

# (X)HTML

## Technical tutorial

### Basic (X)HTML

In this tutorial you are going to learn how to:

- create web pages using a text editor program
- some basic (X)HTML tags such as:
  - text and page formatting
  - creating new paragraphs
  - creating hypertext links

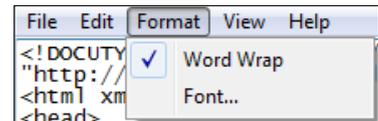
1. Open TextEdit, Notepad or another text editor (not Word).

BEdit is a professional HTML and text editor that is also on the V Block lab computers which you might want to explore at a later date. Let's stick with TextEdit for this tutorial.

These may be in the Dock or in the Applications folder on the Hard drive.

2. Before you start typing we need to change some of the settings in Preferences. Choose TextEdit > Preferences.

In **Notepad**, there is no need to go into Preferences, but you can check Word Wrap by choosing Format > Word Wrap.

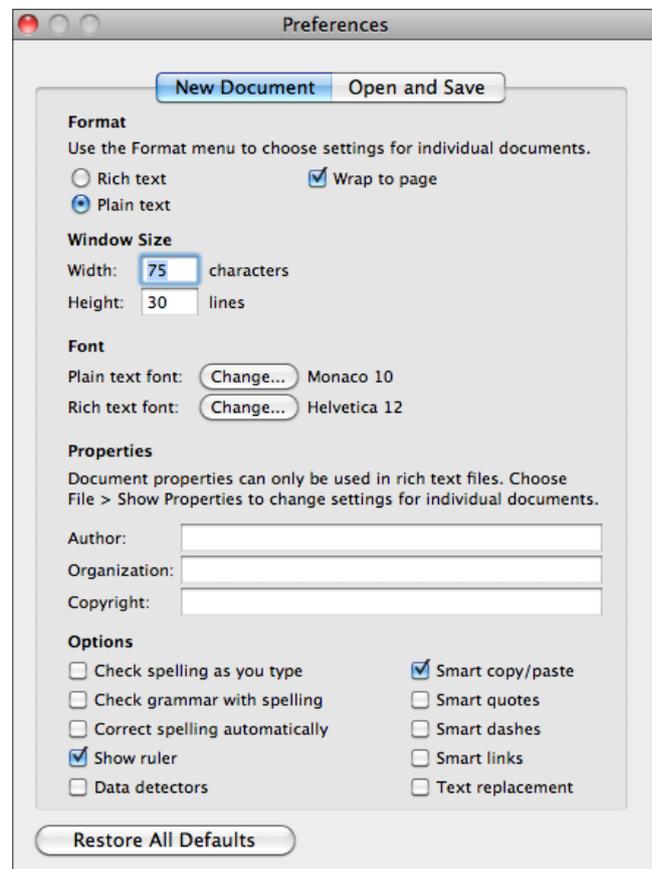


3. In the New Document window

- in the Format section select 'Plain Text' and 'Wrap to page' (this may come up as 'Wrap to Window' in other text editor program).

If we don't check 'Wrap to page' your text will appear as one long line.

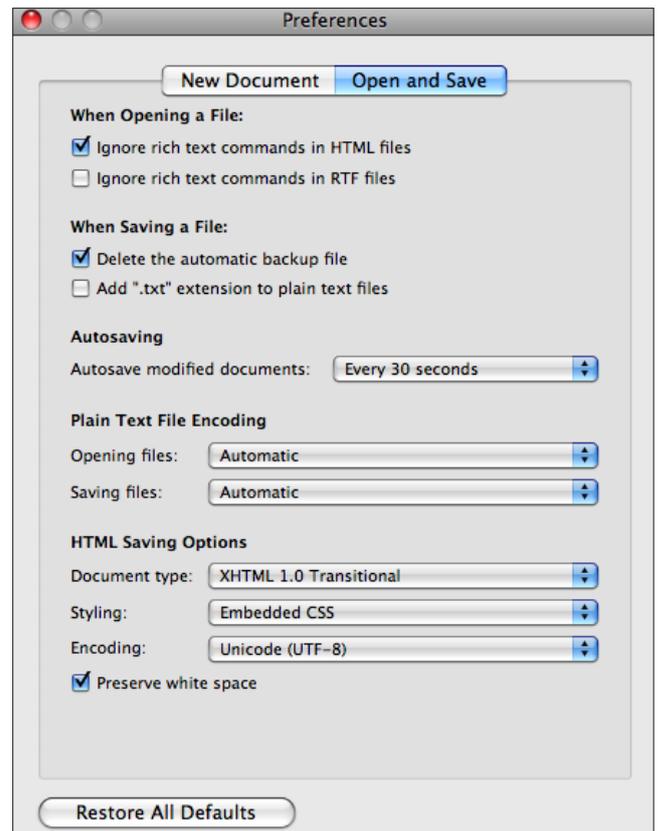
- you can leave everything else as is (I uncheck 'Check spelling as you type' as I find this very annoying. Up to you.)



