HTML Basics

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2. HTML in Details
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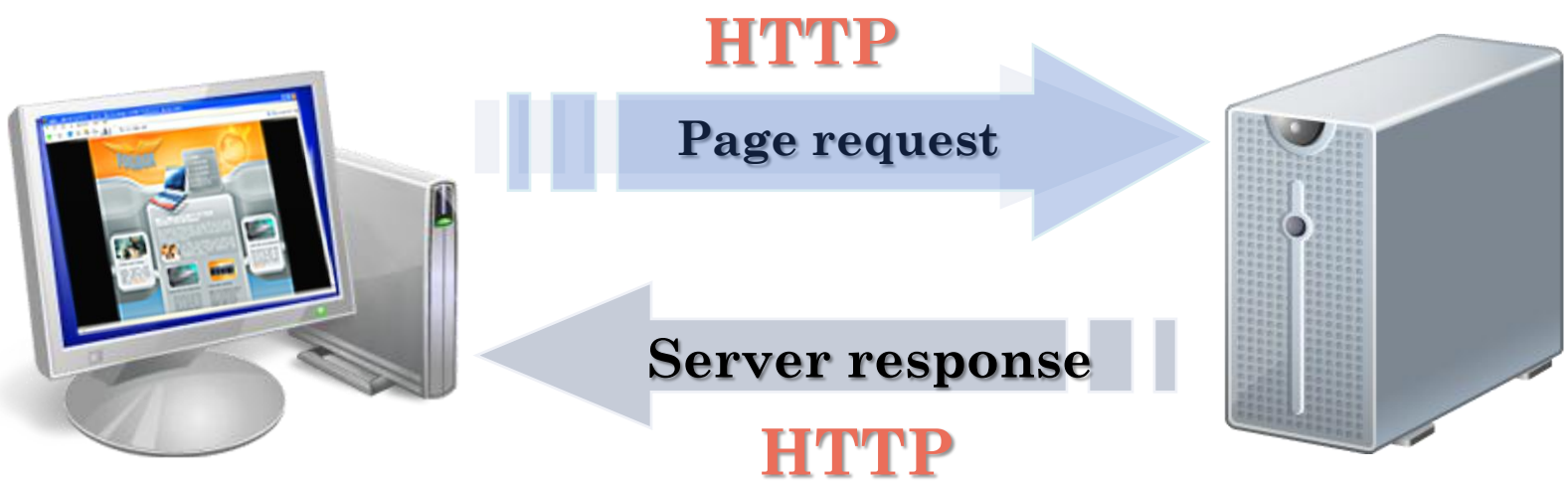
How the Web Works?

- WWW use classical client / server architecture
  - HTTP is text-based request-response protocol



Client running a Web Browser

Server running Web Server Software (IIS, Apache, etc.)

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What is a Web Page?

- Web pages are text files containing HTML
- HTML – Hyper Text Markup Language
  - A notation for describing
    - document structure (semantic markup)
    - formatting (presentation markup)
  - Looks (looked?) like:
    - A Microsoft Word document
- The markup tags provide information about the page content structure

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Creating HTML Pages

- An HTML file must have an `.htm` or `.html` file extension
- HTML files can be created with text editors:
  - NotePad, NotePad ++, PSPad
- Or HTML editors (WYSIWYG Editors):
  - Microsoft FrontPage
  - Macromedia Dreamweaver
  - Netscape Composer
  - Microsoft Word
  - Visual Studio

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HTML Structure

- HTML is comprised of “elements” and “tags”
  - Begins with `<html>` and ends with `</html>`
- Elements (tags) are nested one inside another:
- Tags have attributes:
- HTML describes structure using two main sections: `<head>` and `<body>`

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HTML Code Formatting

- The HTML source code should be formatted to increase readability and facilitate debugging.
  - Every block element should start on a new line.
  - Every nested (block) element should be indented.
  - Browsers ignore multiple whitespaces in the page source, so formatting is harmless.
- For performance reasons, formatting can be sacrificed

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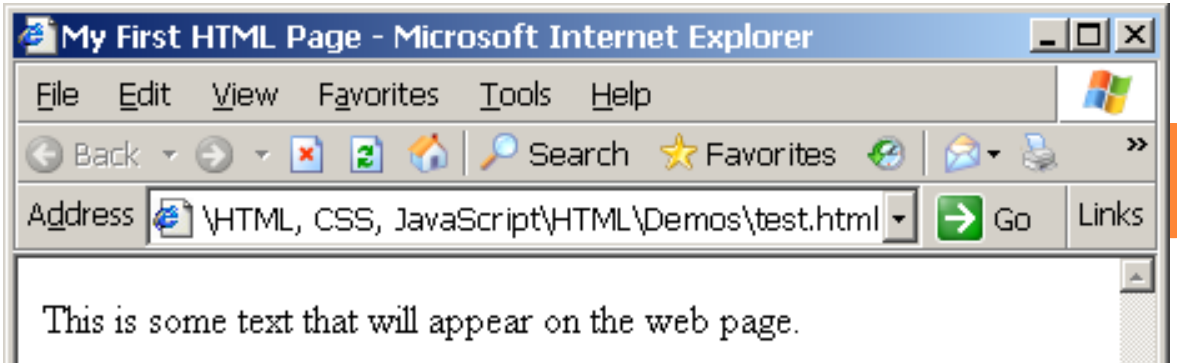
First HTML Page

- **test.html**

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>My First HTML Page</title>
  </head>
  <body>
     <p>This is some text...</p>
  </body>
</html>
```



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First HTML Page: Tags

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>My First HTML Page</title>
  </head>
  <body>
     <p>This is some text...</p>
  </body>
</html>
```

Opening tag

Closing tag

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Important tags

- Hyperlink Tags

```
<a href="http://www.telerik.com/"
  title="Telerik">Link to Telerik Web site</a>
```

- Image Tags

```
<img src="logo.gif" alt="logo" />
```

- Text formatting tags

```
This text is <em>emphasized.</em>
<br />new line<br />
This one is <strong>more emphasized.</strong>
```

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Tags Attributes

Attribute alt with value "logo"

- Tags can have attributes
  - Attributes specify properties behavior
  - Example:

```
<img src="logo.gif" alt="logo" />
```

  - Few attributes can apply to every element:
    - `id`, `style`, `class`, `title`
    - The `id` is unique in the document
    - Content of `title` attribute is displayed as hint when the element is hovered with the mouse
    - Some elements have obligatory attributes

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Headings and Paragraphs

- Heading Tags (h1 – h6)

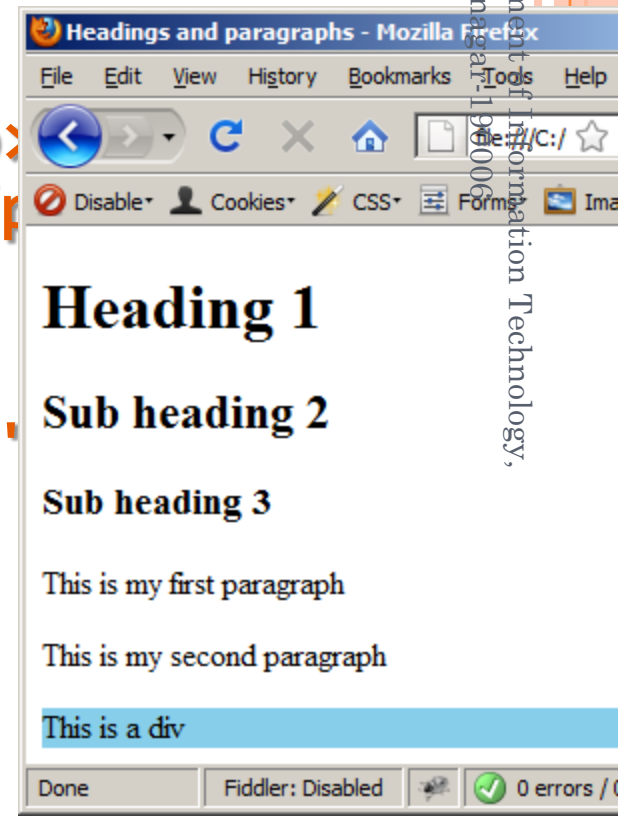
```
<h1>Heading 1</h1>
<h2>Sub heading 2</h2>
<h3>Sub heading 3</h3>
```

- Paragraph Tags

```
<p>This is my first paragraph</p>
<p>This is my second paragraph</p
```

- Sections: div and span

```
<div style="background: skyblue;"
 This is a div</div>
```



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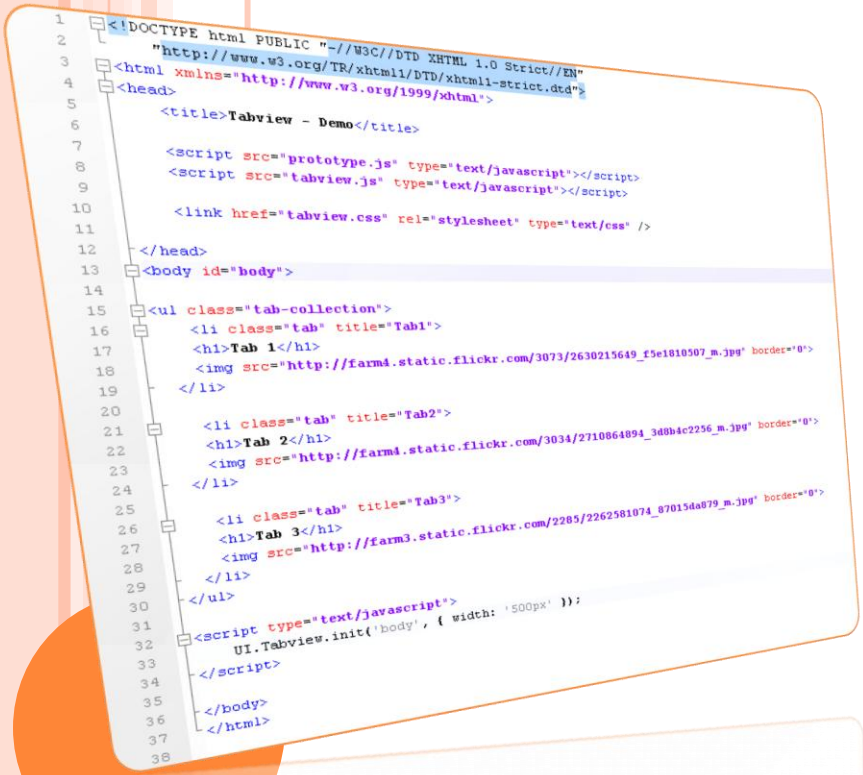

