

# Internet Technology I

## Lecture 2

### Intro to HTML

By Mr. Badraldeen Hassan | Omdurman Islamic University

Faculty of Computer Science & Information Technology

[BadraldeenHassan@oiu.edu.sd](mailto:BadraldeenHassan@oiu.edu.sd)

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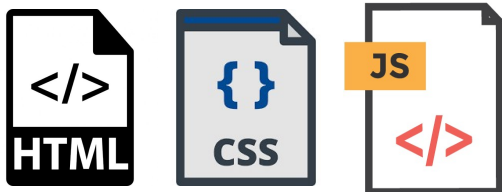
# The mental map for websites development

Website

Dynamic Website

Static Website

Frontend



Backend

Programming Languages



DBMS



# TOPICS

- **What is HTML?**
- **Setup environment for web developing.**
- **A Simple HTML Document.**
- **Tags and Attributes.**
- **Html tags family .**
- **HTML Block and Inline Elements**

# What is HTML?

**HTML is the standard markup language for creating Web pages.**

- **HTML stands for Hyper Text Markup Language**
- **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 are represented by tags**
- **HTML tags label pieces of content such as "heading", "paragraph", "table", and so on**
- **Browsers do not display the HTML tags, but use them to render the content of the page.**

# Setup environment for web developing.

- To develop web page you need some environment and tools like:
- Computer with operating system (window , mac , Linux).
- Browser to show the pages (Chrome , Firefox , safari , opera).
- Text editor to write page code .

# A Simple HTML Document.

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title> Page Title </title>
5 </head>
6 <body>
7     <h1> My first Heading </h1>
8     <p> My first Paragraph</p>
9
10 </body>
11 </html>
```

# HTML Tags

- HTML tags are element names surrounded by angle brackets:  
`<tagname> content goes here...</tagname> .`
- HTML tags normally come in pairs like `<p>` and `</p>`
- The first tag in a pair is the start tag, the second tag is the end tag
- The end tag is written like the start tag, but with a forward slash inserted before the tag name

# Web Browsers

- The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them.
- The browser does not display the HTML tags, but uses them to determine how to display the 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>
```

# The `<!DOCTYPE>` Declaration

- The `<!DOCTYPE>` declaration represents the document type, and helps browsers to display web pages correctly.
- It must only appear once, at the top of the page (before any HTML tags).
- The `<!DOCTYPE>` declaration is not case sensitive.
- The `<!DOCTYPE>` declaration for HTML5 is:

`<!DOCTYPE html>`

# HTML Versions

- **Since the early days of the web, there have been many versions of HTML:**



# HTML Editors

- **You can Write HTML Using Notepad or TextEdit:**
  - **Web pages can be created and modified by using professional HTML editors.**
  - **However, for learning HTML we recommend a simple text editor like Notepad (PC) or TextEdit (Mac).**

# Follow the steps below to create your first web page with **Notepad**

## ❖ Step 1: Open Notepad (PC)

➤ Windows 8 or later:

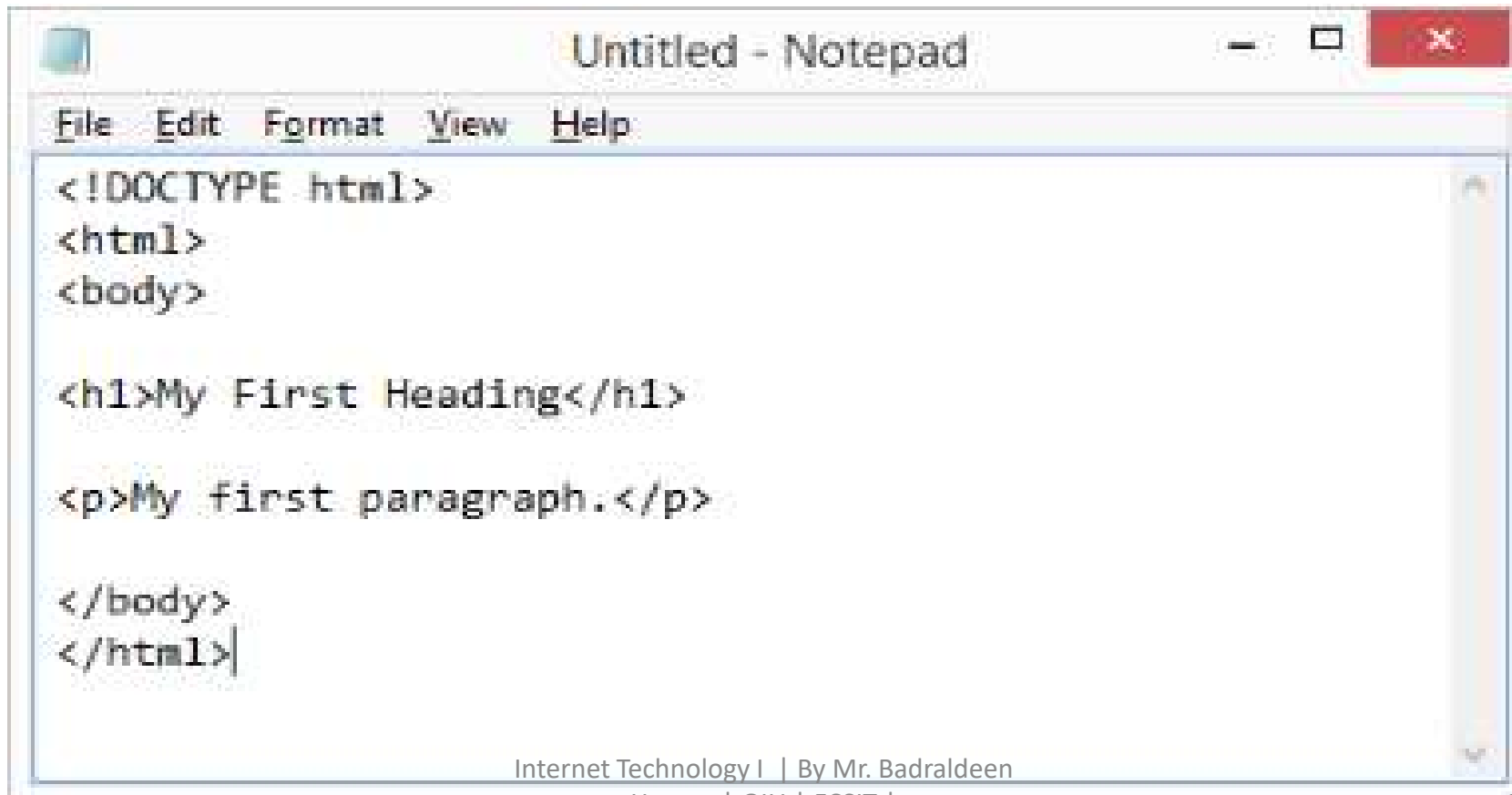
➤ Open the Start Screen (the window symbol at the bottom left on your screen).  
Type Notepad.

➤ Windows 7 or earlier:

➤ Open Start > Programs > Accessories  
> Notepad

## ❖ Step 2: Write Some HTML

➤ Write or copy some HTML into Notepad.

A screenshot of a Windows Notepad window titled "Untitled - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text area contains the following HTML code:

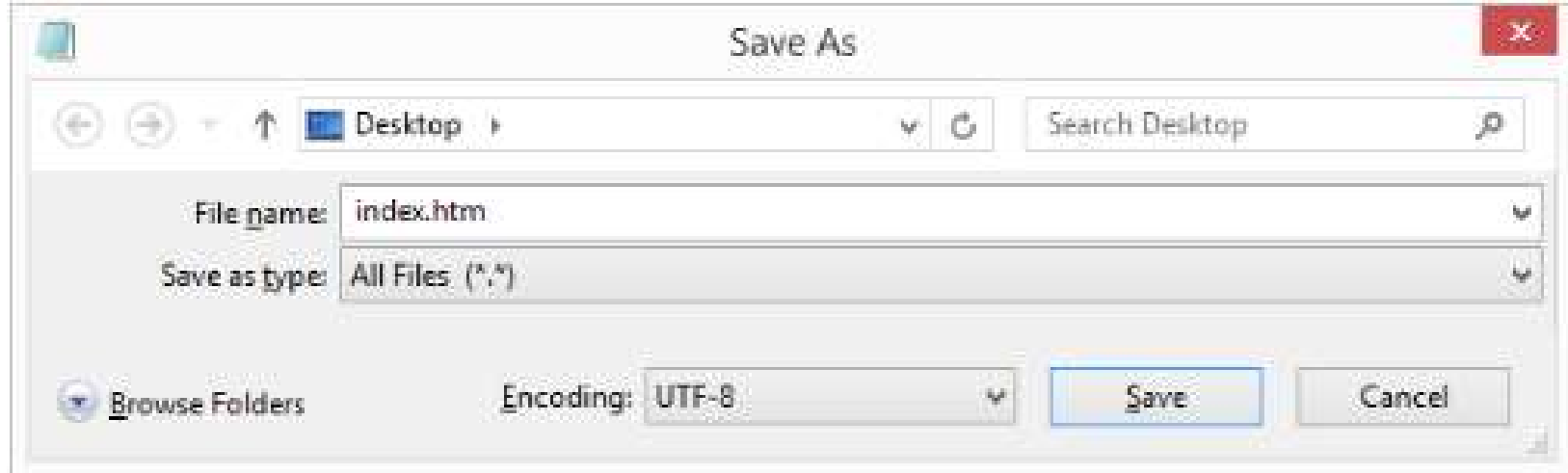
```
<!DOCTYPE html>
<html>
<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

- ❖ **Step 3: Save the HTML Page**
- ❖ **Save the file on your computer. Select File > Save as in the Notepad menu.**
- ❖ **Name the file "index.htm" and set the encoding to UTF-8 (which is the preferred encoding for HTML files).**



## ❖ Step 4: View the HTML Page in Your Browser

- Open the saved HTML file in your favorite browser (double click on the file, or right-click - and choose "Open with").
- The result will look much like this:



# HTML TAGS FAMILY

## Main Tags

- `<html>`
- `<head>`
- `<body>`

## Add Content Tags

- `<p>`
- `<h1..6>`
- `<img>`
- `<a>`
- `<video>`
- `<audio>`
- `<ol>`
- `<ul>`
- `<table>`
- `<form>`

## Page Structure Tags

- ✓ `<header>`
- ✓ `<article>`
- ✓ `<section>`
- ✓ `<div>`
- ✓ `<nav>`
- ✓ `<aside>`
- ✓ `<footer>`

# HTML Attributes

Attributes provide additional information about HTML elements.

- All HTML elements can have attributes
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: `name="value"`

Example :

HTML links are defined with the `<a>` tag.

The link address is specified in the href attribute:

```
<a href="assets/blog/inde.html" > Blog</a>
```

# src , width and height Attributes

- **The src Attribute**
  - ✓ HTML images are defined with the `<img>` tag.
  - ✓ The filename of the image source is specified in the `src` attribute:
  - ✓ Example
  - ✓ ``
- **The width and height Attributes**
  - ✓ HTML images also have `width` and `height` attributes, which specifies the width and height of the image:
  - ✓ Example
  - ✓ ``

# Alternative Attributes

- **The alt Attribute**
  - ✓ The alt attribute specifies an alternative text to be used, if an image cannot be displayed.
  - ✓ The value of the alt attribute can be read by screen readers. This way, someone "listening" to the webpage, e.g. a vision impaired person, can "hear" the element.
  - ✓ Example
  - ✓ ``

# Style & Title Attributes

- **The style Attribute**
  - ✓ The style attribute is used to specify the styling of an element, like color, font, size etc.
  - ✓ Example
  - ✓ `<p style="color:red ; background-color:green">This is a paragraph.</p>`
- **The title Attribute**
  - ✓ A title attribute is added to the `<p>` element. The value of the title attribute will be displayed as a tooltip when you mouse over the paragraph:
  - ✓ Example
  - ✓ `<p title="I'm a tooltip">`
  - ✓ This is a paragraph.
  - ✓ `</p>`

# Internationalization Attributes

- There are three internationalization attributes, which are available for most (although not all) HTML elements.
  1. Lang and xml:lang
  2. dir
- The lang Attribute
  - ✓ The language of the document can be declared in the <html> tag.
  - ✓ The language is declared with the lang attribute.
  - ✓ Declaring a language is important for accessibility applications (screen readers) and search engines:

```
<!DOCTYPE html>  
<html lang="en-US">  
<body>  
  
...  
</body>  
</html>
```

# Internationalization Attributes

- **The dir Attribute**

- ✓ The dir attribute allows you to indicate to the browser about the direction in which the text should flow. The dir attribute can take one of two values, as you can see in the table that follows –

- ✓ Ltr: Left to right (the default value).

- ✓ Rtl : Right to left (for languages such as Hebrew or Arabic that are read right to left).

- ✓ Live Demo

```
<!DOCTYPE html>
```

```
<html dir = "rtl"> </html>
```

# The Alignment Attribute

- **The align Attribute**

- ✓ use to indicate the alignment of paragraph on the page.

- `<p align = "left">This is left aligned</p>`

- `<p align = "center">This is center aligned</p>`

- `<p align = "right">This is right aligned</p>`

# The Id Attribute

The id attribute of an HTML tag can be used to uniquely identify any element within an HTML page. There are two primary reasons that you might want to use an id attribute on an element –

- If an element carries an id attribute as a unique identifier, it is possible to identify just that element and its content.
- If you have two elements of the same name within a Web page (or style sheet), you can use the id attribute to distinguish between elements that have the same name.

We will discuss style sheet in separate tutorial. For now, let's use the id attribute to distinguish between two paragraph elements as shown below.

- Example

```
<p id = "html">This para explains what is HTML</p>
```

```
<p id = "css">This para explains what is Cascading Style Sheet</p>
```

# The class Attribute

The class attribute is used to associate an element with a style sheet, and specifies the class of element.

You will learn more about the use of the class attribute when you will learn Cascading Style Sheet (CSS).

The value of the attribute may also be a space-separated list of class names.

For example :

```
class = "className1 className2  
className3"
```

# HTML Block and Inline Elements

- Every HTML element has a default display value depending on what type of element it is.
- The two display values are:
  - block element.
  - inline element.

# Block-level Elements

A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).

**Main Block Elements :**

**<article>** , **<aside>** , **<div>** , **<form>**  
**,<header>** , **<footer>** , **<hr>** , **<li>** ,**<nav>**  
**,< ol>** , **<p>** , **<section>** , **<table>** , **<ul>** ,  
**<video>**

# Inline Elements

An inline element does not start on a new line and only takes up as much width as necessary.

Main Inline Elements :

`<a>` , `<b>` , `<br>` , `<button>` , `<img >` ,  
`<lable>` , `<map>` , `<select >` , `<span >` ,  
`<strong>` , `<textarea>` .

# Questions ?

# Home work ^\_^ 2

- Searching for this tags
  1. Bold Text
  2. Italic Text
  3. Underlined Text
  4. Strike Text
  5. Superscript Text
  6. Subscript Text

# Notice

- This Course is available on my YouTube channel as video recorded
- <https://www.youtube.com/c/BadraldeenHassanAltahir>
- Also available on my official Facebook account
- <https://www.facebook.com/Badraldeen.Hassan>