4. In the Open and Save window
  - check Ignore rich text commands in HTML files
  - uncheck Add “.txt” extension to plain text files
  - In the HTML Saving Options for ‘Document type’ choose ‘XHTML 1.0 Transitional’, for ‘Styling’ choose ‘Embedded CSS’, and for ‘Encoding’ choose ‘Unicode (UTF-8)’.

These should be the default settings. If you are using Notepad, these settings may be different. You can leave as the default settings, but make sure the Document type is XHTML 1.0 Transitional.

You only need to select another encoding if your document contains characters that don't belong to your system's default character encoding.



5. Close your Preferences window.

It is important to make sure our file is in plain text format, and that all rich text commands are ignored, otherwise the next time we open our file, we will lose the html tags we are about to create.

6. Begin your page by using a DOCTYPE to declare what type of HTML you're using.

Type `<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">` to declare that you're using transitional XHTML in your web page.

7. Type `<html xmlns="http://www.w3.org/1999/xhtml">` to begin the actual HTML portion of your document. This is the opening html tag.
8. Leave a few spaces for creating the rest of your page.
9. Type `</html>` to end your html tag.

Your page should look something like this:

10. Save your file.

- Choose File > Save As and name your file index.html. The first page of your website is always named either 'index' or 'default'. The .html is the very important bit.

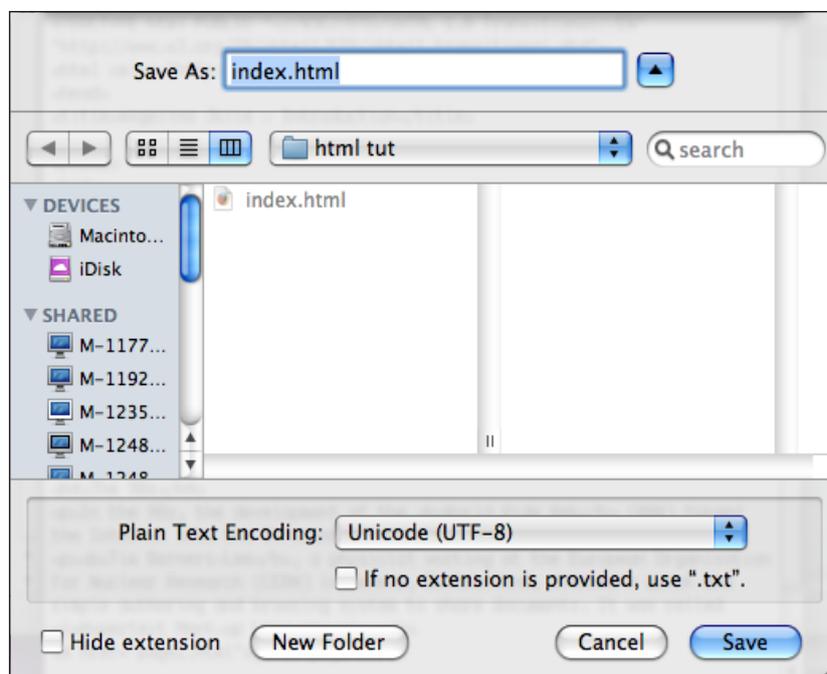


```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">

</html>
```

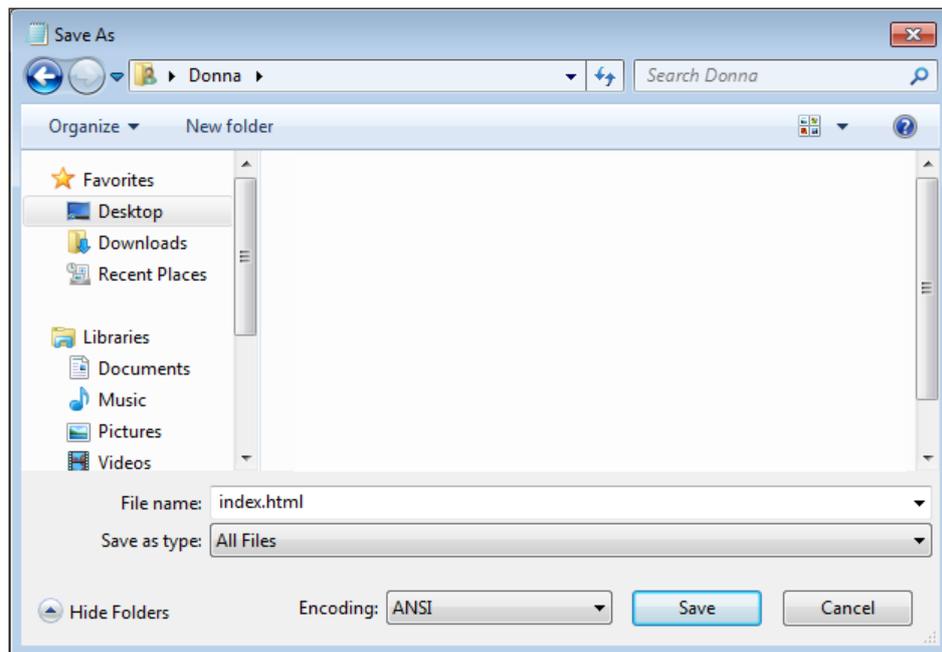
- Create a folder for your files by clicking on New Folder. For this tutorial name your folder 'html tut' and save it in your directory.
- Uncheck 'If no extension is provided, use ".txt".'
- Make sure 'Hide extension' is unchecked

