

FULL SAIL

Web Design Fundamentals





Today's Topics

- XHTML
- Validation

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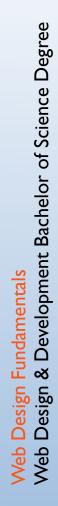


XHTML







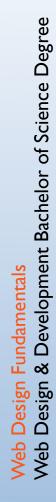




XHTML

- EXtensible HyperText Markup Language
 - HTML reformulated in XML (EXtensible Markup Language)
 - XML is a markup language used to share data between different computers and systems
 - XHTML is HTML that conforms to the strict rules of XML
 - http://www.w3.org/TR/xhtml1/



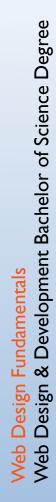




Benefits of XHTML

- Stricter and cleaner version of HTML
 - forces you to write code that follows strict rules
 - easier to troubleshoot
- Ensures web sites display consistently in the widest range of browsers
- Maintains backward and future compatibility







Basic Rules of XHTML

- All markup must be lowercase
- All tags must be closed
- All tags must be properly nested
- All attributes must have values
- All values must be quoted
- "Well-formed" markup tags closed and nested properly



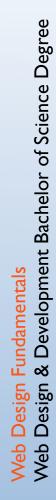




Nested Elements

- Placing one element inside another
- Close tags in reverse order they were opened
 - "First In, Last Out"
- Failure to nest elements properly leads to inconsistent display of web pages across browsers
 - These elements are NOT properly nested!







Differences with HTML

- Documents must be well-formed
- Element and attribute names must be in lowercase
- For non-empty elements, end tags are required
- Attribute values must always be quoted
- No Attribute Minimization
- No Empty Elements
- http://www.w3.org/TR/2002/REC-xhtml1-20020801/#diffs







Basic XHTML Document

- Valid XHTML documents require:
 - DOCTYPE
 - namespace declaration
 - character encoding

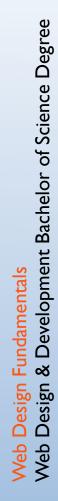


XHTML Strict DOCTYPE

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict// EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

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Namespace Declaration

- From XML
- Human readable, not read by computers
- Points to an explanation of element and attribute names
- Applied as a xmlns attribute on the <html> tag
- Namespaces provided by the W3C
 - <html xmlns="http://www.w3.org/1999/xhtml">





Character Encoding

- Languages use different characters defined in character sets
 - ISP-8859-1 for English
 - SHIFT-JIS for Japanese
- We should tell the browser what character set we are using on a page
- To do this, we use the <meta /> tag



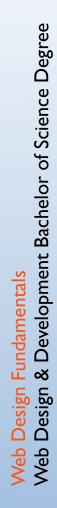




<meta/>

- Provides metadata about our document
 - describes the content of a page
 - information used by browsers, search engines, etc.
 - not displayed in browser
- Nested within the <head> tag
- Self-closing







Self-closing Elements

- Element that doesn't contain any content
 - a.k.a empty elements
- No closing tag
 - all tags must be closed for valid XHTML, right?
- Add a space and a slash
 - <meta />
 -

 - <hr/>





UTF-8

- 8-bit Unicode Transformation Format
- Character set that supports most characters from most language
- Allows use of variety of international characters, like accents
 - <meta http-equiv="Content-Type" content="text/
 html;charset=utf-8" />







