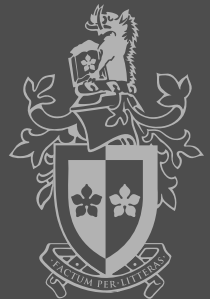


Lecture 2

HTML2 - Basic Elements



Topics



HTML basic body elements (page content)

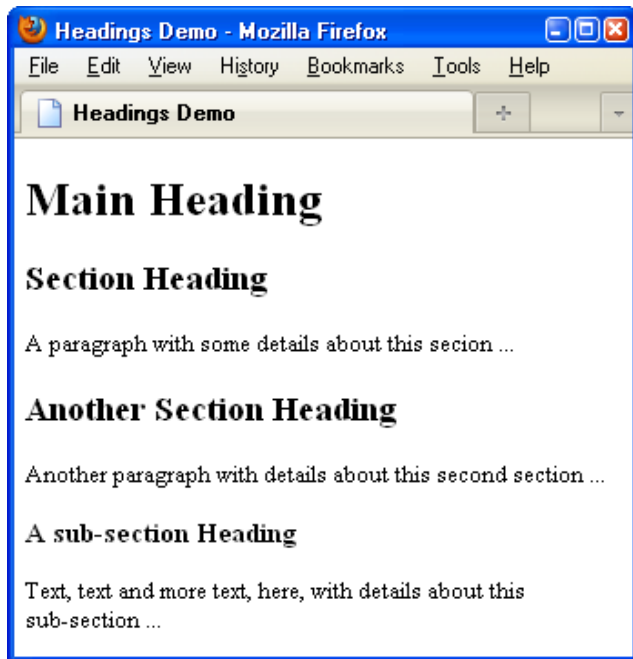


- ☐ Headings and Paragraphs
- ☐ Phrase tags and Special Characters
- ☐ Lists
- ☐ Tables
- ☐ Images and Anchors

Headings



■ Example:



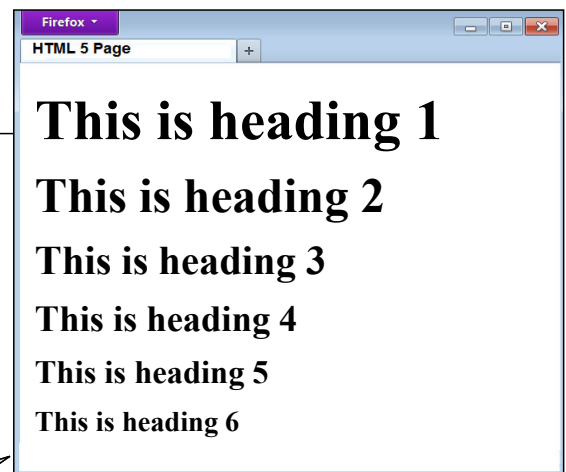
Headings are logical markup, used to convey the order of importance of content.

```
...
<h1>Main Heading</h1>
<h2>Section Heading</h2>
  <p>A paragraph with some details
    about this section ...</p>
<h2>Another Section Heading</h2>
  <p>Another paragraph with details
    about this second section ...</p>
  <h3>A sub-section Heading</h3>
    <p>Text, text and more text, here,
      with details about this sub-section
      ...</p>
...
```

Headings

```
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
```

Default Firefox rendering



- There are **six (6) levels of importance** from the **most** important **<h1>** to the **least** important **<h6>**.
 - *Do not skip heading levels. If the next heading is one level below the last heading, only use the next heading level.*
- Browsers display all headings larger and/or bolder than normal text,
 - *Do not use headings simply as a way to increase font size and make the text bold (use CSS instead)*

Paragraph Element



- `<p>...</p>` is a logical block level element used to mark **paragraphs**.
 - *Note: `<p>` cannot contain other block-level elements*
 - Browsers will generally place white space before and after a paragraph – it is a block level element.
- `
` an empty / void inline element used to insert a single line break.
 - *Do not use line breaks to separate paragraphs.*