If you are using Notepad (Windows) - in the 'Save as Type' select 'All Files' and save your file in your directory.



11. To create the head section:

- On the next line after the opening html tag type <head>.



- Leave a few spaces for the contents of the of the head section.
- Type </head>

12. To create the body:

- On the next line after the end </head> tag, type <body>.
- Leave a few spaces for the contents of your web page.
- Type </body>

13. To create a Title:

- On the next line after the <head> tag type <title>

```
index.html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>

</head>
<body>

</body>
</html>
```

- Type your name and ‘ - **Introduction**’.

Each page must have a title element. The title generally appears in the title bar of a browser window. It is also used by search indexes such as Yahoo and Google. A title should be short and descriptive.

14. Type </title>



You can also view this short video for a demo on where we are so far.

<http://www.youtube.com/watch?v=v4oN4DuR7YU&feature=related>

## Start adding some content!

15. In the body section of your html document, under the <body> tag, type <h1> which indicates your header format.
16. Type ‘**The Internet**’ which is the content of your header 1.
17. Type </h1>

Your tag should look like this:

```
<h1>The Internet</h1>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Introduction</title>

</head>
<body>
<h1>The Internet</h1>

</body>
</html>
```

Think of your headers as hierarchical dividers. Use them consistently.

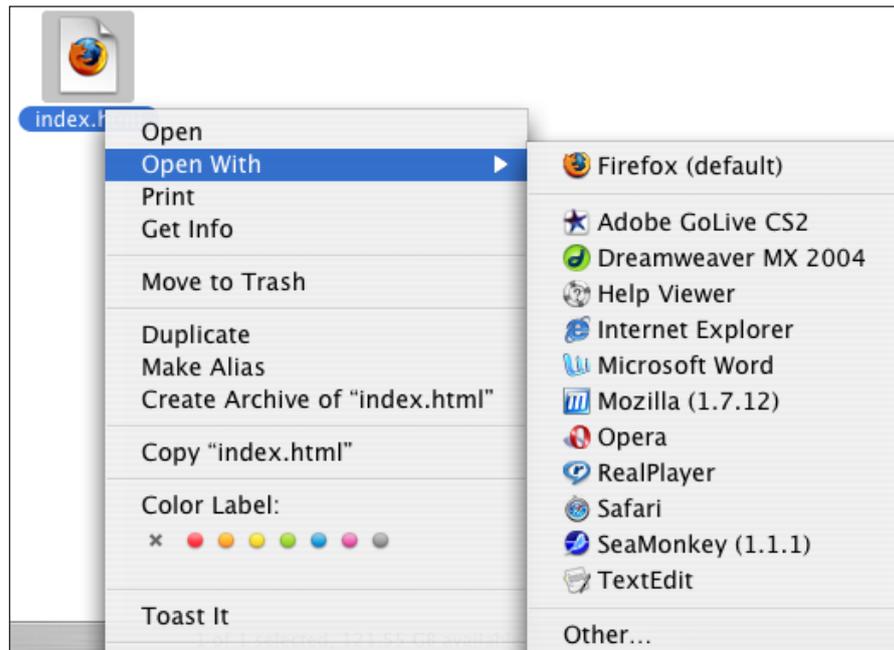
18. Save your file.

## Let's have a look at it in a browser

19. Minimise your TextEdit file and find your html file in your folder.

- Double click the file and it should open in a browser.
- Then close your browser window and go back to your TextEdit file.

Because we've saved our file as an html file it will automatically open in a browser window. To open your file in TextEditor or another text edit program control-click (Mac) or right-click (Windows) on your file, choose 'Open With' and select TextEdit from the list or Other and find the appropriate program.

