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

Admin – Assignments

- Assignments will be on the course calendar
- First reading – due Thursday in class
  - Skim chapters 1-2
  - Read chapter 4 (in-class quiz Thursday)
- First homework – email due Wednesday by 1600
  - Read course policy
  - Read Lab Guidance (on the web) – pick a topic
  - Email topic to instructor (subject: “IT350 Lab topic”)
- Deadlines
  - Reading (+ quiz) – often Mondays, but see calendar
  - Lab – usually due Wednesday 2359 (electronically)
- Late assignments – see policy
  - Late quizzes (online) not accepted!
Textbook Structure

• Chapters 1-20
  – Covers XHTML, JavaScript, Dynamic HTML, Flash and Extensible Markup Language (XML)
  – For applications running on client side (typically Netscape and Microsoft Internet Explorer)

• Chapters 21-38
  – Covers Web servers, databases, Active Server Pages, Perl/CGI, PHP, ColdFusion, Python, Java servlets and JavaServer Pages
  – For applications running on server side (complex computer systems where Web sites usually reside)

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
Lab Accounts

• Student Web Server Accounts
  – Mapping web-server account to department student account
    • File Explorer: Tools → Map Network Drive (pick drive W)
    • \cs-websrvr.cs.usna.edu\www.mXXXXXX.it.cs.usna.edu$
    • Note $ on the end
    • Username: cs-websrvr\mXXXXXX
    • Need Account Password (from instructor)
  – URL for each student website on Department Web-Server is as follows:
    www.mXXXXXX.it.cs.usna.edu
    • where "XXXXXX", is the individual student's alpha number

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

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Basic Syntax

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

<br />

Example

```html
<main.html

(1 of 1)
```
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
<html 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</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`
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

```
<?xml version = "1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
  "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<!-- Fig. 4.7: picture.html -->
<!-- Adding Images with XHTML -->
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
  <title>Internet and WWW How to Program - Welcome</title>
</head>
<body>
<p><img src = "xmlhttp.jpg" height = "238" width = "183"
  alt = "XML How to Program book cover" /></p>
<p><img src = "jhtop.jpg" height = "238" width = "183"
  alt = "Java How to Program book cover" /></p>
</body>
</html>
```