

HTML

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What is HTML?

- HTML is a language for describing web pages.
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- HTML is not a programming language, it is a **markup language**
- A markup language is a set of **markup tags**
- HTML uses **markup tags** to describe web pages

- **Hypertext** is ordinary text dressed up with the extra features such as formatting, images and links
- **Markup** is process of taking ordinary text and adding extra symbols

Introduction to HTML

- It is the predominant markup language for web pages
- It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes, and other items.
- Allows images and objects to be embedded and can be used to create interactive forms.

- It is written in the form of HTML elements consisting of "tags" surrounded by angle brackets within the web page content
- It can load scripts in languages such as JavaScript which affect the behavior of HTML webpages
- HTML can also be used to include Cascading Style Sheets (CSS) to define the appearance and layout of text and other material

Need of HTML

- Internet is an network of computers that exchange information with each other.
- WWW is a vast interconnected library of information.
- Web consists of web pages.
- HTML is used to build web pages
- HTML is designed to work not only on simple pc's but also on graphics workstations

- HTML document is put on computer screen as well as on printer, fax machine, TV sets , etc.
- HTML is used to build any type of the web pages
- It defines different parts of your documents.

Advantages of HTML

- For creating HTML document you need only text editor
- It can be created on any platform
- You can easily find the errors
- It will not cost you anything , neither it requires licenses
- Learning HTML is simple

Disadvantages of HTML

- HTML is not a programming language
- Any simple calculation cannot be done
- The web pages can't behave like an application
- The web pages do not have their own interface
- It can't be used even to display date

Applications of HTML

- It is used to create a web pages
- It is used to generate the user interface
- It is used to create different kinds of forms

Basic HTML Web Structure

- A web page constructed using HTML has a basic and essential structure .
- The page always begins with the start tag of the html element and always terminates with the end tag of the html element as follows:

Basic HTML Structure

- `<HTML>`
 - `<HEAD>`
 - `<TITLE>`
 - Title of the document
 - `</TITLE>`
 - `</HEAD>`
 - `<BODY>`
 - Actual document
 - `</BODY>`
 - `</HTML>`

The <HTML> tag

- Although not currently required by all clients, the <html> tag signals the point where text should start being interpreted as HTML code. It's probably a good idea to include it in all your documents now, so you don't have to go back to your files and add it later.
- The <html> tag is usually placed on the first line of your document. At the end of your document you should close with the </html> tag.

```
<html>  
...web page...  
</html>
```

The <HEAD>tag

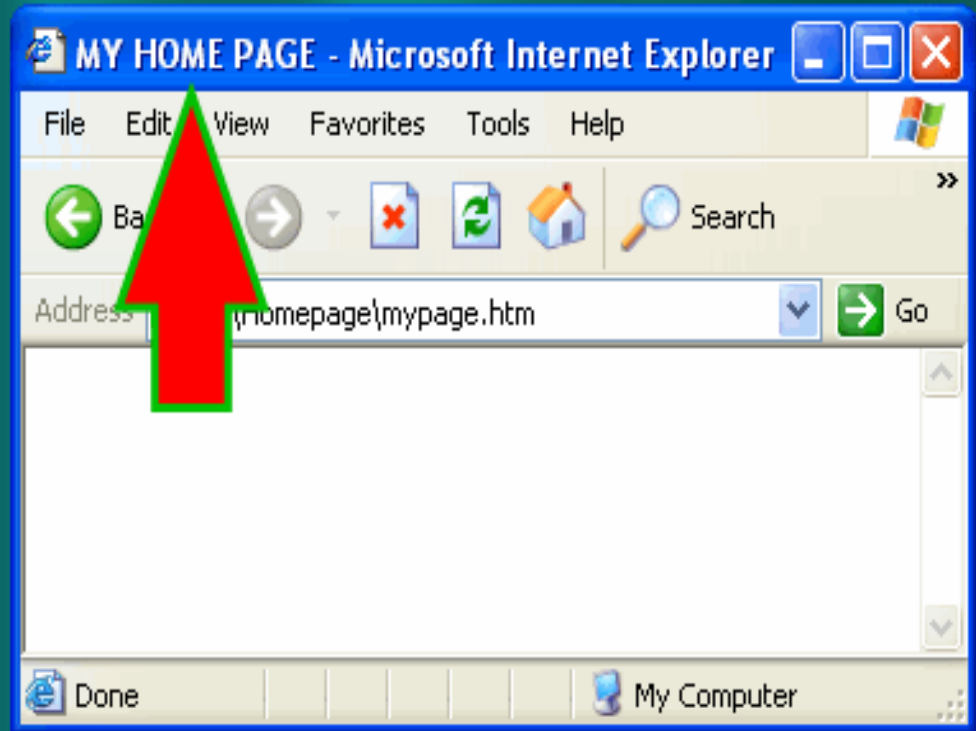
- The head section begins with the <head> start tag and terminates with the</head> end tag.
- The head section or *document head* has little content and mostly contains HTML coded instructions on how to title, categorize and 'run' the web page.

