

## HTML Basics: Tags and Types of Tags

### Tags in HTML:

- In HTML, tags are keywords enclosed in angle brackets `**<** **>**` that define the structure and formatting of content.
- Tags are used to mark the beginning and end of elements within an HTML document.
- Most HTML tags come in pairs - an opening tag and a closing tag.
- Example:

```
<tagname>Content goes here</tagname>
```

- The opening tag signifies the beginning of an element, and the closing tag marks its end.

### Types of HTML Tags:

#### 1. Container Tags:

- These tags have both an opening and a closing tag, encapsulating content between them.
- Example:

```
`<div>` (division), `<p>` (paragraph), `<h1>` to `<h6>` (heading).
```

#### 2. Empty or Self-Closing Tags:

- These tags don't have a closing tag and are self-contained.
- They are terminated with a forward slash before the closing angle bracket.
- Example:

```
`<br>` (line break), `<img>` (image), `<hr>` (horizontal line).
```

#### 3. Semantic Tags:

- Introduced in HTML5, these tags convey the meaning or structure of the content.
- Enhance the readability of the code and aid accessibility.
- Example:

```
`<article>`, `<header>`, `<footer>`, `<nav>`.
```

#### 4. Inline and Block-Level Tags:

- Inline Tags: These don't start on a new line and only take up as much width as necessary.
  - Example: `**<span>**`, `**<a>**` (anchor), `**<strong>**` (strong emphasis).
- Block-Level Tags: These start on a new line and take up the full width available.
  - Example:

```
`<div>`, `<p>`, `<h1>` to `<h6>`.
```

#### 5. Attribute Tags:

- Tags can have attributes that provide additional information or settings.
- Attributes are included within the opening tag.

- Example:

```
`<a href="https://example.com">Link</a>`, where `href` is an attribute.
```

## HTML Basic Tags:

### 1. Heading Tags (h1 to h6):

- Heading tags are used to define headings or titles on a webpage.
- They range from `

# ` (largest) to `` (smallest).
- Example:

```
<h1>This is a Heading 1</h1>  
<h2>This is a Heading 2</h2>  
<!-- ... -->  
<h6>This is a Heading 6</h6>
```

- Heading tags not only provide structure to your content but also contribute to SEO by indicating the hierarchy of information.

### 2. Paragraph Tags (p):

- Paragraph tags define blocks of text or content.
- They create visual separation between different chunks of text.
- Example:

```
<p>This is a paragraph of text in HTML.</p>  
<p>Another paragraph goes here.</p>
```

- Paragraph tags are crucial for organizing and presenting textual information on a webpage.

### 3. Line Break (br):

- The line break tag `  
` is used to insert a line break within text.
- It is a self-closing tag and doesn't have a closing tag.
- Example:

```
This is some text.<br>It has a line break here.
```

- Useful for creating a new line without starting a new paragraph.

### 4. Horizontal Line (hr):

- The horizontal line tag `

---

` is used to create a thematic break or horizontal line.
- Like the line break, it is a self-closing tag.
- Example:

```
<p>This is a paragraph above<br>This is a paragraph below</p>
```

- Provides a visual break between different sections of content.

## 5. Comments:

- Comments in HTML are created using `<!--` to start the comment and `-->` to end it.
- Comments are not visible on the webpage but serve as notes for developers.
- Example:

```
<!-- This is a comment in HTML -->  
<p>This is a paragraph.</p>  
<!-- Comments are useful for adding notes to your code -->
```

- Helpful for documenting your code, explaining complex sections, or temporarily disabling code.

Understanding and utilizing these basic HTML tags is fundamental to structuring and formatting content on a webpage. They lay the groundwork for more advanced features as you progress in web development.