

# Web Development



Introduction

By

Fahad Layth Malallah:

Cihan University,  
4<sup>th</sup> grade, Computer Science,  
Semester-1, 2015-2016.

## Reference Books:

1. [www.w3school.com](http://www.w3school.com)
2. *HTML dog* by Partick Griffiths.
3. *Professional CSS Cascad Style Sheet for Web Design*, by Christopher Schmitt.
4. *Javascript, Sixth Edition*, by Danny Goodman.
5. *PHP6, Apache, MySql Web Development*, by Timothy Boronczyk.



# Web Development

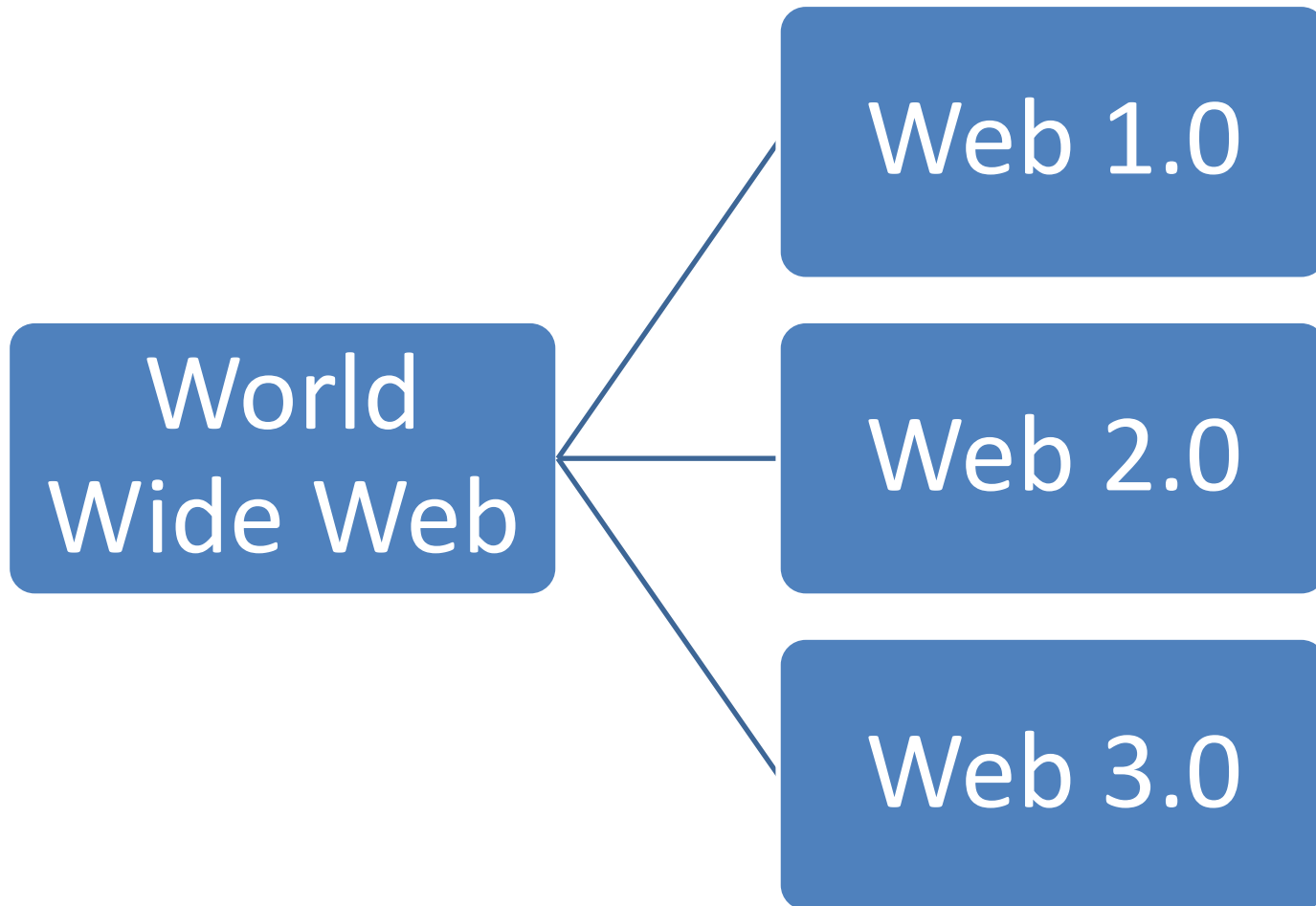


## Objective:

- 1- To understand Web Types.
- 2- Different Languages of Web Programming.
  - Web Client Languages.
  - Web Server Language.
- 3- Why does Web Development is important.
- 4- Web & its Protocols.