Adding Title to the web page

- A title tag allows you to specify a Document Title in your browser window.
- This title is created using the `<title>...</title>` tags which are themselves always nested within the `<head>...</head>` tags

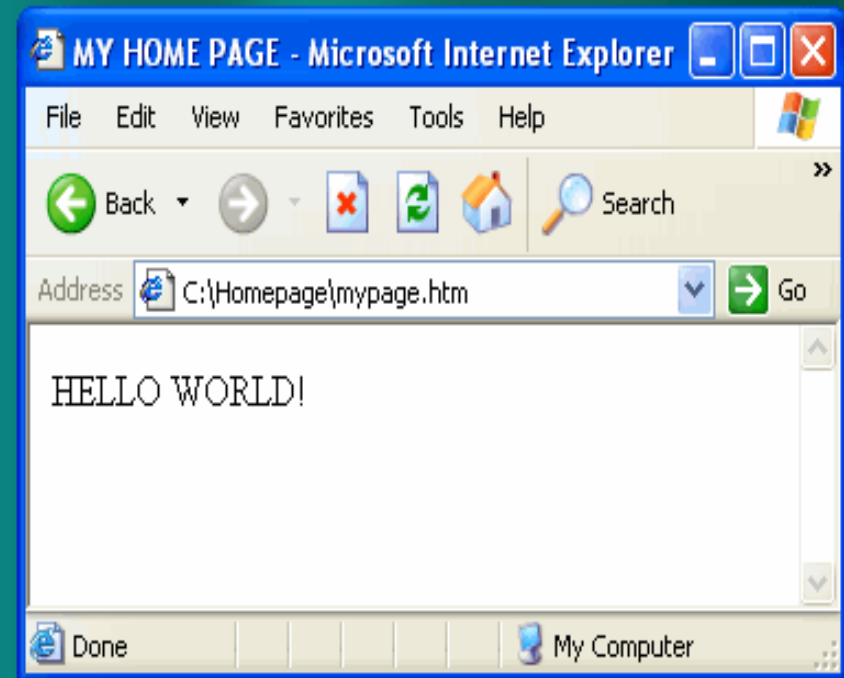
- `<html>`
`<head>`
`<title> My Home`
`Page </title>`
`</head>`
`<body>`
`</body>`
`</html>`

