THE YOUNG PERSON'S GUIDE TO BUILDING WEB SITES

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Introduction

Welcome to your guide to building web sites. If you can count, read and type then you are well on your way to becoming a programmer. It is not that difficult if you take your time and read this guide very carefully. You must also type very carefully and check very carefully to see if what you type matches what is printed in this guide.

Also we will show in this `type of print` then you should type it very carefully so that it matches exactly. If we show you this *`type of print`* then you can type what you think best matches. For example if we ask you to type the following:

`My name is` *`your name`*`.`

I can do this by typing this:

```
My name is Paul.
```

So let's begin….

Here is a secret. Computers are really dumb machines. They do only what they are told. The people who tell them what to do I like to call users. If your granny sends an email to her sister in America or your little brother plays a video game then they are both computer users who are telling the computer what they want it to do.

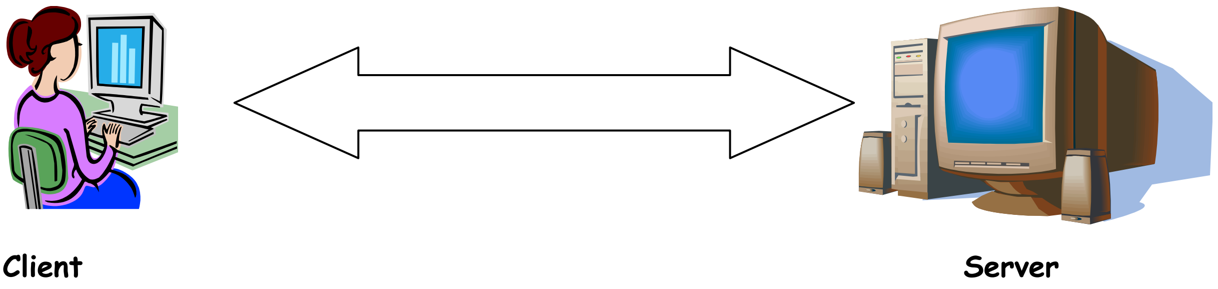
But computers appear smart don't they? This is because some clever people put the instructions into the computer to tell it how to do things. We call these instructions software programs or software applications. We call the people who make these software applications programmers and guess what? You very soon will become a programmer if you keep reading….

World Wide Web

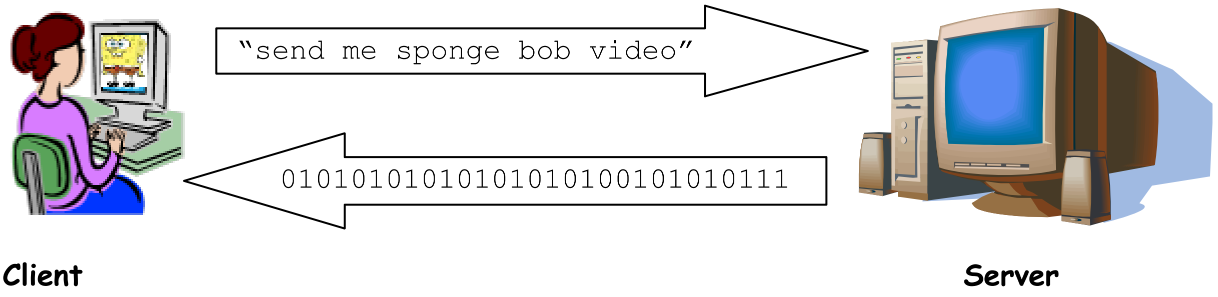
One of the most common way people use computers is to 'surf the web'. Here is fact that people often forget when they are surfing the web: web surfing involves using at least two computers.

The computer that you use in front of you is called a client computer. This client computer is called a client because it uses some service from a server computer, just like a client of a business uses the business for some service such as buying clothes or getting their hair cut.

For the World Wide Web the main use of servers is to provide services in the form of data. For example the computer on the left below is the client and the one on the right is the server.



For example if you surf to YouTube to watch Sponge Bob by clicking on a link what happens is your client computer sends an instruction such as "send me sponge bob video" to the server computer. The server computer then sends the data for the sponge bob video to your client computer so that your computer can play it.



Notice that the video is sent to the client as a lot of ones and zeros. This is a **code** that the client will know how to convert to a video.

If you are doing a lot of surfing then there might be lots of different server computers sending you information.

When the server send data to a client computer the client computer needs to know what to do. Again remember that computers are dumb so they need to be told what to do with this data. A software application called a web browser that is just a big series of instruction that computer programmers have written to allow you to surf the web easily. There are many types of web browsers written by different teams of programmers, The main browsers in use today are written by different teams from Google, Microsoft, Apple and Firefox. The logos for these browser software applications are shown below:

Google Chrome

Microsoft Internet Explorer

Apple Safari

Mozilla Firefox

I prefer to use Google's Chrome for now as it is currently the best at showing HTML5 pages. You can download Google's Chrome by searing for it on the Internet.

Note that you should never use a web browser to surf the World Wide Web without help from an adult such as your parents or teachers. The World Wide Web connects you to millions of computers around the world. Most people all around the world are really good but there are always a few bad guys out who will want to upset other people. Just as you would not go wandering around a big strange city without people you trust, so to you should not use the World Wide Web without help from an adult.

HTML

When you download a page from a web site your are downloading a hyper text mark up language document called an html document for sort.

This is a very complicated way to say something very simple. A HTML document is just a document that contains the instructions on how to draw a web page that a computer can understand. The letters HTML stand for the following;

Hyper **T**ext – Text (or words) they can do something when a user clicks on them

Markup **L**anguage – a language that marks words with instructions for the computer.

For example you can tell the client computer the title of a web page by using the `<title>` markup instruction. Most web programmers call these markup instructions "tags" as they are used to tag an instruction onto something.

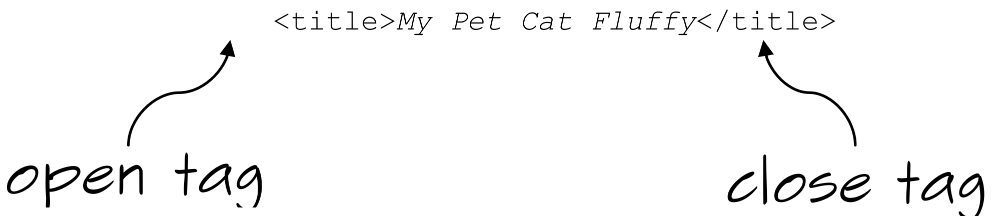
Notice that we put angle brackets around the title markup instruction. These brackets are used to tell the computer that we are sending it the `<title>` instruction.

These angle brackets can be typed on your keyboard by holding down the shift key and pressing the keys with the angle brackets on them:

The tile of a web page can be just one word or can be many words. For example I might call my web page "`Fluffy`" which is just one word. Or I might decide to call my web page "`My Pet Cat Fluffy`", which is four words. How do we tell the computer where the title of my web page starts and stops? We do this my using an open tag with a close tag. For the title of my web page I would use the following markup:

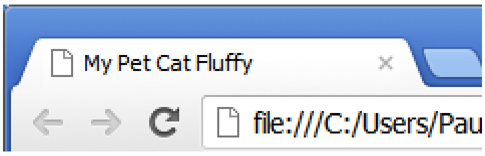
```
<title>My Pet Cat Fluffy</title>
```

Notice that the start tag has angle brackets around it `<title>` and the close tag has angle brackets around it with a back slash `</title>`.

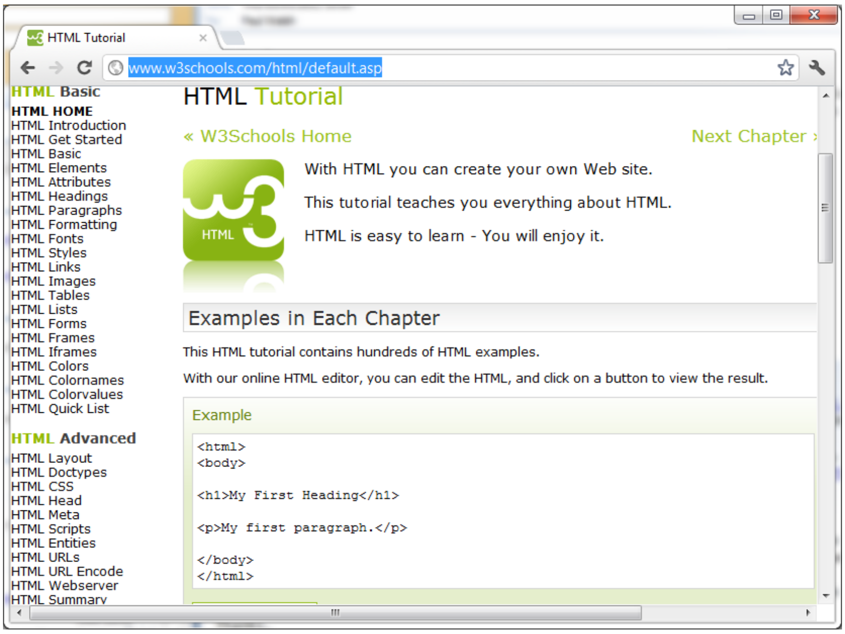


```
<title>My Pet Cat Fluffy</title>
```

When a browser displays this HTML it will put the text near the top of the page somewhere:



There are many HTML tags that you can use to build your web pages. You can use the information on the website http://www.w3schools.com/html/default.asp to guide you on how these tags should work.



HTML Basic

HTML HOME
HTML Introduction
HTML Get Started
HTML Basic
HTML Elements
HTML Attributes
HTML Headings
HTML Paragraphs
HTML Formatting
HTML Fonts
HTML Styles
HTML Links
HTML Images
HTML Tables
HTML Lists
HTML Forms
HTML Frames
HTML Iframes
HTML Colors
HTML Colornames
HTML Colorvalues
HTML Quick List

HTML Advanced

HTML Layout
HTML Doctypes
HTML CSS
HTML Head
HTML Meta
HTML Scripts
HTML Entities
HTML URLs
HTML URL Encode
HTML Webserver
HTML Summary

HTML Tutorial

« W3Schools Home Next Chapter »

With HTML you can create your own Web site.

This tutorial teaches you everything about HTML.

HTML is easy to learn - You will enjoy it.

Examples in Each Chapter

This HTML tutorial contains hundreds of HTML examples.

With our online HTML editor, you can edit the HTML, and click on a button to view the result.

Example

```
<html>
<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

Tags come in two types: container tags and empty tags.

The container tag has an opening tag and a matching closing tag:

```
<title>My Pet Cat Fluffy</title>
```

Notice the slash (/) on the closing tag. This tells the browser that the tag has ended.

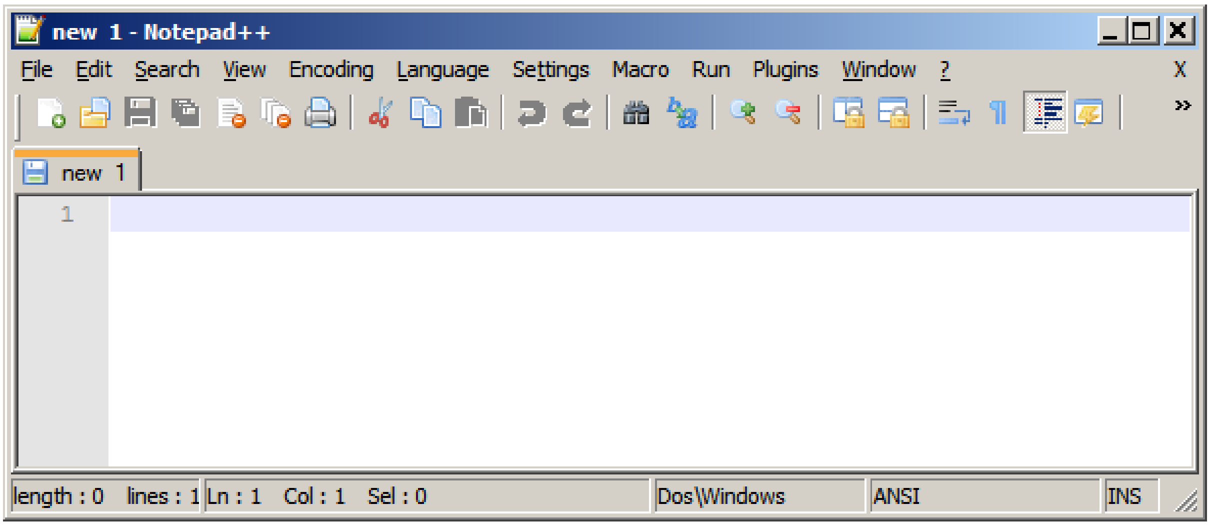
The other type of tag is the empty tag which doesn't have a closing tag because it does just one simple thing. For example the tag `<br>` is one that breaks one line of text into two.

HTML does not care if you use capital letters in tags. That means, you can use either lowercase or uppercase. <HTML> is the same as <html>. For neatness it is standard to write html tags in lower case like this: <html></html>

Typing In Your Web Pages

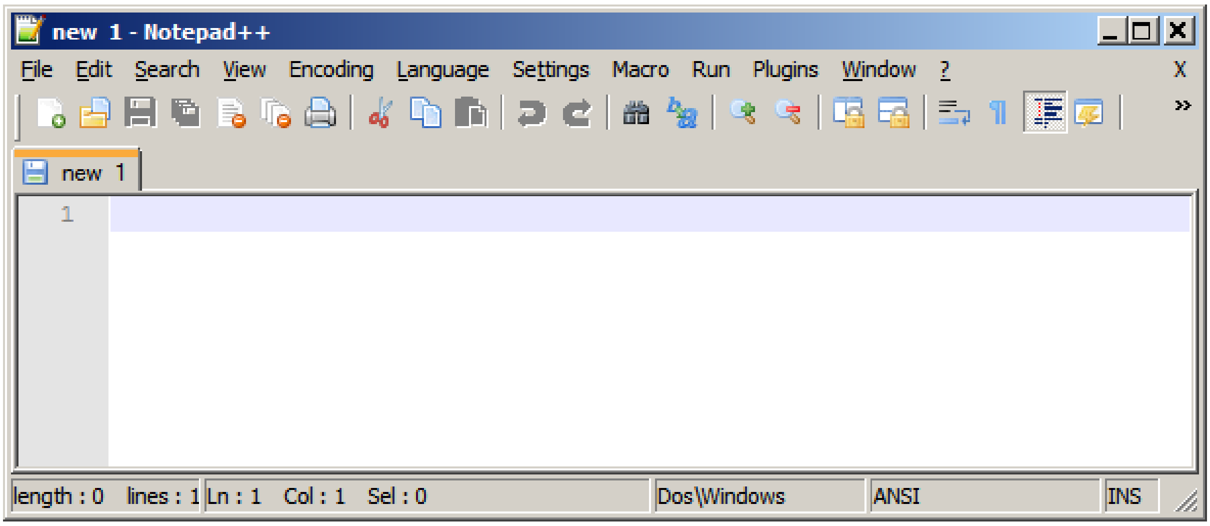
When you are creating your own web pages you must be able to type in these markup instructions and the words and content of your web site.

One useful software application for creating web pages is call NotePad++ and it looks like this:

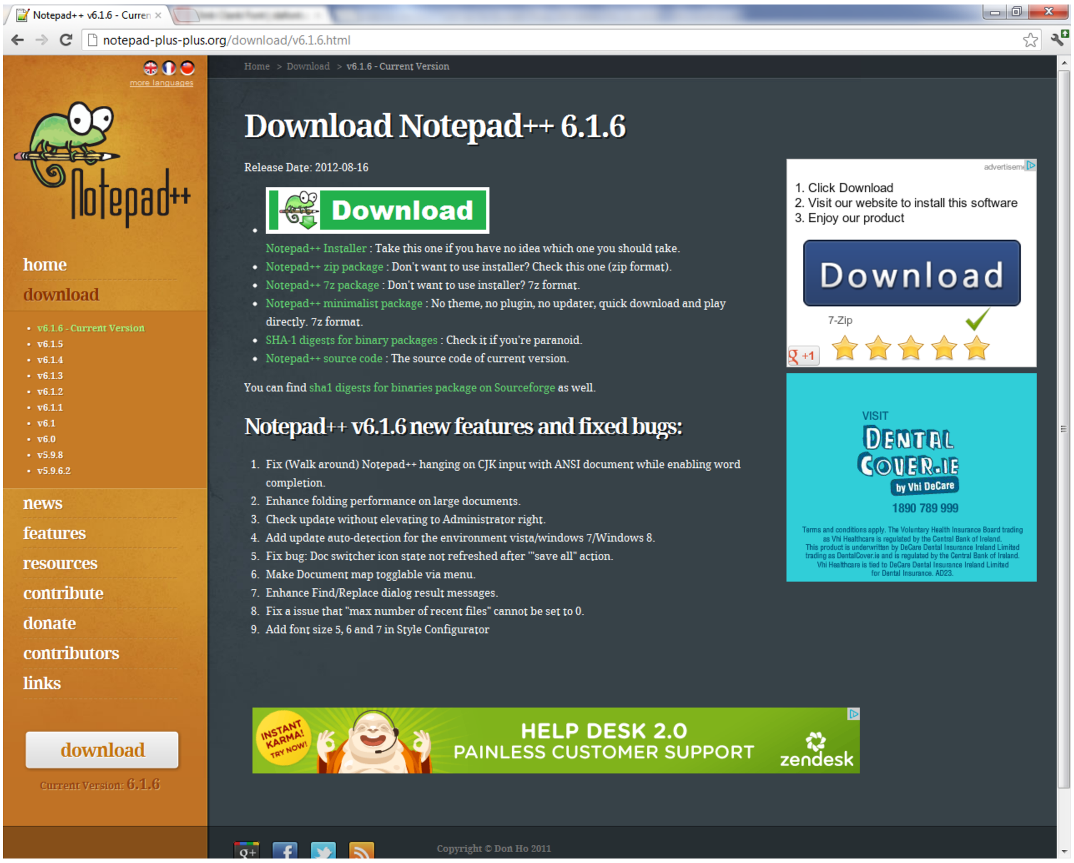

new 1 - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
new 1
1
length : 0 lines : 1 Ln : 1 Col : 1 Sel : 0 Dos\Windows ANSI INS

The white space is where you can type the markup language instructions for your web site.

You can get NotePad++ for your computer by searching for it on Google:


new 1 - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
new 1
1
length : 0 lines : 1 Ln : 1 Col : 1 Sel : 0 Dos\Windows ANSI INS

Click the download link and follow the instructions for setting it up on your computer.



Download Notepad++ 6.1.6

Release Date: 2012-08-16

- Notepad++ Installer : Take this one if you have no idea which one you should take.
- Notepad++ zip package : Don't want to use installer? Check this one (zip format).
- Notepad++ 7z package : Don't want to use installer? 7z format.
- Notepad++ minimalist package : No theme, no plugin, no updater, quick download and play directly. 7z format.
- SHA-1 digests for binary packages : Check it if you're paranoid.
- Notepad++ source code : The source code of current version.

You can find sha1 digests for binaries package on Sourceforge as well.

1. Click Download
2. Visit our website to install this software
3. Enjoy our product

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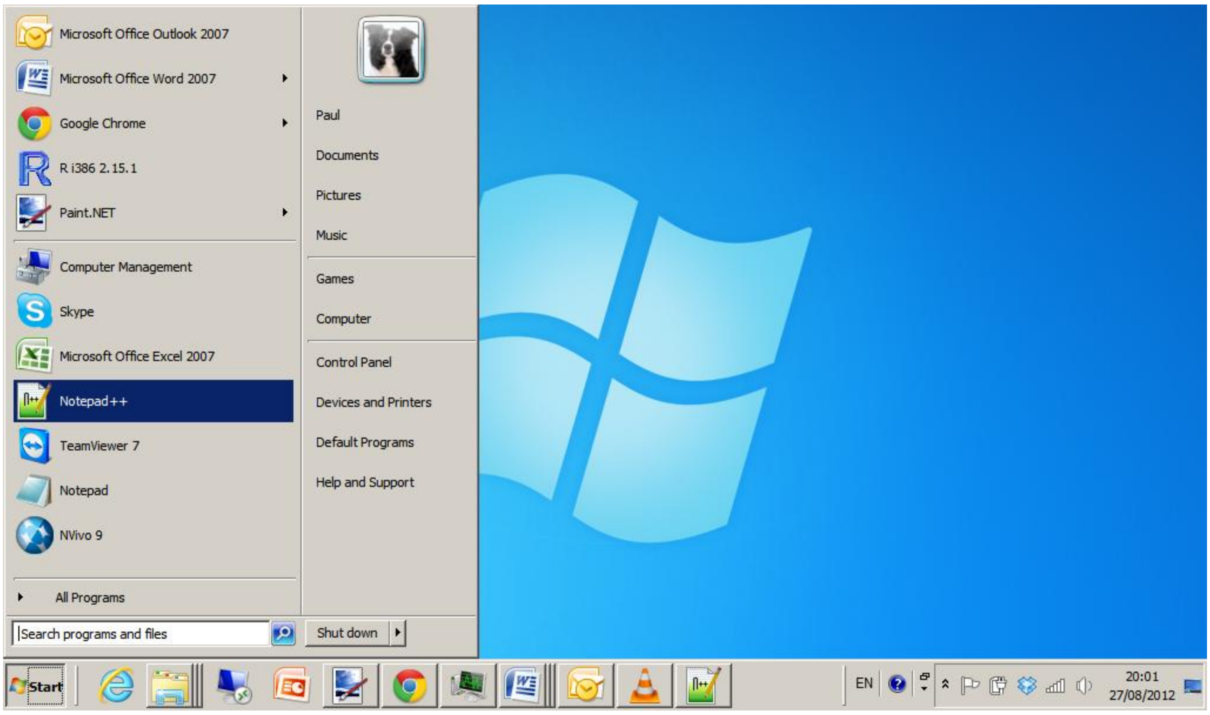
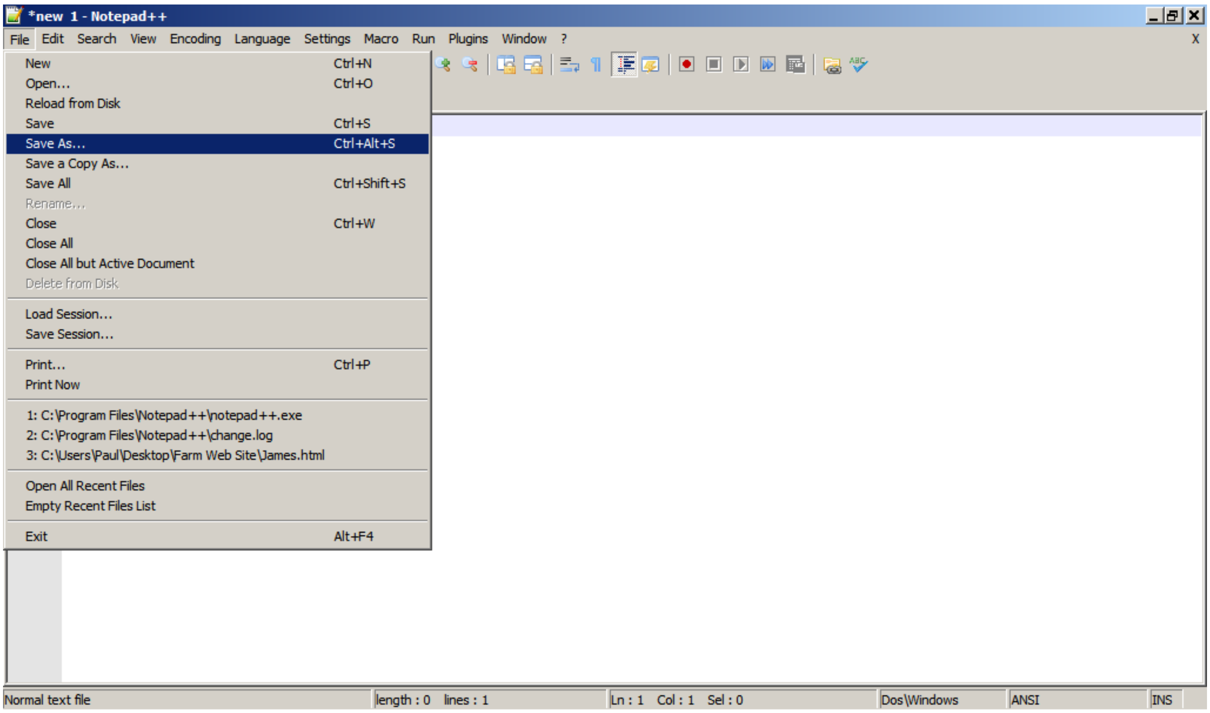
Notepad++ v6.1.6 new features and fixed bugs:

1. Fix (Walk around) Notepad++ hanging on CJK input with ANSI document while enabling word completion.
2. Enhance folding performance on large documents.
3. Check update without elevating to Administrator right.
4. Add update auto-detection for the environment vista/windows 7/Windows 8.
5. Fix bug: Doc switcher icon state not refreshed after '"save all" action.
6. Make Document map togglable via menu.
7. Enhance Find/Replace dialog result messages.
8. Fix a issue that "max number of recent files" cannot be set to 0.
9. Add font size 5, 6 and 7 in Style Configurator

When NotePad++ is installed launch it:

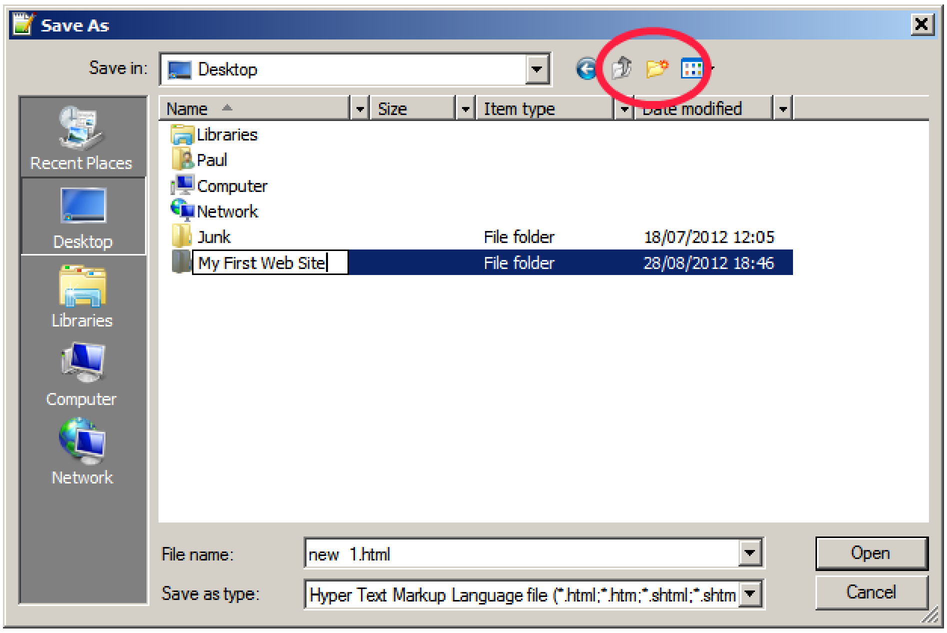


When Notepad++ starts you are nearly ready to get going. However before you start you should set up the file on your computer. Do this by going to the file menu and selecting Save As:



A dialog form opens up and we should select a place on the computer where we can store any files that we create for our project.

I am going to create a folder called “My First Web Site” on my desktop where I can save my files. You can do this yourself by clicking the new folder button and typing in the name of the folder.



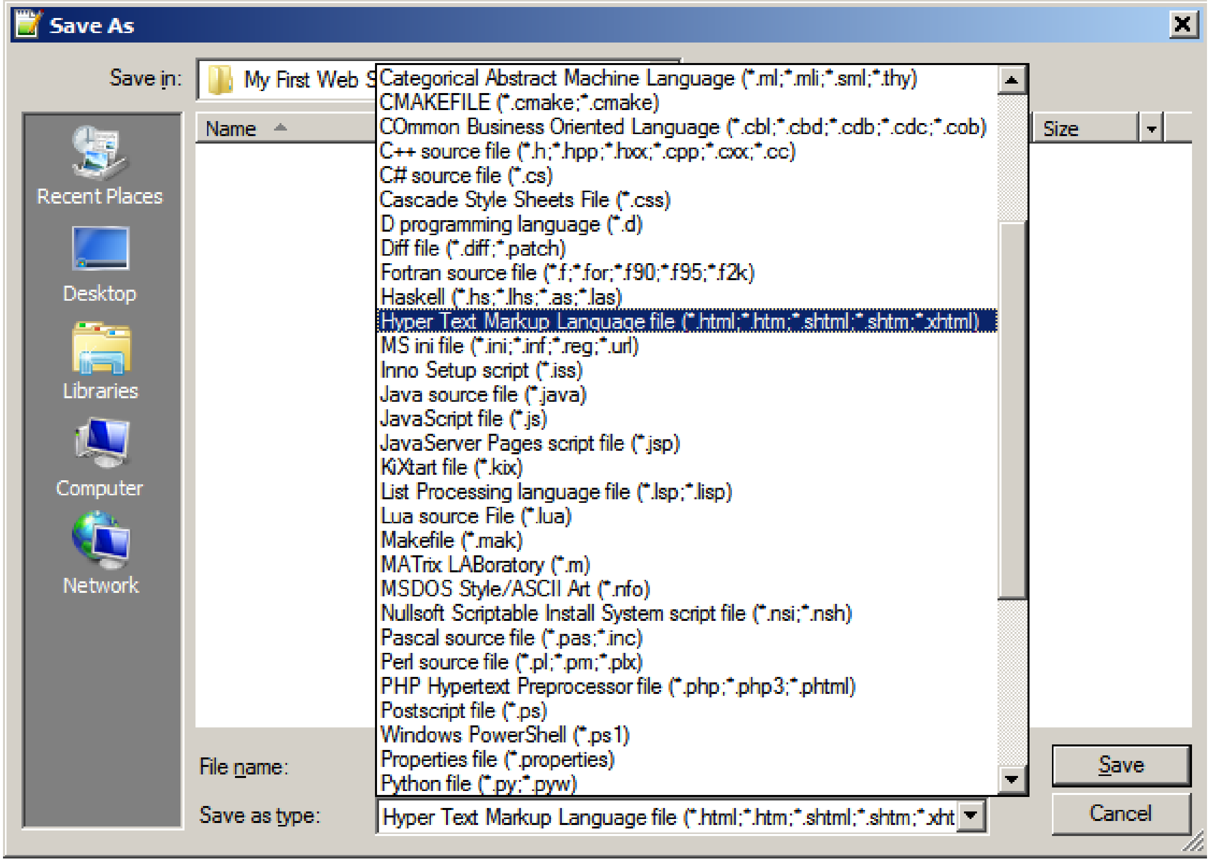
Save in: Desktop

Name	Size	Item type	Date modified
Libraries			
Paul			
Computer			
Network			
Junk		File folder	18/07/2012 12:05
My First Web Site		File folder	28/08/2012 18:46

File name: new 1.html

Save as type: Hyper Text Markup Language file (*.html;*.htm;*.shtml;*.shtm

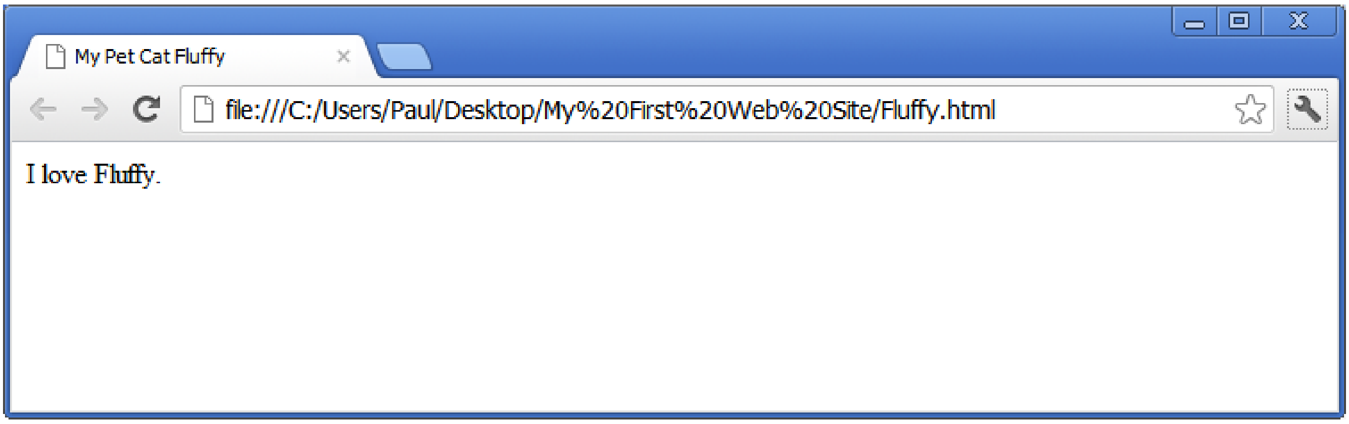
Next open the folder and because we are going to be creating Hyper Text Markup Language (HTML) files select this option from the **Save as type** option.


Save As
Save in:
My First Web S
Recent Places
Desktop
Libraries
Computer
Network
Name
Size
Categorical Abstract Machine Language (*.ml;*.mli;*.sml;*.thy)
CMAKEFILE (*.cmake;*.cmake)
COmmon Business Oriented Language (*.cbl;*.cbd;*.cdb;*.cdc;*.cob)
C++ source file (*.h;*.hpp;*.hxx;*.cpp;*.cxx;*.cc)
C# source file (*.cs)
Cascade Style Sheets File (*.css)
D programming language (*.d)
Diff file (*.diff;*.patch)
Fortran source file (*.f;*.for;*.f90;*.f95;*.f2k)
Haskell (*.hs;*.lhs;*.as;*.las)
Hyper Text Markup Language file (*.html;*.htm;*.shtml;*.shtm;*.xhtml)
MS ini file (*.ini;*.inf;*.reg;*.url)
Inno Setup script (*.iss)
Java source file (*.java)
JavaScript file (*.js)
JavaServer Pages script file (*.jsp)
KiXtart file (*.kix)
List Processing language file (*.lsp;*.lisp)
Lua source File (*.lua)
Makefile (*.mak)
MATrix LABoratory (*.m)
MSDOS Style/ASCII Art (*.nfo)
Nullsoft Scriptable Install System script file (*.nsi;*.nsh)
Pascal source file (*.pas;*.inc)
Perl source file (*.pl;*.pm;*.plx)
PHP Hypertext Preprocessor file (*.php;*.php3;*.phtml)
Postscript file (*.ps)
Windows PowerShell (*.ps1)
Properties file (*.properties)
Python file (*.py;*.pyw)
File name:
Save
Cancel

Save as type: Hyper Text Markup Language file (*.html;*.htm;*.shtml;*.shtm;*.xht

Name the file “Fluffy” and save it in a location that suits you on your computer and make sure that you remember where you save it.

We want our first web page to print out the name of my pet cat Fluffy. If you want you can put in the name of your pet or make up a name. This first web page should look like this:



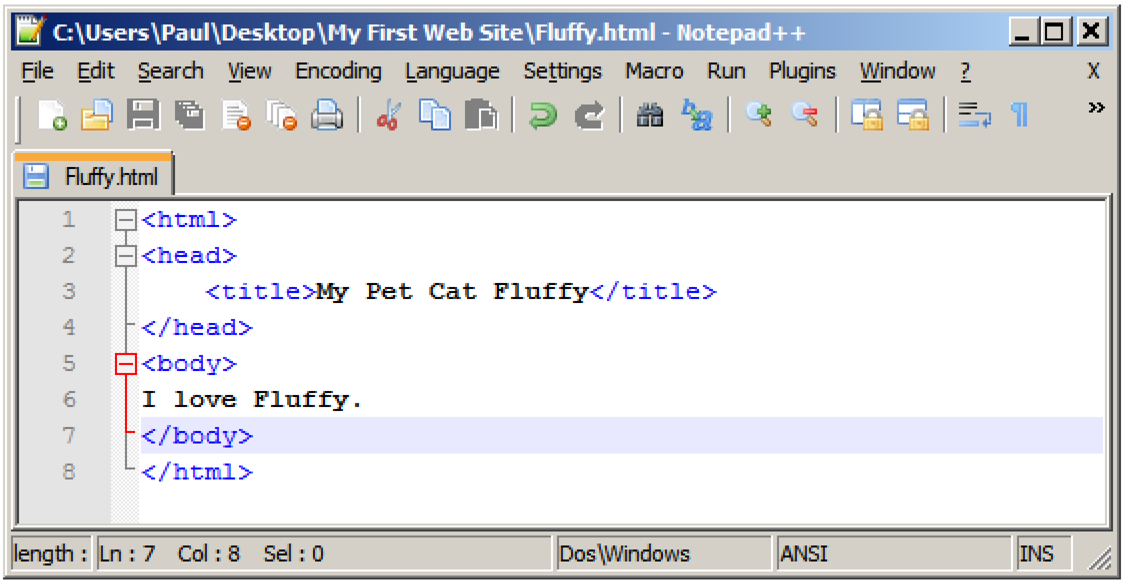
file:///C:/Users/Paul/Desktop/My%20First%20Web%20Site/Fluffy.html

I love Fluffy.

The HTML code for this first page is:

```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
I love Fluffy.
</body>
</html>
```

In NotePad++ it should look like this:



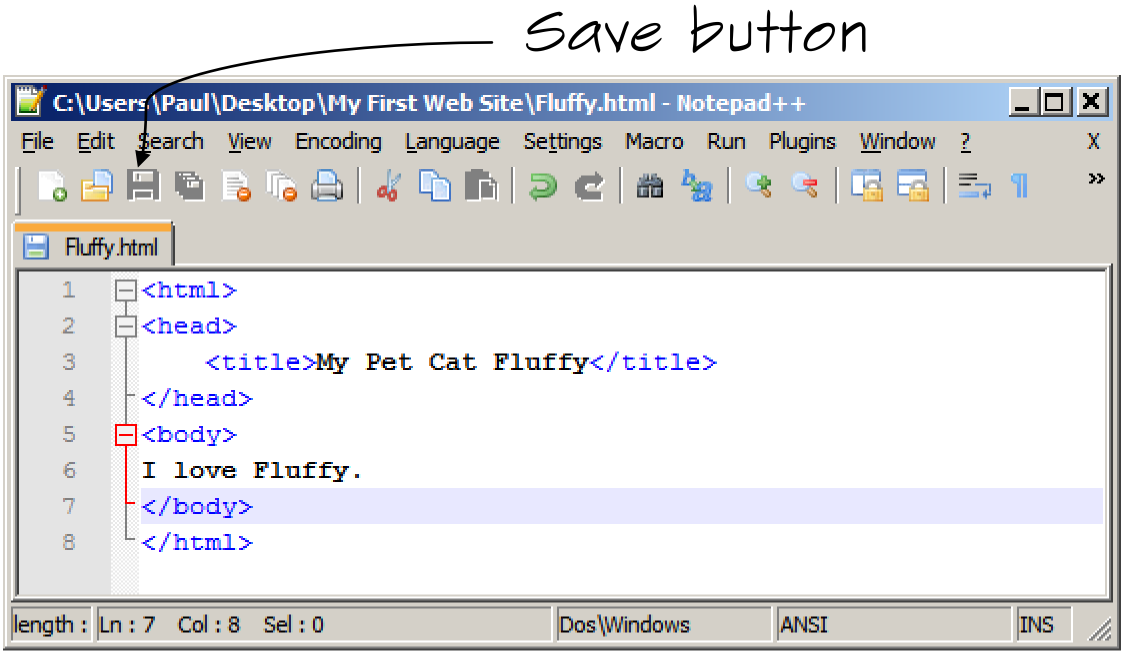
```
1  <html>
2  <head>
3      <title>My Pet Cat Fluffy</title>
4  </head>
5  <body>
6  I love Fluffy.
7  </body>
8  </html>
```

C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
X
Fluffy.html
length : Ln : 7 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

Notice that NotePad++ is showing the number of each line. This can be very useful for checking back over your code. Sometimes that computer will also tell you if there is a problem with your code and on what line the problem is on.

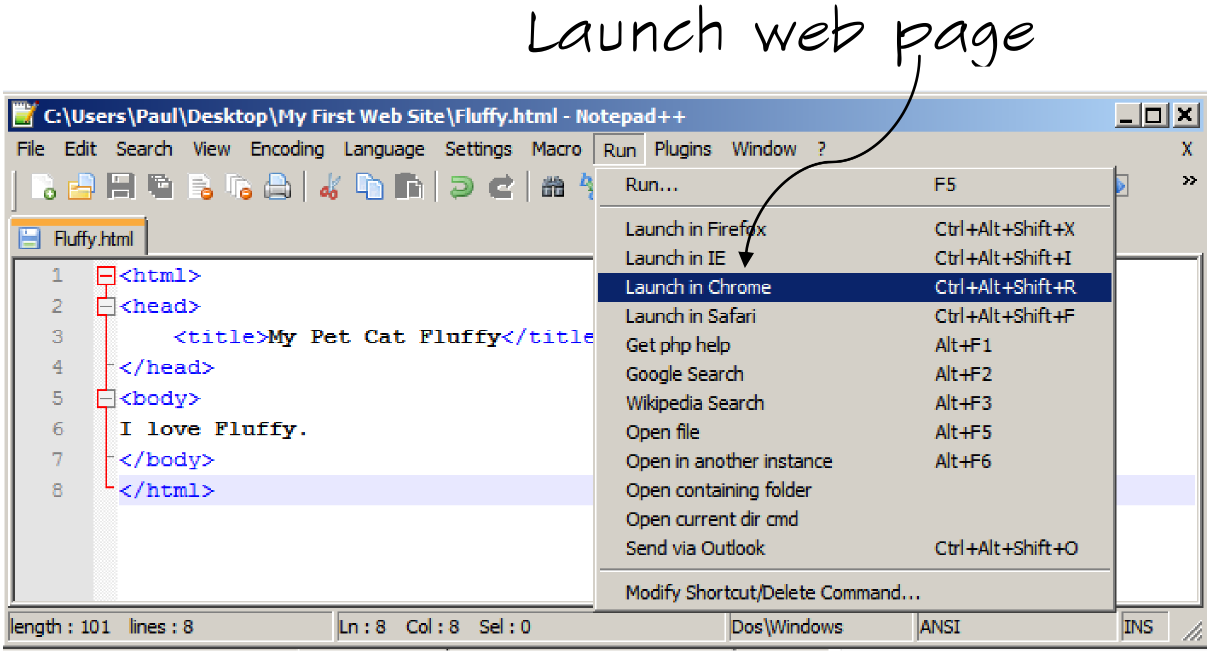
Notice that the very first markup tag that we use is the <html> tag. This is always the first tag as it tells the client computer that is looking at your file that the file contains HTML code. The computer will then process that code as HTML. Notice also that the last tag in the file online 8 is the closing HTML tag </html>. Again this is very handy for the client computer as it now knows when to stop processing the HTML.

When you have carefully typed it in click the **save** button.


Save button
C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : Ln : 7 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

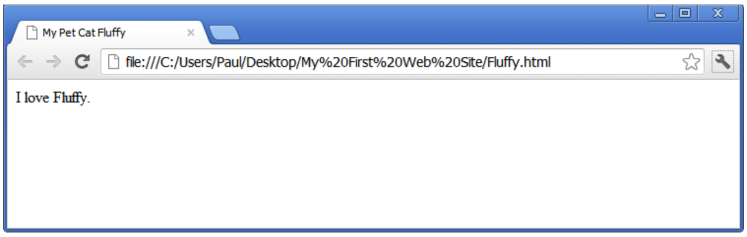
```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
I love Fluffy.
</body>
</html>
```

To see your web page go to the **Run** menu and click **Launch** in the computer browser that you use:


Launch web page
C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Run... F5
Launch in Firefox Ctrl+Alt+Shift+X
Launch in IE Ctrl+Alt+Shift+I
Launch in Chrome Ctrl+Alt+Shift+R
Launch in Safari Ctrl+Alt+Shift+F
Get php help Alt+F1
Google Search Alt+F2
Wikipedia Search Alt+F3
Open file Alt+F5
Open in another instance Alt+F6
Open containing folder
Open current dir cmd
Send via Outlook Ctrl+Alt+Shift+O
Modify Shortcut/Delete Command...
length : 101 lines : 8
Ln : 8 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

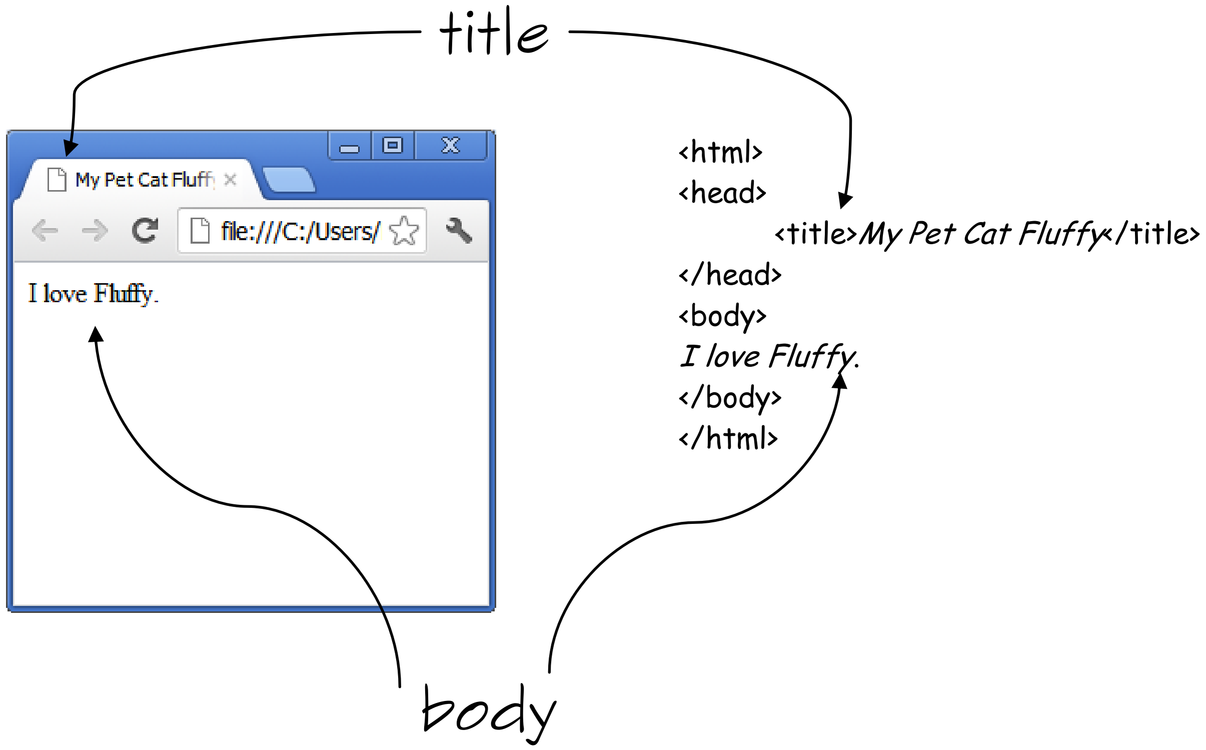
```
<html>
<head>
    <title>My Pet Cat Fluffy</title
</head>
<body>
I love Fluffy.
</body>
</html>
```

You should see you web page like this.


My Pet Cat Fluffy
file:///C:/Users/Paul/Desktop/My%20First%20Web%20Site/Fluffy.html

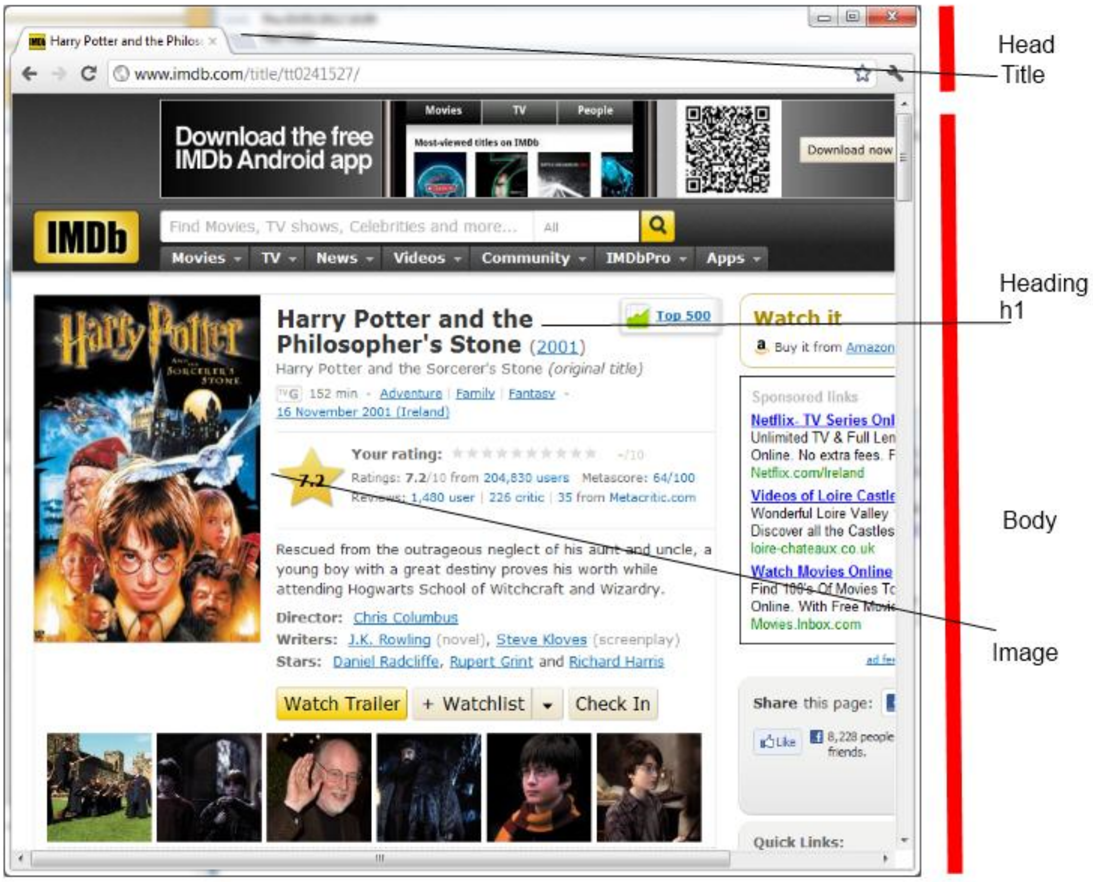
I love Fluffy.

We can see the effect of the tags that we have programmed in:



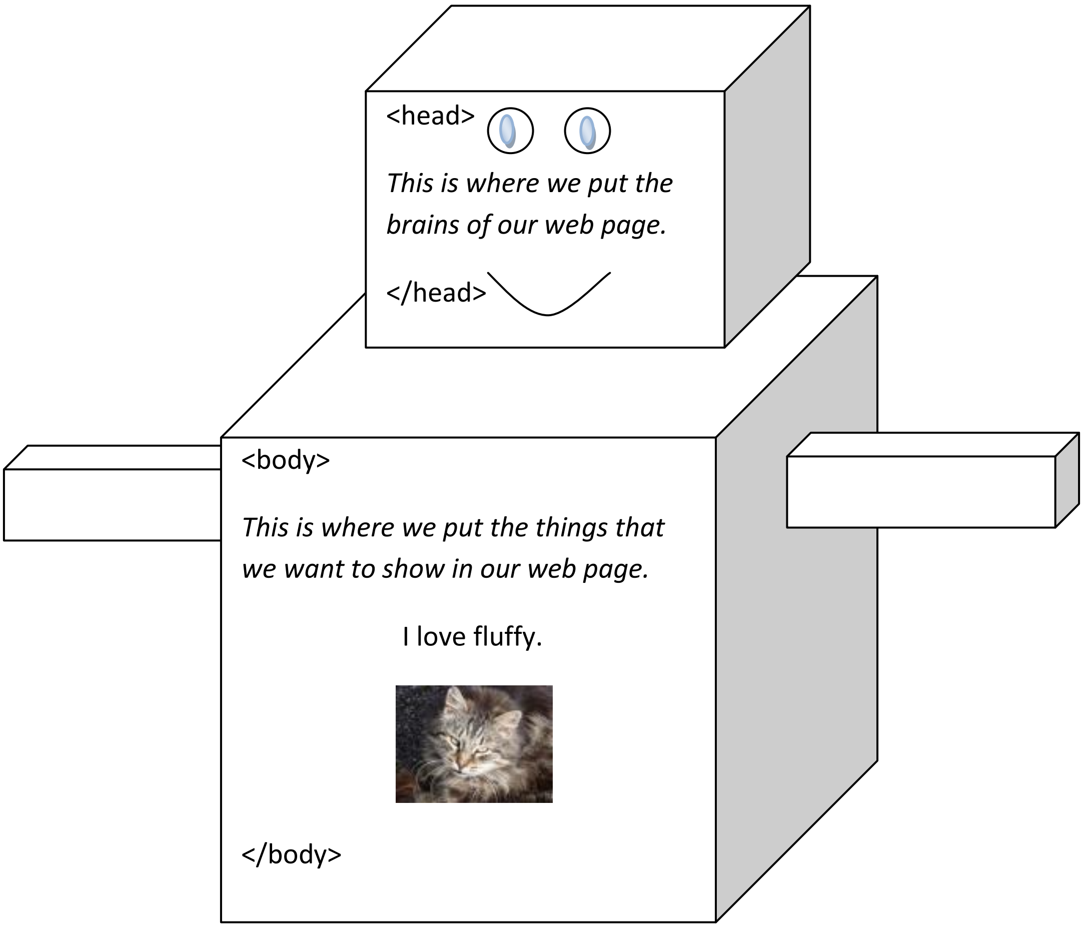
```
<html>
<head>
          <title>My Pet Cat Fluffy</title>
</head>
<body>
I love Fluffy.
</body>
</html>
```

All web pages have the same basic structure


Harry Potter and the Philos
www.imdb.com/title/tt0241527/
Download the free IMDb Android app
IMDb
Movies
TV
News
Videos
Community
IMDbPro
Apps
Harry Potter and the Philosopher's Stone (2001)
Watch Trailer
+ Watchlist
Check In
Head
Title
Heading
h1
Body
Image

Head and Body

Why do we use head and body sections you might ask? The head is very important for information such as the web page title, but it is also important because it is where we can put the brains of our web page. We will make our web pages brainy by designing the computer code for solving problems. Even though you won't see this code when the browser shows the web page it will be there in the background ready to do calculations. Remember the head is where you keep your brains! We could even think of a web page like a robot!

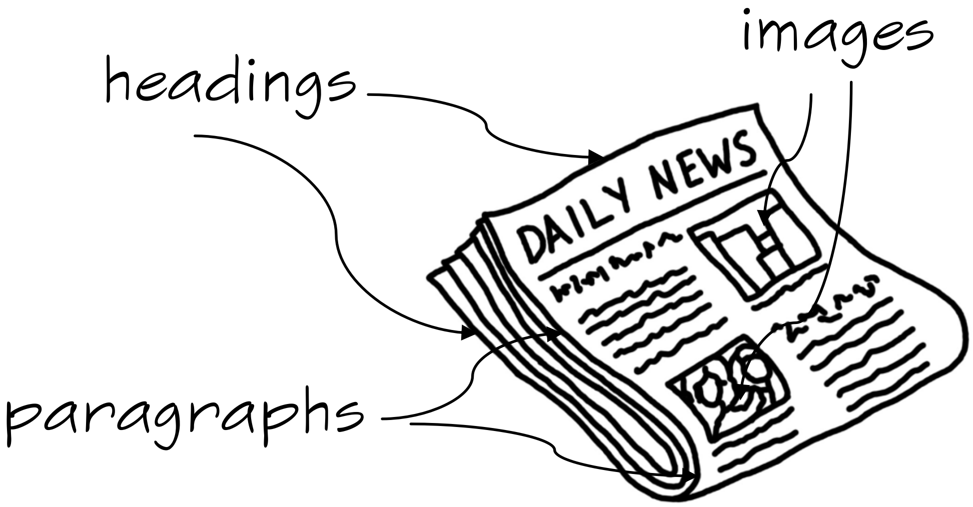


<head>
This is where we put the brains of our web page.
</head>
<body>
This is where we put the things that we want to show in our web page.
I love fluffy.
</body>

We will see later that we can make the head of our web pages brainy but writing the special computer instruction that tell the web page brain how to work.

Document Structure

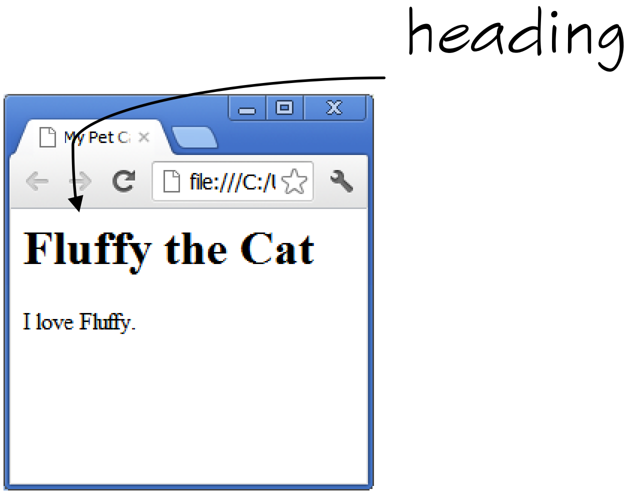
We should also think of a web page as a document. Documents come in different formats such as newspapers, magazines comics. These types of documents have many things in common. They all have the idea of headings, paragraphs, images, captions and different styles of writing.



With web pages it is our job to write the HTML instruction that tell the client computer how to show out content. So let's start with the headings.

Headings

Let's do this now by changing our fluffy.html web page. I want to let the user of my web page know what it is about so they can quickly decide if they want to view it. I will do this by putting a **heading** on the web page. This is done by using a heading tag. Headings come in different sizes and the biggest is the <h1> tag. You would usually use this for the most important heading on your web page. I am going to put the heading "Fluffy the Cat" and this is how I do it.

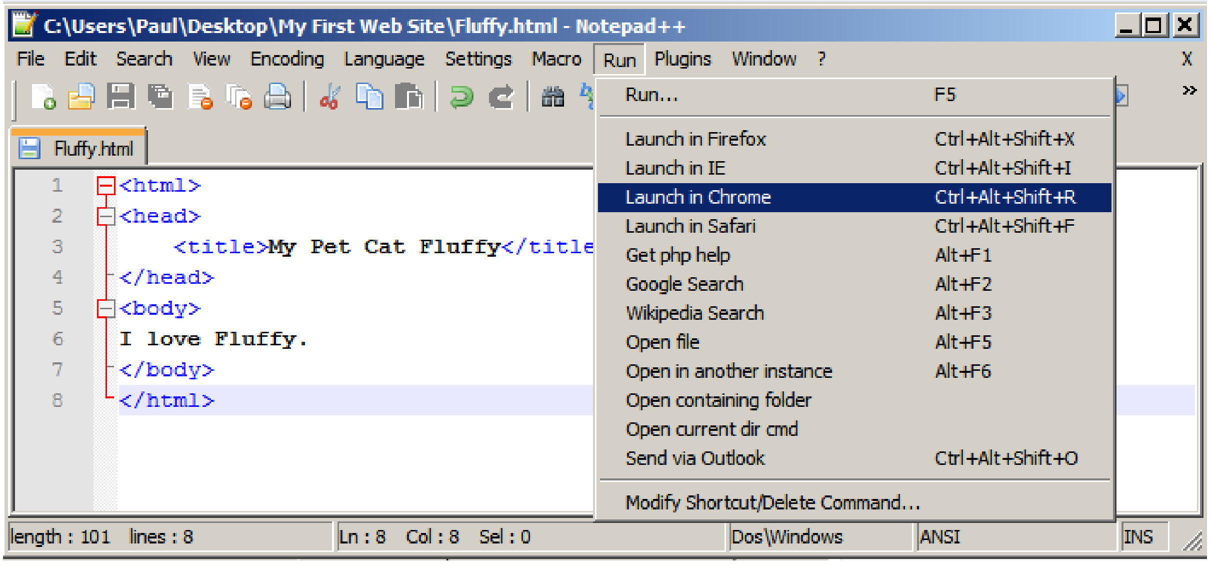


Fluffy the Cat

I love Fluffy.

