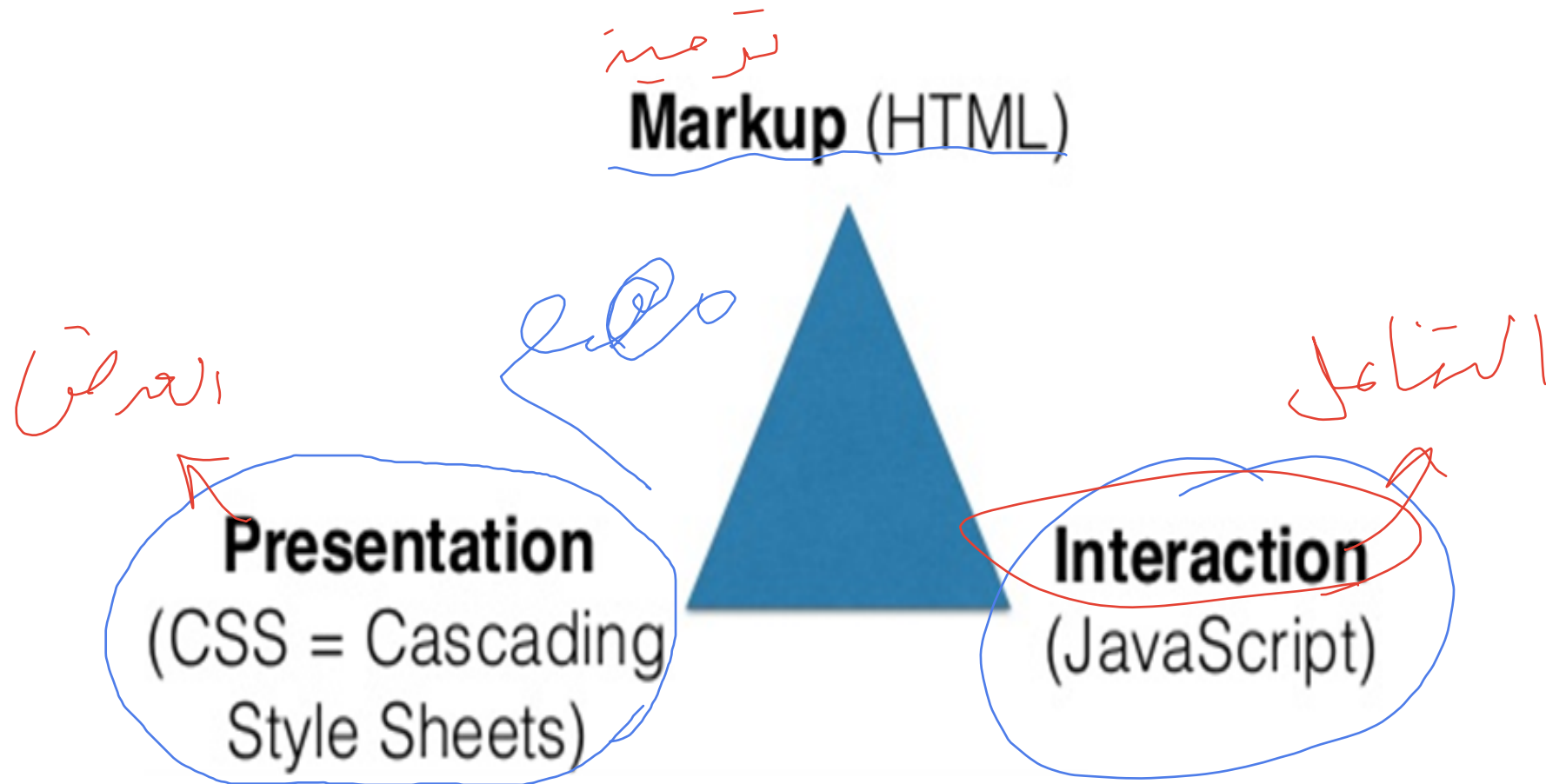# WEB DESIGN-1-

Dr. kamaran Faraj

HTML

Hyper Text Markup Language

HTML or HyperText Markup Language is the main **markup language** for creating web pages and other information that can be displayed in a web browser.