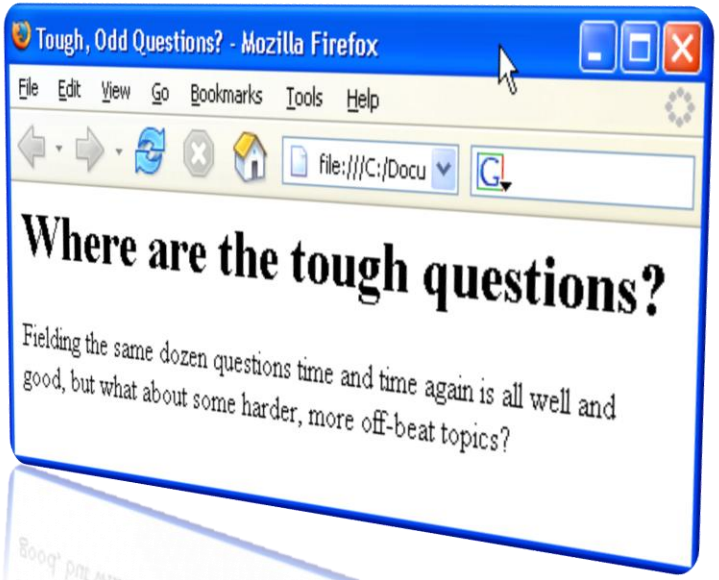

Introduction to HTML

HTML Document Structure in Depth

The <head> Section

- Contains information that doesn't show directly on the viewable page
- Starts after the <!doctype> declaration
- Begins with <head> and ends with </head>
- Contains mandatory single <title> tag
- Can contain some other tags, e.g.
  - <meta>
  - <script>
  - <style>
  - <!-- comments -->

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<HEAD> SECTION: <TITLE> TAG

- Title should be placed between <head> and </head> tags

```
<title>HTML Classes – Winter Season 2016-17
```

- Used to specify a title in the window title bar
- Search engines and people rely on titles

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<HEAD> SECTION: <META>

- Meta tags additionally describe the content contained within the page

```
<meta name="description" content="HTML tutorial" />

<meta name="keywords" content="html, web design, styles" />

<meta name="author" content="Chris Brewer" />

<meta http-equiv="refresh" content="5; url=http://www.telerik.com" />
```

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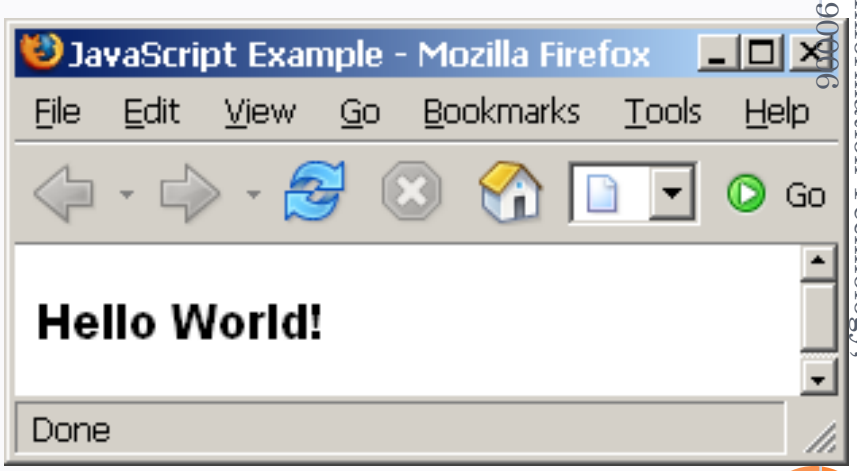
The <script> Tag – Example

scripts-example.html

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>JavaScript Example</title>
    <script type="text/javascript">
      function sayHello() {
        document.write("<p>Hello World!<\/p>");
      }
    </script>
  </head>
  <body>
    <script type=
      "text/javascript">
      sayHello();
    </script>
  </body>
</html>
```

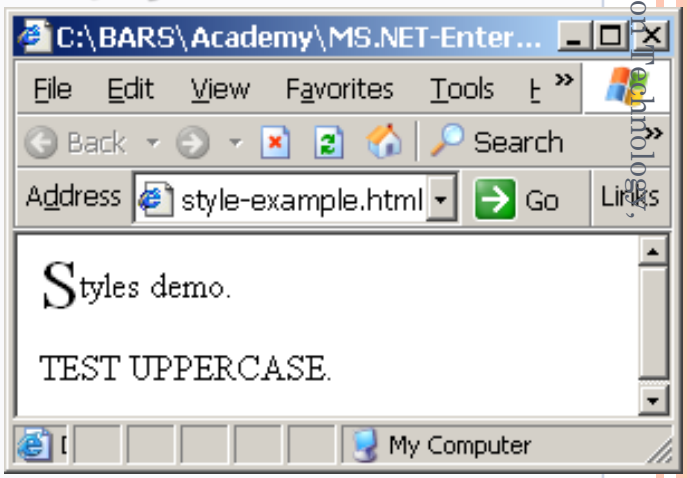


<HEAD> SECTION: <STYLE>

- The `<style>` element embeds formatting information (CSS styles) into an HTML page

style-example.html

```
<html>
  <head>
    <style type="text/css">
      p { font-size: 12pt; line-height: 12pt; }
      p:first-letter { font-size: 200%; }
      span { text-transform: uppercase; }
    </style>
  </head>
  <body>
    <p>Styles demo.<br />
       <span>Test uppercase</span>.
    </p>
  </body>
</html>
```



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Comments: <!-- --> Tag

- Comments can exist anywhere between the `<html></html>` tags
- Comments start with `<!--` and end with `-->`

```
<!-- Telerik Logo (a JPG file) -->
<img src="logo.jpg" alt="“Telerik Logo">
<!-- Hyperlink to the web site -->
<a href="http://telerik.com/">Telerik</a>
<!-- Show the news table -->
<table class="newstable">
...
```

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Text Formatting

- Text formatting tags modify the text between the opening tag and the closing tag
  - Ex. `<b>Hello</b>` makes "Hello" bold

`<b></b>`	**bold**
`<i></i>`	*italicized*
`<u></u>`	underlined
`<sup></sup>`	Sample^{superscript}
`<sub></sub>`	Sample$_{\text{subscript}}$
`<strong></strong>`	**strong**
`<em></em>`	*emphasized*
`<pre></pre>`	`Preformatted text`
`<blockquote></blockquote>`	`Quoted text block`
`<del></del>`	Deleted text – ~~strike through~~

text-formatting.html

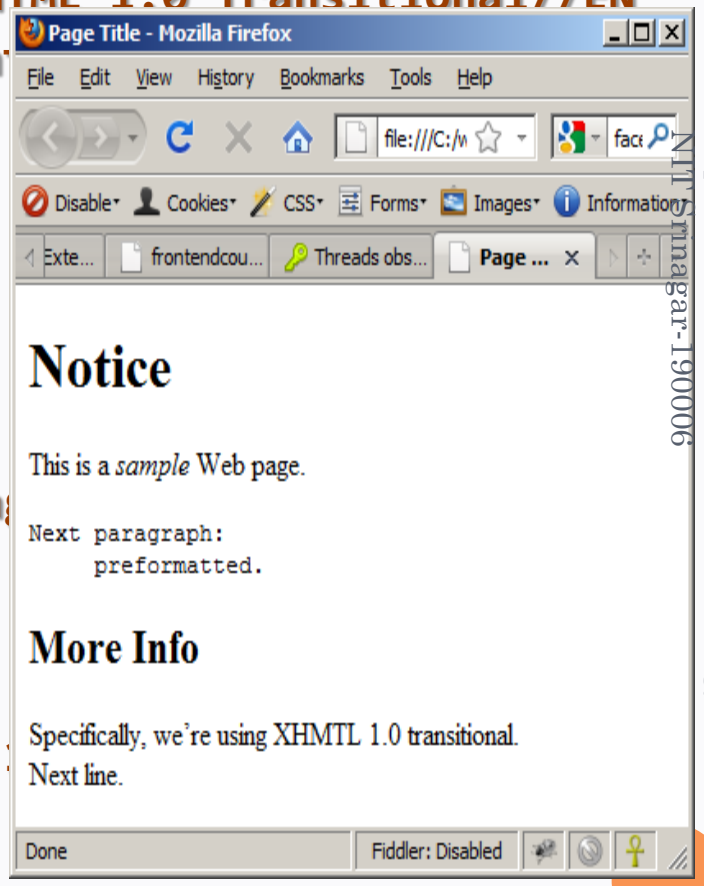
Text Formatting – Example

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
  <h1>Notice</h1>
  <p>This is a <em>sample</em> Web page.</p>
  <p><pre>Next paragraph:
     preformatted.</pre></p>
  <h2>More Info</h2>
  <p>Specifically, we're using XHMTL 1.0 transitional.<br />
    Next line.</p>
  </body>
</html>
```

text-formatting.html

Text Formatting – Example (2)