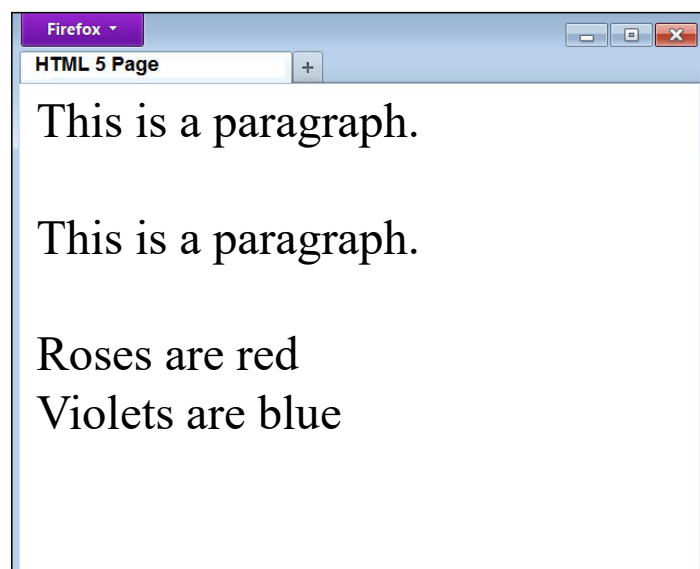
Paragraph (continued)



`<p>This is a paragraph.</p>`

`<p>This is a paragraph.</p>`

`<p>Roses are red
Violets are blue</p>`



Horizontal Rule



- **<hr>** an empty / void block level element used to define a thematic break in an HTML page, or a shift of topic. It is used to separate content in an HTML page.

```
<h1>HTML</h1>
```

```
<p>HTML is a markup language for  
describing the contents and  
structure of web pages.</p>
```

```
<hr>
```

```
<h1>CSS</h1>
```

```
<p>CSS defines the style or how  
to present the contents and  
structure of web pages.</p>
```



Topics



HTML Body elements (page content)

☐ Headings and Paragraph



☐ Phrase tags and Special Characters

☐ Lists

☐ Table

☐ Image and Anchor

Phrase Elements



- ** <dfn> <code> <samp> <kbd> <var>**
are logical *inline* phrase elements that define the meaning of the enclosed text

<code></code>	Defines emphasized text – <i>renders as italics</i>
<code></code>	Defines important text – <i>renders as bold</i>
<code><dfn></code>	Defines a definition term
<code><code></code>	Defines a piece of computer code
<code><samp></code>	Defines sample output from a computer program
<code><kbd></code>	Defines keyboard code
<code><var></code>	Defines a variable

- *Do not use just for presentation purpose*
- *<i> and should be avoided. Use and . There will be deductions if used in Assignments.*

Phrase Elements (continued)

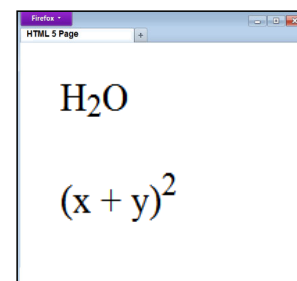


Superscript and Subscript

- **_{...}** defines subscript text.

□ It appears as a half character below the baseline e.g. H₂O

`<p>H₂O</p>`



- **^{...}** defines superscript text

□ It appears as a half character above the baseline, e.g. (x + y)² or a footnote / citation reference.

`<p>(x + y)²</p>`

Special Characters



- To encode reserved characters in HTML into the contents, special characters **&...;** are used
- A more descriptive term is entity encoding
- Some of the common codes are listed below:

Character	Decimal Entity Number	Named Entity	Description
"	"	"	quotation mark
'	'	'	apostrophe
&	&	&	ampersand
<	<	<	less-than
>	>	>	greater-than

HTML: Special Characters (continued)



Character	Decimal Entity Number	Named Entity	Description
	 	 	non-breaking space
©	©	©	copyright
	­	­	soft hyphen
®	®	®	registered trademark
—	¯	¯	spacing macron
°	°	°	degree
±	±	±	plus-or-minus
×	×	×	multiplication
÷	÷	÷	division



HTML Body elements (page content)

- ☐ Headings and Paragraph
- ☐ Phrase tags and Special Characters
- ☐ Lists
- ☐ Table
- ☐ Image and Anchor