ترجمة

Markup (HTML)

Presentation
(CSS = Cascading
Style Sheets)

العرض

Interaction
(JavaScript)

التفاعل

TAGS

Tags are generally classified into two types :
1. **Container tag**
2. **Empty tag**

Container tag or element

- This type of html tag or elements **require pair** tags, ie., a **starting tag** as well as an **ending tag**.
- Examples :

  <html>........ </html>

  <head>......</head>

  <title> ....</title>

  <body>..........</body>

Empty tag or element

- This type of html tag or elements require just a **starting tag** and not an ending tag.
- Examples :

  **
**

  <hr>

HTML elements can be categorized as container elements and empty elements.

• Container Elements:

Tags which have both the opening and closing i.e. <TAG> and </TAG> are called container elements. The closing tag is the same as the opening tag, except for the slash (/) mark. Container Elements hold the text and other HTML tags in between the tags.

The <HTML>, <HEAD>, <TITLE> and <BODY> tags

are all container tags.

Example:

<BODY>

This is a container tag. It holds both the text and HTML tag

</BODY>

Empty Elements: elements which have no content are called empty elements. Empty elements do not have closing tags. <HR>, which is used to draw Horizontal rule across the width of the document, line break <BR> tags are empty tags.

HTML Documents

- All HTML documents must start with a document type declaration: <!DOCTYPE html> its instruction

- The HTML document itself begins with <html> and ends with </html>.

- The visible part of the HTML document is between <body> and </body>.

- Web Terminology
- HTML
  - What is HTML
  - Parts of an HTML Document
  - HTML Tags
    - Required
    - Common

A Web server is a computer that is programmed to send files to browsers on other computers connected to the Internet.
The Web browser, such as Firefox or Internet Explorer, is the client that sends a request for a Web page.
The Web server answers the request and delivers the requested page to the browser so you can view it.

HTTP
Stands for HyperText Transfer Protocol
Allows computers on the WWW to communicate with one another.
Handles the "request" sent to the Web server and the "response" received from the Web server.

Some Common HTML Tags and Their Meanings

- `<p>…</p>` -- Creates a paragraph
- `<br />` -- Adds a line break
- `<hr />` -- Separates sections with a horizontal rule
- `<h1>…</h1>` -- Displays a heading (h1-h6)
- `<!--…-->` -- Inserts a comment
- `<ol>…</ol>` -- Creates an ordered list
- `<ul>…</ul>` -- Creates an unordered list
- `<img />` -- Inserts an image into the document
- `<a>…</a>` -- Inserts a link into the document

Web Servers and Clients

- The Web browser, such as Firefox or Internet Explorer, is the client that sends a request for a Web page.

- A Web server is a computer that is programmed to send files to browsers on other computers connected to the Internet.

- The Web server answers the request and delivers the requested page to the browser so you can view it.


Web Server-Client Diagram
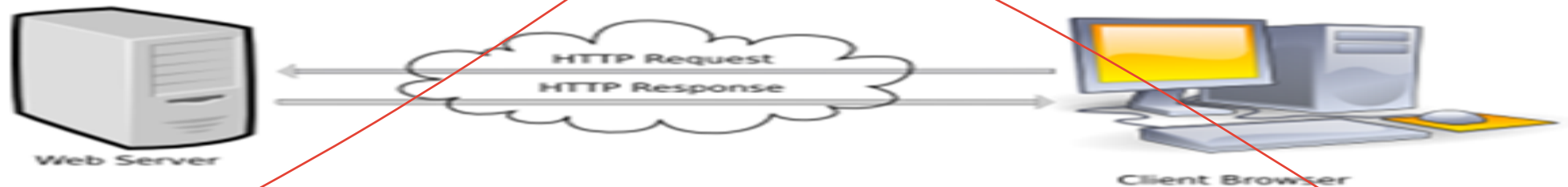
Internet vs. WWW

- Most people use the two terms interchangeably but they are in fact different.
- The Internet is a huge, international network, made up of computers and the physical connections (wires, routers, etc.) allowing them to communicate.
- The World Wide Web (WWW or just the Web) is a collection of software that distances the Internet and enables the interlinking of documents and resources.
  - Provides a way of accessing information on the Internet.