# World Wide Web WWW





# World Wide Web (WWW)

## **Web 1.0: (Static Web)**

- It is the “only readable” phrase of the World Wide Web.
- There is only limited interaction between sites and web users.
- Web 1.0 is simply an information portal where users passively receive information without being given the opportunity to post reviews, comments, and feedback.



# World Wide Web (WWW)

## Web 2.0

- It is the “writable” phrase of the World Wide Web with interactive data.
- Web 2 facilitates interaction between web users and sites, so it allows users to interact more freely with each other.
- Examples of Web 2.0 applications are Youtube, Wiki, Facebook.

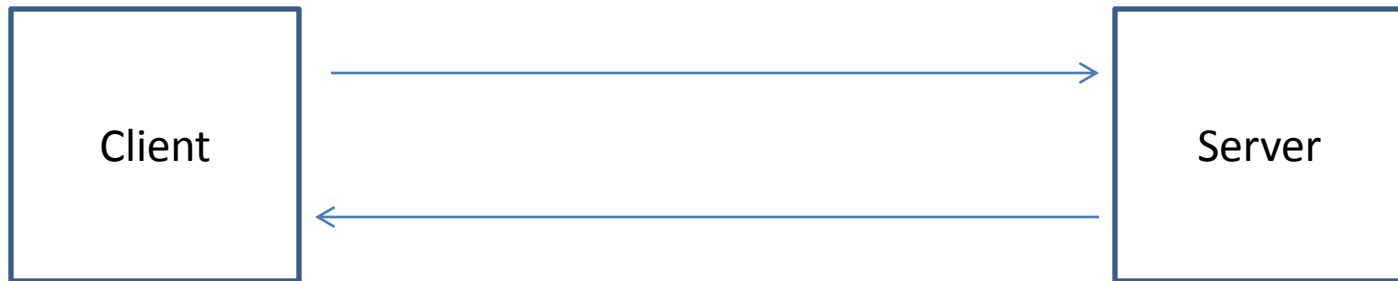


# World Wide Web (WWW)

## Web-3

- It is the “executable” phrase of Word Wide Web with dynamic applications, interactive services, and “machine-to-machine” interaction.
- Web 3.0 is a semantic web which refers to the future. In Web 3.0, computers can interpret information like humans and intelligently generate and distribute useful content tailored to the needs of users.

# Web Development



## Web Language, Client Side

- 1- HTML.
- 2- CSS.
- 3- JS

## Web Language, Server Side

- 1- PHP
- 2- ASP.
- 3- Perl.

**Storing data in database,  
MySql database**

**Server is Apache, Axammpp**

Two Types of programming:

- 1- Static websites (web1) → programming by HTML, CSS,
- 2- Dynamic Website (web2) → JS, PHP, ASP
- 3- Intelligent web site (web3) → advance programming with JS, PHP, ASP,



## **Web Site:**

It is a site or page on the web consists of one or more than one HTML page.

## **Planning Site:**

- 1-Planning.
- 2-Designing.
- 3-Coding.
- 4-Testing Deployment.
- 5-Maintaining.





# Planning Site:

## 1-Planning:

If you design any project, you have to plan the project by answering on the following questions:

- 1- What will the site do?.
- 2- Where will the site live?.
- 3- How will the site work?.
- 4- Who wil the site serve?.
- 5- When will the site go live?.

**2-Designing:** coloring, styling, ways how to attract the audience for browsing. It is a task for an architecture engineer.

**3-Coding:** it is computer student's task as 100%: HTML, CSS, JS, PHP, ASP, MySQL,

**4-Testing Deployment:** how to upload the sites, hosting (free , for fees).

**5-Maintaining:** daily maintain the site, keeping from virus, link down , or updating the content of the website.



# Importance of Web Design

- Website Design

Website Design and Development allows you to take your business or organization and put it in front of millions of new potential customers or members.