Basic XHTML Document

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML I.0 Strict//EN"</pre>
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<a href="http://www.w3.org/1999/xhtml">
  <head>
      <title>Document Title</title>
      <meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
  </head>
  <body>
      Document content
  </body>
</html>
```

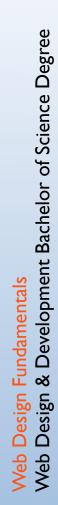


Semantic Markup

- Adds meaning to content
- Tags should describe the content they contain

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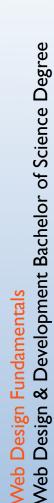




Presentational Markup

- Opposite of semantic markup
- Using tags for visual presentational
 - many are deprecated
- CSS should be used for presentation instead
- http://www.htmldog.com/guides/htmlintermediate/badtags/







Tag Soup

- HTML misused to handle both structure and visual presentation of content
- HTML was never intended for this purpose
 - for adding structure to content



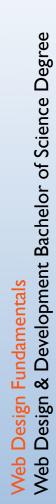


Structured Markup

- Structured Markup
 - adds structure to content
 - tags should establish an information hierarchy

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Information Hierarchy

- Defines the importance of information
- "Signposts" for reading
 - guides user's eyes through the content
 - <h/>
 <h/>
 is the most important heading
 - <h6> is the least
- Don't skip levels
- Don't pick a level based on its default style
 - CSS can be used to change size, weight, etc.

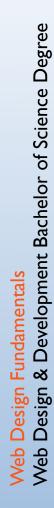






POSH

- Plain Old Semantic HTML
 - valid, semantic, accessible, well-structured (X)HTML
 - http://www.456bereastreet.com/archive/2007|1/ posh_plain_old_semantic_html/



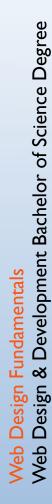


Making Markup Easier to Follow

Comments

- leave a message to yourself or others
- temporarily disable some markup
- required for ALL coding/scripting courses in WDDBS degree
- <!-- your comment here -->
- notice the spaces!







Making Markup Easier to Follow

- White space
 - spaces, tabs, line breaks
 - visually shows structure of document
- TAB that code!
 - nested elements should be tabbed in once
 - adjacent elements should be vertically flush
 - tab up to 4 levels deep, more can be hard to follow
 - aids in legibility and troubleshooting



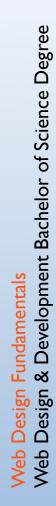




Comments and White Space

- Ignored by browser
- Are invisible to the user
- Can be used anywhere in a document
- Aids in troubleshooting
- Enhances collaboration
- Required for this course!!!
- Only seen when using View Source in browser







View Source

- To view the underlying source code of a web page in a browser
- Firefox
 - View > Page Source
- Safari
 - View > View Source
- Learn from other web designer's sites
- NEVER copy and paste other people's markup and use as your own





Block-Level Elements

- Block-level elements display on a new line
- Previously learned tags are all block-level



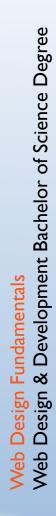




Inline-Level Elements

- Inline elements are the opposite of block-level elements
 - do not display on a new line
 - follow the flow of content

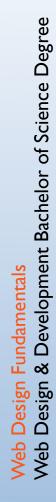






Document Flow

- The way a browser displays block-level and inline-level elements using browser's default style sheet
- Can be changed with CSS
- Important to understand the document flow before attempting to change it





Block-Level & Inline-Level Elements

- All elements are contained in a "box" that is either blocklevel or inline-level
- Inline-level elements need to be inside block-level elements
- Block-level elements can not be nested inside inline-level elements







Phrase Elements

- For adding meaning to text
- Defines strongly emphasized text
- <abbr> Defines an abbreviation
- <acronym> Defines an acronym
- <address> Defines an address / contact info





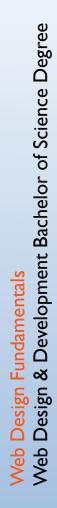


- Places emphasis on a given word or group of words
- Inline element
- Often confused with <i> (presentational markup)
- Displayed in italics by default





- Places a strong emphasis on a given word or group of words
- Inline element
- Often confused with (presentational markup)
- Displayed in **bold** by default

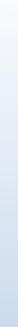




Abbreviations

- Abbreviation A shortened form of a word or phrase
 - Dr.
- Initialism abbreviation not spoken as a word
 - W3C, CSS
- Acronym abbreviation spoken as a word
 - GUI, NASA





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<abbr>

- Used for abbreviations and initialisms
- Inline element
- Useful to include title attribute
- NOT recognized by IE6





<acronym>

- Used for acronyms
- Inline element
- Useful to include the title attribute







title attribute

- Not to be confused with <title> element
- Specifies additional information about an element
- Creates a tool-tip when hovered over with the mouse
- Also useful for search engines and screen readers
- Often used with <abbr> and <acronym> element to describe the abbreviations

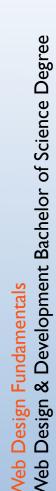






<address>

- Used for contact information about the author of a page
 - link to contact page, email address, mailing address, etc.
- Block-level element
- Displayed in italics by default





More Phrase Elements

- <dfn> Defines a definition
- <cite> Defines a citation
- <code> Defines computer code
- <kbd>- Defines keyboard text
- <samp> Defines sample code
- <var> Defines a variable
- Defines deleted text
- <ins> Defines inserted text





HTML Entities

- < represents <
 </p>
- > represents >
- @ & represents &
- &Idquo; represents "(curly quotation mark)
- " represents "
- represents (non-breaking space)







Quote Elements

- Used for quotations
- Notice which is block-level vs. inline-level element
 - <q>
 - <blockquote>
- Useful to include the cite element







- Used for short inline quotes
- Inline element
- Displayed with quotation marks by default
 - not supported in IE6
 - mixed results with other browsers
 - curly quotation marks in FF, straight in Safari



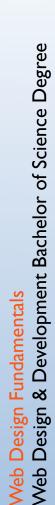




<blook
duote>

- Used for quotes of a paragraph or more
- Block-level element
- Displayed indented by default
- Needs to contain a block-level element, usually element







Other Useful Elements

- <hr /> Defines a horizontal line
- Defines pre-formatted text
- Sup> Defines superscripted text
- <sub> Defines subscripted text









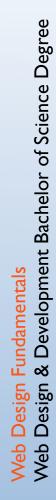
- Creates a single line break
- Self-closing
- Use sparingly!!!
- Should not be used presentationally CSS is used for that



Markup Validation Service Check the markup (HTML, XHTML,) of Web documents	
	Jump To: Congratulations · Ico
This document was successfully checked as	
Result:	Passed
File:	Use the file selection box above if you wish to re-va diveintoaccessibility.org-1251231198497.html
Modified.	/undofined\

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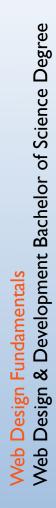






- Errors in markup lead to:
 - inconsistent display of web pages across browsers
 - slower load time
- W3C Markup Validation Service
 - free service that highlights errors in your code
 - details what errors are
 - uses DOCTYPE to determine which rules to check the document against







- To use the validator at http://validator.w3.org/
 - select "Validate by Direct Input"
 - copy and paste your code into the text area
 - click "Check"
 - fix any errors and click "Revalidate"

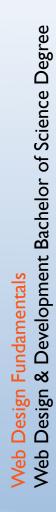






- Web Developer Add-on
 - validates web page using W3C Markup Validation Service
 - not necessary to visit validator site
- Tools > Validate HTML or Local HTML







- Valid code is not necessarily well-structured and semantic
- W3C Markup Validation Service only checks for markup errors
- Make sure your web page is well-structured and semantic before you validate it





Today's Lab

- XHTML Basics / Validation
 - Reading / Viewing Assignment
 - Daily Questions
 - DOCTYPES and Elements
 - Validation