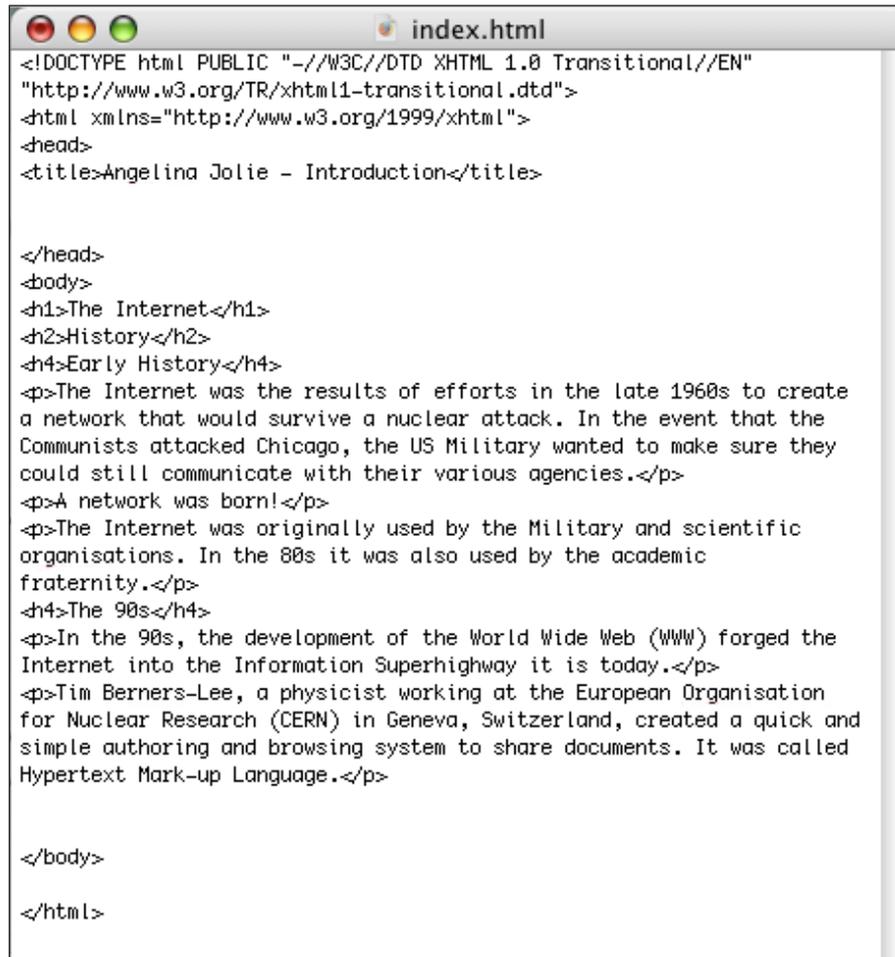


20. Now on the next line type `<h2>History</h2>`
21. On the next line type `<h4>Early History</h4>`

### Adding paragraphs

22. To begin a new paragraph you must use the `<p>` tag:
  - On the next line type `<p>The Internet was the results of efforts in the late 1960s to create a network that would survive a nuclear attack. In the event that the Communists attacked Chicago, the US Military wanted to make sure they could still communicate with their various agencies.</p>`
23. Begin a new paragraph:
  - On the next line type `<p>A network was born.</p>`
24. Begin a new paragraph:
  - Type `<p>The Internet was originally used by the Military and scientific organisations. In the 80s it was also used by the academic fraternity.</p>`
25. On the next line type `<h4>The 90s</h4>`
26. Begin a new paragraph:
  - Type `<p>In the 90s, the development of the World Wide Web (WWW) forged the Internet into the Information Superhighway it is today.</p>`  
`<p>Tim Berners-Lee, a physicist working at the European Organisation for Nuclear Research (CERN) in Geneva, Switzerland, created a quick and simple authoring and browsing system to share documents. It was called Hypertext Mark-up Language.</p>`

27. Your coding should look something like this:



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Introduction</title>

</head>
<body>
<h1>The Internet</h1>
<h2>History</h2>
<h4>Early History</h4>
<p>The Internet was the results of efforts in the late 1960s to create
a network that would survive a nuclear attack. In the event that the
Communists attacked Chicago, the US Military wanted to make sure they
could still communicate with their various agencies.</p>
<p>A network was born!</p>
<p>The Internet was originally used by the Military and scientific
organisations. In the 80s it was also used by the academic
fraternity.</p>
<h4>The 90s</h4>
<p>In the 90s, the development of the World Wide Web (WWW) forged the
Internet into the Information Superhighway it is today.</p>
<p>Tim Berners-Lee, a physicist working at the European Organisation
for Nuclear Research (CERN) in Geneva, Switzerland, created a quick and
simple authoring and browsing system to share documents. It was called
Hypertext Mark-up Language.</p>

