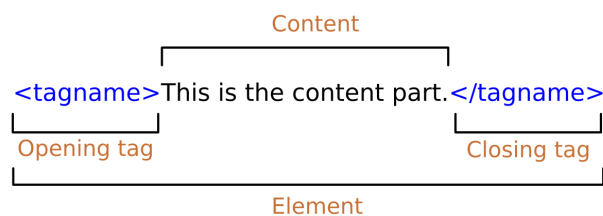# Structural Elements

Topics covered:
- 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?

Topics in Detail

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:

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:

```
<!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>
```

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

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.
- Example:

```
<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.

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:

```
<p><b>Nested</b> Elements in HTML</p>
```

Nested Elements in HTML

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 element:

- 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).

Block-level

This is a paragraph.

This is another paragraph.

Paragraphs are block-level elements, so they stack vertically.

Inline

Links are   inline elements,   so they fit side-by-side.

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:

```
<p id="line1" class="paragraph">Attributes in HTML</p>
```
Element   Attribute

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:

```
<p style="color:blue;">Styles in HTML</p>
```
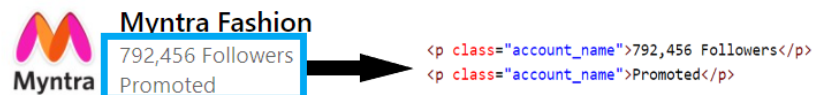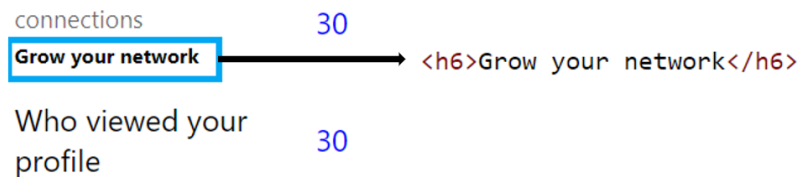
Styles in HTML

Utility of topics learned in Static linkedin page project:

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:

connections   30

Grow your network   →   `<h6>Grow your network</h6>`

Who viewed your profile   30

Myntra Fashion
792,456 Followers
Promoted
→
```
<p class="account_name">792,456 Followers</p>
<p class="account_name">Promoted</p>
```

- Void elements:

```html
<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 readers
</div>
```