

# Web Development Introduction



HTML markup

Block Level Elements

Inline Elements

Comments

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# Introduction

- This week we are going to look at how to use HTML to correctly mark up text.
- We will look at various elements available
- Remember:  
will be using these elements to attach meaning to the document, not to control presentation.

# Introduction

- Best way to start making web page is start with content
- Then apply the document structure elements i.e.
  - **DOCTYPE**
  - **html**
  - **head**
    - **meta**
    - **title**
  - **body**
- Then divide text content into major block level elements
- (then worry about in-line / page content structure ...)

- Here are the block level elements you need to know:

## Block Level Elements

Type	Element(s)
Paragraphs	<b>p</b>
Headings	<b>h1, h2, h3, h4, h5, h6</b>
Horizontal rules (lines)	<b>hr</b>
List elements	<b>ol, ul, li, dt, dd</b>

## Paragraph

`<p> Text in here </p>`

`<p> more Text in here </p>`

# Block Level Elements

## Paragraphs

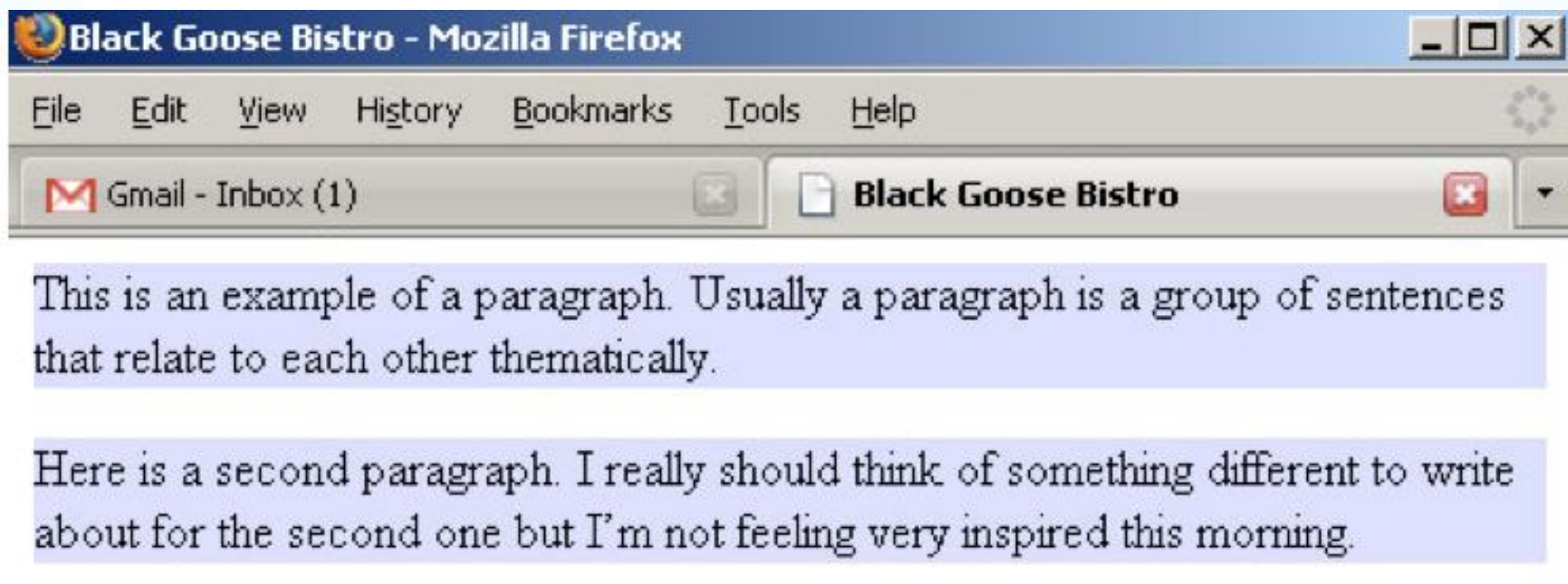
- The paragraph is the most rudimentary element of a text document.
- To define a paragraph insert an opening `<p>` tag at the start and a closing `</p>` at the end.

`<p>`This is an example of a paragraph. Usually a paragraph is a group of sentences that relate to each other thematically`</p>`

`<p>`Here is a second paragraph. I really should think of something different to write about for the second one but I'm not feeling very inspired this morning.`</p>`

# Block Level Elements

- Remember that a block level elements means that the browser surrounds the content with an imaginary box.
- I've put in a style below to turn the background of the block blue to make this obvious



# Block Level Elements

- Paragraphs may contain text, images and other inline elements.
- They may ***not* contain other block level elements.**
- So for example, you can't have another paragraph inside a paragraph.
- So *none* of the elements appearing in the table on slide 4 can go inside a paragraph.