URLs

- Stands for Uniform Resource Locator
- Also called the Web page's address
- You typically type it into your Web browser's location bar when you want to view a Web page

`http://www.kurd.edu`

Protocol needed to communicate with Web server

Name of Web server
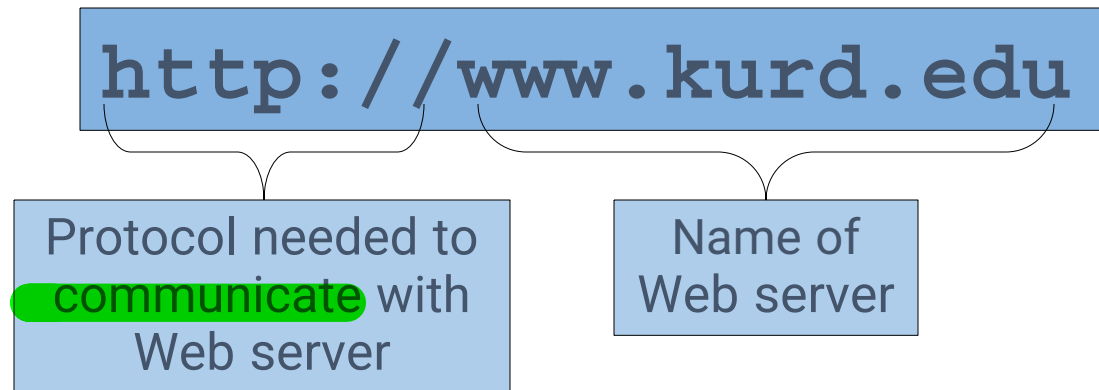
HMTL stands for hypertext markup language useful for developing web pages.

Using HTML we can add paragraphs, headings, images into web pages.

Basic Structure

```
<!DOCTYPE html>
<html> -------------------------------- <html> Start tag
<head>----------------------------<head > tag contains scripts and stylesheets
<title></tilte>------------------- <title> tag display the tilte of the page
</head>
<body>

_____ <body> Contains main content appears on the webpage
</body>
</html>-------------------------------<html> End tag
```

