



HTML&CSS

design and build websites

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Design and Build Websites

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John Wiley & Sons, Inc.

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Introduction

Firstly, thank you for picking up this book. It has been written with two very different types of people in mind:

- Those who want to learn how to design and build websites from scratch
- Anyone who has a website (that may be built using a content management system, blogging software, or an e-commerce platform) and wants more control over the appearance of their pages

The only things you need in order to use this book are a computer with a web browser and a text editor (such as Notepad, which comes with Windows, or TextEdit, which comes with Macs).

3 INTRODUCTION



Introduction pages come at the beginning of each chapter. They introduce the key topics you will learn about.



Reference pages introduce key pieces of HTML & CSS code. The HTML code is shown in blue and CSS code is shown in pink.



Background pages appear on white; they explain the context of the topics covered that are discussed in each chapter.



Diagram and infographics pages are shown on a dark background. They provide a simple, visual reference to topics discussed.



Example pages put together the topics you have learned and demonstrate how they can be applied in each.



Summary pages come at the end of each chapter. They remind you of the key topics that were covered in each chapter.

Is it hard to Learn?

CSS resemble dull manuals. To make it easier for you to learn, we threw away the traditional template used by publishers and redesigned this book from scratch.

I've focussed on the code you need to use 90% of the time and omitted the code that you would rarely see even if writing websites is your full time job. By the end of the book, if you come across the other 10% you will be able to Google it to find out what it means quickly and easily.

Many books that teach HTML and

At work, when people look at my screen and see it full of code, it's not unusual to get a comment about it looking very complicated or how clever I must be to understand it. The truth is, it's not that hard to learn how to write web pages and read the code used to create them; you certainly don't have to be a

"programmer."

Understanding HTML and CSS can help anyone who works with the web; designers can create more attractive and usable sites, website editors can create better content, marketers can communicate with their audience more effectively, and managers can commission better sites and get the best out of their teams.

I have also added practical information on topics I am commonly asked about, such as how to prepare images, audio and video for the web, how to approach the design and build of a new site, how to improve your rankings in search engines (SEO), and how to use Google Analytics to learn about visitors to your site.

The Structure of This Book

In order to teach you about creating web pages, this book is divided into three sections:

1: HTML

We will spend the first chapter looking at how HTML is used to create web pages. You will see that you start by writing down the words you want to appear on your page. You then add tags or elements to the words so that the browser knows what is a heading, where a paragraph begins and ends, and so on.

The rest of this section introduces the tags you have at your disposal to create web pages, grouped into chapters on: text, lists, links, images, tables, forms, video audio and flash, and miscellaneous elements.

I should warn you that the examples in the first nine chapters are not exciting to look at, yet they are the foundation of every web page. The following chapters on CSS will show you how to make your pages look a lot more interesting.

2: CSS

We start this section with a chapter that explains how CSS uses rules to enable you to control the styling and layout of web pages. We then go on to look at the wide variety of CSS properties you can use in your CSS rules. These properties generally fall into one of two categories:

Presentation: How to control things like the color of text, the fonts you want to use and the

size of those fonts, how to add background colors to pages (or parts of a page), and how to add background images.

Layout: How to control where the different elements are positioned on the screen. You will also learn several techniques that professionals use to make their pages more attractive.

3: Practical

We end up with some helpful information that will assist you in building better websites.

We look at some new tags that will be introduced in HTML5 to help describe the structure of your pages. HTML5 is the latest version of HTML (still under development at the time of writing). Before learning about these elements, you need a good grasp of how

CSS is used to control the design of web pages. There is a chapter that talks you through a design process that you might like to follow when creating a new website.

Finally, we end up looking at topics that will help you once you have built your site, such

as putting it on the web, search engine optimisation (SEO) and using analytics software to track who comes to your site and what they are looking at.

How People Access the Web

Before we look at the code used to build websites it is important to consider the different ways in which people access the web and clarify some terminology.

Browsers

People access websites using software called a **web browser**. Popular examples include Firefox, Internet Explorer, Safari, Chrome, and Opera.

In order to view a web page, users might type a web address into their browser, follow a link from another site, or use a bookmark.

Software manufacturers regularly release new versions of browsers with new features and supporting new additions to languages. It is important, however, to remember that many computer owners will not be running the latest versions of these browsers. Therefore you cannot rely on all visitors to your site being able to use

the latest functionality offered in all browsers.

You will learn how to tell which browsers visitors use to access your website in Chapter 19.

Web Servers

When you ask your browser for a web page, the request is sent across the Internet to a special computer known as a **web server** which hosts the website.

Web servers are special computers that are constantly connected to the Internet, and are optimized to send web pages out to people who request them.

Some big companies run their own web servers, but it is more common to use the services of a **web hosting**

company who charge a fee to host your site.

Devices

People are accessing websites on an increasing range of devices including desktop computers, laptops, tablets, and mobile phones. It is important to remember that various devices have different screen sizes and some have faster connections to the web than others.

Screen readers

Screen readers are programs that read out the contents of a computer screen to a user. They are commonly used by people with visual impairments.

In the same way that many countries have legislations that require public buildings to be accessible to those with

disabilities, many laws have also been passed that require websites be accessible to those with disabilities.

Throughout this book you will see several references to

screen readers. These notes will help ensure that the sites you create are accessible to people who use such software.