</body>
</html>
```

You can add space in between your paragraphs in your text editor but these are ignored in a browser. It just makes it easier to read your code.

28. Save your file and view it in the browser.

Notice that there is a lot of space between each paragraph.

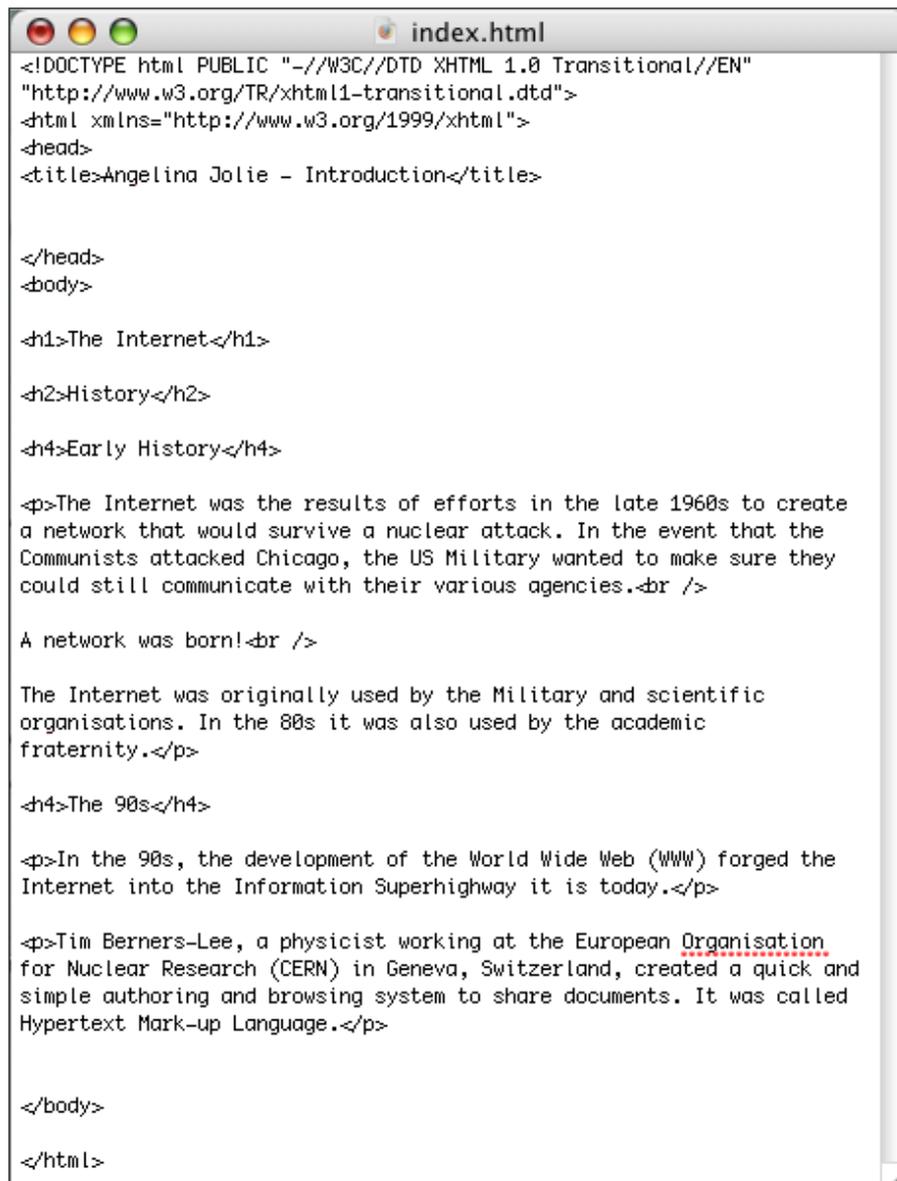
Let's reduce this space between some of the paragraphs by adding a break tag rather than a paragraph tag.

29. In the paragraph ending with "their various agencies." replace the `</p>` tag with `<br />`.

Make sure there is a space between the `br` and the forward slash.

30. On the next line remove both the beginning and end paragraph tag and replace the end tag with `<br />` so it reads A network was born!`<br />`

31. On the next line just remove the beginning paragraph tag `<p>` but leave the end paragraph tag `</p>`. This finishes the paragraph tag which was started at the paragraph “In the event”.



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Introduction</title>

</head>
<body>

<h1>The Internet</h1>

<h2>History</h2>

<h4>Early History</h4>

<p>The Internet was the results of efforts in the late 1960s to create
a network that would survive a nuclear attack. In the event that the
Communists attacked Chicago, the US Military wanted to make sure they
could still communicate with their various agencies.<br />

A network was born!<br />

The Internet was originally used by the Military and scientific
organisations. In the 80s it was also used by the academic
fraternity.</p>

<h4>The 90s</h4>

<p>In the 90s, the development of the World Wide Web (WWW) forged the
Internet into the Information Superhighway it is today.</p>

<p>Tim Berners-Lee, a physicist working at the European Organisation
for Nuclear Research (CERN) in Geneva, Switzerland, created a quick and
simple authoring and browsing system to share documents. It was called
Hypertext Mark-up Language.</p>

</body>
</html>
```