<html>

<head>

<title>This Is Your Title **</title>**

</head>

<body>

<h1>This Is Your Header **</h1>**

<p> This is your paragraph. **</p>**

</body>

</html>

Some HTML Tag Examples

START TAG	*END TAG*
`<HTML>`	`</HTML>`
`<HEAD>`	`</HEAD>`
`<TITLE>`	`</TITLE>`
`<BODY>`	`</BODY>`
`<H1>, <H2>, ...`	`</H1>, </H2>, ...`
`<IMG ...>`	`</IMG>` (optional)
`<A ...>`	`</A>`
`<P>`	`</P>  (optional)`
` `	`(none; "empty" tag)`
`<OL>`	`</OL>`
`<UL>`	`</UL>`
`<LI>`	`</LI>  (optional)`
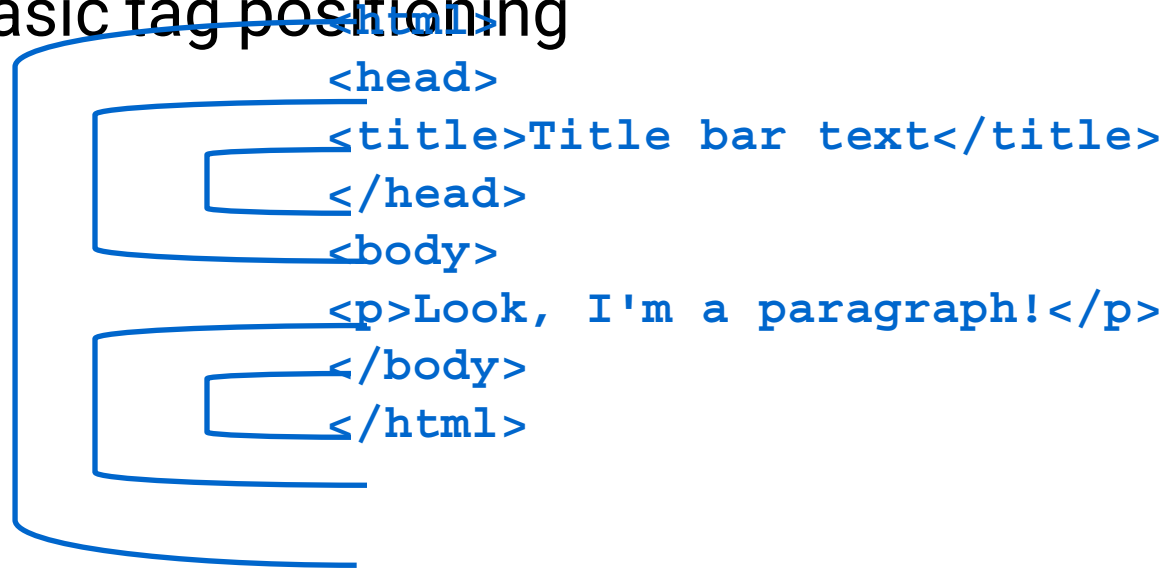
HTML Document Layout

Example of basic tag positioning

```html
<html>
    <head>
        <title>Title bar text</title>
    </head>
    <body>
    <p>Look, I'm a paragraph!</p>
    </body>
</html>
```

Always think *containers*!
◦ Tag pairs that enclose content

```
<!DOCTYPE html>
<html lang= "eg">
        <head>
                <meta  charset="UTF-8">
                <meta  name="viewport" Content="width=device-width,
                  initial –scale=1.0">
                <title></title>
</head>
<body>
</body>
</html>
```

1) it must be in the beginning <!DOCTYPE html>
2) <html lang="en">
3) tap or 4 space before head
4) another tap or 4 spaces before <meta charset="UTF-8">
5) <meta name="viewport" Content="width=device-width,
      initial –scale=1.0">
6) <title>index</title>
7) </head>

index.html

```html
1  <!DOCTYPE html>
2  <html lang="en">
3      <head>
4          <meta charset="UTF-8">
5          <meta name="viewport" content= "width=device-width, initial-scale=1.0">
6          <title></title>
7      </head>
8  <body>
9  </body>
10
11
12
13
14 </html>
15
16
```

1) it must be in the biggening <!DOCTYPE html>

2) <html lang="en">

3) tap or four space and <head>

4) another tap or 4 space < meta Chaset="UTF-8">

5) <meta="viewport" content="width=device-width, intial-scale=1.0">

6) <title>index</title>

7) </head>

This gives the browser instructions on how to control the page's dimensions and scaling.

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.

Here is an example of a web page without the viewport meta tag, and the same web page with the viewport meta tag:

Without the viewport meta tag

With the viewport meta tag

HTML Attributes

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

HTML Attributes

HTML elements can have attributes that provide additional information about an element. Attributes are always specified in the start tag and come in name value pairs like: name="value", eg: <BODY BGCOLOR= "red">

HEAD Element

The Head element contains an unordered collection of information about the HTML document. It comes after the HTML start tag. It contains TITLE element to give the document a title that displays on the browsers title bar at the top.

BODY Element

Attributes used with <BODY>

BGCOLOR: used to set the background color for the document.

Example:

<BODY BGCOLOR="red">

Your document text goes here.

</BODY>

MARGINS: set the left hand/right hand margin of the document.

- LEFTMARGIN: set the left hand margin of the document.

- Example:

- <BODY LEFTMARGIN="60">

- This document is indented 60 pixels from the left hand side of the page.

- </BODY>

- TOPMARGIN: set the top margin of the document.

- Example:

- <BODY TOPMARGIN="60">

- This document is indented 60 pixels from the top of the page.

