HTML Basics – Module 2

Welcome back to the world of HTML, although as we move forward you'll be working with both HTML and CSS – as you would if we were building a real site.

In this module we'll look at some more HTML attributes and elements and also at images, table and forms.

As usual – if you have any questions then just ask!

Review of Previous Module

The previous module focussed on the key concepts of HTML.

First we looked at the use of **Doctypes** in **HTML documents** to make sure that the browser interprets the markup correctly.

Then we discussed how the majority of HTML elements are made up of **tags** and **content**, but that some elements don't have content or closing tags. We also took an initial look at the **Document Object Model**, or **DOM**.

We covered the key **structural elements** of HTML and also some of the most common **content elements**, such as **headings**, **paragraphs**, **lists** and **links**.

Finally we took an initial look at HTML element **attributes**.

Topics for this module

In this module we'll return to HTML and cover the following topics:

▸ Further HTML element attributes
▸ Meta elements
▸ Formatting tags
▸ Abbreviations, quotations and addresses
▸ Definition lists
▸ Images
▸ Tables
▸ Forms
▸ New elements in HTML5

Review of Lab 2

At this point we'll take 10 minutes to go through the Lab that was set at the end of the CSS–1 module.

Further HTML Attributes

In the previous HTML module we said that the attributes that can be applied will vary for each element. However there are some attributes that can be applied to any element. These include the following *.

- **accesskey**
- **tabindex**
- id
- class
- **dir**
- style
- title

We've covered the id, class, style and title elements previously so we'll look at the others now. A full list of global attributes can be found at:

http://www.w3schools.com/tags/ref_standardattributes.asp

* Note: these attributes can be applied to any element in HTML5. Restrictions may apply in HTML4.01 Any such restrictions are noted on the following slides

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HTML Attributes – accesskey

The accesskey attribute is used to define a shortcut key that can be used instead of the mouse to select or activate an element.

```
<a href="contact.html" accesskey="c">Contact us</a><br>
```

In the example above, the 'c' key has been assigned as a shortcut to activate the link. This will need to be used in conjunction with one or more other keys, such as Shift, Alt or Cmd on the keyboard.

For details of how access key work on different browsers see the following URL:

https://en.wikipedia.org/wiki/Access_key

HTML Attributes – dir

The dir attribute is used to specify the direction in which text should be displayed.

```
<p dir="rtl">This paragraph has text that goes from right to left</p>
```

In the example above, the 'rtl' value has been used for the attribute's value. This indicates that the text is meant to be read from right to left.

Valid values for this attribute are:

▸ **ltr** – left to right (default)
▸ **rtl** – right to left
▸ **auto** – left to the browser to decide based on the content

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HTML Attributes – tabindex

The tabindex attribute is used to specify the order in which elements are navigated when using the tab key.

```
<ul>
  <li><a href="" tabindex="2">Item 1 tab 2</a></li>
  <li><a href="" tabindex="1">Item 2 tab 1</a></li>
  <li><a href="" tabindex="3">Item 3 tab 3</a></li>
</ul>
```

In the example above the first element to be selected when the tab key is used will be the anchor element for item 2, then litem 1 and finally item 3.

HTML Elements : meta

The **meta** element provides general information about the HTML document. It begins with a <meta> tag and ends with a </meta> tag.

The content of meta elements (also known as meta data) will not be displayed on the page, but will be readable by browsers and servers.

Meta elements are typically used to provide instructions to browsers, specify a page description and keywords, identify the author of the document and other general information about the page.

The meta element **always** goes inside the **head** element.

HTML Elements : meta

The **meta** tag uses a name attribute to specify the type of meta information being defined, and a **content** attribute to identify the related **value**.

```
<head>
  <meta name="description" content="Nick's Training Lab">
  <meta name="keywords" content="HTML,CSS, HTML5">
  <meta name="author" content="Nick Roper">
  <meta charset="UTF-8">
</head>
```

More details on the use of the meta tag can be found at the following URL:

http://www.w3schools.com/tags/tag_meta.asp

Formatting

As we've already seen, HTML includes some elements that browsers will apply default formats to – headings and lists for example.