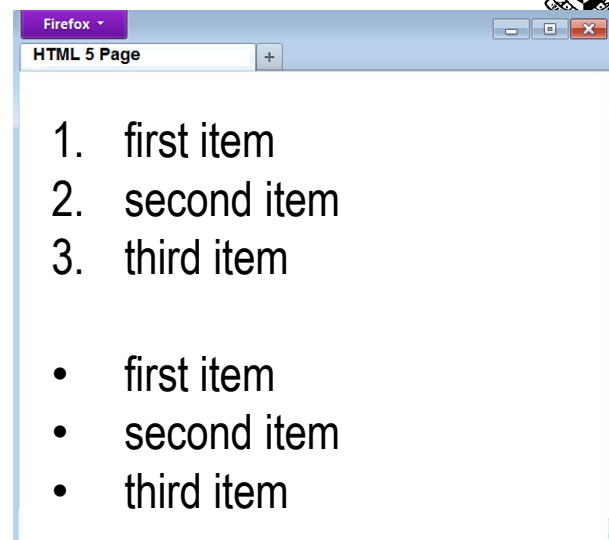
Lists

■ Ordered list example

```
<ol>
  <li>first item</li>
  <li>second item </li>
  <li></li>
</ol>
<ol>
  <li>first item</li>
  <li>second item</li>
  <li>third item</li>
</ol>
```

■ Unordered list example

```
<ul>
  <li>first item</li>
  <li>second item</li>
  <li>third item</li>
</ul>
```





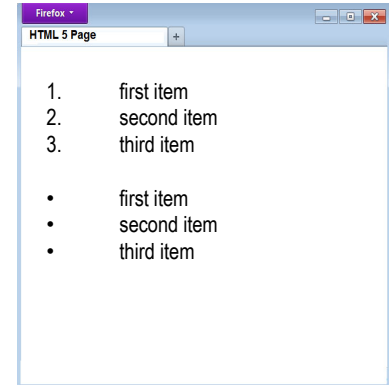
List elements

- `...` is used to mark each list item.
`` is the only element that is allow directly in an ordered `` or unordered `` list.

```
<ul>
  <li>item 1
    <p>Paragraph</p>
  </li>
  <li>item 2</li>
</ul>
```



```
<ul>
  <li>item 1</li>
  <p>Paragraph</p>
  <li>item 2</li>
</ul>
```

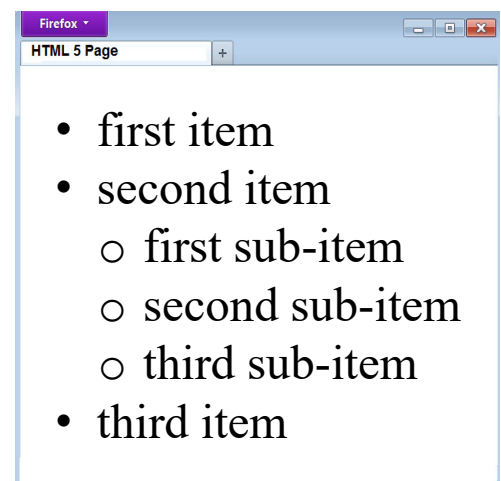


Nested Lists

- **Nested list example:**

```
<ul>
  <li>first item</li>
  <li>second item
    <ul>
      <li>first sub-item</li>
      <li>second sub-item</li>
      <li>third sub-item</li>
    </ul>
  </li>
  <li>third item</li>
</ul>
```

Nested list must be inside a list item



Definition List



<dl>

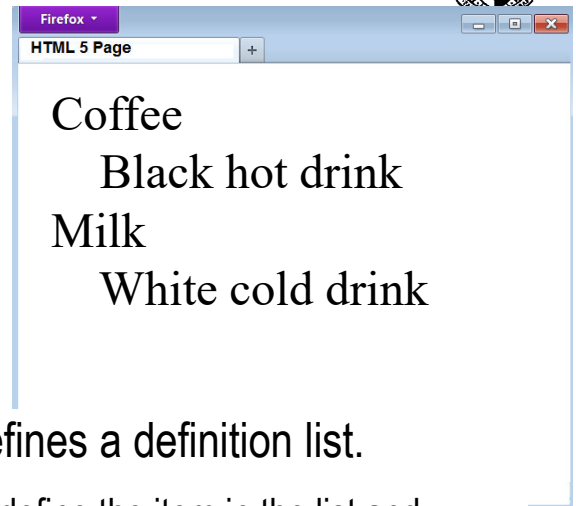
<dt>Coffee</dt>

<dd>Black hot drink</dd>

<dt>Milk</dt>

<dd>White cold drink</dd>

</dl>



Vey useful element for coding dialog, or name / value pairs. Use CSS to style on one line.

