Getting started with HTML

Topics Covered:

- What is HTML?
- What is HyperText?
- What is Markup?
- What are the benefits of using HTML5?
- What is the basic structure of HTML?
- How to save an HTML file?
- What is the importance of learning HTML?
- What are HTML Elements?
- How to distinguish between headings and paragraphs in HTML?
- What are void elements?
- What are nested elements?
- What are different types of elements in HTML?
- What is an attribute?
- What is a comment?
- How to apply styles in HTML?

HTML:

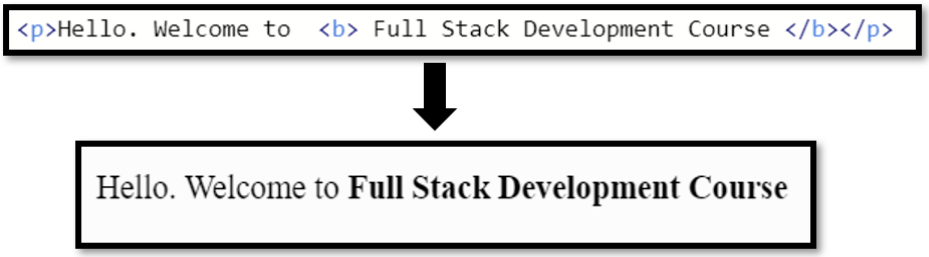
- HTML stands for **H**yper**T**ext **M**arkup **L**anguage.
- HTML is the standard markup language used for designing web pages.
- HTML elements are represented by tags **< >**.
- HTML can be assisted by CSS style sheets(CSS) and scripting languages like JavaScript(JS).
- HTML was created to document pages that are displayed on the web pages. The HTML helps the browser to display text, load images, and other elements.
- HTML was created in **1993** by **Tim Berners-Lee**. Since then, we have had different versions of HTML that are upgraded and now the most widely used version is **HTML5**.
- HTML is used for creating pages that are displayed on the web pages. All the pages that we see on World Wide Web(**www**) are written on different versions of HTML.

HyperText:

- The word or words that contain a link to a website is HyperText.
- The term Hypertext was coined in 1963 by **Ted Nelson**.
- Example:

Markup:

- A markup language uses **tags </>** to define elements within a document.
- The readable files contain standard words, rather than using typical programming syntax called Markup language.
- Example markup languages: **HTML**, **SGML**, and **XML.**
- Example**:**



Markup language

Benefits of HTML5 over other version of HTML:

- Cleaner markup,
- consistency,
- support multimedia with new tags,
- Offline application cache.

Structure of HTML:

Code:

```
<!DOCTYPE html>
<html>
  <head>
    <!-- title of the web page -->
    <title>HTML</title>
  </head>
  <body>
    <!-- paragraph -->
    <p>Structure of HTML</p>
  </body>
</html>
```

Where,

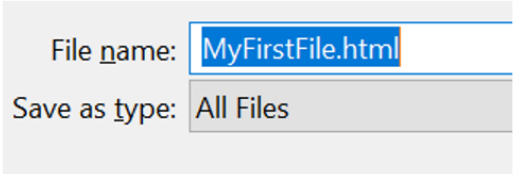
Tags	Purpose
<!DOCTYPE html>	Defines the document as an HTML5 document.
<html> </html>	**Root element** of the HTML document.
<head> </head>	Contains the **information** about the document
<title></title>	Specify the title that has to be shown in the **browser's title bar/tab**.
<body> </body>	Defines the document body, it's the **container for all contents** like headings, images, paragraphs, tables, lists, etc...
	Defines a **paragraph**.

