- **HTML Attributes**

Tags may have attributes, which contain additional pieces of information. It generally provides additional styling (attribute) to the element. Attributes appear inside the opening tag and their values sit inside quotation marks.

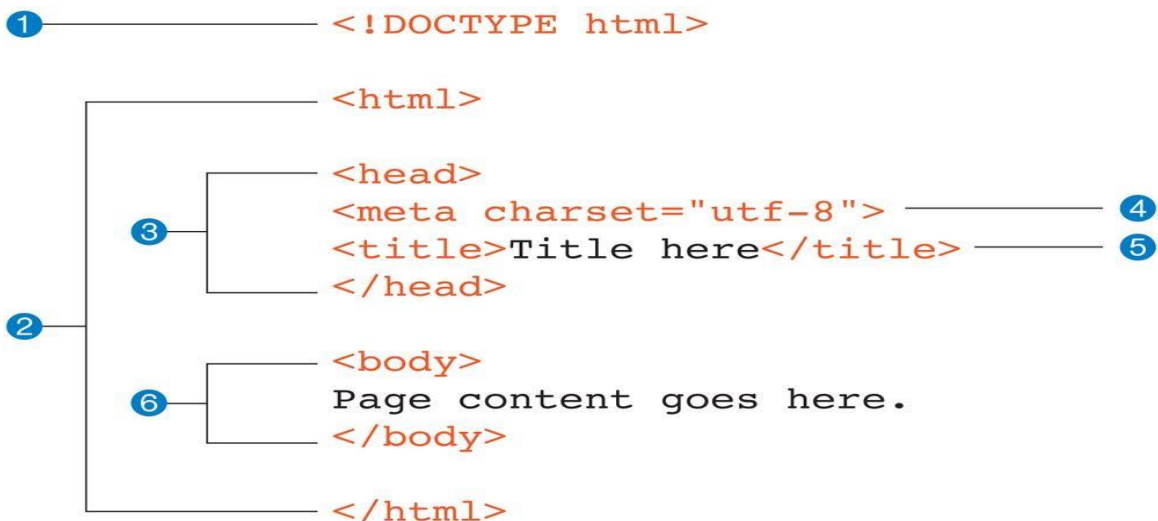**Example**: **<img src="myimage.jpg">   </img>**

In this example, the image source (**src**) is the **attribute name** and the **"myimage.jpg"** is **attribute value** "of the **<img>** tag.

HTML Document Structure

The HTML document is divided into two major portions: the head and the body.

- The **head** contains information about the document such as the title and meta information describing the content.

- The **body** contains the actual contents of the document (the parts that is displayed in the browser window).

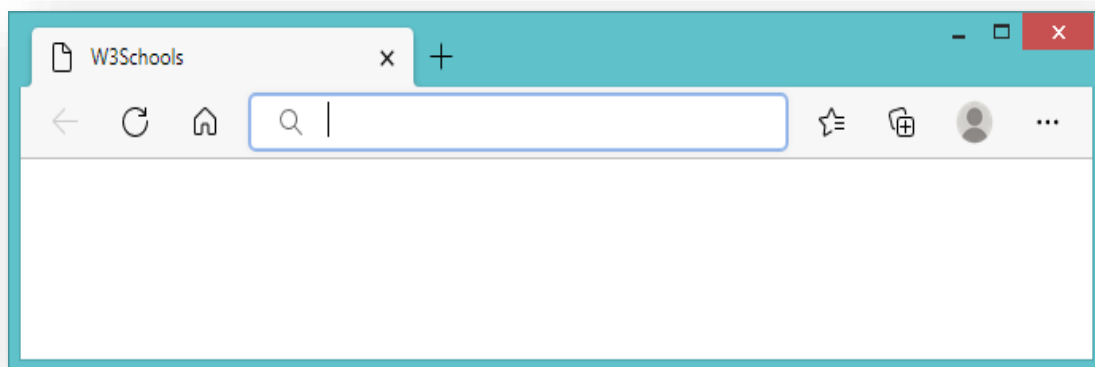The example below shows tags that make up standard structure of HTML document:

1. It is document type declaration that identifies this document as HTML document.

2. The <html> element is called the root element of an HTML page because it contains all the elements in the document. Within the html element, the document is

divided into a head and a body.

3. The <head> element contains descriptive information about the document itself, such as its title, the style sheet(s), scripts, and Meta information.

4. The Meta elements within the head element provide information about the document itself but no information that will be displayed on the page itself.

5. The <title> element also in the head element, which tells the browser what to display in its title bar.

6. The <body> element contains the visible page content also body element contains almost everything that display on the screen.

