An Introduction to HTML

EC512

HTML

- A W3C standard. See:
    1. http://www.w3.org/standards/webdesign/htmlcss
    2. http://www.w3.org/TR/html5
    3. https://docs.webplatform.org/wiki/Main_Page
    4. http://www.w3c.org/MarkUp/Guide/ (a short tutorial, but out of date)

- If you don't already know some HTML become familiar. In any case become familiar with the documentation provided in the MSDN Library.

- VS 2017 can be used to create HTML web pages. It is not as sophisticated as products like Dreamweaver but it has many features that integrate with the other .NET technologies including client scripting. It will be essential to use it for *Active Server Pages*.

- *Expression Web* 4 is a great editor from Microsoft that incorporates many features of VS and is a free download from Microsoft. It is somewhat outdated as it is no longer a product.

HTML 5

- HTML 5 is only a draft standard.
- It contains many new features including advanced graphics and media support.
- No current browser supports all of HTML 5. Chrome is reported to be the best and IE the worst, but I do not agree.
- The latest IE is much better (IE 11 and Edge).
- See http://www.w3.org/TR/2011/WD-html5-20110525/
- There are great tutorials at http://www.w3.org/2002/03/tutorials.html#webdesign_htmlcss

HTML contd.

- HTML is not a language in the sense of a programming language.
- It is a *page description language* or *markup language*.
- It shows the formatting of the page, but not the precise layout, although complex HTML use with style sheets can come pretty close. (Recent HTML features are required as well as a browser that supports them).
- Web pages are transferred to the client's browser application using the HTTP protocol (discussed later in the course).

Required Tags for Minimal Web Page

```
<HTML>
  <HEAD>
     <TITLE>Title goes here</TITLE>
  </HEAD>
  <BODY>
      Body of document goes here.
  </BODY>
</HTML>
```

Tags

- Tags are used to *mark up* the content of your document.

- Tags are normally used in *pairs*, e.g., <HEAD>……</HEAD>

- See http://msdn.microsoft.com/en-us/library/hh772721(v=vs.85).aspx

- Be sure to familiarize yourself with the HTML tags and how to use them.

