HTML

→ Hyper text Markup Language

→ It is a language of the website. It is used to create it

→ • HTML is used for defining layout of a page
 • CSS is used to add styling in the page
 • Javascript is used to program logic for the page.

A Basic HTML

```
<! DOCTYPE html> → Specifies it is an html 5 doc
<html> → root of an HTML page
<head> → contains page metadata
<title>..</title> → contains title
</head>
<body> → The main body of the page (rendered in browser)
<h1>...</h1> → heading tag
  :
<h6>..</h6>
<p> </p> → paragraph tag
</body> → closing body tag
</html> → closing html tag
```

→ We can either use .htm or .html extension.

HTML element = Start tag + Content + End tag

* Comment in HTML

```
<!-- HTML Comment -->
```

* Case Sensitivity

→ HTML is a case insensitive language

→ `<H1>` & `<h1>` tags : both are same.

* HTML Element

→ Everything from starting to the ending tag

```
<body>  → opening tag
→ content ←
</body> → closing tag
```

* HTML Attributes

→ It is used to add more information corresponding to an HTML tag.

Example : `<a href = "www.google.com"> Google </a>`
         anchor   href
         tag   attribute

HTML Tags

(1) `<html>..</html>` → Specifies an html doc

(2) `<head>` → Specifies head section of an HTML document

(3) `<title>` → It is present in head section. Specifies the title of the web page.

(4) `<body>` → Specifies the main content of an HTML

(5) `<div>` → It is short for "division", is a fundamental block-level element used for creating sections or divisions within a webpage.

(6) `<span>` → Unlike div, span tag does not start on a new line and only takes up as much width as its content requires.

(7) heading tag → `<h1>..<h6>` heading tag is used to mark headings in HTML. from h1 to h6, we have tags for the most important to least important heading

(8) Paragraph tag `<p>` → It is used to add paragraph to an HTML page

(9) The anchor tag `<a>` - It is used to add find link to an existing content inside an HTML page

10.) <img> tag →

→ img tag is used to add images in an HTML page:-

<img src = "image.jpg">
      ↳ relative url of an image.

11.) Bold, italic & Underline tag

    ...
   <i> ... </i>
   <u> ... </u>

12.) br tag

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

13.) big & Small tg

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

14.) hr tag

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

15) Subscript & Superscript

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

$\langle sub \rangle$ --- $\langle /sub \rangle$ ⟶ subscript
$\langle sup \rangle$ --- $\langle /sup \rangle$ ⟶ superscript.

16) Pre tag

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

```
<pre>
    Nitin is
    very good
    boy.
</pre>
```
Output>> Nitin is
very good
boy.

Web browser

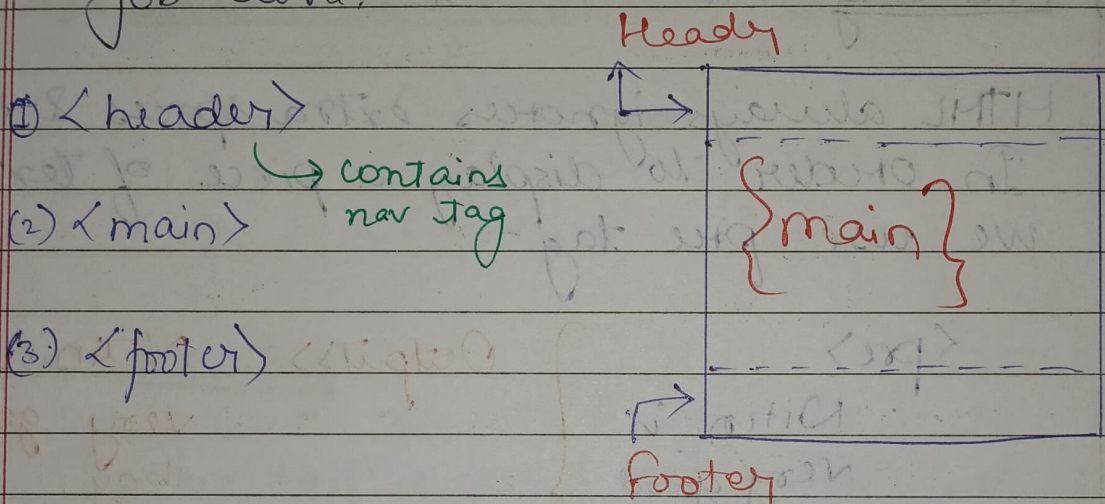→ Unlike other programming, HTML doesn't show output on the any compiler.

→ Web browser reads HTML files & determine how to show content with help of HTML tags.

→ Any web browser can be used to open a `.html` or `.htm` file & view the results.

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:-

① <header>
    ↳ contains nav Tag

(2) <main>

(3) <footer>

Header
↑
{main}

footer

→ Inside the main Tag we insert the following tags:-

    <main> → The main opening tag
    <section> → A self page section
    <article> → A self contained content
    </main> → The main closing tag
    <aside> → content aside from the content
        (eg: Ads etc)

→ Creating a page like this is not necessary but it creates a readable & structured layout.

→ Also, they are useful for SEO.

Link attributes

`<a href = "/contact"> Contact us </a>`
↳ Contact page will open in same tab.

`<a href = "/contact" taget = "_blank"> Contact us</a>`
↳ Contact page will open in an new tab.

The Div tag

`<div>` tag is often used as a container for another elements div is a block level element.
↳ Always takes full width.

The span tag

`<Span>` tag is an inline container
↳ Takes as much width as necessary

Eg: `<div> <p> Hello World! </p> </div>`   `</spam>`
`<Span> <p> my name is Nitin Chauhan <Ip></div>`

```
┌─────────────── div ───────────────┐
│  Hello World!                      │
│  My name is Nitin Chauhan          │
│                                    │
│          Spam                      │
│                                    │
│                                    │
└────────────────────────────────────┘
```