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xh
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
  <h1>Notice</h1>
  <p>This is a <em>sample</em> Web pa
  <p><pre>Next paragraph:
     preformatted.</pre></p>
  <h2>More Info</h2>
  <p>Specifically, we're using XHMTL
    Next line.</p>
  </body>
</html>
```



Hyperlinks: <a> Tag

- Link to a document called form.html on the same server in the same directory:

```
<a href="form.html">Fill Our Form</a>
```

- Link to a document called parent.html on the same server in the parent directory:

```
<a href="../parent.html">Parent</a>
```

- Link to a document called cat.html on the same server in the subdirectory stuff:

```
<a href="stuff/cat.html">Catalog</a>
```

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Hyperlinks: <a> Tag (2)

- Link to an external Web site:

```
<a href="http://www.nptel.org" target="_blank">BASD</a>
```

  - Always use a full URL, including "http://", not just "www.nitsri.net"
  - Using the target="_blank" attribute opens the link in a new window

- Link to an e-mail address:

```
<a href="mailto:bugs@example.com?subject=Bug+Report">
Please report bugs here (by e-mail only)</a>
```

Hyperlinks: <a> Tag (3)

- Link to a document called `apply-now.html`
  - On the same server, in same directory
  - Using an image as a link button:

```
<a href="apply-now.html"><img
  src="apply-now-button.jpg" /></a>
```

- Link to a document called `index.html`
  - On the same server, in the subdirectory `english` of the parent directory:

```
<a href="../english/index.html">Switch to
English version</a>
```

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Hyperlinks and Sections

- Link to another location in the same document:

```
<a href="#section1">Go to Introduction</a>
...
<h2 id="section1">Introduction</h2>
```

- Link to a specific location in another document:

```
<a href="chapter3.html#section3.1.1">Go to Section
3.1.1</a>

<!-- In chapter3.html -->
...
<div id="section3.1.1">
  <h3>3.1.1. Technical Background</h3>
```

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Hyperlinks – Example

hyperlinks.html

```
<a href="form.html">Fill Our Form</a> <br />
<a href="../parent.html">Parent</a> <br />
<a href="stuff/cat.html">Catalog</a> <br />
<a href="http://www.devbg.org" target="_blank">BASD</a>
<br />
<a href="mailto:bugs@example.com?subject=Bug
Report">Please report bugs here (by e-mail only)</a>
<br />
<a href="apply-now.html"><img src="apply-now-button.jpg”
/></a> <br />
<a href="../english/index.html">Switch to English
version</a> <br />
```

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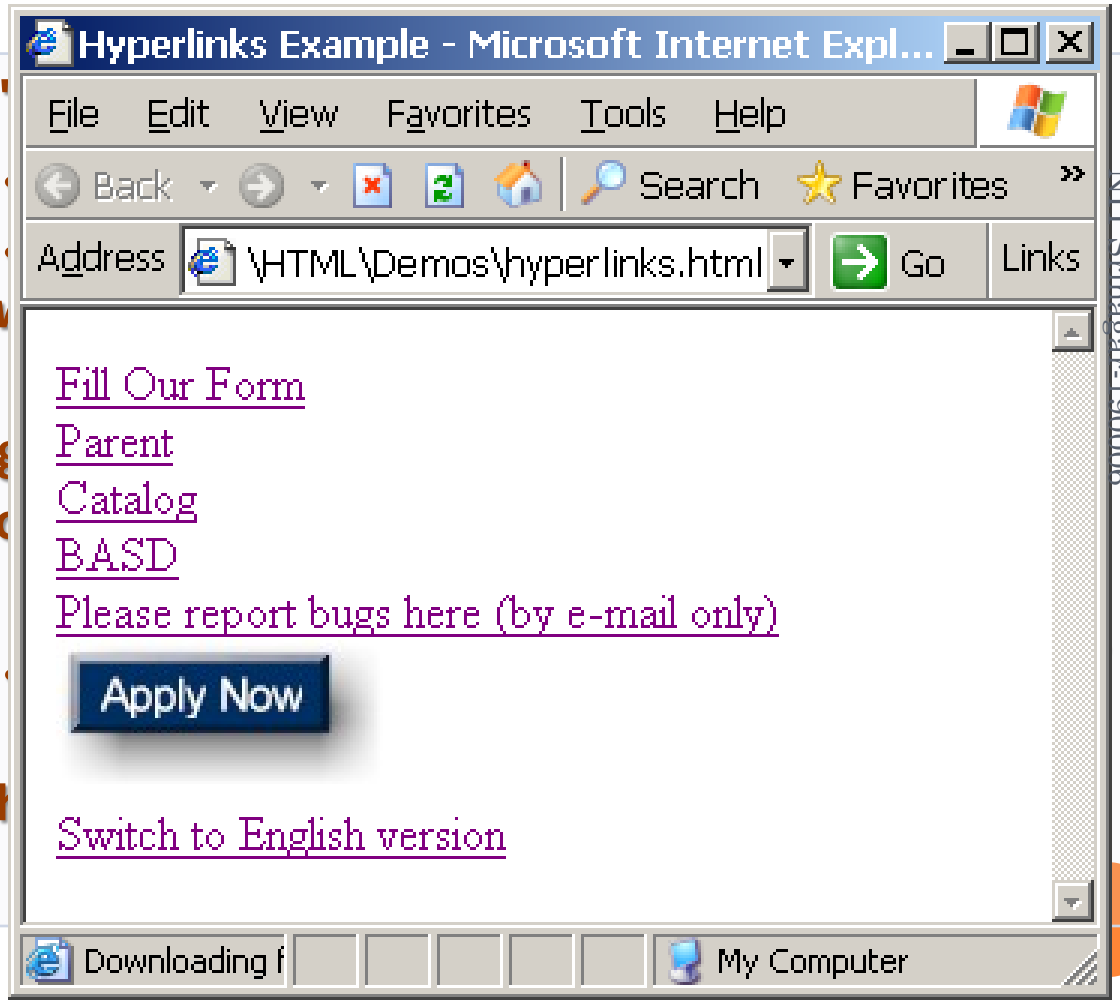
hyperlinks.html

Hyperlinks – Example (2)

```
<a href="form.html"
<a href="../parent.
<a href="stuff/cat.
<a href="http://www
<br />
<a href="mailto:bug
Report">Please repo
<br />
<a href="apply-now.
/></a> <br />
<a href="../english
version</a> <br />
```



Links to the Same Document – Example

links-to-same-document.html

```
<h1>Table of Contents</h1>

<p><a href="#section1">Introduction</a><br />
<a href="#section2">Some background</A><br />
<a href="#section2.1">Project History</a><br />
...the rest of the table of contents...

<!-- The document text follows here -->

<h2 id="section1">Introduction</h2>
... Section 1 follows here ...
<h2 id="section2">Some background</h2>
... Section 2 follows here ...
<h3 id="section2.1">Project History</h3>
... Section 2.1 follows here ...
```

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Links to the Same Document – Example (2)

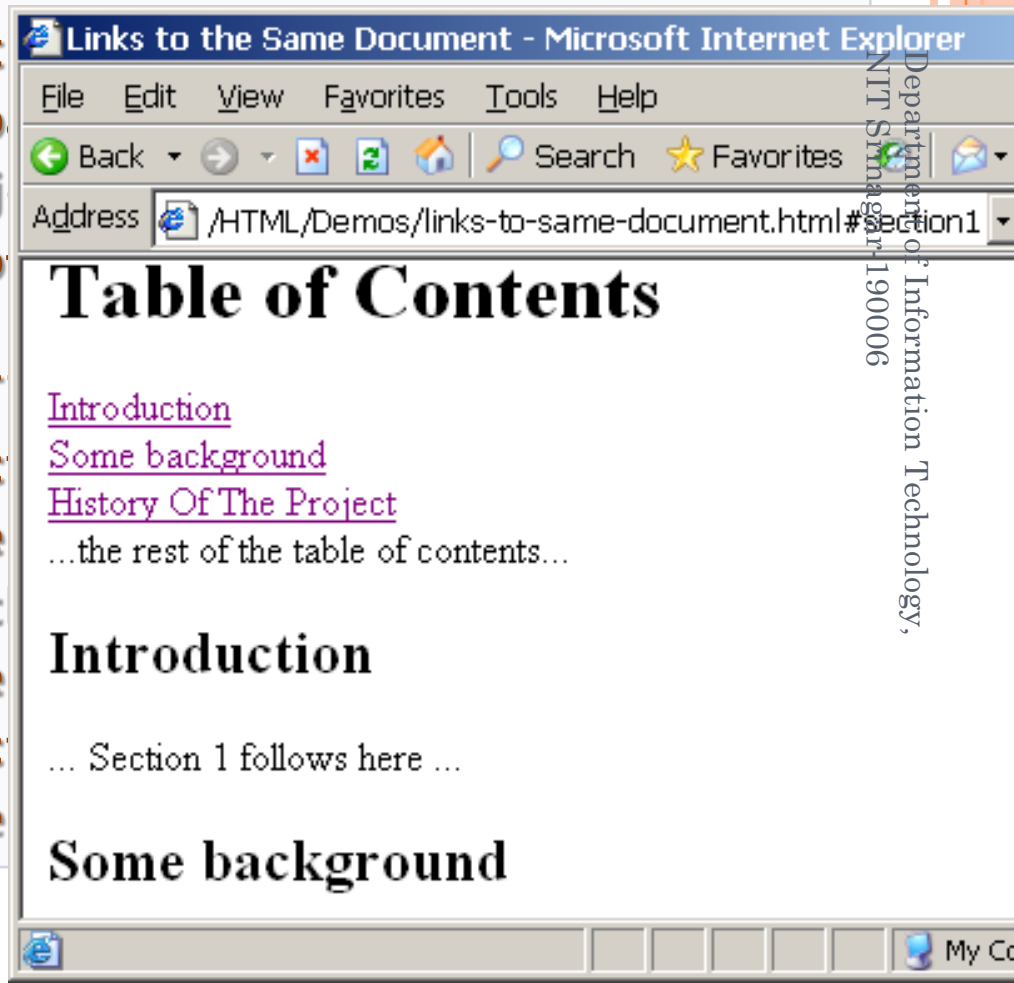
links-to-same-docum

