

- ↪ By conforming to the W3C standards, web technologies are made interoperable making it easy for the users to view web pages even if they are using different browsers. Neglecting the W3C standards may have undesirable repercussions in the long run. This is obviously so since the continuous development going on in the internet currently is apt to give weight to good coding practices in the future to minimize conflicting web issues.
- ↪ By making your website cross-browser compatible, you penetrate the large number of web surfers which then increases your site visitors. If the site visitors are pleased and satisfied when they view and navigate your site, they are likely to become your frequent site visitors.
- ↪ When websites are created to web standards they are stripped away of unnecessary code making the page much smaller which reduces bandwidth;
- ↪ Standards compliant sites make it much easier for the website to be maintained and developed;
- ↪ By having a standard compliant site you can be sure your website will work in the future and be understood by all browsers;
- ↪ By stripping out messy, invalid HTML tags, file sizes can be reduced dramatically. This means that they will load faster, providing your users with a better experience;
- ↪ By keeping content separate from presentation, search engines find it easier to understand your site.



Let's Remember!

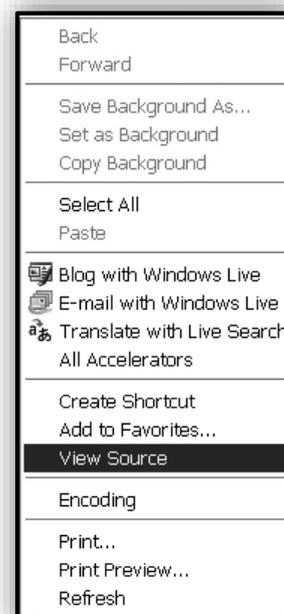
A web standard is the term given to the recommendations made by the W3C to ensure the Internet is developed to a high standard. The W3C is the governing body for the Internet and any competent web designer should be designing their websites in accordance to W3C web standards.

To find out more about the W3C, visit their website at <http://www.w3.org/>.

Using HTML

Use the Browser to View Web Page Source Code

You can use your browser to view the source code of any web page. Simply right-click inside any open web page and select *View Source* from the shortcut menu. A new *Notepad* window will open in which the source code of the web page will be displayed.



Source code

When one sees the source code for the first time it looks pretty daunting but once you understand how HTML works it is actually quite simple.

It is not possible to make any changes or amendments to a web page's source code when viewed as a *Notepad* document in your browser.



Let's Remember!

It is not possible to make any changes or amendments to a web page's source code when viewed as a *Notepad* document in your browser.

Structuring a Web Page

Now that we know who developed the HTML concept and why, we can start building our first simple web page.

All web pages must conform to the base structure of a hypertext document. This structure consists of two main elements, the **head** and **body** sections which are included in a **root element** `<html></html>` that starts and ends each page.

```
<html>
<!-- head section -->
<head>
</head>
<body>
<!-- body section -->
</body>
</html>
```

Each of the elements used in the HTML page plays a specific role.

- ↪ `<html>` and `</html>` demarcate the start and end of the page respectively.
- ↪ `<head>` and `</head>` delineate the page head. This part of the page contains certain information of prime importance, such as the page title, and among others, the data necessary for a website's display and performance. This information is not visible when a web page is opened.
- ↪ `<body>` and `</body>` mark out the page body, i.e. everything that will display in the browser window. It is in this section where text, images, animations, and other elements are put. All HTML pages must conform to this structure if they are to be successfully interpreted by browsers.

The Head Element

The following is the type of information normally included in the `<head>` tag:

- ↪ `<title>The Title of the Page</title>` This title is normally the one that will appear in search list of search engines and is therefore very important.
- ↪ `<meta name="description" content="Here a short description of what the website or page is all about is inserted.">`
- ↪ `<meta name="keywords" content="In this tag a number of key words that appear in the text of the page in the body section are included. This enables search engines to find pages when certain key words are searched">`
- ↪ `<link rel="StyleSheet" href="file name.css" type="text/css">` If cascading styles sheets (css) are used in the web page this tag will inform the browser accordingly. (More information about style sheets will be dealt with in later sections of this manual.)

The Body Element is where the Content Appears

The <body> tag identifies the start and finish of the page content. By adding other optional parameters or information into the body tag characteristics of the page as a whole can be specified. **Note that a web page only ever has one body tag.** If parameters are included, they are added into the same tag. The optional parameters may include things such as background colour of the page, background image, text colour, link colours, and margins etc. A typical opening body tag could therefore look something like this: **<body bgcolor="#FFFFFF" text="#000000" leftmargin="0" rightmargin="0" topmargin="0" bottommargin="0" marginheight="0" marginwidth="0">**

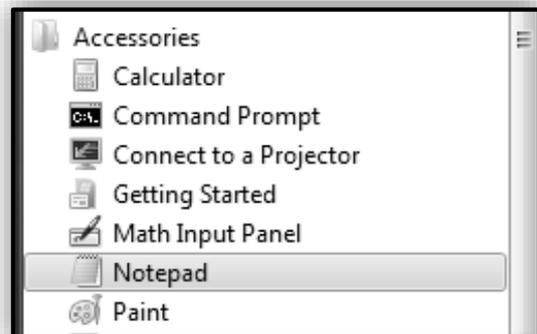
With this information we are now ready to build our first web page.