We'll now look at some other elements that will cause browsers to apply default formats.

▸ Abbreviations
▸ Quotations
▸ Addresses
▸ Definition lists

Exercise

Add meta tags to the head section of your 'My favorite stuff' page.

Include keywords and a description and also identify yourself as the author. You should also specify the UTF-8 character set for the document.

Abbreviations – <abbr>

The <abbr> element can be used for abbreviations or acronyms. It doesn't usually cause alternate formatting to be applied but is useful for identifying the content as being an abbreviation or acronym to search engines and browsers.

`<p><abbr>W3C</abbr> is an acronym for the World Wide Web Consortium.</p>`

You can also include a title attribute to display more information when hovered over.

`<p><abbr title='World Wide Web Consortium'>W3C</abbr> is an acronym for the World Wide Web Consortium.</p>`

Quotations

Quotations can be identified with the <blockquote> element.

Most browsers will indent the text of the quote.

`<blockquote cite="http://rocket-space.com/rocketu/">`
`  RocketU helps top-performing entrepreneurs and tech professionals`
`  learn cutting-edge coding languages and techniques...`
`</blockquote>`

The cite attribute can be used to specify the source of the original quote.

Addresses

The <address> tag can be used for address and contact information for the owner of the document.

```
<address>
  RocketSpace Inc,<br>
  181 FREMONT STREET<br>
  SAN FRANCISCO<br>
  CA 94105<br>
  USA
</address>
```

Most browsers will render the content in italics and add a line break after the closing tag.

Definition Lists

Whereas ordered and unordered lists have list items, definition lists allow you to specify a term/name for each item together with a description.

```
<dl>
  <dt>Pepper</dt>
    <dd>A hot spice mainly grown in Kerala, India</dd>
  <dt>Garlic<dt>
    <dd>A member of the onion family</dd>
  <dt>Saffron</dt>
    <dd>A spice derived from the flower of a Crocus</dd>
</dl>
```

Definition Lists

Pepper
> A hot spice mainly grown in Kerala, India

Garlic
> A member of the onion family

Saffron
> A spice derived from the flower of a Crocus

Exercise

Edit your 'My favorite stuff' page again.

Add an additional level 2 heading 'Favorite places'. Below this create a definition list of three countries or places that you have visited. For each place use the name as the definition term as well as a short description.

Add an address section at the bottom with your address and contact details.

Images

Images are added to a document with the <img> tag. As we've seen before, the <img> tag does not have any content, but rather it uses attributes to specify the image's properties.

The most important of these is the src attribute:

`<img src="myphoto.jpg">`

The other is the alt attribute:

`<img src="myphoto.jpg" alt="A photo of Nick">`

This specifies text that will be displayed if a browser has images disabled and will also be used by screen readers.

Images – size and width

There are three ways of controlling the height and width of an image:

1. Do nothing – in which case the browser will use the actual height and width of the image

2. Use height and width attributes in the <img> tag

3. Use CSS to apply height and width property values.

If we want the image displayed at it's actual size then the assumption might be that we use option 1 – 'Do nothing', but actually we should always specify a height and width – any idea why?

Images – size and width

If you don't specify a height and width then the browser has to wait until the image is sent by the server before it knows the dimensions. By this time the browser may well have rendered other content in the page, in which case it then has to adjust everything once the image is available.

By specifying a height and width in advance, the browser can reserve the correct amount of space for the image.

```
<img src="myphoto.jpg" height="150" width="100">

<img src="myphoto.jpg" class="portrait">

img.portrait {height: 150px; width: 100px;}
```

Images

A full list of all attributes that can be used with the image tag can be found at the following address:

http://www.w3schools.com/tags/tag_img.asp

Tables

Tables are used to structure data in a tabular format.

The use of tables to create layouts for web pages is discouraged – we'll see how to use CSS for layout a little later.

