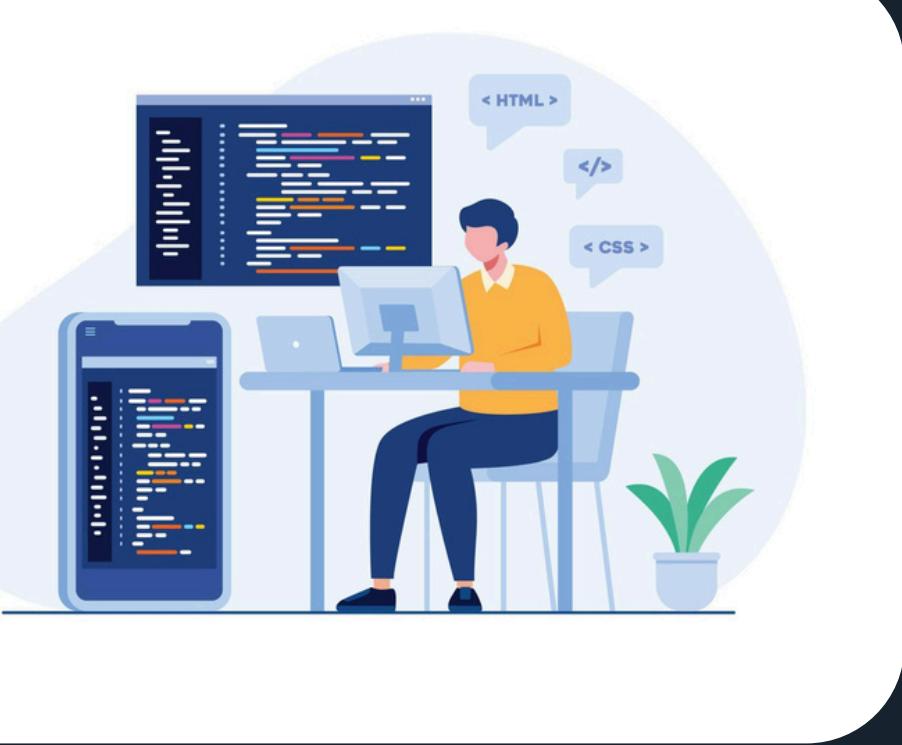


NASL INNOVATION STUDIO

COMPLETE HTML COURSE



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HTML Course

Contents



BASICS

- How Website Works
- HTML Document Structure
- HTML Tags and Elements
- HTML Headings
- HTML Paragraphs
- Comments in HTML
- Anchors In HTML
- List and Anchors
- images In HTML
- Text Formation In HTML
- Tables In HTML

ADVANCE

- HTML IFRAMES
- HTML Picture Tag
- HTML Figure Tag
- HTML Audio Tag
- HTML Video Tag
- Forms and inputs Elements
- HTML Semantic Elements
- HTML Meta Tags
- HTML SEO
- Website Ranking Score Check
- How website live free & paid
- Interview Questions



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HOW WEBSITES WORKS

01



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BUILDING BLOCKS OF WEBSITE



HTML

HTML Provides the Structure and Content of a Webpage

CSS

CSS Styles Its Appearance

JAVASCRIPT

JavaScript Brings Interactivity and Functionality



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HTML



HyperText Markup Language



< p > Hypertext refers to text that contains links to other texts or resources. **< /p >**

< p > Markup Language is a system used to give instructions to a computer on how content should be organized and displayed on a webpage. **< /p >**



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HISTORY OF HTML

Early Beginnings (1980)s:

In the 1960s, Ted Nelson thought of **hypertext-linking** words and ideas. In the 1980s, Tim Berners-Lee used this idea to create the **World Wide Web (www)** and **HTML**, the language that makes websites work. This was the beginning of the **internet!** 🌐✨

HTML 2.0 (1995), HTML 3.2 (1997), & HTML 4.0 (1997 - 1999)

HTML 4 brought exciting improvements, like better tools for forms, scripts, and style sheets. It was a major step that helped shape the modern web we use today! ✨

HTML 5 (2014): was a huge leap forward! It focused on making websites more **interactive** and **multimedia-friendly**. It added cool new features like **<video>**, **<audio>**, and **<picture>** for embedding videos, music, and images easily. HTML 5 made websites more powerful and fun to build! 🎥🎶✨