So, it gains much money to the owner of an organization or company that have websites.





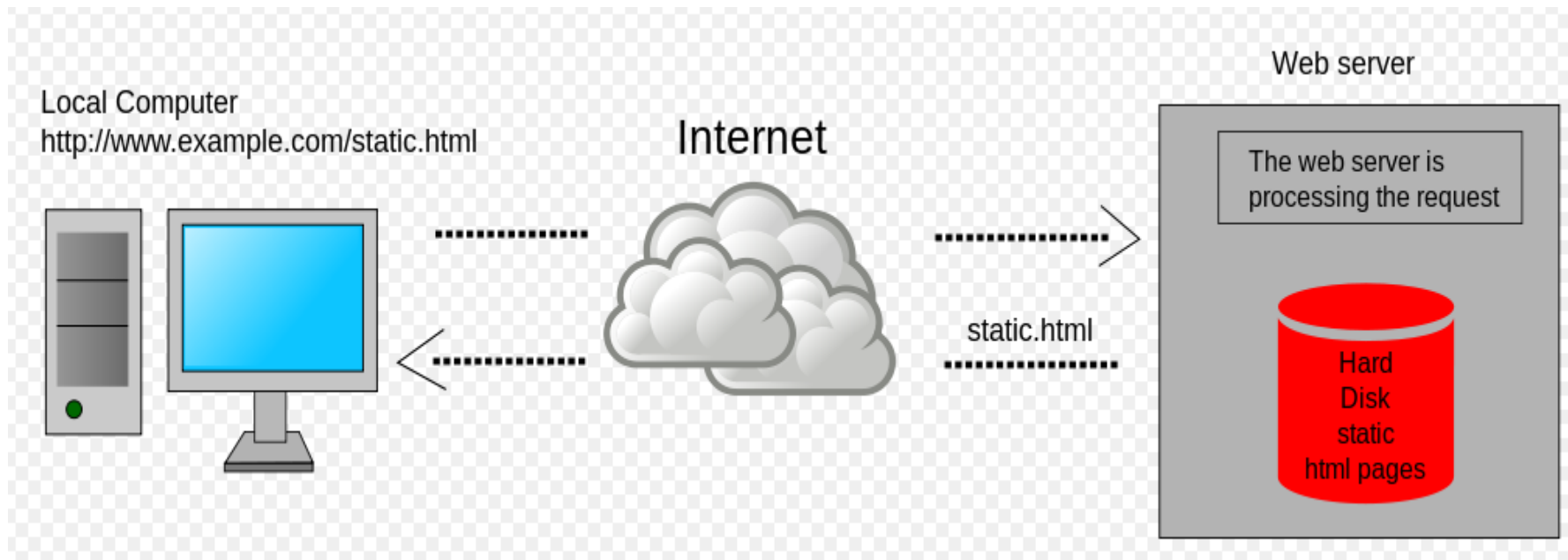
# Goal of the Website: it is used to support:

- 1- Sell Product/ Services.
- 2- Increase Public Awareness.
- 3- Acquiring Employees.
- 4- Entertainment.
- 5- Education.
- 6- Communicate with Customer.
- 7- Disseminate Information.



# Static web page

- It is also called flat or stationary web page.
- delivered to the user exactly as stored, in contrast to [dynamic web pages](#) which are generated by a [web application](#).





# Static Web Page

Static web pages are suitable for the contents that never or rarely need to be updated.

Advantages of static website:

- Quick to develop.
- Cheap to develop.
- Cheap to host.

