WEB PAGES DESIGN

Web Programming HTML
(Part I)

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Introduction to HTML

- HTML stands for **Hypertext Markup Language,** and it is the most widely used language to write Web Pages.

- **Hypertext** refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.

- As its name suggests, HTML is a **Markup Language** which means you use HTML to simply "mark-up" a text document with tags that tell a Web browser how to structure it to display.

- **Originally**, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

- Now, HTML is being widely used to format web pages with the help of different tags available in HTML language

- **Hyper Text Markup Language** is the basic structural element that is used to create web pages.

The benefits of learning HTML

- **Create Web site** - You can create a website or customize an existing web template if you know HTML well.

- **Become a web designer** - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.

- **Learn other languages** - Once you understand the basic of HTML then other related technologies like JAVASCRIPT, PHP are become easier to understand.

- HTML structure + CSS style + JS interaction = web page

HTML Page Structure

```
<html>

    <head>

        <title>Page title</title>

    </head>

    <body>

            <h1>This is a heading</h1>

            <p>This is a paragraph.</p>

            <p>This is another paragraph.</p>

    </body>

</html>
```

Activa

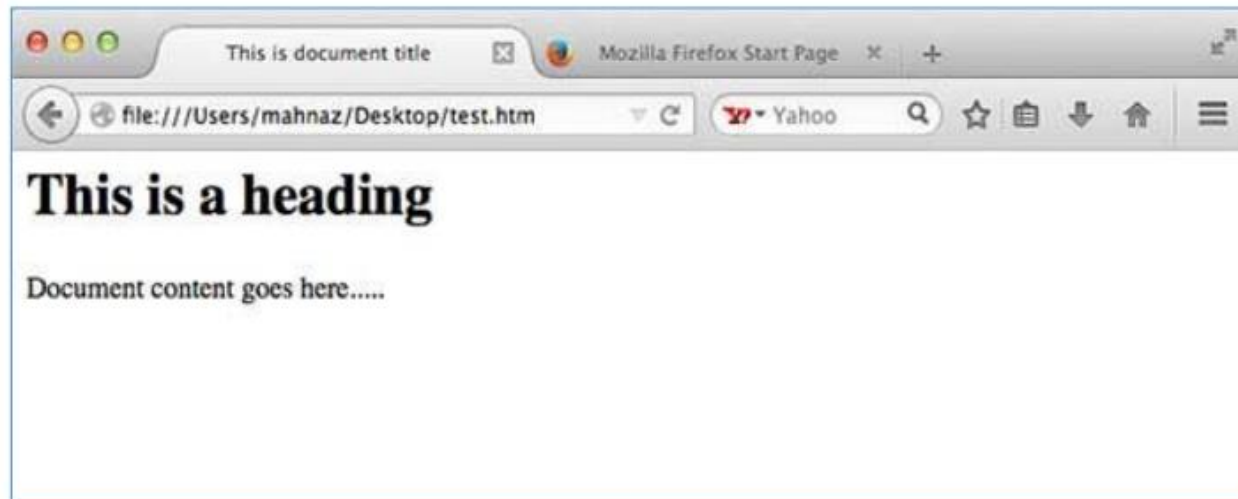# Basic Syntax of HTML

In its simplest form, following is an example of an HTML document:

```
<!DOCTYPE html>
<html>
<head>
<title>This is document title</title>
</head>
<body>
<h1>This is a heading</h1>
<p>Document content goes here.....</p>
</body>
</html>
```

HTML Tags

- HTML is a markup language and makes use of various tags to format the content. These tags are enclosed within angle braces **<Tag Name>.** Except few tags, most of the tags have their corresponding closing tags. For example, **<html>** has its closing tag **</html>** and **<body>** tag has its closing tag **</body>** tag etc.