Type	Element(s)
Paragraphs	<b>p</b>
Headings	<b>h1, h2, h3, h4, h5, h6</b>
Horizontal rules (lines)	<b>hr</b>
List elements	<b>ol, ul, li, dt, dd</b>



## Headings

**<h1> text/image goes here </h1>**

**<h2> text/image goes here </h2>**

**And so on.....**

**<h6> ..... </h6>**

# Block Level Elements

## Headings

- We have already used the **h1** and **h2** elements.
- There are actually six levels of headings, **h1** to **h6**.
- Headings provide a logical hierarchy to a document and hence it is correct to start with a **h1** heading and work down numerically.
- This improves accessibility and helps search engines.
- The example on the next slide shows some mark-up for four heading levels.
- The slide after that shows the default rendering in a browser. This can be changed using a style sheet.

# <h1>IT Blanchardstown</h1>

## <h2>Departments</h2>

<p>There are a number of academic departments at IT Blanchardstown, each specialising in specific subject areas.</p>

### <h3>Informatics</h3>

#### <h4>Description</h4>

<p>The Department of Informatics delivers courses in Computing and related subjects.</p>

#### <h4>Personnel</h4>

<p>The Department has 20 full time staff.</p>

### <h3>Engineering</h3>

#### <h4>Description</h4>

<p>The Department of Engineering delivers courses in Electronic engineering and Computer Engineering</p>

# **IT Blanchardstown** <h1>

## **Departments** <h2>

There are a number of academic departments at IT Blanchardstown, each specialising in specific subject areas.

### **Informatics** <h3>

#### **Description** <h4>

The Department of Informatics delivers courses in Computing and related subjects.

#### **Personnel** <h4>

The Department has 20 full time staff.

### **Engineering** <h3>

#### **Description** <h4>

The Department of Engineering delivers courses in Electronic engineering and Computer Engineering

<p>



# Please note – heading numbers are important (not the sequence on the page)

- <h1> means MOST important heading level
  - NOT the first heading
- <h2> means a sub-heading (second level heading)
  - NOT the second heading
- <h3> means a sub-sub-heading (third level)
  - NOT the third heading
- Do not write:
  - <h1>
  - <h2>
  - <h3>
  - <h4>      just because the numbers go up sequentially !