It will look like this



Adding Content to the web page

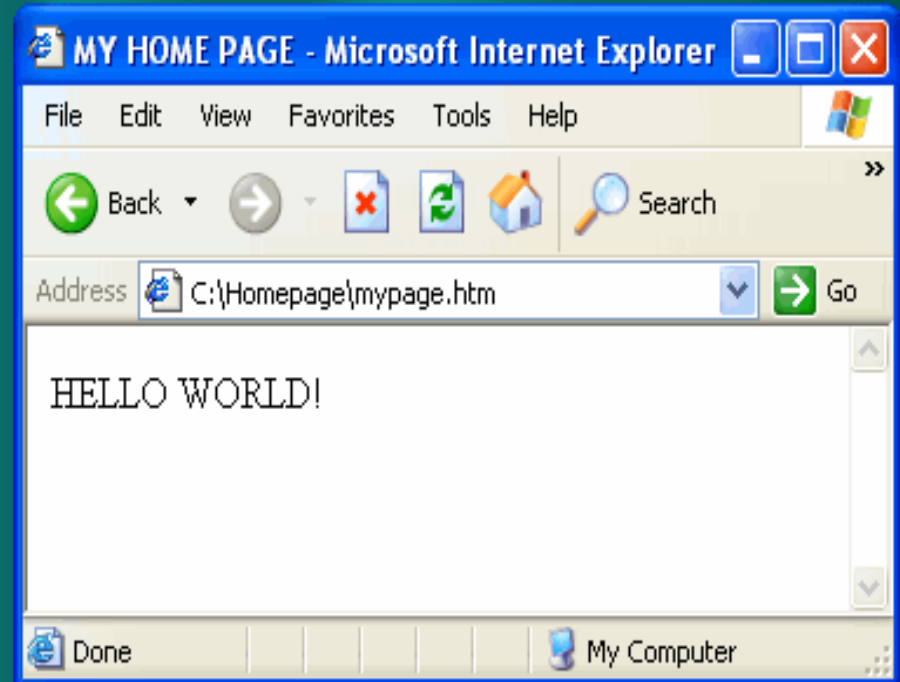
- All you have to do is type some text in between the `<body>...</body>` tags.
- ```
<html>
<head>
<title> My Home
Page </title>
</head>
<body>
HELLO WORLD!
</body>
</html>
```
- This will look like this



# Simple HTML document

- ```
<html>
<head>
<title> My Home
Page </title>
</head>
<body>
HELLO WORLD!
</body>
</html>
```

This will produce a web page :



Basic HTML Commands

- There are large number of HTML Commands.
- All of them are used for varied purposes.
- They have certain functionality present in them.
- HTML Commands are used to make your web page interactive and more attractive.

Heading tags (<H1>-<H6>)

- There are up to six levels of headers that can be used in your document, h1 through h6.

<h1>This is a header 1 tag</h1>

<h2>This is a header 2 tag</h2>

.....

<h6>This is a header 6 tag</h6>

Paragraphs

- In HTML, a paragraph tag `<p>` should be put at the end of every paragraph of "normal" text (normal being defined as not already having a tag associated with it).
- `<p>` causes a line break and adds a trailing blank line
- `
` causes a line break with no trailing blank line
- As a convenience to yourself and others who might have to edit your HTML documents, it's a very good idea to put two or three blank lines between paragraphs to facilitate editing.

Preformatted text

- The preformatted text tag allows you to include text in your document that normally remains in a fixed-width font and retains the spaces, lines, and tabs of your source document.
- The only way to circumvent this is to use the preformatted tag. Visually, preformatted text looks like a courier font.

```
<pre>this is
```

```
    an example  
    of a   preformatted  
text tag</pre>
```

And this is how it displays:

```
this is
```

```
    an example  
    of a   preformatted  
text tag
```

Physical Style Elements

- HTML has a few tags for controlling the appearance and flow of text.
- There are three text markup elements for controlling the font of a text segment (a fourth is proposed), and three tags for controlling the flow of text.

Font Tags:

- These tags control the appearance the text they contain.
- They should be used within document structures such as paragraphs or tables.

Type Styles

- **** will display text in **BOLD**
- **<I>** will display text in *Italics*
- **<STRIKE>** will display text with a line drawn through it through
- **<SUB>** will display text as a subscript.
- **<SUP>** will display text as a superscript.
- **<TT>** will display text in a fixed typewriter-like font
- **<U>** will display underlined text underlined

Font Size

- *<BIG> will display text in a larger font.*
- * lets you specify how much larger or smaller the contained text should be than the surrounding text. It requires a SIZE attribute:
Three times larger
Thee times larger*
- *<SMALL> will display text in a smaller font.*

Text Flow Tags:

- Text flow tags should be inserted between sections of text to be combined or divided.
- *Text flow tags do not usually have end tags.*
- **
** forces a line break
this text is on a new line

- **<CENTER> </CENTER>** centers the text it contains. However, you should use an **ALIGN="CENTER"** attribute with a document text structure instead. Here are some examples:
<P ALIGN="CENTER">
<DIV ALIGN="CENTER">
- **<HR>** will display a rule line between segments of text.