```
<h1>Table of Contents</h1>

<p><a href="#section1">Int
<a href="#section2">Some b
<a href="#section2.1">Proj
...the rest of the table o

<!-- The document text fol

<h2 id="section1">Introduc
... Section 1 follows here
<h2 id="section2">Some bac
... Section 2 follows here
<h3 id="section2.1">Projec
... Section 2.1 follows he
```



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Images: <img> tag

- **Inserting an image with <img> tag:**

```
<img src="/img/basd-logo.png">
```

- **Image attributes:**

src	Location of image file (relative or absolute)
alt	Substitute text for display (e.g. in text mode)
height	Number of pixels of the height
width	Number of pixels of the width
border	Size of border, 0 for no border

- **Example:**

```
<img src="./php.png" alt="PHP Logo" />
```

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Miscellaneous Tags

- `<hr />`: Draws a horizontal rule (line):

```
<hr size="5" width="70%" />
```

- `<center></center>`: Deprecated!

```
<center>Hello World!</center>
```

- `<font></font>`: Deprecated!

```
<font size="3" color="blue">Font3</font>
<font size="+4" color="blue">Font+4</font>
```

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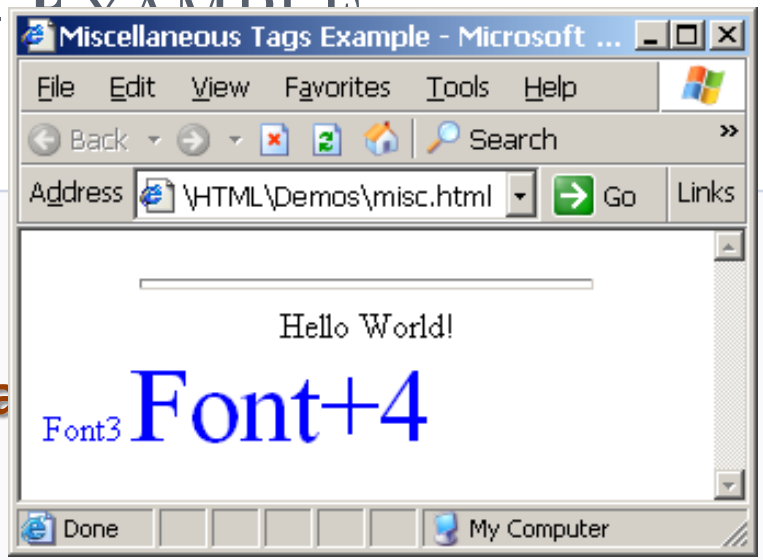
Miscellaneous Tags – Example

misc.html

```
<html>
  <head>
    <title>Miscellaneous Ta
  </head>
  <body>
    <hr size="5" width="70%" />
    <center>Hello World!</center>
    <font size="3" color="blue">Font3</font>
    <font size="+4" color="blue">Font+4</font>
  </body>
</html>
```



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Ordered Lists: <ol> Tag

- Create an Ordered List using `<ol></ol>`:

```
<ol type="1">
  <li>Apple</li>
  <li>Orange</li>
  <li>Grapefruit</li></ol>
```

- Attribute values for `type` are `1`, `A`, `a`, `I`, or `i`

1. Apple
2. Orange
3. Grapefruit

A. Apple
B. Orange
C. Grapefruit

a. Apple
b. Orange
c. Grapefruit

i. Apple
ii. Orange
iii. Grapefruit

I. Apple
II. Orange
III. Grapefruit

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Unordered Lists: <ul> Tag

- Create an **U**nordered **L**ist using `<ul></ul>`:

```
<ul type="disk">
  <li>Apple</li>
  <li>Orange</li>
  <li>Grapefruit</li>
</ul>
```

- Attribute values for `type` are:
  - `disc`, `circle` or `square`

- Apple
- Orange
- Pear

o Apple
o Orange
o Pear

▪ Apple
▪ Orange
▪ Pear

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Definition lists: <dl> tag

- Create definition lists using <dl>
  - Pairs of text and associated definition; text is in <dt> tag, definition in <dd> tag

```
<dl>
    <dt>HTML</dt>
    <dd>A markup language …</dd>
    <dt>CSS</dt>
    <dd>Language used to …</dd>
</dl>
```

  - Renders without bullets
  - Definition is indented

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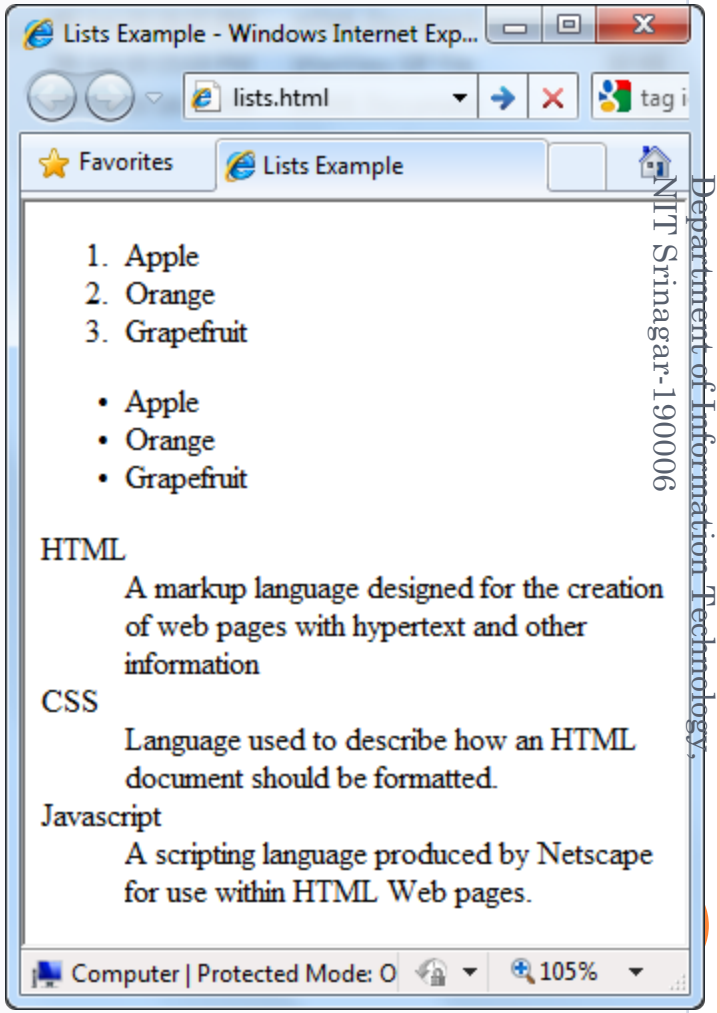
Lists – Example

lists.html

```
<ol type="1">
    <li>Apple</li>
    <li>Orange</li>
    <li>Grapefruit</li>
</ol>

<ul type="disc">
    <li>Apple</li>
    <li>Orange</li>
    <li>Grapefruit</li>
</ul>

<dl>
    <dt>HTML</dt>
    <dd>A markup lang…</dd>
</dl>
```



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HTML Special Characters

Symbol Name	HTML Entity	Symbol
Copyright Sign	©	©
Registered Trademark Sign	®	®
Trademark Sign	™	™
Less Than	<	<
Greater Than	>	>
Ampersand	&	&
Non-breaking Space		
Em Dash	—	—
Quotation Mark	"	"
Euro	€	€
British Pound	£	£
Japanese Yen	¥	¥

Special Characters – Example

special-chars.html

