

## Lecture (1): HTML Introduction

HTML is the standard markup language for creating Web pages.

### What is HTML?

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

### A Simple HTML Document

#### Example

```
<!DOCTYPE html>

<html>
<head>
  <title>Page Title</title>
</head>

<body>

  <h1>This is a Heading</h1>
  <p>This is a paragraph.</p>

</body>

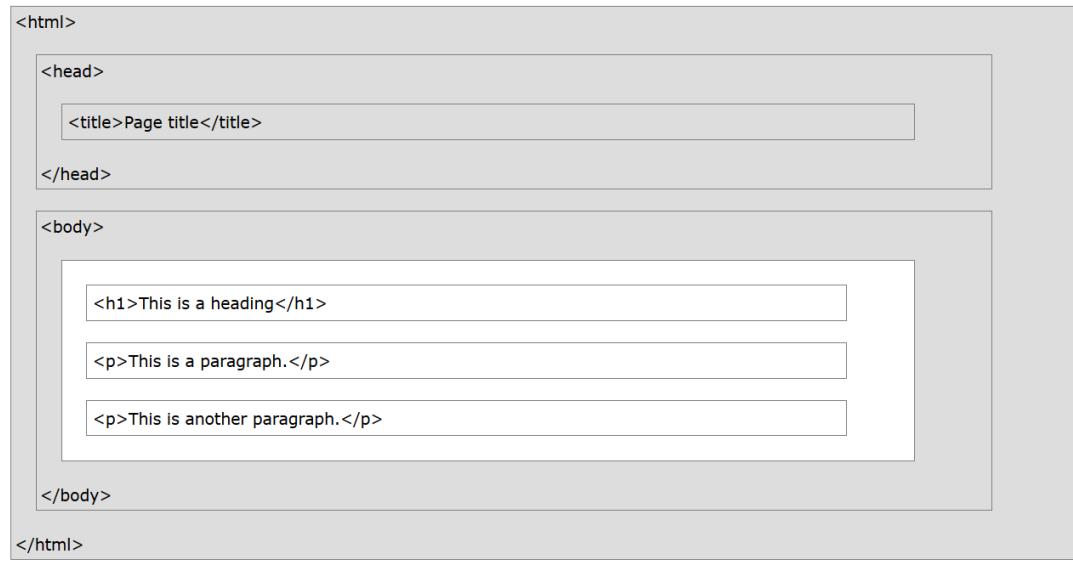
</html>
```

#### Example Explained

- The <!DOCTYPE html> declaration defines that this document is an HTML5 document
- The <html> element is the root element of an HTML page
- The <head> element contains meta information about the HTML page
- The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The <h1> element defines a large heading
- The <p> element defines a paragraph

## HTML Page Structure

Below is a visualization of an HTML page structure:



## HTML Headings

HTML headings are defined with the `<h1>` to `<h6>` tags.

`<h1>` defines the most important heading. `<h6>` defines the least important heading.

### Example

```
<h1>Heading 1</h1>  
<h2>Heading 2</h2>  
<h3>Heading 3</h3>  
<h4>Heading 4</h4>  
<h5>Heading 5</h5>  
<h6>Heading 6</h6>
```

### Example

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

## HTML Paragraphs

A paragraph always starts on a new line, and is usually a block of text.

## HTML Paragraphs

The HTML `<p>` element defines a paragraph.

A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.

### Example

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

## HTML Horizontal Rules

The `<hr>` tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The `<hr>` element is used to separate content (or define a change) in an HTML page:

### Example

```
<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>
<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>
```

The `<hr>` tag is an empty tag, which means that it has no end tag.

## HTML Line Breaks

The HTML `<br>` element defines a line break.

Use `<br>` if you want a line break (a new line) without starting a new paragraph:

### Example

```
<p>This is<br>a paragraph<br>with line breaks. </p>
```

## The HTML `<pre>` Element

The HTML `<pre>` element defines preformatted text.

The text inside a `<pre>` element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks:

#### Example

`<pre>`

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

My Bonnie lies over the ocean.

Oh, bring back my Bonnie to me.

`</pre>`

Tag	Description
<code>&lt;p&gt;</code>	Defines a paragraph
<code>&lt;hr&gt;</code>	Defines a thematic change in the content
<code>&lt;br&gt;</code>	Inserts a single line break
<code>&lt;pre&gt;</code>	Defines pre-formatted text