HTML COURSE

BASICS

- How Website Works?
- HTML Document Structure
- HTML Tags and Elements
- HTML Headings
- HTML Paragraphs
- HTML Comments
- Text Formatting in HTML
- Links and Anchors
- Images in HTML
- Void Elements in HTML
- Lists in HTML
- Tables in HTML

How the web works

When user types in the address of a website

https://www.google.com

URL

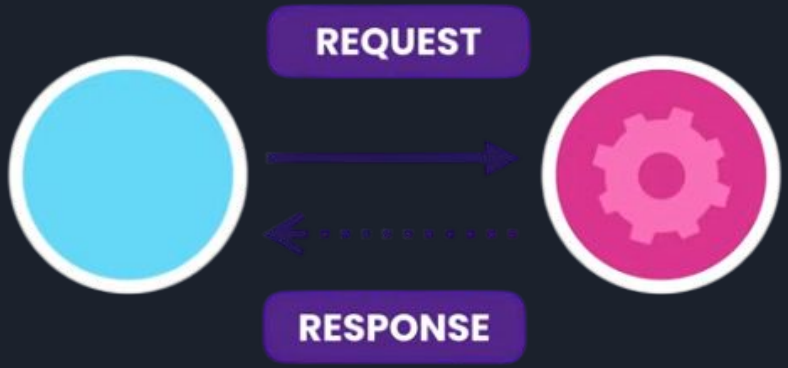
HTTP: Hypertext Transfer Protocol

HTTPS: HTTP + Encryption

CLIENT

SERVER

Resources: Webpages / Images / Video Files




```
HTTP/1.1 200 OK
Date: 1 Jan 2021 09:00
Content-Type: text/html

<!DOCTYPE html>
<html>
   …
</html>
```

HTML Response => DOM in browser

Inspect Network Traffic

- Developer Tools
- Docking Developer Tools
- Understanding a request
  - Remote Address
  - Content Type
  - Preview
- Using Filter

Gear

Code Editor : VS Code

Extensions: Prettier, Server

Download & Install Node.

HTML

HyperText MarkupLangauge

```
<p> Hypertext is text which contains links to other texts.</p>

<p> Markup Lang. it's a way to give instructions to a computer
about how content should be organized and displayed.</p>

<p> This is a <strong>bold</strong> text.</p>
```

HTML Document Structure

```
<!DOCTYPE html>
<html>
    <head>
        <title> Home page </title>
    </head>
    <body>
        <h1> Best HTML Course </hl>
    </body>
</html>
```

Let the browser know it's an HTML5. Appear once, at the top of the page

Root of an HTML Document

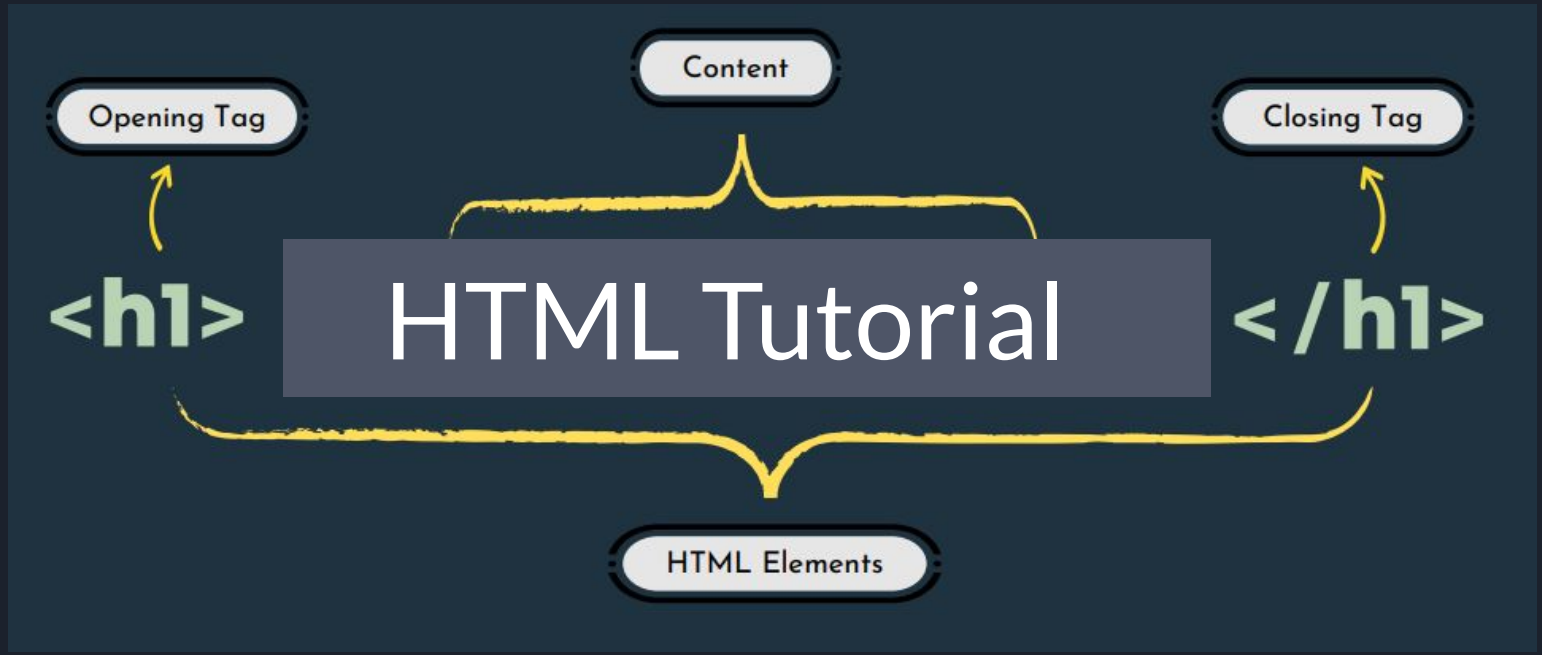
Contains the information about the HTML document

