

HTML

HTML stands for HyperText Markup Language.

A *markup* language is a computer language that defines the structure and presentation of raw text.

HyperText is text displayed on a computer or device that provides access to other text through links, also known as *hyperlinks*.

The browser is going to read the html, interpret it, and display it following the html rules.

HTML5 File Template

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Movie Theater</title>
  <link rel="stylesheet" href="styles.css">
</head>

<body>
  <h1>Movie Theater</h1>
  <!--<script src="scripts.js"></script>-->
</body>

</html>
```

HTML Elements

lang

In the html tag, you can specify the language with lang='en'

meta charset

In the head section, we can also specify which charset we are going to use, let's specify utf-8 which includes almost all the characters used by all the languages + a lot of symbols. This is the definition given by wikipedia:

UTF-8 is a variable-length character encoding standard used for electronic communication. Defined by the Unicode Standard, the name is derived from Unicode Transformation Format – 8-bit. UTF-8 is capable of encoding all 1,112,064 valid character code points in Unicode using one to four one-byte code units

```
<meta charset="UTF-8"/>
```

Paragraph element

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

We have an opening tag: <p>, name of the element wrapped between < >

Then the content: This is a paragraph. Sometime we do not need for a content (like img)

The closing tag: </p>, name of the element wrapped as the opening tag, but with a /. Elements with no content (like the img) do not have a closing tag.

Heading elements

```
<h1><h6>
```

h1 element are called heading element

h1 is the bigger element, and h6 the smaller.

Try it:

```
<h1>Movie Theater</h1>
```

```
<h6>Movie Theater</h6>
```

Comments

You can write comments in the html code like this:

```
<!-- My comments -->
```

```
<!-- <h1>My heading comment code</h1> -->
```

Bold

We can add a bold element with the b element (old element) or the strong (added recently in html language meaning that the text is important).

```
<p>This is a paragraph. <b>Here we have bold text</b>. <strong>This is with the strong element</strong> </p>
```

Italic

For italic, you can use `` tags

```
<p>This is a paragraph. <b>Here we have bold. </b>.  
  <strong>This is with the strong element.</strong>  
  <em>This is an italic part</em></p>
```

In this part, you see, I have different lines in the html code, but in the browser it is the same line.

You can also have a lot of space between two words, but the browser does not care, it will put one space instead of the multiple space we inserted:

```
<p>This is a paragraph. <b>Here we          have a bold part</b>.  
  <strong>This is with the strong element.</strong>  
  <em>This is an italic part</em></p>
```

New line

If you want to add a new line, just insert this element in the html: `
`, this is for a new line in the content section.

```
<p>This is a paragraph. <b>Here          we have bold here</b>.  
  <strong>This is with the strong element.</strong><br>  
  <em>This is an italic part</em></p>
```

Let add a second paragraph to see how it looks:

```
<p>This is a paragraph. <b>Here          we have a bold part</b>.  
  <strong>This is with the strong element.</strong><br>  
  <em>This is an italic part</em></p>  
<p>My second paragraph. The browser set up a little bit of space between 2 paragraphs</p>
```

Lists: we have already seen it.

```
<ol>  
  <li>First item</li>  
  <li>Second item</li>  
  <li>Third</li>  
</ol>  
<p>We can also have bullet points</p>
```

```
<ul>
  <li>First item</li>
  <li>Second item</li>
  <li>Third</li>
</ul>
```

Images

Go to this website: <https://uxwing.com/movie-theater-icon/> and download the image, and save it in the project directory in a **new folder img**.

Let's insert it next to the top heading on the page:

Movie Theater

Oh no, the image is too big!!!! (512px x 412 px). Let's change the width:

Movie Theater

This is better!!!!

Let's pretend we make a mistake with the path ``Movie Theater</h1> ... just to see how the alt text will be display if the browser because it is not able to load the picture (link referring to another website that is down or bad link)

Let's add a little bit of space between the picture and the text with (later we will do it with css better).

Movie Theater</h1>

You can only specify width or height, the browser will adjust automatically the second measurement to maintain the same ratio as the original picture.

Link with element a

Link to google

With you add a target="_blank" the link is going to be opened in a new tab

<nav>

Link to google

Create a new html page called movies.html, add the basic elements and display Movie in a h2 element.

In the header of the index page, please make a hyperlink to the page movies.html. In movies.html, insert an hyperlink back to index.html.

Navigation Section element: nav

The `<nav>` HTML element represents a section of a page whose purpose is to provide navigation links.

We can set up our link in a nav element. Let's try it.

VSCodium Extensions

If you use VSCode, add some extension to make our life a little bit easier:

Image preview: it is going to show you a small picture in the gutter on the left of the code.

Color highlight: it is going to show the color of the css code
For example, let add a color background to the h1 element in index.html:

Movie Theater

Do you see the color over #b9fcff?

Let's change the color so you can see the difference:

Movie Theater

autocomplete tag: if you rename a tag, it is going to change on the opening and closing bracket directly.

We can also install auto close tag, after installing it, do not forget to check that the language used by vsodium (at the button of vsodium) is set to HTML

Another great extension is: **live server (five server).**

Install it, go to the index.html, at the bottom, it says Go Live, click on it. It should open a new window in the browser with the page loaded. You can see the port where the server is running. You can access the page with this address localhost:port_number

This extension is running like a web server, and once you change something in the page, it is going to reload the page directly on the browser (they have some javascript to do that). You do not need to click on reload on the html page each time you would like to see the change. We will have something similar also when we are going to do frontend with vue-js, later in the second semester.