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SYNTAX OF HTML

Opening Tag

Content

Closing Tag

<h1>

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</h1>

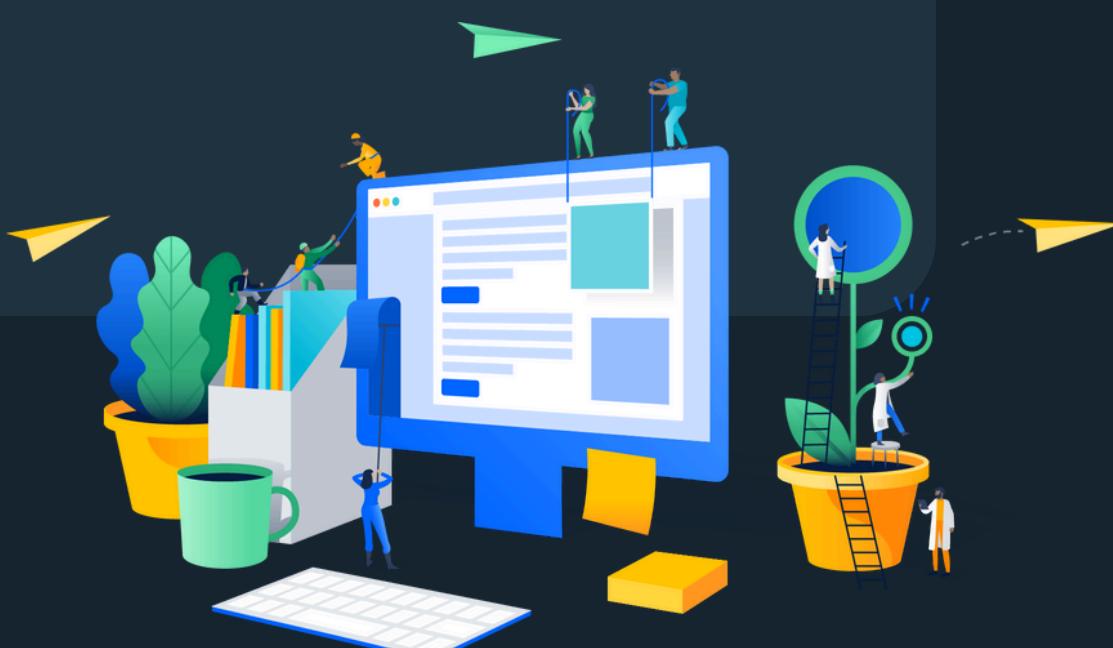
HTML Element



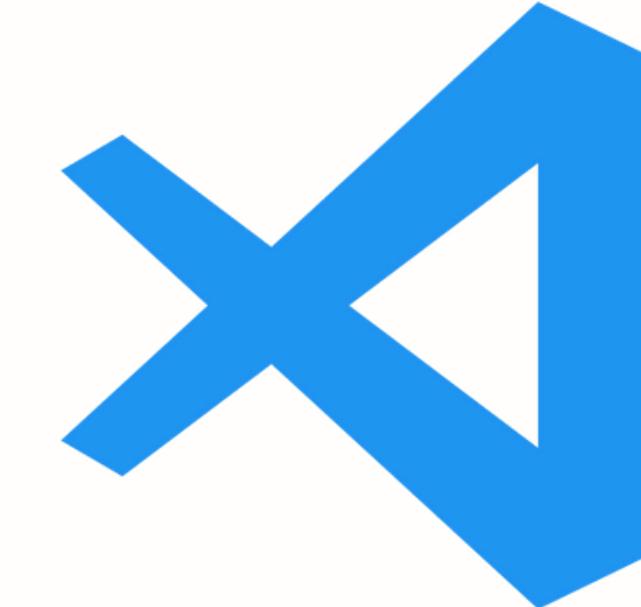
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We need a Code Editor



```
// Example borrowed from: https://github.com/PacktPublishing/JavaScript-by-Example
// Define timeout duration
const timeoutDuration = 12000;

// Random number to better showcase syntax highlighting
const NUMBER = 81274588182375488237;

// Will make a web request to specified route
// Returns a promise
export function apiCall(route, body = {}, method="post") {
    const request = new Promise((resolve, reject) => {
        const headers = new Headers({
            'Content-Type': 'application/json',
        });

        const requestDetails = {
            method,
            mode: 'cors',
            headers,
        };

        if(method !== 'GET') requestDetails.body = JSON.stringify(body);

        function handleErrors(response) {
            if (!response.ok) {
                const error = new Error(`HTTP error! Status: ${response.status}`);
                error.response = response;
                throw error;
            }
            return response.json();
        }

        fetch(route, requestDetails)
            .then(handleErrors)
            .then(resolve)
            .catch(reject);
    });
}
```

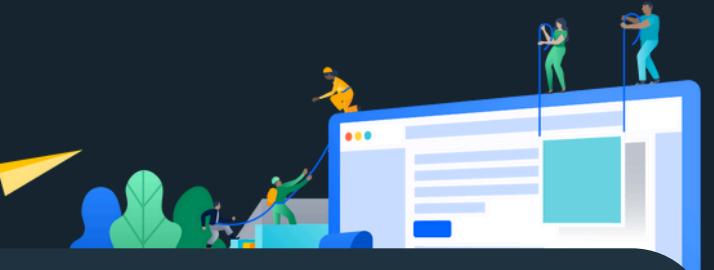


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HTML TIPS



01

**<P> The File Extension
must be .html or
.htm </p>**

02

**<p> The file name index.html is
special because it's the
default homepage of a
website. When someone visits
your site, the browser
automatically looks for
"index.html" as the starting
point—it's like the front door
to your website! ? ✨ </p>**



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HTML DOCUMENT / STRUCTURE

```
<!DOCTYPE html>
<html>
  <head>
    <title> NSAL </title>
  </head>
  <body>
    <h1> Complete HTML Course </h1>
  </body>
</html>
```

Make sure to let the browser know it's an HTML 5 document by displaying this message at the top of the page

This is the starting tag of the html

This section contains the information about the HTML Document

This section contains the all things you want to display on your website



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How **browsers** determine the **language** of an **HTML Document**?



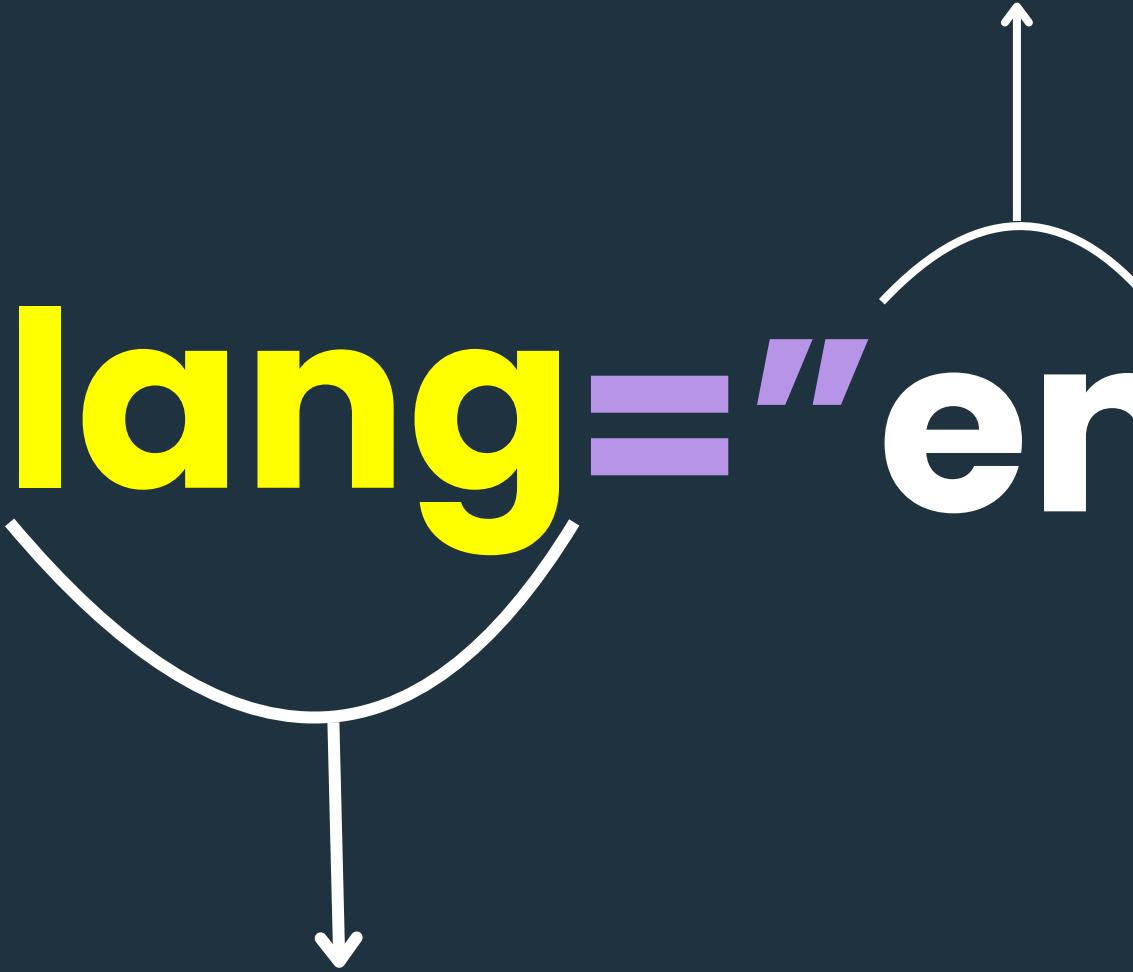
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Sets the language for the content of the element.

<html lang="en">



The lang attribute defines the language of the content within an element.