A Simple Page

```
<html>
<head>
<title>Test Page</title>
</head>

<body>

<h1 style="text-align: center">Simple Test Page</h1>
<p>
Here is some body text.
</p>
<p>
Click <a href="http://tomcat.bu.edu/ec512">here</a> for
the course web page.
</p>
```
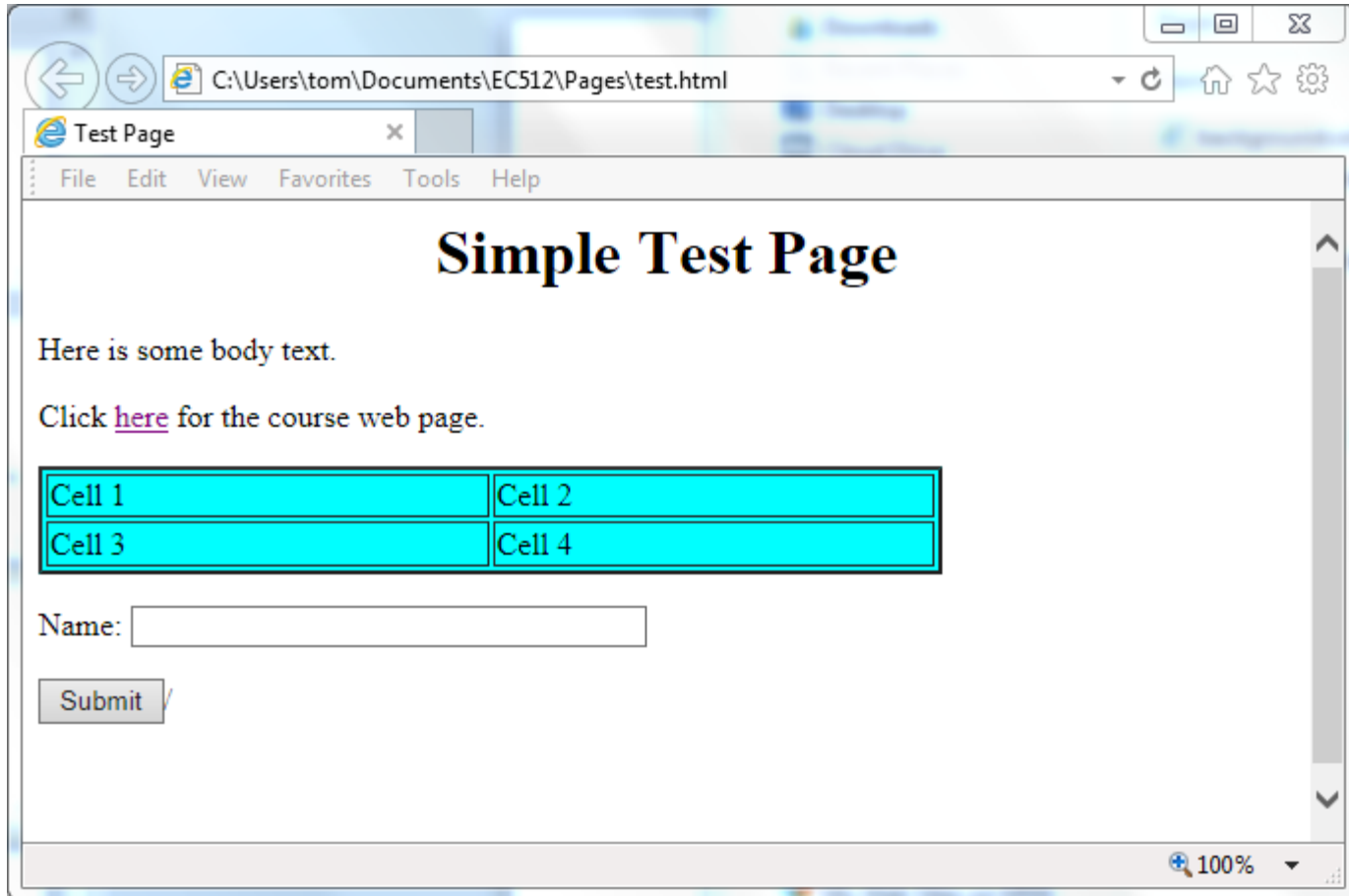
```
<table id="table1" border="2" style="background-color:
#00FFFF" width="72%">
    <tr>
        <td>Cell 1</td>
        <td>Cell 2</td>
    </tr>
    <tr>
        <td>Cell 3</td>
        <td>Cell 4</td>
    </tr>
</table>
<form>
    <p>Name: <input name="T1" size="40" type="text"/><p>
    <p><input name="B1" type="submit" value="Submit" />/</p>
</form>
</body>

</html>
```

HTML Limitations

- HTML is static unless scripting on the client is used.
- HTML has limited abilities to convey information to a server (e.g., forms).
- HTML does not present an identical appearance on all systems (user options such as fonts can be set in the browser).
- Limited multimedia, but images are a mainstay.
- Numerous extensions to browsers have allowed HTML to be integrated with other technologies to overcome some of these limitations.

Enhancing Technologies

- Scripting on the web page (Javascript, VBScript).
- Dynamic HTML allows scripts to interact with HTML tags.
- Plug-ins, ActiveX Controls, Java applets, Flash etc.
- Multimedia integration (Windows Media Player).
- Server side code execution can bring pages to life (a major focus of the course).
  - CGI, ISAPI
  - Active Server Pages, JSP, PHP
- Newer technologies
  - ASP.NET
  - XML web services.
  - REST
  - AJAX
  - Silverlight

Visual Studio 2017 for Creating Web Pages

Demo
(in class)