```
<p>[&gt;&gt;  Welcome
      &lt;&lt;]</p>
  <p>&#9658;I have following cards:
    A&#9827;, K&#9830; and 9&#9829;.</p>
  <p>&#9658;I prefer hard rock &#9835;
    music &#9835;</p>
  <p>&copy; 2006 by Svetlin Nakov &amp; his
team</p>
  <p>Telerik Academy™</p>
```

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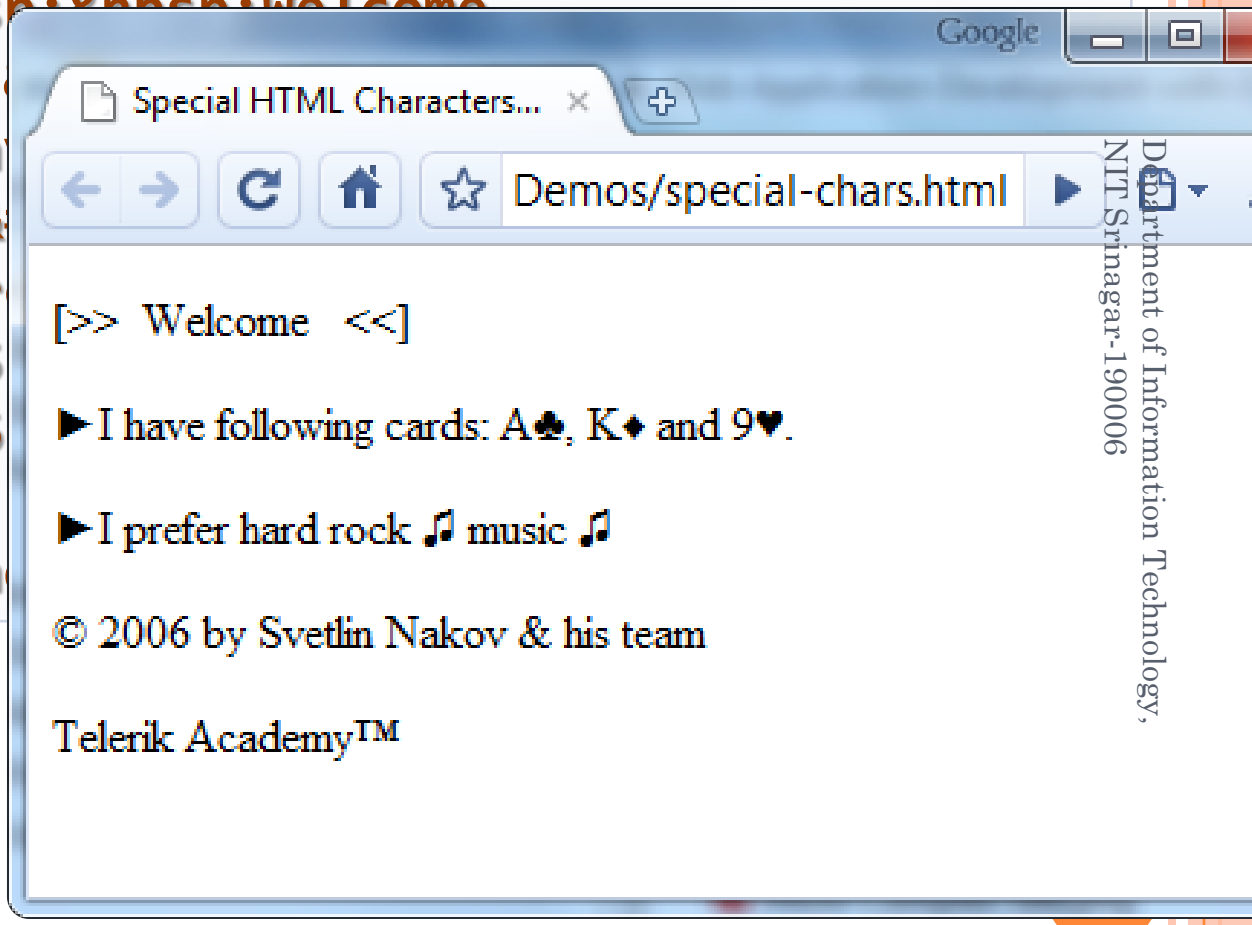
Special Chars – Example (2)

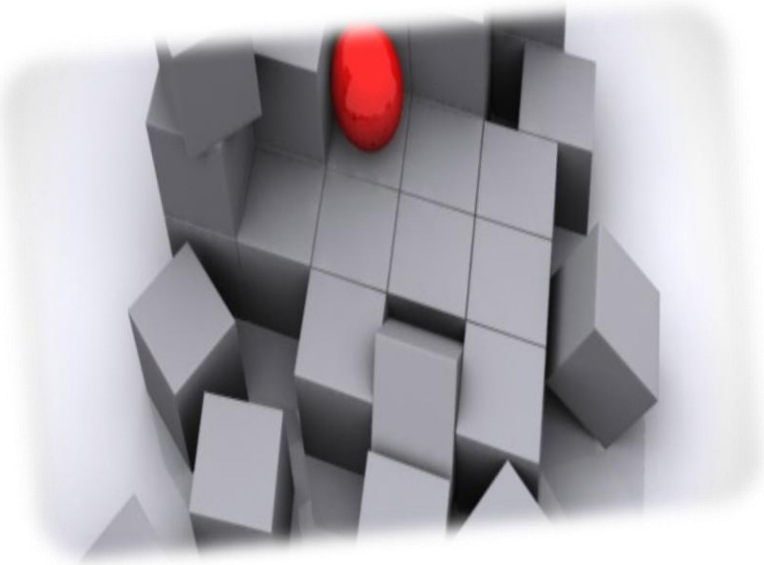
special-chars.html

```
<p>[&gt;&gt;  Welcome
      &
  <p>&#9658;I ha
    A&#9827;, K&
  <p>&#9658;I pr
    music &#9835
  <p>&copy; 2006
team</p>
  <p>Telerik Aca
```



```
4  <head>
5  <meta http-equiv="Content-Type"
6  <title>Home</title>
7  <link rel="stylesheet" href="sty
8  <style type="text/css">
9  .stylel {
10     color: #FF0000;
11 }
12 </style>
13 </head>
```

```
<span class="stylel">You will have to p
separate license to use the OpenCube me
```



Using and Block and Inline Elements

Block and Inline Elements

- Block elements add a line break before and after them
  - `<div>` is a block element
  - Other block elements are `<table>`, `<hr>`, headings, lists, `<p>` and etc.
- Inline elements don't break the text before and after them
  - `<span>` is an inline element
  - Most HTML elements are inline, e.g. `<a>`

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The Tag

- creates logical divisions within a page
- Block style element
- Used with CSS
- Example:

div-and-span.html

```
<div style="font-size:24px; color:red">DIV example</div>

<p>This one is <span style="color:red; font-weight:bold">only a test</span>.</p>
```

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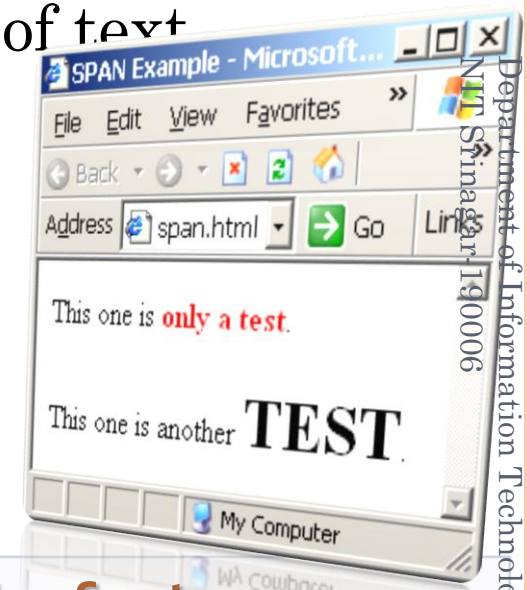
The Tag

- Inline style element
- Useful for modifying a specific portion of text
  - Don't create a separate area (paragraph) in the document
- Very useful with CSS



span.html

```
<p>This one is <span style="color:red; font-weight:bold">only a test</span>.</p>

<p>This one is another <span style="font-size:32px; font-weight:bold">TEST</span>.</p>
```

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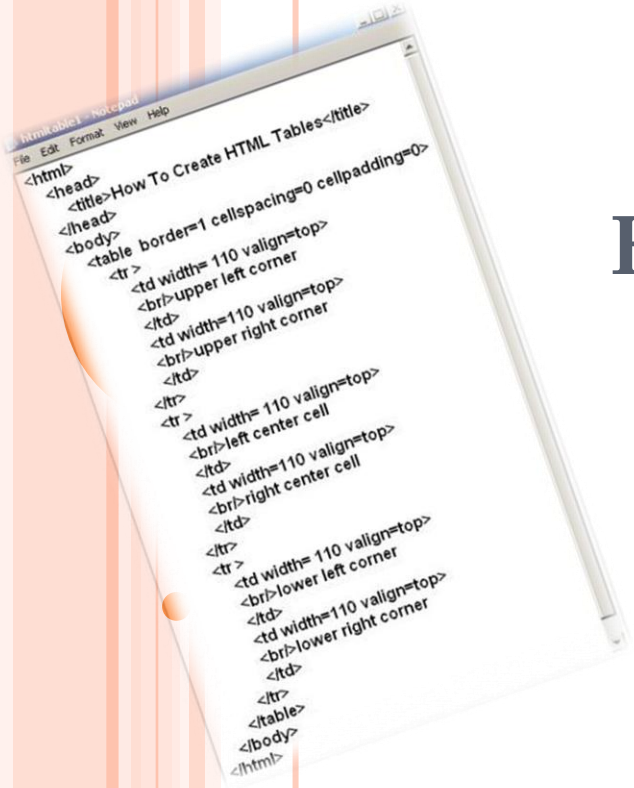
US time	European date (D/M/Y) & time	Y-M-D date & time	Dollar	Chinese money	IP addresses	Names	Numbers
	29/10/1965	83-03-24		YMB 4	98.176.35.80		26.32 E +03
Fri Mar 22 21:48:49 UTC+0200 1957		1967-08-22 06:07:16 PM		YMB -81.38	162.117.253.34	dyse chidi	
Thu, 14 Feb 2002 04:24:20 UTC	06/07/99 06:46:01 AM	81-02-04 09:09:54 AM		YMB -108.83	122.205.50.6	bochai dychai	-191.45E-05
Monday, May 30, 1994 4:47:31 PM	06/09/05 05:11:16 AM			YMB 33.16		dydy balie	-131.20E+01
09/28/2000	24/11/1957		$-38.77	YMB 112.42	15.192.151.209		
		97-08-13 00:01:33 AM	$14.5	YMB -1.75	99.93.147.150	dychai tonchai	-187.28E-05
Mon, 29 Oct 1979 00:44:03 UTC		87-10-16	$14.66	YMB 61.14		chite malie	- 125.19 E -03
Sat, 9 Jan 1982 05:45:06 UTC	04/06/68	74-10-20	$20.47		121.169.225.22	dyma bama	138.11E+02
04/05/75		2000-03-20	$68.84	YMB 88.19	239.133.227.68	made liete	195.44 E +03
Monday, July 15, 2002 1:05:02 AM	01/02/1961 09:40:16 AM		$97.9	YMB 44.28	223.66.228.116	mava sete	-107
this is footer	row	number	ONE!	adsf	adsf	adsf	adsf



HTML Tables

Title	Title	Title	Title	Title	Title
Data	Data	Data	Data	Data	Data
Data	Data	Data	Data	Data	Data
Data	Data	Data	Data	Data	Data
Data	Data	Data	Data	Data	Data
Data	Data	Data	Data	Data	Data

HTML Tables

- Tables represent tabular data
  - A table consists of one or several rows
  - Each row has one or more columns
- Tables comprised of several core tags: `<table></table>`: begin / end the table

  `<tr></tr>`: create a table row

  `<td></td>`: create tabular data (cell)
- Tables should not be used for layout. Use CSS floats and positioning styles instead

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HTML Tables (2)

- Start and end of a table

