HTML

chapter-02/horizontal-rules.html

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

RESULT

Venus is the only planet that rotates clockwise.

Jupiter is bigger than all the other planets combined.

<abbr>

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.

chapter-02/abbreviations.html

HTML

<abbr title="Professor">Prof</abbr> Stephen
Hawking is a theoretical physicist and
cosmologist.
<acronym title="National Aeronautics and Space
Administration">NASA</acronym> do some crazy
space stuff.

RESULT

Prof Stephen Hawking is a theoretical physicist and cosmologist.

NASA do some crazy space stuff.

National Aeronautics and Space Administration

CITATIONS & DEFINITIONS

нтмі

chapter-02/citations.html

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

RESULT

A Brief History of Time by Stephen Hawking has sold over ten million copies worldwide.

HTML

chapter-02/definitions.html

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

RESULT

A black hole is a region of space from which nothing, not even light, can escape.

<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.

Browsers will render the content of a <cite> element in italics.

<dfn>

The first time you explain some new terminology (perhaps an academic concept or some jargon) in a document, it is known as the defining instance of it.

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 its appearance.

<address>

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

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

chapter-02/address.html

HTML

<address>

 homer@example.org
 742 Evergreen Terrace, Springfield.
</address>

homer@example.org

RESULT

742 Evergreen Terrace, Springfield.

HTML

chapter-02/insert-and-delete.html

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

<ins>

The <ins> element can be used to show content that has been inserted into a document, while the <de1> element can show text that has been deleted from it.

The content of a <ins> element is usually underlined, while the content of a element usually has a line through it.

RESULT

It was the worst best idea she had ever had.

HTML

chapter-02/strikethrough.html

Laptop computer:
<s>Was \$995</s>
Now only \$375

RESULT

Laptop computer:

Was \$995

Now only \$375

<s>

The <s> element indicates something that is no 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.

EXAMPLE

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

Structural markup includes elements such as <h1>, <h2>, and . 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>
   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.
    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.
  </body>
</html>
```

<01>

The ordered list is created with the <01> element.

<1i>>

Each item in the list is placed between an opening <11> tag and a closing </11> tag. (The 11 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
    Simmer in salted water for 15-20
        minutes until tender
    Heat milk, butter and nutmeg
    Drain potatoes and mash
    Mix in the milk mixture
```

- 1. Chop potatoes into quarters
- 2. Simmer in salted water for 15-20 minutes until tender
- 3. Heat milk, butter and nutmeg
- 4. Drain potatoes and mash
- 5. Mix in the milk mixture

HTML

chapter-03/unordered-lists.html

```
<u1>
```

The unordered list is created with the <u1> element.

<1i>>

Each item in the list is placed between an opening <11> tag and a closing </11> tag. (The 11 stands for list item.)

Browsers indent lists by default.

Sometimes you may see a type attribute used with the <u1> element to specify the type of bullet point (circles, squares, diamonds and so on). It is better to use the CSS 11st-style-type property covered on pages 333-335.

- 1kg King Edward potatoes
- 100ml milk
- 50g salted butter
- Freshly grated nutmeg
- Salt and pepper to taste

<d1>

The definition list is created with the <d1> element and usually consists of a series of terms and their definitions.

Inside the <d1> 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

```
<d1>
  <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 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>
</d1>
```

Sashimi

Sliced raw fish that is served with condiments such as shredded daikon radish or ginger root, wasabi and soy sauce

Scale

A device used to accurately measure the weight of ingredients

A technique by which the scales are removed from the skin of a fish

Scamorze

Scamorzo

An Italian cheese usually made from whole cow's milk (although it was traditionally made from buffalo milk)

NESTED LISTS

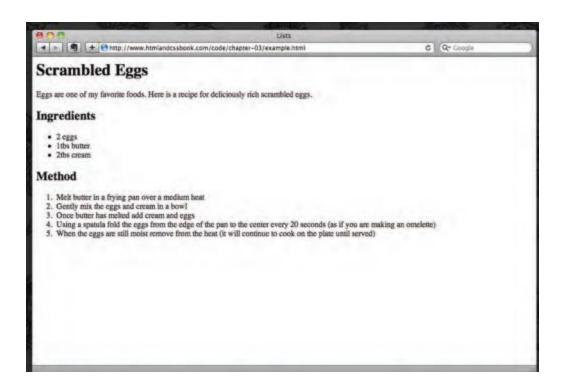
HTML

chapter-03/nested-lists.html

You can put a second list inside an <11> element to create a sublist or nested list.

Browsers display nested lists indented further than the parent list. In nested unordered lists, the browser will usually change the style of the bullet point too.