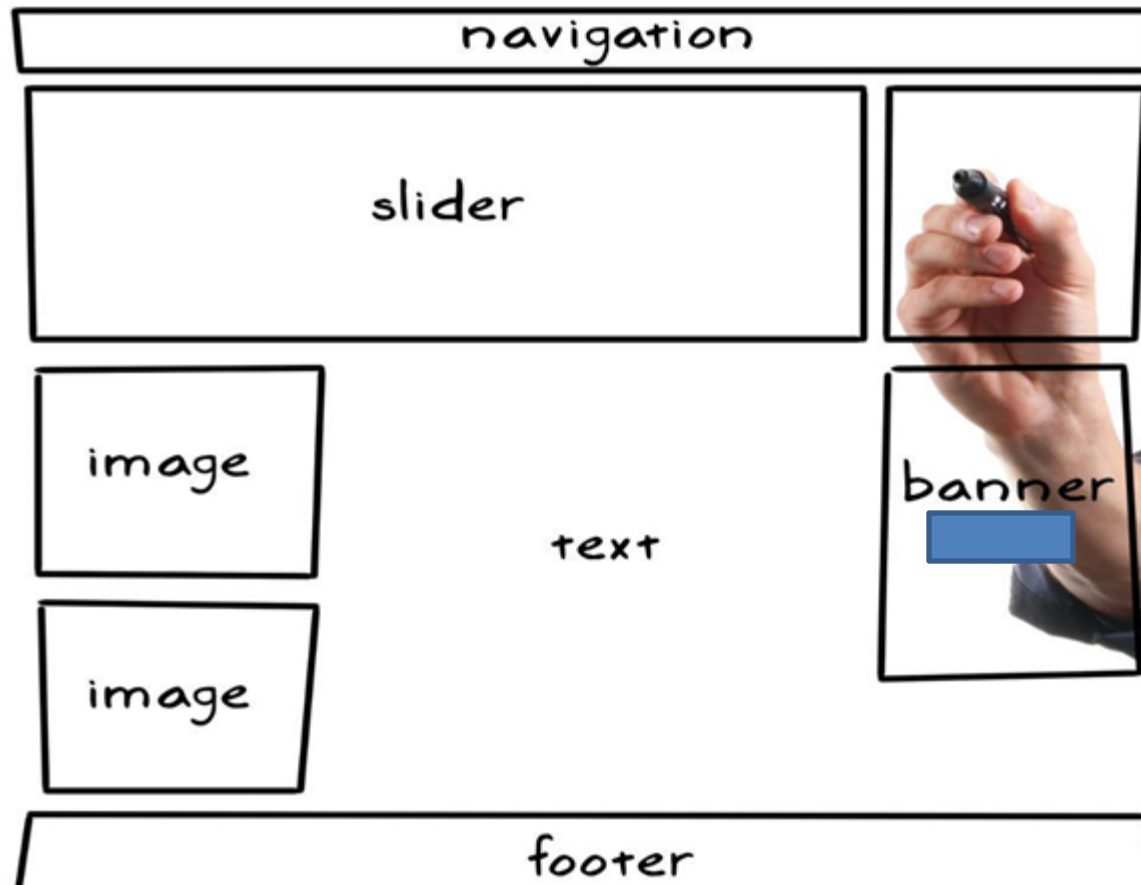
Disadvantages of static website:

- Requires web development expertise to update site.
- Site not as useful for the user.

# Website Features:



my website



# Web Development

## Notes:



- 1- Websites consists of many HTML pages.
- 2- HTML is abbreviation of HyperText Markup Language.
- 3- HTML is used to build Internet Page by Tags. **<opening tag> </ closing Tags>**
- 4- For styling the HTML page and add more beauty to the page, CSS must be used.
- 5- CSS is abbreviation of Cascading Style Sheet.
- 6- After building the complete website, then next step is, the website must be uploaded to a server, to be browsed by Internet browsers or chrome or safari.
- 7- Browsing is done by using Http protocol (port **80** in transport layer).
- 8- Uploading the website is done by FTP protocol (port **21** in transport layer).
- 9- In Hosting process, domain (DNS) should be purchased from a providers.