Tag	Description
<!DOCTYPE...>	This tag defines the document type and HTML version.
<html>	This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.
<head>	This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.
<title>	The <title> tag is used inside the <head> tag to mention the document title.
<body>	This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc.
<p>	This tag represents a paragraph.
<h1> to <h6>	Defines header 1 to header 6
 	Inserts a single line break
<hr>	Defines a horizontal rule
<!-->	Defines a comment

Heading Tags:

Any document starts with a heading. You can use different sizes for your headings. HTML also has six levels of headings, which use the elements **<h1>, <h2>, <h3>, <h4>, <h5>, and <h6>**. While displaying any heading, browser adds one line before and one line after that heading.

```
<!DOCTYPE html>
<html>
<head>
<title>Heading Example</title>
</head>
<body>
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
</body>
</html>
```

This is heading 1

This is heading 2

This is heading 3

This is heading 4

This is heading 5

This is heading 6

Paragraph Tag:

- The **<p>** tag offers a way to structure your text into different paragraphs. Each paragraph of text should go in between an opening **<p>** and a closing **</p>** tag.

- Paragraphs are defined with the <p> tag. Think of a paragraph as a block of text. You can use the align attribute with a paragraph tag as well.

<p align="left">This is a paragraph</p>

<p align="center">this is another paragraph</p>

Example:

\<p\>

Mary had

a

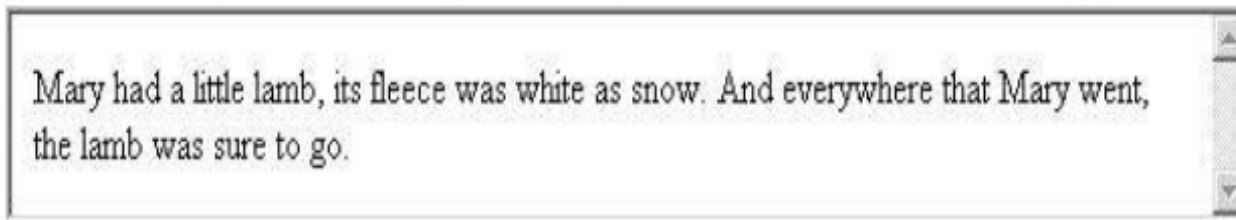little lamb, its fleece was white as snow. And

everywhere that

Mary went, the lamb

was sure to go.

\</p\>

Output:

Mary had a little lamb, its fleece was white as snow. And everywhere that Mary went, the lamb was sure to go.

HTML – Basic Tags

```
<!DOCTYPE html>

<html>

<head>

<title>Paragraph Example</title>

</head>

<body>

<p>Here is a first paragraph of text.</p>

<p>Here is a second paragraph of text.</p>

<p>Here is a third paragraph of text.</p>

</body>

</html>
```

This will produce the following result:

```
Here is a first paragraph of text.

Here is a second paragraph of text.

Here is a third paragraph of text.
```

Line Break Tag:

• Whenever you use the **
** element, anything following it starts from the next line.

• This tag is an example of an empty element, where you do not need opening and closing tags, as there is nothing to go in between them.

• The **
** tag has a space between the characters **br** and the forward slash. If you omit this space, older browsers will have trouble rendering the line break, while if you miss the forward slash character and just use **
** it is not valid in XHTML.

HTML – Basic Tags

```
<!DOCTYPE html>

<html>

<head>

<title>Line Break  Example</title>

</head>

<body>

<p>Hello<br />

You delivered your assignment on time.<br />

Thanks<br />

Mahnaz</p>

</body>

</html>
```

This will produce the following result:

```
Hello
You delivered your assignment on time.
Thanks
Mahnaz
```

Centering Content:

You can use <center> … </center> tag to put any content in the center of the page or any table cell.

```
<!DOCTYPE html>
<html>
<head>
<title>Centring Content Example</title>
</head>
<body>
<p>This text is not in the center.</p>
<center>
<p>This text is in the center.</p>
</center>
</body>
</html>
```

This text is not in the center.

<center>This text is in the center.</center>

Horizontal Lines:

Horizontal lines are used to visually break-up sections of a document. The **<hr />** tag creates a line from the current position in the document to the right margin and breaks the line accordingly. For example, you may want to give a line between two paragraphs as in the given example below:

```html
<!DOCTYPE html>
<html>
<head>
<title>Horizontal Line Example</title>
</head>
<body>
<p>This is paragraph one and should be on top</p>
<hr />
<p>This is paragraph two and should be at bottom</p>
</body>
</html>
```

This is paragraph one and should be on top

This is paragraph two and should be at bottom

Block Quotations:

- Sometimes we want a block of text to be set off from the normal flow of text in a document. In many cases, such a block is a long quotation.