## Horizontal rules

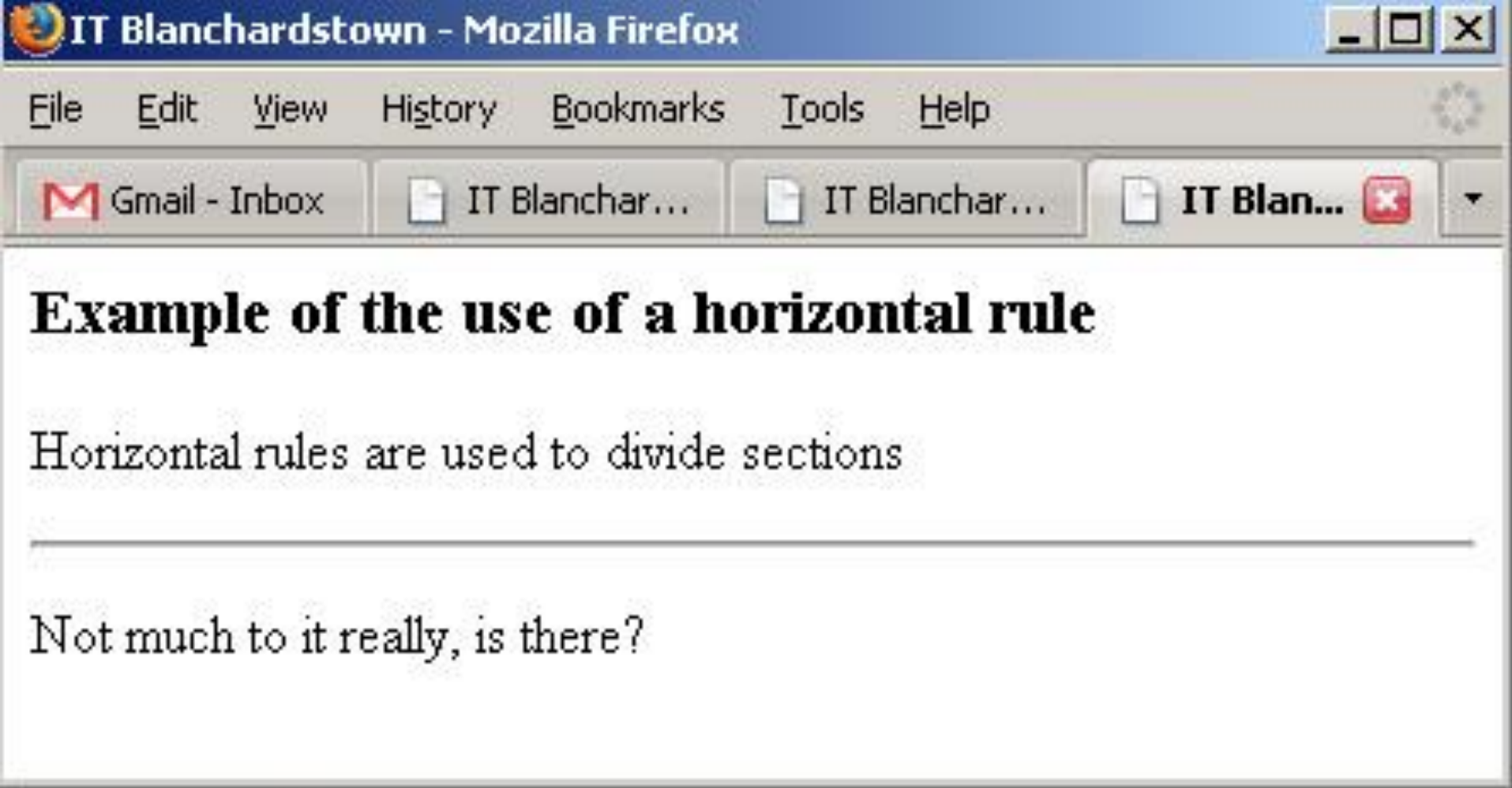
`<hr>`

# Block Level Elements

## Horizontal Rules

- These are used to add dividers between sections of the document – “a shift in themes”
- They are designated by a **hr** element.
- This is an empty element so to conform to the HTML rules it should be written as **<hr>**
- So for example:  

```
<h3>Example of the use of a horizontal rule</h3>  
<p>Horizontal rules are used to divide sections  
</p>  
<hr>  
<p>Not much to it really, is there?  
</p>
```



- As with any other element, we can use style sheets to control how the horizontal rule is displayed.



## **Inline Elements**

# Inline Elements

## Semantic Inline Elements

- Describe enclosed text's meaning, context or usage.
- The way they look in the browser window depends on a style sheet either one you provide or the default one the browser uses ...
- There are only about 10-20 inline elements you are likely to use
- More are described IN THE CORE TEXT BOOK fyi !!!!!!!

# Inline Elements

## Introduction

- We have now covered almost all block level text mark-up HTML elements
- We'll now have a look at most commonly used *inline elements*.
- Remember that this means
  - elements stay within the flow of the text and do not cause line breaks...

# Inline Elements

- The 3 main inline elements for basic web page markup:

Element	Description
<code>em</code>	emphasised text
<code>q</code>	short, inline quotation
<code>strong</code>	strongly emphasised text

# Inline Elements

- Adding emphasis to text
- Both **em** and **strong** element indicate that text should be emphasised in some way
  - The **strong** element means that it should be more strongly emphasised
- Example of their use:

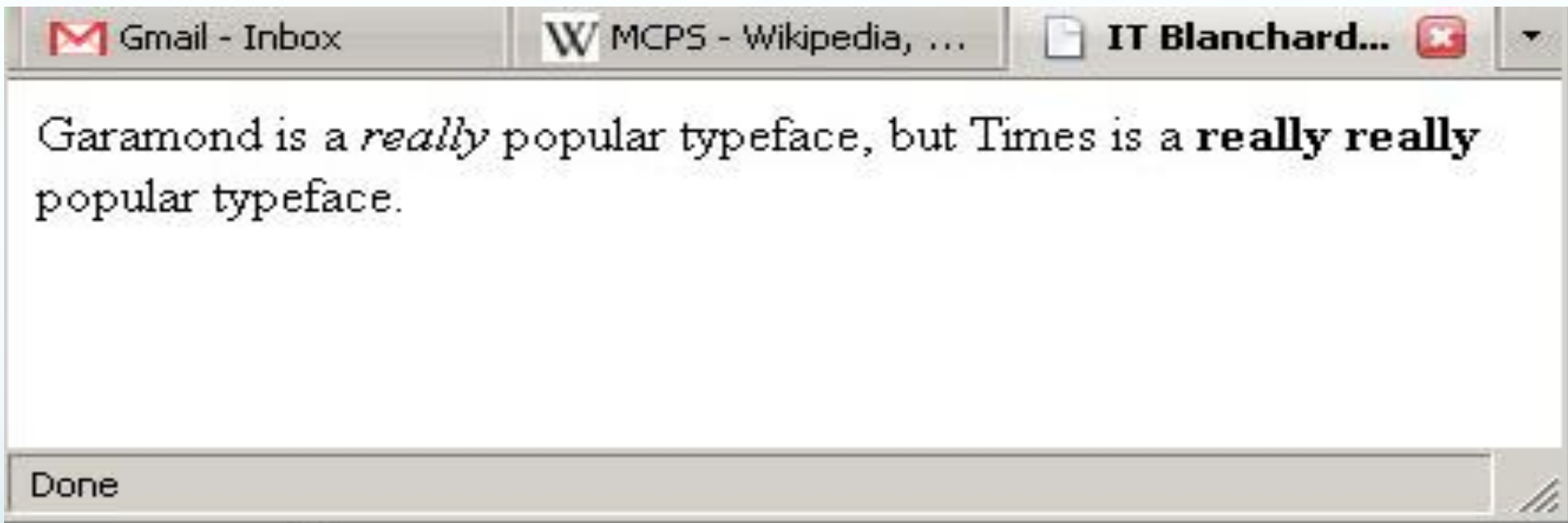
<p>

Garamond is a <em>really</em> popular typeface, but Times is a <strong>really really</strong> popular typeface.

</p>

## Inline Elements

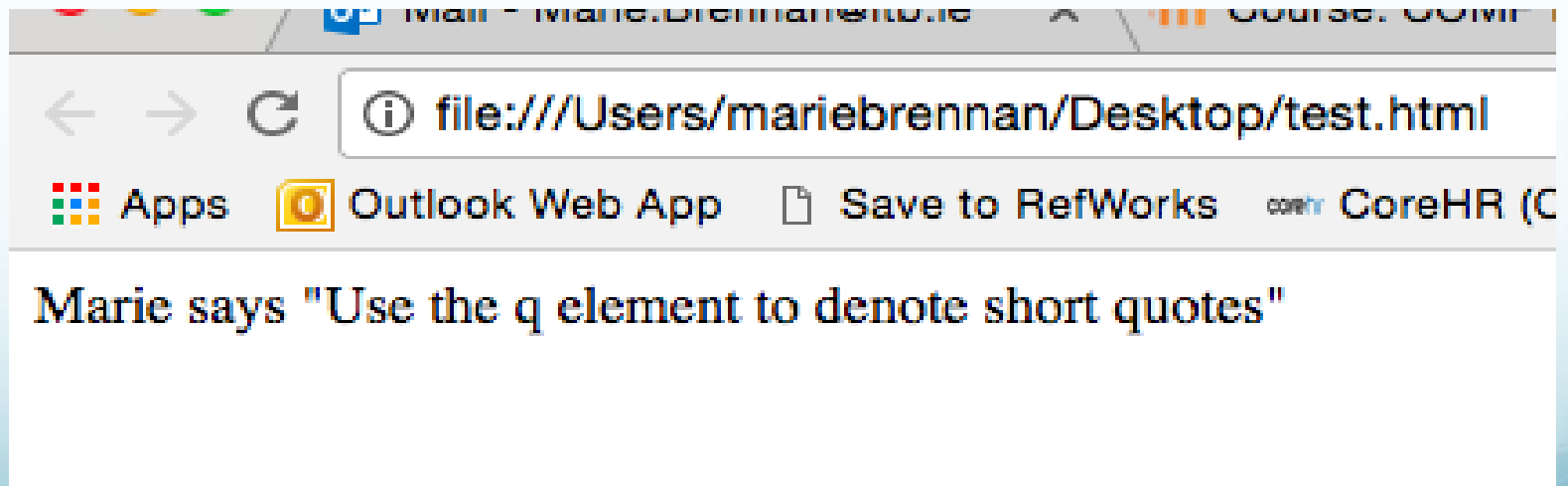
- The default rendering of this is:



- Screen readers may read emphasised text in a different tone of voice

# Inline Elements

- **Short Quotations**
- The q element is used to denote a short quotation.
- Most browsers will render the result in quotes e.g.  
`<p>Marie says <q>Use the q element to denote short quotes</q>.</p>`



## Summary so far...

- Basic BLOCK-LEVEL elements for mark-up
  - `<p>` paragraphs
  - `<h1>` ... `<h6>` headings
  - `<hr>` horizontal rule
- Inline elements `<em>` `<q>` `<strong>` to format the content within the block level element