- </BODY>

- BACKGROUND:

used to point to an image file with an extension .gif(Graphic Interchange Format),

.jpeg(Joint Photographic Expert Group) that will be used

- as the background of the document. The image file will be tiled across the document.

Example: An HTML document environment that shows the use of attributes with the <BODY> tag

```
<HTML>

<HEAD>

    <TITLE>

        Use of Attributes with the Body Tag

    </TITLE>

</HEAD>

<BODY BACKGROUND="computer.gif" text="blue"  TOPMARGIN="75"
LEFTMARGIN="75">

Your document text will be indented 75 pixels from the left hand and 75 pixels
from the top of the page. The background image computer.gif will be tiled across
the document. Your image and HMTL document should present at the same place.

</BODY>

</HTML>
```
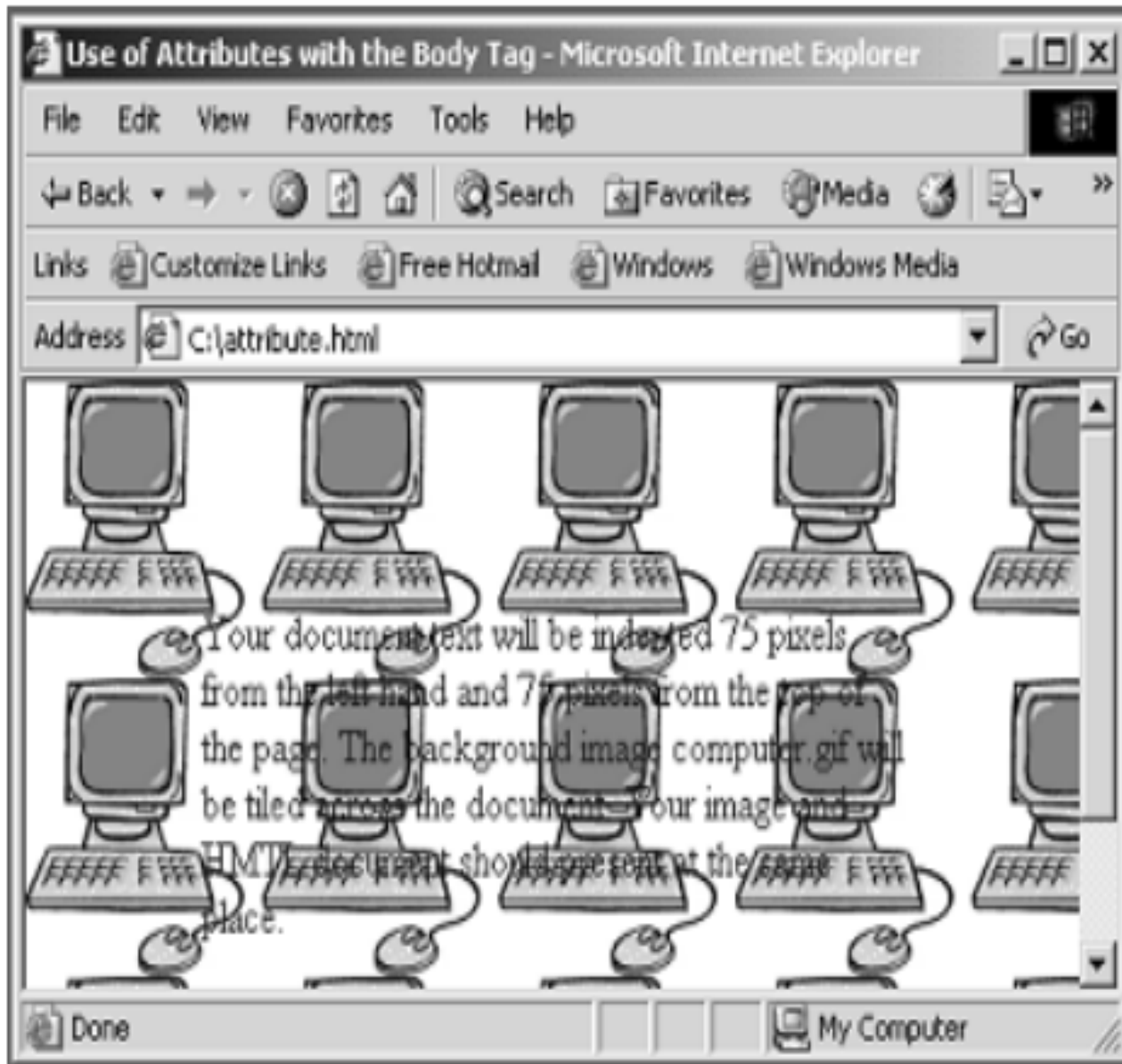
Attributes and Values