```
<html>
<head>
        <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
I love Fluffy.
</body>
</html>
```

Remember to type this in carefully, save it and run it in your browser.


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Run... F5
Launch in Firefox Ctrl+Alt+Shift+X
Launch in IE Ctrl+Alt+Shift+I
Launch in Chrome Ctrl+Alt+Shift+R
Launch in Safari Ctrl+Alt+Shift+F
Get php help Alt+F1
Google Search Alt+F2
Wikipedia Search Alt+F3
Open file Alt+F5
Open in another instance Alt+F6
Open containing folder
Open current dir cmd
Send via Outlook Ctrl+Alt+Shift+O
Modify Shortcut/Delete Command...
length : 101 lines : 8
Ln : 8 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

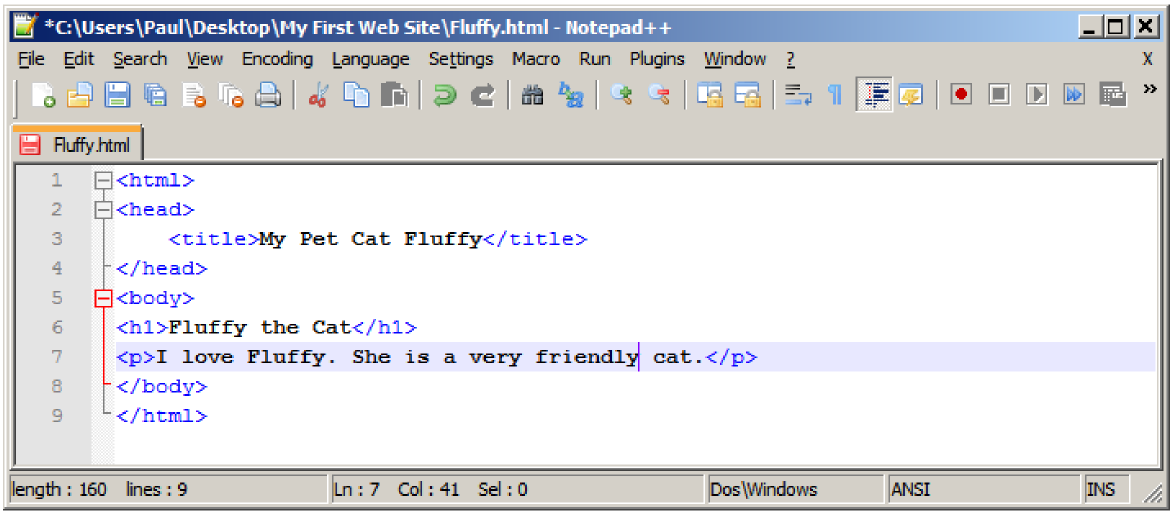
```
<html>
<head>
    <title>My Pet Cat Fluffy</title
</head>
<body>
I love Fluffy.
</body>
</html>
```

Paragraphs

We should also tell the web browsers computer what to do with the words “I love fluffy” below our heading. At the moment these words are not surrounded by HTML tags so browser just prints them out as plain old text.

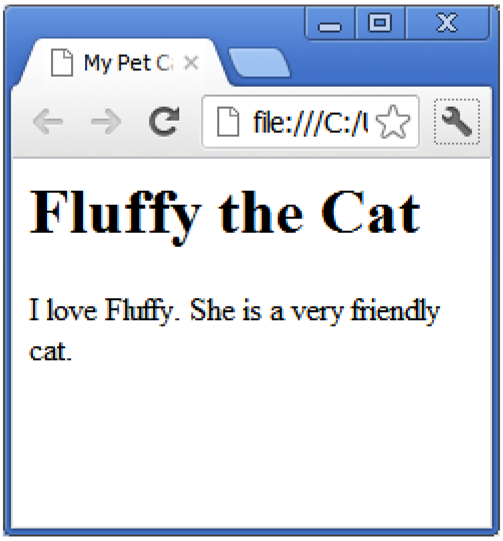
What we should do is tell the client browser that this text belongs in a paragraph and we do this using the `<p>` tag. Here ‘p’ stands for paragraph. I will now use this to make a bigger paragraph.

```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```


*C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : 160 lines : 9
Ln : 7 Col : 41 Sel : 0
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```

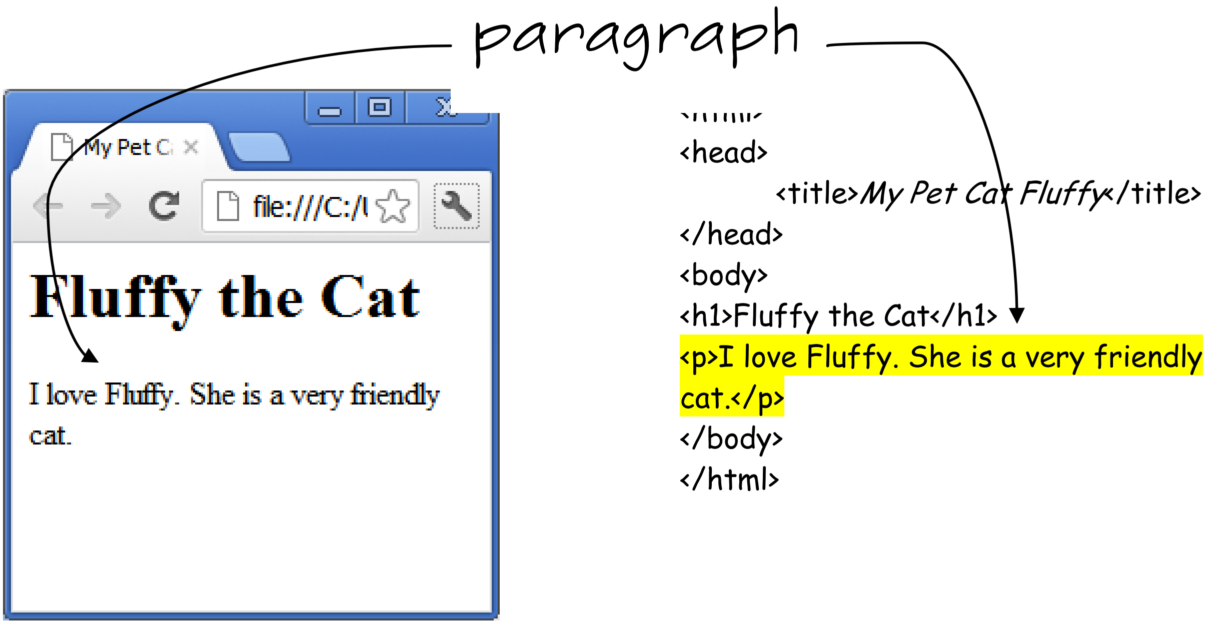
Again type this in very carefully and launch it. It is very easy to make a typing mistake so if it does not look like the page below then go back to you code, check it very carefully and try it again.