It is interesting to note that

technologies similar to those employed by screen readers are also being used in other areas where people are unable read a screen, such as when they are driving or jogging.

7 INTRODUCTION

How Websites Are Created

All websites use HTML and CSS, but content management systems, blogging software, and e-commerce platforms often add a few more technologies into the mix.

What you see

When you are looking at a website, it is most likely that your browser will be receiving HTML and CSS from the web server that hosts the site. The web browser interprets the HTML and CSS code to create the page that you see.

Most web pages also include extra content such as images, audio, video, or animations and this book will teach you how to prepare them for use on the web and then how to insert them into your web pages.

Some sites also send JavaScript or Flash to your browser, and you will see how to add JavaScript and Flash in your web pages. Both of these

technologies are advanced topics that you can go on to learn more about once you have mastered HTML and CSS, if you want to.

How it is Created

Small websites are often written just using HTML and CSS.

Larger websites — in particular those that are updated regularly and use a content management system (CMS), blogging tools, or e-commerce software — often make use of more complex technologies on the web server, but these technologies are actually used to produce HTML and CSS that is then sent to the browser. So, if your site uses these technologies, you will be able to use your new HTML and CSS knowledge to take more control over how your site looks.

Larger, more complex sites like these may use a database to store data, and programming languages such as PHP, ASP.Net, Java, or Ruby on the web server, but you do not need to know these technologies to improve what the user sees. The skills you'll learn in this book should be enough to help you on that road.

HTML5 & CSS3

Since the web was first created there have been several versions of HTML and CSS — each intended to be an improvement on the previous version.

At the time of writing this book, HTML5 & CSS3 were still being developed. Although they had not been finalized, many browsers were already supporting some features of these

languages and a lot of people were using the latest code on their websites. I have therefore chosen to teach you these latest versions.

Because HTML5 and CSS3 build on previous versions of these languages, learning these means you will also be

able to understand the earlier versions of them. I have added clear notes when the code is new and also when it might not work in older browsers.



Cambridge

LONDON

PARIS

The web server then sends the
page you requested back to your
web browser.

Structure

We come across all kinds of documents every day of our lives. Newspapers, insurance forms, shop catalogues... the list goes on.

Many web pages act like electronic versions of these documents. For example, newspapers show the same stories in print as they do on websites; you can apply for insurance over the web; and stores have online catalogs and e-commerce facilities.

In all kinds of documents, structure is very important in helping readers to understand the messages you are trying to convey and to navigate around the document. So, in order to learn how to write web pages, it is very important to understand how to structure documents. In this chapter you will:

- See how HTML describes the structure of a web page
- Learn how tags or elements are added to your

document • Write your first web page



How Pages Use Structure

story, there will be a headline, some text, and possibly some images. If the article is a long piece, there may be subheadings that split the story into separate sections or quotes from those involved. Structure helps readers understand the stories in the newspaper.

The structure is very similar when a news story is viewed online (although it may also

feature audio or video). This is illustrated on the right with a copy of a newspaper alongside the corresponding article on its website.

Now think about a very different type of document — an insurance form. Insurance forms often have headings for different sections, and each section contains a list of questions with areas for you to fill in details or checkboxes

Think about the stories you read in a newspaper: for each

Structuring Word Documents

The use of headings and subheadings in any

document often reflects a hierarchy of information. For example, a document might start with a large heading, followed by an introduction or the most important information.

This might be expanded upon under subheadings lower down on the page. When using a word processor to create a document, we separate out the text to give it structure. Each topic might

have a new paragraph, and each section can have a heading to describe what it covers.

On the right, you can see a simple document in Microsoft Word. The different styles for the document, such as different levels of heading, are shown in the drop down box. If you regularly use Word, you might have also used the formatting toolbar or palette to do this.

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STRUCTURE 18

On the previous page you saw how structure was added to a Word document to make it easier to understand. We use structure in the same way when writing web pages.

HTML Describes the Structure of Pages

In the browser window you can see a web page that features exactly the same content as the Word document you met on the page 18. To

describe the structure of a web page, we add code to the words we want to appear on the page.

You can see the HTML code for this page below. Don't worry about what the code means yet. We start to look at it in more detail on the next page. Note that the HTML code is in blue, and the text you see on screen is in black.

```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of the page. And if the
page is a long one it might be split up into several sub-headings.</p>
    <h2>This is a Sub-Heading</h2>
    <p>Many long articles have sub-headings so to help you follow the structure
of what is being written. There may even be sub-sub-headings (or lower-level
headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p> </body>
  </html>
```

The HTML code (in blue) is made up of characters that live inside angled brackets — these are called HTML **elements**. Elements are usually made up of two **tags**: an opening tag and a closing tag. (The closing tag has an extra forward slash in it.) Each HTML element tells the browser something about the information that sits between its opening and closing tags.

This is the Main Heading

This text might be an introduction to the rest of the page. And if the page is a long one it might be split up into several sub-headings.

This is a Sub-Heading

Many long articles have sub-headings so to help you follow the structure of what is being written. There may even be sub-sub-headings (or lower-level headings).

Another Sub-Heading

Here you can see another sub-heading.

The opening **<html>** tag indicates that anything between it and a closing **</html>** tag is HTML code.

The **<body>** tag indicates that anything between it and the closing tag should be shown inside the main browser window.

Words between and are a main heading.

A paragraph of text appears between these and tags.