- **<dl>...</dl>** element defines a definition list.
 - ☐ **<dt>...</dt>** is used to define the item in the list and;
 - ☐ **<dd>...</dd>** is used to describe the item in the list
- The browser will render the item and the definition on separate lines, and the definition will be indented
- **Do not use definition list to create second level indentation**

Topics



HTML Body elements (page content)

- ☐ Headings and Paragraphs
- ☐ Phrase tags and Special Characters
- ☐ Lists
- ☐ Tables
- ☐ Images and Anchors



Table (continued)



Deprecated attribute `border` = can now be "1" (show a border) or "0" (do not show a border). Can style better in CSS.

```
<table>
  <caption>Table of Monthly Savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
  <tr>
    <td>Total</td>
    <td>$180</td>
  </tr>
</table>
```

Note: by default the `<th>` cells are presented bold and centred !

Month	Savings
January	\$100
February	\$80
Total	\$180

Table element



- `<table> ... </table>` block level element offers a powerful way to organise *data* in a *tabular format*.

- ☐ **Do not** use table for page layout presentation.
- ☐ **border** is the only specific attribute supported in HTML5

- Table elements:

- ☐ `<table> ... </table>`
- ☐ `<caption> ... </caption>`
- ☐ `<tr> ... </tr>`
- ☐ `<th> ... </th>`
- ☐ `<td> ... </td>`
- ☐ `<thead>`, `<tbody>`, `<tfoot>`

declares a table
captures a table's contents
defines a table **row**
defines a table header **cell**
defines a table data **cell**
defines table **sections**

Table (continued)



```
<table>
  <caption>Table of Monthly Savings</caption>
  <thead>
    <tr>
      <th>Month</th>
      <th>Savings</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>January</td>
      <td>$100</td>
    </tr>
    <tr>
      <td>February</td>
      <td>$80</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th>Total</th>
      <td>$180</td>
    </tr>
  </tfoot>
</table>
```

Table of Monthly Savings

Month	Savings
January	\$100
February	\$80
Total	\$180

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Table (continued)



```
<table>
  <caption>Table of Monthly Savings</caption>
  <thead>
    <tr>
      <th rowspan="2">Month</th>
      <th colspan="3">Savings</th>
    </tr>
    <tr>
      <th>Salary</th>
      <th>Interest</th>
      <th>Total</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>January</td>
      <td>$60</td>
      <td>$40</td>
      <td>$100</td>
    </tr>
    <tr>
      <td>February</td>
      <td>$40</td>
      <td>$40</td>
      <td>$80</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th colspan="3">Grand Total</th>
      <td>$180</td>
    </tr>
  </tfoot>
</table>
```

Table of Monthly Savings

Month	Savings		
	Salary	Interest	Total
January	\$60	\$40	\$100
February	\$40	\$40	\$80
Grand Total			\$180

rowspan and **colspan** attributes for **<td>** and **<th>** allows a more complex table to be built.



HTML Body elements (page content)

- ☐ Headings and Paragraphs
- ☐ Phrase tags and Special Characters
- ☐ Lists
- ☐ Tables



- ☐ Images and Anchors

Image element



- **** is an 'empty' or 'void' inline element that defines an image in an HTML page.

- ☐ Must have the two required attributes: **src** and **alt**

- The three well supported image formats for the web are:

- ☐ PNG (Portable Networks Graphics) *.png
- ☐ JPEG (Joint Photographic Experts Group) *.jpg or *.jpeg
- ☐ GIF (Graphics Interchange Format) *.gif

- Images can be edited / created using software such as:

- ☐ GIMP www.gimp.org
- ☐ Inkscape www.inkscape.org
- ☐ Adobe Photoshop www.photoshop.com
- ☐ IrfanView www.irfanview.com

Image (continued)



- **src** attribute - indicates the location and filename of the image
 - A **relative** or **absolute (URL)** path can be used
- **alt** attribute - for clients that do not support image display (or if the user has “turned off” images).
- **height** and **width** attributes – used to set and reserve the dimensions of the image on the web page.

Do not use height and width attributes to force a large image to “scale down” in appearance. Resize the image first in an image editing program to the final on-page size and put the correct height and width size in the attribute values.