```
<table> ... </table>
```

- Start and end of a row

```
<tr> ... </tr>
```

- Start and end of a cell in a row

```
<td> ... </td>
```

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Simple HTML Tables – Example

```
<table cellspacing="0" cellpadding="5">
  <tr>
    <td><img src="ppt.gif"></td>
    <td><a href="lecture1.ppt">Lecture 1</a></td>
  </tr>
  <tr>
    <td><img src="ppt.gif"></td>
    <td><a href="lecture2.ppt">Lecture 2</a></td>
  </tr>
  <tr>
    <td><img src="zip.gif"></td>
    <td><a href="lecture2-demos.zip">
      Lecture 2 - Demos</a></td>
  </tr>
</table>
```

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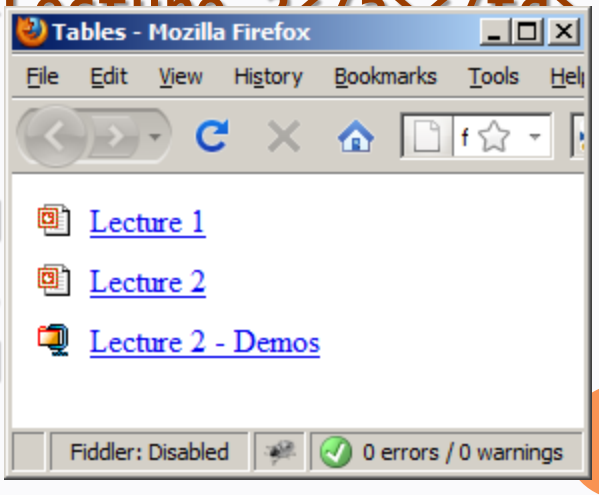
Simple HTML Tables – Example (2)

```
<table cellspacing="0" cellpadding="5">
  <tr>
    <td><img src="ppt.gif"></td>
    <td><a href="lecture1.ppt">Lecture 1</a></td>
  </tr>
  <tr>
    <td><img src="ppt.gif"></td>
    <td><a href="lecture2.ppt">Lecture 2</a></td>
  </tr>
  <tr>
    <td><img src="zip.gif"></td
    <td><a href="lecture2-demos
      Lecture 2 - Demos</a></td
  </tr>
</table>
```



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Complete HTML Tables

- Table rows split into three semantic sections: header, body and footer
  - `<thead>` denotes table header and contains `<th>` elements, instead of `<td>` elements
  - `<tbody>` denotes collection of table rows that contain the very data
  - `<tfoot>` denotes table footer but comes BEFORE the `<tbody>` tag
  - `<colgroup>` and `<col>` define columns (most often used to set column widths)

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Complete HTML Table: Example

```
<table>
<colgroup>
  <col style="width:100px" /><col />
</colgroup>
<thead>
  <tr><th>Column 1</th><th>Column 2</th></tr>
</thead>
<tfoot>
  <tr><td>Footer 1</td><td>Footer 2</td></tr>
</tfoot>
<tbody>
  <tr><td>Cell 1.1</td><td>Cell 1.2</td></tr>
  <tr><td>Cell 2.1</td><td>Cell 2.2</td></tr>
</tbody>
</table>
```

columns

header

th

footer

Last comes the body (data)

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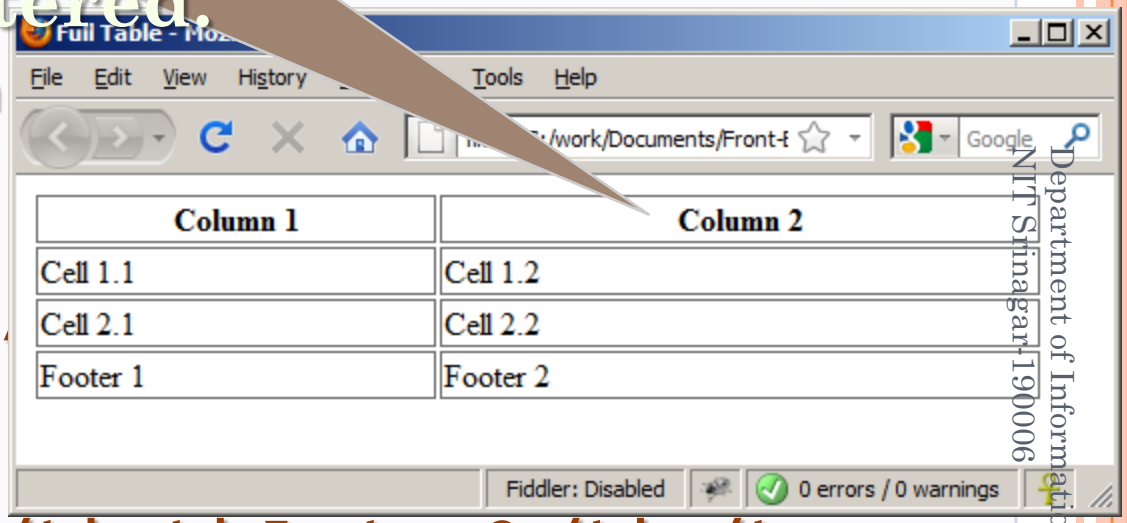
Complete HTML Table: Exami

By default, header text is bold and centered.

table-full.html

```
<table>
<colgroup>
  <col style="width
</colgroup>
<thead>
  <tr><th>Column 1<
</thead>
<tfoot>
  <tr><td>Footer 1</td><td>Footer 2</td></tr>
</tfoot>
<tbody>
  <tr><td>Ce                                  d></tr>
  <tr><td>Ce                                  d></tr>
</tbody>
</table>
```



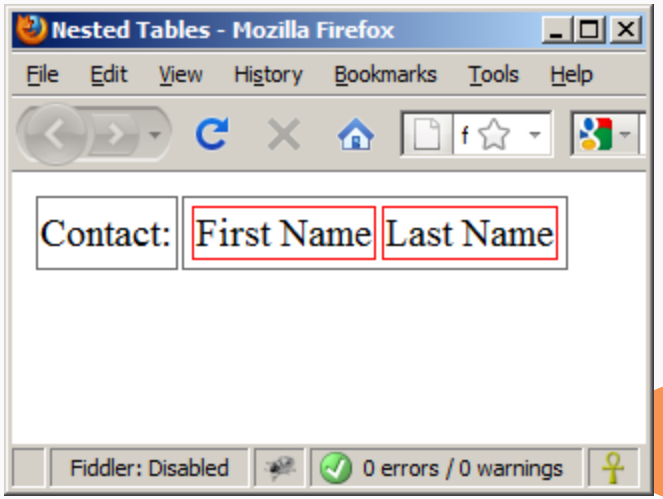
Although the footer is before the data in the code, it is displayed last

Nested Tables

- Table data "cells" (<td>) can contain nested tables (tables within tables):

nested-tables.html

```
<table>
  <tr>
    <td>Contact:</td>
    <td>
      <table>
        <tr>
          <td>First Name</td>
          <td>Last Name</td>
        </tr>
      </table>
    </td>
  </tr>
</table>
```



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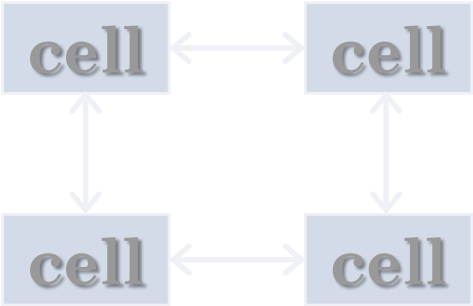
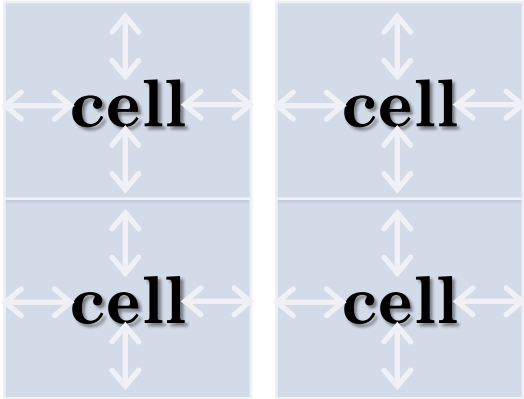
Cell Spacing and Padding

- Tables have two important attributes:
  - **cellspacing**
  - **cellpadding**





  - **Defines the empty space between cells**
  - **Defines the empty space around the cell content**

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Cell Spacing and Padding – Example

table-cells.html