- Properties, qualitys, or characteristics that modify the way a tag looks or acts
    - Usually in pairs: `<body bgcolor="teal">`
    - Sometimes not: `<dl compact>`
- Most HTML tags can take attributes
    - Format of value depends on attribute
    - `width="150" ... href="page3.htm"` *not* `width="page3.htm" ... href="150"`

Some Common Text Tags

Heading levels
- h1 – h6, numbers inverse to text size
  `<h1>Heading One</h1>`
  `<h2>Heading One</h2>`

Paragraph
- Probably the most common tag
  `<p>Yada yada yada...</p>`

Line break (an empty tag)
- Used when <p>'s white space not wanted
  `This line will break<br>right there`

Note white space or lack thereof in HTML source *does not matter!*

Why? With and without<head>....</head>

head is essential Part of html for both functionality and user experience, and without it the content will be displayed but it lacks essential Features

What is wrong with this code?

```
<html>
        <head>
  <body>
  </head>

  </body>
</html>
```

Closing head tag should be before opening body tag.

```
<html>
 <head>
   <title>The best site ever!!
 </head>
 <body>
  <p>Check out this great content.</p>
 </body>
</html>
```

There is no closing title tag.

```
<p id=content>Check out this great content.</p>
```

There should be quotation marks around the value "content".

The Anchor Tag (1)
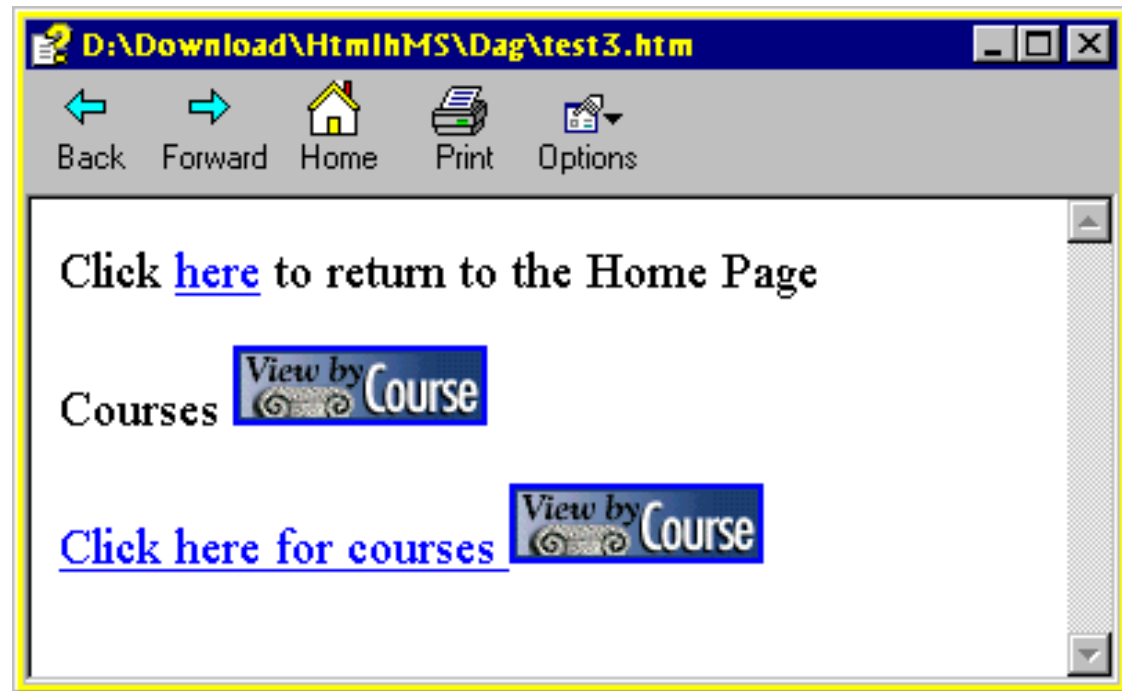
The tag that puts the HTM in HTML

