

IT350

Web & Internet Computing

Fall 2006

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<http://www.cs.usna.edu/~lmcadowel/courses/it350/F06/>

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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

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Client/Server Computing

Computation can occur in _____ location

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Things we'll learn and do

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

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Things we'll hear about

- Accessibility
- Web ethics
- “Semantic Web”
- XML

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Things we won't have time for

- ASP, .NET
- Java Servlets
- JavaServer Pages (JSP)
- PHP
- Flash, Photoshop

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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!

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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

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Chapter 4 - Introduction to XHTML: Part 1

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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\\$](http://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

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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 />
```

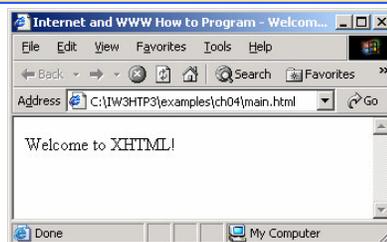
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Example

main.html
(1 of 1)

```

1 <?xml version = "1.0" encoding="utf-8" ?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 4.1: main.html -->
6 <!-- Our first web page -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10    <title>Internet and WWW How to Program - welcome</title>
11  </head>
12
13  <body>
14    <p>welcome to XHTML!</p>
15  </body>
16 </html>
```



4.4 W3C XHTML Validation Service

- Validation service (`validator.w3.org`)
 - Checking a document's syntax
 - Provide URL or upload file

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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: ` <h1> Foo </h1> `

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4.5 Headers – h1 to h6

```

1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 4.4: header.html -->
6 <!-- XHTML headers -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10    <title>Internet and WWW How to Program -
11  </head>
12
13  <body>
14
15    <h1>Level 1 Header</h1>
16    <h2>Level 2 header</h2>
17    <h3>Level 3 header</h3>
18    <h4>Level 4 header</h4>
19    <h5>Level 5 header</h5>
20    <h6>Level 6 header</h6>
21
22  </body>
23 </html>

```

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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

```

1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 4.5: links.html -->
6 <!-- Introduction to hyperlinks -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10    <title>Internet and WWW How to Program - Links</title>
11  </head>
12
13  <body>
14
15    <h1>Here are my favorite sites</h1>
16
17    <p><strong>Click a name to go to that page.</strong></p>
18
19    <!-- Create four text hyperlinks -->
20    <p><a href = "http://www.deitel.com">Deitel</a></p>
21
22    <p><a href = "http://www.prenhall.com">Prentice Hall</a></p>
23
24    <p><a href = "http://www.yahoo.com">Yahoo!</a></p>
25
26    <p><a href = "http://www.usatoday.com">USA Today</a></p>
27
28  </body>
29 </html>

```

**links.html
(1 of 2)**

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Relative vs. Absolute Links

- Absolute links
 - Textbooks
 - NYT
- Relative links
 - Textbooks
 - Textbooks
 - More on dogs

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4.7 Images

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 4.7: picture.html -->
6 <!-- Adding images with XHTML -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10    <title>Internet and WWW How to Program - welcome</title>
11  </head>
12
13  <body>
14
15    <p>
16      <img src = "xmlhttp.jpg" height = "238" width = "183"
17        alt = "XML How to Program book cover" />
18      <img src = "jhttp.jpg" height = "238" width = "183"
19        alt = "Java How to Program book cover" />
20    </p>
21  </body>
22 </html>
```