- Mousses
- Pastries
 - o Croissant
 - Mille-feuille
 - o Palmier
 - o Profiterole
- Tarts



EXAMPLE

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>
    Eggs are one of my favourite foods. Here is a
       recipe for deliciously rich scrambled eggs. 
    <h2>Ingredients</h2>
    <u1>
     <1i>2 eggs</1i>
      ltbs butter
      <1i>2tbs cream</1i>
    <h2>Method</h2>
    <01>
      Melt butter in a frying pan over a medium
         heat
      Gently mix the eggs and cream in a bowl
      Once butter has melted add cream and eggs
      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)
      When the eggs are still moist remove from the
         heat (it will continue to cook on the plate
         until served)
    </01>
  </body>
</html>
```



Links are created using the <a> element which has an attribute called href. The value of the href attribute is the page that you want people to go to when they click on the link.

Users can click on anything that appears between the opening <a> tag and the closing tag and will be taken to the page specified in the href attribute.

When you link to a different website, the value of the href attribute will be the full web address for the site, which is known as an **absolute** URL.

Browsers show links in blue with an underline by default.

RESULT

Movie Reviews:

- Empire
- Metacritic
- Rotten Tomatoes
- Variety

RESULT

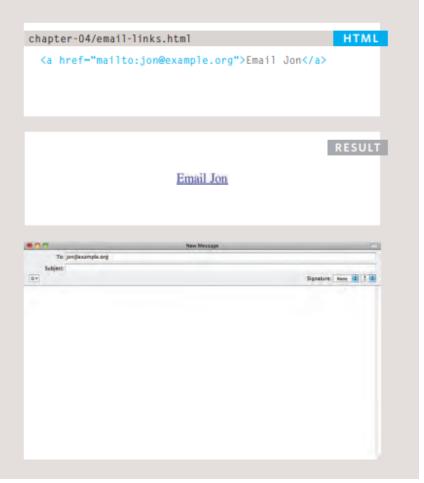
- Home
- About
- Movies
- Contact

DEL ATIVE LIDI C

mailto:

To create a link that starts up the user's email program and addresses an email to a specified email address, you use the <a> element. However, this time the value of the href attribute starts with mailto: and is followed by the email address you want the email to be sent to.

On the right you can see that an email link looks just like any other link but, when it is clicked on, the user's email program will open a new email message and address it to the person specified in the link.



OPENING LINKS IN A NEW WINDOW

HTML

chapter-04/opening-links-in-a-new-window.html

Internet Movie Database (opens in new window)

RESULT

Internet Movie Database (opens in new window)

target

If you want a link to open in a new window, you can use the target attribute on the opening <a> tag. The value of this attribute should be _blank.

One of the most common reasons a web page author might want a link to be opened in a new window is if it points to another website. In such cases, they hope the user will return to the window containing their site after finishing looking at the other one.

Generally you should avoid opening links in a new window, but if you do, it is considered good practice to inform users that the link will open a new window before they click on it.

LINKING TO A SPECIFIC PART OF THE SAME PAGE

At the top of a long page you might want to add a list of contents that links to the corresponding sections lower down. Or you might want to add a link from part way down the page back to the top of it to save users from having to scroll back to the top.

Before you can link to a specific part of a page, you need to identify the points in the page that the link will go to. You do this using the 1d attribute (which can be used on every HTML element). You can see that the <h1> and <h2> elements in this example have been given 1d attributes that identify those sections of the page.

The value of the id attribute should start with a letter or an underscore (not a number or any other character) and, on a single page, no two id attributes should have the same value.

To link to an element that uses an id attribute you use the <a> element again, but the value of the href attribute starts with the # symbol, followed by the value of the id attribute of the element you want to link to. In this example, links to the <h1> element at the top of the page whose id attribute has a value of top.

chapter-05/linking-to-a-specific-part.html

HTML

