

# HTML

## Hyper Text Markup Language

Hyper Text - any web link, which means like text on steroids, that can do something new that wasn't before (linking between different apps and documents)

Markup Language - a way to take content, and using tags, mark different section within it, each markup represents a different meaning.

I have some content:

"Welcome to John Bryce"

<p>Welcome to John Bryce</p>

<h2>Welcome to John Bryce</h2>

<li>Welcome to John Bryce</li>

**So the meaning of HTML is marking content so web browsers can display it properly**

The content of an HTML tag, will be either:

1. Text
  2. Other html
- <HTML> - a tag that tells the browser, that this is an HTML document/file
  - <HEAD> - information for the browser
  - <BODY> - the content itself that is going to be presented to the user

- <title> - placed within <head>, tells the browser what should be the tab or window title
- <h1>...<h6> - h1, h2, h3...., h6 - headers.
- <p> - paragraph, use lorem ipsum to fill with content during development
- <ul> unordered list. contains a bullet list of <li> tags
- <ol> ordered list. contains a numbered list of <li> tags
- <li> list item
- <hr> horizontal rule
- <br> break, new line
- <!-- --> comment, which means i can put any text within the open and closing tag, and it will NOT appear in the browser, but it will appear in the code (source file), it is used to communicate between several programmers of the same code
- <table> a table
- <thead> the header of the table, will usually contain one <tr> tag
- <tr> a row in a header or in a body of a table
- <th> an cell in a table header row
- <tbody> the body of the table, will usually contain many <tr> tags
- <td> a cell in a table row in a table body
- <a> anchor. This is the actual link tag. Has 2 important attributes:
  - href - the internet address of the link itself
  - target - where should the page be opened. in a blank page? In the same page? Etc.
- <nav> a navigation element, will usually contain a set of <a> elements, has no visual effect, but is intended for disabled users.
- <span> for wrapping inline elements that otherwise can't be wrapped. Will usually be used to align text elements one next to another on the same line
- <img> - displays an image, use the src attribute to determine the image location
- <div> short for "division". It represents a portion of the page. It as no visual effect. It is only used to group other elements, and apply css and other attributes on the contained elements

- `<iframe>` include html code from another website within my website (e.g. youtube videos)
- `<form>` a special tag to wrap other input tags. We will always need form when we need input from the user
- `<input>` The most basic tag for getting input from the user, can receive any type of input: text, numbers, dates, whatever
- `<input placeholder="hint to the user">` the placeholder attribute adds a hint to the user , what they are expected to input
- `<label>` we use it to label inputs inside a form. If we add the "for" attribute, we can connect it to an actual input. A click on the label, will focus on the input
- `<textarea>` a special input to input large amounts of text
- `<select>` a special input to input either
  - 1 item out of a list (drop down list box)
  - Multiple items out of a list (multi-select)
- `<button>` draws a button, will submit a form, if the button is inside a form
- `<meta>` - describes various data to the browser or other tools that read the page. We will use "name" and "content" to describe the meta-data

### **Type of closing tags**

- Tags that contain content, always have a closing tag. For example, a `<p>` tag, will always end with a `</p>` tag
- Tags that doesn't have content, for example `<hr>`, do not require a closing tag. Note: in the past, browsers enforced contentless tags to end with "/" for example `<br />`, nowadays it is better to write without the "/", e.g. `<br>`

