

1 **WEB INTRO**

HTML5 and CSS3

2 **THE WORLD WIDE WEB (WWW)**

- An information space on the Internet where documents and other web resources are identified by URLs (uniform resource locator), e.g. web addresses
- `http://www.profstruck.net/CST161/CST161_f20.htm`
- Components of a URL
 - *protocol://domainName/path/filename*
 - *protocol:* `http://`
 - *domainName:* `www.profstruck.net`
 - *path:* `CST161`
 - *filename:* `CST_f20.htm`

3 **STATIC WEB PAGES**

- A static web page is a web page that is delivered to the user exactly as stored
- Written using HTML and CSS languages
- Displays the same information for all users
- The opposite of dynamic web pages

4 **DYNAMIC WEB PAGES**

- A dynamic web page is a web page whose construction is controlled by an application script
- Each time a dynamic web page is reloaded there is the potential for *change* to some of its content often due to interaction with the user
- Part or all of the variable information may come from a database
- The opposite of static web pages

5 **COMMON WEB BROWSERS**

- A web browser is software that reads code from web languages (HTML, CSS, scripting languages like JavaScript, etc.) and renders a web page
- Common web browsers include Internet Explorer, Firefox, Chrome, Safari and Opera

6 **SCRIPTING LANGUAGES**

- Scripting languages are used to render “dynamic” part of a web page
- Client-side scripting languages run inside the browser application on the client, e.g. JavaScript
 - A client is the user computer where the browser is stored and runs
- Server-side scripting languages run on the server and generate dynamic HTML and CSS code, e.g. ASP.NET, JSP, PHP, ColdFusion, Ruby, Perl, Python, etc.
 - A server machine is the computer that “delivers” code that makes up the web pages to the browser on the client

7 **JAVASCRIPT**

- JavaScript is a client-side scripting language that is run by the JavaScript “engine” of a web browser
- Controls dynamic operation of the browser
- Common tasks include data validation, image swaps and rollovers, slide shows, etc.
- <http://www.landsend.com>

8 HTML

- HTML (hypertext markup language) defines the content and structure of a web page
- Actually HTML is only text even though images and other multimedia can be included in the web document
- HTML along with CSS and JavaScript form the “triad” of technologies for World Wide Web development
- Browsers always provide a command to view the HTML “source code”
- <http://www.profstruck.net>
- HTML5 is the current version

9 CSS

- CSS (cascading style sheets) is a language mostly for describing the presentation and visual formatting of an HTML document
- http://www.profstruck.net/cbs_styles.css
- CSS3 is the current version

10 WEB DEVELOPMENT TOOLS

- Free “bare bones” text editors include:
 - Notepad (installed with Windows) and Notepad++ for Windows
 - TextWrangler for Macintosh
- Popular more “feature rich” web development tools and suites:
 - Adobe Dreamweaver and Adobe Creative Suite for both Windows and Macintosh (rather costly)
 - Microsoft Expression Web (free) and Microsoft Expression Studio (free versions) for Windows only

11 FTP PROGRAMS

- FTP (file transfer protocol) programs are software used to transfer computer files between a client and server on a network
- Web developers create web pages on a local workstation after which those documents are uploaded to a server for distribution on the Internet
- Popular FTP programs include:
 - FileZilla (free for Windows, Macintosh and Linux)
 - FTP Voyager (Windows)
 - CuteFTP (Windows and Macintosh)
 - Fetch (Macintosh)

12 CROSS-BROWSER COMPATIBILITY

- Cross-browser compatibility relates to what degree all HTML5 and CSS3 features will “work” in each browser without “workarounds”
- The HTML5 test ratings for the following browsers are (higher values are better):
 - Google Chrome—343
 - Mozilla Firefox—313
 - Apple Safari—293
 - Opera—286
 - Internet Explorer—141
- Developer should test on several if not all five major platforms

13 **USER ACCESSIBILITY**

- Use accessibility refers to qualities that make a web site accessible to all users, especially those with disabilities
- Types of disabilities include visual, hearing, motor and cognitive (mental processing)
- Developer should be aware of accessibility laws

14 **SEARCH ENGINE OPTIMIZATION**

- Search engine optimization (SEO) is the process of maximizing the number of visitors to a particular website by ensuring that the site appears high on the list of results
- There are some common coding techniques that will help a developer’s web pages do better in search engines
 - E.g. try searching “Prof Struck” in Google
- Most popular search engines are Google, Yahoo and Bing