CGS 3175: Internet Applications Fall 2009

XHTML – Part 3 – Lists and Hyperlinks

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XHTML Lists

• XHTML provides three main types of lists: numbered, bulleted, and definition. These are summarized in the table below.

List type	XHTML element	Item element
Ordered list (numbered)		
Unordered list (bulleted)		
Definition list	<dl></dl>	<dt></dt> and <dd></dd>

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Ordered Lists

- Ordered lists are numbered and are contained within the ..., ordered list ٠ element.
- An ordered list may have any number of list items appearing in the element ٠ content.

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A browser will list each of the elements in a number sequential list. ٠

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For example:
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                                                        Page 3
                                                                        © Mark Llewellyn
```

Unordered Lists

- Unordered lists are bulleted instead of numbered. An unordered list is contained within the ..., unordered list element.
- An unordered list may have any number of list items appearing in the element content.
- A browser will list each of the elements in a bulleted list.



Definition Lists

- Definition lists are lists of terms and their definitions. They are a little different than ordered and unordered lists in that the items are lists in pairs.
- The <dl>...</dl>, surround the definition list. The name of the term appears between <dt> and </dt> tags, and the definition is between <dd> and </dd> tags.

🏉 Definition Lists in XHTML - Windows Interne... 💷 💷 💻

• For example:



Nesting Lists – Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Nested Lists in XHTML</title>
  </head>
  <body>
        <h3> Softball Favorites</h3>
        Favorite Softball Teams
          University of Arizona (NCAA)
                 University of Texas (NCAA)
                 Rockford Thunder (ProFastPitch)
                 University of Central Florida (NCAA)
          Favorite Softball Players
         <01>
                 Taryne Mowatt - Arizona Wildcats
                 Cat Osterman - Rockford Thunder - USA Natl Team
                 Jennie Finch - Chicago Bandits - USA Natl Team
                 Jessica Mendosa - USA Natl Team
                 Natasha Watley - USA Natl Team
        </01>
        </body>
</html>
```

Page 6



Nesting Lists – Example

🖉 Nested Lists in XHTML - Windows Internet Explorer				
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Softball Favorites				
Favorite Softball Teams				
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Rockford Thunder (ProFastPitch)				
 University of Central Florida (NCAA) 				
Favorite Softball Players				
1. Taryne Mowatt - Arizona Wildcats				
2. Cat Osterman - Rockford Thunder - USA Natl Team				
3. Jennie Finch - Chicago Bandits - USA Natl Team				
4. Jessica Mendosa - USA Nati Team 5. Natasha Watley - USA Nati Team				
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Hyperlinks

- A hypertext link, or hyperlink is an object in a Web page that when clicked will redirect the browser to another Web page or file.
- Usually, hyperlinks take the form of blue, underlined text, or an image.
- Special linking elements are included in the XHTML (also in HTML) specification that allow Web page authors to use images or text within a We page to create these links to other resources. The resource being linked to by the hyperlink is called the target resource.
- In addition to other Web pages, the target resource can be an image file, a multimedia file (such as an audio or video file), another section within the same page, or any Web page or file anywhere on the Internet.
- Hyperlinks provide Web page authors with a powerful means of organizing information and allow them to create very complex, cross-referenced Web sites with clickable tables of contents and menus.





Creating Hyperlinks With The <a> Element

- The <a> or anchor element in XHTML is used to create hyperlinks. These links require the user to perform an action usually clicking on the link in order to for the link to do anything. The clickable region of the link can consist of text or images.
- If the user never clicks the linked image or text, the link is never activated. Passively moving the cursor over the hyperlink will not activate it.
- The syntax of an anchor element is:

Value of the href attribute is the URL of the target resource.

```
<a href = ``http://www.cs.ucf.edu/courses/cgs3175/fall2009/index.html">
    This is a link. </a>
    Clickable area of the link in a Web browser.

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```

Hyperlink – Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <head>
     <title>Hyperlinks in XHTML</title>
   </head>
   <body>
        <div>
        <h3> Here are some examples of hyperlinks in XHTML</h3>
        <a
href="http://www.cs.ucf.edu/courses/cgs3175/fall2009/index.html">CGS 3175 -
Fall 2009 Home Page</a>
        <br /><br />
        <a href="http://www.w3c.org">W3C Home Page</a>
        <br /><br />
        <a href="http://www.cfnews13.com">Local News</a>
        </div>
    </body>
</html>
```



Hyperlink – Example

Hyperlinks in XHTML - Windows Internet Explorer				
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Here are some examples of hyperlinks in XHTML				
CGS 3175 - Fall 2009 Home Page				
W3C Home Page				
Local News				
UCF Student Newspaper				
Active and viewed link				
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Relative versus Absolute URLs

- Relative URLs are used to link documents that reside on the same Web server. When a relative URL is used, the protocol and domain name are omitted. The link to the target resource is relative to the location of the document containing the link, or the source document.
- If the target resource resides in the same directory as the source document, you can use a link containing only the name of the target resource, as in the first example below.
- If the target resource resides in a different directory on the Web server, you must include the subdirectory information in the link, as in the second example below.

```
<a href="newpage.html">Click Here</a>
```

```
<a href="documents/newpage.html">Click Here</a>
```

Click Here

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Relative versus Absolute URLs

- Absolute URLs are used to link documents that reside on different Web servers. When an absolute URL is used, the protocol (http://) and domain name (cs.ucf.edu) and domain name are included to direct the Web browser to the location of the new Web server. The absolute URL does not take into account any location information about the current document and can reference any target resource anywhere on the Internet.
- Below are some examples.

```
<a href="http://www.cs.ucf.edu/courses/cgs
3175/fall2009/index.html>">Click Here</a>
```

```
<a
href="http://www.cs.ucf.edu/courses/cgs3175/fall2009/background.gi
f"> Click Here</a>
```





- If you are working with a large document, you may want to create links to sections within that document.
- For example, you may want to create a link at the bottom of the document that links to back to the top of the document, or a link that will take you to a footnote at the bottom of a page from within the body of the document.
- You see internal linking quite often when viewing online tutorials, or documentation in which each chapter is linked from one to the next and even pages within a chapter are linked from one to the next.



