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Chapter 0:-

HTML (Hyper Text Markup Language)

Analogy 1

HTML is like a human skeleton

CSS is just like skin on the skeleton

Javascript is just like how brain imparts logic in us.

HTML is the language of the web.

It is used to create websites.

We use HTML tags to define look & feel of a website.

When why CSS & J.S.

HTML is used for defining layout of a page -

A barebone page structure.

CSS is used to add styling to that barebone page created using HTML.

JavaScript is used to program logic for the page layout eg. What happens when a user hovers on a text, when to hide or show elements, etc.

Analogy 2

HTML - Car body (only metal)

CSS - Car paint, decoration, etc.

J.S - Car engine + Interior logic

Chapter 1 :- Creating our first website

We start building a website by creating a file named index.html, which is a special filename which is presented where the website root address is typed.

A Basic HTML page.

`<!DOCTYPE html>` → specifies this is an HTML5 doc.
`<html>` → root of an HTML page
`<head>` → contains page metadata.
`<meta charset = "UTF-8">` → encoding of this page is UTF-8

`<title> Mrunal's Website </title>` → contains title

`</head>`

`<body>` → the main body of the page (rendered by browser)

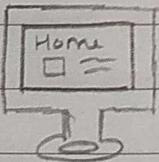
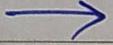
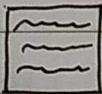
`<h1> This is a heading </h1>` → heading tag

`<p> My paragraph </p>` → paragraph tag

`</body>` → closing body tag

`</html>`

A tag is like a container for either content or other HTML tags.



HTML doc.

Browser

Rendered page

Imp Notes:-

1. Head & body are children of HTML tag.
2. HTML is the parent of Head & Body tag.
3. Most of the HTML elements have opening & closing tag with content in b/w opening & closing tags.

4. Some HTML tags have no content. These are called empty tags eg. `
`, `<hr>`
5. We can either use .htm or .html extension.
6. You can use "Inspect Element" or "View Page Source" option from chrome to look into a website's HTML code.

Comments in HTML

- Comments in HTML are used to mark text which should not be parsed
- They can help document source code.
`<!-- HTML comment -->`

Care sensitivity

HTML is a case insensitive language.

`<H1>` & `<h1>` tags are the same.

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Chapter 2- Basic HTML tags.

We can add elements inside the body tag to define the page layout.

HTML elements

Everything from starting to the ending tag.

<body> → opening tag

→ content ←

</body> → closing tag.

HTML attributes.

Used to add more information corresponding to an HTML tag.

Eg. ` Harry `

↑ ↑
anchor tag href attribute

We can either use single or double quotes in attribute.

The heading tag

Heading tag is used to mark headings in HTML.

From h1 to h6 , we have tags for the most important to the least important headings.

<h1> Most important heading </h1>

<h2> Next heading </h2> Note:- We should not use

<h3> Next heading </h3> HTML headings to make

<h4> next heading </h4> text thick or bold.

<h5> next heading </h5>

<h6> least </h6>

The paragraph tag.

Paragraph tags are used to add paragraphs to an HTML page.

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

The Anchor tag.

The Anchor tag is used to add links to an existing content inside an HTML page

` Click me `

The img tag

img tag is used to add images in an HTML page.

``

Bold, italic & underline tags.

We can use bold, italic & underline tags to highlight the text as follows:-

` This is bold `

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

`<u> This is underline </u>`

br tag

The br tag is used to create line breaks in an HTML document.

big & small tags

We can make the text a bit larger & a bit smaller using big & small tags respectively.

hr tag

hr tag in HTML is used to create a horizontal ruler often to separate the content.

Subscript & superscript

We can add subscript & superscript in HTML as follows:-

`_{this} is subscript`

`^{this} is superscript.`

pre tag

HTML always ignores extra spaces & newlines. In order to display a piece of text as is, we use

pre tag

<pre>

This is written

using pre

tag

</pre>

Rendered as it is

Chapter 3 Creating a page layout

When we use the right tag in right place, it results in a better page layout, better indexing by search engines & better user experience.

We use the following tag to get the job done

`<header>` } contains row tag
`<main>` } Website layout
`<footer>`

Inside the main tag we insert the following tags:-

semantic tag

- {
 <main> → The main opening tag
- <section> → A page section
- <article> → a self contained content
- <aside> → content aside from the content (eg. Ads, etc)

link attributes

[Contact Us](/contact) [Contact Us](/contact)

We can put any content inside an anchor tag (images, headings, etc.) are all allowed).

If the page is inside a directory, we need to make sure that we link to the correct page.

↳ same applies to img tag as well.

The div tag.

`div` tag is often used as a container for other elements.

↳ always takes full width

The span tag
span is an inline container.

↳ Takes as much width as necessary

Chapter 4 Lists, tables & forms

lists

lists are used to display content which represents a list

Unordered list: Used to list unordered items

 item 1 item 2 item 3

list item → Home

 About

:

Ordered list: used to list ordered items.

 Phone

 PC

 Laptop

Tables

The table tag is used to define table in HTML.

It is used to format & display tabular data.

tr tag: used to display table row

td tag: used to display table data

th tag: used in place of table data for displaying table headers.

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We can define as many table rows as we need.

- * To add a caption to the table, we use `<caption>` tag inside table

`thead` tag: used to wrap table head (caption & `<tr>` with `<th>`)

`tbody` tag: used to wrap the table body.

`colspan` attribute

This attribute is used to create cells spanning multiple columns

`<th colspan = "3"> Mrunal </th>`
↳ spans 3 columns.

HTML forms

An HTML form is used to collect input from the user `form` tag is used for the same.

`<form>`

-- Element of the form --

`</form>`

There are different form elements for different kinds of user input

`input` element: can be of type `text`, `checkbox`, `radio`, `button` & `submit`. We also have a '`file`' type.

`textarea` element: Defines a multiline text input

`cols` & `rows` attribute can be used to size the `text-area`

`Select` element: Defines a drop down list

Embedding videos

`Video` tag is used to play videos in HTML.

`<video src = "hamy.mp4"> Error </video>`

Attributes for videos

We can use:

- Width: To adjust width of a video (Height automatically adjusts)
- We can use autoplay/loop to autoplay or loop the video.

Chapter 5 SEO (Search Engine Optimization)

We will focus only on HTML standpoint of SEO.
We will not be looking into keyword building & content optimization - aspect of SEO.

Types of SEO

- On page SEO → can be done by HTML developers
- Off page SEO

HTML SEO

HTML developers can implement SEO using the following techniques:

- 1) Set the title very nice & to the point.
- 2) Set the meta description
`<meta name="description" content="...">`
- 3) Set a nice URL slug
- 4) Set the meta Keywords tag.
- 5) Set the meta author tag
`<meta name="author" content="Harry">`
- 6) Set a favicon
- 7) Compress images/ other resources.
- 8) Remove unused HTML/CSS
- 9) Add alt text to images.