Words between and form a sub-heading.

Here is another paragraph between opening and closing tags.

Another sub-heading inside and tags.

Another paragraph inside and tags.

The closing **</body>** tag indicates the end of what should appear in the main browser

window. The closing **</html>** tag indicates that it is the end of the HTML code.

<p>

(less-than sign)

(MORE-than sign)

Opening Tag



(less-than sign)

(MORE-than sign)

Closing Tag

name value

Attribute
Name

lang en-us

Attribute
Value

HTML5 allows you to use uppercase attribute names and omit the quotemarks, but this is not recommended.

Attribute
Name

lang fr

Attribute
Value

26

Body, Head & Title

within the main part of the browser window that is highlighted in blue on the opposite page). You will usually find a **<title>** element inside the **<head>** element.

<body>

You met the **<body>** element in the first example we created. Everything inside this element is shown inside the main browser window.

<head>

Before the **<body>** element you will often see a **<head>** element. This contains information *about* the page (rather than information that is shown

<title>

The contents of the **<title>** element are either shown in the top of the browser, above where you usually type in the URL of the page you want to visit, or on the tab for that page (if your browser uses tabs to allow you to view multiple pages at the same time).
/chapter-01/body-head-title.html **HTML**

<html>

<head>

<title>This is the Title of the Page</title> </head>

<body>

```
<h1>This is the Body of the Page</h1>  
<p>Anything within the body of a web page is displayed  
in the main browser window.</p> </body>  
</html>
```

This is the Body of the Page

Anything within the body of a web page is displayed in the main browser window

Result

27 STRUCTURE

Anything written between the
<title> tags will appear in the
title bar (or tabs) at the top of
the browser window, highlighted
in orange here.



You may know that HTML stands for HyperText Markup Language. The HyperText

part refers to the fact that HTML allows you to create links that allow visitors to move from one page to another quickly and easily. A markup language allows you to annotate text, and these annotations provide additional meaning to the

Anything written between the **<body>** tags will appear in the main browser window, highlighted in blue here. contents of a document. If you think of a web page, we add code around the original text we want to display and the browser then uses the code to display the page correctly. So the tags we add are the markup.

STRUCTURE 28

Creating a Web Page on a PC

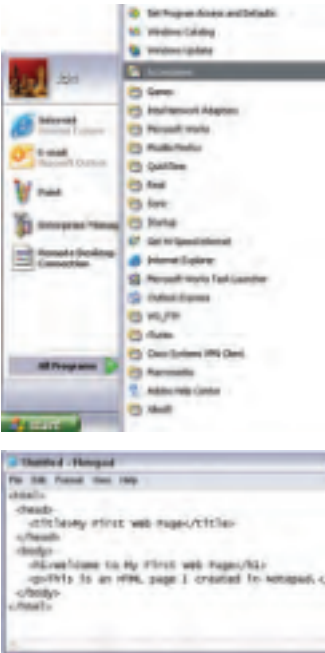
To create your first web page on a PC, start up Notepad. You can

find this by going to:

Start
All Programs (or Programs)
Accessories
Notepad

You might also like to download a free editor called Notepad++ from notepad-plus-plus.org.

Type the code shown on the right.



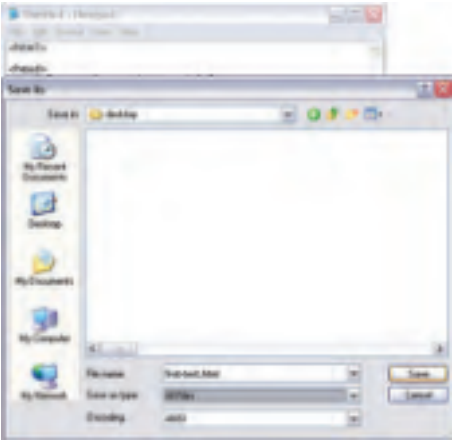
29 STRUCTURE

Article

Go to the File menu and select **Save as...** You will need to save

the file somewhere you can remember. If you like, you could create a folder for any examples that you try out from this book.

Save this file as **first-test**.



html. Make sure that the **Save as type** drop down has **All Files** selected.

Start your web browser. Go to the **File** menu and select **Open**.

Browse to the file that you just created, select it and click on the **Open** button. The result should look something like the screen shot to the left.

If it doesn't look like this, find the file you just created on your computer and make sure that it has the file extension **.html** (if it is **.txt** then you need to go back to Notepad and save the file again, but this time put quote marks around the name "**first test.html**").



STRUCTURE 30

Creating a Web Page on a Mac

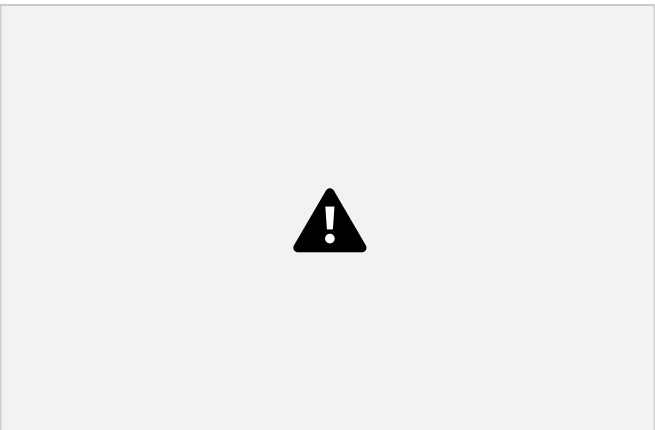
To create your first web page on a Mac, start up TextEdit. This

should be in your **Applications** folder.