# Basic to the Internet

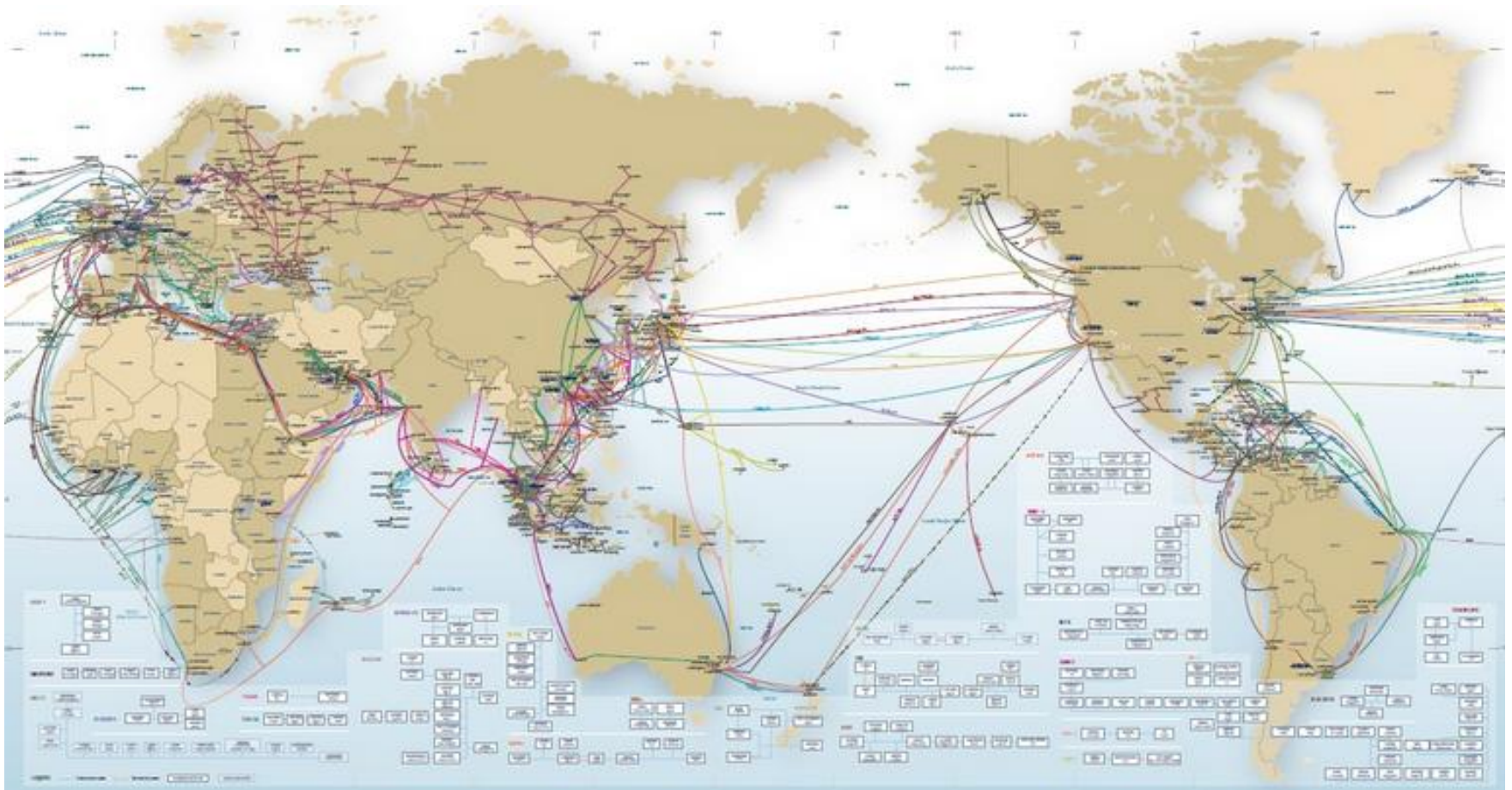
- Internet: is a computer network made up of thousands of networks worldwide.
- No one knows exactly how many computers are connected to the Internets.
- No one is in charge of the Internet.
- Internet Backbone, through which Internet traffic flows, is owned by private company.
- All computers on the Internet communicate using TCP / IP (Transmission Control Protocol / Internet Protocol) protocol : TCP/ IP details will be dissected in network subject.



# Basic to the Internet



Internet Backbone.





# Component of Internet

## World Wide Web (www.)

- Web relies on hypertext, which is created by HTML & CSS.
- WWW : is developed in 1989 by Tim Berners – Lee in Switzerland.
- Almost every **protocol** type available on the Internet is accessible on the Web.
- **Protocol**: is a set or rules that allow for inter-machine communication on the Internet.
- The following are the major protocols of the Web:
  - 1- E-mail (SMTP).
  - 2- Telnet.
  - 3- FTP.
  - 4- Usenet.
  - 5- HTTP.





# Component of Internet

Major protocols of the Web:

## **1- E-mail: SMTP(Simple Mail Transport Protocol)**

It is used to distribute electronic message to one or more electronic mailbox.

Example: -yahoo mail server.

-Gmail server.

-Hotmail servers.