Title for the HTML page

Contains everything you want to display on the Web Page.

Defines a large heading

HTML Tags & Elements



Text Elements

<p> - Paragraph

**** - Inline Container

<a> - Anchor (Link)

**** - Strong Importance

<abbr> - Abbreviation

<mark> - Marked

<h1> to <h6> - Headings

<code> - Code

Link

- Linking to an External Website
- Opening a Link in a New Tab/Window (using target attribute)
- Linking to a Page Within the Same Website
- Linking to an Email Address
- Linking to a Specific Section Within the Same Page

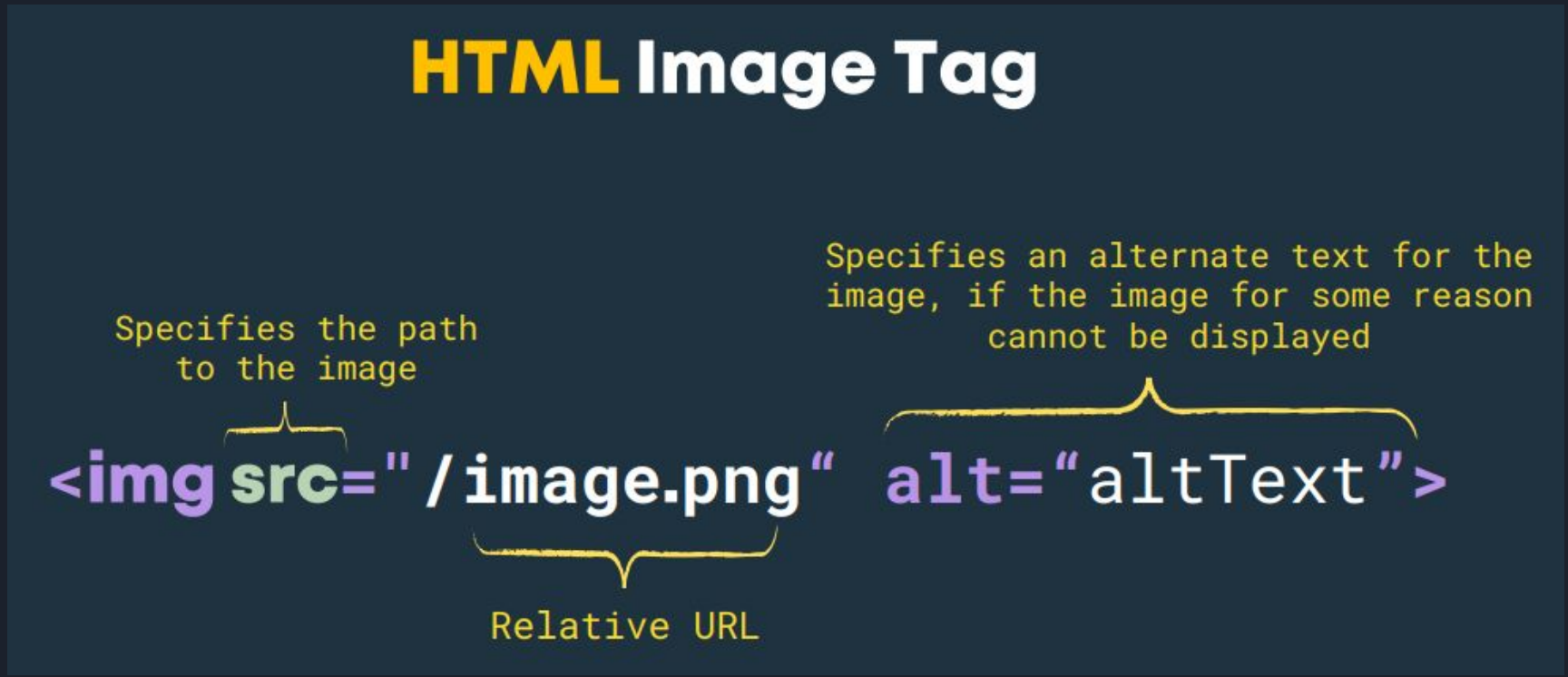
Anchor Tag

The tag defines a hyperlink, which is used to link from one page to another.

```
<a
href="https://github.com/devrampat/Training">Git</a>
```

```
<a href="mailto:info@example.com">Contact Us</a>
```

Image Tag


HTML Image Tag
Specifies the path to the image
Specifies an alternate text for the image, if the image for some reason cannot be displayed
<img src="/image.png" alt="altText">
Relative URL

Void Elements / Empty Elements

Not all parts of a web page use the usual pattern of having an opening tag, some content, and then a closing tag. Some parts only need a single tag to work. These are called "void elements” or “Empty Elements”.

**
** - Line break

<img> - Image Element

<input> - Input Element

<link> - Linking external docs

<meta> - Metadata

<embed> - Embed external content

Lists

Ordered Lists

An ordered list is used to create a list of items in a specific order, typically indicated by numbers.

Unordered Lists

An unordered list is used to create a list of items that are not in any particular order. Each list item is marked with a bullet point.

Assignment

Explain the concept of nested lists

Create a nested unordered list of product categories

Amazon.com

Tables