Tables

- support for tables with the `<TABLE>` tag and its elements:

`<CAPTION>`

Table caption tag

`<TR>`

Row divider

`<TH>`

Table header tag

`<TD>`

Table data cells

Example of <TABLE> tag

- ```
<table border="1">
 <tr>
 <th>Month</th>
 <th>Savings</th>
 </tr>
 <tr>
 <td>January</td>
 <td>$100</td>
 </tr>
</table>
```

# Adding Hypertext...

- **HTML Anchor Tag**

- Anchors are what make HTML a **hypertext language**.

- The anchor tag consists of a start tag **<A** plus one or more attributes naming or describing the anchor plus **>** then content which becomes the link, followed by an end tag **</A>** :

```
HTML Anchor Tag
```

# Images

- Images can be included with HTML documents using the **<IMG>** tag.
- Images can be icons, small images of characters HTML cannot support, or photographs.
- The linked image must be in one of several graphic formats:
  - Joint Photographic Experts Group format (**JPEG**)
  - Xbitmap (**XBM**)
  - Comuserve's Graphics Interchange Format (**GIF**)
  - Portable Network Graphics (**PNG**)

# IMG has four attributes:

- **SRC**

Ex : `<IMG SRC="icon.gif">`

- **ALIGN**

Ex : `<IMG SRC="newman.gif"  
ALIGN="middle">Newman Library`

- **ALT**

Ex : `<IMG SRC="warning.gif" ALT="Warning!">`

- **ISMAP** is used to make an image a graphical navigation tool.

# Special Characters

● Character	Entity
● -----	
● Less-than sign (<)	&lt;
● Greater-than sign (>)	&gt;
● Ampersand (&)	&amp;
● Double quote (")	&quot;
● Copyright symbol (©)	&copy;
● Registered symbol (®)	&reg;



# Frames

- With frames, several Web pages can be displayed in the same browser window.
- Example :

```
<frameset cols="25%,50%,25%">
 <frame src="frame_a.htm" />
 <frame src="frame_b.htm" />
 <frame src="frame_c.htm" />
</frameset>
```

# <frame> Tag

- The <frame> tag defines one particular window (frame) within a <frameset>.
- Each <frame> in a <frameset> can have different attributes, such as border, scrolling, the ability to resize, etc.
- Each HTML document is called a frame, and each frame is independent of the others.

# <frameset> Tag

- The <frameset> tag defines a frameset.
- The <frameset> element holds one or more <frame> elements. Each <frame> element can hold a separate document.
- The <frameset> element specifies HOW MANY columns or rows there will be in the frameset, and HOW MUCH percentage/pixels of space will occupy each of them.

# <link> Tag

- The <link> tag defines the relationship between a document and an external resource.
- The <link> tag is most used to link to style sheets.
- Example :

```
<head>
```

```
 <link rel="stylesheet" type="text/css"
 href="theme.css" />
```

```
</head>
```

# HTML Lists

- There are three types of Lists
  - Unordered lists
  - Ordered lists
  - Definitions lists
- 
- The most common HTML lists are ordered and unordered lists

# HTML Unordered Lists

- An unordered list starts with the `<ul>` tag. Each list item starts with the `<li>` tag.
- The list items are marked with bullets (typically small black circles).
- ```
<ul>  
<li>Coffee</li>  
<li>Milk</li>  
</ul>
```
- Coffee
- Milk

HTML Ordered Lists

- An ordered list starts with the `` tag. Each list item starts with the `` tag.
- The list items are marked with numbers.

```
<ol>
```

```
<li>Coffee</li>
```

```
<li>Milk</li>
```

```
</ol>
```

1.Coffee

2.Milk

HTML Definition Lists

- A definition list is a list of items, with a description of each item.
- The `<dl>` tag defines a definition list.
- The `<dl>` tag is used in conjunction with `<dt>` (defines the item in the list) and `<dd>` (describes the item in the list):

Example

- `<dl>`
`<dt>Coffee</dt>`
`<dd>- black hot drink</dd>`
`<dt>Milk</dt>`
`<dd>- white cold drink</dd>`
`</dl>`
- How the HTML code above looks in a browser:
Coffee- black hot drinkMilk- white cold drink

THANK-YOU