



IE 4727 Web Application Design

Web Server Setup and Configuration

Lecturer: Dr. Hu Xiao

Email: xiao.hu@ntu.edu.sg

Tel: 67904543





Web Server Setup

- 1 **Background Internet and WWW**
- 2 Client/Server Model
- 3 Setting up of Web Server

Background: The internet and WWW

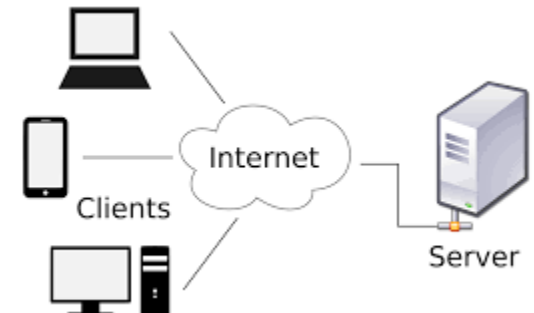


- Internet
 - Interconnected network of computer networks.
 - Network: two or more computers connected together for the purpose of communicating and sharing resources.
- WWW stands for World Wide Web
 - A graphical user interface to information stored on some of the computers connected to the internet. The W3C (World Wide Web Consortium) is an international organization that creates standards for the World Wide Web. The WC3 is committed to improving the web by setting and promoting web-based standards. www.w3.org

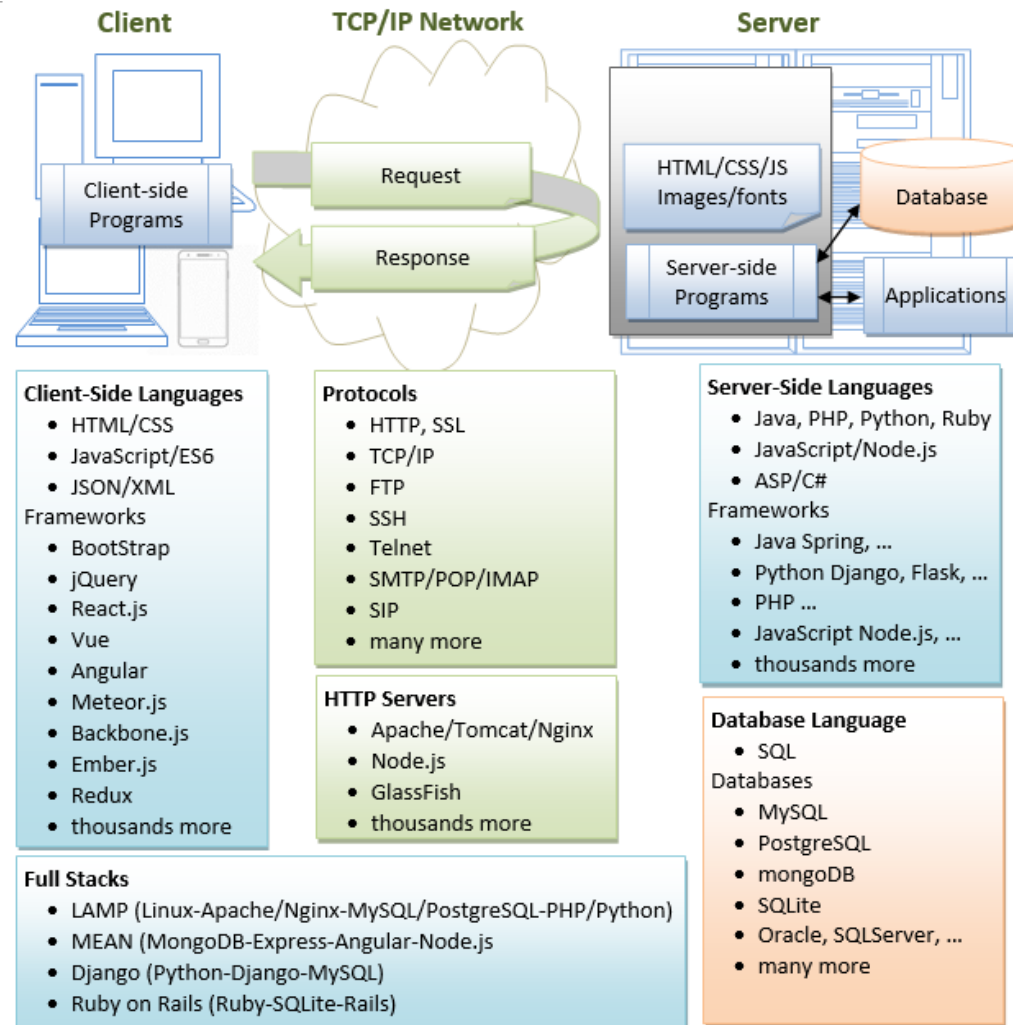
The Client/Server Model



- **Client**
 - requests some type of service (such as a file or database access) from the server.
- **Server**
 - fulfills the request and transmits the results to the client over a network.
- **The Internet Client/Server Model**
 - Client: Web Browser
 - Server: Web Server



