



Introduction to HTML

Goal

By the end of this stream you will have built your own HTML and CSS reference site. Each week you will be building parts of the site.

Textbook

It is not possible for us to cover everything you need to know about web page layout techniques. To gain the best knowledge chapter readings will be recommended in addition to the content in the notes.

The text book is:

BUILD YOUR OWN WEBSITE THE RIGHT WAY

USING HTML & CSS, 3RD EDITION

Ian Lloyd

Can be purchased from sitepoint.com.

What is HTML

HyperText Markup Language (HTML) is the main mark-up language for creating web pages and other information that can be displayed in a web browser.

HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1>, although some tags, known as empty elements, are unpaired, for example . The first tag in a pair is the start tag, and the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, tags, comments and other types of text-based content.

<https://en.wikipedia.org/wiki/HTML>

Activity 1. Creating our first web page

To start with we will use notepad as our text editor. Later we will use dreamweaver.

Open notepad and type in the following code:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>What is HTML</title>
    <meta charset="utf-8" />
  </head>

  <body>
    <h1>What is HTML?</h1>
    <p>HTML stands for Hypertext Markup Language. It is the main mark-up language for
creating web pages.</p>
  </body>
</html>
```

Make sure it is saved with a .htm or .html extension.

It should look like:

What is HTML?

HTML stands for Hypertext Markup Language. It is the main mark-up language for creating web pages.

A .html or htm extension lets the operating system know what type of file it is. Usually double clicking on the file will automatically open the file up in a browser. Just as a file with a .doc extension opens up in word.

When naming the file think about the purpose of the file. File names should be meaningful and once you have many web pages it will be very hard to remember what they contain unless you have given them meaningful names.

To view the page in the browser open internet explorer and select file ⇒ open. Click on Browse and select the file you just created.

Basic Requirements of a web page

DOCTYPE

Short for Document Type Declaration. It must absolutely be the first item on a web page, appearing before any spacing or carriage return.

This tells the browser the type of mark-up language in which the page is written, which may or may not affect the way the page is rendered.

It refers to a known document type definition or DTD for short. The DTD sets out the rules and grammar for that flavour of mark-up, enabling the browser to render the mark-up accordingly.

Available Doctypes: www.w3.org/QA/2002/04/valid-dtd-list.html

The html element

Web pages are built using elements. An element is as follows:

```
<html lang="en">
</html>
```

The first line is the opening tag and it contains an attribute “lang” the second line is the closing tags.

The html tag surrounds the contents of the web page. All other tags must go between the opening and closing html tags.

The head element

The head element contains information about the page. It will not contain any information that will be displayed on the page.

The title element

This is the text that appears in the title bar of the browser window. It is also the text that appears when the web page is minimized and bookmark text. The title element is used heavily by search engines. Giving your web page a meaningful title is very important.

The meta element

The `meta` element provides information about the following document content; that information may be used by the user agent (that is, the browser) to decide how to render content, or it may be meta information that's provided for indexing purposes—for example, to provide keywords that relate to the document for use by search engines or some other form of web service. The `meta` element can also be used to simulate HTTP response headers (the

character encoding snippet provided here is an example of this), or it might simply be used for the purposes of causing a document to reload itself after a set interval.

In our example the meta tag tells the browser which character set to use.

The body element

The body element contains everything you see on the screen.

Structure

Headings and paragraphs

<http://reference.sitepoint.com/html/elements-structural>

Headings range from h1 through to h6. A level 1 heading <h1> is the largest. A level 6 heading is the smallest.

Paragraphs separate text content on your web pages just as paragraphs in a book separate text. The p element is one of the most commonly used building blocks of HTML. When you use the p element to begin a new paragraph in HTML, it automatically creates some space above and below the content. This space is applied by the browser's built-in style sheets, but you can override it as you see fit using CSS.

For every opening tag there must be a matching closing tag. The h1 element is used to indicate the most important (or highest-level) heading on the page. In total, we have six heading levels to choose from—h1 to h6—to add structure to the web page. h1 is the highest heading level (and, by default, the largest in terms of font size) and h6 the lowest (and smallest). A document's first heading should be an h1, followed by one or more h2 headings; each of these h2 headings can then have a further series of h3 headings below them, and so on, right on down to heading level 6. The HTML spec states that heading levels should not be skipped (that is, you shouldn't have a series of headings in the order h1, h2, h2, h4, which skips the h3 entirely).

Activity 2. Headings and paragraphs

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>What is HTML</title>
    <meta charset="utf-8" />
  </head>
  <body>
    <h1>Headings and Paragraphs</h1>
    <p>Headings range from h1 through to h6.</p>
    <h1>A level 1 heading &lt;h1&gt; is the largest</h1>
    <h6>A level 6 heading is the smallest.</h6>
    <p>Paragraphs separate text content on your web pages just as paragraphs in a book
separate text.</p>
  </body>
</html>
```

It should look like:

Headings and Paragraphs

Headings range from h1 through to h6.

A level 1 heading <h1> is the largest

A level 6 heading is the smallest.

Paragraphs separate text content on your web pages just as paragraphs in a book separate text.