You might also like to download a free text editor for creating

web pages called TextWrangler which is available from **barebones.com**.

Type the code shown on the right.



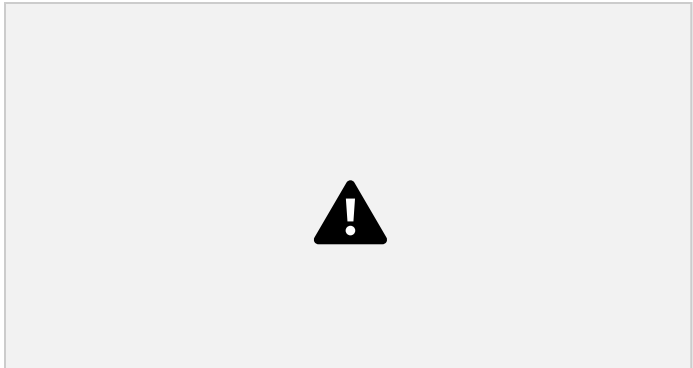
31 STRUCTURE

Article

Now go to the **File** menu and select **Save as...** You will need to

save the file somewhere you can remember.

If you like, you could create a folder for any examples that you try out from this book. Save this file as **first-test.html**. You will probably see a window



like the screen shot to the left.

You want to select the **Use .html** button.

Next, start your web browser, go to the **File** menu, and select

Open. You should browse to the file that you just created, select it and click on the **Open** button.

The result should look like the screen shot to the left.

If it doesn't look like this, you might need to change one of the settings in TextEdit. Go to the TextEdit menu and select **Preferences**. Then on the preferences for **Open and Save**, tick the box that says **Ignore rich text commands in HTML files**.

Now try to save the file again.



Code in a Content Management System



If you are working with a content management system, blogging platform, or e-commerce application, you will probably log into a special administration section of the website to control it. The tools provided in the administration sections of these sites usually allow you to edit parts of the page rather than the entire page, which means you will rarely see the `<html>`, `<head>`, or `<body>` elements.

Looking at the content management system on the opposite page, you have a box that allows you to enter a title

for the page, another box for the main article, a way to enter a publication date, and something to indicate which section of the site this page belongs in.

For an e-commerce store, you might have boxes that allow you to enter a title for the product, a description of the product, its price, and the quantity available.

That is because they use a single 'template' to control all of the pages for a section of the site. (For example, an e-commerce

system might use the same template to show all of their products.) The information you supply is placed into the templates.

The advantage of this approach is that people who do not know how to write web pages can add information to a website and it is also possible to change the presentation of something in the template, and it will automatically update every page that uses that template. If you imagine an e-commerce store with 1,000 items for sale, just



altering one template is a lot easier than changing the page for each individual product. In systems like this, when you have a large block of text that you can edit, such as a news article, blog entry or the description of a product in an e-commerce store, you will often see a text editor displayed.

Text editors usually have controls a little like those on your word processor, giving you different options to style text, add links or insert images. Behind the scenes these editors are adding HTML code to

your text, just like the code you have seen earlier in this chapter. Many of these editors will have an option that allows you to see (and edit) the code that they produce.

Once you know how to read and edit this code, you can take more control over these sections of your website.

In the example above, you can see that the text editor has a tab for Visual / HTML views of what the user enters. Other systems might have a button (which often shows angle brackets)

to indicate how to access the code.

Some content management systems offer tools that also allow you to edit the template files. If you do try to edit template files you need to check the documentation for your CMS as they all differ from each other.

You need to be careful when editing template files because if you delete the wrong piece of code or add something in the wrong place the site may stop working entirely.

Looking at How Other sites are Built

When the web was first taking off, one of the most common ways to learn about HTML and discover new tips and techniques was to look at the source code that made up web pages.

These days there are many more books and online tutorials that teach HTML, but you can

still look at the code that a web server sends to you. To try this out for yourself, simply go to the sample code for this chapter, at www.htmlandcssbook.com/code/ and click on the link called "View Source."

Once you have opened this page, you can look for the **View** menu in your browser, and select the option that says **Source** or **View source**. (The title changes depending on what browser you are using.)

You should see a new window appear, and it will contain the source code that was used to create this page.

You can see this result in

the photograph on the right. The page you see is the window at the top; the code is below.

At first this code might look complicated but don't be discouraged. By the time you have finished the next chapter of this book, you will be able to understand it.

All of the examples for this book are on the website, and you can use this simple technique on any of the example pages to see how they work.

You can also download all of the code for this book from the same website by clicking on the "Download" link.



STRUCTURE 36

HTML pages are text documents.

HTML uses tags (characters that sit inside angled brackets) to give the information they surround special meaning.

Tags are often referred to as elements.

Tags usually come in pairs. The opening tag denotes the start of a piece of content; the closing tag denotes the end.

Opening tags can carry attributes, which tell us more about the content of that element.

Attributes require a name and a value.

To learn HTML you need to know what tags are available for you to use, what they do, and where they can go.