HTML tables allow web developers to arrange data into rows and columns. We must write everything inside the table tag.

<table> Element: Defines an HTML table, which is used to organize data into rows and columns.

<tbody> Element: Groups the main content (data rows) of an HTML table.

<thead> Element: Groups the header content (table headings) of an HTML table.

<th> Element: Defines a header cell (table heading) within a table.

<td> Element: Represents a data cell within an HTML table.

<tr> Element: Defines a row within an HTML table.

Assignment 1

TIME TABLE						
Hours	**Mon**	**Mon**	**Mon**	**Mon**	**Mon**	**Mon**
	Math	Math	Math	Math	Math	Math
	Science	Science	Science	Science	Science	Science
	Lunch					
	SST	SST	SST	SST	SST	Games
	CS	CS	CS	CS	CS	

Assignment 2

Create a Table of Products displaying 5 columns and 5 rows. Make all the table headers bold. Last row of the table should not have any columns. It should display Product details.(Footer Row).

Iframe tag

The <iframe> HTML element represents a nested browsing context, embedding another HTML page into the current one.

Assignment

Create an iframe in the HTML page and try to embed any other site in your HTML page.

Try to understand what problems you face.

Picture tag

The <picture> HTML element contains one or more <source> elements and one <img> element to offer alternative versions of an image for different scenarios/devices.

```
<picture>
  <source srcset="photo.avif" type="image/avif" />
  <source srcset="photo.webp" type="image/webp" />
  <img src="photo.jpg" alt="photo" />
</picture>
```

Form Tag

The <form> tag is used to create an HTML form for user input.

The <input> HTML element is used to create interactive controls for web-based forms to accept data from the user. We must write inside the tag.

