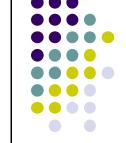# Web Engineering

Internet

- The *Internet* is a massive network of networks, a networking infrastructure.
- It connects millions of computers together globally.
- Forming a network in which any computer can communicate with any other computer.
- Information that travels over the Internet through protocols.

World Wide Web

- A system of internet servers that support specially formatted documents. The documents are formatted in a markup language called HTML that supports links to other documents, as well as graphics, audio, and video files.

- Web Browser like "Netscape Navigator" and "Microsoft's Internet Explorer" make it easy to access the World Wide Web.

Difference

- **Internet**

   Network of networks, in which millions of computers are connects together globally, forming a network in which any computer can communicate with other computer.

- **WWW**

   WWW is a way of accessing information over the medium of the Internet.

   The Web uses the HTTP protocol.

Markup Language

- A markup language gives extra information about a piece of text. For example <B> means bold in the HTML language. <B> is a markup tag.

What is an HTML File?

- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- An HTML file is a text file containing small **markup tags**
- The markup tags tell the Web browser **how to display** the page
- An HTML file must have an **htm** or **html** file extension
- An HTML file can be created using a **simple text editor**
- An HTML tags are **case-insensitive**

Note: If you want to follow the latest web standards, you should always use lowercase tags.

Example:

```
<html>

    <head>
        <title>Title of page</title>
    </head>

    <body> This is my first homepage.
            <b>This text is bold</b>
    </body>

</html>
```
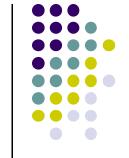
Example Explanation

- The first tag in your HTML document is <html>. This tag tells your browser that this is the start of an HTML document. The last tag in your document is </html>. This tag tells your browser that this is the end of the HTML document.

- The text between the <head> tag and the </head> tag is header information. Header information is not displayed in the browser window.

- The text between the <title> tags is the title of your document. The title is displayed in your browser's caption.

- The text between the <body> tags is the text that will be displayed in your browser.

- The text between the and tags will be displayed in a bold font.

Tags Attributes

Tags can have attributes. Attributes provide additional information to an HTML element. e.g. **<table border="0">**

- Attributes always come in name/value pairs like this: name="value".

- Attributes are always specified in the start tag of an HTML element.

- Attributes and attribute values are also case-insensitive.

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

- In some rare situations, like when the attribute value itself contains quotes, it is necessary to use single quotes:

- name='John "ShotGun" Nelson'

Headings

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

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

> **<h1>This is a heading</h1>**
>
> **<h2>This is a heading</h2>**
>
> **<h3>This is a heading</h3>**
>
> **<h4>This is a heading</h4>**
>
> **<h5>This is a heading</h5>**
>
> **<h6>This is a heading</h6>**

HTML automatically adds an extra blank line before and after a heading.
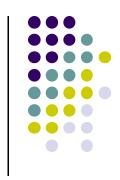
Paragraphs

Paragraphs are defined with the <p> tag.

<p>This is a paragraph</p>

<p>This is another paragraph</p>

HTML automatically adds an extra blank line before and after a paragraph.
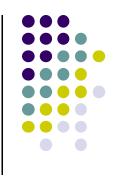
Line Breaks

The **
** tag is used when you want to end a line, but don't want to start a new paragraph.

**<p>I
 Love
Pakistan</p>**

Note: The <br> tag is an empty tag. It has no closing tag.

Comments in HTML

The comment tag is used to insert a comment in the HTML source code. A comment will be ignored by the browser.

<!-- This is a comment -->