Fluffy the Cat

I love Fluffy. She is a very friendly cat.

Remember what the tags do- they tell the computer browser how to show the web page. You now have already learned about the <html>, <head>, <title>, <body>, <h1> and the <p> tags. This is really great progress and you are doing well if you have gotten this far.



Fluffy the Cat

I love Fluffy. She is a very friendly cat.

```
<html>
<head>
        <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very friendly
cat.</p>
</body>
</html>
```

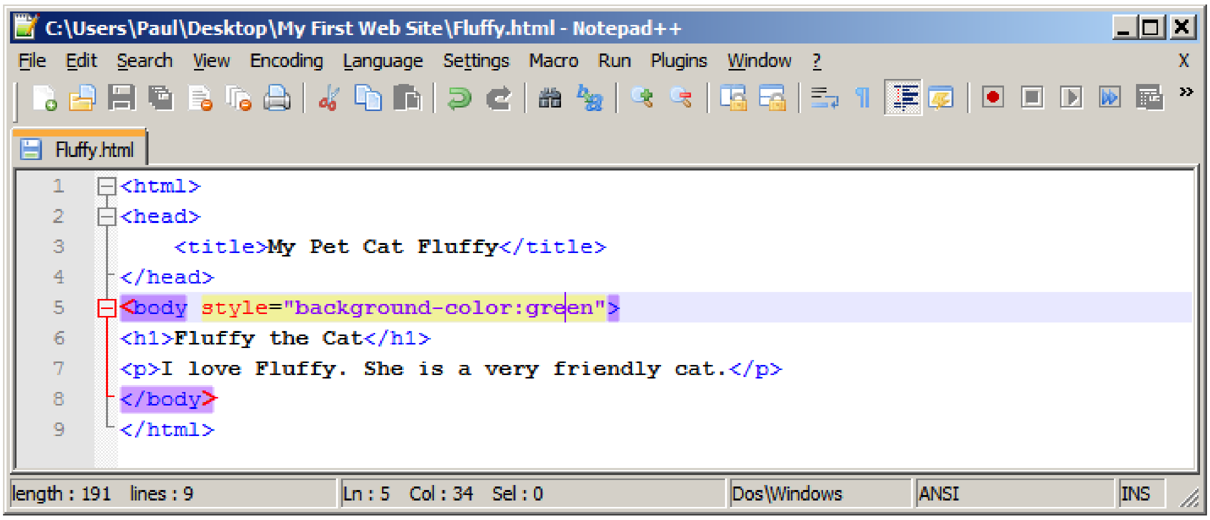
Creating a Style

Everybody has their own style and I am sure that you are no different. We all have a liking for different styles such as the colour, shape and size of things. For example my favourite colour is blue like the colour of the sky on a sunny day. However Fluffy's favourite colour is green as she like to hide in the bushes. So to keep fluffy happy let's make the background colour of our web page green.

You can do this by changing the colour setting of the body tag by adding the text `style="background-color:green"` as shown below.

```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body style="background-color:green">
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```

In NotePad++ it should look like this when you type it in:


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
X
Fluffy.html
length : 191 lines : 9
Ln : 5 Col : 34 Sel : 0
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body style="background-color:green">
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```

The text `style` is known as an attribute of the body tag as it allows us to change the background colour property of the body of the web page.

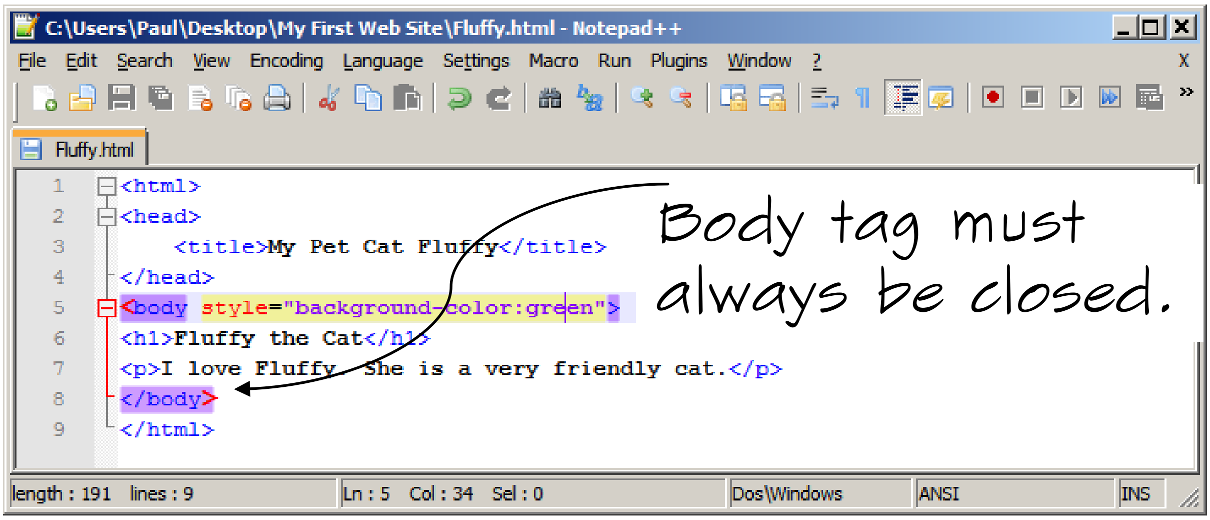
HTML tags can have one or more attributes. Attributes are added to a tag to tell the browser more information about how the tag should appear or behave. Attributes consist of a name and a value separated by an equals (=) sign.

So `background-color` stands for **background colour**. In our example we are setting this style attribute to the value `"green"`. We are putting all of this this in quotes to let the computer know that we are setting the style attribute to the value `background-color:green`.

So basically we are telling the browser to set the style of the body of the page so that the background colour is green:

```
<body style="background-color:green">
```

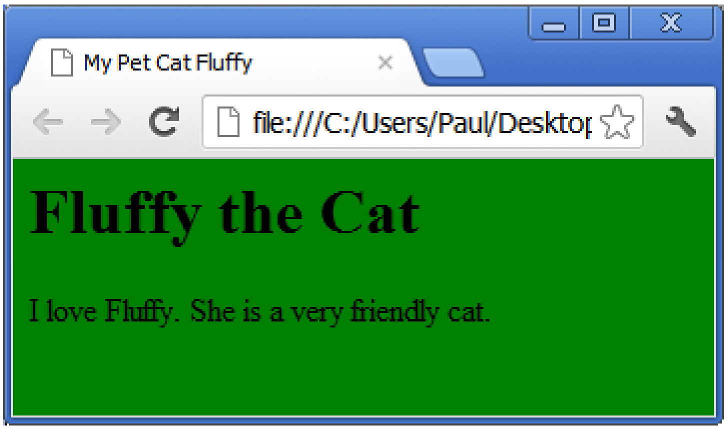
Remember also that we still make sure that we have closed this body tag in our file on line 8:


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : 191 lines : 9
Ln : 5 Col : 34 Sel : 0
Dos\Windows
ANSI
INS

```
1 <html>
2 <head>
3     <title>My Pet Cat Fluffy</title>
4 </head>
5 <body style="background-color:green">
6 <h1>Fluffy the Cat</h1>
7 <p>I love Fluffy. She is a very friendly cat.</p>
8 </body>
9 </html>
```

Body tag must always be closed.

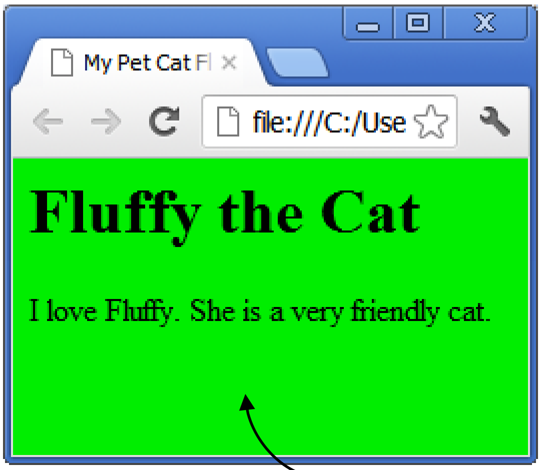
Save and launch you web page as usual and you should get this:



Fluffy the Cat

I love Fluffy. She is a very friendly cat.

Here is how the tags are processed by the client computer:



Fluffy the Cat

I love Fluffy. She is a very friendly cat.

```
<html>
<head>
     <title>My Pet Cat
Fluffy</title>
</head>
<body
style="background-color:green">
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a very
friendly cat.</p>
</body>
</html>
```

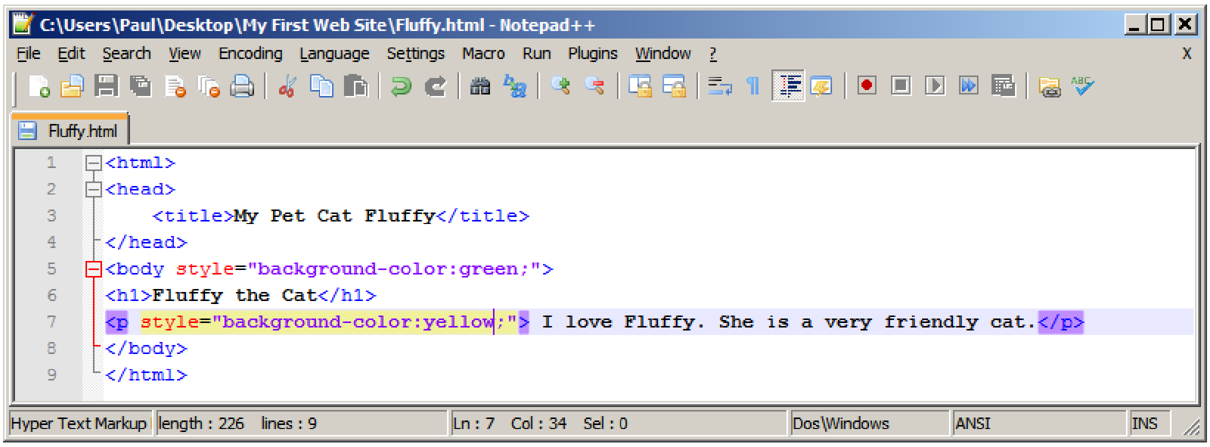
Background-color

Note that in our HTML we are using the American spelling of for colour without the letter 'u'. We are using the **World** Wide Web after all!

When you type in your version of this web page you can experiment with different colours. What is your favourite colour?

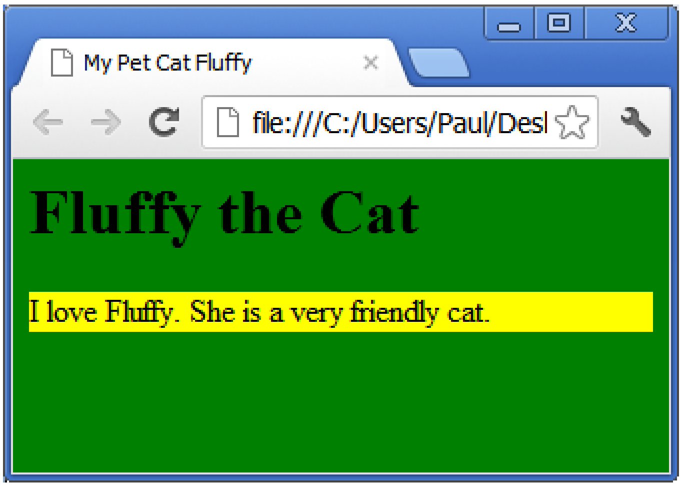
Other tags such as the paragraph tag <p> can also be styled by changing their style attribute.

```
<p style="background-color:pink;"> I love Fluffy. She is a very friendly
cat.</p>
```


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Hyper Text Markup length : 226 lines : 9 Ln : 7 Col : 34 Sel : 0 Dos\Windows ANSI INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body style="background-color:green;">
<h1>Fluffy the Cat</h1>
<p style="background-color:yellow;"> I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```

When we launch this we can see the effect.



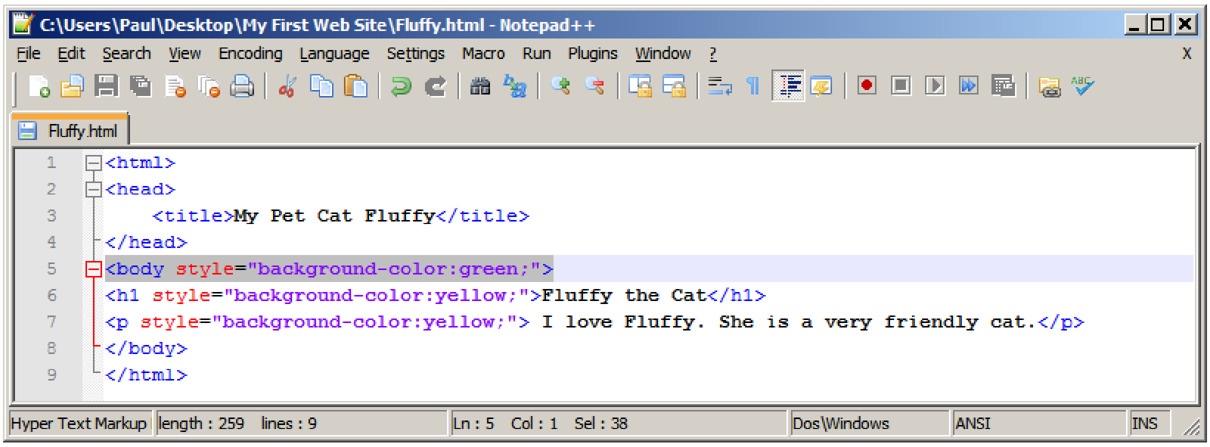
Fluffy the Cat

I love Fluffy. She is a very friendly cat.

We can also do the same to the heading by changing its style attribute in the same way:

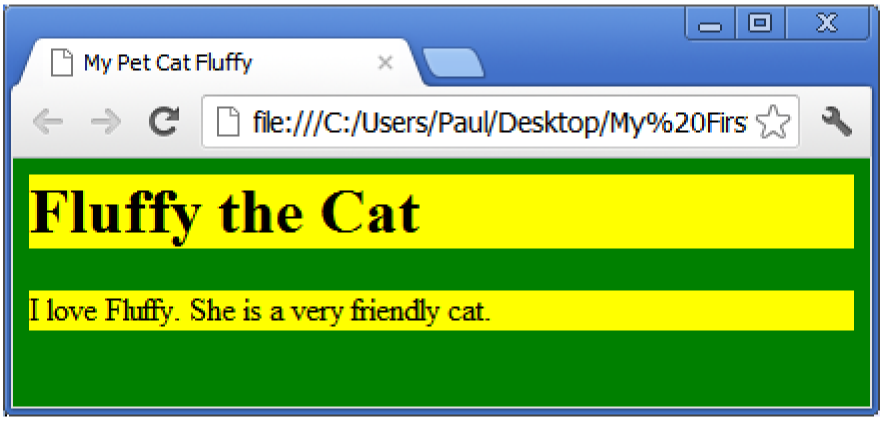
<body style="background-color:green;">

This is how it looks in NotePad++:


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Hyper Text Markup
length : 259 lines : 9
Ln : 5 Col : 1 Sel : 38
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body style="background-color:green;">
<h1 style="background-color:yellow;">Fluffy the Cat</h1>
<p style="background-color:yellow;"> I love Fluffy. She is a very friendly cat.</p>
</body>
</html>
```

When we save and launch this file here is how it looks:



Fluffy the Cat

I love Fluffy. She is a very friendly cat.

Notice however that now we have to type a lot more into our file. We had to type in the HTML for the style attribute of the paragraph tag: `style="background-color:yellow;"`.

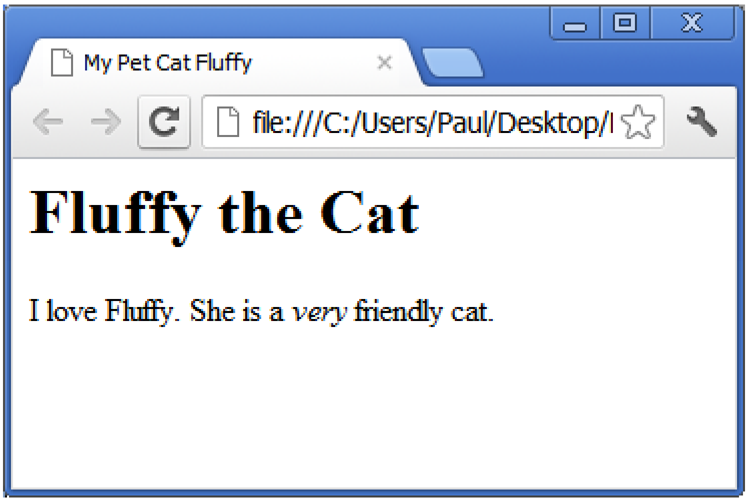
We had to type in the exact same HML again for the heading tag: `style="background-color:yellow;"`.

