

## IT350 Web and Internet Programming

Fall 2005

<h3>XHTML vs. HTML</h3> <h3>XHTML Validation</h3>
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### Web Markup Languages

- HTML 2.0
- ...
- HTML 4.01
  
- XHTML 1.0
  
- XHTML 1.1
  
- XHTML 2.0

## HTML vs. XHTML

### XHTML: Differences from HTML (part 1)

- Documents must be “well-formed”
  1. All start tags must be closed
  2. All tags must properly nest

## XHTML: Differences from HTML (part 2)

- Tag and attribute names must be lowercase
- Attribute values must be double-quoted
- Use `id` instead of `name`  
`<a name=bottom> Stuff </a>`  
  
`<a id="bottom"> Stuff </a>`  
`<h1 id="ships"> ... </h1>`

## XHTML: Differences from HTML (part 3)

- Many “style” tags/attributes removed

[http://webdesign.about.com/od/htmlxhtmltutorials/l/bltags\\_deprecat.htm](http://webdesign.about.com/od/htmlxhtmltutorials/l/bltags_deprecat.htm)

- What to do?

## XHTML: Differences from HTML (part 4)

- Frames allowed in XHTML 1.0...  
But removed in XHTML 1.1
  
- A few more technical differences...
  - See <http://www.w3.org/TR/2000/REC-xhtml1-20000126/#diffs>

### Exercise #1 – Correct any invalid XHTML syntax

```
<?xml version = "1.0" encoding=utf-8 ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
    "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<!-- An example file
<!-- Our first Web page -->
<html xmlns = "http://www.w3.org/1999/xhtml">

<body>
    <h1> Welcome to <b> IT350! </h1> </b>
    <h2> Today's Agenda </h2>
    <li> XHTML
    <li> JavaScript
</body>
```

## Exercise #2 – Correct any invalid XHTML syntax

```
<?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">

    <title>Internet and WWW How to Program - Welcome</title>

    <body>

        <img scr = "xmlhttp.jpg" height = "238" width = "183" >

        <h1 align="center">Under construction</h1>

    </body>
</html>
```

## Exercise #3 – Correct any invalid XHTML syntax

```
<?xml version = "1.0"?>

<html xmlns = "http://www.w3.org/1999/xhtml">
    <head>
        <title>Internet and WWW How to Program - Links</title>
    </head>

    <body>
        <b> <h1>Here are my favorite links</h1> </b>

        <p><A href = "http://www.yahoo.com">Yahoo!</A></p>

        <p><A mailto = "webmaster@ussmichigan.org">Webmaster</A></p>

    </body>
</html>
```

## Exercise #4 – Correct any invalid XHTML syntax

```
<?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>Best features of the Internet</title> </head>

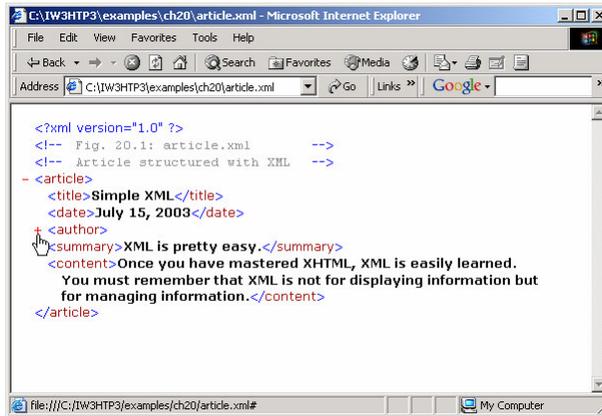
    <body>
        <ul>
            <li>Meet new people from around the world.</li>
            <li>Access to new media as it becomes public: </li>
                <ul>
                    <li>New games</li>
                    <li>New applications & software
                </ul>
            <li>Search engines</li>
        </ul> </body>
</html>
```

## XHTML → XML

---

```
1 <?xml version = "1.0"?>
2
3 <!-- Fig. 20.1: article.xml -->
4 <!-- Article structured with XML -->
5
6 <article>
7
8     <title>Simple XML</title>
9
10    <date>July 15, 2003</date>
11
12    <author>
13        <firstName>Carpenter</firstName>
14        <lastName>Ca1</lastName>
15    </author>
16
17    <summary>XML is pretty easy.</summary>
18
19    <content>Once you have mastered XHTML, XML is easily
20        learned. You must remember that XML is not for
21        displaying information but for managing information.
22    </content>
23
24 </article>
```

---



## Another example

```

1 <?xml version = "1.0"?>
2
3 <!-- Fig. 20.3: letter.xml -->
4 <!-- Business letter formatted with XML -->
5
6 <!DOCTYPE letter SYSTEM "letter.dtd">
7
8 <letter>
9
10 <contact type = "from">
11 <name>John Doe</name>
12 <address1>123 Main St.</address1>
13 <address2></address2>
14 <city>Anytown</city>
15 <state>Anystate</state>
16 <zip>12345</zip>
17 <phone>555-1234</phone>
18 <flag gender = "M"/>
19 </contact>
20
21 <contact type = "to">
22 <name>Joe Schmoe</name>
23 <address1>Box 12345</address1>
24 <address2>15 Any Ave.</address2>
25 <city>Othertown</city>

```

## Document Type Definitions

```
1 <!-- Fig. 20.6: letter.dtd -->
2 <!-- DTD document for letter.xml -->
3
4 <!ELEMENT letter ( contact+, salutation, paragraph+,
5   closing, signature )>
6
7 <!ELEMENT contact ( name, address1, address2, city, state,
8   zip, phone, flag )>
9 <!ATTLIST contact type CDATA #IMPLIED>
10
11 <!ELEMENT name ( #PCDATA )>
12 <!ELEMENT address1 ( #PCDATA )>
13 <!ELEMENT address2 ( #PCDATA )>
14 <!ELEMENT city ( #PCDATA )>
15 <!ELEMENT state ( #PCDATA )>
16 <!ELEMENT zip ( #PCDATA )>
17 <!ELEMENT phone ( #PCDATA )>
18 <!ELEMENT flag EMPTY>
19 <!ATTLIST flag gender ( M | F ) "M">
20
21 <!ELEMENT salutation ( #PCDATA )>
22 <!ELEMENT closing ( #PCDATA )>
23 <!ELEMENT paragraph ( #PCDATA )>
24 <!ELEMENT signature ( #PCDATA )>
```