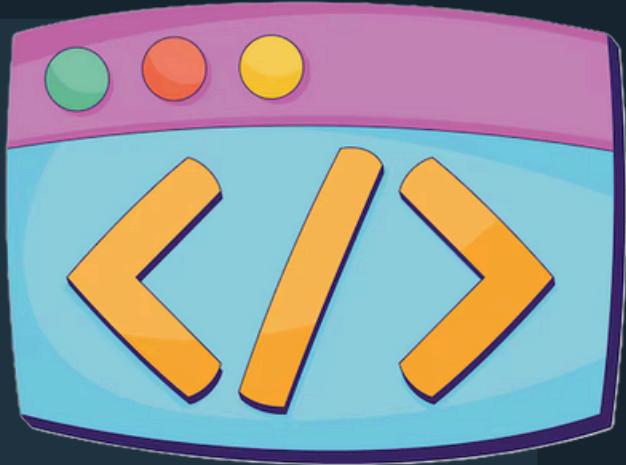
<html lang="en"> <html lang="es"> <html lang="fr">



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<> HTML ATTRIBUTES </>

**<p> So what is HTML
Attributes </p>**

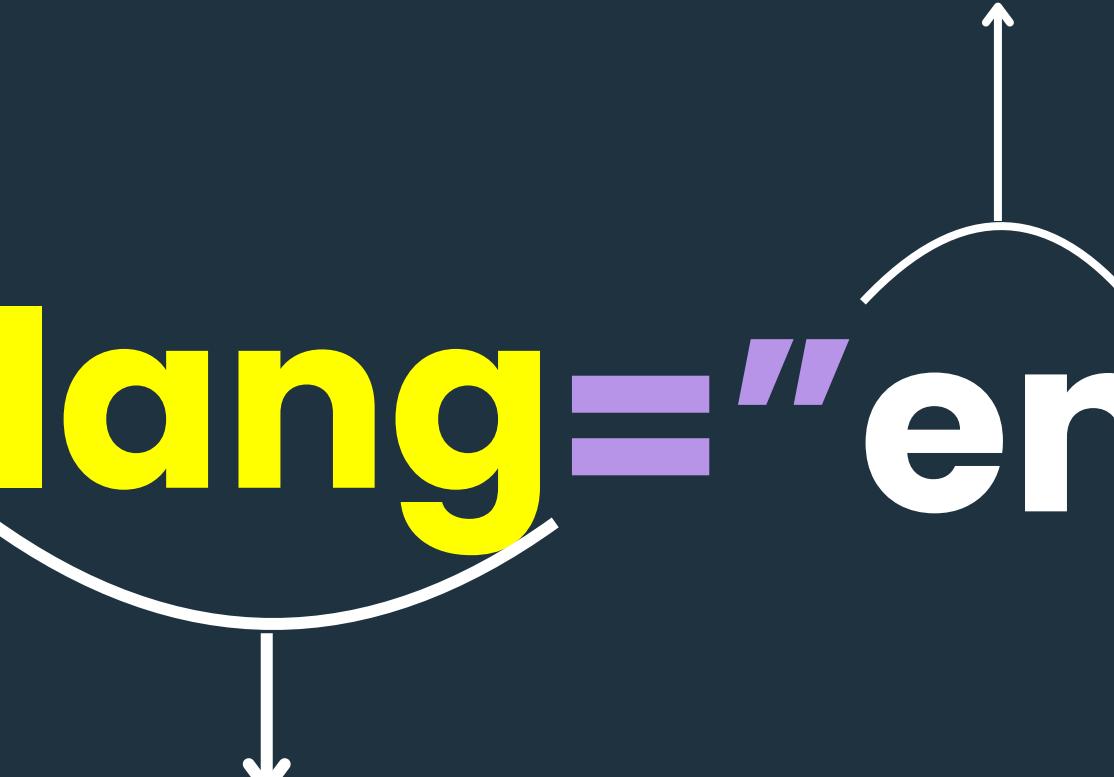


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Sets the language for the content of the element.



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

The lang attribute defines the language of the content within an element.

HTML attributes are like extra details you add to HTML elements to change how they behave or look. You write them as pairs—one part is the name, and the other is the value. These details go inside the opening tag.



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HTML DOCUMENT (IN URDU)

```
<!DOCTYPE html>  
  
<html lang="ur">  
  <head>  
    <title>Urdu Example</title>  
  </head>  
  
<body>  
  <p> یہ اردو میں لکھنے کا طریقہ ہے۔</p>  
</body>  
</html>
```

We use the Lang attribute to set the language to Urdu.



It's easy, just write in Hindi instead of English.



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HTML Heading & Text

Headings (<h1> to <h6>)

Paragraphs (<p>)

Horizontal rule (<hr>)

Line breaks (
)



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HTML HEADING

Opening Tag

<h1>

Content

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Closing Tag

</h1>

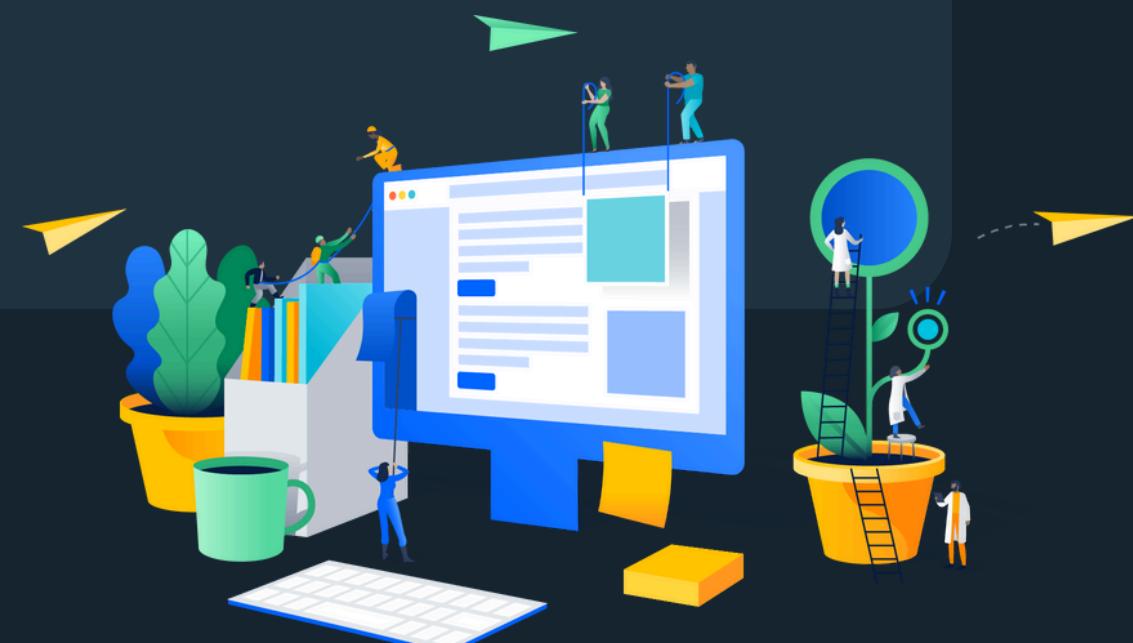
HTML Elements



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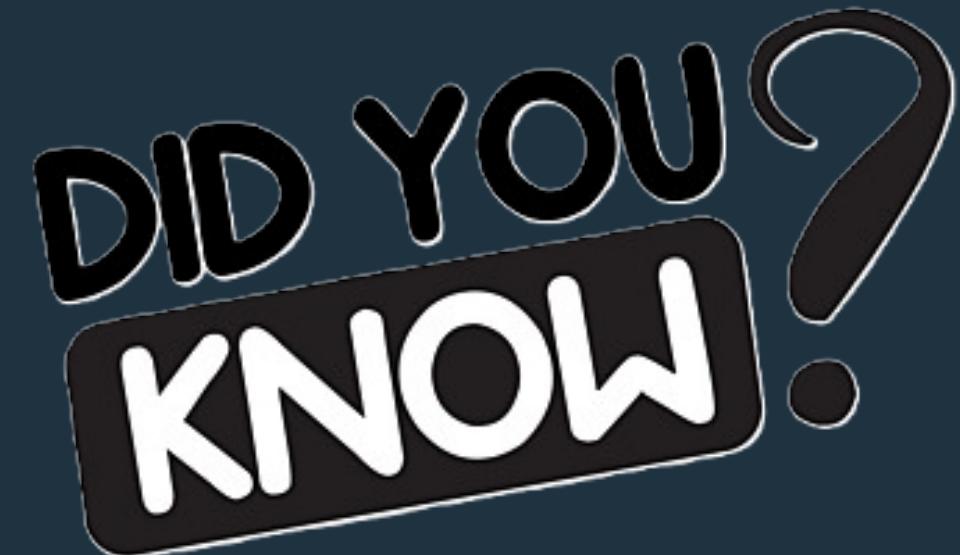


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Do You Know...