# BREAKS

Line and word

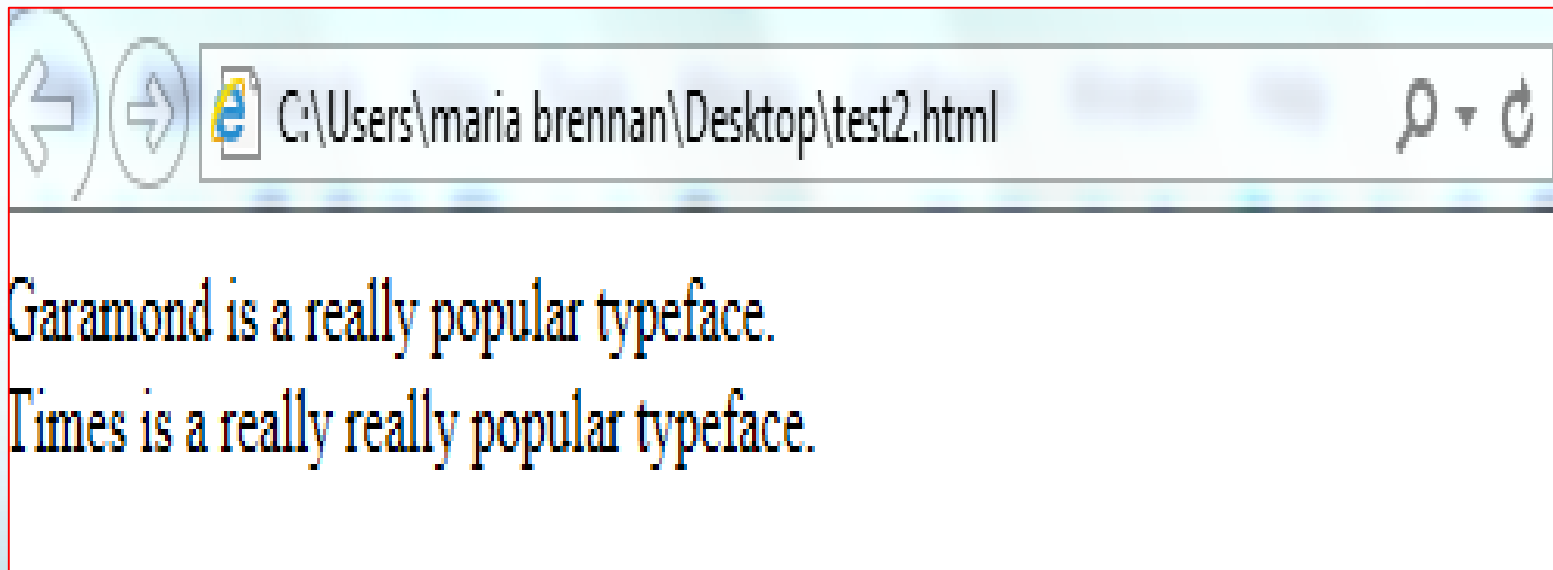
# Block Level Elements

## LINE breaks

All of the block elements start on new lines.

- But sometimes we want to add a new line within a block.
- For example we might want to break a paragraph and do so without dividing it into two paragraphs.
  - E.g. ensure new line of poem on new line
- The **br** element allows this.
- It is an empty element that simply forces a line break wherever it is inserted.
- Used as **<br >**

- `<p>`
- Garamond is a really popular typeface.`<br>`Times is a really really popular typeface.
- `</p>`



# HTML

`<p>` Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries , but also the leap into electronic typesetting, remaining essentially unchanged.

It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.`<br>` It is a long established fact The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here' making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, a search for 'lorem ipsum' will uncover many web sites still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpose (injected humour and the like).`</p>`



## Browser

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries , but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy. Various versions have evolved over the years, sometimes by accident, sometimes on purpose (injected humour and the like).

# Entities...(special character inline elements)

- ENTITIES – special characters/symbols
- e.g.

Souflé

© 2012

€ 19.99

# ENTITES – special symbols/characters

- We may wish to display symbols in the web page that we cannot type on our keyboard
- Even if we can type them, they may not be part of the basic ASCII (a-z, 0-9) alphabet
- We declare such symbols using HTML ENTITIES
- They are defined either by entity name or numeric code

© &copy;

© &#169;

€ &euro;

é &eacute;

<http://www.webstandards.org/learn/reference/charts/entities/>

# Special Characters

```
<!doctype html><html><head>  
  
<title> Special Characters</title>  
  
<body>  
<h1>Copyright : &copy;</h1>  
<h1>Euro: &euro;</h1>  
<h1>Fada : &eacute;</h1>  
</h1>  
  
</body></html>
```

**Copyright : ©**

**Euro: €**

**Fada : é**

# RELATED TOPICS ...



## Other less used inline Elements

Element	Description
<code>abbr</code>	abbreviation
<code>cite</code>	citation; a reference to another document
<code>dfn</code>	the first occurrence of a term
<code>sub</code>	Subscript (like H <sub>2</sub> O)
<code>sup</code>	Superscript (like E=MC <sup>2</sup> )

## Inline Elements

– relating to program code

Element	Description
<code>code</code>	program code sample
<code>kbd</code>	keyboard; text entered by a user
<code>samp</code>	sample output from a program
<code>var</code>	a variable or program argument

# Inline Elements – Module style guide ...

– please **AVOID** using the following

Element	Description
<b>b</b>	program code sample
<i>i</i>	keyboard; text entered by a user
<u>u</u>	sample output from a program

- Just as you should avoid:
  - <font> and <center>
- Please also avoid the use of:
  - <b> <i> <u>
- While they are *permissible* in HTML 5, there are better ways of achieving bold / italic / underline...we will cover formatting in detail

## Inline Elements - **Abbreviations and acronyms**

- Can be marked up to provide useful information for: search engines, screen readers and so on.
- An abbreviation is shortened version of word that terminates with full stop e.g. Conn. for Connecticut.
- The full version can be provided with the title attribute

`<p><abbr title = “Conneticut”>Conn.</abbr></p>`

A blue arrow points from the text "Conneticut" in the title attribute to the word "Conn." in the code. The word "Conn." is circled with a blue double-line circle.