Tables are defined by using a combination of elements, in particular:

‣ **table** – the containing element for a table

‣ **th** – to define header content

‣ **tr** – to define a row

‣ **td** – used to define an item of data

Tables – Examples

```
<table>
  <tr>
     <th>Country</th><th>Population</th>
  </tr>
  <tr>
     <td>China</td><td>7,097,300,000</td>
  </tr>
  <tr>
     <td>India</td><td>1,354,040,000</td>
  </tr>
  <tr>
     <td>United States</td><td>1,210,569,573</td>
  </tr>
</table>
```

Tables – Examples

Country	Population
China	7,097,300,000
India	1,354,040,000
United States	1,210,569,573

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Tables – Colspan

It is also possible to make table data span across more than one column – perhaps to create a title that spans across the width of the table.

This <th> element will span across 2 columns

```
<table>
  <tr>
    <th colspan="2">Countries by population</th>
  </tr>

  <tr>
    <th>Country</th><th>Population</th>
  </tr>
  ...
</table>
```

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Exercise

Shown below is a table of usage statistics Internet Explorer.

2013	Total	IE 10	IE 9	IE 8	IE 7	IE 6
May	12.6 %	2.6 %	3.9 %	5.2 %	0.8 %	0.1 %
April	12.7 %	2.0 %	4.4 %	5.3 %	0.8 %	0.1 %
March	12.9 %	1.3 %	5.2 %	5.5 %	0.8 %	0.2 %

Recreate this table in a new HTML document named 'explorer-stats.html' but only include the columns for IE 10. IE 9 and IE 8. Add an additional header row at the top with the text 'IE Statistics 2013-

Create an internal style sheet for the page. Add the appropriate selectors to apply CSS declarations as follows:

To the table itself: {text-align: right; border-collapse: collapse;}

To table header and table data elements: {border: 1px solid;}

Exercise

Internet Explorer statistics

IE Statistics 2013			
2013	**Total**	**IE 10**	**IE 9**	**IE 8**
May	12.6%	2.6%	3.9%	5.2%
April	12.7%	2.0%	4.4%	5.3%
March	12.9%	1.3%	5.2%	55%

Forms

A form is a container for one or more input elements that can be used to enter or select data and options.

We'll take an initial look at the form element and some of the input types now but we'll come back to look at forms more extensively in the coding and JavaScript sections of the course.

```
<form
  <label for="firstname">Your first name:</label>
  <input type="text" name="firstname" id="firstname"><br>
  <label for="lastname">Your last name:</label>
  <input type="text" name="lastname" id="lastname"><br>
  <input type="submit" value="Submit your details">
</form>
```

Forms

Your first name:
Your last name:
Click to submit

Introduction to HTML5

The instructor will now introduce some of the new elements that are available in HTML5 and point you to some useful resources.

The new HTML5 elements themselves are covered in detail in the Bootcamps.

HTML5 Resources

The following pages provide useful information about HTML5

http://www.w3schools.com/html/html5_intro.asp

http://html5doctor.com

http://www.w3.org/html/wg/drafts/html/master/

http://www.html5rocks.com/en/

Homework

The table that you created previously looks similar to this:

Internet Explorer statistics

IE Statistics 2013				
2013	Total	IE 10	IE 9	IE 8
May	12.6%	2.6%	3.9%	5.2%
April	12.7%	2.0%	4.4%	5.3%
March	12.9%	1.3%	5.2%	55%

Edit your HTML and CSS to try and format the table as closely as possible to the one on this page:

http://www.w3schools.com/browsers/browsers_explorer.asp

2013	Total	IE 10	IE 9	IE 8	IE 7	IE 6
May	12.6 %	2.6 %	3.9 %	5.2 %	0.8 %	0.1 %
April	12.7 %	2.0 %	4.4 %	5.3 %	0.8 %	0.1 %
March	12.9 %	1.3 %	5.2 %	5.5 %	0.8 %	0.2 %

Module Summary

In this module we looked at some additional attributes for HTML elements and also at some elements that can be used for specific types of content such as addresses and quotations.

We also looked elements that can be used to identify text formats such as bold, strong, superscript and deleted.

Finally we looked at tables and forms and some of the new elements in HTML5.

Questions

Do you have any questions before we move on to the next module

?

Don't worry, if you think of something later then just ask!

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