- h1:** Typically, it's large and bold, ranging from 24px to 36px or even larger.
- h2:** Slightly smaller, usually around 18px to 30px.
- h3:** Smaller than H2, typically around 16px to 24px.
- h4:** Generally, it's around 14px to 20px.
- h5:** Smaller, usually around 12px to 18px.
- h6:** The smallest, typically around 10px to 16px.



And this is also important or interview



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HTML PARAGRAPHS

Opening Tag

< p >

Content

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Closing Tag

< / p >

HTML Elements



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Do You Know...

No matter how much **whitespace** is used inside the content of an HTML element (which can include one or more space characters or even line breaks), the HTML parser condenses each sequence of whitespace into a single space when rendering the code.

DID YOU
KNOW?



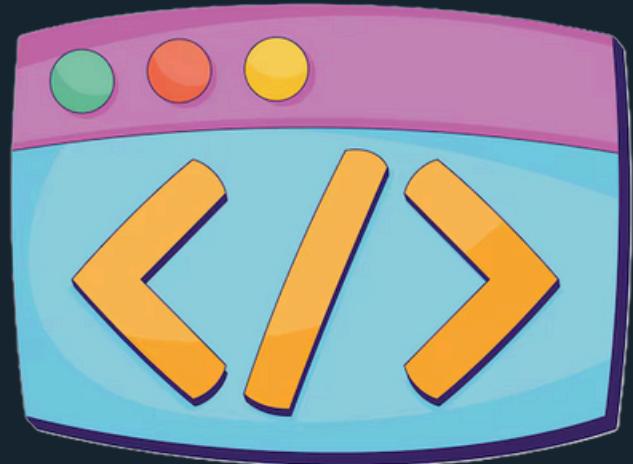
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Comments in HTML

<!-- This is a comment -->



To comment out in HTML, place the content between <!-- comment --> tags
(browsers will not display these comments).

Commenting in HTML allows developers to leave notes about their code, explain its functionality, or highlight necessary changes for the future.



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HTML Text Formatting

01

Bold and Italic:-

` , `

02

Underline and
Strikethrough:-

`<u> , <s>`

03

Subscript and
Superscript:-

`<sub> , <sup>`

04

Preformatted Text:-

`<pre> , <kbd> , <abbr>`

05

Text Highlighting:-

`<mark> , <small> , `

06

Inline Styles:-

`<p style="color: red"> hello</p>`



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HTML Tips

While using nested tag in one elements never mismatched the tags

X <p> Success is built on small </p> steps.

✓ <p> Success is built on small steps. </p>



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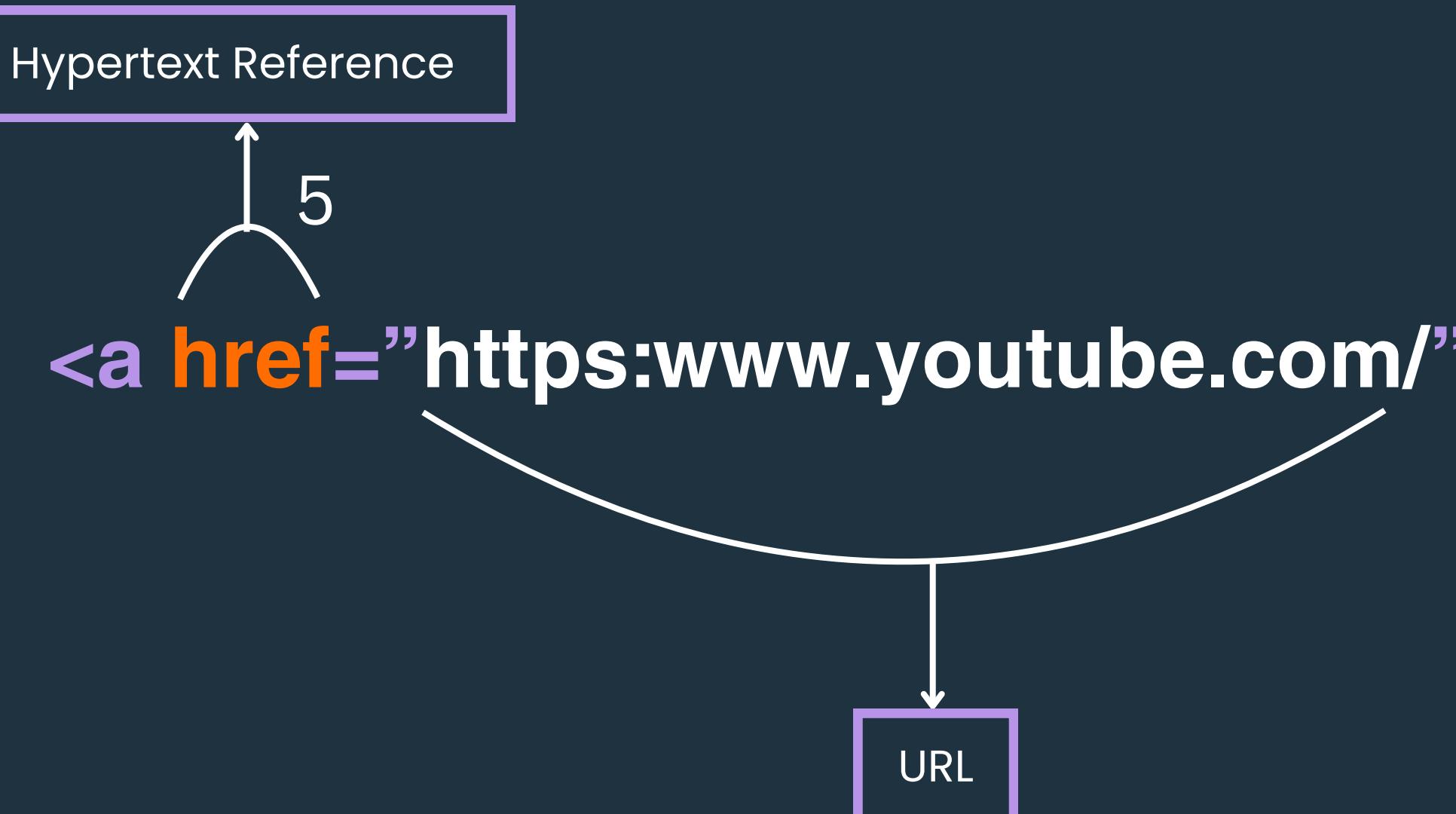
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1

HTML Anchor Tag

The `<a>` tag creates a hyperlink, which allows you to navigate from one page to another.