- The <blockquote> tag is designed for this situation. Browser designers determine how the content of <blockquote> can be made to look different from the surrounding text.

- In many cases, the block of text is indented, either on the left or right side or both. Another possibility is that the block is set in italics.

Example:

<html>

<head> <title> Blockquotes </title>

</head>

<body>

<p>

Abraham Lincoln is generally regarded as one of the greatest presidents of the United States. His most famous speech was delivered in Gettysburg, Pennsylvania, during the Civil War. This speech began with

</p>

\<blockquote\>

\<p\>

"Fourscore and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

\</p\>

\<p\>

Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure."

\</p\>

\</blockquote\>

\<p\>

Whatever one's opinion of Lincoln, no one can deny the enormous and lasting effect he had on the United States.

\</p\> \</body\> \</html\>

OUTPUT:

Abraham Lincoln is generally regarded as one of the greatest presidents of the United States. His most famous speech was delivered in Gettysburg, Pennsylvania, during the Civil War. This speech began with

"Fourscore and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure."

Whatever one's opinion of Lincoln, no one can deny the enormous and lasting effect he had on the United States.

Hyper Links:

- A link is a pointer to some resource.

- Web pages can contain links that take us directly to other pages and even specific parts of a given web page.

- These links are known as hyperlinks.

- Hyperlinks allow visitors to navigate between web sites by clicking on words, phrases and images.

Web links have 2 basic components:

1. A link: The tag in the main document (source) that refers to another document.

2. A target: The document (or particular location in the document) to which the link points to.

- The tags used to produce links are the <a> and , called as anchor tag. The anchor tag consists of two pieces of information:

1. The URL of the target document

2. The text needed to activate the hyperlink

Syntax:

 click here

The href (Hypertext reference) attribute is used to specify the target of the link.

Types of Links:

There are 3 different kinds of links we can have in the web page:

1. Internal: Link to a section on the current (same) page or document.

2. Local: Link to a page on the same server or directory.

3. External: Link to a page or website on a different server or directory.

• Link targets:

How link to another website to open in a new window?

Usually links will open in the current window. We can link to another website to open in a new window by using the "target" attribute and setting the value to "_blank" with the anchor tag.

Types of Links

- The target attribute specifies where to open the linked document.

- The target attribute can have one of the following values:

1. _self - Default. Opens the document in the same window/tab as it was clicked.

2. _blank - Opens the document in a new window or tab.

3. _ parent - Opens the document in the parent frame

4. _top - Opens the document in the full body of the window

Example:

 Click here

- It is very much allowed to keep one HTML element inside another HTML element:

```
<!DOCTYPE html>
<html>

<head>
<title>Nested Elements Example</title>
</head>
<body>
<h1>This is <i>italic</i> heading</h1>
<p>This is <u>underlined</u> paragraph</p>
</body>
</html>
```

This will display the following result:

> This is *italic* heading
>
> This is underlined paragraph

- We have seen few HTML tags and their usage like heading tags **\<h1\>, \<h2\>,** paragraph tag **\<p\>** and other tags. We used them so far in their simplest form, but most of the HTML tags can also have attributes, which are extra bits of information.

- An **attribute** is used to define the characteristics of an HTML element and is placed inside the element's opening tag. All attributes are made up of two parts: a **name** and a **value**:

- The **name** is the property you want to set. For example, the paragraph **\<p\>** element in the example carries an attribute whose name is **align**, which you can use to indicate the alignment of paragraph on the page.

- The **value** is what you want the value of the property to be set and always put within quotations. The below example shows three possible values of align attribute: **left**, **center** and **right**.

HTML – Attributes

```
<!DOCTYPE html>

<html>

<head>

<title>Align Attribute  Example</title>

</head>

<body>

<p align="left">This is left aligned</p>

<p align="center">This is center aligned</p>

<p align="right">This is right aligned</p>

</body>

</html>
```

This will display the following result:

```
This is left aligned

                        This is center aligned
```

The end