- Note also use `<abbr>` for acronyms:
  - abbreviations formed using first letters of words e.g. WWW for **World Wide Web**

`<abbr title = “World Wide Web”>WWW</abbr >`

# Inline Elements

## Citations

- A citation is a reference to another document such as a book. For example:

<p>The recommended textbook for this course is  
<cite>Learning Web Design</cite> by Jennifer  
Niedhurst. </p>

The recommended textbook for this course is *Learning Web Design* by Jennifer Niedhurst.

## Program Code Elements

- There are a number of elements for marking up program code for technical web documents.
- These are **code**, **var**, **samp** and **kbd**.

## Program Code Elements

There are a number of elements for marking up program code for technical web documents.

These are **code**, **var**, **samp** and **kbd**.

`<em>Emphasized text</em><br>`

`<strong>Strong text</strong><br>`

`<code>A piece of computer code</code><br>`

`<samp>Sample output from a computer program</samp><br>`

`<kbd>Keyboard input</kbd><br>`

`<var>Variable</var>`

*Emphasized text*

**Strong text**

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

# Block Level Elements

## WORD breaks

- You may wish to indicate where a long word is best broken, if it runs over the end of a line
- The **wbr** element allows this.
- It is an empty element that simply permits a word break wherever it is inserted.
- Used as **<wbr>**

**<p>**

One magic word is **<em>abra<wbr>cadabra</em>**

**</p>**



One magic word is *abracadabra*

# HMTL COMMENTS

- You can add 'comments' in your HTML code
  - They are IGNORED by browser
- Useful for:
  - Making HTML text more human friendly to read
  - Temporarily removing content from the document
  - NOTE the 2 minus-signs, and no forward slash closing tag ...

**<!--**

**I am an HTML comment and will be ignored**

**-->**



# HMTL COMMENTS

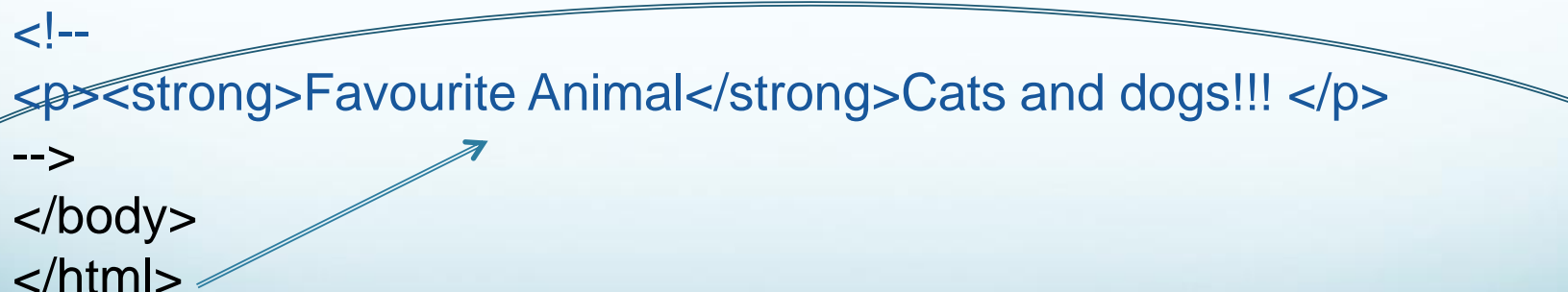
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <title> comment for human example </title>
</head>
<body>
<!-- get new catch phrase - this one is too 'Frasier' -->
<h1>Marie's blog "I'm writing"</h1>
<h2>Difference between dogs and cats</h2>

<p><strong>Dog</strong>dogfood for breakfast - my favourite. Left
over sausage and chips - my favourite. Playing fetch - my
favourite.</p>