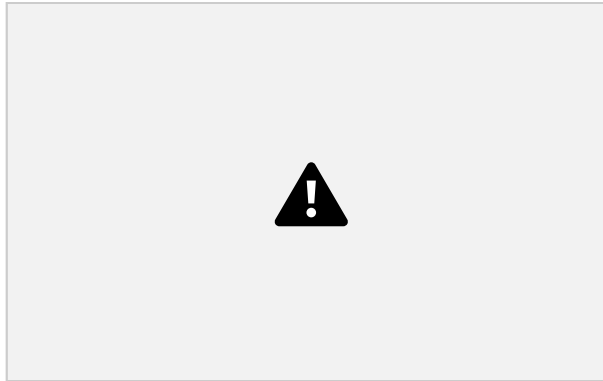
Text

When creating a web page, you add tags (known as markup) to the contents of the page. These tags provide extra meaning and allow browsers to show users the appropriate structure for the page.

In this chapter we focus on how to add markup to the text that appears on your pages. You will learn about:

- **Structural markup:** the elements that you can use to describe both headings and paragraphs
- **Semantic markup:** which provides extra information; such as where emphasis is placed in a sentence, that something you have written is a quotation (and who said it), the meaning of acronyms, and so on

41 TEXT



42

Headings

<h1>

<h2>

<h3>

<h4>

<h5>

<h6>

HTML has six "levels" of headings:

<h1> is used for main headings **<h2>** is used for subheadings

If there are further sections under the subheadings then the **<h3>** element is used, and so on...

Browsers display the contents of headings at different sizes. The contents of an **<h1>** element is the largest, and the contents of an **<h6>** element is the smallest. The exact size at which each browser shows the headings can vary slightly. Users can also adjust the size of text in their browser. You will see how to control the size of text, its color, and the fonts used when we come to look at CSS.

chapter-02/headings.html **HTML**

<h1>This is a Main Heading**</h1>**

<h2>This is a Level 2 Heading**</h2>**

<h3>This is a Level 3 Heading**</h3>**

<h4>This is a Level 4 Heading**</h4>**

<h5>This is a Level 5 Heading**</h5>**

<h6>This is a Level 6 Heading**</h6>**

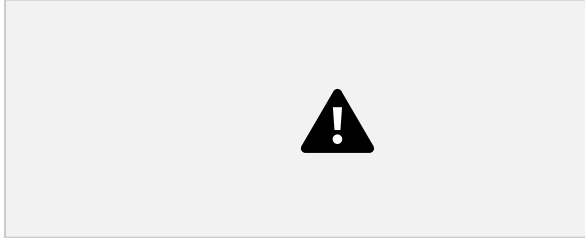


Paragraphs Article

<html>

<p>A paragraph consists of one or more sentences that form a self-contained unit of discourse. The start of a paragraph is indicated by a new line.</p>
<p>Text is easier to understand when it is split up into units of text. For example, a book may have chapters. Chapters can have subheadings. Under each heading there will be one or more paragraphs.</p>

Result



To create a paragraph, surround the words that make up the paragraph with an opening <p> tag and closing </p> tag.

By default, a browser will show each paragraph on a new line with some space between it and any subsequent paragraphs.

TEXT 44

Bold & Italic

By enclosing words in the tags and we can make characters appear bold.

The element also represents a section of text that would be presented in a visually different way (for example key words in a paragraph) although the use of the element does not imply any additional meaning.

<i>

By enclosing words in the tags <i> and </i> we can make characters appear italic.

The <i> element also represents a section of text that would be said in a different way from surrounding content — such as technical terms, names of ships, foreign words, thoughts, or other terms that would usually be italicized.

chapter-02/bold.html **HTML**

<p>This is how we make a word appear bold.

`</p>`
`<p>`Inside a product description you might see some
``key features`` in bold.`</p>`

`<p>`This is how we make a word appear `<i>`italic`</i>`. `</p>`
`<p>`It's a potato `<i>`Solanum teberosum`</i>`.`</p>`
`<p>`Captain Cook sailed to Australia on the
`<i>`Endeavour`</i>`.`</p>`



R esult



R esult

chapter-02/italic.html **HTML**

45 TEXT

Superscript & Article Subscript

HTML chapter-02/superscript-and-subscript.html `<sup>`

you will learn
about $E=MC^2$.`</p>`

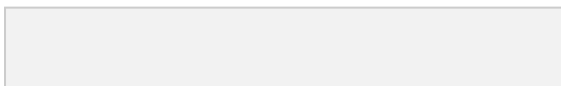
`<p>`The amount of CO_2 in the atmosphere
grew by 2ppm in 2009`₁`.`</p>`

`<p>`On the 4`^{`th`}` of September

The `<sup>` element is used to contain characters that should be superscript such as the suffixes of dates or mathematical concepts like raising a number to a power such as 2^2 .

`<sub>`

R esult



The `<sub>` element is used to contain characters that should be subscript. It is commonly used with foot notes or chemical formulas such as H_2O .

White Space

In order to make code easier to read, web page authors often add extra spaces or start some elements on new lines.

When the browser comes across two or more spaces next to each other, it only displays one space. Similarly if it comes across a line break, it treats that as a single space too. This is known as **white space collapsing**.

You will often see that web page authors take advantage of white space collapsing to indent their

code in order to make it easier to follow.