• In order to create an internal link, you will need to first create the anchor at the place where you want the link to link to. The anchor element is used with an attribute called name, which identifies the anchor, or target.

Footnote

• Next, you need to create a link that looks like the relative links we've already examined, but has a # sign in front of the relative URL to tell the browser that this link exists in the current document. This link would look like:

```
<a href="#footnote">Link to footnote</a>.
```

• This would create an anchor where the footnote resides in the document, and clicking on the link would then take the user to that place within the document. The example on the next couple of pages illustrates internal links.

CGS 3175: Internet Applications (XHTML – Part 3)



```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Internal links in XHTML</title>
  </head>
  <body>
         <h3> How internal links work in XHTML</h3>
         This is the body of the document.
            It isn't really very big, but we'll pretend
            that it is a very large document <a href="#footnote1">see footnote 1</a>.
            To really see the effect of the browser "moving" you to the location of
          the footnote...you either want to make the few paragraphs in this document
            a lot bigger, or you can shrink the size of your browser window, which is
            what I did so that it would fit onto the notes reasonably well.
         This is the second paragraph in our "large" document.
            It isn't much bigger than the first, but it also will include
          this footnote.<a href="#footnote2">see footnote 2</a>
            This example you'll need to run yourself to really experience how the browser
            allows you to move to the footnotes when you click on them.
```



```
This is the third paragraph in the "large" document.
            Notice that the footnotes both appear after this third paragraph.
            Notice too, that the footnotes can be placed in any actual order
          in the document, their relative order is based on the reference to
          them in the actual document.
         <!-- spacing and horizontal rule are for effect only - neither are
required. -->
       <div>
                 <br /> <hr /> <br /> <br /><br />
         <br />
       <span><a name="footnote2">This is the second footnote</a></span>
         <br />
                   <br /> <br /> <br /> <br /> <br />
                                                           <hr /> <br />
         <br /> <br /> <br /> <br /> <br /> <br /> <br />
         <span><a name="footnote1">This is the first footnote</a></span>
       </div>
   </body>
</html>
```



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	Document
Internal links in XHTML - Windows Internet Explorer	
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This is the second paragraph in our "large" document. It isn't much bigger than the first, but it also will include this footnote. see footnote 2 This example you'll need to run yourself to really experience how the browser allows you to move to the footnotes when you click on them.	
This is the third paragraph in the "large" document. Notice that the footnotes both appear after this third paragraph. Notice too, that the footnotes can be placed in any actual order in the document, their relative order is based on the reference to them in the actual document.	This is the first footnote

CGS 3175: Internet Applications (XHTML – Part 3)

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Page 18

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Linking Within A Single Document - Returning

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Internal links in XHTML</title>
  </head>
  <body>
         <h3> How internal links work in XHTML</h3>
         This is the body of the document.
            It isn't really very big, but we'll pretend
            that it is a very large document. <a href="#footnote1">see footnote 1</a>
            <a name="return1"></a>
            To really see the effect of the browser "moving" you to the location of
            the footnote...you either want to make the few paragraphs in this document
            a lot bigger, or you can shrink the size of your browser window, which is
            what I did so that it would fit onto the notes reasonably well.
         This is the second paragraph in our "large" document.
            It isn't much bigger than the first, but it also will include
            this footnote.<a href="#footnote2">see footnote 2</a><a name="return2"></a>
            This example you'll need to run yourself to really experience how the browser
            allows you to move to the footnotes when you click on them.
```





Linking Within A Single Document - Returning

```
This is the third paragraph in the "large" document.
            Notice that the footnotes both appear after this third paragraph.
            Notice too, that the footnotes can be placed in any actual order
          in the document, their relative order is based on the reference to
          them in the actual document.
         <!-- spacing and horizontal rule are for effect only - neither are required.
       <div>
         <br />
                    <br /> <br /> <br /> <br /><br />
       <span><a name="footnote2">This is the second footnote</a></span>
        <span><a href="#return2">Return to document</a></span>
                             <br />
                                                          <hr /> <br />
                                       <br />
                                                <br />
         <br /> <br />
         <br /> <br /> <br /> <br /> <br /> <br /> <br />
         <span><a name="footnote1">This is the first footnote</a></span>
                 <span><a href="#return1">Return to document</a></span>
       </div>
   </body>
</html>
```



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Linking Within A Single Document - Returning

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			footnoteyou either want to make the few
			paragraphs in this document a lot bigger, or you
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	×		is what I did so that it would fit onto the notes
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CGS 3175: Int	ternet Applications (XHTML – Part 3)	Page	21 © Mark Llewellyn

Practice Problems

- 1. Create an XHTML document when viewed with a browser will produce a page exactly like to the one shown on page 23.
- 2. Create an XHTML document that contains at least three hyperlinks to any Web pages of your choice and then verify your code at the W3C Markup Validation Web site. When viewed with a browser and you click on the links it will take you to the correct Web page. See page 24.





Practice Problem #1 Rendering



Practice Problem #4 – Output

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CGS 3175: Internet Applications (XHTML – Part 3)	Page 24 © Mark Llewellyn