Linux + Apache + MySQL + PHP = LAMP

LAMP is a software bundle. The acronym **LAMP** refers to first letters of the components of the solution stack composed entirely of free and open-source software, suitable for building high-availability heavy-duty dynamic web sites, and capable of serving tens of thousands of requests simultaneously.

Meaning of the LAMP acronym depends on specific components used as part of the actual bundle:

- **L**inux, the operating system (i.e. not just the Linux kernel, but also glibc and some other essential components of an operating system)
- **A**pache HTTP Server, the Web server
- **M**ariaDB or **M**ySQL, the database management system
- **P** for **P**HP, **P**erl, or **P**ython, the scripting languages (respectively programming languages) used for dynamic web pages and web development

Software component

Linux

Linux is a Unix-like and POSIX-compliant computer operating system assembled under the model of free and open source software development and distribution. The main forms of distribution are Linux distributions, usually providing complete LAMP setups out of the box through their package management systems. Of the most widespread Linux distributions, as of 1 October 2013, Debian and Ubuntu are together at the web server's market share of 58.5%, while RHEL, Fedora and CentOS are at 37.3%.

Many options are available for customizing and securing Linux installations, for example by using SELinux, or by employing chroot environments.

Apache

Apache is a web server, the most popular in use.

MySQL

MySQL is a multithreaded, multi-user, SQL database management system (DBMS) now owned by Oracle Corporation. Alternatives at this level of the stack do also exist, primarily the MySQLfork MariaDB. Other RDBM Systems such as PostgreSQL (LAPP) are also viable.

MySQL has been owned by Oracle Corporation since January 27, 2010 through the purchase of Sun Microsystems. Sun had originally acquired MySQL on February 26, 2008.

PHP, Perl, Python

PHP is a reflective programming language originally designed for producing dynamic web pages. PHP is used mainly in server-side application software. Perl and Python can be used similarly.

➢ **Linux**

- Overview of Linux
- Types and features
- File system in linux
- Basic Linux commands and Usage
- Help System in Linux
- Users, Groups and Permissions
- I/O, Pipes and Redirection
- Text Processing Tools
- Investigating and Managing Process
- Vim: An Advanced Text Editor
- Finding and Processing Files
- Networking in a nut Shell
- Apache Introduction
- Starting, Stopping and Restarting the Apache HTTP Server
- Directives, Containers, and comments

➢ **HTML**
- Basics of Web design and Development
- Basics of HTML
- Tags and Elements
- Text formatting tags
- Links and Types of link
- Images and Image mapping
- Table and List
- Frames
- Forms

➢ **CSS**
- Types of CSS
- Selectors
- Properties on text, font, table, list, margin, padding, display, input, display, positions
- pseudo code in css
- Practice for design website with **HTML** and **CSS**

➢ **Javascript**
- **Client side scripting** and **Javascript** overview
- Datatypes and Variable, Constant
- Alert boxes
- Control structure
- Object and Methods on String, Number, Math, Array, Date
- Built-in functions

- Events and Types of events
- Timing events and functions
- Object hierarchical diagram and programs
- Exception handling
- Regular expression
- Validation with regular expression with various ways.
- Other functions

- **PHP**
  - **Client side scripting** and **Javascript** overview
  - Server installation and configuration
  - Variable, Constant, Datatypes and inbuilt functions
  - Working with forms.
  - Functions: String, Array, Math, Date etc…
  - Mail function
  - Construct methods
  - File handling
  - Exception handling
- **MYSQL**
  - Overview of **DBMS** and **RDBMS**
  - Overview of MySQL
  - Console mode : DDL, DML, DCL
  - Functions in MySQL
  - View, Trigger and Stored procedure
  - Join and types.
  - GUI mode
- **PHP continue…**
  - Database connectivity
  - Developing small application based on HTML, CSS, JS, PHP and MySQL
  - Image upload and download
  - Session and Cookies
  - Paging and Search
  - Other built-in functions
  - ODBC connectivity
- **AJAX**
  - **AJAX** Overview
  - Simple AJAX program.
  - Populating data from Database using AJAX
- **CPanel**
  - **Cpanel** – Overview
  - Email creations
  - Working with Cpanel based on files and DB