Imagine if we had to do this for a big website with thousands of tags. We would end up typing day and night! Later I will show you a more powerful and better ways to change the style of web pages. It uses a separate file for all the styles you want and will save you lots of typing.

For now let's remove this background colours until we find out a better way to manage styles.

A *Very* Friendly Cat

We can also make some words stand out if we wish by using the `<em>` HTML tag. The letters `em` are short for emphasis and it makes the words stand out as shown below:

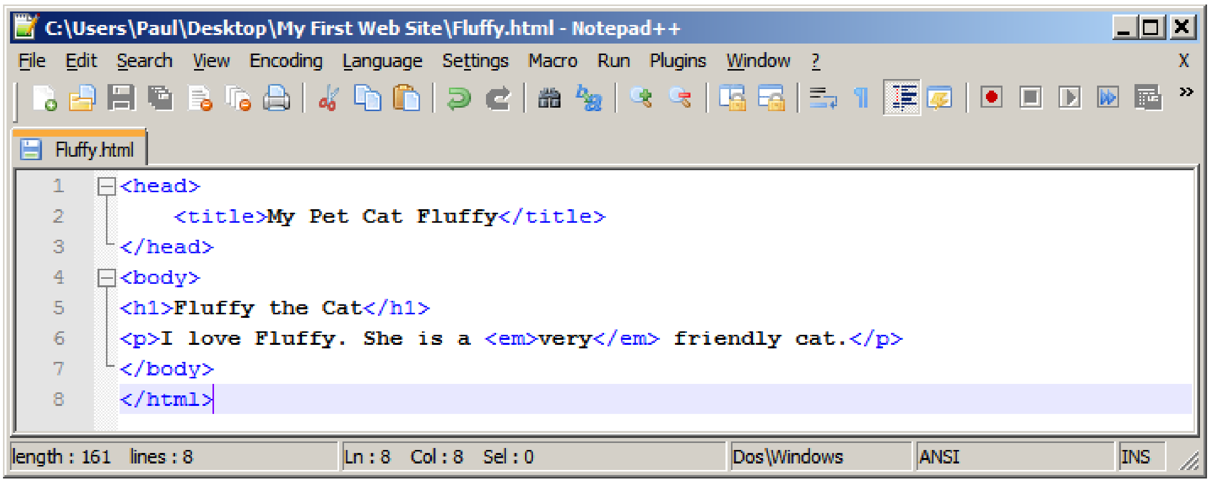


Fluffy the Cat

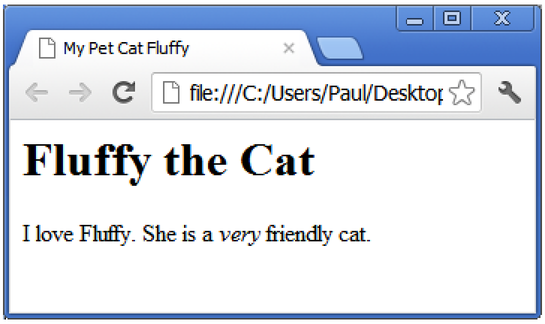
I love Fluffy. She is a *very* friendly cat.

The code for this is shown below where I have highlighted the code I have added in for emphasising the word friendly.

```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
</body>
</html>
```


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : 161 lines : 8
Ln : 8 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

```
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
</body>
</html>
```



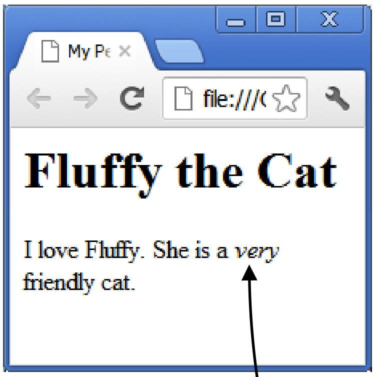
Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

Again notice that opening tag has a matching closing tag:

```
      <em>very</em>
```

This tag and what it does is shown again below:



Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

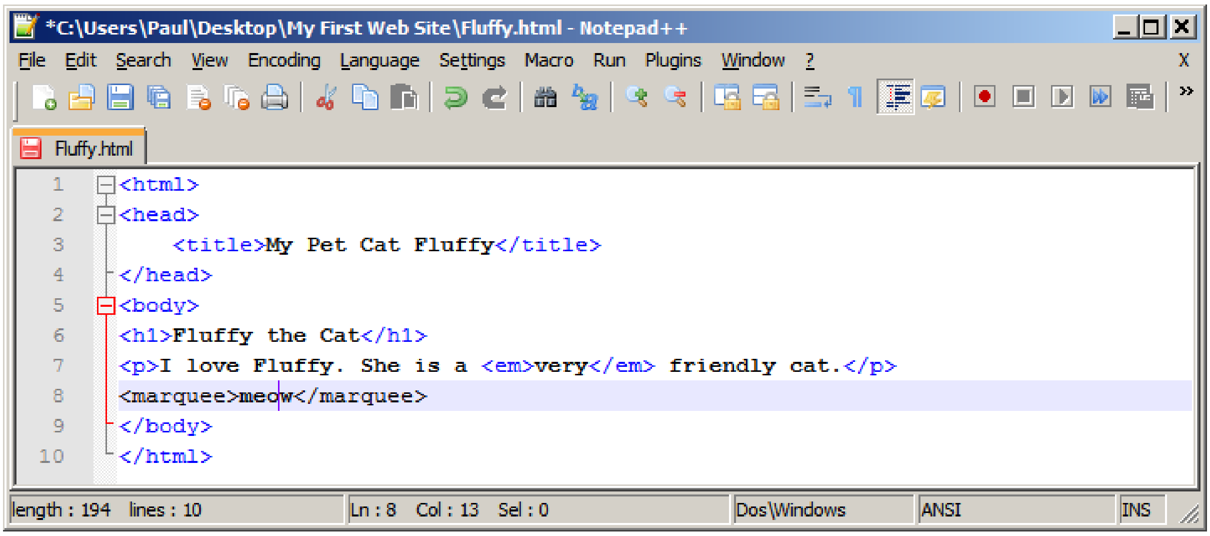
```
<html>
<head>
      <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a
<em>very</em> friendly cat.</p>
</body>
</html>
```

emphasis

Wandering Words

Ok so now you are making great progress, but to be honest the page is a bit boring isn't it? You could probably do just a good job with paper and coloured pencils. So let's make the web page a bit more interesting by adding some text that moves. We can do this by using the marquee tag. A marquee is the name for a big board over a cinema or theatre that has text or images the move across it to advertise the coming shows. HTML also can do this by using the `<marquee>` tag. We will use it to make the text "meow" more across the page as shown in the code below:

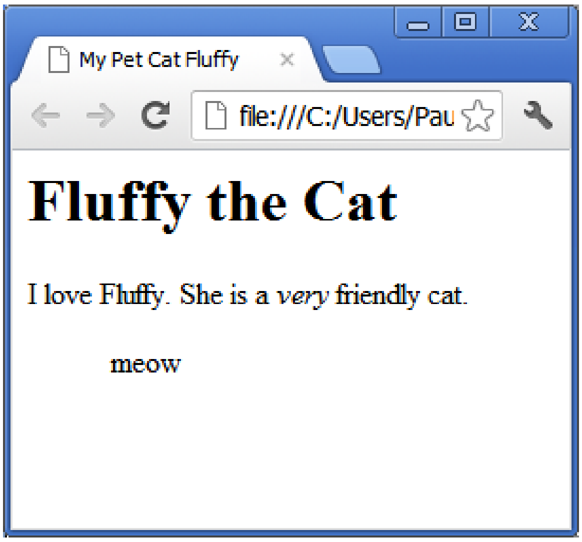
```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
<marquee>meow</marquee>
</body>
</html>
```



*C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : 194 lines : 10
Ln : 8 Col : 13 Sel : 0
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
<marquee>meow</marquee>
</body>
</html>
```

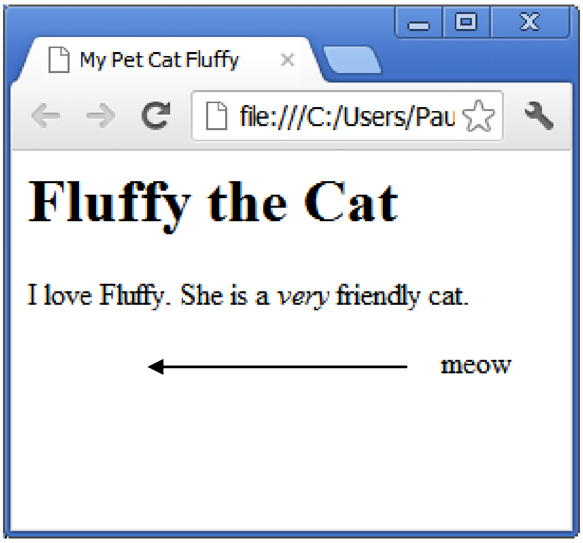
When you launch this code in your browser you should see the word "meow" move across you're your page:



Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

meow



Fluffy the Cat

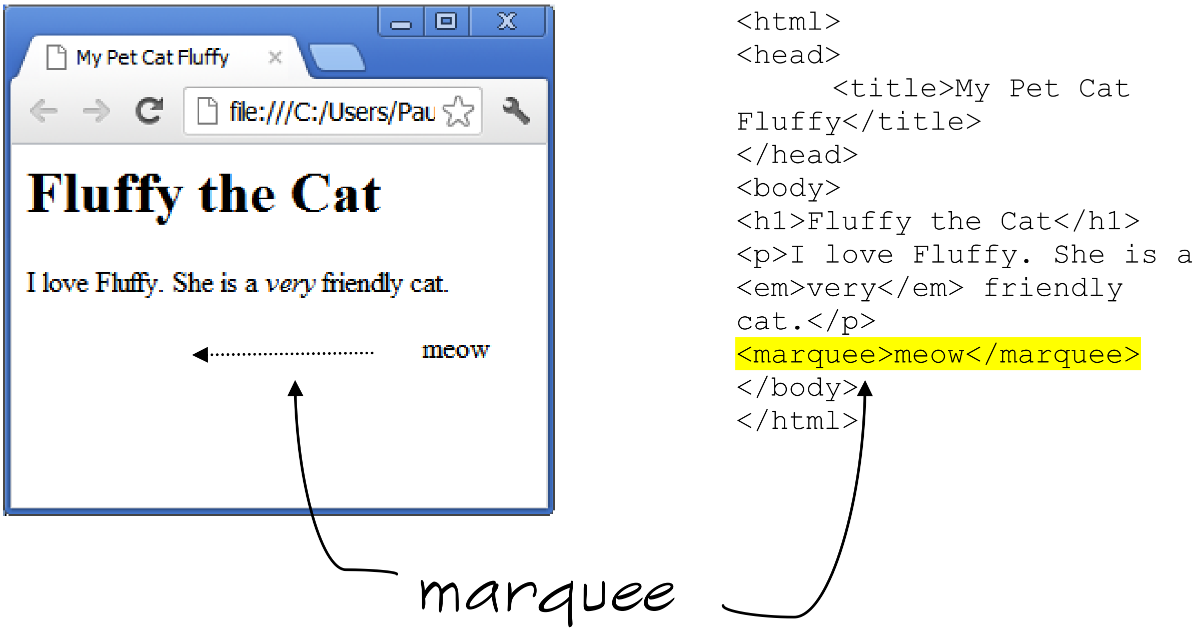
I love Fluffy. She is a *very* friendly cat.

meow

Again it is important to note that the marquee HTML must have matching opening and closing tags.

```
<marquee>meow</marquee>
```

This tag and what it does is shown again below:



Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

meow

```
<html>
<head>
      <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a
<em>very</em> friendly
cat.</p>
<marquee>meow</marquee>
</body>
</html>
```

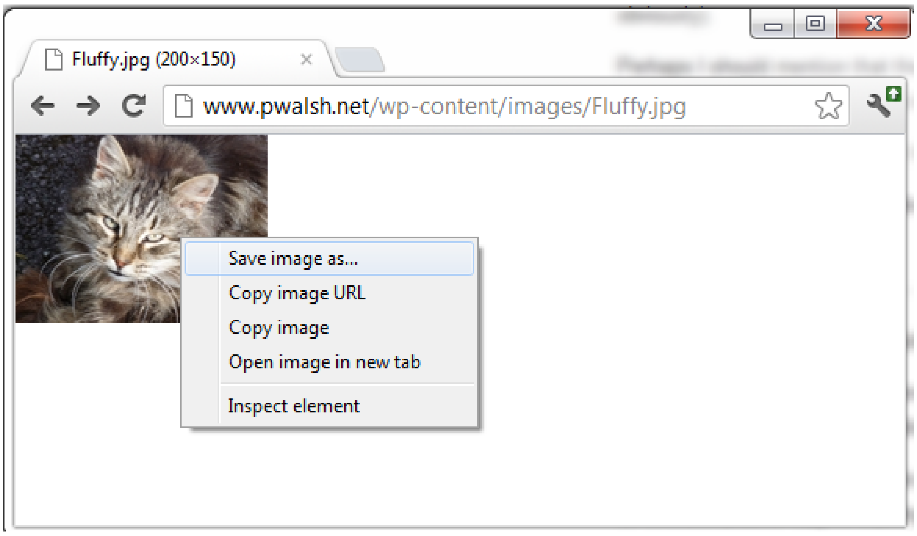
The marquee tag can be very powerful because you can put lots of other HTML tags inside a marquee section. Later we will make an image move across the page using a marquee tag.

Fluffy's Picture

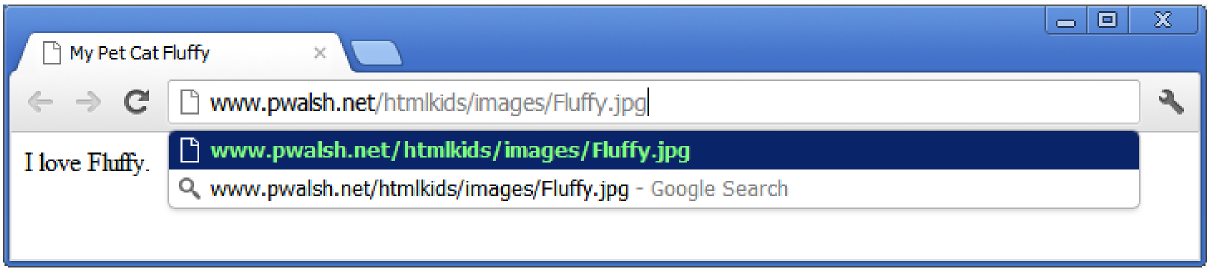
It is time now to see what Fluffy looks like. To do this we need to first of all find a picture of Fluffy. You can find one at this location:

http://www.pwalsh.net/wp-content/images/Fluffy.jpg

You can download this picture by typing this internet web address into the address bar of your browser:



You can save this image by right clicking on the image and select Save Image As.



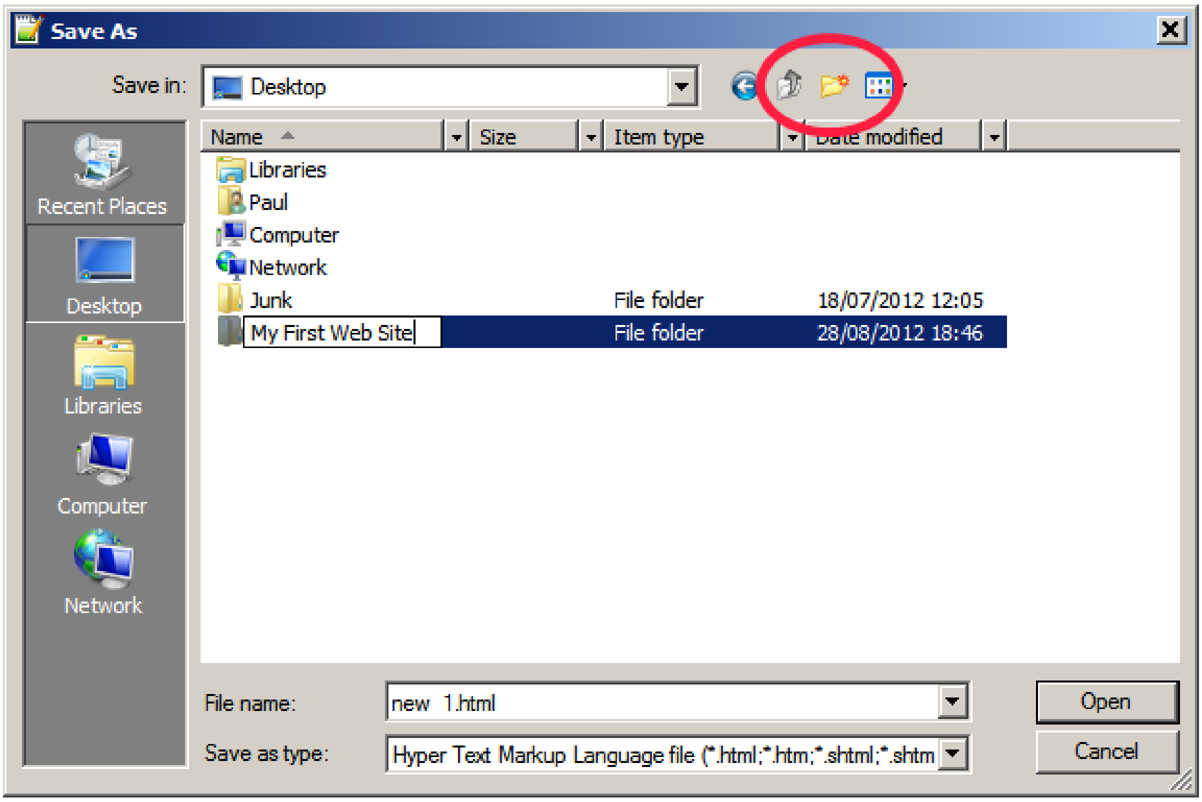
www.pwalsh.net/htmlkids/images/Fluffy.jpg

I love Fluffy.

www.pwalsh.net/htmlkids/images/Fluffy.jpg

www.pwalsh.net/htmlkids/images/Fluffy.jpg - Google Search

A dialog form opens up and you should again make sure that you keep all your files tidy. The easiest way to do this is to create an image folder within the "My First Web Site" folder. You can do this yourself by clicking the new folder button 📂 and typing in the name "images" for the folder.



File name: new 1.html

Save as type: Hyper Text Markup Language file (*.html;*.htm;*.shtml;*.shtm

Note that the name of picture file ends with the letters jpg. Computer programmers like to use letters to name things. In this case jpg stands for "**J**oint **P**hotographic **G**roup", which is a group of experts who figured out how to store pictures in computers.

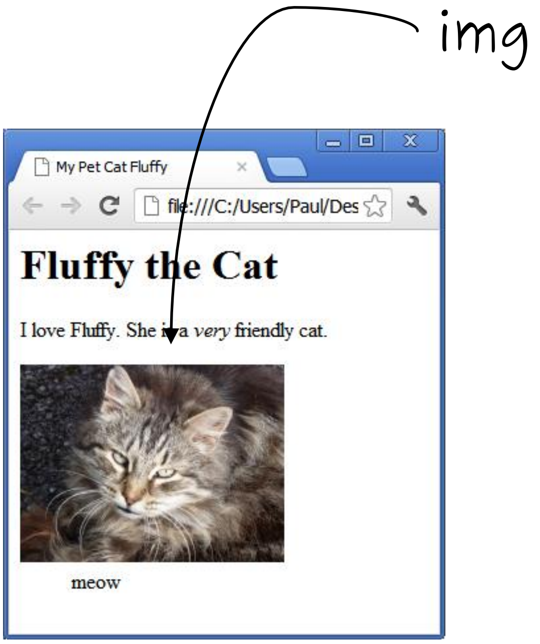
If you like you could also use one of your own pictures.

To use this picture in the web page you need to link to it using the `<img>` tag, which is short for image.

The code for using this is shown below.