Image (continued)



<p>

```

```

```

```

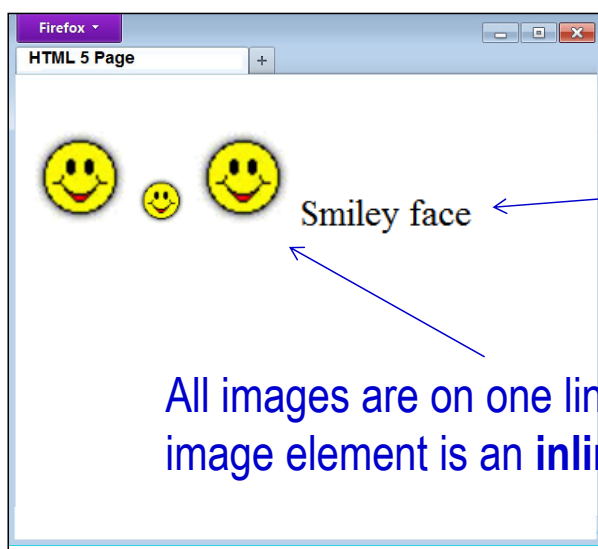
```

```

```

```

</p>



alt displays
if image is
not found

All images are on one line, as the
image element is an **inline** element.

Figure



- `<figure>... </figure>` encloses a self-contained content such as illustrations, diagrams, photos, code listings
- Its position is independent of the main flow, and if removed it should not affect the flow of the document.
- The `<figcaption>` element is used to add a caption for the `<figure>` element.

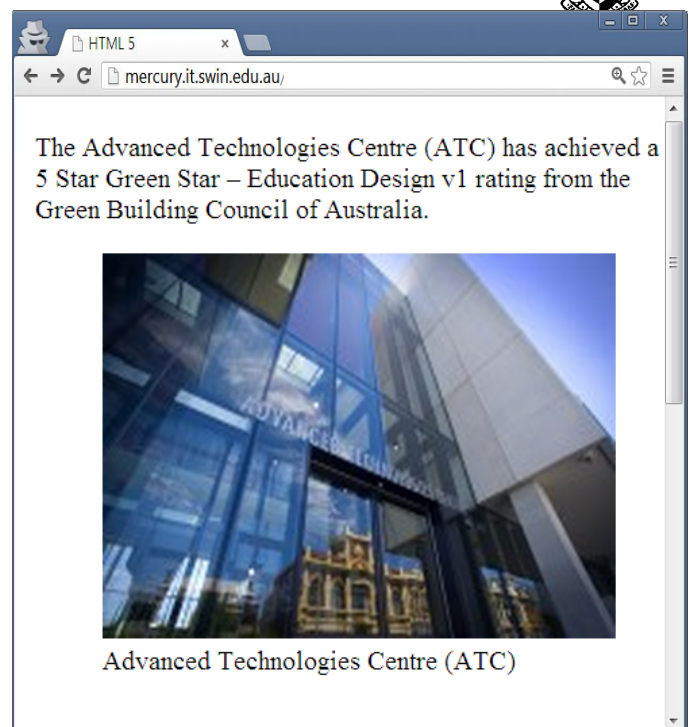
27

Figure (continued)



```
<p>The Advanced Technologies  
Centre (ATC) has achieved a 5  
Star Green Star – Education  
Design v1 rating from the Green  
Building Council of  
Australia.</p>
```

```
<figure>  
  
<figcaption>  
Advanced Technologies Centre  
(ATC)  
</figcaption>  
</figure>
```



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Hyperlinks - Anchor element



- `<a> ... ` is an inline element that defines a hyperlink, used to link from one page to another.

`Chemistry`

- The **href** attribute - indicates the resource's location for the hyperlink
 - ☐ Resource can be a
 - ☐ location within a web page
 - ☐ web page within the same site
 - ☐ web page on another site
 - ☐ file
 - ☐ email address

An image can be used as a hyperlink, by nesting an `` element as the anchor's element content

Note: Specifying Resource Locations



- **Relative path** is best used in specifying resources, such as files, images and web pages within website

- ☐ It allows a whole folder of web pages to be moved from the "testing" environment to the "live" environment, and still retain their relative paths

e.g. "index.html", "images/logo.png"

avoid referencing your home directory `"/images/logo.png"`

- **Absolute path** is used if the resource is not part of the website

e.g. "http://www.swinburne.edu.au/update.htm"