Example 1: A head section that includes metadata

```
< !DOCTYPE html>
<Html>
<Head>
<Title> W3Schools </Title>
<meta name="description"  content="Build own website with W3Schools.">
<meta name="keywords"  content="HTML  CSS  JavaScript ">
</Head>
<Body>
</Body>
</Html>
```

8. HTML Headings

Use the heading tags to show the structure and importance of the content on a page. Always use the h1 tag to identify the most important information on the page, and only code a single h1 tag on each page. Then, decrease one level at a time to show subsequent levels of importance.

Note: Don't use heading levels as way to size text. Instead, use CSS to size headings.

The tags of heading are:
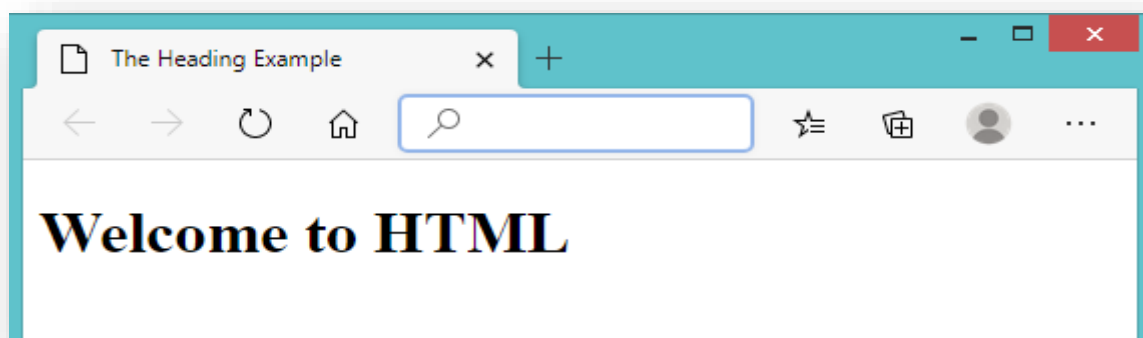
h1
h2
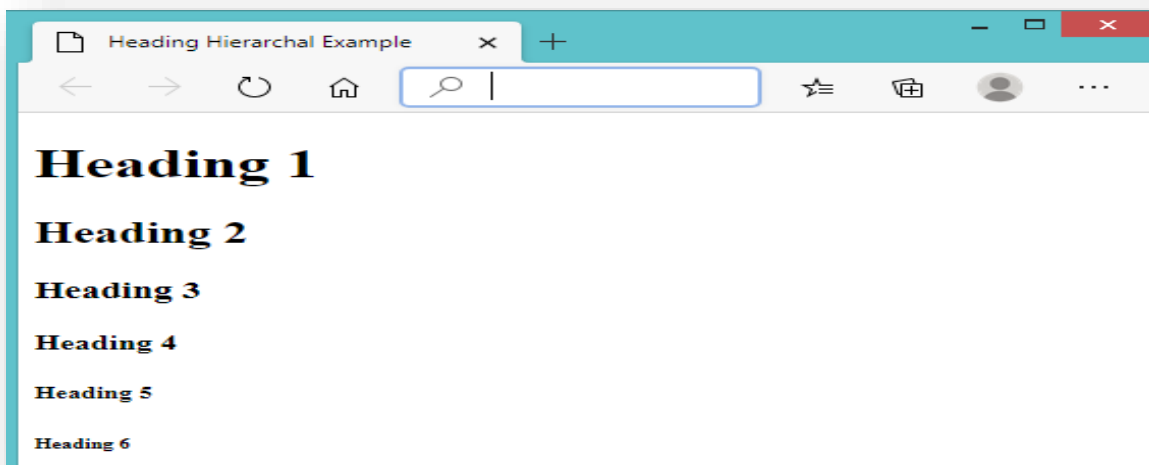**h3**
h4
h5
h6

Example 2:

< !DOCTYPE html>
<Html>
<Head>
<Title> The Heading Example </Title>
</Head>
<Body>
<h1>Welcome to HTML</h1>
</Body>
</Html>

In the example above, h1 element is used to show a major heading. To include a subheading, the h2 element is used. A subheading under an h2 would use an h3 element, and so on, until h6.