```
<h1 id="top">Film-Making Terms</h1>
<a href="#arc_shot">Arc Shot</a><br />
<a href="#interlude">Interlude</a><br />
<a href="#prologue">Prologue</a><br /><br />
<h2 id="arc_shot">Arc Shot</h2>
A shot in which the subject is photographed by an
   encircling or moving camera
<h2 id="interlude">Interlude</h2>
A brief, intervening film scene or sequence, not
   specifically tied to the plot, that appears
   within a film
<h2 id="prologue">Prologue</h2>
A speech, preface, introduction, or brief scene
  preceding the the main action or plot of a film;
  contrast to epilogue
<a href="#top">Top</a>
```

LINKING TO A SPECIFIC PART OF ANOTHER PAGE

RESULT

Film-Making Terms

Arc Shot Interlude Prologue

Arc Shot

A shot in which the subject is photographed by an encircling or moving camera

Interlude

A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film

Prologue

A speech, preface, introduction, or brief scene preceding the the main action or plot of a film; contrast to epilogue

Top

If you want to link to a specific part of a different page (whether on your own site or a different website) you can use a similar technique.

As long as the page you are linking to has id attributes that identify specific parts of the page, you can simply add the same syntax to the end of the link for that page.

Therefore, the href attribute will contain the address for the page (either an absolute URL or a relative URL), followed by the # symbol, followed by the value of the 1d attribute that is used on the element you are linking to.

For example, to link to the bottom of the homepage of the website that accompanies this book, you would write:

To add an image into the page you need to use an element. This is an empty element (which means there is no closing tag). It must carry the following two attributes:

src

This tells the browser where it can find the image file. This will usually be a relative URL pointing to an image on your own site. (Here you can see that the images are in a child folder called *images* — relative URLs were covered on pages 83-84).

alt

This provides a text description of the image which describes the image if you cannot see it.

title

You can also use the title attribute with the element to provide additional information about the image. Most browsers will display the content of this attribute in a tootip when the user hovers over the image.

chapter-05/adding-images.html

HTML



The text used in the alt attribute is often referred to as alt text. It should give an accurate description of the image content so it can be understood by screen reader software (used by people with visual impairments) and search engines.

If the image is just to make a page look more attractive (and it has no meaning, such as a graphic dividing line), then the alt attribute should still be used but the quotes should be left empty.

HEIGHT & WIDTH OF IMAGES

HTML

chapter-05/height-and-width-of-images.html



You will also often see an element use two other attributes that specify its size:

height

This specifies the height of the image in pixels.

width

This specifies the width of the image in pixels.

Images often take longer to load than the HTML code that makes up the rest of the page. It is, therefore, a good idea to specify the size of the image so that the browser can render the rest of the text on the page while leaving the right amount of space for the image that is still loading.

The size of images is increasingly being specified using CSS rather than HTML — see pages 409-410 for more information about this.

WHERE TO PLACE IMAGES IN YOUR CODE

Where an image is placed in the code will affect how it is displayed. Here are three examples of image placement that produce different results:

1: BEFORE A PARAGRAPH

The paragraph starts on a new line after the image.

2: INSIDE THE START OF A PARAGRAPH

The first row of text aligns with the bottom of the image.

3: IN THE MIDDLE OF A PARAGRAPH

The image is placed between the words of the paragraph that it appears in.

chapter-05/where-to-place-images.html

HTML

There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

<hr />

There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

Khr /

There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic.Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

EXAMPLE

```
<html>
    <title>Images</title>
  </head>
  <body>
    <h1>
      <img src="images/logo.gif"</pre>
           alt="From A to Zucchini" />
    </h1>
    <figure>
      <img src="images/chocolate-islands.jpg"</pre>
           alt-"Chocolate Islands"
           title="Chocolate Islands Individual Cakes" />
      >
        <figcaption>
          This recipe for individual chocolate
          cakes is so simple and so delectable!
        </figcaption>
      </figure>
    <h4>More Recipes:</h4>
      <img src="images/lemon-posset.jpg"</pre>
           alt-"Lemon Posset"
           title="Lemon Posset Dessert" />
      <img src="images/roasted-brussel-sprouts.jpg"</pre>
           alt="Roasted Brussel Sprouts"
           title="Roasted Brussel Sprouts Side Dish" />
      <img src="images/zucchini-cake.jpg"</pre>
           alt-"Zucchini Cake"
           title-"Zucchini Cake No Frosting" />
    </body>
</html>
```

BASIC TABLE STRUCTURE

The element is used to create a table. The contents of the table are written out row by row.

>

You indicate the start of each row using the opening
 tag. (The tr stands for table row.)

It is followed by one or more elements (one for each cell in that row).

At the end of the row you use a closing

Each cell of a table is represented using a element. (The td stands for table data.)

At the end of each cell you use a closing
tag.

Some browsers automatically draw lines around the table and/or the individual cells. You will learn how to control the borders of tables using CSS on pages 309-312 and 337-340.

```
HTML
chapter-06/basic-table-structure.html
15
 15
 30
 45
 60
 45
 60
  90
  90
```

RESULT

15 15 30 45 60 45 60 90 90

TABLE HEADINGS

HTML

chapter-06/table-headings.html

RESULT

Saturday Sunday

Tickets sold: 120 135 Total sales: \$600 \$675



The element is used just like the element but its purpose is to represent the heading for either a column or a row. (The th stands for table heading.)

Even if a cell has no content, you should still use a or element to represent the presence of an empty cell otherwise the table will not render correctly. (The first cell in the first row of this example shows an empty cell.)

Using elements for headings helps people who use screen readers, improves the ability for search engines to index your pages, and also enables you to control the appearance of tables better when you start to use CSS.

You can use the scope attribute on the element to indicate whether it is a heading for a column or a row. It can take the values: row to indicate a heading for a row or col to indicate a heading for a column.

SPANNING COLUMNS

Sometimes you may need the entries in a table to stretch across more than one column.

The colspan attribute can be used on a or element and indicates how many columns that cell should run across.

In the example on the right you can see a timetable with five columns; the first column contains the heading for that row (the day), the remaining four represent one hour time slots.

If you look at the table cell that contains the words 'Geography' you will see that the value of the colspan attribute is 2, which indicates that the cell should run across two columns. In the third row, 'Gym' runs across three columns.

You can see that the second and third rows have fewer elements than there are columns. This is because, when a cell extends across more than one column, the or cells that would have been in the place of the wider cells are not included in the code.