Output:

HTML File extension:

- To be recognized by the web browsers all the HTML files must have a special file extension.
- The extension is **.html**

Saving file with extension



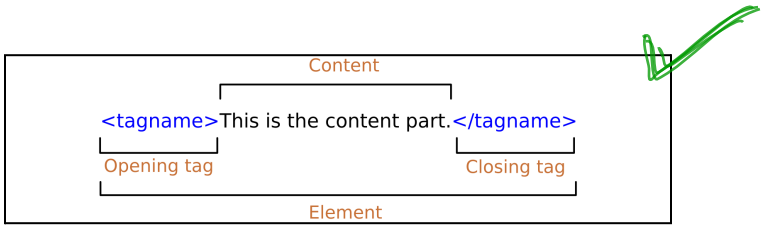
Appearance of file after saving

Importance of HTML:

- HTML is the foundation of all web pages.
- HTML is the beginning and basic level to start with web development.
- HTML is far easier to understand and learn.
- Almost every browser supports HTML. So it is bound to show up in all browsers regardless of where it is accessed through.

HTML Elements:

- HTML is made of **elements**.
- These elements are responsible for creating web pages and defining content in the web page.
- An element in HTML usually consists of a **start tag** <tag name>, **close tag** </tag name> and **content** inserted between them.
- Syntax:



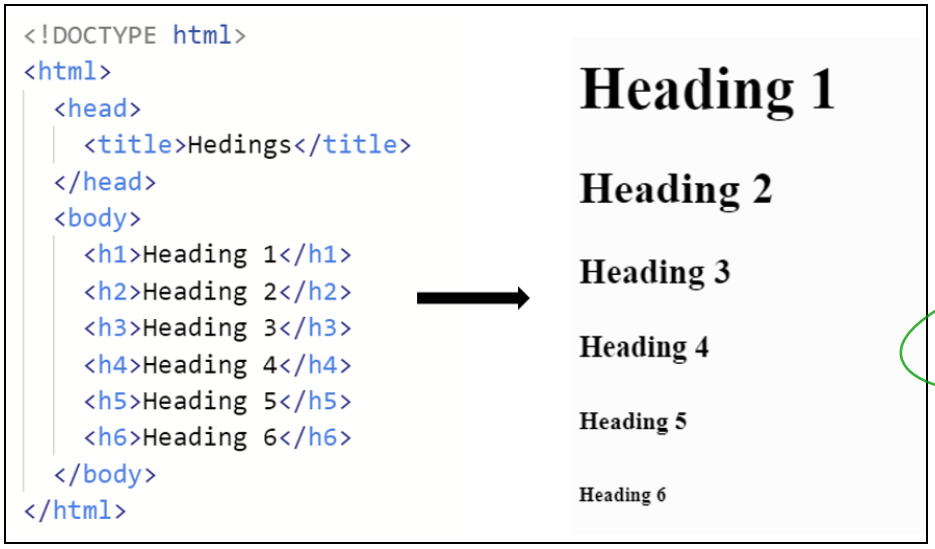
- Example:

```
<p>Structure of HTML</p>
```

Headings in HTML:

- **HTML headings** are titles or subtitles that you want to display on a webpage.
- There are **six** levels of headings defined by HTML.
- These 6 heading elements are **H1, H2, H3, H4, H5, and H6**.
- H1 being the **highest level (main heading)** and H6 the **least level (least important heading)**.
- Example:

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Hedings</title>
  </head>
  <body>
    <h1>Heading 1</h1>
    <h2>Heading 2</h2>
    <h3>Heading 3</h3>
    <h4>Heading 4</h4>
    <h5>Heading 5</h5>
    <h6>Heading 6</h6>
  </body>
</html>
```



Paragraphs in HTML:

- **<p>** element defines a paragraph.
- browser itself adds an empty line before and after a paragraph.
- Content inside **<p>** element always starts with a new line. – Block element
- Example:

```html
<p>This element defines the paragraph in HTML</p>
<p>Content inside this tag will appear in a new line.</p>
```

This element defines the paragraph in HTML

Content inside this tag will appear in a new line.

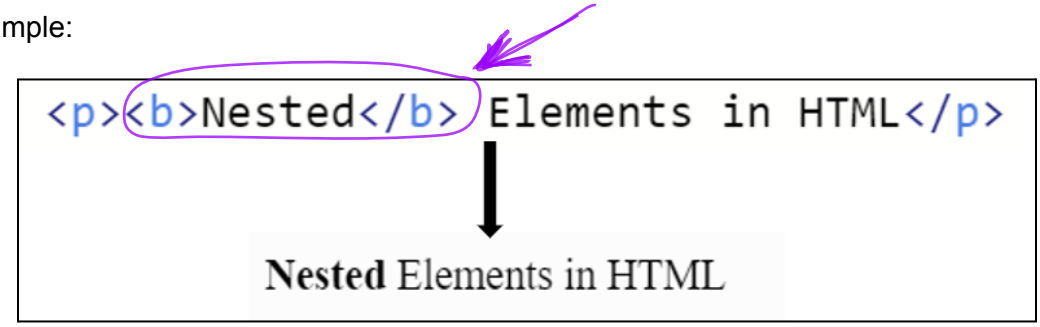
empty line → auto b/w to P tags

Void Elements:

- All the elements in HTML do not require a **start tag and end tag**.
- Some elements do not have content and end tag such elements are known as **Void elements** or **empty elements**.
- These elements are also called unpaired **tags**.
- Example:
  - **
** (represents a line break)
  - **<hr>**(represents a horizontal line)

Nested Elements:

- Elements inside other elements are called **nesting**.
- Elements nested inside other elements are called nested elements.
- Example:



Types of Elements:

There are two types of elements in HTML:

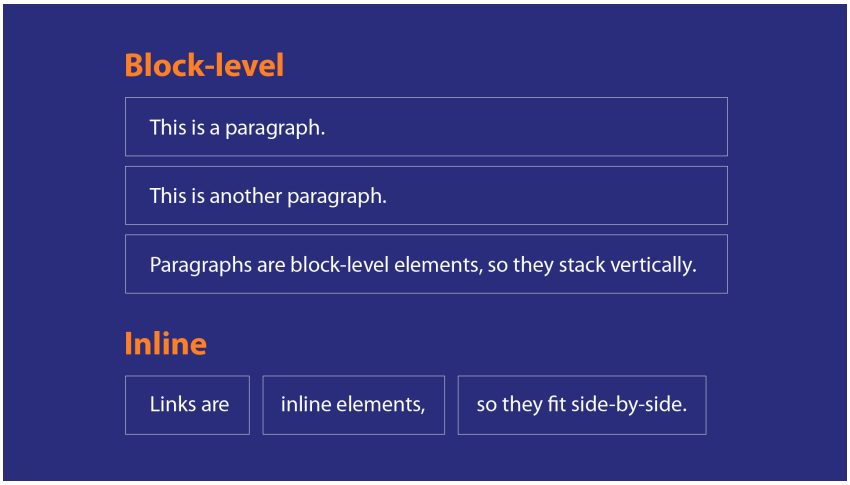
- Block level elements.
- Inline elements.

Block level elements:

- They form a visible block on a page — they will appear on a **new line** from whatever content went before it,
- And any content that goes after it will also appear on a new line.
- **Example**: <p> or <h1>.

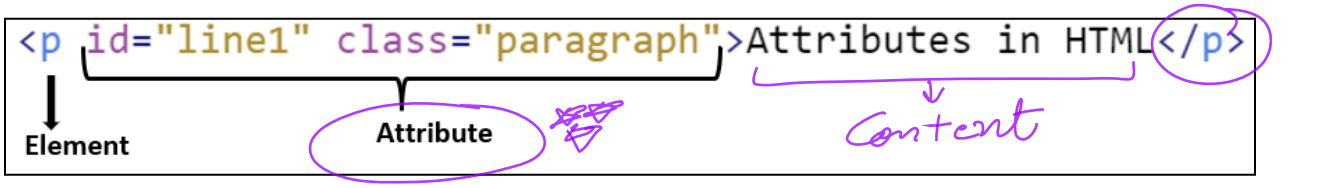
Inline elements:

- Inline elements will not cause a new line to appear in the document.
- They would normally appear inside a paragraph of text.
- **Example:** <a> (hyperlink) or <b> (bold).



Attributes in HTML:

- Special words which provide **additional information** about the elements.
- Each element or tag can have **attributes**, which defines the behavior of that element.
- Attributes should always be applied with the start tag.
- Attribute values are case sensitive. Multiple attributes can be applied to a single element.
- Example:



Comments:

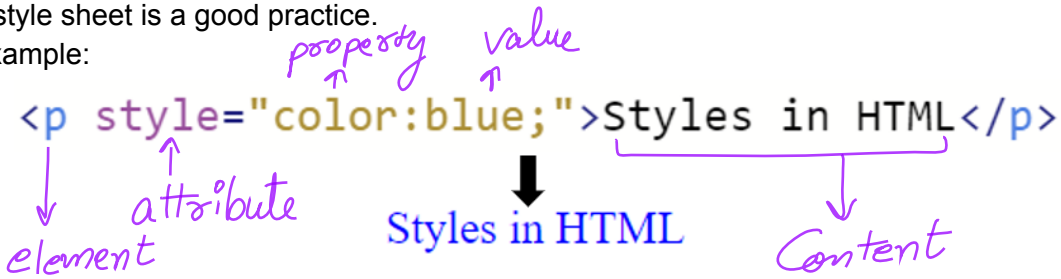
- **Comments** are text notes added to the program to provide explanatory information about the source code.
- Comment is a programmer-readable explanation or annotation in the source code.
- Comment is a piece of code which is **ignored by any web browser**.
- Comments help you and others understand your code and **increase code readability**.
- Comments are placed in between **<!-- ... -->** tags.
- Example:

```
<!-- paragraph -->

<!-- title of the web page -->
```

Styles:

- **HTML style attribute** is used to add styles to an element, such as color, font, size, and more.
- The **style** in HTML are rules for making the web-pages more **attractive**, **engaging** and **presentable**.
- The styles applied in the style attribute are known as inline styles. But applying styles in a style sheet is a good practice.
- Example:



Challenge:

With your new gained knowledge on HTML conduct further research about HTML and get

familiar with the following:

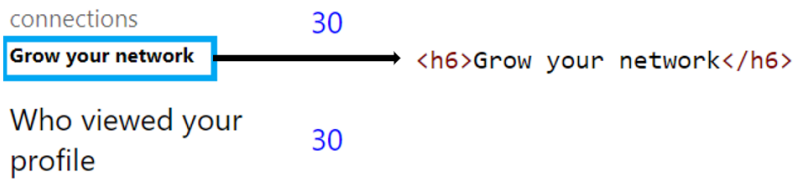
- What is the relationship between browser and HTML?
- What are the advantages of HTML5 over other versions?
- Which language is used to decorate/ style HTML elements? - Markup

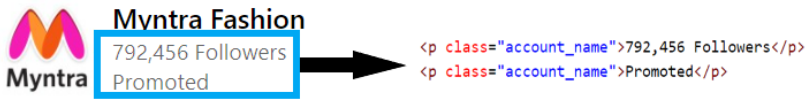
Utility of today's topics in Static linkedIn page:

The basic structural elements of HTML in our final project:

- You can refer the file in the github link: https://github.com/testbook123/Full-Stack-Development.git

- Headings and paragraphs:





- Void elements:

```
<div class="news_head">
    <div class="news_title">Linkedln News</div>
    <i class="bi bi-info-square-fill" style="font-size:15px;"></i>
</div>
<br>

<div class="new_list">
    <div class="act_title" style="display: flex;flex-direction: row;align-items
        <i class="bi bi-record-fill" style="font-size:14px;margin-right:10px;d
        Indian crosses 3,58,974 daily cases
    </div>
    <div style="margin-left:25px;" class="account_name">10h ago - 5,043 reader
</div>
```