Example 3:

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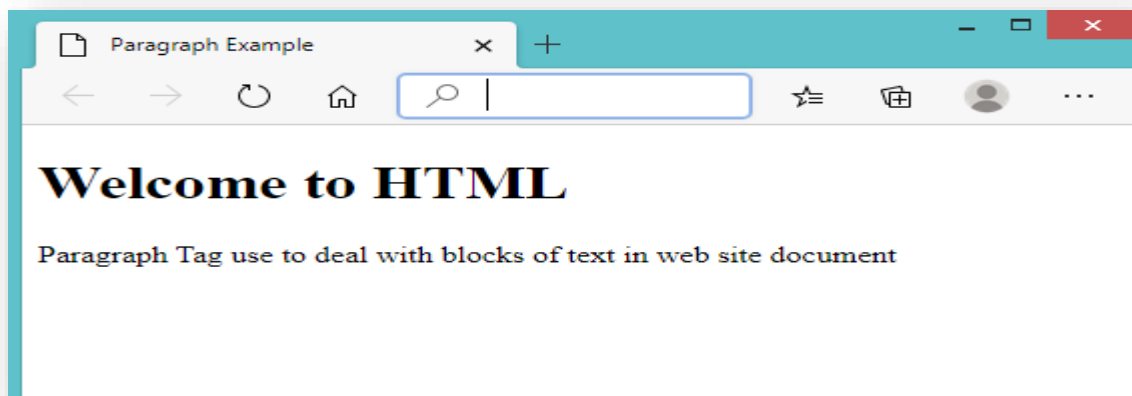

9. HTML Paragraphs

Paragraph Tag: The <p> element defines a paragraph. It uses to deal with blocks of text in the web site document.

Example4:

< !DOCTYPE html>
<Html>
<Head>
<Title> Paragraph Example </Title>
</Head>
<Body>
<h1>Welcome to HTML</h1>
<p> Paragraph Tag use to deal with blocks of text in web site document</p>
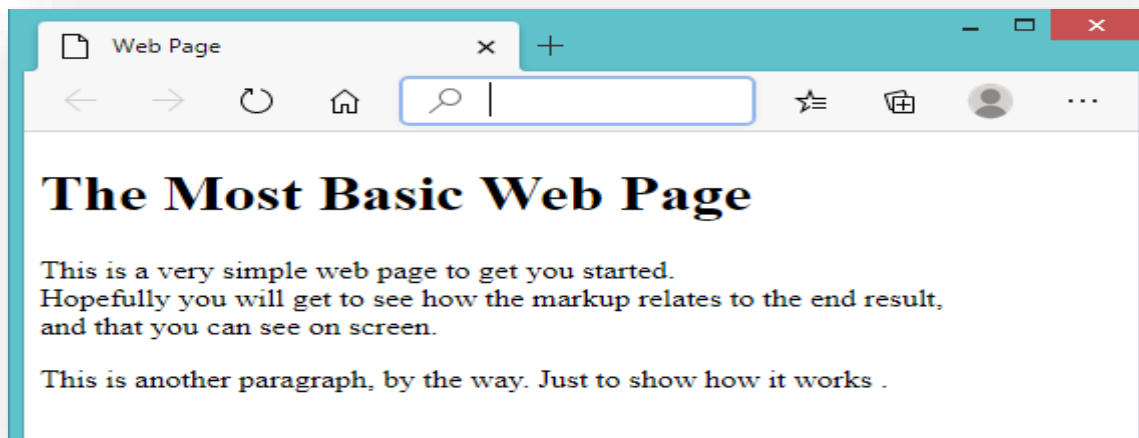</Body>
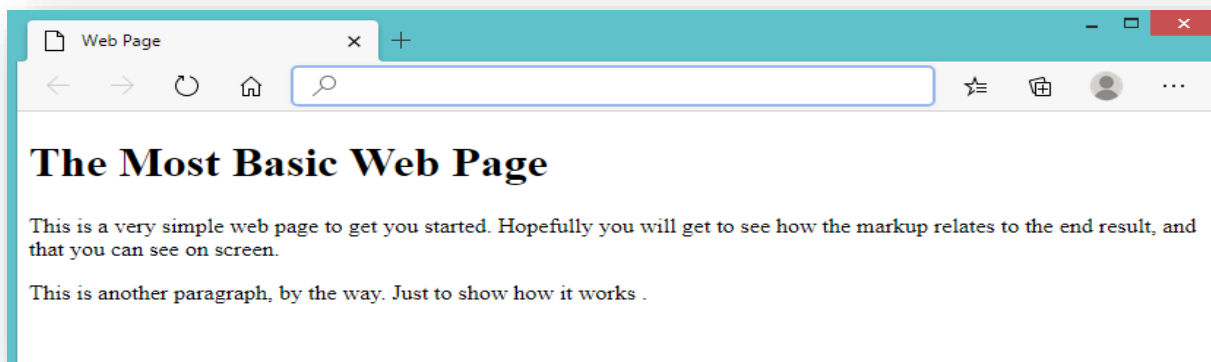</Html>**Line Break Tag:**
 element is used to start a new line rather than a new

paragraph.The <br> tag is an empty tag which means that it has no end tag.

