

Web Application Development

LAB 2: First Frontend on HTML

Main objectives

At the end of this activity, students should be able to:

- Build a basic page using HTML structure
- Use HTML tags to format text structure and use attributes to customize styles.
- Writing HTML code, saving with the correct extension, and debugging using a web browser.

1) HTML Definition:

HTML (Hypertext Markup Language) is not a programming language. It is a markup language used to describe the structure of a document using a plain text editor. An HTML page is simply a sequence of elements.

2) HTML TAGs:

HTML tags are the building blocks of web pages, used to structure and format content.

- HTML tags, enclosed in `< >`, usually come in opening and closing pairs.
- Opening tags start elements; closing tags end them (`/`).
- Some tags, like `<img>` and `<br>`, are self-closing.
- Essential tags include `<!DOCTYPE html>`, `<html>`, `<head>`, and `<body>`.

3) HTML Attributes:

HTML attributes provide additional information or properties about elements. They are always specified within the start tag and generally appear as:

`Name_attributes="value"`

4) Basic Structure and Text Formatting in HTML:

- HTML comment: `<!-- comment -->`
- Page structure with title:

```

<!DOCTYPE html> <!-- The language used by the web page -->
<HTML>
<HEAD>
<META charset="UTF-8"> <!-- Specifies the character encoding used -->
<TITLE> title </TITLE>
</HEAD>
<BODY optional attributes...> page content ... </BODY>
</HTML>

```

- **Headings in the document:**
 - ❖ From <H1 ALIGN="LEFT|RIGHT|CENTER"> level 1 heading </H1> to <H6 ALIGN="LEFT|RIGHT|CENTER"> level 6 heading </H6>
- **Horizontal rule:**
 - ❖ <HR WIDTH="pixels or %" SIZE="pixels" ALIGN="LEFT|RIGHT|CENTER">
- **Line break:**

- **Paragraph break:** <P> paragraph </P>
- **Text that stays on a single line:** <NOBR> text </NOBR>
- **"Physical" styles (can be combined with each other):**
 - ❖ bold text
 - ❖ <I> italic text </I>
 - ❖ <U> underlined text </U>
 - ❖ <STRIKE> strikethrough text </STRIKE>
 - ❖ <BLINK> blinking text </BLINK> (Netscape only)
- **"Logical" styles (can be combined with each other):**
 - ❖ bold text
 - ❖ italic text (emphasize)
- **Centering on the page:**
 - ❖ <DIV ALIGN="center"> text or objects... </DIV>
 - ❖ <P ALIGN="center"> text or objects... </P>
 - ❖ <CENTER> text or objects... </CENTER>
- **Text size and color:**
 - ❖ text...
 - ❖ text...
(3 = default size; 4 = +20%; 2 = -20%; etc.)

Exercise:

- 1) Create a directory named Gx on drive D, then a subdirectory TP1DAW.
- 2) Open an editor (e.g. Notepad, Notepad++) and type the essential tags:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Hello World Page</title>
</head>
<body>
  <h1>Hello World</h1>
</body>
</html>
```

- 3) Save the file as page1.html in TP1DAW.
- 4) Open the file in a web browser and observe the output. Describe what is displayed.
- 5) Modify the HTML code to include a brief biographical section about yourself.

Requirement:

- Put an underlined Heading “BIO”.
- Your first and last name should be in **bold**.
- Write a paragraph about you (Your university should be in *italic*.)
- Draw a line break.
- Your hobbies must be in another color and font family.
- All texts must be centred.
- Put some comments in your code

HTML Elements Reference Guide:

<https://www.w3schools.com/tags/default.asp>



The next serie of laboratory session will focus on the design and development of a frontend containing tables, image ... etc using HTML.