# Component of Internet

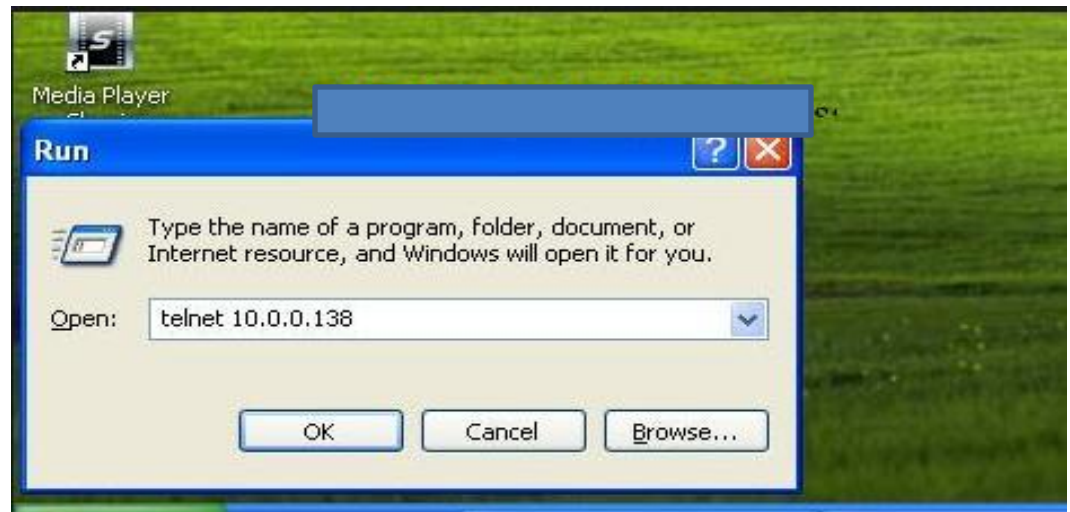
## 2- Telnet.

Facilitate login to a computer host to execute command. It has port number 23.

- How to login to a computer?.

By opening a run window then write:

```
telnet IP  
password
```







# Component of Internet

## 3- FTP (File Transfer Protocol)

Transfers text or binary files between an FTP server and clients. It has port number 21.

•How? By opening a run window then write:

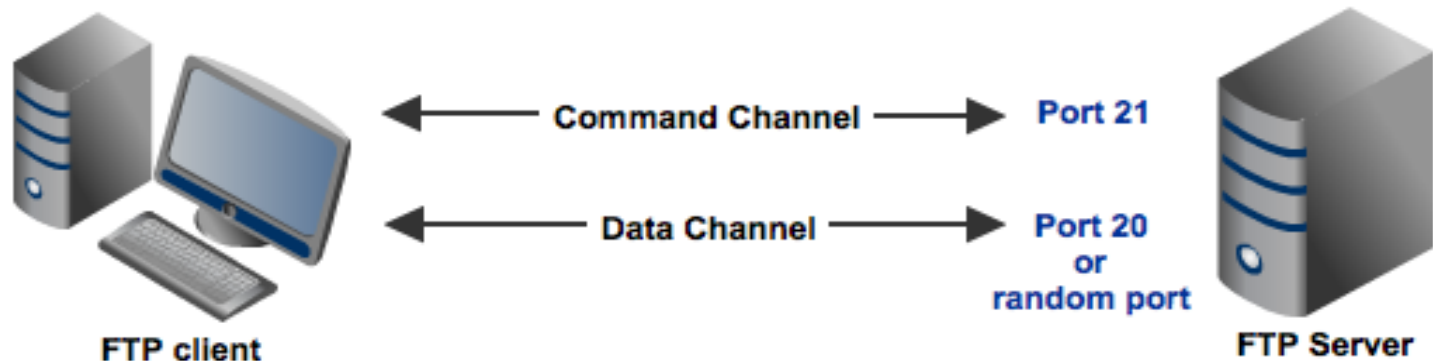
**ftp IP**

**password**

•What are the Commands of FTP:

**PUT:** for sending information to Host.

**Get:** to bring information from Host.





# Component of Internet

## **4- Usenet: NNTP (Network News Transfer Protocol)**

Distribute usenet news articles derived from topical discussion on newsgroup.