The Client/Server Model



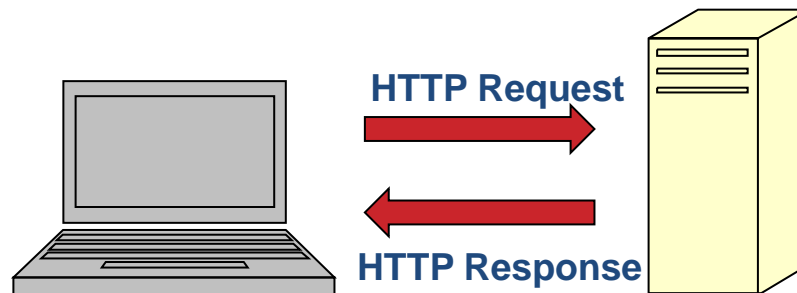


- There is no *single* protocol that makes the Internet and Web work. A number of protocols with specific functions are needed.
- Common Internet Protocols: **TCP/IP**
 - Transmission Control Protocol (TCP)
 - Internet Protocol (IP)
- Specialized Protocols:
 - File Transfer: FTP, SFTP
 - E-mail: SMTP, POP3, IMAP
 - Websites: HTTP (Hypertext Transfer Protocol)
HTTPS (Hypertext Transfer Protocol Secure)

HTTP-Hypertext Transfer Protocol



- A set of rules for exchanging files such as text, graphic images, sound, video, and other multimedia files on the Web.



- Web browsers send HTTP requests for **web pages and their associated files**.
- Web servers send HTTP responses back to the web browsers.

IP Address



- Each device connected to the Internet has a unique numeric IP address.
 - ✧ *Check the IP address assigned to your computer*
- An IP address may correspond to a domain name which locates an organization or other entity on the Internet.
- Try typing the following into your web browser:
 - Browser: <http://www.ntu.edu.sg>
 - IP Address: 155.69.7.173
- Finding the IP address of web servers:
 - ✧ For Windows: open the command prompt window (Try it!)
 - ✧ For Mac : open the Terminal window (Try it!)
 - ✧ Type in the window: `ping <servername>`.
Example: `ping ntu.edu.sg`
Note that you can see the IP address of the NTU webserver.

URL-Uniform Resource Locator

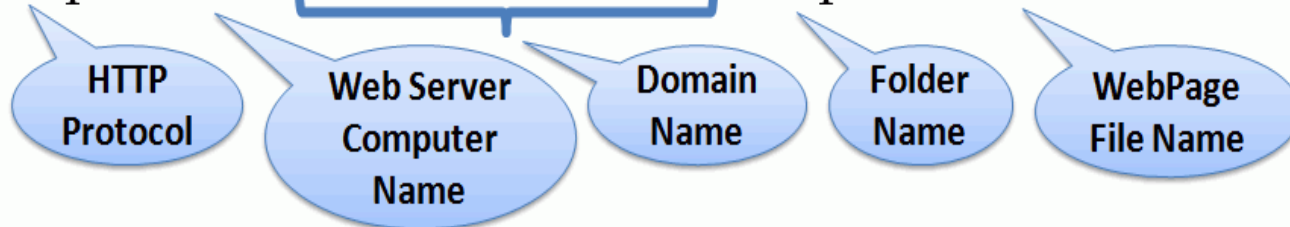


- Represents the address of a resource on the Internet.

`http://www.webdevbasics.net`



`http://www.webdevbasics.net/chapter1/index.html`



Web Server



- Every student will be given a **free and open-source cross-platform web server (XAMPP)** to host his/her websites.
- All web applications must be developed on the local web server. However, you are advised to keep an **up-to-date backup** on your own storage devices.
- Demos with web servers installed on personally owned computer are **not acceptable**.
- **Demos will be done on the lab PC**, by visiting the websites on the local web server on which your web applications are hosted.

Setting up of Web Server for this course



- Every student is given a local web server **XAMPP** (a short form for **Cross-Platform, Apache, MySQL, PHP, and Perl**) in the Lab PC.
- Students are strongly encouraged to install the **XAMPP** web server in their own Laptops or home PCs:
 - ❑ How to Install XAMPP (on **Windows OS**)
Watch How to Install XAMPP (on Windows OS)
 - ❑ How to Install XAMPP (on **Mac OS**)
Watch How to Install XAMPP (on Mac OS)
- Using **XAMPP** web server in the **Lab PCs**:
 - ❑ How to use XAMPP in the Lab PC
Watch How to use XAMPP in the Lab PC
- Watch How to **Manage your Database**



Thanks



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