`chapter-02/white-space.html` [HTML](#)

```
<p>The moon is drifting away from Earth.</p> <p>The
moon is drifting away from Earth.</p> <p>The moon is
drifting away from
```

```
Earth.</p>
```



esult

R

Line Breaks & Article Horizontal Rules

HTML chapter-02/line-breaks.html

`<p>The Earth
gets one hundred tons heavier every
day
due to falling space dust.</p>`

R esult



HTML chapter-02/horizontal-rules.html

`<p>Venus is the only planet that rotates
clockwise.</p>
<hr />
<p>Jupiter is bigger than all the other planets
combined.</p>`

R esult



**
**

As you have already seen, the browser will automatically show each new paragraph or heading on a new line. But if you wanted to add a line break inside the middle of a paragraph you can use the line break tag **
**.

<hr />

To create a break between themes — such as a

change of topic in a book or a new scene in a play — you can add a horizontal rule between sections using the **<hr />** tag.

There are a few elements that do not have any words between an opening and closing tag. They are known as **empty elements** and they are written differently.

An empty element usually has only one tag. Before the closing angled bracket of an empty element there will often be a space and a forward slash character. Some web page authors miss this out but it is a good habit to get into.

TEXT 48

Visual Editors & Their Code views

Content management systems and HTML editors such as Dreamweaver usually have two views of the page you are creating: a visual editor and a code view.

Visual editors often resemble word processors. Although each editor will differ slightly, there are some features that are common to most editors that allow you to control the presentation of text.

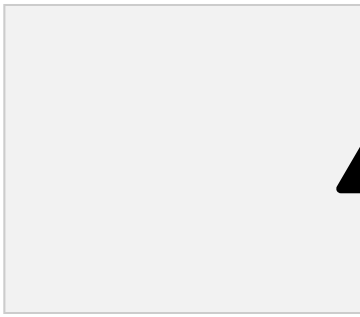
- Headings are created by highlighting text then using a drop-down box to select a heading.
- Bold and italic text are created by highlighting some text and pressing a

b or **i** button.

- New paragraphs are created using the return or the enter key.
- Line breaks are created by pressing the shift key and the return key at the same time.
- Horizontal rules are created using a button with a straight line on it. If you copy and paste text from a program that allows you to format text (such as Word) into a visual editor, it may add extra markup. To prevent this copy the text into

a plain text editor first (such as Notepad on a PC or TextEdit on a Mac) and then copy it from that program and paste it into the visual editor.





Code views show you the code created by the visual editor so you can manually edit it, or so you can just enter new code yourself. It is often activated using a button with an icon that says HTML or has angled brackets. White space may be added to the code by the

editor to make the code easier to read.

Semantic Markup

There are some text elements that are not intended to affect the structure of your web pages, but they do add extra information to the pages — they are known as semantic markup.

In the rest of the chapter you will meet some more elements that will help you when you are adding text to

web pages. For example, you are going to meet the **** element that allows you to indicate where emphasis should be placed on selected words and the **<blockquote>** element which indicates that a

block of text is a quotation.

Browsers often display the contents of these elements in a different way. For example, the content of the **** element is shown in italics,

and a **<blockquote>** is usually indented. But you should not use them to change the way that your text looks; their purpose is to describe the content of your web pages more accurately.

The reason for using these elements is that other programs, such as screen readers or search engines, can use this extra information. For example, the voice of a screen reader may add

emphasis to the words inside the **** element, or a search engine might register that your page features a quote if you use the **<blockquote>** element.

50TEXT

Strong & Emphasis

The use of the **** element indicates that its content has strong importance. For example, the words contained in this element might be said with strong emphasis.

By default, browsers will show the contents of a **** element in bold.

The **** element indicates emphasis that subtly changes the meaning of a sentence.

By default browsers will show the contents of an **** element in italic.

chapter-02/strong.html **HTML**

<p>Beware:**** Pickpockets operate in this area.**</p>**

<p>This toy has many small pieces and is ****not suitable for children under five years old. **</p>**

<p>I think Ivy was the first.</p>
<p>I think Ivy was the first.</p>
<p>I think Ivy was the first.</p>



R esult

chapter-02/emphasis.html HTML



R esult

51 TEXT

Quotations Article

HTML chapter-02/quotations.html There are two elements commonly used for marking up

<blockquote cite="http://en.wikipedia.org/wiki/
Winnie-the-Pooh">

<p>Did you ever stop to think, and forget to start
again?</p>

</blockquote>

<p>As A.A. Milne said, <q>Some people talk to animals.
Not many listen though. That's the problem.</q></p>

R esult



`<blockquote>` element, however you should not use this element just to indent a piece of text — rather you should achieve this effect using CSS.

`<q>`

quotations:

`<blockquote>`

The `<blockquote>` element is used for longer quotes that take up an entire paragraph. Note how the `<p>` element is still used inside the `<blockquote>` element.

Browsers tend to indent the contents of the

The `<q>` element is used for shorter quotes that sit within a paragraph. Browsers are supposed to put quotes around the `<q>` element, however Internet Explorer does not — therefore many people avoid using the `<q>` element.

Both elements may use the `cite` attribute to indicate where the quote is from. Its value should be a URL that will have more information about the source of the quotation.

TEXT 52

Abbreviations & Acronyms

`<abbr>`

chapter-02/abbreviations.html

HTML

`<p><abbr title="Professor">Prof</abbr> Stephen`

If you use an abbreviation or an acronym, then the `<abbr>` element can be used. A `title` attribute on the opening tag is used to specify the full term.

