Introduction to Web & HTML

Topics
- Web Terminology
- HTML
  - What is HTML
  - Parts of an HTML Document
  - HTML Tags
    - Required
    - Common

Internet vs. WWW
- Most people use the two terms interchangeably but they are in fact different.
- The Internet is a vast, international network, made up of computers and the physical connections (wires, routers, etc.) allowing them to communicate.
- The World Wide Web (WWW or just the Web) is a collection of software that spans the Internet and enables the interlinking of documents and resources.
  - Provides a way of accessing information on the Internet.
- For more information about the history of the Internet and WWW:

Web Servers and Clients
- A Web server is a computer that is programmed to send files to browsers on other computers connected to the Internet.
- The Web browser, such as Firefox or Internet Explorer, is the client that sends a request for a Web page.
- The Web server answers the request and delivers the requested page to the browser so you can view it.

HTTP
- Stands for HyperText Transfer Protocol
- Allows computers on the WWW to communicate with one another.
- Handles the “request” sent to the Web server and the “response” received from the Web server.

Web Server-Client Diagram
URLs

- Stands for Uniform Resource Locator
- Also called the Web page’s address
- You typically type it into your Web browser’s location bar when you want to view a Web page

HTML

- Stands for HyperText Markup Language
- Used to create a Web page
- Made up of tags that specify the structure of the document (this section is a heading, this section is a paragraph, etc.)
- An excerpt from a sample HTML document:

```
<html>
<head>
<title>Bob’s Web page</title>
</head>
<body>
<h1>This is my first Web page</h1>
</body>
</html>
```

HTML Tags

- Most HTML tags work in pairs. There is an opening and a closing tag. For example:
  
  ```html
  <p>Some content here.</p>
  ```

- The `<p>` tag displays a paragraph
- `<p>` opens the paragraph (opening tag)
- `</p>` closes the paragraph (closing tag)
- “Some content here.” will be displayed on the page

Self-closing Tags

- Some HTML tags are self closing. For example:
  
  ```html
  <br />
  ```

- The `<br />` tag will display a line break.

Required Tags

- All HTML documents should have `html`, `head` and `body` tags, along with the DOCTYPE identifier.
  
  ```html
  <!DOCTYPE html>
  <html>
  <head>
  <title>CMSC104 HTML Template</title>
  </head>
  <body>
  This is just a basic HTML template to be used in CMSC104.
  </body>
  </html>
  ```

Example file: template.html
### Basic HTML Template Screenshot

![Basic HTML Template](image1)

### Some Common HTML Tags and Their Meanings

- `<p>...</p>` -- Creates a paragraph
- `<br />` -- Adds a line break
- `<hr />` -- Separates sections with a horizontal rule
- `<h1>...</h1>` -- Displays a heading (h1-h6)
- `<!--...-->` -- Inserts a comment
- `<ol>...</ol>` -- Creates an ordered list
- `<ul>...</ul>` -- Creates an unordered list
- `<img />` -- Inserts an image into the document
- `<a>...</a>` -- Inserts a link into the document

### Paragraph Example

```html
<p>The exam next week will consist of T/F, multiple choice, short answer and pseudocode questions. You cannot use a calculator.</p>
<p>After the exam, we will learn JavaScript. It should be fun!!</p>
```

### Paragraph Example Screenshot

![Paragraph Example Screenshot](image2)

### Line Break Example

```html
<p>Roses are Red. <br />
Violets are Blue. <br />
You should study for Exam 1. <br />
It will be good for you!</p>
```

### Line Break Example Screenshot

![Line Break Example Screenshot](image3)
The exam next week will consist of T/F, multiple choice, short answer and pseudocode questions. You cannot use a calculator.

After the exam, we will learn JavaScript. It should be fun!!
Ordered List Example

<ol>
<li>Print Review Questions for Exam 1.</li>
<li>Work on Review Questions for Exam 1.</li>
</ol>

Unordered List Example

<ul>
<li>country music</li>
<li>monday mornings</li>
<li>brussels sprouts</li>
</ul>

Link Example

<a href="http://www.cs.umbc.edu/104/">CMSC104 Main page</a>
Image Example

To see an example page that uses all of the tags we discussed today, visit

http://userpages.umbc.edu/~dblock/lecture6.html