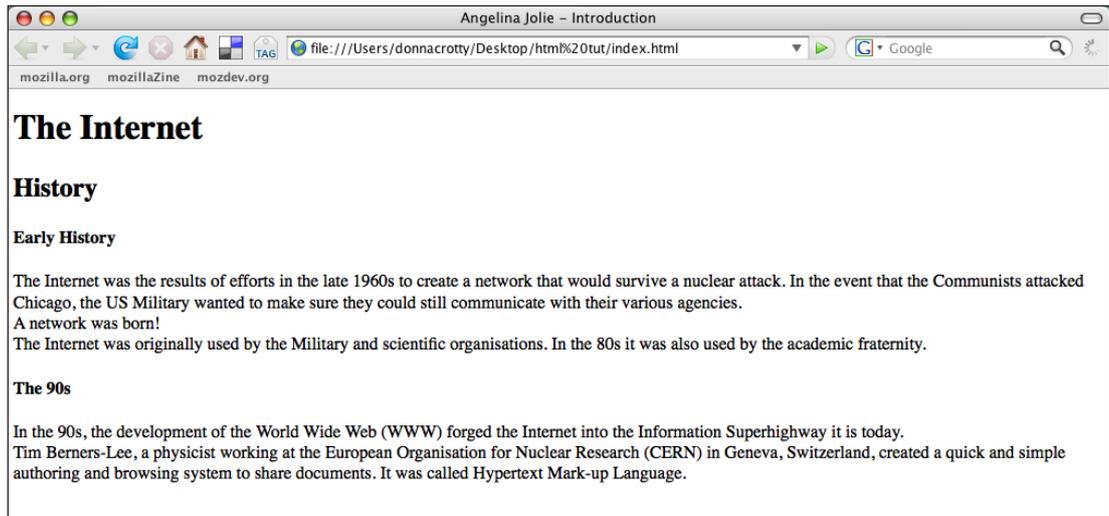
32. Save your file and view it in the browser.
33. Repeat this for the next section after “The 90s” starting with the end tag of the paragraph beginning with “in the 90s”.

Play around with either adding paragraph tags or breaks (what we call soft breaks).

### Remember

Paragraph tags must have a beginning and an end tag with the content of that paragraph in between. Breaks only need the one tag.

Your page should look like this when viewed in the browser.



You can also view these short videos for a demo on where we are so far.

<http://www.youtube.com/watch?v=b2BRS90baOY&NR=1>

<http://www.youtube.com/watch?v=XAPPTnAJ5Pk&NR=1>

## Making text bold or italic

34. To make text bold use the tag `<b>`

- Click in your text (in TextEdit) directly before “World” of “World Wide Web” and type `<b>`.
- Click directly after “Web” and type `</b>` to close the tag.
- Repeat these steps to make “Tim Berners-Lees” bold as well. Click before “Tim” but after the `<p>` tag.

35. To make text italic use the tag `<i>`

- Click directly before “Hypertext” and type `<i>`
- Click directly after “Language” and type `</i>` to close the tag.

Make sure it is before the closing paragraph tag.

36. Save and view in the browser.

These styling tags are what are called deprecated tags which means that eventually these won't be supported in browsers. Cascading Style Sheets is the preferred way to add styles to your pages which we will look at in the next tutorial.

## Adding images

Now let's add an image using the image source tag. To make sure the server will be able to find the image, we either have to type the correct path (so the server knows where to find the image) or place the image in the same folder as our html file.

**You can either use the TimBer-Lee.gif file if from the supplied zip folder or choose your own image. Copy the image file to the same folder as your html file.**

37. Place the cursor where you want the image to appear, in this case click in the next line after “Language”.
- Type ``

## Specifying size for speedier viewing

When a browser gets to the html code for an image, it must load the image to see how big it is and how much space must be reserved for it. If you specify the image’s dimensions, the browser can fill in the text around the image as the image loads, so that your visitors have something to read while waiting for the images.

38. To specify the size of your image:
- Within the `img` tag after the `"` type `width="380" height="312"` (this is the size of the `TimBer-Lee.gif`, if you are using another image it will be different)
- The size is specified in pixels. More about this when we get to Photoshop.

