

# Unit 1: Introduction of HTML

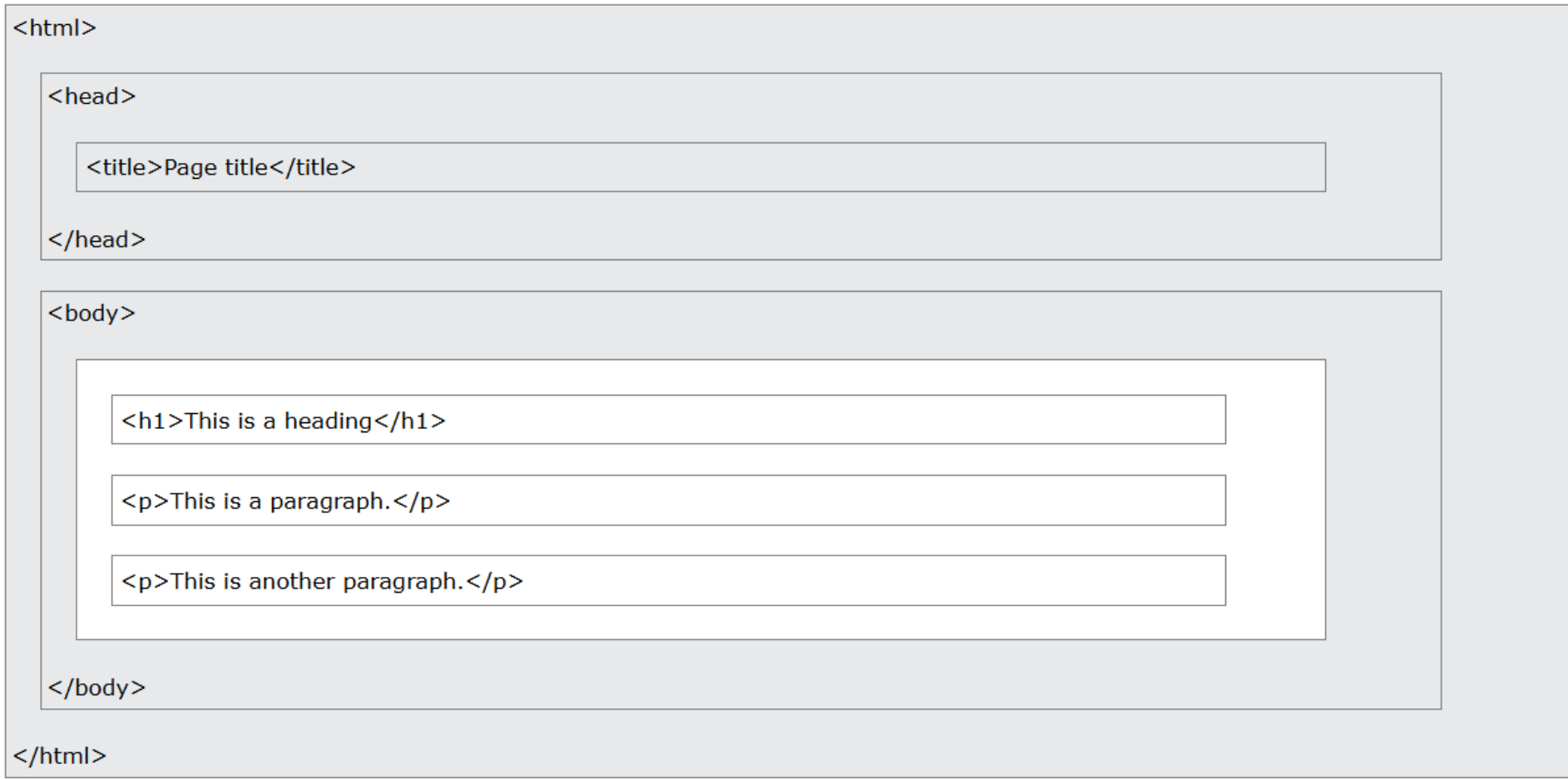
# HTML History

- HTML is a very evolving markup language and has evolved with various versions updating. HTML was created by Sir Tim Berners-Lee in late 1991 but was not officially released.
- **HTML 1.0** was released in 1993 with the intention of sharing information that can be readable and accessible via web browsers. But not many of the developers were involved in creating websites. So the language was also not growing.
- Then comes **HTML 2.0**, published in 1995, which contains all the features of HTML 1.0 along with a few additional features, which remained the standard markup language for designing and creating websites until January 1997 and refined various core features of HTML.

