

WEB Programming

Introduction to PHP

Lec 2

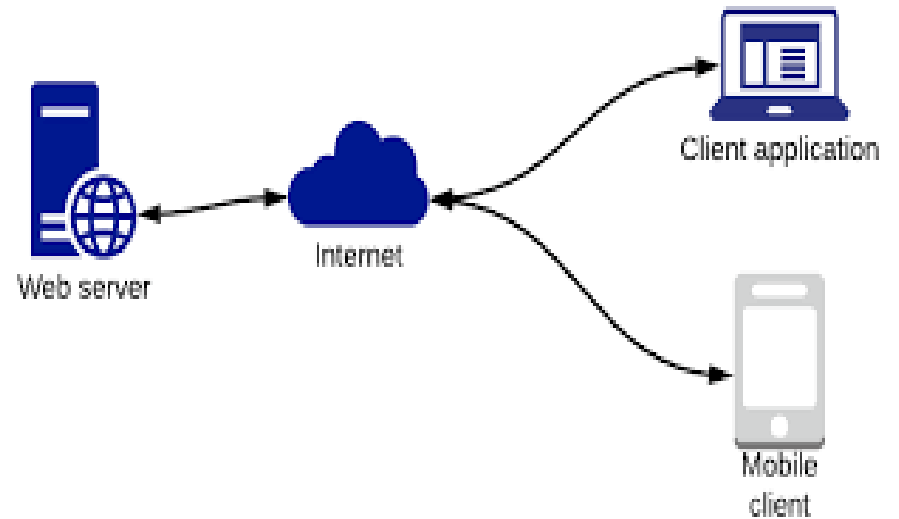


Mohammed

Outlines

- Web Servers
- introduction to PHP

WEB SERVERS



What is server?

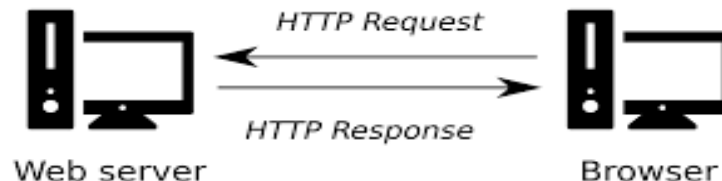
- A server is a **computer or device on a network that manages network resources.**
- Most servers are **dedicated**. This means that they perform only one task rather than multiple tasks on multiprocessing operating systems, however, a single computer can execute several programs at once

What is web server?

- A Web server is a program that generates and transmits responses to client requests for Web resources.

How do Web Servers work?

- Client specifies document at a specific web address that is desired (specified by a URL)
 - Ex: `http://www.Aljanad_univ.edu/`
- If the document is **HTML or text**, the server simply forwards it back to the client
 - If it is text, it is shown **unaltered** in the browser
 - If it is HTML it is interpreted by the browser
 - HTML tags are **interpreted**



user

How do Web Servers work?

- However, the requested document may be an **executable script**, or it may be HTML with an **embedded script**
- In these cases, the server executes the script
 - If the entire document was a script, the server simply sends the output back to the client
 - If the document had an embedded script, the script sections are replaced with the output and the modified document is then sent to the client

How do Web Servers work?

- Note that the **client never sees the server-side script code**
 - This is important – typically client should not see logic / code that the server executes to process requests
 - The server may be accessing **files whose names should not be seen**, or preprocessing data that it does not want the client to see

Web Site versus Web Server?

- Web site and Web server are different:
 - A **Web site** consists of a collection of Web pages associated with a particular hostname.
 - A **Web server** is a program to satisfy client requests for Web resources.

Types Of Web Servers

1. Apache Web Server
2. IIS Server
3. Xampp Server
4. WAMP Server

Apache Web Server

- Apache Web server is the most commonly used http server today. About 80% of all websites and Intranets use Apache web server to deliver their content to requesting Browsers.
- Server side programming languages such as PHP, Perl, Python, Java and many others
- Apache is free software distributed by the Apache Software Foundation. The Apache Software Foundation promotes various free and open source advanced Web technologies.

Hypertext preprocessing

PHP



What is PHP?

- PHP is an acronym for "**PHP: Hypertext Preprocessor**"
- Language developed by Rasmus Lerdorf from the Apache Group (1994)
- Open Source
 - In general, open source refers to any program whose **source code is made available** for use or modification.
 - Open source software is usually developed as a public collaboration and made **freely available**.
- PHP is a **HUGE** language
- It is a fully functional language
- It has an incredible amount of **built-in** features

What is PHP?

- PHP runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all **servers** used today (**Apache, IIS**, etc.)
- PHP supports a wide range of databases
 - Ex:**Mysql**

History

The PHP version 4.0 was launched in May 2000.

This version includes session handling, output buffering, a richer cire language and support for wide variety of web server platforms.

- The PHP 5.0 version released in 2004 with object oriented programming concept.

What's new in PHP 7?

- PHP 7 is much faster than the previous popular stable release (PHP 5.6)
- PHP 7 has improved Error Handling
- PHP 7 supports stricter Type Declarations for function arguments
- PHP 7 supports new operators (like the spaceship operator: `<=>`)

What Do I Need?

- Find a web host with PHP and MySQL support
 - Install a web server on your own PC, and then install PHP and MySQL
 - Set Up PHP on Your Own PC:
 - install a **web server**
 - install **PHP**
 - install a **database, such as MySQL**
- Because PHP is **free**, most web hosts offer PHP support.

What is PHP?

- PHP scripts execute on **web server** and serve WebPages to user on request.
- Its primary use is for **server-side scripting**
 - To process **HTML forms**
 - To perform a **DB query** and pass on results

What is PHP?

- PHP scripts are often **embedded** within HTML documents
- The server processes the HTML document, executing the PHP segments and **substituting** the output within the HTML document

PHP Program Structure

- PHP, as with many scripting languages, **does not have nearly the same structural requirements as a language like Java**
- A script can be just a **few lines of code** or a very large, structured program with classes and objects
 - The complexity depends on the task at hand

PHP Program Structure

```
<!DOCTYPE html>  
<html>  
<body>  
    <?php  
        echo "My first PHP script!";  
    ?>  
</body>  
</html>
```

PHP Program Structure

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Simple PHP Example</title>
```

```
</head>
```

```
<body>
```

```
<?php
```

```
    echo "<p><h1>Output</h1>";
```

```
    echo "<h2>Output</h2>";
```

```
?>
```

```
<script language="PHP">
```

```
    echo "\n<b>More PHP Output</b>\n";
```

```
</script>
```

```
</body>
```

```
</html>
```

HTML5 Document

HTML root

HTML Head

PHP Code

PHP Program Structure

- If we prefer to **separate a PHP code** segment from the rest of our script, we can write it in another file and **include** it
 - Sometimes it is easier if we "separate" the PHP code from the straight html

What is a PHP File?

- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code is executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"

Downloading

- The official PHP website (PHP.net) has installation instructions for PHP:
 - www.php.net
 - <http://php.net/manual/en/install.php>
 - PHP7
- Download Apache Web Server:
 - The latest stable build of Apache http server can be downloaded from
 - [URLhttp://httpd.apache.org](http://httpd.apache.org)
- Download Mysql :
 - <https://www.mysql.com> ›
 - MySQL 8.0



Any Questions?