```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
<img src="./images/Fluffy.jpg"></img>
<marquee>meow</marquee>
</body>
</html>
```

This produces the following web page:



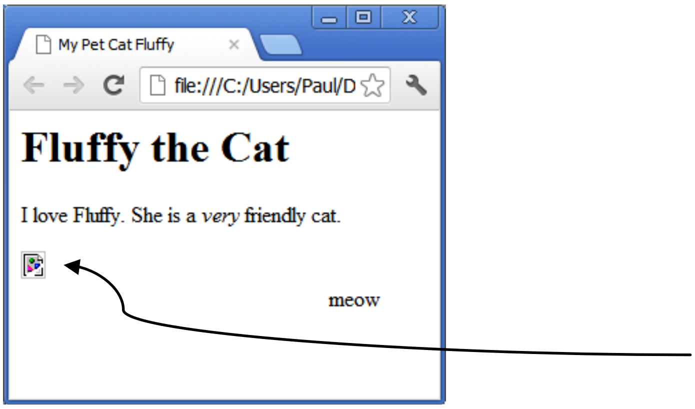
Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

meow

```
<html>
<head>
      <title>My Pet Cat
Fluffy</title>
</head>
<body bgcolor=”green”>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a
<em>very</em> friendly cat.</p>
<img
src="./images/Fluffy.jpg"></img>
<marquee>meow</marquee>
</body>
</html>
```

If you see the something like the web page below then your client computer browser cannot find the image.



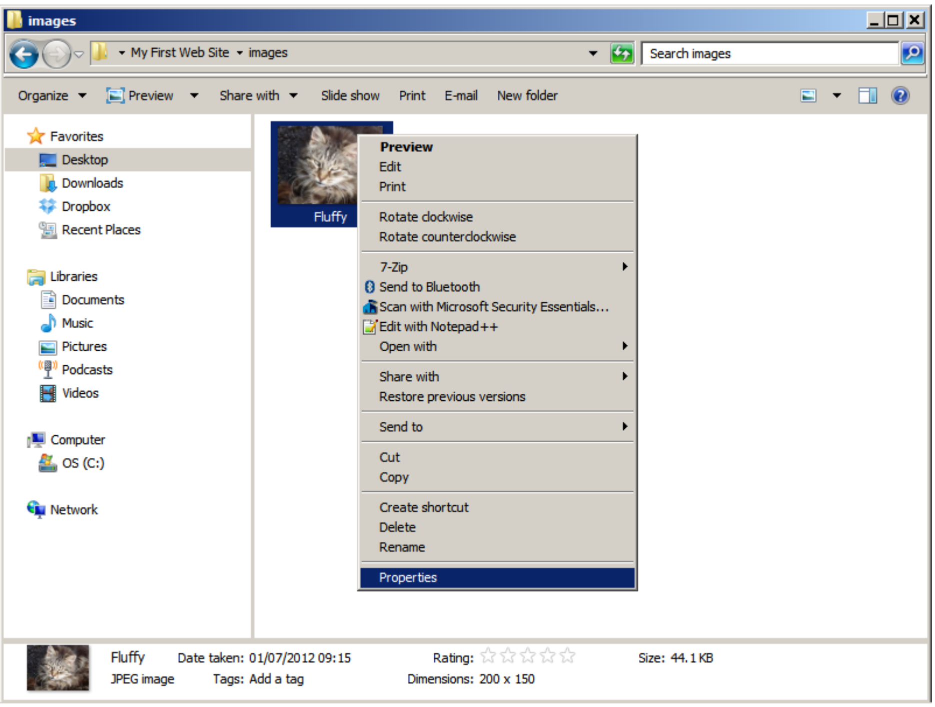
Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

meow

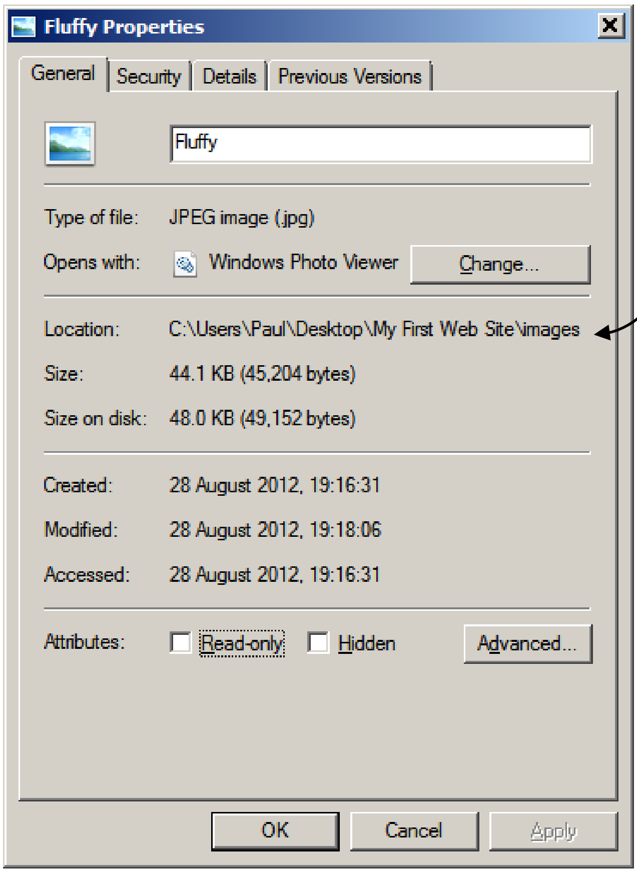
You will see this if your browser cannot find the image

If this happens check the address of the image on your computer. One way to do this in the Windows operating system if to open your file's location in Windows Explorer, right click on it and select properties, as shown below.



Fluffy Date taken: 01/07/2012 09:15 Rating: ☆☆☆☆☆ Size: 44.1 KB
JPEG image Tags: Add a tag Dimensions: 200 x 150

You should then be able to see the details of the file, including its location on your computer.



Fluffy

Type of file: JPEG image (.jpg)

Opens with: Windows Photo Viewer

Location: C:\Users\Paul\Desktop\My First Web Site\images

Size: 44.1 KB (45,204 bytes)

Size on disk: 48.0 KB (49,152 bytes)

Created: 28 August 2012, 19:16:31

Modified: 28 August 2012, 19:18:06

Accessed: 28 August 2012, 19:16:31

Attributes: □ Read-only □ Hidden

the location of your file on the computer.

The source address of the image file on your computer, including its name, should match what is in quotes as shown below:

```
<img src="the location of your image file"></img>
```

For my computer the exact address for the `img` tag on my computer is:

```
<img src="C:\Users\Paul\Desktop\My First Web
Site\images/Fluffy.jpg"></img>
```

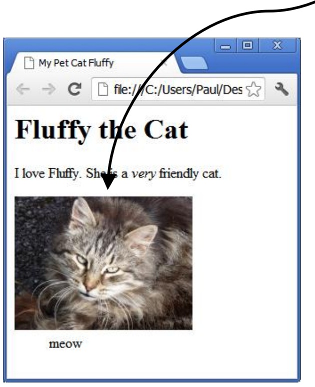
Of course another way of getting the image onto the web page it to just link to it. This is easy if you know the address of an image on another computer on the World Wide Web.

We could use address of the image of Fluffy on my server computer. This address is:

http://www.pwalsh.net/htmlkids/images/Fluffy.jpg

```
<html>
<head>
     <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em> friendly cat.</p>
<img src="http://www.pwalsh.net/htmlkids/images/Fluffy.jpg"></img>
<marquee>meow</marquee>
</body>
</html>
```

the image of Fluffy now comes from another computer



Fluffy the Cat

I love Fluffy. She is a *very* friendly cat.

meow

```
<html>
<head>
     <title>My Pet Cat Fluffy</title>
</head>
<body bgcolor="green">
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is a <em>very</em>
friendly cat.</p>
<img src="
http://www.pwalsh.net/htmlkids/images/Fluffy.jpg">
</img>
<marquee>meow</marquee>
</body>
</html>
```

Break Lines

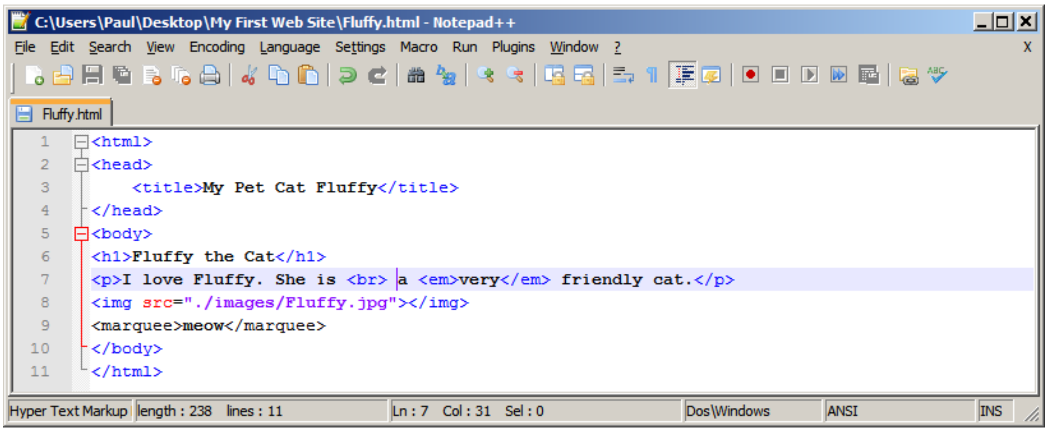
Sometimes we might want to break one line of text into two. We can do this using the break tag: `<br>`

This is an empty tag so it doesn't need a closing tag.

So for example if I want to break my first paragraph into two line I could just put a break in the middle of the text like this:

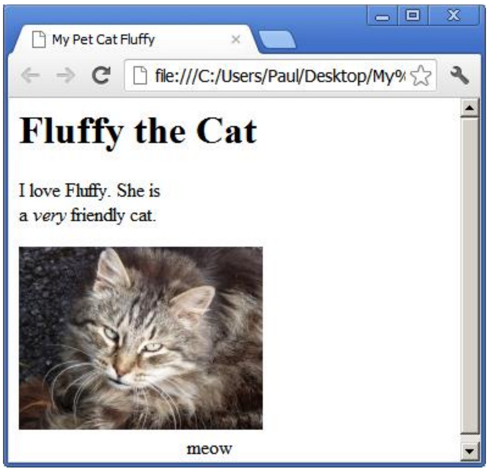
```
<html>
<head>
      <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat.</p>
<marquee>meow</marquee>
</body>
</html>
```

Here is what it looks like in NotePad++:


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Hyper Text Markup length : 238 lines : 11 Ln : 7 Col : 31 Sel : 0 Dos\Windows ANSI INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat.</p>
<img src="./images/Fluffy.jpg"></img>
<marquee>meow</marquee>
</body>
</html>
```

This will produce the following web page when we launch it:

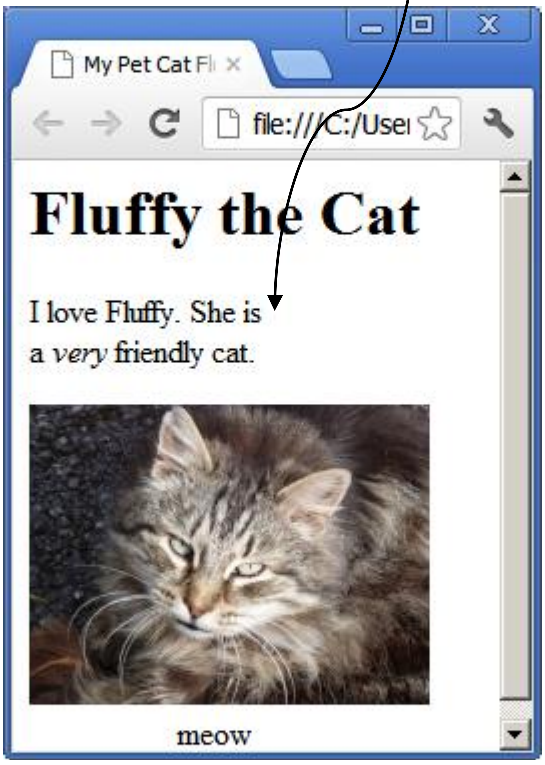


Fluffy the Cat

I love Fluffy. She is
a *very* friendly cat.

meow

break



Fluffy the Cat

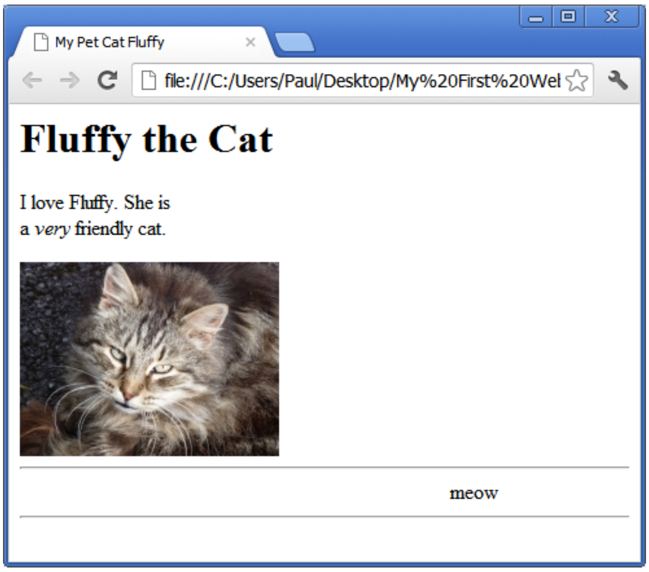
I love Fluffy. She is
a *very* friendly cat.

meow

```
<html>
<head>
     <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br>
a <em>very</em> friendly
cat.</p>
<marquee>meow</marquee>
</body>
</html>
```

Horizontal Lines

You can also easily draw a horizontal line across your web page using the empty tag `<hr>`. Let's use this to show our marquee in between two parallel lines like this:



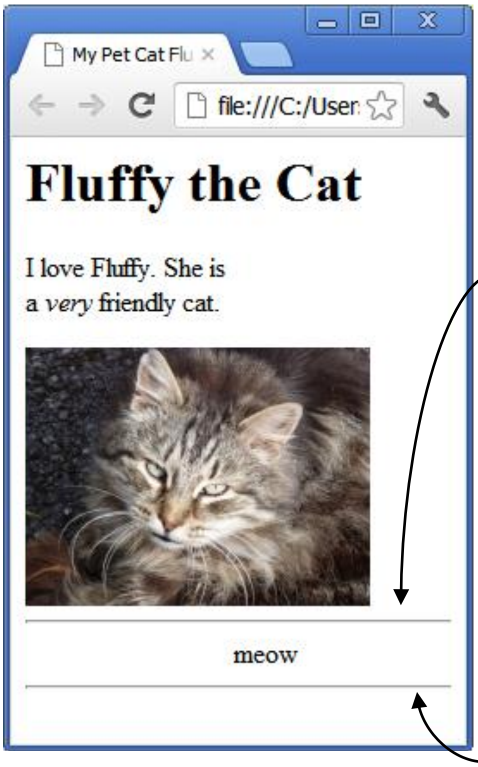
Fluffy the Cat

I love Fluffy. She is
a *very* friendly cat.

meow

All we need to do is add in two `<hr>` tags. Notice that they don't need closing tags as they are just simple empty tags.