Assignment

Create a Registration Form with below fields

First Name

Last Name

Email

Mobile

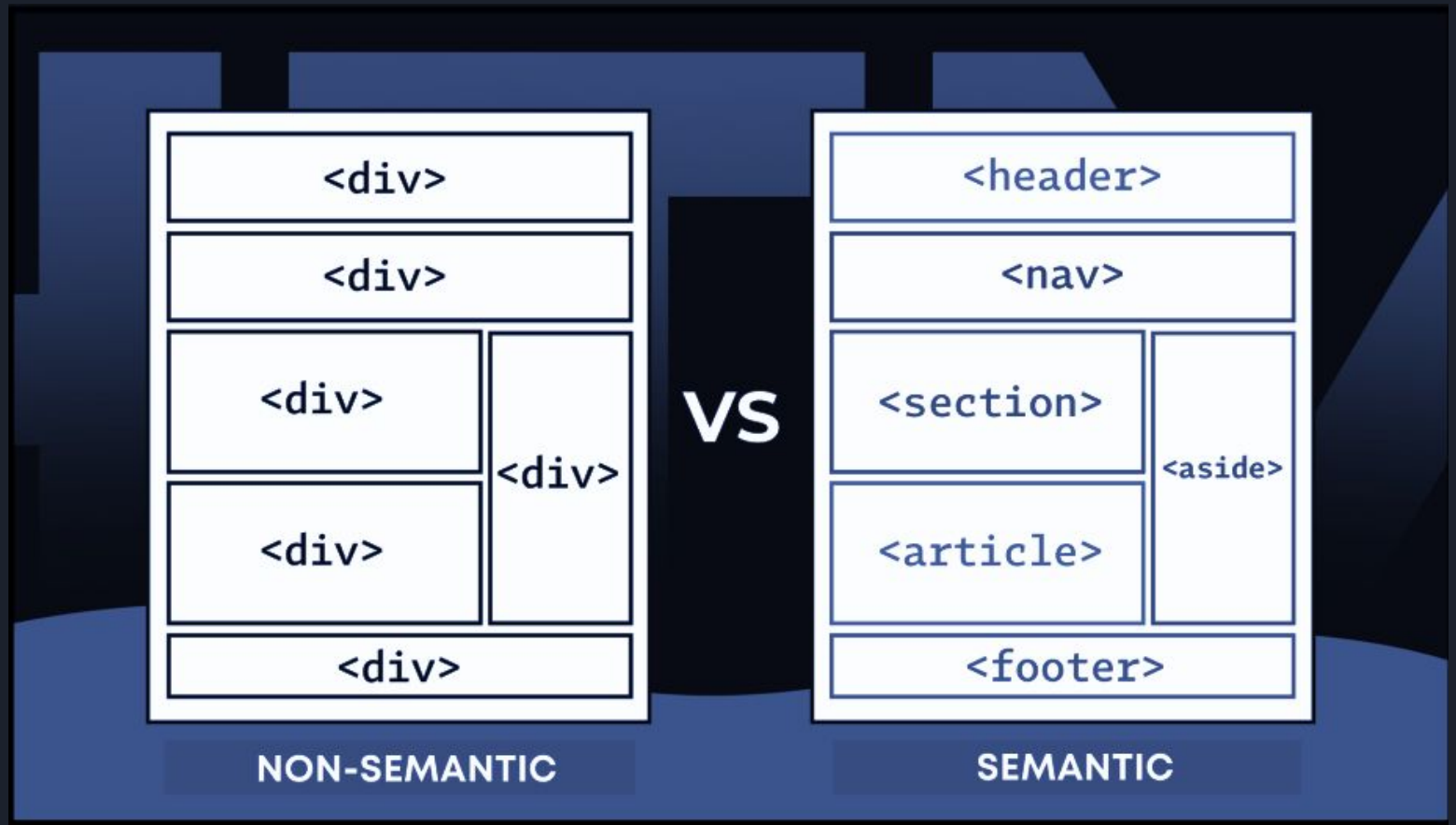
Password

Submit Button Cancel Button

HTML Semantic Elements

Semantic elements = elements with a meaning.

A semantic element clearly describes its meaning to both the browser and the developer.



VS
<header>
<nav>
<section>
<article>
<aside>
<footer>
NON-SEMANTIC
SEMANTIC

Meta Tag

Meta tags are HTML elements that provide metadata about a webpage. They are placed within the section of an HTML document and are not visible to users but are used by browsers, search engines, and other web services to gather information about the page

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

Sets the viewport properties for responsive design.

