

Web Design and Development ACS-1809

Chapter 1

Pre-class Housekeeping

- 📄 Course Outline
- 📄 Text book : HTML A beginner's guide, Wendy Willard, 5th edition
- 📄 Work on HTML files
 - 🖱 On Windows PCs
 - 🖱 Tons of options, even when you want free stuff – discussed later on the textbook
 - 🖱 On OS X
 - 🖱 Textedit – comes with your Mac
 - 📄 But it needs some tweaking to work better with HTML --
<https://www.thoughtco.com/edit-html-with-textedit-3469900>
 - 🖱 Other choices?
 - 📄 <https://www.thoughtco.com/best-free-html-editors-for-mac-3469019>

Introduction

🖥️ HTML is a means of telling a web browser how to display a page.

🖥️ HTML is the acronym for :

Hypertext Markup language

Understanding the Internet

- 🖥️ Understanding the Internet as a medium for disseminating information
 - 🖱️ World Wide Web
 - 🖱️ URLs
 - 🖱️ Web servers
 - 🖥️ On the textbook it means a special computer
 - 🖥️ But sometimes it can mean software too
 - 🖱️ Sites
 - 🖱️ Pages
 - 🖱️ Web browsers
 - 🖱️ Internet service providers


World Wide Web

 WWW is a network of information resources


 Three components:

 A simple protocol to access documents on servers

 **Hypertext Transfer Protocol (HTTP)**

 A simple language for structuring documents and providing links between them (Hypertext)

 **Hypertext Markup Language (HTML)**

 Browsers to access documents from servers (Web servers) and present these documents to human readers

 A client/server system

 Web browsers: MS Internet Explorer, Mozilla Firefox, Chrome, Safari, Opera, etc

 Web server: Internet server that speaks HTTP – Apache, MS IIS, etc.

World Wide Web - History

Two important innovations leading to WWW

Hypertext

In 1960s, Ted Nelson described a system

- Text on one page links to text on other pages

- He called this system hypertext

Douglas Englebart created the first experimental hypertext system on one of the large computers of the 1960s

- He is also the inventor of computer mouse

GUI

Graphical user interface

A way to present program output to users using pictures, icons, and other graphical elements instead of text

To WWW, it's the Web browser: Mozilla, Netscape, IE ..


World Wide Web - History

Hypertext

- 🖱️ 1991 - Tim Berners-Lee and Robert Cailliau developed the code for a hypertext server and made it available on the Internet
- 🖱️ They called their system of hyperlinked HTML document ***World Wide Web***

World Wide Web - History

GUI

 In 1993, Mark Andreessen developed Mosaic - the first GUI program widely available for PCs that can read HTML and use hyperlinks to navigate from page to page on computers on the Internet

 <https://www.zdnet.com/article/mosaics-birthday-25-years-of-the-modern-web/>

 In 1994, Netscape - was an instant success.

 In 1995, Microsoft created its Internet Explorer Web browser and entered the market

 Now there are a number of Web browsers exist

Uniform Resource Locator

Uniform Resource Locator

 The unique address of any Web document

 It contains the following information

 The type of service the resource is served by

 The Internet host name of the site containing the resource

 The Internet port number of the service

 The location of the resource in the directory structure of the server

Uniform Resource Locator

- ☞ A website's URL starts with *http://* , and they usually end with *.com, .org, .edu, .net, .tv, .biz, .info*
- ☞ Every web site has a URL
 - ☞ And it's unique – the address
- ☞ One part of a URL is the *domain name*, which helps identify and locate computers on the Internet
- ☞ To avoid confusion, each domain name is unique, too

Domain Name

- ☞ You can think of the domain name as a label or shortcut.
- ☞ Behind that shortcut, it is a series of numbers, called an *IP address*.
- ☞ *IP address* gives the specific address of where the site you're looking for is located on the Internet.

Web Servers

- 📁 Every web site and web page also needs a web server.
 - 🖱️ A web server is a computer, running special software, which is always connected to the Internet.
 - 🖱️ When you type a URL into your web browser or click a link in a web page, you send a request to the server hosting that information.

Sites and Pages

Pages

- When you visit a web site, you look at pages on the site that contain all its text, graphics, sound, and video content.
- A page usually ends with “htm” or “html”
- A default page of a particular site can be “index.html” or “home.html”, which you can skip when typing the URL.
- New content management system could use different fashion – like Wordpress

Sites

- A site is a collection of interlinked pages
 - For a particular organization, department, or unit, ...

Web Browser

- 📁 A web browser is a piece of software that runs on your personal computer and enables you to view web pages.
 - 🔗 Web browsers, often simply called “browsers”, interpret the HTML code and provide a visual layout displayed on the screen
 - 🔗 Browser typically can also be used to check web-based e-mail and access newsgroups
 - 🔗 The most popular browsers include Microsoft Internet Explorer (also called IE) – and now Microsoft Edge, Google Chrome, Mozilla Firefox, etc.
 - 🔗 Apple’s pre-installed browser with the Mac OS X is Safari

Web Browsers

☞ Most of the popular browsers are part of a breed called “Mozilla-based” browsers.

☞ This name comes from the fact that each browser is based on a framework named Mozilla, which has its roots in the old Netscape browser

Web Browsers

🖱️ Browsers are updated regularly, changing to address new aspects of HTML or emerging technologies


- 🖱️ This means, at any given time, there may be two or three active versions of one browser, and several different versions of other browsers being employed by the general public
- 🖱️ As a web developer you need to deal with this issue and create web pages that work properly on different versions of different browsers
- 🖱️ A case in point: IE7 tax -- <http://www.v3.co.uk/v3-uk/it-sneak-blog/2184533/australian-retail-firm-web-tax-internet-explorer-customers>

Internet Service Provider

- 🖥️ We use an *Internet Service Provider (ISP)* to gain access to the Internet.
 - 🖱️ This connection can be made through a phone line (MTS) or through a cable line with a company like Shaw.
 - 🖱️ It can be wireless too – from Starbucks to MTS/Shaw, again, to public library, many provide Wi-Fi services.

HTML

HyperText Markup Language

- ☞ It is a language that describes a document's structure and content
- ☞ It is designed to specify the logical organization of a document
- ☞ The standard used on the WWW
- ☞ The text available on the Internet must be formatted according to this generally accepted standard
 -  To allow web browser to read and interpret them

HTML

- ☞ It is not designed to be the language of a WYSIWYG word processor such as MS-Word
- ☞ Because the same HTML document may be viewed by many different Web browsers with very different abilities
- ☞ Example: HTML allows you to mark selections of text as headers or paragraphs, and then leaves the interpretation of these marked elements up to the browser

HTML-All the Different Versions

- 📄 In its earliest years, HTML quickly went through much iterations, which led to lack of standardization across the Internet
- 📄 The *World Wide Web Consortium* (W3C – a group of Web developers (founded in 1994)) stepped in and began publishing a list of recommendations, called standards for HTML and other web languages
 - 🖱 Last official standard for HTML is HTML 4.01
 - 🖱 In 2000 it released XHTML 1.0 (X – extensible), and 2.0 in 2001

HTML-All the Different Versions

🖱 In 2008, W3C released a working draft of HTML -- HTML5

🖱 To address the slow adoption of XML

🖱 Much capable to do almost anything a web designer wants to do, without the help of plug-ins

🖱 Features

📁 More intuitive structure

📁 Better portability

📁 Next-generation forms

📁 Rich media

📁 Audio and Video

🖱 On 28 October 2014, HTML5 was formally released as a W3C Recommendation

📁 It is the final and complete (fifth) revision of the HTML standard