The clients can run on the same computer as the server or on another computer (communication via a local network or the Internet).

**SQL compatibility:** MySQL supports as its database language -- as its name suggests – SQL (Structured Query Language). SQL is a standardized language for querying and updating data and for the administration of a database.

**Unicode:** MySQL has supported all conceivable character sets since version 4.1, including Latin-1, Latin-2, and Unicode (either in the variant UTF8 or UCS2).

**User interface:** There are a number of convenient user interfaces for administering a MySQL server.

**Foreign key constraints:** These are rules that ensure that there are no cross references in linked tables that lead to nowhere. MySQL supports [foreign key](https://searchdatamanagement.techtarget.com/answer/Definition-of-primary-super-foreign-and-candidate-key-in-the-DBMS) constraints for InnoDB tables.

**Programming languages:** There are quite a number of APIs (application programming interfaces) and libraries for the development of MySQL applications.