Do not use local directory `"file://c:./update/htm"`

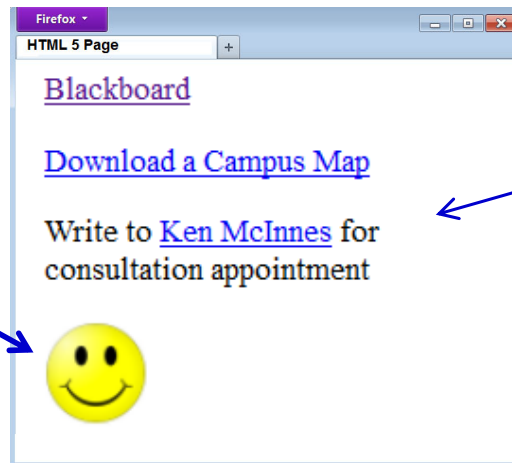


Anchor (continued)



```
<p><a href="http://ilearn.swin.edu.au"> Blackboard</a></p>
<p><a href="http://www.swinburne.edu.au/campuses/hawthorn/
documents/hawthorn.pdf" >Download a Campus Map</a></p>
<p>Write to <a href="mailto:kmcinnes@swin.edu.au" >Ken McInnes</a>
for consultation appointment</p>
<p><a href="http://ilearn.swin.edu.au">
</a></p>
```

Image as
hyperlink



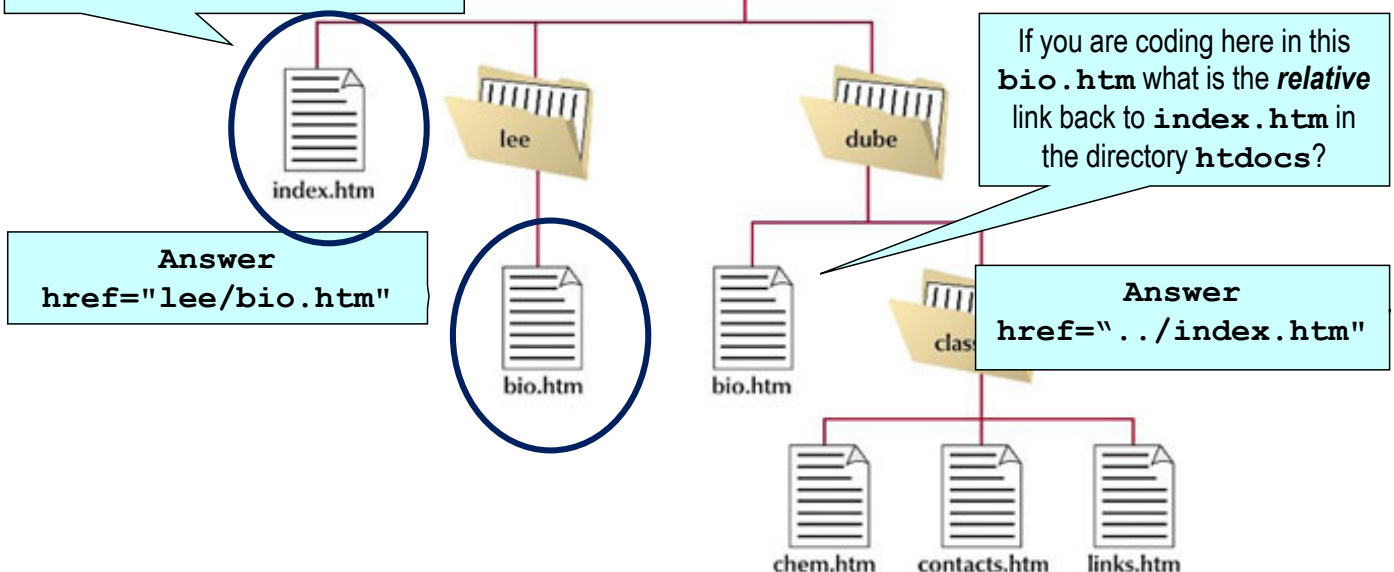
Paragraph tags are used in the example to display a multiple line example. List elements could also have been used.