- Then comes [HTML 3.0](#), where Dave Raggett introduced a fresh paper or draft on HTML. It included improved new features of HTML, giving more powerful characteristics for webmasters in designing web pages. But these powerful features of the new HTML slowed down the browser in applying further improvements.
- Then comes [HTML 4.01](#), which is widely used and was a successful version of HTML before HTML 5.0, which is currently released and used worldwide.
- [HTML 5](#) can be said for an extended version of HTML 4.01, which was published in the year 2012.

Year	Version
1989	Tim Berners-Lee invented www
1991	Tim Berners-Lee invented HTML
1993	Dave Raggett drafted HTML+
1995	HTML Working Group defined HTML 2.0
1997	W3C Recommendation: HTML 3.2
1999	W3C Recommendation: HTML 4.01
2000	W3C Recommendation: XHTML 1.0
2008	WHATWG HTML5 First Public Draft
2012	<u>WHATWG HTML5 Living Standard</u>
2014	<u>W3C Recommendation: HTML5</u>
2016	W3C Candidate Recommendation: HTML 5.1
2017	<u>W3C Recommendation: HTML5.1 2nd Edition</u>
2017	<u>W3C Recommendation: HTML5.2</u>

- The basic structure of an HTML (HyperText Markup Language)



# 1. Document Type Declaration

`<!DOCTYPE html>`

- Declares the document as an HTML5 document.
- It ensures that browsers render the page in standards-compliant mode.

## 2. HTML Element

`<html lang="en">`

- The `<html>` tag is the root element of the document. It wraps all other elements.
- The `lang` attribute specifies the language of the content, which helps with accessibility

### 3. Head Section

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
    <title>Page Title</title>
```

```
</head>
```

The `<head>` contains meta-information (metadata) about the document.



## Common Elements in <head>:

- <meta charset="UTF-8">: Specifies the character encoding, supporting most languages and symbols.
- <meta name="viewport" content="width=device-width, initial-scale=1.0">: Ensures the page is responsive on different devices.
- <title>: Sets the page's title displayed on the browser tab.
- <link>: Links external resources like CSS files. The primary function of CSS is to define the styling and layout of web pages, making them more visually appealing, user-friendly, and accessible.
- <script>: Adds JavaScript files for interactivity (can also be included in the <body>).
  - It is a scripting language that enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else.

## 4. Body Section

```
<body>
```

```
<header>
```

```
<h1>Welcome</h1>
```

```
</header>
```

```
<main>
```

```
<p>This is the main content.</p>
```

```
</main>
```

```
<footer> <p>&copy; 2025</p> </footer>
```

```
</body>
```

## Common Tags in <body>

- <header>: Represents introductory content or navigation links.
- <main>: Wraps the main content of the document.
- <section>: Groups related content within the main content.
- <footer>: Contains copyright or closing information.
- <p>, <h1> - <h6>: Represent text paragraphs and headings, respectively.
- <a>, <img>, <ul>: Represent links, images, and lists.

# HTML Headings

HTML headings are defined with the `<h1>` to `<h6>` tags

`<h1>` defines the most important heading. `<h6>` defines the least important heading.

```
<html>  
<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**

# HTML Paragraphs

- HTML paragraph or HTML p tag is used to define a paragraph in a webpage.
- Browser itself add an empty line before and after a paragraph. An HTML <p> tag indicates starting of new paragraph.

```
<html>
```

```
<body>
```

```
<p>This is a paragraph.</p>
```

```
<p>This is a paragraph.</p>
```

```
<p>This is a paragraph.</p>
```

```
</body>
```

```
</html>
```

This is a paragraph.

This is a paragraph.

This is a paragraph.

# Text Formatting

- Bold and Strong

- `<b>`: Makes text bold (for appearance).
- `<strong>`: Indicates important text (semantically meaningful).

`<b>This is bold text.</b>`

`<strong>This is strong text.</strong>`

- Italic and Emphasized

- `<i>`: Makes text italic (for appearance).
- `<em>`: Indicates emphasized text (semantically meaningful)

`<i>`This is italic text.`</i>`

`<em>`This is emphasized text.`</em>`

- Underline

Adds an underline to text

`<u>This is underlined text.</u>`

- Strikethrough

`<s>`: Represents strike-through (deprecated or incorrect text).

`<del>`: Indicates deleted text.