- \<a> ... \ (useless by itself)

- Must have attributes to be useful

- <mark>HREF</mark> (<u>Hypertext REFerence</u>) attribute

  - Makes a jump to someplace (URL)
    ```
    <a href="mypage.htm">My Page</a>
    <a href="www.google.com">Google</a>
    ```

  - Link text is underscored by default

- ***Whatever*** is between \<a> and \
  is hot (clickable)

  - Clicking makes the link go somewhere
    or do something

The Anchor Tag (2)

- Some link examples

text only

image only

both

Images (1)

- Used in pages for various reasons
  - Clarification, navigation, peripheral training
- Images not *in* page; *referenced* by page
  - Graphics are separate, required files
  - Usually GIFs or JPGs, sometimes others
  - Can be anywhere in document body: in paragraphs, headings, lists, anchors, etc.
- Place image with <img> tag
  - Like <a>, <img> is useless by itself
  - All work is done with attributes/values

Images (2)

- Main attribute: SRC
    - Tells page where to find the image
    - File name can be local, relative, or full
    - Case sensitivity depends on server
    - Animated GIFs added same as static

```
<img src="smiley.gif">
<img src="./pix/mypic.jpg">
<img src="http://www.myweb.com/mail.gif">
```
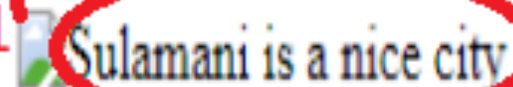
```
<!DOCTYPE html>
<html>
<body>

                    1                                    2

<img src="kurd.jpg" alt="Sulamani is a nice city">

<p>If we try to display an image that does not exist, the value of
the alt attribute will be displayed instead. </p>

</body>

</html>        2
```

1 Sulamani is a nice city

If we try to display an image that does not exist, the value of the alt attribute will be displayed instead.

- Web documents
- Server-side programming
- Client-side programming
- Web services

Technologies Overview
List of Technologies

Client Side Technologies
- HTML, CSS, JavaScript, VBScript
- XHTML, DHTML, WML, AJAX
- FLASH

Server Side Technologies
- ASP, PHP, Perl, JSP
- ASP.NET, Java
- MySQL, SQL Server, Access