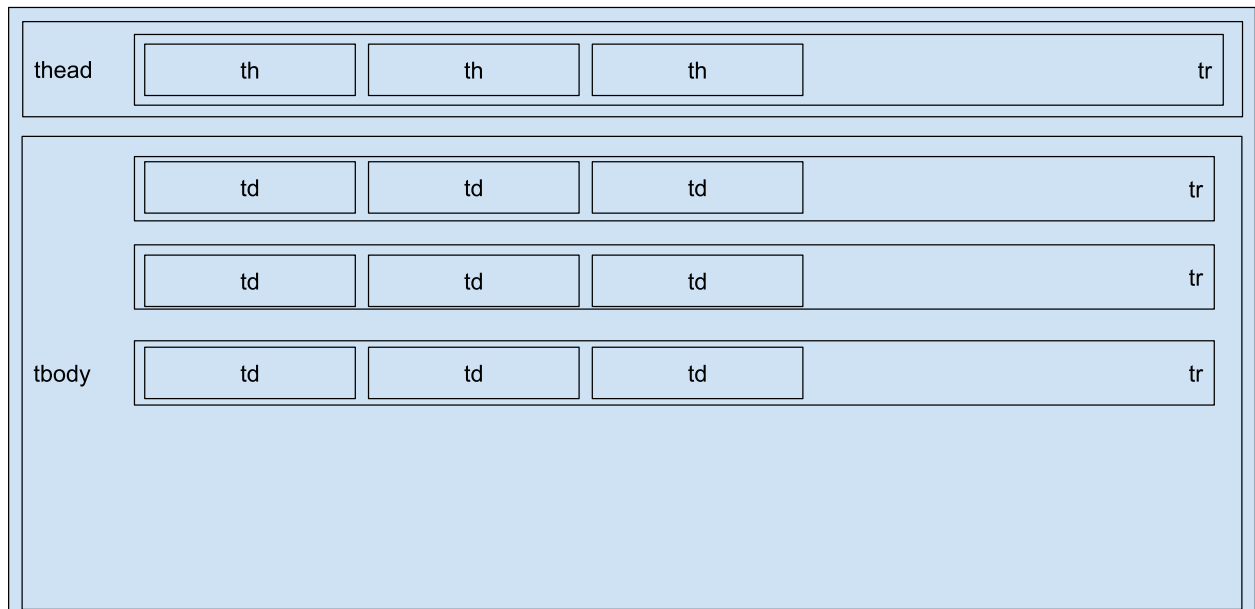
-

### **Types of tags (elements)**

- Block elements - the next html element will be in a new line. The tag takes the entire width of the screen

- Inline elements - the next html element will be displayed in the same line

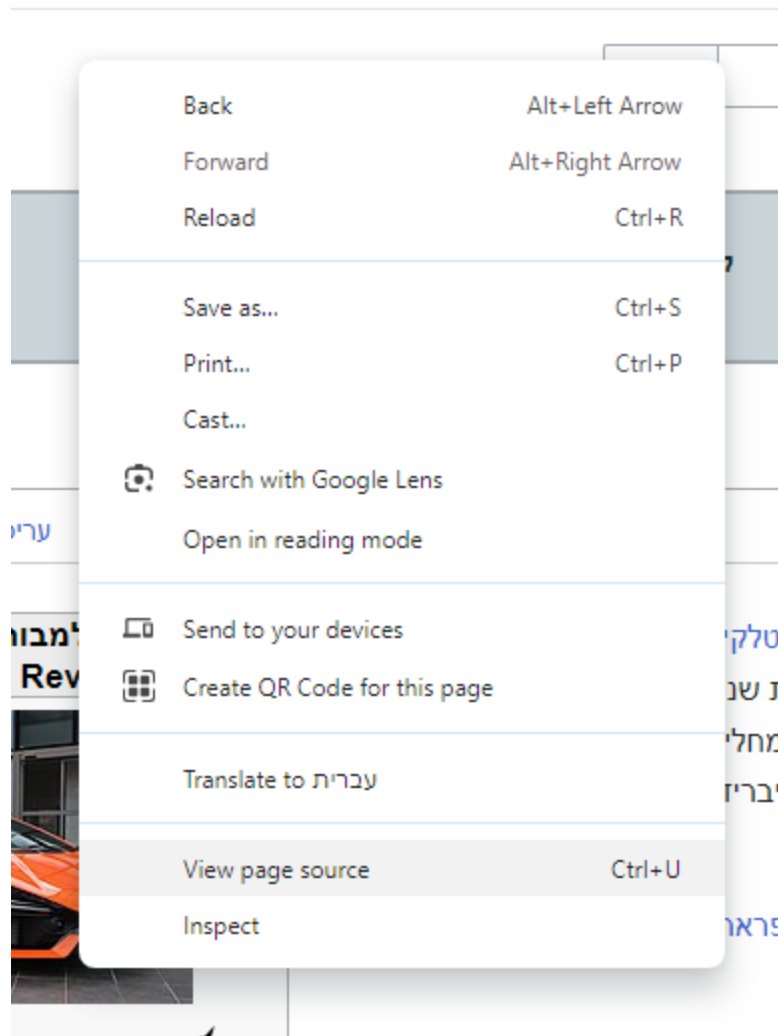
### Table tags explanation



### HTML Attributes

We can provide additional attributes to the browser in any html tag. The structure is:

```
<tag-name attribute="some value" attribute2="some other value">content</tag-name>
```