Using Notepad to Build a Simple Web Page

Later on we shall use *Expression® Web* to build websites but for now *Notepad*, which forms part of the *Windows Operating System*, will be used to hand-code your first web page. To launch *Windows Notepad*:

1. Select *Start* (bottom left hand corner of the screen).
2. Select *All Programs* ⇒ *Accessories* ⇒ *Notepad*.

A new work canvas (*Notepad* page) will open.



The HTML Element (Root Element)

The first and most important piece of code that must be inserted is the HTML root element or tag. Place the cursor in the first line of the new *Notepad* document and type the following:

```
<HTML>  
</HTML>
```

This element demarcates the start and end of the web page respectively.

Adding the Head Element

Next the head element must be added. Insert the following tags between the two html tags:

```
<head>  
</head>
```

Now the *Notepad* document should look like this:

```
<HTML>  
<head>  
</head>  
</HTML>
```

The web page head section contains certain information such as the page title, and the data necessary for a website's display and performance. This information is not visible when a web page is opened.

Adding the Title Element

One of the most important elements within the head section of a web page is the title element. This title is normally the one that will appear in lists of search engines and is therefore very important. It will also be displayed when the page is opened in a browser.

Insert the following between the two head tags:

```
<title>  
</title>
```

Now the *Notepad* document should look like this:

```
<HTML>  
<head>  
<title>  
</title>  
</head>  
</HTML>
```

The page can now be given a title or name such as *My first web page* (as an example).

Now the *Notepad* document should look like this:

```
<HTML>  
<head>  
<title> My First Web page</title>  
</head>  
</HTML>
```



Let's Remember!

None of the information in the head section will be displayed by the browser.

Let's Do It!

Adding the Body Element

Now we get to the part of your page that will be displayed in the browser window. The section in which you will place your text and graphics that will make up your web page, is the body section. So now you have to add the body section by including the following tags between the closing head tag and the closing html tag:

```
<body>  
</body>
```

The body tag identifies the start and finish of the page content. This is the part of the web page that will be displayed when the page is viewed in a browser.

The *Notepad* document should now look like this:

```
<HTML>  
<head>  
<title> My First Web page</title> <  
</head>  
<body>  
</body>  
</HTML>
```

Now the basic page is ready for text, graphics and other media to be added to the body element of the page.

Adding Text and Other Mark-Up Tags to lay out a Web Page

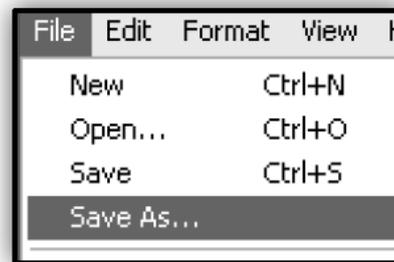
Once the basic elements of the web page have been coded, various mark-up tags can be used within the body section to lay out your web page. Some of the more common tags that are used to enhance the page lay-out are:

- ↗ The `<p></p>` element to start a new paragraph;
- ↗ The `<hr>` tag to insert a horizontal line;
- ↗ The `` tag to insert a bullet list (unordered list)
- ↗ The `` tag to insert a numbered list (ordered list) and
- ↗ The `` tag to insert an image or picture in a web page.

These elements will be dealt with in more detail in the next en following sections. Once the text, graphics and other media have been inserted, the *Notepad* document (text document) must be saved as an **html** document.

Saving a Web Page Built with Notepad

1. In *Notepad*, select *File* ⇒ *Save As*.
2. In the *Save As* dialog box locate the folder where the web page must be saved.
3. In the *File name:* space, type the name under which the page must be saved and add the extension *.html* (or *.htm*) for example: *mypage.html* (It is important that the html extension must be added).
4. In the *Save as type:* space, select *All Files* (DO NOT save a *.txt* file).
5. Click *Save*.



Let's Remember!

When you save an HTML file, you can use either the *.htm* or the *.html* extension. In the past some of the commonly used software only allowed three letter extensions. With newer software it is now perfectly safe to use *.html*.

Let's Do It! ⇒ 1

1. Open *Notepad*.
2. Insert the basic web page structure tags for the root element, head element, and body element.
3. Insert the following title for the page: **My first web page**.
4. Insert the following text in the body element of the page: **This is my very first web page and I am so excited about it**.
5. Insert a horizontal line below the sentence.
6. Save the file (page) as an html document with the file name: **myfirstpage** in the *Web Editing* folder on your hard drive (*C:\Web Editing\My Folder\myfirstpage.html*).
7. Close *Notepad*.
8. Open *Windows Explorer*, locate the file you have just saved (*mypage.html*) in the *Web Editing* folder and double-click the *mypage.html Internet Explorer* icon to view your web page in the browser.
9. Close *Internet Explorer*.

**Remember to add the html extension to the file name
Remember to save as All Files and not as text file**