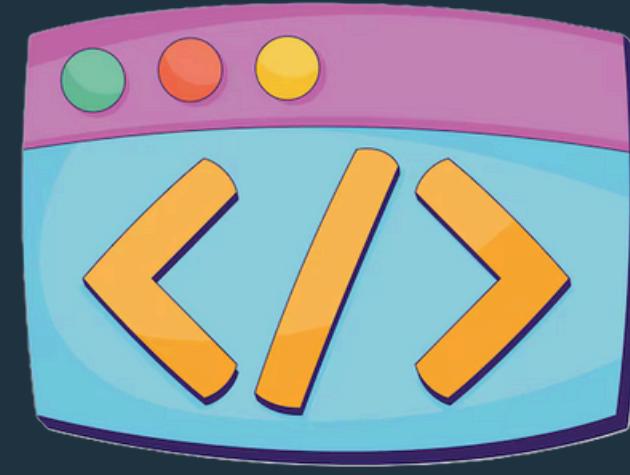
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HTML Entities

> Greater than sign (>)
< Less than sign (<)
' Single quotation mark (')
" Double quotation mark (")
& Ampersand (&)
 Non-breaking space ()
$ Dollar Sign (\$)
© Copyright symbol (©)
® Registered Symbol (®)
™ Trademark symbol (™)
♥ Heart symbol (♥)



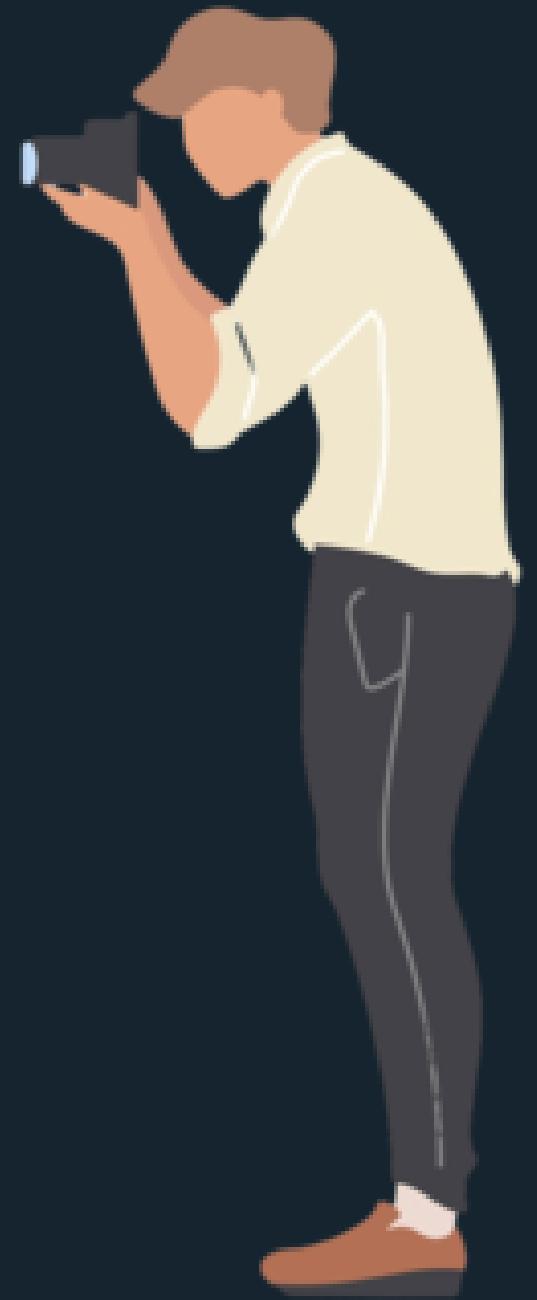
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HTML Image Tag

The tag is used to insert an **image** into an **HTML** page.

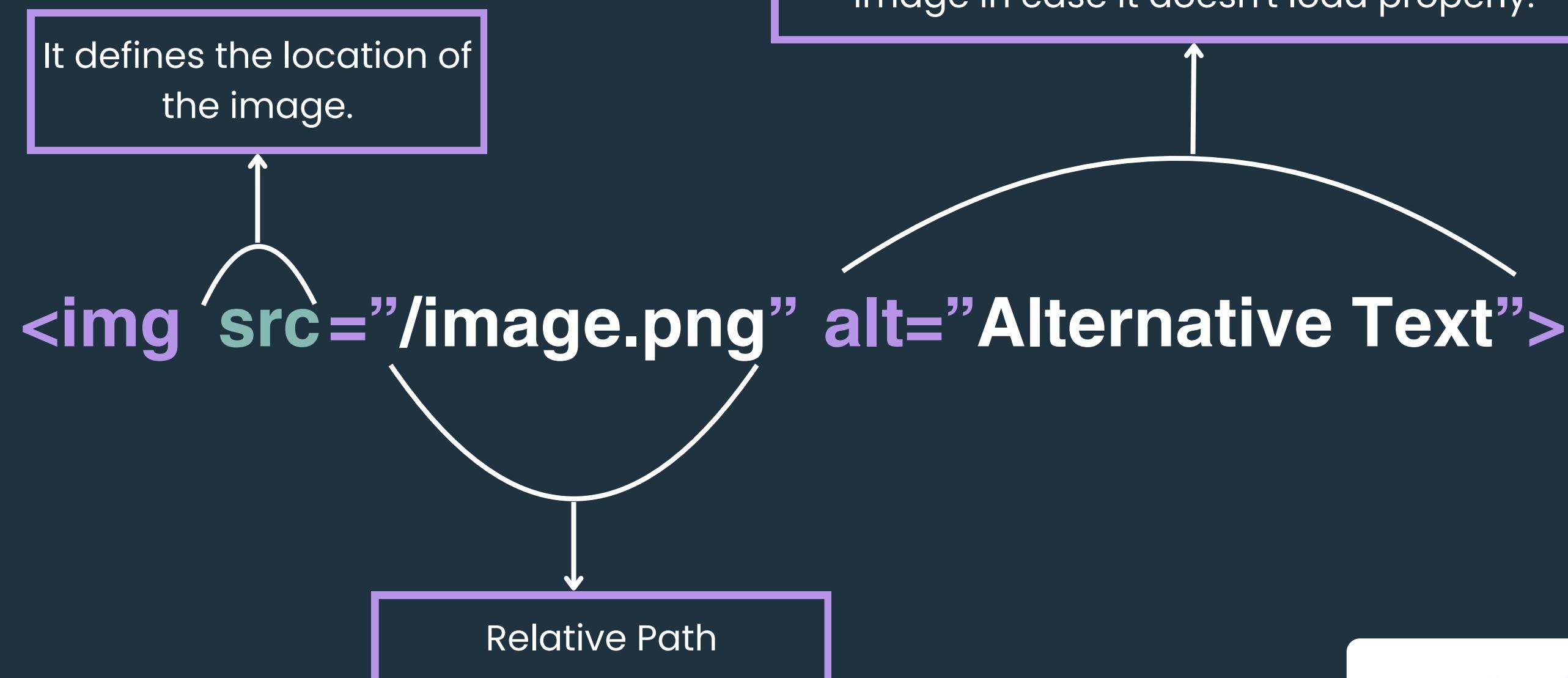


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HTML Image Tag



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Do You Know...