Example 5:

< !DOCTYPE html>
<html>
<head>
<title> Web Page </title>
</head>
<body>
<h1>The Most Basic Web Page </h1>
<p>This is a very simple web page to get you started. **
** Hopefully you will get to see
how the markup relates to the end result, **
** and that you can see on screen. </p>
<p> This is another paragraph, by the way. Just to show how it works.</p>
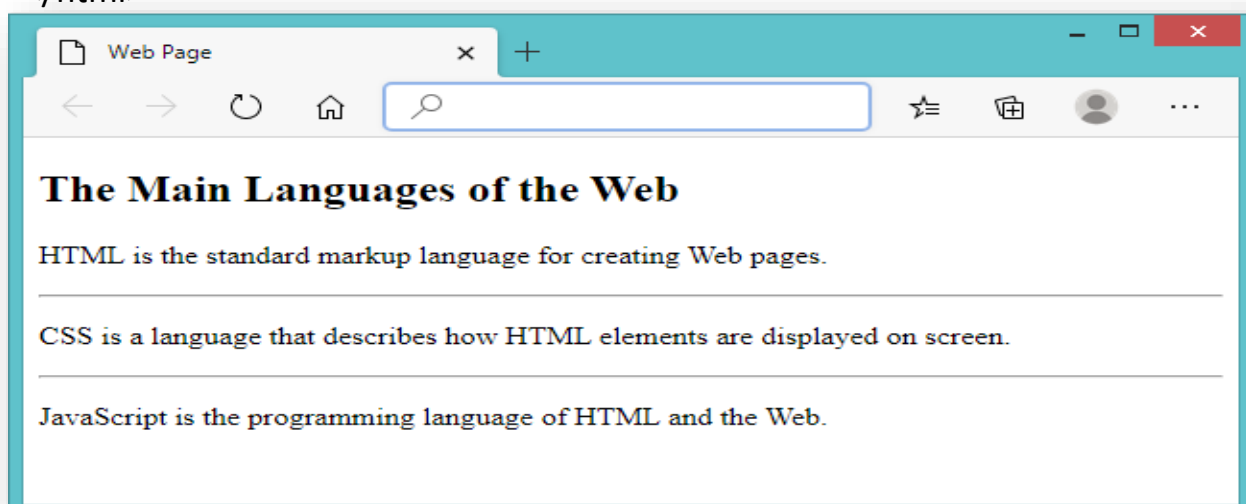</body>
</html>

If Rewrite Example 6 without using line break the output will be:

Horizontal Rules Tag: The <hr> tag defines a thematic break in an HTML page, and ismost often displayed as a horizontal rule. The <hr> tag is also an empty tag, which means that it has no end tag.

Example 6: Design a web page with three paragraphs separated by horizontal rule

```
<!DOCTYPE html>
<html>
<head>
<title> Stage four </title>
</head>
<body>
<h2>The Main Languages of the Web</h2>
<p>HTML is the standard markup language for creating Web pages. </p>
<hr>
<p>CSS is a language that describes how HTML elements are displayed on screen.
</p>
<hr>
<p>JavaScript is the programming language of HTML and the Web.</p>
</body>
</html>
```

Lecturer
Dr. Mohammed Alkhuzaie   Web Design- Lecture 5&6   2024 - 2025

Comment Tag: comments can be added to HTML by using the following syntax:

<!-- Write comments here -->

Anything between comment tags will not display in the browser and will not have anyeffect on the rest of the source. Comments are perfect for making notes on the written work and are useful for labeling and organizing long documents.

10. HTML character Entities

An HTML entity is a piece of text that begins with an ampersand **(&)** and ends with asemicolon **(;)**. Entities are frequently used to display reserved characters whichwould otherwise be interpreted as HTML code. Entity can also use in place of other characters that are difficult to type with a standard keyboard.

Instead of:	Instead of:	Instead of:
<	>	&
USE:	USE:	USE:
<	>	&

Table below provide some examples of HTML entities:

Result	Description	Entity Name
<	less than	<
>	greater than	>
&	ampersand	&
¢	cent	¢
©	copyright	©
®	registered trademark	®

Example 7:

```
<!DOCTYPE html>
<html>
<head>
<title> HTML character Entities </title>
</head>
<body>
<h1> Topics in Computer Science </h1>
<h3> Series Editors </h3>
<h4>Ian Nielson &amp; Steven Breitman </h4>
<p>Topics in Computer Science delivers high quality content for undergraduatesstudying in all areas of computing science. <br> From core foundational and theoretical material to final year topics and applications. </p>
<p> Second Edition &copy; Springer International Publishing. </p>
</body>
</html>
```

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