`<s>Deprecated text</s>`

`<del>Deleted text</del>`



- Superscript and Subscript

<sup>: Renders text as superscript.

<sub>: Renders text as subscript.

E = mc<sup>2</sup>      mc<sup>2</sup>

H<sub>2</sub>O      H<sub>2</sub>O

## Highlighted Text

Marks text as highlighted

<p>Do not forget to buy <mark>milk</mark> today.</p>

Do not forget to buy **milk** today.

## Small Text

Renders text in a smaller font size

<small>This is small text.</small>

## Inserted Text

Indicates text that has been added

`<ins>This is inserted text.</ins>`

`<p>My favorite color is <del>blue</del> <ins>red</ins>.</p>`

O/P:      My favorite color is ~~blue~~ red.

# HTML Links - Hyperlinks

- HTML links are hyperlinks.
- You can click on a link and jump to another document.
- When you move the mouse over a link, the mouse arrow will turn into a little hand
- **Note:** A link does not have to be text. A link can be an image or any other HTML element!

Syntax:

`<a href="url">link text</a>`

Example:

```
<!DOCTYPE html>
<html>
<body>

<h1>HTML Links</h1>

<p><a href="https://coek.dypgroup.edu.in/">Visit College Website!</a></p>

</body>
</html>
```

## HTML Links

[Visit College Website!](https://coek.dypgroup.edu.in/)

# HTML Links - The target Attribute

- By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.
- The target attribute specifies where to open the linked document.
- The target attribute can have one of the following values:
  - `_self` – Default - Opens the document in the same window/tab as it was clicked
  - `_blank` - Opens the document in a new window or tab
  - `_parent` - Opens the document in the parent frame
  - `_top` - Opens the document in the full body of the window

`<a href=https://coek.dypgroup.edu.in/ target="_blank">Visit college website!</a>`

# Absolute URLs vs. Relative URLs

- A local link (a link to a page within the same website) is specified with a relative URL (without the "https://www" part):

```
<h2>Absolute URLs</h2>
```

```
<p><a href="https://www.w3.org/">W3C</a></p>
```

```
<p><a href="https://www.google.com/">Google</a></p>
```

```
<h2>Relative URLs</h2>
```

```
<p><a href="html_images.asp">HTML Images</a></p>
```

```
<p><a href="/css/default.asp">CSS Tutorial</a></p>
```

# HTML Images

- The HTML `<img>` tag is used to embed an image in a web page.
- Images are not technically inserted into a web page; images are linked to web pages. The `<img>` tag creates a holding space for the referenced image.
- The `<img>` tag is empty, it contains attributes only, and does not have a closing tag.
- The `<img>` tag has two required attributes:
  - `src` - Specifies the path to the image
  - `alt` - Specifies an alternate text for the image

## src Attribute

- When a web page loads, it is the browser, at that moment, that gets the image from a web server and inserts it into the page. Therefore, make sure that the image actually stays in the same spot in relation to the web page, otherwise your visitors will get a broken link icon.

## alt Attribute

- The required alt attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).



```
<!DOCTYPE html>
<html>
<body>

<h2>Image Size</h2>

<p>Here we specify the width and height of an image with the width and height
attributes:</p>



</body>
</html>
```

## Image Size

Here we specify the width and height of an image with the width and height attributes:



# Image as a Link

- To use an image as a link, put the <img> tag inside the <a> tag

<p>The image is link. Click on it</p>

<a href=" <https://coek.dypgroup.edu.in/> ">



</a>

# HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

## href Attribute

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to

```
<a href="https://www.Coek.dypcet.com">College website</a>
```

## Src ,width , height Attribute

The <img> tag is used to embed an image in an HTML page. The src attribute specifies the path to the image to be displayed and width and height attributes, which specify the width and height of the image (in pixels)

```

```

### • The alt Attribute

The required alt attribute for the <img> tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the src attribute, or if the user uses a screen reader.

```

```

## The style Attribute

- The style attribute is used to add styles to an element, such as color, font, size, and more.

```
<p style="color:red;">This is a red paragraph.</p>
```

## The lang Attribute

lang attribute inside the <html> tag, to declare the language of the Web page.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<body>
```

```
...
```

```
</body>
```

```
</html>
```

# HTML Comments

<!DOCTYPE html>

<html>

<body>

<!-- This is a comment -->

<p>This is a paragraph.</p>

<!-- Comments are not displayed in the browser -->

</body>

- </html>