

Website Development

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1 *Hello World*

We see how to write the first web page and how to validate it.

1.1 Getting Started

The first program in any language always displays *Hello World*. To create a web page that displays *Hello World* we need to:

- create the HTML (Hypertext Mark-up Language) code
- save it somewhere
- load it in an internet browser (such as Microsoft Internet Explorer)

We use Notepad to create the HTML: Start, Programs, Accessories, Notepad

The HTML to display *Hello World* is:

```
<html>
<head>
</head>
<body>
<p>Hello World</p>
</body>
</html>
```

Save the code to your folder. Name the code "*helloworld.html*" Include the quotation marks. All lower case. No spaces. .html is compulsory. Quotation marks because otherwise Notepad will append .txt. All lower case because some older computer systems do not recognise capital letters. No spaces, underscores or hyphens for the same reason. .html to instruct the operating system to load it with an Internet browser.

Navigate to the folder where you saved your code. Rapid double click on the file. The Internet browser should load and display the text *Hello World*.

A web page always has three sections: <html>, <head> and <body>. Each section is terminated by </html>, </head> and </body>. Order is important. </head> always appears directly before <body> </html> is always the last line of HTML code.

HTML is known as a mark-up language. There are other mark-up languages, such as XHTML. <html> informs the web browser to use HTML rules to display the page.

The <head> section usually contains the title for the web page and information helpful to search engines such as Google and Lycos.

The <body> section contains instructions on what is to be displayed and how. In our example there is just one instruction.

```
<p>Hello World</p>
```

<p> introduces a paragraph and </p> ends it. The browser displays the text between <p> and </p> - if it can.



1.2 Validating your HTML

As website developers the HTML we write must be accurate because our web pages will be seen by a variety of people using a variety of browsers on a variety of computer systems. We use <http://validator.w3.org> to validate our web pages.

Include the lines of code shown in bold in your helloworld.html.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
Transitional//EN">  
<html>  
<head>  
<title>Displays Hello World</title>  
<meta http-equiv="Content-Type"  
content="text/html; charset=utf-8">  
</head>  
<body>  
<p>Hello World</p>  
</body>  
</html>
```

The first line

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
Transitional//EN" >
```

informs the validator that we are using HTML Version 4.01 and that the language is English.

```
<title>Displays Hello World</title>
```

because every valid HTML file must have a title. The title is shown in the browser's title bar when the page is displayed.

```
<meta http-equiv="Content-Type"  
content="text/html; charset=utf-8" >
```

tells browsers that the file is HTML text (and not XHTML for example) and that the character set we are using is utf-8. There are other character sets such as windows-1252, but utf-8 is recognised by most browsers on most computer systems (e.g. Linux, Mac) and in most languages.

To validate your HTML:

1. Load <http://validator.w3.org>
2. Select Validate by File Upload
3. Browse to your HTML file, select and Open it
4. Click Check
5. Correct any errors reported and re-check

1.3 Exercises

1. Create a web page that displays your name. Validate your HTML. Make corrections if necessary.