Horizontal line



Fluffy the Cat

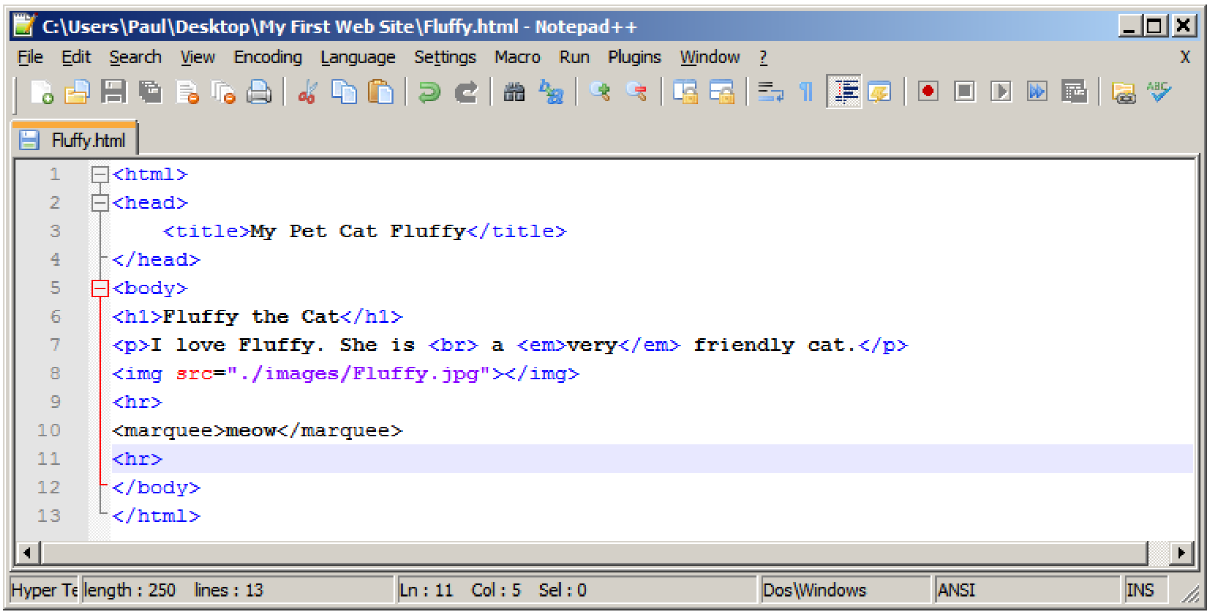
I love Fluffy. She is
a *very* friendly cat.

meow

```
<html>
<head>
     <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br>
a <em>very</em> friendly
cat.</p>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

Horizontal line

Here is what it looks like in NotePad++:


C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
Hyper Te length : 250 lines : 13
Ln : 11 Col : 5 Sel : 0
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat.</p>
<img src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

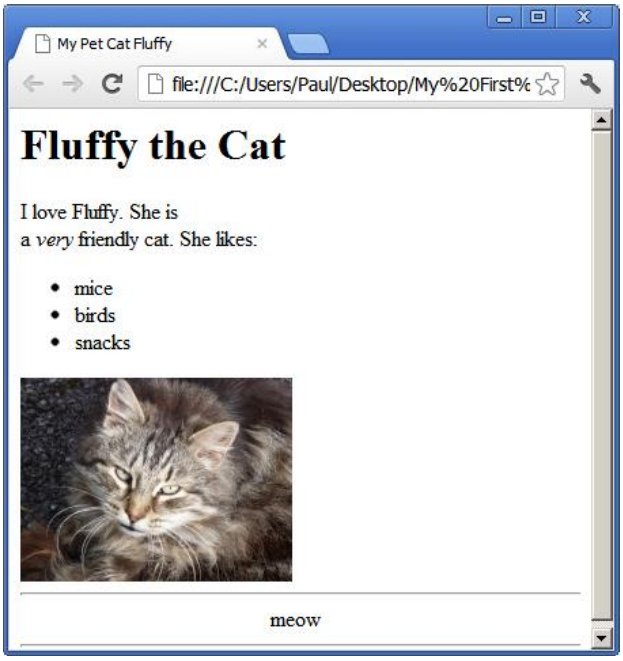
Lists

Fluffy likes mice, birds and snacks so let's make a list of these things in no particular order. We can do this using the <ul> tag. Here ul stands for unordered list. We also need to tell the browser what are the items in the list are. We do this by using the <li> tag, where li stands for list item.

The example below should make it clear:

```
<html>
<head>
     <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat. She
likes:</p>
<ul>
     <li>mice</li>
     <li>birds</li>
     <li>snacks</li>
</ul>
<img src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

Save it and launch it and you should see this web page:



Fluffy the Cat

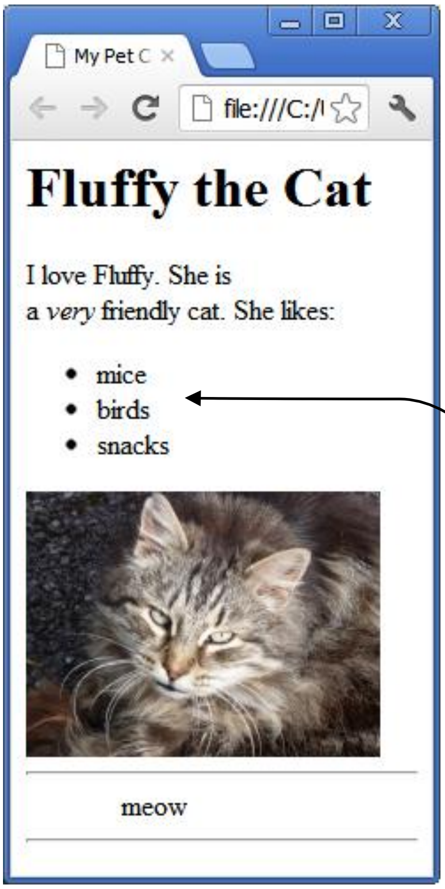
I love Fluffy. She is
a *very* friendly cat. She likes:

- mice
- birds
- snacks

meow

Unordered List

List Items



Fluffy the Cat

I love Fluffy. She is
a *very* friendly cat. She likes:

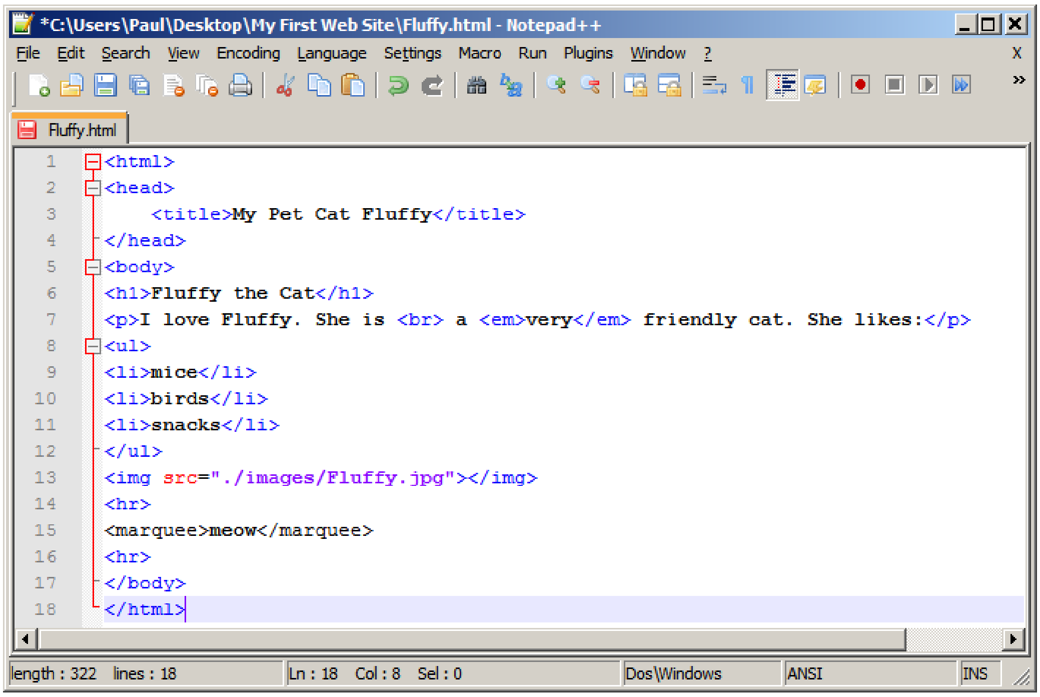
- mice
- birds
- snacks

meow

```
<html>
<head>
        <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a
<em>very</em> friendly cat. She
likes:</p>
<ul>
        <li>mice</li>
        <li>birds</li>
        <li>snacks</li>
</ul>
<img
src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

List appears here

Note that you should be very careful with yo ie closing tags. Here is what it looks like in NotePad++:


*C:\Users\Paul\Desktop\My First Web Site\Fluffy.html - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Fluffy.html
length : 322 lines : 18
Ln : 18 Col : 8 Sel : 0
Dos\Windows
ANSI
INS

```
<html>
<head>
    <title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat. She likes:</p>
<ul>
<li>mice</li>
<li>birds</li>
<li>snacks</li>
</ul>
<img src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

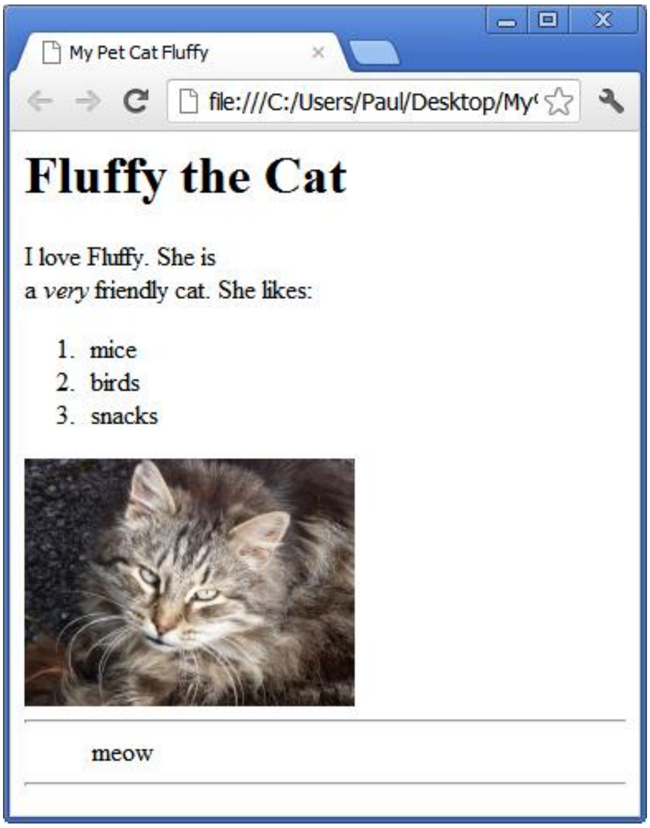
Ordered List

However when I showed this to Fluffy she was not happy! She likes snacks better than birds and she likes birds better than mice. So to keep Fluffy happy let's make an ordered list. We do this using the `<ol>` tag, where ol stands for ordered list. This will put numbers on our list for us.

Here is how we do it in HTML:

```
<html>
<head>
	<title>My Pet Cat Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a <em>very</em> friendly cat. She
likes:</p>
<ol>
	<li>mice</li>
	<li>birds</li>
	<li>snacks</li>
</ol>
<img src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

Save it and launch it and you should see this web page:



Fluffy the Cat

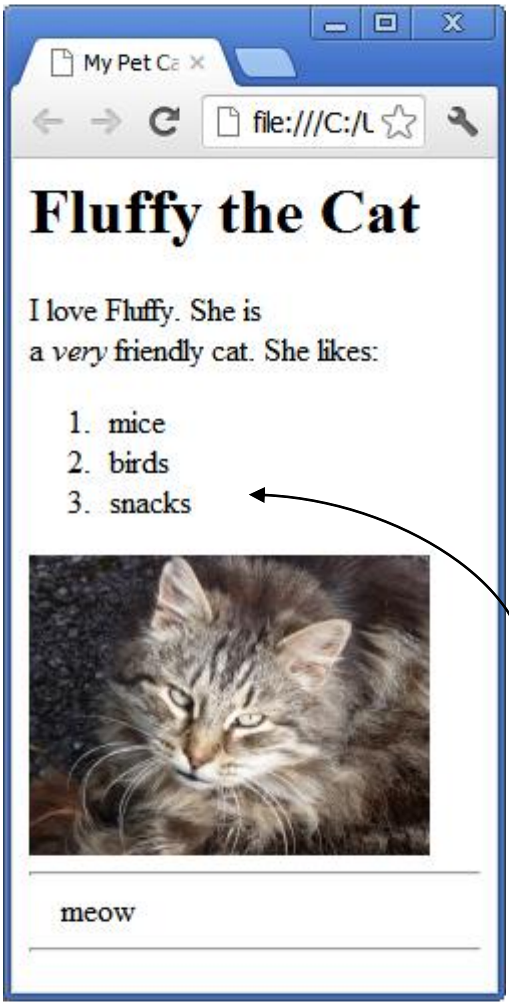
I love Fluffy. She is
a *very* friendly cat. She likes:

1. mice
2. birds
3. snacks

meow

Ordered List

List Items



Fluffy the Cat

I love Fluffy. She is
a *very* friendly cat. She likes:

1. mice
2. birds
3. snacks

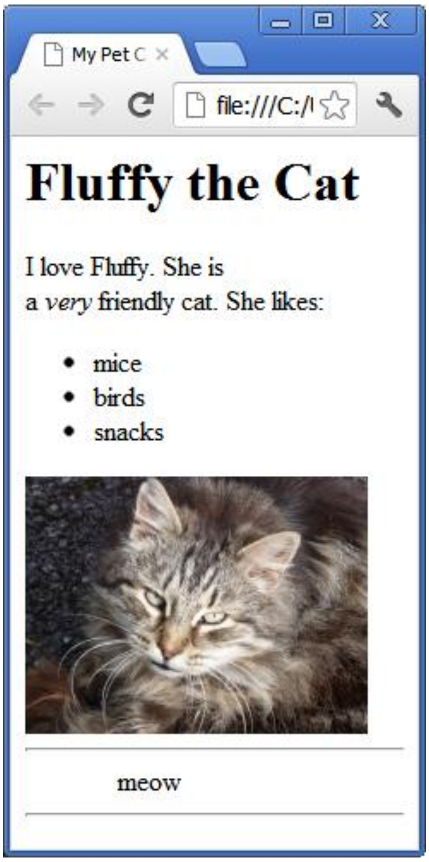
meow

```
<html>
<head>
     <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a
<em>very</em> friendly cat. She
likes:</p>
<ol>
     <li>mice</li>
     <li>birds</li>
     <li>snacks</li>
</ol>
<img
src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

List appears here

Notice that we have list item HTML tags within list HTML tags. These is known as nesting tags as we are putting tags inside tags, just as a bird puts chicks in a nest. We are nesting!

Nest of list tags



Fluffy the Cat

I love Fluffy. She is
a *very* friendly cat. She likes:

- mice
- birds
- snacks

meow

```
<html>
<head>
     <title>My Pet Cat
Fluffy</title>
</head>
<body>
<h1>Fluffy the Cat</h1>
<p>I love Fluffy. She is <br> a
<em>very</em> friendly cat. She
likes:</p>
<ul>
     <li>mice</li>
     <li>birds</li>
     <li>snacks</li>
</ul>
<img
src="./images/Fluffy.jpg"></img>
<hr>
<marquee>meow</marquee>
<hr>
</body>
</html>
```

Items in nest