Void Elements / Empty Elements

Not all parts of a **web page follow** the standard pattern of having an **opening tag**, content, and a closing tag. Some elements only require a **single tag** to function properly. These are known as "**void elements**" or "**empty elements**".



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DID YOU
KNOW?

HTML Entities

- «area» Define a clickable area within an image map.
- «col» Defines the properties for columns within a table column group.
- «br» Represents a line break.
- «hr» Represents a horizontal rule.
- «img» Displays an image on the page.
- «input» Represents an input field.
- «meta» Contains information about the HTML document, such as its title, character set, etc.
- «source» Specifies multiple media resources for media elements like «audio» and «video».
- «link» Defines the connection between the current document and external resources, such as stylesheets or icons.



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HTML Picture Tag

The `<picture>` HTML element holds zero or more `<source>` elements and one `` element, providing **alternative image versions** for different displays or devices.

```
<picture>
```

```
  <source srcset="/hello.png" type="image/png">
  <source srcset="/hello.jpg" type="image/png">
  
```

```
<picture>
```



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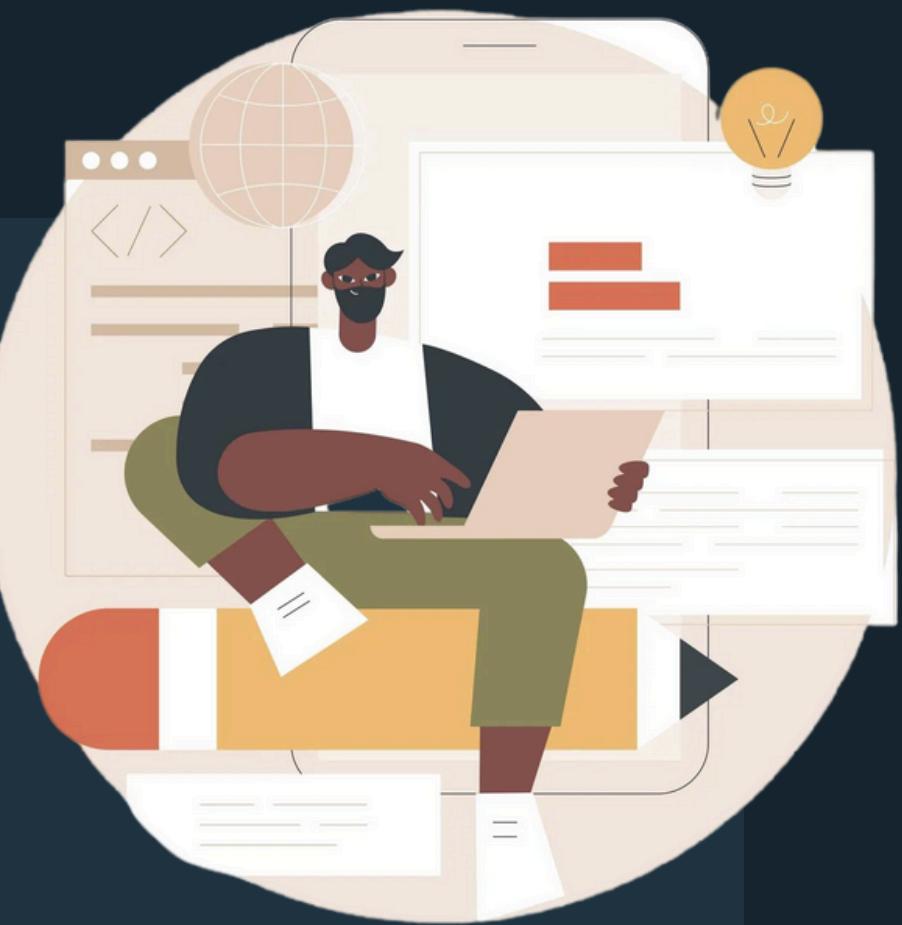


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HTML Figure Tag

The HTML `<figure>` element is used for self-contained content, often accompanied by an optional caption defined with the `<figcaption>` element.

```
<figure>  
    
  <figcaption> Best HTML Course </figcaption>  
</figure>
```



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Lists In HTML

Ordered Lists

An **ordered list** organizes items in a numbered sequence, showing a specific order.

```
<ol>
  <li> First item </li>
  <li> Second item </li>
  <li> Third item </li>
</ol>
```

Unordered Lists

An **unordered list** displays items without a specific sequence, with each item typically marked by a bullet point.

```
<ul>
  <li> Mango </li>
  <li> Orange </li>
  <li> Grapes </li>
</ul>
```



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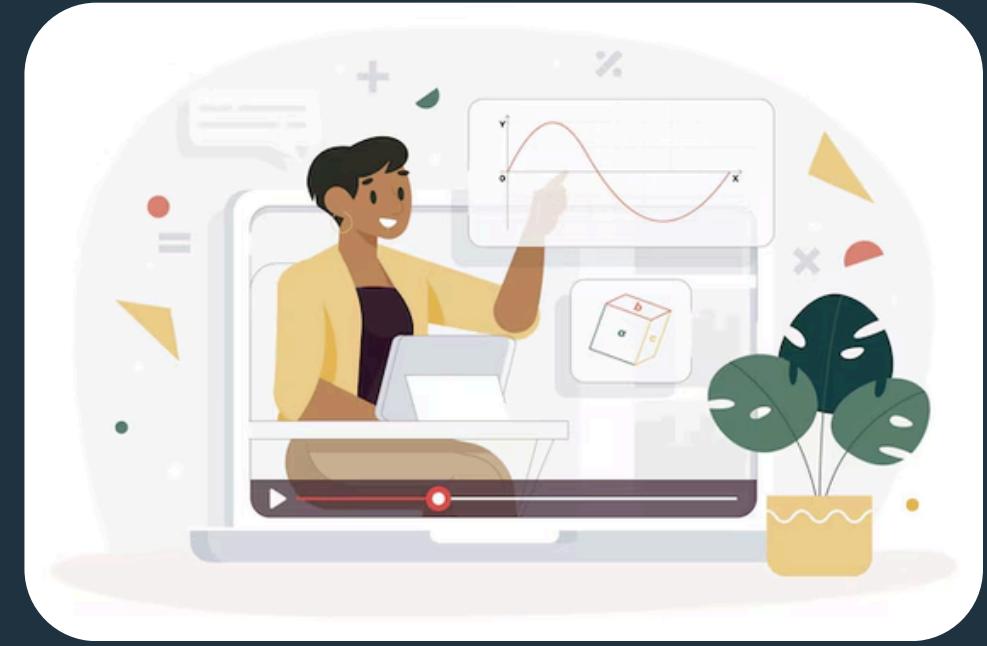
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HTML List Interview Question

Describe what nested lists are.

- Fruit
 - 1. Apple
 - 2. Banana
 - Red
 - Yellow
 - 3. Orange
- Vegetables
- Meat



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HTML Table Tag

HTML tables help web developers organize data into neat rows and columns. Everything needs to be placed within the <table> tag to create the structure.

- <table> Describes an HTML table, which is used to arrange data in columns and rows.
- <tbody> Groups the main content (table rows) of an HTML table.
- <thead> Groups the header content (table heading) of an HTML table.
- <th> Defines a header cell (table heading) within a table.
- <td> Represents a data cell within an HTML table.
- <tr> Defines a row within an HTML table.



