## **HTML Introduction and Basics:**

# Jeroen Brianraj B Jan 28, 2025

```
CERN Welcome
        CERN
   The European Laboratory for Particle Physics, located near Geneva[1] in
   Switzerland[2] and France[3]. Also the birthplace of the World-Wide
   Web[4]
   This is the CERN laboratory main server. The support team provides a set of
   Services[5] to the physics experiments and the lab. For questions and
   suggestions, see NNN Support Contacts[6] at CERN
   About the Laboratory[7] - Hot News[8] - Activities[9] - About Physics[10] -
   Other Subjects[11] - Search[12]
About the Laboratory
     Help[13] and General information[14], divisions, groups and
     activities[15] (structure), Scientific committees[16]
     Directories[17] (phone & email, services & people), Scientific
      Information Service[18] (library, archives or Alice), Preprint[19] Server
1-45, Back, Up, <RETURN> for more, Quit, or Help:
```

The first web-page created by Tim Berners-Lee in the late 1990's, consisting of hyperlinks

- Hypertext Markup Language is the language used by web documents which are designed to be displayed on a web page.
- Defines the structure and content of the web page.
- Often used alongside CSS which provides styling and Scripting languages such as JavaScript and TypeScript which provides functionality and animations to a webpage.

#### Structure of a HTML document:

- Every HTML document (ver. HTML5) starts with a '!DOCTYPE' line, letting the browser that this document uses the version 'HTML5'.
- Then the <a href="https://www.ncb.ni.new.n
- Then the document has two elements: a head and a body.
  - The head element of the document contains the title and the icon of the document and the styles used for the document.

- The body of the document contains the main content of the web page such as the headings and paragraphs.
- There can be only one head and one body element in a document.

#### **Elements of HTML:**

- Elements of a HTML document are the building blocks of a webpage.
- They are defined using a start and end tag ('<' and '>' respectively).
- They are used to add:
  - headings, subheadings, paragraphs and tables
  - o content like images, audio and videos
  - o Interactive objects such as forms, buttons and drop-down lists
- Types of elements:
  - o Under <head> element:
    - <title>: Used to add the title for a document which is displayed on the browser tab.
    - link>: Used to add attributes such as an icon which is displayed on the browser tab and import files such as fonts.
  - o Under <body> element:
    - <h1>,<h2>,....<h6>: These elements are used to add headings to a document, with <h1> being the main heading of the page which is the biggest and bold.
    - : Used to add paragraphs of texts to a document.
    - <br> : Used to end a line and move to the next line.
    - <a>: Anchor element used to add a hyperlink to a text.
    - <div>: This element is used to group elements together and add a common style to all of them.
    - <span>: Used to modify a particular set of characters in a paragraph.
    - : Used to display data in a tabular format.
    - <form>: Used to add a form line which can be used to get input from the user.
    - <img>: Used to add an image to a webpage.
    - <audio>: Used to add an audio file to a webpage.
    - <video>: Used to add a video file to a webpage.

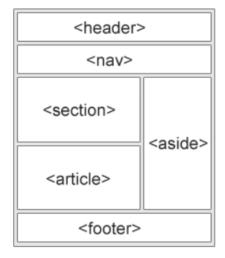
### The Element:

- The table element is used to add data to a webpage in tabular form.
- Elements used within :
  - o : Used to add a row to a table.
  - : Used to add heading to each column in the table.
  - : Used to add data to each cell in a row of the table.
  - o <caption> : Used to add a title to the table
- A 'border' attribute is used in the table element to define the border lines of the table.

#### The <form> Element:

- The form element is used to provide a fill-up form container to receive inputs from the user.
- Features such as buttons, drop-down lists, etc. are available for use.
- The elements used under <form> element are:
  - <label>: Gives a label to a form item.
  - o <input>: Used to receive an input from the user.
  - <select>: Used to create a drop-down list selection.
  - <option>: Used to create a selection option in the drop-down list under <select> element.
  - <button>: Used to create an interactive button to perform a specific function.

### **Semantic elements in HTML:**



- Semantic elements clearly describe its use to the browser and the developer.
- Used to indicate different parts/ divisions of the website such as <header>, <nav>, <section>, <footer>, etc.