HTML

- Language used to define web pages.
- What the server sends to the browser.
- Browser reads HTML and renders the page
  - May require downloading data from server (e.g., images)
Creating Web Pages

- HTML - HyperText Markup Language
- HTML Standard
  - Developed by the World Wide Web Consortium (W3C)
  - http://www.w3.org
- Document is described through a series of commands and directives present in a text file.
- HTML goal is to describe structure only. Presentation should be left to cascading style sheets.
- When interpreted by an HTML viewer those commands determine the appearance of the page
- HTML documents are entirely ASCII text.
- Commands are explicitly inserted.
- Great HTML/CSS tutorial site:
  - http://www.htmldog.com/
Three versions of HTML
- HTML 4.01 Strict (excludes deprecated tags and attributes).
- HTML 4.01 Transitional (less restrictive including appearance elements).
- HTML 4.01 Frameset (identical to transitional but allows <body> to be replaced with <frameset>).

Web Standards Project (www.webstandards.org)
- Industry watchdog convincing web browsers developers to adhere to web standards.

HTML 4.01 is the last version for HTML. Next version is XHTML 1.0

XHTML
- Uses same tags as HTML 4.01.
- Enforces rules like closing tags, tags in lowercase, and others.

We will be using XHTML (strict).

HTML Validation - http://validator.w3.org/
HTML Basic Skeleton

- An html document has two main parts.
  - **Header** – provides information about the document.
  - **Body** – contents of the page.
- Example 1 (BasicFrame.html)

```html
<!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" lang="en" xml:lang="en">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
    <title>Template</title>
  </head>

  <body>
    <!-- HTML CODE HERE -->
  </body>
</html>
```

- Let’s validate the above document
Tag

- Specifies a command or directive.
- It surrounds content and apply meaning to that content

General format:

\(<elementName attributes>\)

Most HTML elements have two tags:
- Start tag and end tag
- Example: \(<h1> text </h1>\)

Tags and attributes will be in lowercase (XHTML requirement).
- Some tags are self-closed (ending them in />)
  
  \(<hr /> \<br /> \<meta /> \<img />\)
Head/Title Tags

- `<head> </head>`
  - It does not generate displayed contents.
  - Contains other tags (e.g., `<title> </title>`)  
- `<title> </title>`
  - Part of the header.
  - It is required.
  - Search engines depend on it.
Attributes

- An attribute extends or modifies a tag.
- Attributes
  - Only appear in the start tag.
  - You can have several attributes in one tag each separated by spaces.
  - Order is immaterial.
  - Some take values which are specified after an =
- General format
  - `<ELEM ATTR="attrValue">Displayed Text</ELEM>`
- Example
  - `<img src="bear.gif" width="100" height="75" alt="bear image" />`
- All attribute values will be enclosed in “ “ for XHTML compliance.