Character References

Character references are used to display symbols on web pages. You may have noticed in the above example the < and > these are actually displayed as < and >. Since these characters are used to surround tags you may end up with some strange output if you use them in your code as < and >. Instead you need to use the entity.

Here are some common character entities:

Character Reference	Symbol
>	>
<	<
&	&
£	£
©	©
™	™

Lists

Lists are a great way of displaying information on web pages. <http://reference.sitepoint.com/html/elements-list>

Activity 3. Lists

Create the following web page:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>What is HTML</title>
    <meta charset="utf-8" />
  </head>
  <body>
    <h1>Lists</h1>
    <h2>Ordered lists</h2>
    <ol>
      <li>First</li>
      <li>Second</li>
      <li>Third</li>
    </ol>
    <h2>Unordered lists</h2>
    <ul>
      <li>one</li>
      <li>two</li>
```

```

        <li>three</li>

</ul>
<h2>Dictionary lists</h2>
<dl>
    <dt>Ordered list</dt>
    <dd>Used to group a collection of items together in a list. Each list item
    is defined by a li element, which suggests an order of importance or
    sequence.
    </dd>
    <dt>Unordered list</dt>
    <dd>The ul element, the name for which is an abbreviation of unordered
    list, is used to group a collection of items together in a list, but in a
    way that doesn't suggest an order of precedence or importance.</dd>
    <dt>Dictionary list</dt>
    <dd>If you want to list a series of items that essentially have a title and
    a description of some kind.</dd>
</dl>

</body>
</html>

```

Lists

Ordered lists

1. First
2. Second
3. Third

Unordered lists

- one
- two
- three

Dictionary lists

Ordered list

Used to group a collection of items together in a list. Each list item is defined by a li element, which suggests an order of importance or sequence.

Unordered list

The ul element, the name for which is an abbreviation of unordered list, is used to group a collection of items together in a list, but in a way that doesn't suggest an order of precedence or importance.

Dictionary list

If you want to list a series of items that essentially have a title and a description of some kind.

Links

Hyperlinks are what make the web what it is. Without links all you have is a web page. <http://reference.sitepoint.com/html/a>

Activity 4. Linking all our pages together

Create a new page called home.html. This page will contain a list of links:

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <title>What is HTML</title>
        <meta charset="utf-8" />
    </head>

    <body>
        <h1>Home</h1>
        <ul>
            <li><a href="whatIsHTML.html">What is HTML</a></li>

```

```

        <li><a href="headingsAndParagraphs.html">Headings and Paragraphs</a>
        <li><a href="lists.html">Lists</a></li>
    </ul>

</body>
</html>

```

Home

- [What is HTML](#)
- [Headings and Paragraphs](#)
- [Lists](#)

Comments

Comments can be added to your HTML code. Comments are read by people not the browser. They can be used to identify a section of a page.

Syntax:

```
<!-- this is a comment -->
```

Additional elements

- `<hr />`
- `
`

Text mark-up

For a more complete list please have a look at <http://reference.sitepoint.com/html/elements-text-formatting>

HTML elements help describe the structure of a document. The tags should mark up what is a paragraph, what is a heading, what is a quote etc.

Activity 5. Text mark-up

Create the following document:

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <title>Mark up</title>
        <meta charset="UTF-8" />
    </head>

    <body>
        <h1>Mark up</h1>
        <hr />
        <h2>blockquote</h2>

```

```

<blockquote><p>The blockquote element is used for marking up a block of text quoted from a
person or another document or source.</p>
</blockquote>

```

```
<h2>cite</h2>
```

<p>Identifies a <cite>reference</cite> to a written work, play, book, or magazine</p>

<h2>strong</h2>

<p>The strong element is used to emphasize content.</p>

<h2>em</h2>

<p>It provides semantic meaning about the text it contains, effectively saying, this text is slightly more important than other text here.</p>

</body>

</html>

Mark up

blockquote

The `blockquote` element is used for marking up a block of text quoted from a person or another document or source.

cite

Identifies a *reference* to a written work, play, book, or magazine

strong

The **strong element** is used to emphasize content.

em

It provides semantic meaning about the text it contains, effectively saying, *this text is slightly more important than other text here.*

Homework

Activity 6. Web references

references.html

Create the following page:

Web references and links

HTML references

- [HTML reference](#)
- [Sitepoint](#)
- [w3c](#)
- [w3c schools](#)

Use the tags you have learnt so far to create the page.

Activity 7. Stream details

Course.html

Create the following web page using some of the tags we have discussed today.

Layout Stream

Contact details

Ariane Warnant

Phone: 9472 1973

Email: ariane.warnant@tafensw.edu.au

Email is the preferred form of communication.

Availability

- Monday 9 – 4
- Tuesday 9 – 4
- Thursday 10 – 10
- Friday 9 - 2

If you need to come and see me it is best to first arrange a time with me.

Activity 8. Update your site

Add a link from your home.html page to all the other pages.

References

Build your own website the right way using HTML & CSS By Ian LLOYD Published by Sitepoint.

HTML complete Reference by Sitepoint.

Read chapter 1 and 2