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HTML Table Interview

Create a School time table in HTML.

Time Table					
Hours	Mon	Tue	Wed	Thu	Fri
	Math	Science	Math	Science	Arts
	Math	Science	Math	Science	Arts
	Lunch				
	Math	Science	Math	Project	
	Math	Science	Math		



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HTML iframe Tag

The <iframe> element in HTML lets you embed another webpage inside your current page, essentially creating a small window within your page that displays a different website.



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HTML iframe Interview

How to create a nested webpage in HTML?



The HTML iframe tag is used to embed one webpage inside another. In simple terms, it lets you display a webpage within a webpage.



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HTML Audio Tag

The `<audio>` element is used to embed audio content on a webpage. It supports multiple audio formats and includes controls for playing, pausing, and adjusting the volume of the audio.



```
<audio controls>
  <source src=".//audio/hello.mp3" type="audio/mpeg">
  <source src=".//audio/hello.wav" type="audio/wav">
</audio>
```

Your browser doesn't support the audio element.



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Do You Know...

List of Attributes:

Controls: Includes playback controls such as play, pause etc.

autoplay: Starts playing automatically.

loop: Loops the media continuously.

preload: Determines whether the media should be loaded as soon as the page loads.

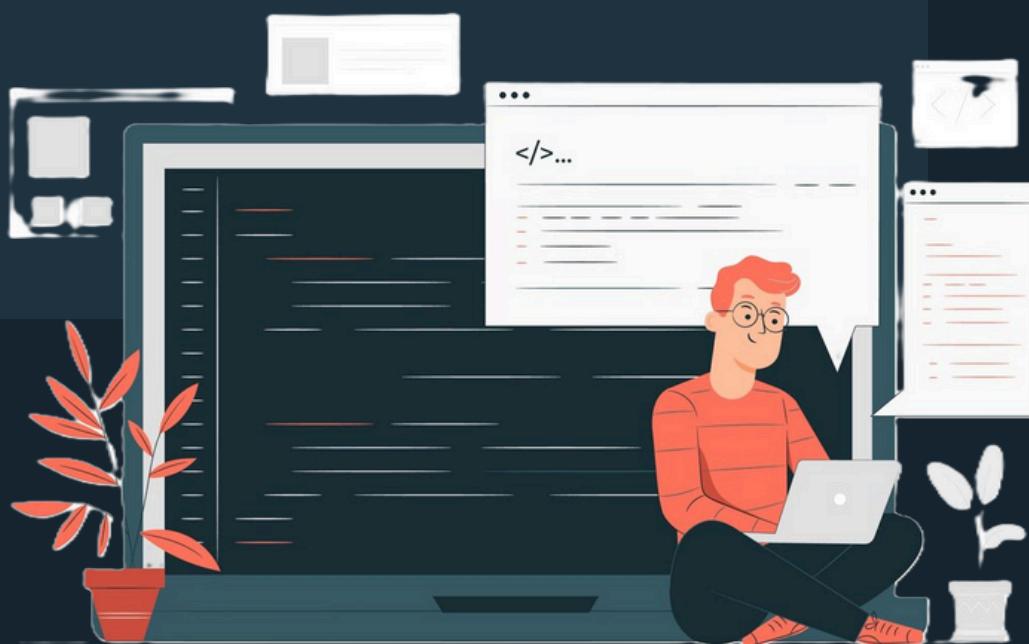
poster: Sets an image to appear before the media loads.



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HTML Video Tag

The <video> HTML element embeds a media player into the document that allows for video playback.

```
<video controls autoplay loop muted poster="./images/sun.png">  
  <source src="./videos/sunVideo1.mp4" type="video/mp4">  
  <source src="./videos/sunVideo1.mp4" type="video/mp4">  
    Your browser doesn't support the video element.  
</video>
```



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HTML Form Tag

The `<form>` tag is used to create a form in HTML where users can enter and submit data.

The `<input>` HTML element is used to create interactive controls in web-based forms, allowing users to enter data.



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HTML Form Tag

```
<input type="text" name="username">
```

attribute

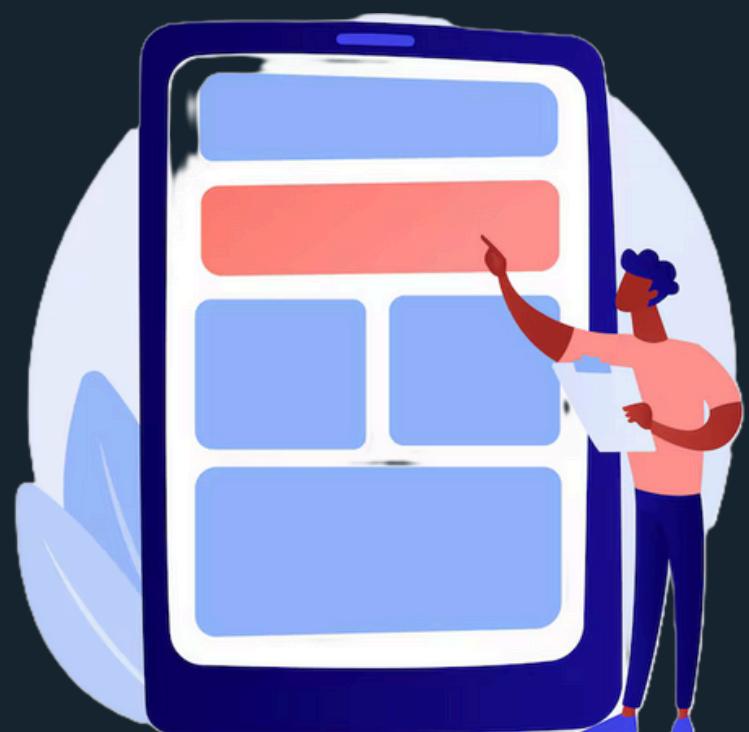
The name attribute specify the purpose of input field



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HTML Semantic Elements

What is semantic elements?

Semantic elements are HTML tags that have a clear meaning or purpose, both for the browser and the developer. They help describe the structure of the content, making it easier to read, understand, and maintain.