In HTML 4 there was a separate `<acronym>` element for

acronyms. To spell out the full form of the acronym, the `title` attribute was used (as with the `<abbr>` element above). HTML5 just uses the `<abbr>` element for both abbreviations and acronyms.

Hawking is a theoretical physicist and cosmologist. `</p>`

`<p><acronym title="National Aeronautics and Space Administration">NASA</acronym> do some crazy`



Result

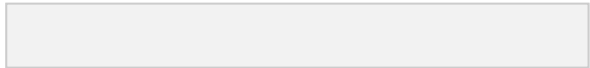
Citations & Article Definitions

`<p>A <dfn>black hole</dfn> is a region of space from which nothing, not even light, can escape.</p>`

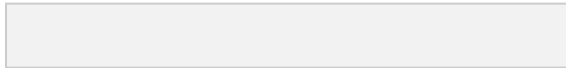
HTML chapter-02/citations.html

`<p><cite>A Brief History of Time</cite> by Stephen Hawking has sold over ten million copies worldwide.</p>`

Result



Result



<cite>

When you are referencing a piece of work such as a book, film or research paper, the `<cite>` element can be used to indicate where the citation is from.

In HTML5, `<cite>` should not really be used for a person's name — but it was allowed in HTML 4, so most people are likely to continue to use it.

HTML chapter-02/definitions.html

Browsers will render the content of a `<cite>` element

in italics.

document, it is known as the defining instance of it.

<dfn>

The first time you explain some new terminology (perhaps an academic concept or some jargon) in a its appearance.

The **<dfn>** element is used to indicate the defining instance of a new term.

Some browsers show the content of the **<dfn>** element in italics. Safari and Chrome do not change

TEXT 54

Author Details

<address> chapter-02/address.html HTML <address>

The **<address>** element has quite a specific use: to accompany this book. contain contact details for the author of the page.

```
<p><a href="mailto:homer@example.org">homer@example.org</a></p>
```

It can contain a physical address, but it does not have to. For example, it may also contain a phone number or email address.

```
<p>742 Evergreen Terrace, Springfield.</p> </address>
```

Browsers often display the content of the **<address>** element in italics.

You may also be interested in something called the hCard microformat for adding physical address information to your markup.

Online extra:

You can find out more about hCards on the website



Result

Changes to ContentArticle

```
<p><s>Was $995</s></p>
<p>Now only $375</p>
```

HTML chapter-02/insert-and-delete.html

<p>It was the worst <ins>best</ins> idea she had ever had.</p>

Result



Result



```
<ins>
<del>
```

The <ins> element can be used to show content that has been inserted into a document, while the element can show text that has been deleted from it.

HTML chapter-02/strikethrough.html

<p>Laptop computer:</p>

The content of a <ins> element is usually underlined, while the content of a element usually has a

line through it.

longer accurate or relevant (but that should not be deleted).

Visually the content of an `<s>` element will usually be displayed with a line through the center.

Older versions of HTML had a `<u>` element for content that was underlined, but this is being phased out.



The `<s>` element indicates something that is no

Example

TEXT

This is a very simple HTML page that demonstrates text markup.

Structural markup includes elements such as `<h1>`, `<h2>`, and `<p>`. Semantic information is carried in elements such as `<cite>` and ``.

```
<html>
  <head>
    <title>Text</title>
  </head>
  <body>
    <h1>The Story in the Book</h1>
    <h2>Chapter 1</h2>
    <p>Molly had been staring out of her window for about an hour now. On her desk, lying between the copies of <i>Nature</i>, <i>New Scientist</i>, and all the other scientific journals her work had appeared in, was a well thumbed copy of <cite>On The Road</cite>. It had been Molly's favorite book since college, and the longer she spent in these four walls the more she felt she needed to be free.</p>
    <p>She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde quote proclaiming that <q>Work is the refuge of people who have nothing better to do</q>. Although many considered her pioneering work, unraveling the secrets of the llama <abbr title="Deoxyribonucleic acid">DNA</abbr>, to be an outstanding achievement, Molly <em>did</em> think she had something better to do.</p>
  </body>
```

HTML elements are used to describe the structure of the page (e.g. headings, subheadings, paragraphs).

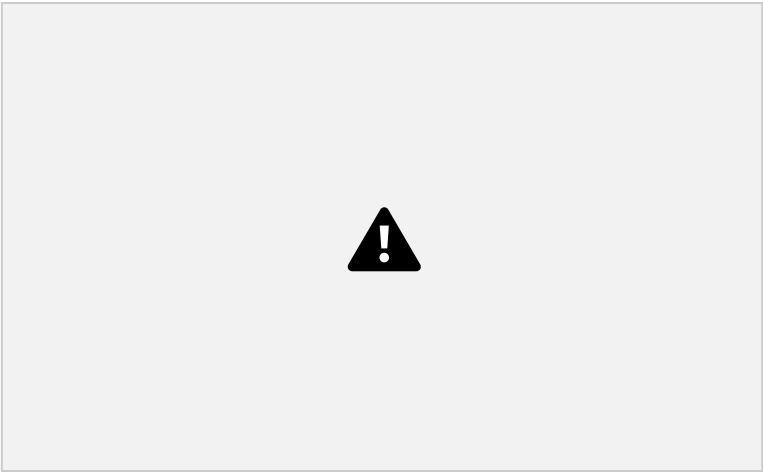
They also provide semantic information (e.g. where emphasis should be placed, the definition of any acronyms used, when given text is a quotation).