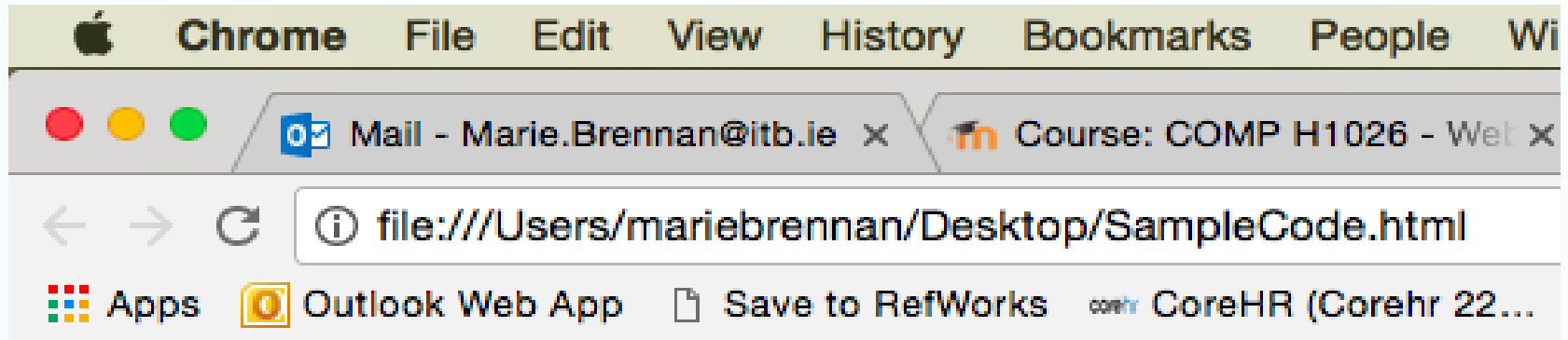
<p><strong>Cat</strong>Day 4320 of my incarceration. This morning I
scratched one and began a hunger strike turning my nose up at the
warm milk and smoked salmon, but to no avail. My captors made an
alternative meal of pouches and dry mix!</p>
</body></html>
```

# HMTL COMMENTS – comment-out code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title> Comment Example </title></head>
<body>
<!-- get new catch phrase – this one is too 'Frasier' →
<h1>Marie's blog "I'm writing"</h1>
<h2>Favourite things!</h2>
<p><strong>Favourite Movie:</strong>Shawshank Redemption</p>
<p><strong>Favourite Book:</strong>The Lord of the Rings</p>
<p><strong>Favourite Documentary:</strong>Making a Murder</p>
<!--
<p><strong>Favourite Animal</strong>Cats and dogs!!! </p>
-->
</body>
</html>
```



**This HTML paragraph will NOT be seen in browser...**



# Marie's blog "I'm writing"

## Favourite things!

**Favourite Movie:** Shawshank Redemption

**Favourite Book:** The Lord of the Rings

**Favourite Documentary:** Making a Murder

# HTML structure

`<!DOCTYPE html>` version of html that you are using... html5...simplest and most reliable to use..all other versions can be seen at the site below

`<html lang="en">` this declaration is used to declare the language of a webpage or a portion of a web page

`<head>`

`<meta charset="utf-8">`

`<title> Comment Example </title>`

`</head>`

To display an HTML page correctly, a web browser must know the character set used in the page.- unicode displays almost all of the characters in the world