```
HTML
chapter-06/spanning-columns.html
9am
  10am
  llam
  12am
 Monday
  Geography
  Math
  Art
 Tuesday
  Gym
  Home Ec
```

	9am	10am	11am	12am
Monday	Geography		Math	Art
Tuesday	Gym			Home Ec

SPANNING ROWS

```
HTML
           chapter-06/spanning-rows.html
 ABC
  BBC
  CNN
 6pm - 7pm
  Movie
  Comedy
  News
 7pm - 8pm
  Sport
  Current Affairs
```

RESULT

	ABC	BBC	CNN
6pm - 7pm	Artis.	Comedy	News
7pm - 8pm	Movie	Sport	Current Affairs

You may also need entries in a table to stretch down across more than one row.

The rowspan attribute can be used on a or element to indicate how many rows a cell should span down the table.

In the example on the left you can see that ABC is showing a movie from 6pm - 8pm, whereas the BBC and CNN channels are both showing two programs during this time period (each of which lasts one hour).

If you look at the last
element, it only contains three elements even though there are four columns in the result below. This is because the movie in the

element above it uses the rowspan attribute to stretch down and take over the cell below.

I have added some CSS styles to this example so that you can see how the cells span more than one row. You will learn how to apply these CSS styles to tables on pages 250, 337-340.

LONG TABLES

There are three elements that help distinguish between the main content of the table and the first and last rows (which can contain different content).

These elements help people who use screen readers and also allow you to style these sections in a different manner than the rest of the table (as you will see when you learn about CSS).

<thead>

The headings of the table should sit inside the <thead> element.

The body should sit inside the element.

<tfoot>

The footer belongs inside the <tfoot> element.

By default, browsers rarely treat the content of these elements any differently than other elements however designers often use CSS styles to change their appearance.

```
chapter-06/long-tables.html
                         HTML
<thead>
  Date
    Income
    Expenditure
  </thead>
  lst January
   250
   36
  2nd January
    285
    48
  <!-- additional rows as above -->
  31st January
   129
   64
   <tfoot>
    7824
    1241
  </tfoot>
```

RESULT

Date	Income	Expenditure
1st January	250	36
2nd January	285	48
3rd January	260	42
4th January	290	38
5th January	310	115
6th January	168	14
7th January	226	20
8th January	253	37
9th January	294	33
10th January	216	46
11th January	244	29
12th January	297	32
13th January	328	86
14th January	215	38
15th January	254	30
16th January	256	27
17th January	311	68
18th January	212	39
19th January	234	36
20th January	221	43
21st January	259	38
22nd January	246	31
23rd January	248	17
24th January	229	45
25th January	263	34
26th January	258	41
27th January	283	22
28th January	256	30
29th January	278	47
30th January	251	15
31st January	129	64
	7824	1241

Some of the HTML editors that come in content management systems offer tools to help draw tables. If the first row of your table only contains elements then you may find that the editor inserts a <thead> element automatically.

Part of the reason for having separate <thead> and <tfoot> elements is so that, if you have a table that is taller than the screen (or, if printed, longer than one page) then the browser can keep the header and footer visible whilst the contents of the table scroll. This is intended to make it easier for users to see which column the data is in (however this functionality is not implemented by default in any current browser).

I have added some CSS styles to this example so that you can see the contents of the <thead> and <tfoot> being treated differently than the rest of the rows. You will learn how to apply these CSS styles to tables on pages 309-312 and 337-340.

OLD CODE: BORDER & BACKGROUND

```
HTML
       chapter-06/border-and-background.html
Withdrawn
  Credit
  Balance
 (tr)
  January
  250.00
  660.50
  410.50
 (tr>
  February
  135.55
  895.20
  1170.15
```

RESULT

	Withdrawn	Credit	Balance
January	250.00	660.50	410.50
February	135.55	895.20	1170.15

The border attribute was used on both the and elements to indicate the width of the border in pixels.

The bgcolor attribute was used to indicate background colors of either the entire table or individual table cells. The value is usually a hex code (which we discuss on pages 249-252).

This example uses the HTML border and bgcolor attributes. No CSS attributes were utilized in this example.

When building a new website you should use CSS to control the appearance of the table rather than these attributes. They are only covered here because you may come across them if you look at the code of older websites.