BASIC SYNTAX OF HTML

Origins and Evolution of HTML

- HTML was defined with SGML
- Original intent of HTML: General layout of documents that could be displayed by a wide variety of computers
- Recent versions:
  - ❑ HTML 3.2 – 1997
    - Introduced many new features and deprecated many older features
  - ❑ HTML 4.01 - 1999 - A cleanup of 4.0
  - ❑ XHTML 1.0 - 2000
    - Just 4.01 defined using XML, instead of SGML
  - ❑ XHTML 1.1 – 2001
    - Modularized 1.0, and drops frames
    - We'll stick to 1.1, except for frames
- **Reasons to use XHTML, rather than HTML:**
  1. HTML has lax syntax rules, leading to sloppy and sometime ambiguous documents
     – XHTML syntax is much more strict, leading to clean and clear documents in a standard form
  2. HTML processors do not even enforce the few syntax rule that do exist in HTML
  3. The syntactic correctness of XHTML documents can be validated

Basic Syntax

- Elements are defined by tags (markers)
  - ❑ Tag format:
    - Opening tag: <name>
    - Closing tag: </name>
  - ❑ The opening tag and its closing tag together specify a container for the *content* they enclose
- Not all tags have content
  - ❑ If a tag has no content, its form is
- The container and its content together are called an *element*
- If a tag has attributes, they appear between its name and the right bracket of the opening tag
- Comment form: <!- … ->
- Browsers ignore comments, unrecognizable tags, line breaks, multiple spaces, and tabs
- Tags are suggestions to the browser, even if they are recognized by the browser

HTML Document Structure

- <html>, <head>, <title>, and <body> are required in every document
- Every XHTML document must begin with:

<?xml version = ″1.0″?>
<!DOCTYPE html PUBLIC ″-//w3c//DTD XHTML 1.1//EN″
 http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd>

- The whole document must have <html> as its root
- html must have the xmlns attribute:

 <html xmlns = ″http://www.w3.org/1999/xhtml″

- A document consists of a head and a body
- The <title> tag is used to give the document a title, which is normally displayed in the browser's window title bar (at the top of the display)
- Prior to XHTML 1.1, a document could have either a body or a frameset

Basic Text Markup

- Text is normally placed in paragraph elements
- *Paragraph Elements*
  - ❑ The <p> tag breaks the current line and inserts a blank line - the new line gets the beginning of the content of the paragraph
  - ❑ The browser puts as many words of the paragraph's content as will fit in each line

<?xml version = ″1.0″?>
 <!DOCTYPE html PUBLIC ″-//w3c//DTD XHTML 1.1//EN″
   http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd>
<!-- greet.hmtl
   A trivial document
   -->
<html xmlns = ″http://www.w3.org/1999/xhtml″>
 <head> <title> Our first document </title>
 </head>
 <body>
  <p>
   Greetings from your Webmaster!
  </p>
 </body>
</html>

- W3C HTML Validation Service

  http://validator.w3.org/file-upload.html

- Line breaks
  - ❑ The effect of the <br /> tag is the same as that of <p>, except for the blank line

- No closing tag!
- Example of paragraphs and line breaks

On the plains of hesitation <p> bleach the
bones of countless millions </p>
who, at the dawn of victory <br /> sat down
to wait, and waiting, died.

- Typical display of this text:

On the plains of hesitation

bleach the bones of countless millions
who, at the dawn of victory
sat down to wait, and waiting, died.

- *Headings*
  - ❑ Six sizes, 1 - 6, specified with <h1> to <h6>
  - ❑ 1, 2, and 3 use font sizes that are larger than the default font size
  - ❑ 4 uses the default size
  - ❑ 5 and 6 use smaller font sizes

```
<!-- headings.html
    An example to illustrate headings
    -->
<html xmlns = ″http://www.w3.org/1999/xhtml″>
 <head> <title> Headings </title>
 </head>
 <body>
  <h1> Aidan's Airplanes (h1) </h1>
  <h2> The best in used airplanes (h2) </h2>
  <h3> "We've got them by the hangarful" (h3)
  </h3>
  <h4> We're the guys to see for a good used
      airplane (h4) </h4>
  <h5> We offer great prices on great planes
      (h5) </h5>
  <h6> No returns, no guarantees, no refunds,
      all sales are final (h6) </h6>
 </body>
</html>
```

Aidan's Airplanes (h1)

The best in used airplanes (h2)

"We've got them by the hangarful" (h3)

We're the guys to see for a good used airplane (h4)

We offer great prices on great planes (h5)

No returns, no guarantees, no refunds, all sales are final! (h6)