Differences between Heading & Head

Headings, <Hx> </Hx>

```
<HTML>
<HEAD>
<TITLE> Example Page</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>
```
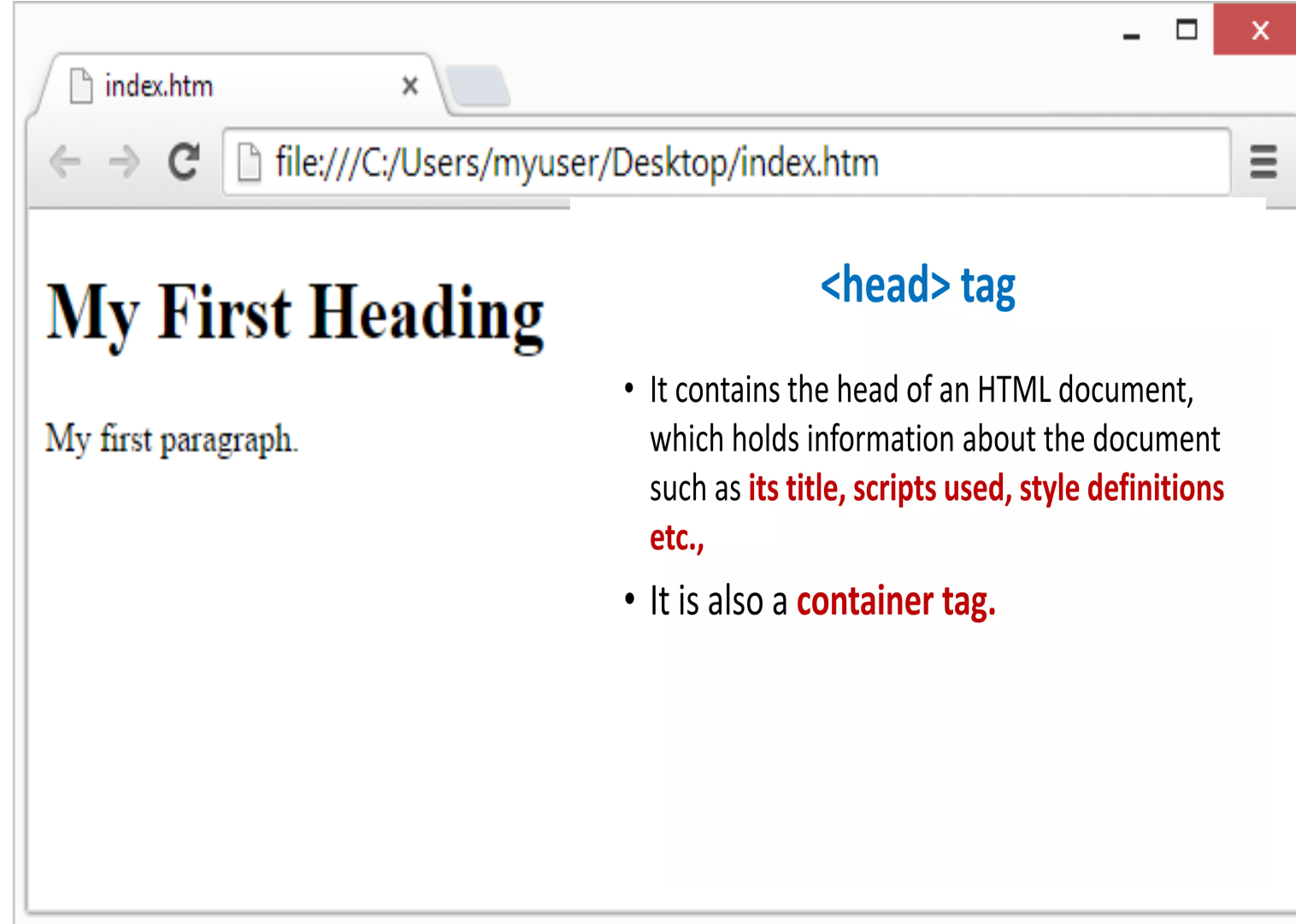
Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

index.htm

file:///C:/Users/myuser/Desktop/index.htm

My First Heading

My first paragraph.

<head> tag

- It contains the head of an HTML document, which holds information about the document such as **its title, scripts used, style definitions etc.,**

- It is also a **container tag.**

INCLASS TEST

1. The language that is used to create document on the World Wide Web is:

   A. HML   **B. HTML**   C. UML   D. VRML

2. HTML is a _____ language.

   A. markup   B. programming

3. An HTML document has two distinct parts _____ and _____.

   A. Start and End   B. Head and tail

   C. Head and Body   D. Start and close

4. In which part of a web page <TITLE> tag to be used _____.

   A. head   B. body

   C. footnote   D. anywhere

1. Which of the following is a line break tag:

   A. <lb>   **B.
**   C. <hr>   D. <break>

2. HTML has _____ header tags.

   A. 6   B. 7   C. 5   D. 8

3. The _____ tag is used for bulleted, unordered list.

   A. <UL>   B. <OL>   C. <BL>   D. <UO>

4. In order to create an ordered list we can use the tag:

   A. ...   B. <p>...</P>

   C. <A>...</A>   **D. ....
**