Overview of HTML

Instructor:
Nihshanka Debroy
ndebroy@cs.duke.edu
The Internet

- Network of computer networks (started by DARPA in 1973)
- World Wide Web -> one way of accessing info. over Internet
- Servers disperse hypertext (text with link(s)) documents
- URL (uniform resource locator) -> unique address of data
The Web

- Type URL into browser or follow link
- **Server part** of URL resolved into an **IP** address
- Browser establishes **connection** with server at IP address
- Request sent to server
- Browser parses HTML text
- Finally, browser renders web-page
Purpose of HTML

- HTML -> Hyper Text Markup Language
- Display of content over Internet -> language of web-pages (platform independent)
- Labeling of each piece of content -> markup tags
- HTML tags -> structure the content

Basic HTML document:

    <html>
        <head> </head>
        <body> </body>
    </html>
Getting Started!

- Find and open **Notepad (from Program->Accessories)**.
- `<html>` and `</html>` - beginning and ending tags
- After `<html>`, type `<head> ... </head>` : this is the heading
- After `<head>`, type in `<title>` (name of your web-page) `</title>` (appears at the top)
- After `</head>`, type in `<body>` (whatever you want on the page) `</body>` : body of your document
- Stuff b/w starting and ending tags -> content
- **Not case sensitive for tags!**
- Your web-page from lab will be at: **www.duke.edu/~netid**
Opening it up!

- Save as “test.html” - save as type “All Files”, **not** “Text”
- Open up a browser – Internet Explorer
- Choose “Open” under “File” menu – open your saved file
- Tags usually come in pairs – start and end
  - `<html>` : encloses all HTML code
  - `<head>` : information, such as title
  - `<body>` : contains everything that is displayed
More tags

- `<hn>`: text headers, where *smaller* *n* means *more important* heading
- `<p>`: paragraphs of text
- `<br>`: line break (blank line of space)
- `<hr>`: horizontal line across page
- `<b>`: text in bold
- `<i>`, `<em>`: text in italics
- `<pre>`: text space exactly as typed

No ending tags needed for `<br>` and `<hr>`.
Links

• Inside `<body>`:
  `<a href = “link goes here”>...</a>`

• Links often underlined : possible to change this with CSS

• **URL** – Uniform Resource Locator of a web site

• `<a href = “link goes here” target = “_blank”>...</a>` opens up link in new page
Images

- `<body> <img src = "./ndebroy.jpg" height = "170" /> </body>`
- `./` means current directory – local address
- No need for a closing tag.
- `src` tells browser where to look for image
- Complete link: `global address`
Lists

- **Ordered and Unordered lists**
- Ordered list: `<ol> ... </ol>`
- Unordered list: `<ul> ... </ul>`
- Individual list items: `<li> ... </li>`

Example:

```
<ul>

<li> First item </li>

<li> Second item </li>

</ul>
```
Tables

- `<table> ... </table>`
- Rows: `<tr> ... </tr>`
- Data cells: `<td>...</td>`

**Example:**

```html
<table>
<tr>
<td> x </td> <td> y </td>
</tr>
</table>
```

- `border` – size of border around table
Extra stuff

• Comments <!-- (your comments) -->

• **Special characters:**
  1) space - &nbsp
  2) < - &lt, > - &gt
  3) & - &amp
  4) " - &quot
  5) ' - &apos
  6) x - &times
  7) © - &copy
  8) ® - &reg

• `<body bgcolor = "#ef7723" background= "./bluedevil.jpg">`

• `<p style= font-family:verdana; font-size:80%;color:green>...</p>`
Summary -> General rules

- **Convention** – use lower case for tags.
- **Convention** - surround tag attributes by double quotes.
- Close HTML elements properly.
- Good practice – write both opening and closing tags at same time, before filling in content.
How is CSS related?

- HTML not all that great for presentation
- CSS (Cascading Style Sheets) created only a few years ago
- CSS better for handling presentation issues (text formatting, colors, backgrounds, etc.)
- CSS: selector, properties, values
- Best way to learn -> looking at other people's web-page source code (View->Source)
- Monday – intro. to CSS
Homework

• Read through HTML tutorial on Syllabus page.
• Pre-lab assignment, based on tutorial: sent out today evening
• Due on Tuesday, during lab session.
• Will help you get a head-start for designing your web-page on Tuesday.