HTML
(Hypertext Markup Language)

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Introduction of HTML

- HTML stands for Hyper Text Markup Language. It is used to design web pages using markup language. HTML is the combination of Hypertext and markup Language .Hypertext defines the link between the web pages. Markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer)text so that a machine can understand it and manipulate text accordingly. Most of markup languages are human readable. Language uses tags to define what manipulation has to be done on the text.HTML is a markup language which is used by browser to manipulate text, images and other content to display it in required format.

Why Learn HTML?

- It is a simple markup language. Its implementation is easy.

- It is used to create a website.

- Helps in developing fundamentals about web programming.

- Boot professional career.

- There are excellent editors on the market that will take care of the HTML Parts. All you need to do is layout the page.

- Web designer looking to understand how things get built .

Who and how discovered HTML

- In 1980, physicist **Tim Berners-Lee,** a contractor at CERN,proposed and prototyped ENQUIRE, a system for CERN researchers to use and share documents. In 1989, Berners-Lee wrote a memo proposing an Internet based Hypertext system. Berners-Lee specified HTML and wrote the browser and server software in late 1990. That year, Berners-Lee and CERN data systems engineer **Robert Cailliau** collaborated on a joint request for funding, but the project was not formally adopted by CERN. In his personal notes from 1990 he listed "some of the many areas in which hypertext is used" and put an encyclopedia first.

Version of HTML

HTML Version	Year
HTML 1.0	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML 5	2014

Features of HTML

- It is easy to learn and easy to use.
- It is platform independent.
- Images, video and audio can be added to a web page.
- Hypertext can be added to text.
- It is a markup language.
- It is not case sensitive language.
- Design forms for concluding transactions with remote services, for use in searching for information, marketing reservations, ordering products, etc.

Advantages of HTML

- HTML is used to build a websites.
- It is supported by all browser.
- HTML is Lightweight.
- It can be integrated with other languages like CSS, JavaScript etc.
- Fast to download because the text is compressible.
- It's plain text so it's easy to edit.
- HTML is User-Friendly.
- HTML is most search engine friendly.

Disadvantages of HTML

- HTML can create only static webpages so for dynamic webpage other languages have to be used.

- Large amount of code has to be written to create a simple web page.

- Security feature is not good.

- It takes a lot of time to create anything that even resembles a webpage.

- Linking in HTML is rudimentary.

- Difficult to found mistake.

- Sometimes, the structuring of HTML documents is hard to grasp.

Page structure of HTML

```
<!DOCTYPE html>          ←————————————  Tells Version of HTML
<html>          ←————————  HTML root element
    <head>          ←————————  Used to contain page HTML metadata
        <title>Title of Page</title>          ←————————  Title of HTML Page
    </head>
    <body>          ←————————  Hold content of HTML
        <h1>Headline</h1>          ←————————  A HTML Heading tag
        <p>This is a paragraph.</p>
</body>
</html>
```

- **HTML page Structure:** The Basic structure of HTML page is given below. It contain some elements like head, title, body, …etc, These elements are used to build the blocks of web pages.

- **<DOCTYPE!html>:** This tag is used to tells the HTML version. This currently tells that the version. This currently tells that the version is HTML 5.

- **<head>:** Head tag contains metadata, title, page CSS etc. All the HTML elements that can be used inside the <head> elements are:

  <style>

  <title>

  < base>

  <noscript>

<script>

<meta>

<title>

- **<body>:** Body tag is used to enclosed all the data which a web page has from texts to links.All of the content that you see rendered in the browser is contained within this elements.

Types of HTML Tags

- Types of HTML Tags
  - Formation Tags
  - Form & input Tags
  - Frame tags
  - Link Tag
  - Image Tag
  - List Tag
  - Style Tag
  - Table Tag
  - Scripting Tag
  - Section Tag
  - Basic Tag

Basic Tags

Tag	Description
<!DOCTYPE>	Defines the document type
<html>	Defines an HTML document
<head>	Defines information about the document
<title>	Defines a title for the documents
<body>	Defines the document's body
<h1> to <h6>	Defines HTML headings
<p>	Defines a paragraph
 	Inserts a single line break
<hr>	Defines a thematic change in the content
<!--...-->	Defines a comment

Table Tags

Tag	Description
<table>	Defines a table
<caption>	Defines a table caption
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table
<col>	Specifes column properties for each column within a <colgroup> element

Style and Semantics Tags

Tag	Description
<u><style></u>	Defines style information for a document
<u><div></u>	Defines a section in a document
<u><span></u>	Defines a section in a document
<u><header></u>	Defines a header for a document or section
<u><footer></u>	Defines a footer for a document or section
<u><main></u>	Specifies the main content of a document
<u><section></u>	Defines a section in a document
<u><article></u>	Defines an article
<u><aside></u>	Defines content aside from the page content

Lists Tags

Tag	Description
	Defines an unordered list
	Defines an ordered list
	Defines a list item
<dir>	Not supported in HTML5. Use instead. Defines a directory list
<dl>	Defines a description list

Image Tags

Tags	Description
<u><img></u>	Defines an image
<u><map></u>	Defines a client-side image-map
<u><area></u>	Defines an area inside an image-map
<u><canvas></u>	Used to draw graphics, on the fly, via scripting(usually JavaScript)
<u><figcaption></u>	Defines a caption for a <figure> content
<u><figure></u>	Specifies self-contained content
<u><picture></u>	Defines a container for multiple image resources
<u><svg></u>	Defines a container for SVG graphics

Link Tags

Tags	Description
<u><a></u>	Defines a hyperlink
<u><link></u>	Defines the relationship between a documents and an external resources (most used to link to style sheets)
<u><nav></u>	Defines navigation links

Unordered List(UL)

- An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML **<ul>** tag. Each item in the list is marked with a bullet.

- **Example:**

<html>

<body>

<h2>HTML Unordered List</h2>

Coffee

Tea

Milk

```
</ul>
</body>
</html>
```

Output:

An Unordered HTML list

- Coffee

- Tea

- Milk

Ordered List(OL)

- If you are required to put your items in a numbered list instead of bulleted, then HTML ordered list will be used. This list is created by using **<ol>** tag. The numbering starts at one and is incremented by one for each successive ordered list elements tagged with <li>.

- **Example:**

<html>

   <head>

    <title>HTML Ordered List</title>

   </head>

   <body>


```html
      <li>Beetroot</li>
      <li>Ginger</li>
      <li>Potato</li>
       </ol>
      </body>
 </html>
```

Output:
1. Beetroot
2. Ginger
3. Potato
4. Radish

\<dl\> \<dt\> \<dd\>

- HTML and XHTML supports a list style which is called definition lists where entries are listed like in a dictionary or encyclopedia. The definition list is the ideal way to present a glossary,list of terms, or othername/value list.

❑ \<dl\> - defines the start of the list

❑ \<dt\> - A term

❑ \<dd\> - Term definition

❑ \</dl\> - Defines the end of the list

- Example:

```
<html>
    <head>
        <title>HTML Definition List</title>
    </head>
    <body>
    <dl>
            <dt><b>HTML</b></dt>
    <dd>This stands for Hyper Text Markup Language</dd>
            <dt><b>HTTP</b></dt>
```

```
      <dd>This stand for Hyper Text Tranfer Protocol</dd>
      </dl>
    </body>
</html>
```

Output:

HTML

    This stands for Hyper Text Markup Language

HTTP

    This stands for Hyper Text Transfer Protocol

THANK YOU