```
<html>
  <head><title>Table Cells</title></head>
  <body>
    <table cellspacing="15" cellpadding="0">
      <tr><td>First</td>
      <td>Second</td></tr>
    </table>
    <br/>
    <table cellspacing="0" cellpadding="10">
      <tr><td>First</td><td>Second</td></tr>
    </table>
  </body>
</html>
```

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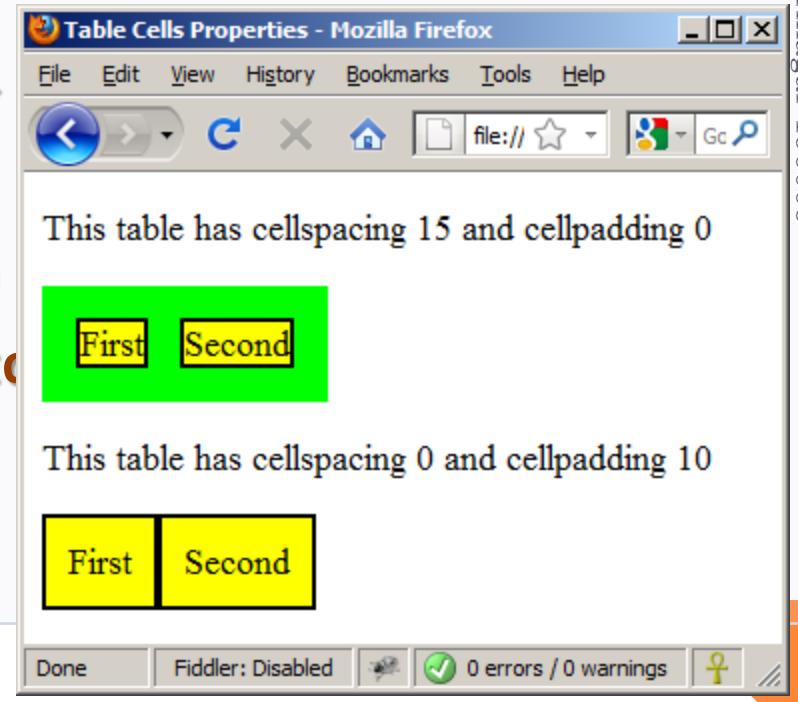
Cell Spacing and Padding – Example (2)

table-cells.html

```
<html>
  <head><title>Table Cells</title></head>
  <body>
    <table cellspacing="15" cellpadding="0">
      <tr><td>First</td>
      <td>Second</td></tr>
    </table>
    <br/>
    <table cellspacing="0"
      <tr><td>First</td><td
    </table>
  </body>
</html>
```



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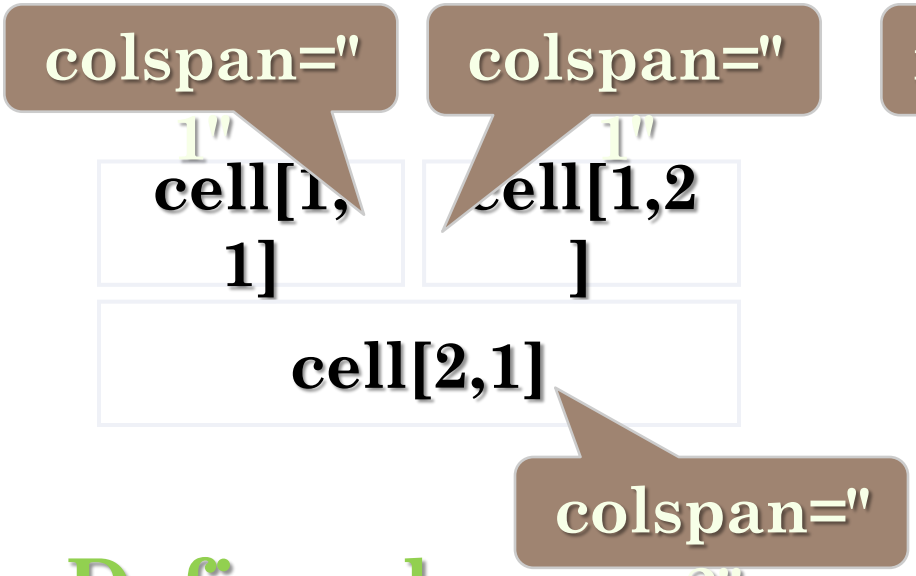
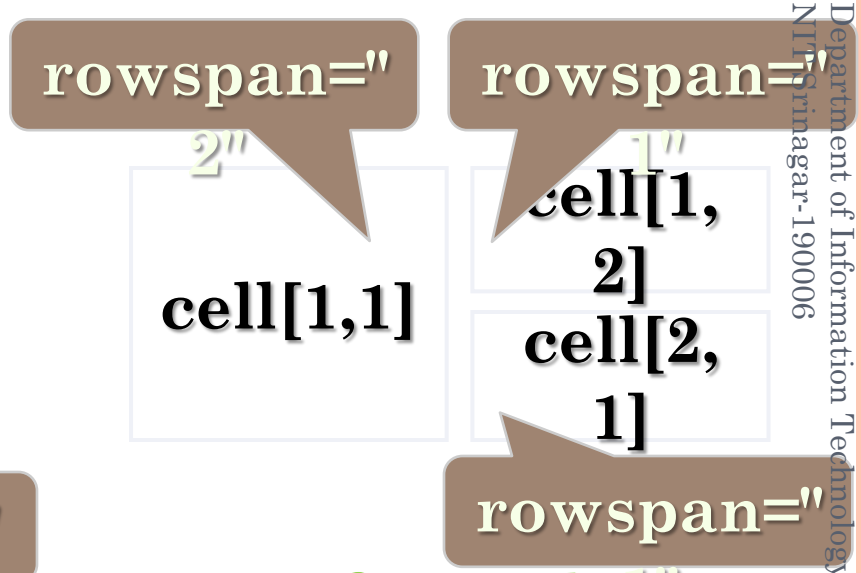
Column and Row Span

- Table cells have two important attributes:
  - **colspan**
  - **rowspan**





- **Defines how many columns the cell occupies**
- **Defines how many rows the cell occupies**

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Column and Row Span – Example

table-colspan-rowspan.html

```
<table cellspacing="0">
    <tr class="1"><td>Cell[1,1]</td>
        <td colspan="2">Cell[2,1]</td></tr>
    <tr class="2"><td>Cell[1,2]</td>
        <td rowspan="2">Cell[2,2]</td>
        <td>Cell[3,2]</td></tr>
    <tr class="3"><td>Cell[1,3]</td>
        <td>Cell[2,3]</td></tr>
</table>
```

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Column and Row Span – Example (2)

table-colspan-rowspan.html

```
<table cellspacing="0">
    <tr class="1"><td>Cell[1,1]</td>
        <td colspan="2">Cell[2,1]</td></tr>
    <tr class="2"><td>Cell[1,2]</td>
        <td rowspan="2">Cell[2,2]</td>
        <td>Cell[3,2]</td></tr>
    <tr class=
        <td>C
</table>
```

Cell[1,1]	Cell[2,1]	
Cell[1,2]	Cell[2,2]	Cell[3,2]
Cell[1,3]		Cell[2,3]

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HTML Forms

Entering User Data from a Web Page

HTML Forms

- Forms are the primary method for gathering data from site visitors
- Create a form block with

```
<form></form>
```

- Example:

```
<form name="myForm" method="post"
action="path/to/some-script.php">
    ...
</form>
```

The "method" attribute tells how the form data should be sent – via GET or POST request

The "action" attribute tells where the form data should be sent

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Form Fields

- Single-line text input fields:

```
<input type="text" name="FirstName" value="This is a text field" />
```

- Multi-line textarea fields:

```
<textarea name="Comments">This is a multi-line text field</textarea>
```

- Hidden fields contain data not shown to the user:

```
<input type="hidden" name="Account" value="This is a hidden text field" />
```

  - Often used by JavaScript code

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Fieldsets

- Fieldsets are used to enclose a group of related form fields:

```
<form method="post" action="form.aspx">
   <fieldset>
      <legend>Client Details</legend>
      <input type="text" id="Name" />
      <input type="text" id="Phone" />
   </fieldset>
   <fieldset>
      <legend>Order Details</legend>
      <input type="text" id="Quantity" />
      <textarea cols="40" rows="10"
         id="Remarks"></textarea>
   </fieldset>
</form>
```

- The <legend> is the fieldset's title.

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Form Input Controls

- Checkboxes:

```
<input type="checkbox" name="fruit"
value="apple" />
```

- Radio buttons:

```
<input type="radio" name="title" value="Mr." />
```

- Radio buttons can be grouped, allowing only one to be selected from a group:

```
<input type="radio" name="city" value="Lom" />
<input type="radio" name="city" value="Ruse" />
```

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Other Form Controls

- Dropdown menus:

```
<select name="gender">
  <option value="Value 1"
    selected="selected">Male</option>
  <option value="Value 2">Female</option>
  <option value="Value 3">Other</option>
</select>
```

- Submit button:

```
<input type="submit" name="submitBtn"
value="Apply Now" />
```

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Other Form Controls (2)

- Reset button – brings the form to its initial state

```
<input type="reset" name="resetBtn"
value="Reset the form" />
```

- Image button – acts like submit but image is displayed and click coordinates are sent

```
<input type="image" src="submit.gif"
name="submitBtn" alt="Submit" />
```

- Ordinary button – used for Javascript, no default action

```
<input type="button" value="click me" />
```

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Other Form Controls (3)

- Password input – a text field which masks the entered text with * signs

```
<input type="password" name="pass" />
```

- Multiple select field – displays the list of items in multiple lines, instead of one

```
<select name="products" multiple="multiple">
  <option value="Value 1"
    selected="selected">keyboard</option>
  <option value="Value 2">mouse</option>
  <option value="Value 3">speakers</option>
</select>
```

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Other Form Controls (4)

- File input – a field used for uploading files

```
<input type="file" name="photo" />
```

  - When used, it requires the form element to have a specific attribute:

```
<form enctype="multipart/form-data">
...
  <input type="file" name="photo" />
...
</form>
```

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Labels

- Form labels are used to associate an explanatory text to a form field using the field's ID.