## Offering alternate text

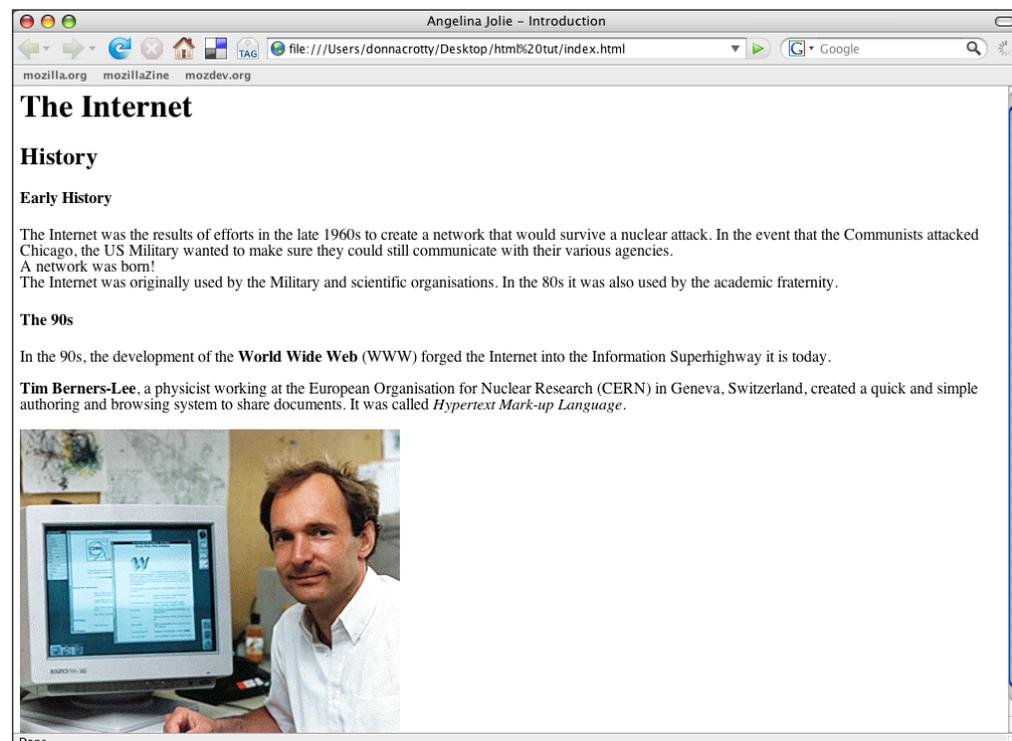
Images are great on a large screen but can be problematic on mobile devices such as phones, slow connections, or for the blind. It’s a good idea to add descriptive text that will appear, even if your image does not.

39. Click after the end of the height attribute and type `alt="Sir Tim Berners-Lee"`
40. Your `img` tag should look like this:

```

```

41. Your web page should look something like this:



**Note:** I’ve put paragraph tags, `<p>` `</p>`, back in for the last two paragraphs.

42. Now, (back in TextEdit) select all of your **img** tag, cut and paste it in front of the paragraph beginning “The Internet was the results”.

When you now view this in the browser there is a big space on the right hand side and the next paragraph appears under the image.

43. To make your image ‘float’, so that your text wraps round it:
- Click directly before width in your img tag and type align=“left” or align=“right”.
- Try both and see what happens.
44. Your html code should look like this:

```
index.html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Introduction</title>

</head>
<body>

<h1>The Internet</h1>
<h2>History</h2>
<h4>Early History</h4>



<p>The Internet was the results of efforts in the late 1960s to create a network that would
survive a nuclear attack. In the event that the Communists attacked Chicago, the US Military
wanted to make sure they could still communicate with their various agencies.<br />

A network was born!<br />

The Internet was originally used by the Military and scientific organisations. In the 80s it
was also used by the academic fraternity.</p>

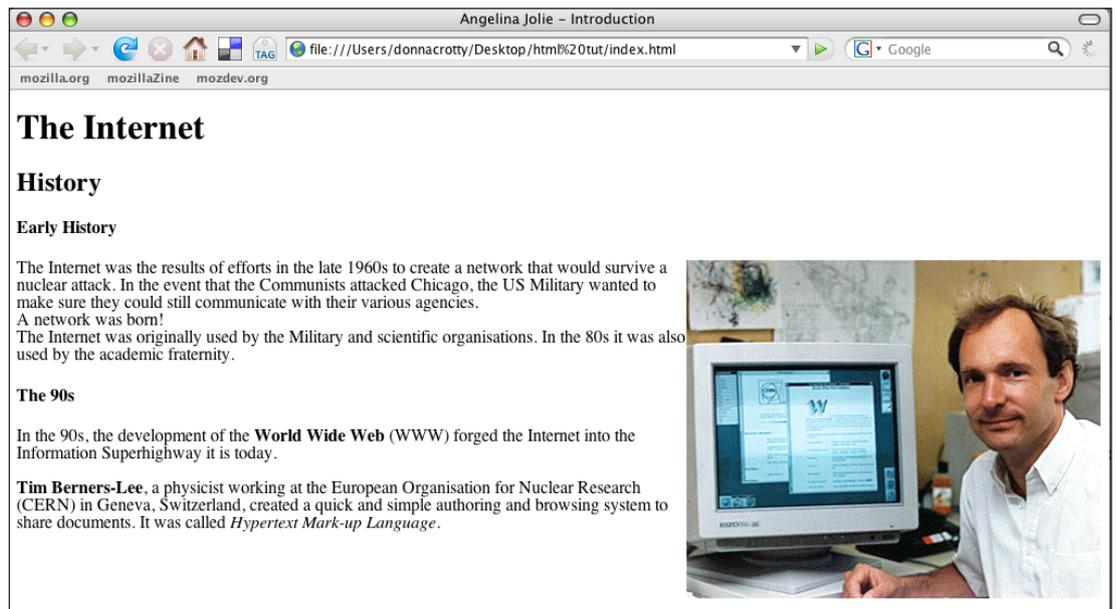
<h4>The 90s</h4>

<p>In the 90s, the development of the <b>World Wide Web</b> (WWW) forged the Internet into the
Information Superhighway it is today.</p>

<p><b>Tim Berners-Lee</b>, a physicist working at the European Organisation for Nuclear
Research (CERN) in Geneva, Switzerland, created a quick and simple authoring and browsing
system to share documents. It was called <i>Hypertext Mark-up Language</i>.</p>

</body>
</html>
```