Paths – Relative

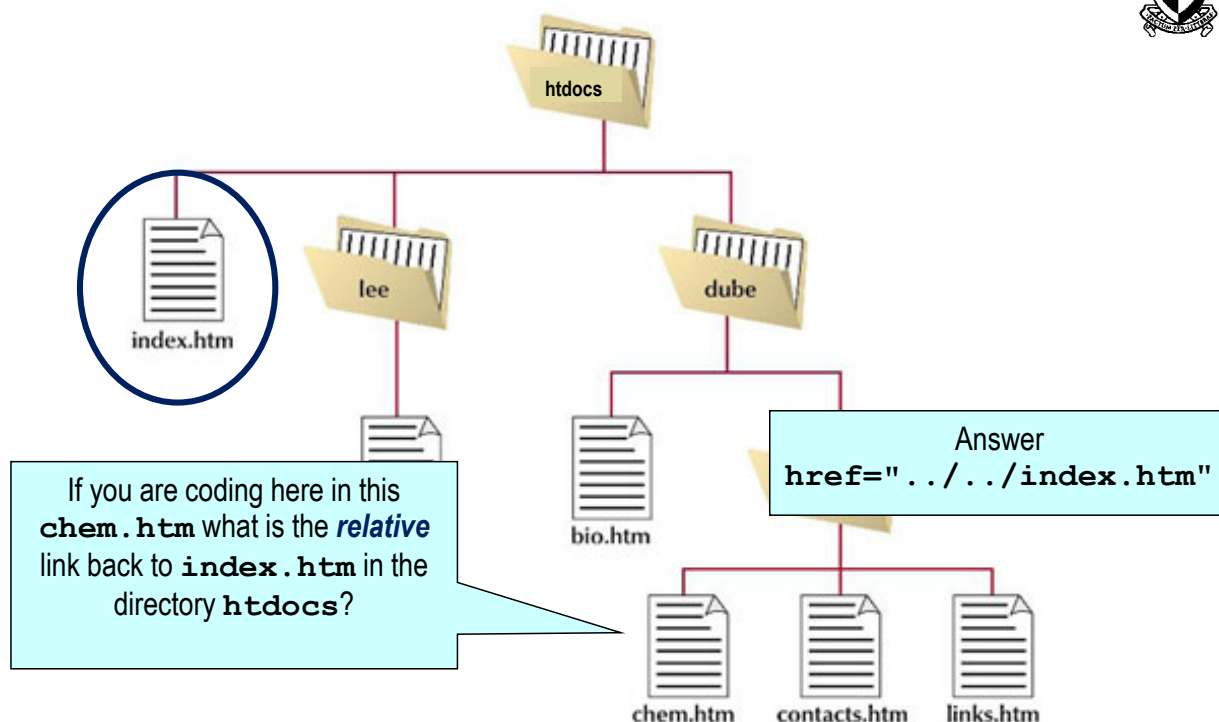


You are here.
What is the *relative* link to
bio.htm in the directory **lee** ?

Note: The mercury server is configured to make the folder
www/htdocs
your root directory



Paths – Relative



Linking to Sections



- How do we link to sections within a page?

MR. DUBÉ'S CHEMISTRY CLASSES AT ROBERT SERVICE HIGH SCHOOL

Classes • Grading • Appointments • Safety

Welcome to the Chemistry Classes Website.
I hope you will use these pages to learn more about my class and my expectations.
Mr. Dubé

Chemistry Classes

- Conceptual Chemistry**
An introductory course requiring basic math but not algebra
- Chemistry I**
An introductory course requiring solid algebra skills
- Applied Chemistry**
An introductory course requiring solid algebra skills and an interest in using critical thinking to solve real-world, chemistry-related problems
- Advanced Placement Chemistry**
An advanced course requiring a grade of B in Chemistry I designed for students who want to prepare for the AP Chemistry exam (which can count toward college credits)

Grading

Homework: Homework will be given daily and is due at the beginning of the period the day after it was assigned. Homework is worth 5 to 10 points. A periodic quiz consisting of 1 or 2 homework problems of the past week may be given in place of

clicking a link in the list jumps the user to the correct heading in the page

Anchor element



- How to link to a resource location **within** a web page
- Identify a resource location with an **id** attribute in the page

```
<h1 id="chapter01">Chapter One</h1>
```

- Refer to the resource location within an anchor using an # symbol

```
<a href="home.htm#chapter01">Chapter 1</a>
```

- By default, links in all browsers are displayed as follows :

- ☐ An unvisited link is underlined and blue
- ☐ A visited link is underlined and purple
- ☐ An active link is underlined and red

Email link



Mailto links are used to redirect to an email address instead of a web page. When a user clicks on the mailto link, the default email client on the visitor's computer opens and suggests sending a message to the email address mentioned in the mailto link.

```
<p>  
<a href="mailto:amy.lee@example.com">Send  
email</a>  
</p>
```

Link **title** attribute



- An example of a hyperlink **title** attribute value being displayed as a tool-tip by the browser.

```
<a href="home.htm"  
  title="Return to the Chemistry Home Page">  
  Home Page</a>
```

