FP512 Web Programming 1

Introduction to Web Environment

nursyuhada@ict.puo.edu.my
Learning Outcomes

Understand web development and technologies

Demonstrate Client Side Scripting & Server Side Scripting

Install Web Server
1.1 Understand web development and technologies
A web application is an application that is accessed over a network such as the Internet or an intranet.

Static vs Dynamic Web Application

**Static Web** (flat page) page that is delivered to the user exactly as stored.

**Dynamic Web** is page that generated at the time of access by a user or change as a result of interaction with the user.
Features of Web Application

Scalability - *scale up and scale out*

Availability

Maintainability

Reliability
Advantages of web application

Zero install - all PCs have a browser

Reduce business costs

Centralized data is secure and easy to backup.

Quick and easy updates.

Reach anybody, anywhere in the world.

Always up-to-date.

Available 24 hours a day, 7 days a week.

Low spec PCs or smart phones can be used.

Online training can be completed at user's own time and pace.

Direct access to latest information - for Employees where every they are located.
Basic Element in web page development

Monitor sizes and resolutions – follow the standard resolution

“LIVE” space in the browser window – space on your webpage

Monitor display colors and systems colors in browser – html / web color support

Graphic file formats and resolutions – Standardized the storing images.

Typography - text fonts and size
Software to develop web application

Discuss in group of three person:

Software name
The history
Developer
Available technologies (supported programming)

http://sixrevisions.com/tools/30-useful-open-source-apps-for-web-designers/
Web Server Software

• **NCSA server** - NCSA HTTPd is an HTTP/1.0 compatible server for making hypertext and other documents available to Web browsers.

• **Apache** - The Apache Software Foundation provides support for the Apache community of open-source software projects.

• **CERN** - CERN httpd (also known as W3C httpd) is a generic public domain full featured hypertext server which can be used as a regular HTTP server.
• **Netscape server** - Developed originally by Netscape Communications Corporation. The product has since been renamed Sun Java System Web Server, reflecting the product's acquisition by Sun Microsystems. Sun Microsystems open-sourced Netscape Enterprise Server under the BSD license in January 2009

• **Internet Information Server (IIS)**
Terminologies of Web Server

Discuss in group of three person:

Webpage
Browser
Hyperlink
URL
Domain name
IP Address
HTTP
Web Content Technologies

- Ajax
- ASP
- ASP.NET
- CSS
- ColdFusion
- Java
- JavaScript
- Perl
- PHP
- Ruby
Purpose of Dynamic Web Site

- **Content Management System (CMS)** - Dynamic website is the best way to update website regularly.

- **E-commerce site** - The dynamic website is cheaper, easier and the best option to sell your products online.

- **Members database** - Dynamic website allows people to manage information through out the websites by using your administration interface.

- **Deliver information to a wider audience** - Dynamic websites helps in storing of information in database.
1.2 Demonstrated the Client Side & Server Side Scripting
Client Side Scripting

- Client-side scripting offers an easy way to provide additional functionality and flexibility to your project.

- The process with client-side scripting is:
  - the user requests a Web page from the server
  - the server finds the page and sends it to the user
  - the page is displayed on the browser with any scripts running during or after display

- Example: A JavaScript drop down menu
Server Side Scripting

- The server sends pages to the user/client on request. The process is:

  - the user requests a Web page from the server
  
  - the script in the page is interpreted by the server creating or changing the page content to suit the user and the occasion and/or passing data around
  
  - the page in its final form is sent to the user and then cannot be changed using server-side scripting
Server Side Scripting

- Example: Website and the user clicks to show the products information that retrieve information from database.
Open Source Script

• **Server Side Scripting**
  PHP – PHP Hypertext Preprocessor

• **Client Side Scripting**
  JavaScript
Enterprise web development

- Web for business solution
- Provide a consistent look and feel with access control and procedures for multiple applications and databases

Distributed web development

- Also called as web to web.
- Example: Restaurant Guide – combine all the restaurant guide as individual guides.
Data Entry & Validation Technique

- **Verification** - involve a human in some way
  - Double entry
  - Visual checks
  - Etc

- **Validation** - checks that the data is VALID
  - Range checks
  - Format checks
  - Member lists
  - Check digits
  - etc
1.3 Install Web Server
A Web server is a program that, using the client/server model to deliver Web content that can be accessed through the Internet.

- AOLserver
- Apache Web Server
- Boa Web Server
- Java Web Server
- Internet Information Server (IIS)
- Roxen WebServer
- Sun ONE Web Server
- Zeus Web Server
Web Server

Discuss in group of three person the differentiate each type of web server below:

- AOL Server
- Apache Web Server
- Boa Webserver
- Java Web Server
- Internet Information Server (IIS)
- Roxen WebServer
- Sun ONE Web Server
- Zeus Web Server
The End ☺

but is your responsibility to plan ahead…”