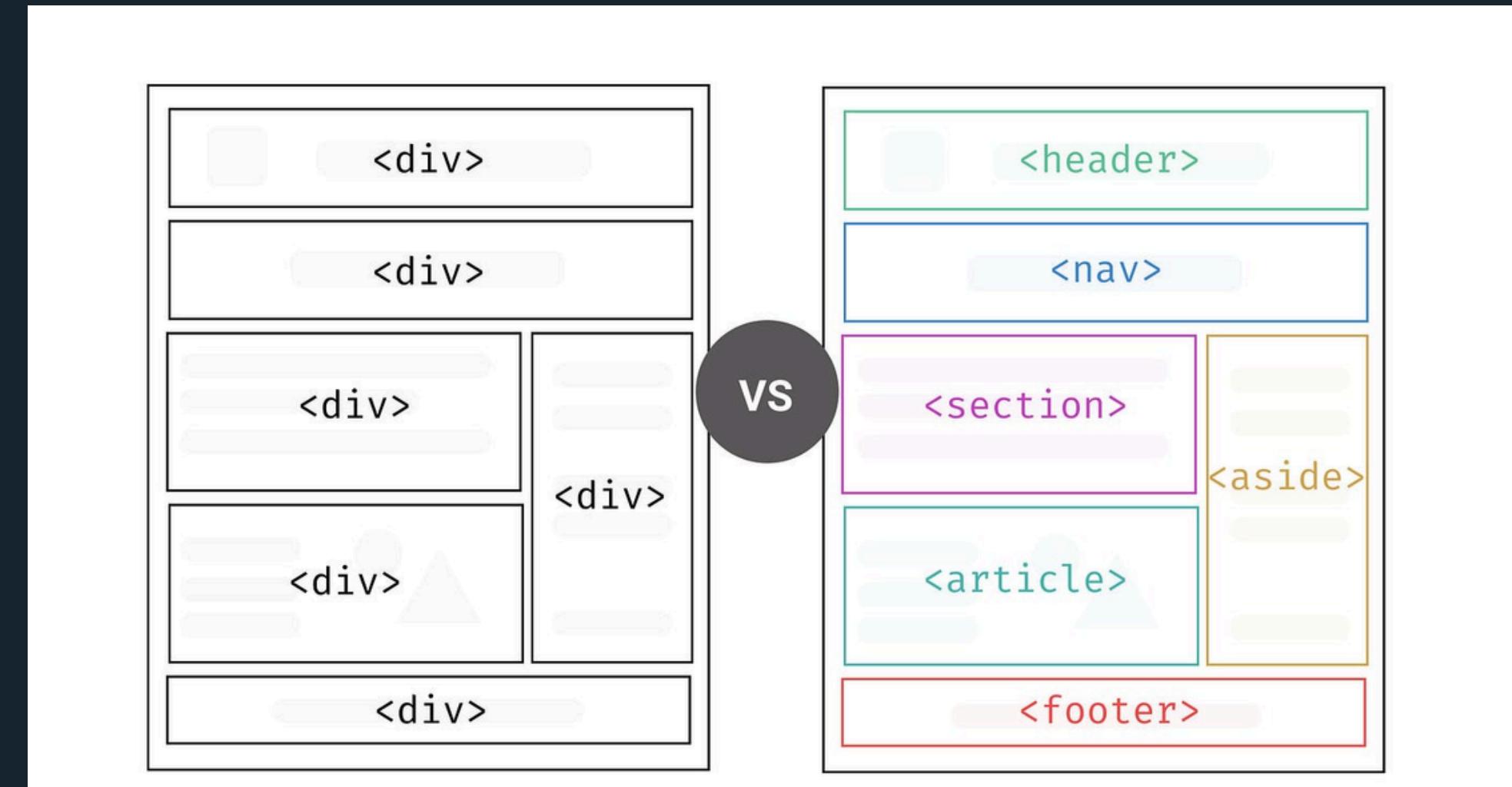
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HTML Semantic Elements



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HTML Meta Tags

Meta Tags for Metadata:

Meta tags are HTML elements that provide metadata about a webpage. These tags are placed within the `<head>` section of an HTML document and are not visible to users. Instead, they are used by browsers, search engines, and other web services to collect information about the page, such as its description, keywords, and author.



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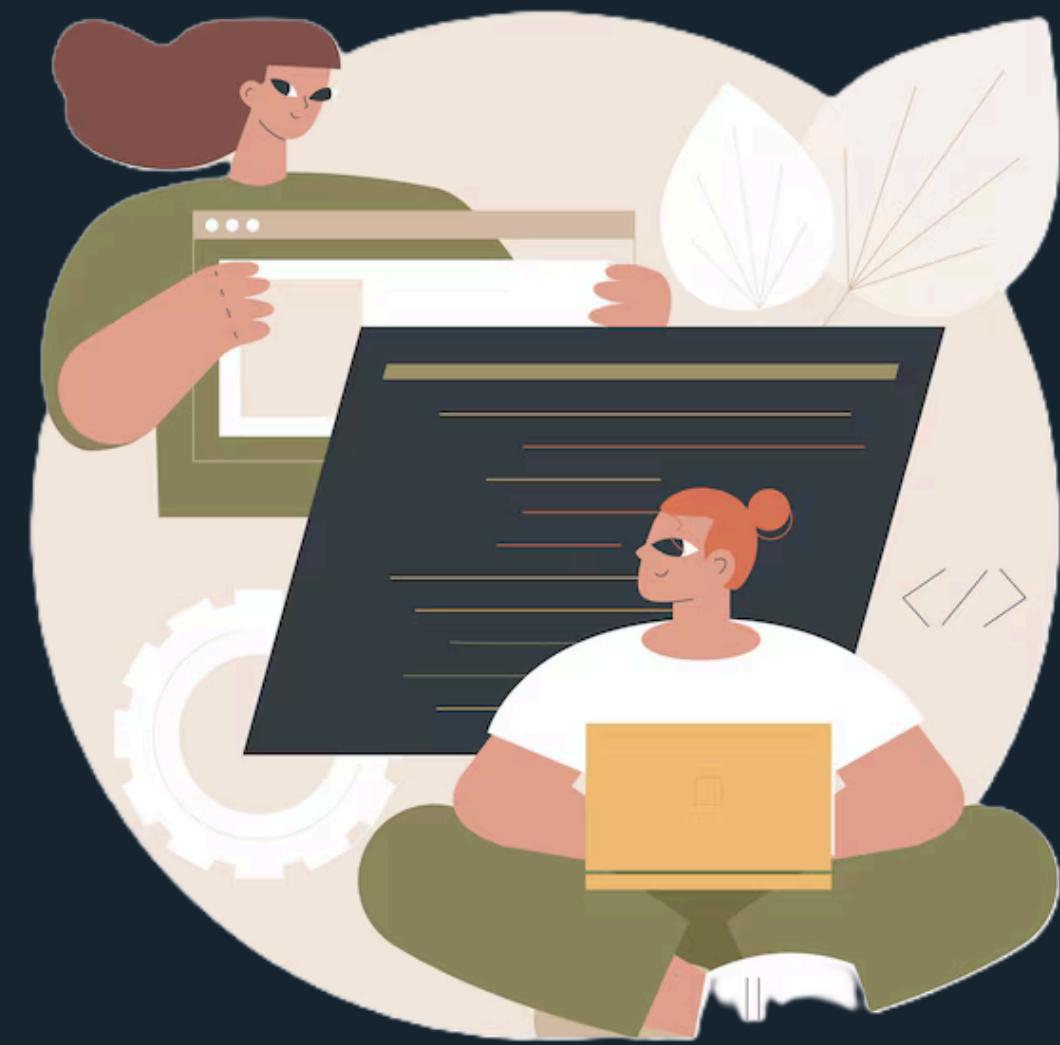
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HTML Meta Tags

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

Sets the viewport properties for responsive design.



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HTML SEO



High-Quality Content: Create valuable content that meets user's needs.

Keyword Research: Use relevant keywords naturally within your content.

Descriptive Titles: Use meaningful titles for your web pages inside the <title> tag.

Heading Tags: Use appropriate heading tags (h1, h2, etc.) to structure content.

Image Alt Text: Provide description for the images.

Internal Links: Use internal links to connect relevant content across your site.

External Links: Include links to reliable external sources where appropriate.

Mobile Friendly Design: Make sure your website is responsive for mobile devices.

Site Speed: Improve your website's loading speed to enhance the user experience.



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HTML FINAL PROJECT



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HOST HTML WEBSITE LIVE



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