If you chose to right align the image your page should look like this in the browser



## Creating a link to another page in your website

45. On the next line after “Language” type go to page 2
46. Click directly before “go” and type `<a href="page2.html">`  
This is the URL or address of the destination web page.
47. Now click directly after “2” and type `</a>` to complete the definition of the link.
48. We have to create page2.html as it doesn't exist yet.
  - Open a new file in TextEdit, File > New.
  - Repeat steps 6 – 14 (preferences should remain the same) saving this page as “page2.html”.
49. In your header 1 tag type this is page 2 of my website.

## Change the background colour of your page

50. To change the background colour of your page:
  - In the `<body>` tag, after the word body but before the final `>`, type `bgcolor="color"` where color is either one of the standard color names or is a hexadecimal colour (see the colour chart at <http://www.cookwood.com/html/colors/sixteencolors.html>, or <http://www.cookwood.com/html/colors/backflapcolors.html>) to select a hexadecimal colour.
  - If you do choose a hexadecimal colour you must include `#` before the name.

```

page2.html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Page 2</title>

</head>
<body bgcolor=lime>

<h1>This is Page 2 of my website</h1>

</body>
</html>

```

51. To add a background image to your page:

- In the <body> tag, after the word body but before the final >, type background="image.jpg" where image is the image you are using as the background (either JPEG or GIF).



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Angelina Jolie - Page 2</title>

</head>
<body background="bg_image2.jpg">

<h1>This is Page 2 of my website</h1>

</body>
</html>
```

There are a number of background images in Unit Documents for the HTML tutorial. Don't forget to save them into your folder. Or you can find your own.

If your image is smaller than the screen or page area it will tile (repeat) to fill the area.

#### Note

The bgcolor, background, and the text attributes in the <body> tag are deprecated in the latest versions of HTML (HTML 4 and XHTML) which means that the World Wide Web Consortium (W3C) has removed these attributes from its recommendations.

They recommend that Style sheets (CSS) should be used instead (to define the layout and display properties of HTML elements).

52. Add an image to your page. You may have an image of your own or find and download one from the web.

Remember to save it into your html folder.

53. Add a link to the another page

- On the next line after your header 1 or underneath your image tag type <p><a href="page3.html">Go to page 3</a></p> where the **a href** tag will take you to the specified web page.

54. Now create your page3.html repeating steps 48 to 53.

**Remember to save all your html files and image files in the same folder.**

55. Add links to your pages so you can move to any page in which ever page you are in.



You can also view these short videos for a demo on where we are so far.

<http://www.youtube.com/watch?v=B331GhDN130&feature=relmfu>

These basic html pages are the foundations for web page creation. Next tutorial we will be adding more style (visual design) to our pages by using Cascading Style Sheets.

You can experiment with other tags and tutorials at the W3 School's tutorial website:

<http://www.w3schools.com/html/default.asp>

Once you have finished your three pages and all the links are working, spend some time doing some research for your project. This could include researching other websites for inspiration on visual design, navigation, content.

**Keep your HTML exercise files as we will be revisiting them later to create some Styles.**

If you are interested in learning more about hand coding I recommend the “Visual Quickstart Guide, *HTML, XHTML & CSS*. Sixth Edition”, by Elizabeth Castro, Peachpit Press, 2007.

There is an accompanying website <http://www.cookwood.com/html6ed/>