## **5- HTTP or HTTPS (Hypertext Transfer Protocol)**

Transmit hypertext over Internets this is the protocol of the web.

## **6- VOIP (Voice Over Internet Protocol)**

Allow users to place a telephone voice over Web.

# Web Development



## Web Page Retrieving:

- Any web page can be accessed by so called **URL**.
- **URL** (Uniform Resource Locator): specifies the Internet address of the file stored on a host computer connected to the Internet.
- Every file on the Internet, no matter what its access protocol, has a unique URL.
- Web browsers (Chrome, Internet explorer, Safari) uses the URL to retrieve the file from host computer.
- URL is translated into numeric addresses using Domain Name System (**DNS**).
- **DNS**: is a worldwide system of servers that store location pointers to websites. The numerical address is called IP (Internet Protocol) address is actually the real URL. Since numerical string is difficult to the human being to be remembered.

# Web Development



- **URL Anatomy:**

Protocol://host/path / filename

Ex: <http://cihanuni-sul.com/subject/slider.html>

- **Domain are types:**

1- Top level: .com , .edu, .gov , .mil, .net , .org

2- Second level: [www.flicker.com](http://www.flicker.com) , for fees

3- Third level: [www.name.flicker.com](http://www.name.flicker.com) : normally it is for free charge hosting.

- **Country Domain:** to identify that files are stored in a host computer located in that country.

.us

.uk

.jr



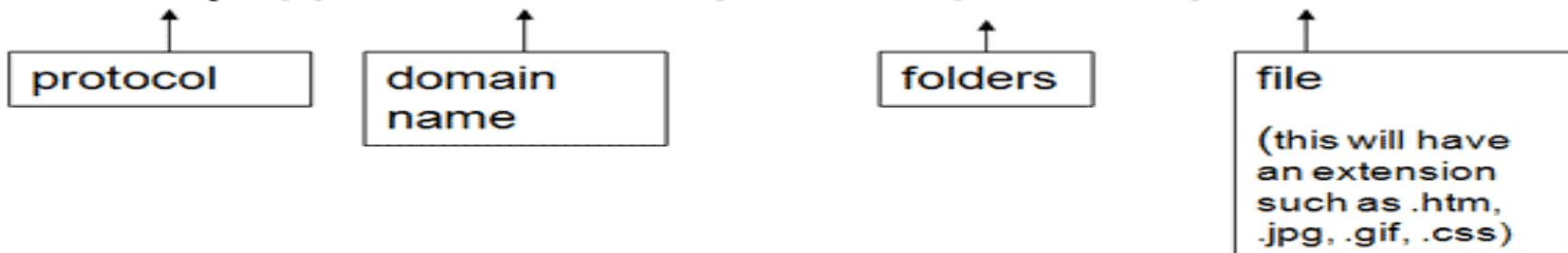
# Web Development



## URL Examples:

pathway

`http://domain.ca/folder/folder/file.htm`



webpage

`http://www.scriptingmaster.com/html/creating-links.asp`



# Web Development



URL (Uniform Resource Locator) or link meaning:

`http://www.mnhs.com/webpages/about.html`

protocol

domain name

directory

filename and extension

Parts of a URL



# Questions

- 1- List all types of Web and explain each one.
- 2- How can you create a static website?. And dynamic website.
- 3- What does static web site mean?.
- 4- What does dynamic website mean?.
- 5- What language can you use to build web page in client side?. And in server sides?.
- 6- Where can you store information and data in website?.
- 7- How do you plan a website? Explain in details.
- 8- Advantages of the static web pages are \_\_\_\_\_, and the disadvantages are \_\_\_\_\_.
- 9- What are a possible website features?.
- 10- What is the name of a protocol that enables to access a web page?.
- 11- What is a protocol name and its function that has the following specifications: “A Protocol that has port 21 in transport layer / TCPIP”.
- 12- URL is abbreviation of \_\_\_\_\_.
- 13- Identify each part of the following web link:  
<http://www.cihanuni-sul.com/admin/main.aspx>  
<http://www.cihanuni-sul.com/admin/main.aspx>  
<http://www.car.com.gmc.html>  
<http://www.car.com.gmc.js>  
<http://www.educate.com.gmc.css>
- 14- What is DNS?. Why is it important?.
- 15- List 5 protocol of Internet and mention the function of each one.