

Basic Web Design

HTML

LECTURE - 02

Course Contents

- HTML
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Demo Application

- Demo Application

Think first before you build

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The department of Computer Science and Engineering at University of Barishal (**CSEBU**), in collaboration with the Bangladesh Computer Council (**BCC**) aims to offer various skilled development courses to prepare smart citizen in Bangladesh.

Facilities:

- All courses are free
- Training will be conducted by University teachers or industry experts
- Training Kits will be provided
- Refreshment facilities
- Certificate after completing courses

HTML

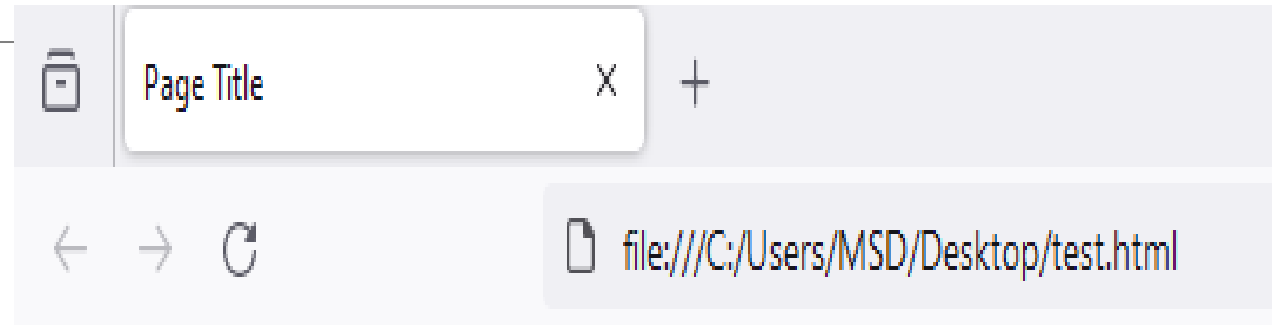
-
- HTML stands for ***HyperText Markup Language***
 - HTML is the standard markup language for creating Web pages
 - HTML describes the ***structure*** of a Web page
 - HTML consists of a ***series of elements***
 - HTML elements tell the browser how to ***display the content (such as text, images, links, and other elements)***
 - HTML was invented by **Tim Berners-Lee** in **1991** and the latest version is ***HTML 5.2 (2017)***
-
- ***HyperText***: Refers to the ***ability to link*** to other documents and resources on the web.
 - ***Markup Language***: Refers to using tags to define the ***structure and layout of the content*** on the web page.

Simple HTML Document

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```



My First Heading

My first paragraph.

Environment for HTML

- **Text Editors:**
 - **Notepad++**
 - Sublime Text
 - Visual Studio Code
 - Brackets
- **Web Browsers:**
 - **Google Chrome**
 - Mozilla Firefox
 - Microsoft Edge

Write your first code:

- *Create a file with extension **html** (e.g. **test.html**) and write the following code on it.*

```
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```


Structure of HTML Document

```
<html>
```

```
<head>
```

```
<title>Page title</title>
```

```
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

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

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

```
</body>
```

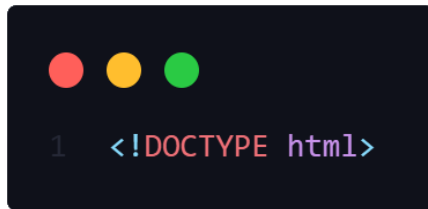
```
</html>
```

Explanation of main elements

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

HTML Documents

All HTML documents must start with a document type declaration



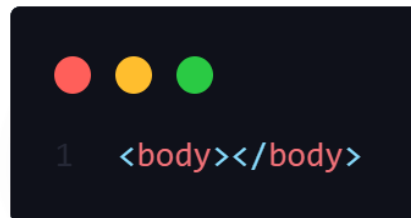
```
1 <!DOCTYPE html>
```

The HTML document itself begins and ends with



```
1 <html></html>
```

The visible part of the HTML document is between



```
1 <body></body>
```

HTML Elements

- An HTML element is a ***building block*** of an HTML document that defines ***content and structure on a web page***.
- HTML elements can be used to ***create everything in web page*** from text, headings, images, links, to forms and more complex structures.
- It is represented by a start tag, content, and an end tag. :
 - **Start Tag:** This tag marks the beginning of the element. It consists of the element's name enclosed in angle brackets (< >). Example: <p> for a paragraph.
 - **Content:** The actual text, images, or other HTML elements that go inside the tag.
 - **End Tag:** This marks the end of the element. It is similar to the start tag but with a forward slash (/) before the element's name. Example: </p>.

HTML Elements (Cont..)

- **Tag types:**

- Single Tag/ Self-closing Tag: this element doesn't need an end tag. It contains a single tag such as ``, `
`.
- Double Tag: It contains both start and end tag such as `<p>` `</p>` or `<h1>` `</h1>`

- **Example fo HTML Elements**

- `<h1>Welcome to My Website</h1>`
- `<p>This is a paragraph on the web page.</p>`
- `Click here to visit Example`
- ``

HTML Headings

- HTML headings are ***titles or subtitles*** that you want to display on a webpage.
- HTML headings are defined with the `<h1>` to `<h6>` tags.
- `<h1>` defines the most important heading. `<h6>` defines the least important heading.
- Browsers typically display heading tags with different ***font sizes by default.***
- Search engines use the headings to index the structure and content of your web pages. Crucial for ***SEO*** as they understand the structure.

HTML Headings (Examples)



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

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

HTML Paragraphs

- The HTML `<p>` element defines a paragraph.
- A paragraph always starts on a new line, and is usually a block of text.
- Browsers automatically add some white space (a margin) before and after a paragraph.

HTML Paragraphs (Examples)



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

This is a paragraph.

This is another paragraph.

Common elements

- **<hr> : Horizontal rule** → This element represents a horizontal line across the page
- **
: Line Break** → The
 tag is used to insert a ***single line break*** within the text. Unlike paragraphs, this does not start a new block but simply moves content to the next line.
- **<pre></pre>: Preformatted Text** → The <pre> tag preserves both spaces and line breaks in the content, ***displaying it exactly as it is written in the HTML source***. Useful for displaying code or text that requires specific formatting.
- **<marquee></marquee>:** The <marquee> element is used to create ***scrolling text or images across the screen***. This tag is deprecated and should be avoided in modern HTML development due to poor accessibility and lack of cross-browser support.

Common elements (Example)

```
<!DOCTYPE html>
<html>
<body>

<h1>This is test</h1>
<hr>
<p>The pre tag preserves <br> both
spaces and line breaks</p>

<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>

<marquee>This is news headline
</marquee>

</body>
</html>
```

This is test

The pre tag preserves
both spaces and line breaks

```
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.
      This is news headline
```

Exercises

THANK YOU