**HTML**

* HyperText Markup Language
* **Markup Language**
  + Consists of
    - Tag
    - Data/Content
      * Information enclosed by opening and closing tag
      * E.g.
        + <body>hello world!!</body>
        + Where

<body>: opening tag

hello world!!: Data / Content

</body>: closing tag

* + NOT used for programming
* The latest standard is HTML5
  + To add html5 code, start the document with
    - <!DOCTYPE html>
  + DOCTYPE: document type (tag used to start the html document)
* Usage
  + Used for designing web pages
* Case in-sensitive
* To add comment
  + <!-- comment -->

**Tag**

* Word enclosed by < and > signs
* Also called as an element
* All tags in HTML are pre-defined by W3C
* E.g. <h1>, <p>, <table>
* Types
  + Opening
    - Used to open a data/information
    - E.g. <h1>, <p>, <html>
  + Closing
    - Used to close the data/information
    - E.g. </h1>, </p>, </html>
  + Empty
    - Tag having no data/content
    - Two ways
      * <tag></tag>
      * <tag />
    - E.g. <br/>, <hr/>
  + Root
    - Tag which starts and ends the document
    - Is also called as Document Type or Document Tag or Document Element
    - E.g. <html> is root tag for html document
* **Attribute**
  + Extra information about the tag
  + Attribute always present in
    - name=value format
    - E.g. <meta charset=”utf-8”>
      * Where
        + Meta: tag
        + Charset: attribute name
        + Utf-8: attribute value
  + A tag may have one or more attributes
  + Every tag has following attributes
    - name: used to create query string
    - id: used to identify an element uniquely
    - style: used to write inline css
    - class:

**HTML Structure**

* Has two parts
  + Head
    - Contains extra information about the page
    - Tags:
      * title: used to set the title for the tab
      * script: used to add JS code in the page
      * style: used to add CSS code
      * meta: used to add more information about the page
      * link: used to link external documents (files)
      * base: used to set the base url used in the page
  + Body
    - Contains the actual design
    - Categories
      * **Textual**
        + Header: used to add header in page

There 6 levels

Tags: h1 to h6

H1 is the biggest while h6 is the smallest

* + - * + Paragraph (<p>): used to add a para
        + Division(<div>): used to create groups of

Tags

Textual contents

* + - * **Resources**
        + Images:

Img: used to add image

src: specify the source

alt: used to alternative text (rendered only in case of missing source)

* + - * + Audio

Audio: used to play audio

controls: to render controls

autoplay: to play the file automatically

src: to set the file to play

* + - * + Video

Video: used to play video

controls: to render controls

autoplay: to play the file automatically

src: to set the file to play

* + - * **List**
        + Unordered list

Does not render the order

Syntax:

<ul>

<li>list item1</li>

<li>list item2</li>

</ul>

* + - * + Ordered list

Renders the list item order

Syntax:

<ol>

<li>list item1</li>

<li>list item2</li>

</ol>

* + - * + Definition list

Used to create list of definitions

Syntax:

<dl>

<dt>term 1</dt>

<dd>definition 1</dd>

<dt>term 2</dt>

<dd>definition 2</dd>

</dl>

* + - * **Table**
        + Used to create tabular representation
        + Divided into 3 sections

Header

Use <thead> (table header)

Body

Use <tbody> (table body)

Footer

Use <tfoot> (table footer)

* + - * + To create row

Use <tr>

* + - * + To create column

In header

Use <th> (table header column)

In Body and Footer

Use <td> (table data)

* + - * + E.g.

<table>

<thead>

<tr>

<th></th>

</tr>

</thead>

<tbody>

<tr>

<td></td>

</tr>

</tbody>

<tfoot>

<tr>

<td></td>

</tr>

</tfoot>

</table>

* Attributes:
  + border: used to create border
  + colspan: used to merge multiple columns horizontally
  + rowspan: used to merge multiple columns vertically
    - * **Linking (anchor)**
        + Used to link

multiple pages

<a href=”page.html”>text</a>

multiple sections within same page

<a href=”#top”>text</a>

multiple pages with multiple sections

<a href=”page#section”>text</a>

* + - * **Form**
        + Used to get inputs from user
        + Tags

Input: used to get input

type

text: textual value

number: number value

email: email value

tel: telephone

date: date input

time: time input

radio: create radio button

checkbox: multiple selection

password: masked characters

submit: to submit values

reset: to clear the form

file: used to upload file

textarea: used to get multi-line input

select: used to render drop-down

<select>

<option>op1</option>

<option>op2</option>

</select>

**GET vs POST**

|  |  |
| --- | --- |
| **GET** | **POST** |
| 1. values will be sent using Request head | 1. Values will be sent using Request Body |
| 1. Values will be appended on url (visible) | 1. Values will be invisible |
| 1. Restriction on maximum size of data to be passed | 1. There is no restriction on size of data |
| 1. Only ascii values can be sent using GET | 1. Any value of any type (binary) can be sent by using POST |
| 1. URL can be bookmarked with the values | 1. URL can be bookmarked without the values |
| 1. Files can NOT sent using GET | 1. Files can be using POST |