## HTTP - Hyper Text Transfer Protocol

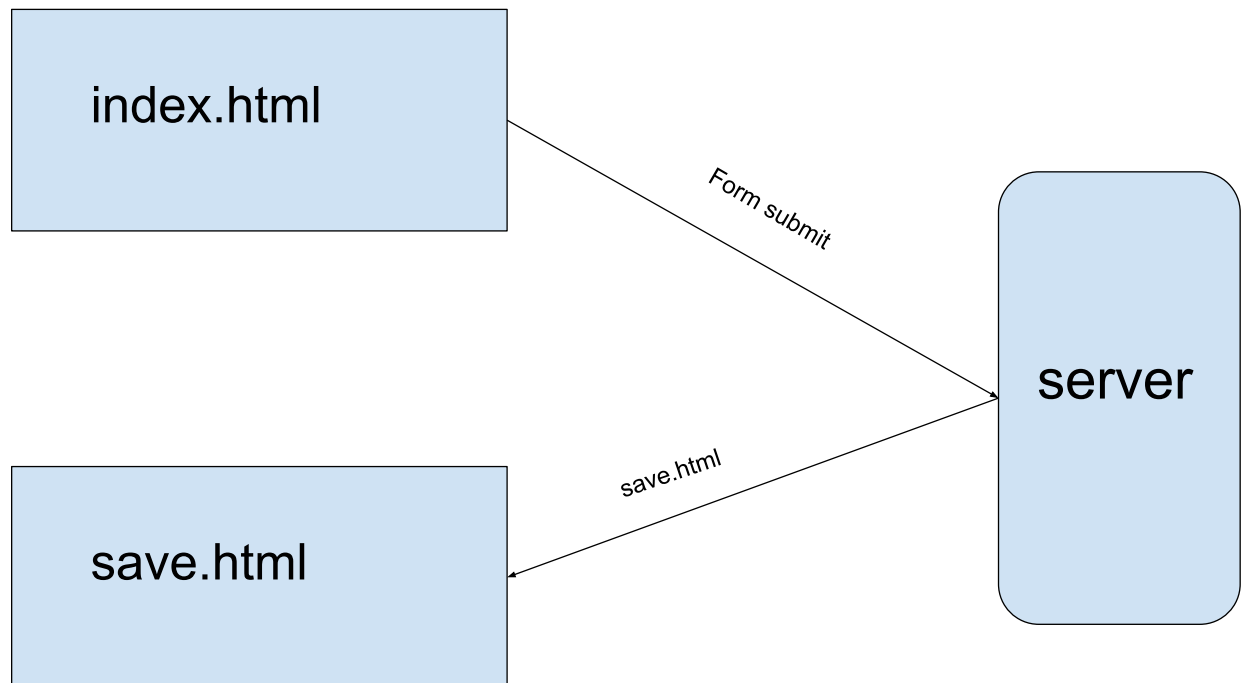
Each tag has an open tag, and a closing tag, and the content comes in the middle.

Example:

```
<p>hello</p>
```

## Forms

Submitting a form means send the form input data to a server



The **?** sign is the start of the **query string**, which is a long string containing the data that is sent to the server. The structure of the query string is:

name1=value1&name2=value2&name3=value3..... Etc

When a form submits, it can submit in one of many ways.

The two most basic ways are:

- **GET** - use it when you want to **get** data from the server. The data is sent in a query string
- **POST** - use it when you want to **add** data to the server. The data is sent hidden.

### id vs name

- Name attribute of input elements is used to map data to the server. The server needs to know which value belongs to which input

- The id attribute is used internally in the browser (for example, to connect a label to an input using the “for” attribute). The server is NEVER aware to HTML ids.

## **HTML Validation**

Please use this tool to validate all your HTMLs: <https://validator.w3.org/>