Outline

• Class Survey / Role Call
• What is:
  - the web/internet?
  - web programming?
  - this class?
• Course Admin
  – Syllabus
  – Policy
  – Tips
• XHTML
Web vs. Internet

- Internet – collections of computers/devices that can communicate
  - telnet, ftp, SMTP(mail)

- Web – software/protocols that has been installed on (most of) these computers
  - http / https

Client/Server Computing

Computation can occur in ____________ location
Things we’ll learn and do

- XHTML – basics, tables, forms, frames
- Cascading Style Sheets
- JavaScript
- Dynamic HTML
- CGI / Perl

Things we’ll hear about

- Accessibility
- Web ethics
- “Semantic Web”
- XML
Things we won’t have time for

- ASP, .NET
- Java Servlets
- JavaServer Pages (JSP)
- PHP
- Flash, Photoshop
- Web 2.0, Web services, AJAX

Admin – Assignments

- Assignments will be on the course calendar
- First reading – due Monday in class
  - Skim chapters 1-2
  - Read chapter 4.1-4.9 (in-class quiz Monday)
- First homework – email due tomorrow by 0900
  - Read course policy
  - Read Lab Guidance (on the web) – pick a topic
  - Email topic to instructor (subject: “IT350 Lab topic”)
- Deadlines
  - Reading (+ quiz) – often Wednesdays, but see calendar
  - Lab – usually due Wednesday 2359 (electronically)
- Late assignments – see policy
  - Late quizzes (online) not accepted!
Textbook Structure

- Chapters 1-20
  - For applications running on *client side* (typically Firefox and Microsoft Internet Explorer)
  - Chapters 1-15: XHTML-ish
    - XHTML, JavaScript, Dynamic HTML, and XML
  - Chapters 16-20: non-XHTML, plug-in dependent
    - Flash, Flex, Silverlight, Dreamweaver

- Chapters 21-28
  - For applications running on *server side* (complex computer systems where Web sites usually reside)
  - Covers Web servers, databases, Active Server Pages, PHP, JSP, Web services
  - Much of this in IT360 (databases) and IT452 (Adv. Web)
  - We’ll use Perl to implement server-side processing

Textbook Analysis

- Good

- Less good
Success in IT350

• Do the reading (don’t forget online quizzes!)
  – Brief lecture to highlight key points
• Lecture – stay engaged
  – Ask & answer questions
  – Take notes – provided slides are not enough!
  – Exams closed-book – but open-note!
• Make the most of in-class lab time
  – Read lab in advance
  – Think before you start typing
  – Don’t stay stuck!
• Don’t fall behind
  – Finish lab early and leave time for reading
  – See me for help and/or talk to friends
  – Course material builds on itself and gets more complex

Chapter 4 - Introduction to XHTML:
Part 1
4.1 Introduction / 4.2 Editing XHTML

• Extensible HyperText Markup Language (XHTML)
  – A markup language based on HTML
  – Separates document presentation from information
  – Standard defined by W3C
• XHTML documents
  – Source-code form
  – Text editor (e.g. Notepad, Wordpad, emacs, etc.)
  – .html or .htm file-name extension
  – Web server – stores XHTML documents
  – Web browser – requests XHTML documents

Basic Syntax

`<a href="links.html"> Useful links </a>`

`<br />`
4.4 W3C XHTML Validation Service

- Validation service (validator.w3.org)
  - Checking a document’s syntax
  - Provide URL or upload file
Block vs. inline tags in XHTML

- **Block tags**
  - Start their content on a new line

- **Inline tags**
  - Their content continues on the same line

- **Restrictions**
  - Inline tags (and text) must be nested inside block tags, not directly under `<body>` or `<form>`
  - Block tags cannot be nested inside inline tags
    ILLEGAL: `<b>` <h1> Foo </h1> </b>

4.5 Headers – h1 to h6

```xml
<?xml version = "1.0" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<!--- Fig. 4.4: header.html --->
<!--- XHTML headers --->
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
<title>Internet and WWW How to Program Headers</title>
</head>
<body>
<h1>Level 1 Header</h1>
<h2>Level 2 header</h2>
<h3>Level 3 header</h3>
<h4>Level 4 header</h4>
<h5>Level 5 header</h5>
<h6>Level 6 header</h6>
</body>
</html>
```
4.6 Linking

- Hyperlink
  - References other sources such as XHTML documents and images
  - Both text and images can act as hyperlinks
  - Created using the `<a>` (anchor) element
    - Attribute `href`
      - Specifies the location of a linked resource
    - Link to e-mail addresses using `mailto:` URL

---

```
<?xml version = "1.0" ?>
<!DOCTYPE html PUBLIC "//W3C//DTD XHTML 1.1//EN" "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
<title>Internet and WWW How to Program - Links</title>
</head>
<body>
<h1>Here are my favorite sites</h1>
<p><strong>Click a name to go to that page.</strong></p>
</body>
</html>
```

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Relative vs. Absolute Links

- Absolute links
  <a href="http://www.cs.usna.edu/textbooks.htm">Textbooks</a>
  <a href="http://www.nytimes.com">NYT</a>

- Relative links
  <a href="textbooks.htm">Textbooks</a>
  <a href="../textbooks.htm">Textbooks</a>
  <a href="../common/dogs.html">More on dogs</a>

4.7 Images