`<body>`

`<p><strong>Favourite Movie:</strong>Shawshank Redemption</p>`

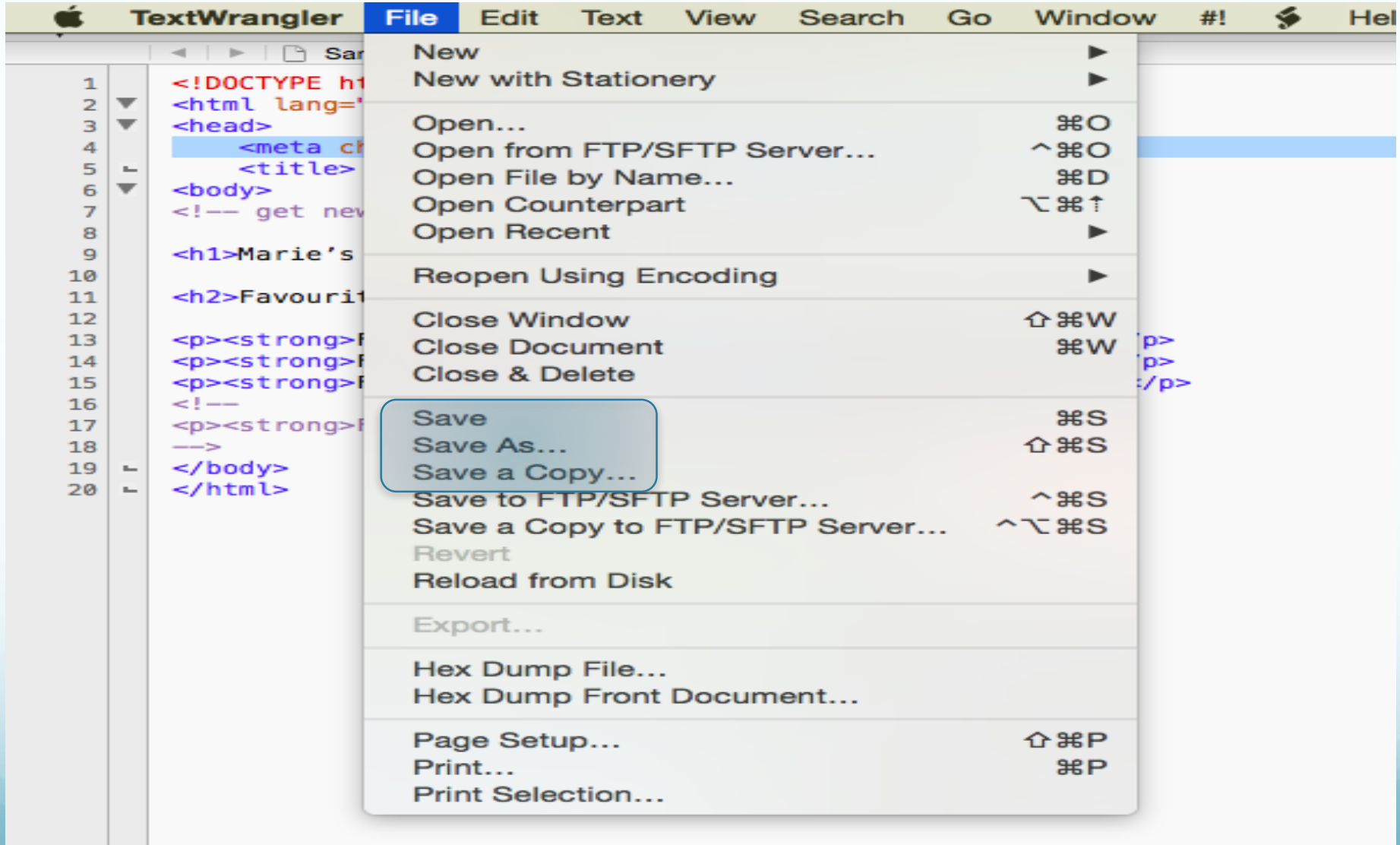
`</body>`

`</html>`

# <head>Comment Example</head>



# Saving a file



ol selected)

Save As: SampleCode.html

Tags:

Where ✓ Desktop

Devices

Remote Disc

Favorites

Dropbox

iCloud Drive

Applications

Desktop

Documents

Downloads

Recent Places

Screenshots

New folder

Returns

returns

20170724-092014

You must save it  
as a .html page  
otherwise the  
browser will not  
recognize it as a  
webpage

le></head>

one is too 'Frasier' -->

l>

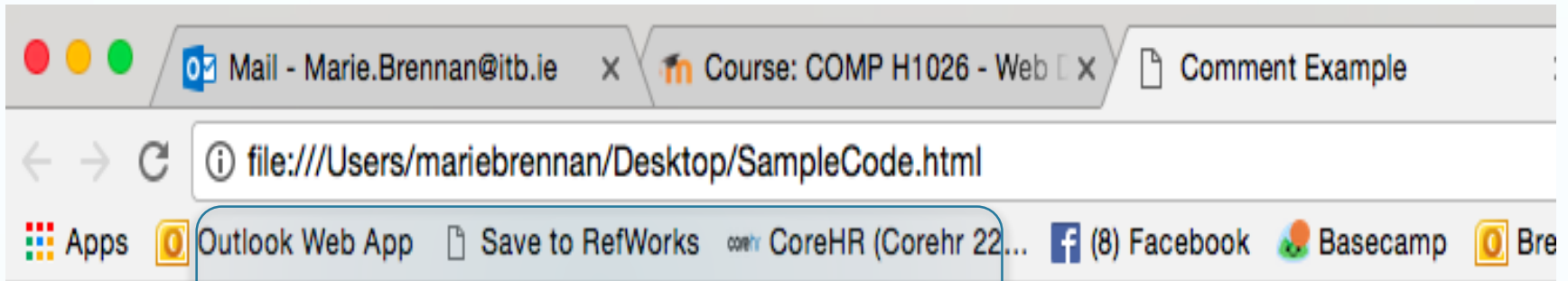
ng>Shawshank Redemption</p>

g>The Lord of the Rings</p>

</strong>Making a Murder</p>

ng>Cats and dogs!!! </p>

# Saving files



**Marie's blog "I'm writing"**

**Favourite things!**

**Favourite Movie:**Shawshank Redemption

**Favourite Book:**The Lord of the Rings

**Favourite Documentary:**Making a Murder

sample.html



# That's all for now

- Lab01 on Moodle
- Save each lab in a folder named Lab01, Lab02 etc
- Upload all work to Moodle
- Not graded but you will need to complete all labs in order to complete the assignments, class tests and the following weeks labwork
- It is up to you to have that completed
- If you have any problems with the labs you can email me with your code attached and I will assist you.
- It's a fun subject so enjoy!!!!