<meta charset="UTF-8">

Specifies the character encoding for the web page, ensuring proper rendering of characters.

<meta name="description" content="A brief description of the webpage">

Description of the page's content

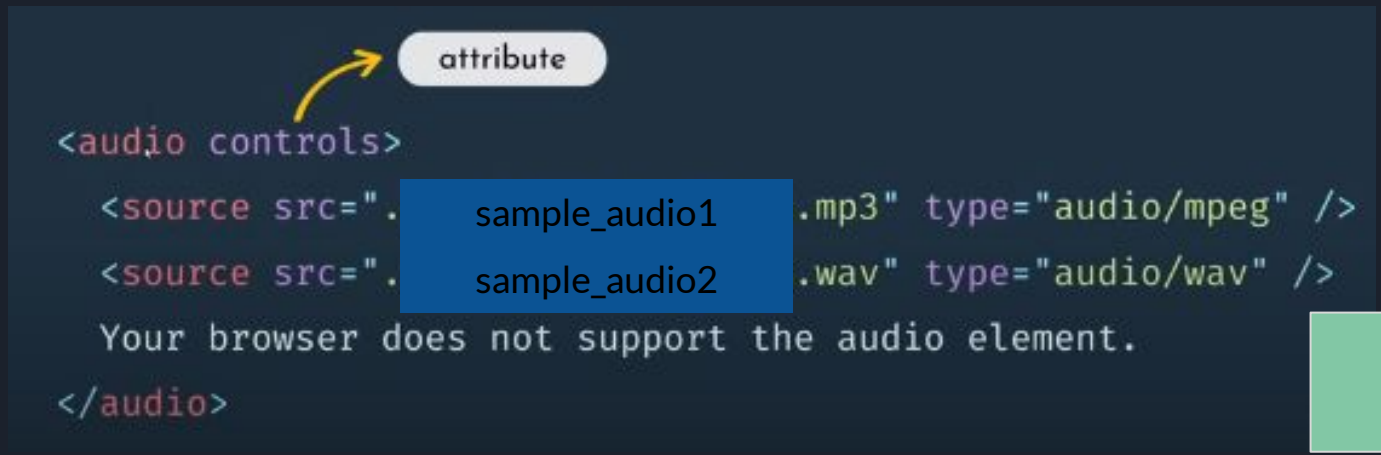
<meta name="keywords" content="keyword1, keyword2">

Relevant keywords for search engines

Audio Tag

The audio tag is used to embed audio content in a webpage.

It supports various audio formats and provides controls for playback



Video Tag

The video tag embeds a video player which supports video playback in the webpage.

```
<video controls autoplay loop muted poster="./images/html.png">
  <source src="source1.mp4" type="video/mp4" />
  <source src="sample_video.webm" type="video/webm" />
  Your browser does not support the video element.
</video>
```

Web Storage

Web storage refers to the various mechanisms available in web browsers for storing data locally within a user's browser. There are mainly two types of web storage commonly used:

1. Cookies
2. Web Storage APIs:
    a. Local Storage
    b. Session Storage

Cookies

Cookies are small pieces of data stored in the user's browser by websites. They are typically used to store user preferences, session information, and other data.

Cookies have limitations such as size (usually limited to 4KB), and they are sent with every HTTP request, which can impact performance.

Web Storage

Web Storage APIs provide a way to store key-value pairs locally in the user's browser.

Local Storage provides persistent storage, meaning the data stored will persist even after the browser is closed and reopened. Data stored in local storage remains available until explicitly cleared by the user or the website.

Session Storage session-based storage, meaning the data is available only for the duration of the page session. Once the user closes the tab or browser, the session storage data is cleared.

Geo Location

Allows web applications to access the user's geographical location information.

navigator.geolocation.getCurrentPosition()

Tutorial

Create a simple HTML Layout with header, footer and the content. Header should have a nav menu with links for ‘About’, ‘Contact Us’, ‘Products’. It should have a profile image(any) with a name aside. Once user clicks on About or any of the link in header it should take user to the respective page. Home page content should have heading ‘Home’ and same for respective pages. Home page should have a random text elements and content. Home page should have a nav menu ‘Section 1’, ‘Section 2’, ‘Section 3’. Each section should have a random content. Make use of random text generator. Each section when clicked should take user to that section directly.

Home page should have ‘Go to Top’ button at the last of page which should take user to the top of the page.