Lists

There are lots of occasions when we need to use lists. HTML provides us with three different types:

- **Ordered lists** are lists where each item in the list is numbered. For example, the list might be a set of steps for a recipe that must be performed in order, or a legal contract where each point needs to be identified by a section number.
- **Unordered lists** are lists that begin with a bullet point (rather than characters that indicate order).
- **Definition lists** are made up of a set of terms along with the definitions for each of those terms.

63 LISTS



Ordered Lists

```
</li>Simmer in salted water for 15-20
minutes until tender</li>
<li>Heat milk, butter and nutmeg</li>
<li>Drain potatoes and mash</li>
<li>Mix in the milk mixture</li>
</ol>
```


The ordered list is created with the element.

Each item in the list is placed between an opening tag and a closing tag. (The li stands for list item.)

Browsers indent lists by default.

Sometimes you may see a **type** attribute used with the element to specify the type of numbering (numbers, letters, roman numerals and so on). It is better to use the CSS **list style-type** property covered on pages 333-335.

chapter-03/ordered-lists.html [HTML](#)

Chop potatoes into quarters

Result



Unordered Lists

The unordered list is created with the `` element.

Each item in the list is placed between an opening `` tag and a closing `` tag. (The `li` stands for list item.)

Browsers indent lists by default.

Sometimes you may see a **type** attribute used with the `` element to specify the type of bullet point (circles, squares, diamonds and so on). It is better to use the CSS **list-style type** property covered on pages 333-335.

HTML chapter-03/unordered-lists.html

```
<ul>
<li>1kg King Edward potatoes</li>
<li>100ml milk</li>
<li>50g salted butter</li>
<li>Freshly grated nutmeg</li>
<li>Salt and pepper to taste</li>
</ul>
```

Result



Definition Lists


```
the skin of a fish</dd>
<dt>Scamorze</dt>
<dt>Scamorzo</dt>
<dd>An Italian cheese usually made from whole cow's
milk (although it was traditionally made from buffalo
milk)</dd>
</dl>
```

<dl>

The definition list is created with the `<dl>` element and usually consists of a series of terms and their definitions.

Inside the `<dl>` element you will usually see pairs of `<dt>` and `<dd>` elements.

<dt>

This is used to contain the term being defined (the definition term).

<dd>

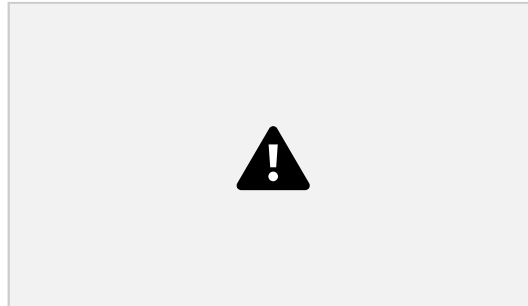
This is used to contain the definition.

Sometimes you might see a list where there are two terms used for the same definition or two different definitions for the same term.

chapter-03/definition-lists.html [HTML](#)

```
<dl>
<dt>Sashimi</dt>
<dd>Sliced raw fish that is served with
condiments such as shredded daikon radish or ginger
root, wasabi and soy sauce</dd> <dt>Scale</dt>
<dd>A device used to accurately measure the weight of
ingredients</dd>
<dd>A technique by which the scales are removed from
```

Result

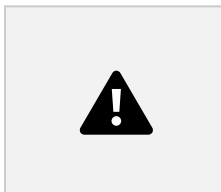


parent list. In nested unordered lists, the browser will usually change the style of the bullet point too.

HTML chapter-03/nested-lists.html

```
<ul>
<li>Mousses</li>
<li>Pastries
<ul>
<li>Croissant</li>
<li>Mille-feuille</li>
<li>Palmier</li>
<li>Profiterole</li>
</ul>
</li>
<li>Tarts</li>
</ul>
```

Result



You can put a second list inside an `` element to create a sub list or nested list.

LISTS 68

Browsers display nested lists indented further than the

69 LISTS

Example

LIST
S

Here you can see a main heading followed by an introductory paragraph. An unordered list is used to outline the ingredients and an ordered list is used to describe the steps.

```
<html>
  <head>
    <title>Lists</title>
  </head>
  <body>
    <h1>Scrambled Eggs</h1>
    <p>Eggs are one of my favourite foods. Here is a recipe for deliciously
rich scrambled eggs.</p> <h2>Ingredients</h2>
    <ul>
      <li>2 eggs</li>
      <li>1tbs butter</li>
      <li>2tbs cream</li>
    </ul>
    <h2>Method</h2>
    <ol>
      <li>Melt butter in a frying pan over a medium heat</li>
      <li>Gently mix the eggs and cream in a bowl</li> <li>Once butter has
melted add cream and eggs</li> <li>Using a spatula fold the eggs from the
edge of the pan to the center every 20 seconds (as if you are making an
omelette)</li>
      <li>When the eggs are still moist remove from the heat (it will continue to
cook on the plate until served)</li>
    </ol>
  </body>
</html>
```

There are three types of HTML lists:

ordered, unordered, and definition.

Ordered lists use numbers.

Unordered lists use bullets.

Definition lists are used to define terminology. Lists can be nested inside one another.