AL-FARABI UNIVERSITY COLLEGE
Computer Engineering Department 4th Class
Subject: Internet Technology

LAB1

HTML

HTML INTRODUCTION

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

HTML Tags

HTML markup tags are usually called HTML tags

- HTML tags are keywords surrounded by **angle brackets** like <html>

HTML tags normally **come in pairs** like and

- The first tag in a pair is the **start tag,** the second tag is the **end tag**
- Start and end tags are also called **opening tags** and **closing tags**.

HTML Documents = Web Pages

- HTML documents **describe web pages**
- HTML documents **contain HTML tags** and plain text
- HTML documents are also **called web pages**

The purpose of a web browser (like Internet Explorer or Firefox) is to read HTML documents and display them as web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page:

There are four sets of tags that need to go in every HTML document. These are:

- <HTML></HTML>
- <HEAD></HEAD>
- <TITLE></TITLE>
- <BODY></BODY>

♦ The **<html>** tag tells the browser that this is an HTML document. The <HTML> </HTML> tags identify the beginning and end of an HTML document. All tags must fall between these two.

♦ The **<HEAD></HEAD>** tags define the header. This is where all the important information about the document goes, eg. The META Tags, JavaScripts, Style definitions and the title of the document, etc.

♦ The **<TITLE></TITLE>** tags must go within the <HEAD></HEAD> tag. Anything between the two TITLE tags appears in the title bar of your browser. The title element:

  o defines a title in the browser toolbar
  o provides a title for the page when it is added to favorites
  o displays a title for the page in search-engine results

♦ The **body** element contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc.

1. <u>HTML Elements</u>

HTML documents are defined by HTML elements.

An HTML element is everything from the start tag to the end tag:

Start tag *	Element content	End tag *
<p>	This is a paragraph	</p>
	This is a link	

* The start tag is often called the **opening tag**. The end tag is often called the **closing tag**.

HTML Element Syntax

- An HTML element starts with a **start tag / opening tag**
- An HTML element ends with an **end tag / closing tag**
- Some HTML elements have empty content
- Empty elements are **closed in the start tag**
- The **element content** is everything between the start and the end tag
- Most HTML elements can have **attributes**

Nested HTML Elements

Most HTML elements can be nested (can contain other HTML elements)

HTML Document Example

```
<html>

<body>
<p>This is my first
paragraph</p>
</body>

</html>
```

The example above contains 3 HTML elements.

The <p> element:

```
<p>This is my first paragraph</p>
```

The <p> element defines a paragraph in the HTML document.

The element has a start tag <p> and an end tag </p>.

The element content is: This is my first paragraph.

The <body> element:

```
<body>
<p>This is my first paragraph</p>
</body>
```

The <body> element defines the body of the HTML document. The element has a start tag <body> and an end tag </body>. The element content is another HTML element (a paragraph)

The <html> element:

```
<html>

<body>
<p>This is my first paragraph</p>
</body>

</html>
```

The <html> element defines the whole HTML document. The element has a start tag <html> and an end tag </html>. The element content is another HTML element (the body).

Note: Don't Forget the End Tag

Most browsers will display HTML correctly even if you forget the end tag:

```
<p>This is a paragraph
<p>This is a paragraph
```

The example above will work in most browsers, but don't rely on it. Forgetting the end tag can produce unexpected results or errors.

Empty HTML Elements

HTML elements without content are called empty elements. Empty elements can be closed in the start tag.

 is an empty element without a closing tag (it defines a line break).

In XHTML, XML, and future versions of HTML, all elements must be closed.

Adding a slash to the start tag, like <br/>, is the proper way of closing empty elements, accepted by HTML, XHTML and XML.

Even if <br> works in all browsers, writing <br /> instead is more future proof.
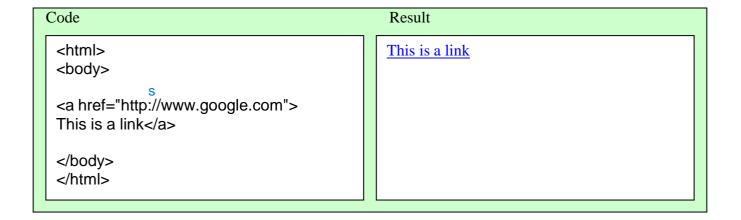
2. HTML Attributes

Attributes provide additional information about HTML elements.

HTML Attributes

- HTML elements can have **attributes**
- Attributes provide **additional information** about the element
- Attributes are always specified in **the start tag**
- Attributes come in name/value pairs like: **name="value"**

Attribute Example

HTML links are defined with the <a> tag. The link address is provided as an attribute:

Code	Result
<html> <body> s This is a link </body> </html>	This is a link

Attribute values should always be enclosed in quotes. Double style quotes are the most common, but single style quotes are also allowed.
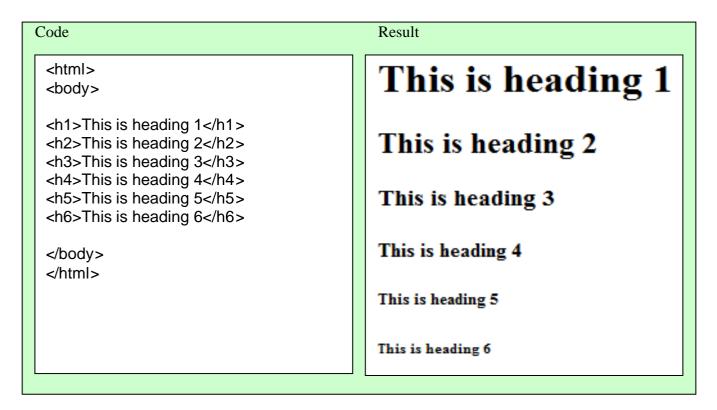
---

3. HTML Headings

Headings are defined with the <h1> to <h6> tags.

<h1> defines the largest heading. <h6> defines the smallest heading.

Headings Are Important

- Use HTML headings for headings only. Don't use headings to make text **BIG** or **bold**.

- Search engines use your headings to index the structure and content of your web pages.

- Since users may skim your pages by its headings, it is important to use headings to show the document structure.

- H1 headings should be used as main headings, followed by H2 headings, then less important H3 headings, and so on.

Code	Result

``html
<html>
<body>
 	
 This is heading 1
 This is heading 2
 This is heading 3
 This is heading 4
 This is heading 5
 This is heading 6
 	
</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

HTML Comments

Comments can be inserted in the HTML code to make it more readable and understandable. Comments are ignored by the browser and are not displayed.

Code	Result

``html
<html>
<body>
 	
<!--This comment will not be displayed-->
 This is a regular paragraph
 	
</body>
</html>
``
	This is a regular paragraph