```
<label for="fn">First Name</label>
<input type="text" id="fn" />
```

- Clicking on a label focuses its associated field (checkboxes are toggled, radio buttons are checked)
- Labels are both a usability and accessibility feature and are required in order to pass accessibility validation.

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HTML Forms – Example

form.html

```
<form method="post" action="apply-now.php">
  <input name="subject" type="hidden" value="Class" />
  <fieldset><legend>Academic information</legend>
    <label for="degree">Degree</label>
    <select name="degree" id="degree">
      <option value="Btech">Bachelor of Technology</option>
      <option value="BS">Bachelor of Science</option>
      <option value="MBA" selected="selected">Master of
        Business Administration</option>
    </select>
    <br />
    <label for="studentid">Student ID</label>
    <input type="password" name="studentid" />
  </fieldset>
  <fieldset><legend>Personal Details</legend>
    <label for="fname">First Name</label>
    <input type="text" name="fname" id="fname" />
    <br />
    <label for="lname">Last Name</label>
    <input type="text" name="lname" id="lname" />
```

HTML Forms – Example (2)

form.html (continued)

```
    <br />
      Gender:
      <input name="gender" type="radio" id="gm" value="m" />
      <label for="gm">Male</label>
      <input name="gender" type="radio" id="gf" value="f" />
      <label for="gf">Female</label>
    <br />
     <label for="email">Email</label>
     <input type="text" name="email" id="email" />
  </fieldset>
    <p>
     <textarea name="terms" cols="30" rows="4"
       readonly="readonly">TERMS AND CONDITIONS...</textarea>
   </p>
   <p>
     <input type="submit" name="submit" value="Send Form" />
     <input type="reset" value="Clear Form" />
   </p>
</form>
```

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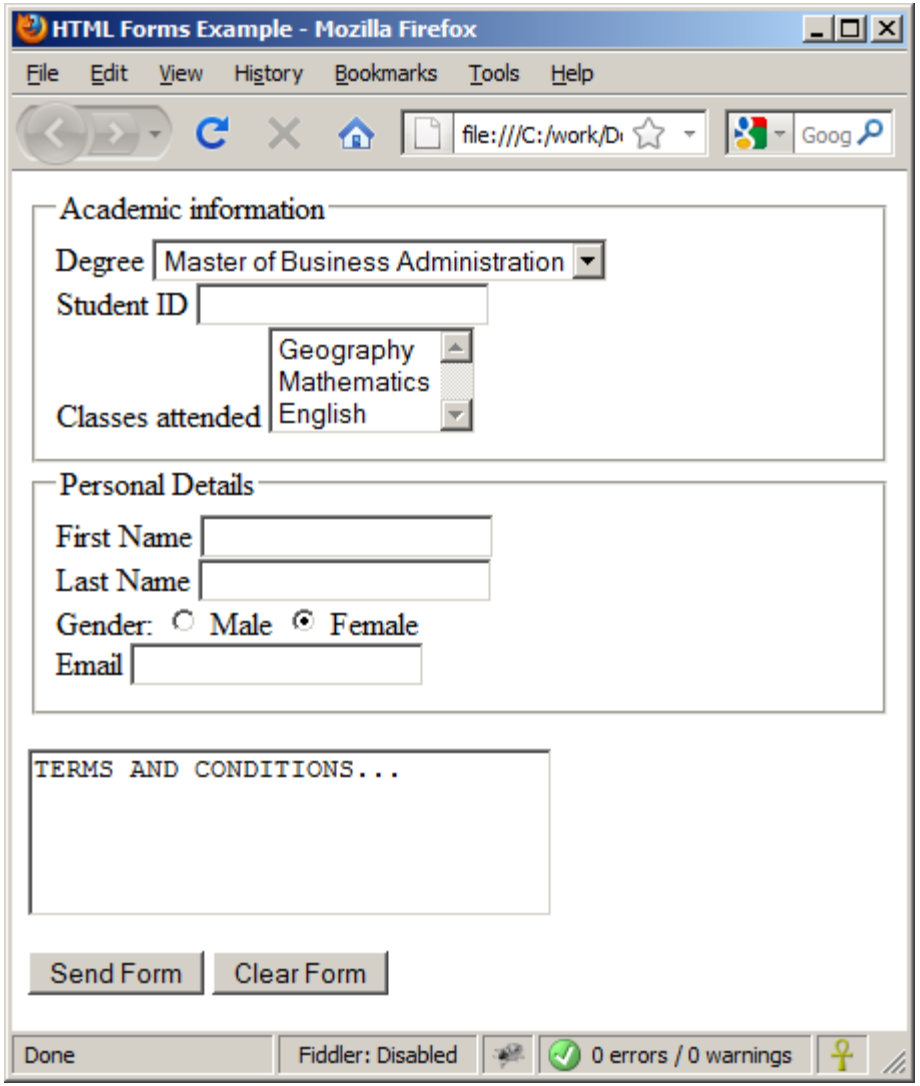
HTML Forms – Example (3) form.html (continued)



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TabIndex

- The tabindex HTML attribute controls the order in which form fields and hyperlinks are focused when repeatedly pressing the TAB key
  - tabindex="0" (zero) - "natural" order
  - If X > Y, then elements with tabindex="X" are iterated before elements with tabindex="Y"
  - Elements with negative tabindex are skipped, however, this is not defined in the standard

```
<input type="text" tabindex="10" />
```

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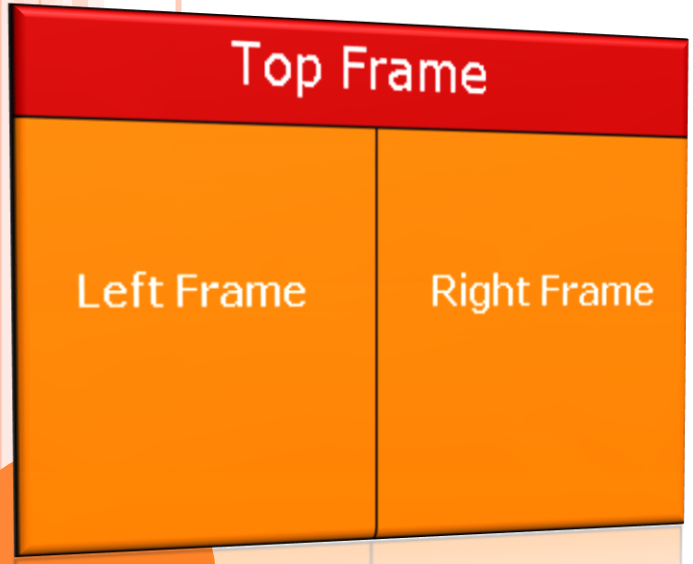

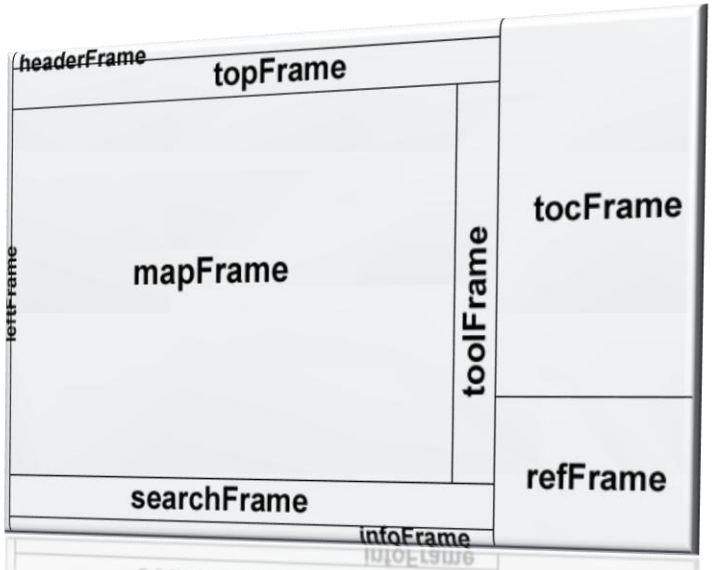

HTML Frames

`<frameset>`, `<frame>` and `<iframe>`

HTML Frames

- Frames provide a way to show multiple HTML documents in a single Web page
- The page can be split into separate views (frames) horizontally and vertically
- Frames were popular in the early ages of HTML development, but now their usage is rejected
- Frames are not supported by all user agents (browsers, search engines, etc.)
  - A <noframes> element is used to provide content for non-compatible agents.

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HTML Frames – Demo

frames.html

```
<html>

  <head><title>Frames Example</title></head>

  <frameset cols="180px,*,150px">
    <frame src="left.html" />
    <frame src="middle.html" />
    <frame src="right.html" />
  </frameset>

</html>
```

- **Note the target attribute applied to the <a> elements in the left frame.**

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Inline Frames: <iframe>

- Inline frames provide a way to show one website inside another website:

iframe-demo.html

```
<iframe name="iframeGoogle" width="600" height="400"
src="http://www.google.com" frameborder="yes"
scrolling="yes"></iframe>
```

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Assignment

- Create a colourful and informative Website.
- Mail me all necessary files related to the working Website.

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THANK YOU