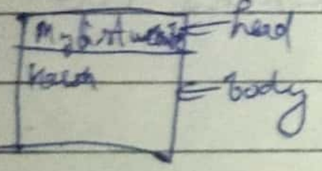
DATE: / /
PAGE NO.

HTML

Structure of HTML code

```
<!DOCTYPE html>
<html>
    <head>
        <title> My first website </title>
    </head>
    <body>
        Harsh
    </body>
</html>
```

All tags if opened then it should be closed with '/'



In a sublime text editor, structure of html can be loaded by writing html & press TAB.

Doctype html is not an html tage.
It just tell browser what document type is written in code. Here it is HTML

~~For writing the template of page in sublime text~~

DATE: / /
PAGE NO.

HTML Tags

1- Heading Tags (h1, h2, h3, h4, h5, h6) → for headings, h1 has highest font size & h6 has smallest.

2- <p> → paragraph

3- <b>, <i> → bold & italic respectively

4- , → now these are used instead of bold & italic respectively (em → emphasis) bez we move towards semantic HTML

4- → ordered list

```
eg → <ol>
        <li> banana </li>
        <li> apple </li>
     </ol>
```

Output → 1- banana
2- apple

5- - unordered list

```
eg → <ul>
        <li> apple </li>
        <ul>
            <li> fuji </li>
            <li> honey crisp </li>
        </ul>
     </ul>
```

(nested)

eg →
- apple
  - fuji
  - honey crisp

DATE: / /
PAGE NO.

Self closing tags
These tags doesn't needed to be closed as they ~~are~~ work for one time.

1- br → break line ok <br> ok1
→ ok
ok1

2- hr → horizontal line
ok
ok1

3→ ~~<img~~ img → image tag
attributes → src :- to provide source of image
alt → alternative text for image
width , height (in pixels)

eg→
<img src = "smiley.gif" alt = "Smiley face"
width = "42" height = "42">

Anchor tag (a)

a
Attribute → href

eg→ ~~<a href = "New Page~~

 New Page
output → New Page → Clicking on it will open newpage.html

DATE: / /
PAGE NO.

Also when new page is opened it can be link to ~~the~~ previous page named index.html
eg→
<h1> Go back </h1>

~~T~~

Name of the html file is normally index.html as by default many websites returns ~~the~~ index.html.

Instead of typing full address of file we can use relative path.
eg→ If index.html & newpage.html is in same directory (say Desktop) then newpage.html can be directly accessed but if ~~the~~ newpage is stored in folder (say test) then its relative path compared to desktop is "test/newpage.html".

DATE: / /
PAGE NO.

Advanced HTML

HTML forms

Use <form> </form>

```
<form>
    First Name: <input type="text"> <br>
    Email: <input type="email" required> <br>
```

This input type will only accept text ending with @....

required to make the input field mandatory for submission. required is attribute

```
    birthday: <input type="date" <br>
```

this will place a calendar to choose a date from

~~Gender:
 <input type="radio">Male
 <input type~~

```
    Gender: <br>
    <input type="radio" name="gender"> Male <br>
    <input type="radio" name="gender"> Female <br>
    <input type="radio" name="gender"> Other <br>
```

name attribute is important as only the one radio button can be checked of the same name ie here "gender".

If name is not given then multiple radio button can be checked and can't be dechecked.

```
    pets: <br> <input type="checkbox" name="cat"> Cat <br>
    <input type="checkbox" name="dogs"> Dogs <br>
```

DATE: / /
PAGE NO.

```
    Cars: <br>
    <select> for drop down menu selection
        <option value="volvo"> Volvo </option>
        <option value="Audi"> Audi </option>
    value attribute specifies single value which is to be sent to server
    </select>
    After E-mail type
    'Password: <input type="password" minlength="5"
    <br>
```

for accepting password

minlength ~~min~~ attribute for specifying minimum no. of characters needed for the input. If required attribute is not specified then minlength will not force to leave it blank. User can left this field blank too. ~~min~~ with minlength specified

Submitting a form

Before submitting the form to server we need to add the name attribute in the input tag.

eg> <input type="text" name="firstname">

~~Also in option tag~~

~~eg> <option value="volvo" name="value">~~

Now when submit button is clicked & values are inputted.

DATE: / /
PAGE NO.

then data will be sent to server.
eg: file:///Users/Ram/Desktop/register.html
?
firstname = fake
& lastname = man
& email = fake%gmail.com
& password = 12312
& birthday = 2017-11-01
& gender = on
& cat = on

→ query strings
The data is sent in this format.

'@' is encoded to '%'

in form tag
By default method attribute has value "GET".

<form method = "GET" action = "action.php">
when the form is submitted action.php script will run

query strings with '?' as it is a bunch of data

In query string gender has value on but it doesn't specify which value is 'on'. For this value attribute comes.
eg: <input type: "radio" name = "gender" value = "Male">

In select tag name attribute comes
eg: <select name = "cars"> as there is nothing about cars in the query string

DATE: / /
PAGE NO.

HTML Tags 3

<!-- Use GET not POST --> → now it's a comment

Use Ctrl + / → to directly make the line comment as <!-- --> will be automatically typed by this shortcut

 → This allows styles & divide up the content. Useful in CSS.
So that each section of site can have its own box

 → Same as but is inline

eg:
```
<div>
  <form>
    <span> First Name: </span>  → as it is in line
    - - -
    - - -
  </form>
</div>
```

HTML vs HTML5

DATE: / /
PAGE NO.

In HTML 5 semantic elements are introduced which provides the meaning to both browser & developer.

eg → <header>
<h1> Register </h1>
</header> → Specifies that Register is a heading.

<nav> → navigation link
<a href = "www.google.com">
</nav>

<footer>
 Website made with love
</footer>

It is useful specially for search engines. When search engine use these semantic elements (i.e used in webpage) to search websites acc to the searched text.

eg → Tree
If in a header section Tree is there then google crawlers don't need to scan the whole page. It will just scan Tree resulting in faster search.

In HTML5 bgcolor attribute doesn't work as it is supported by HTML5 unlike in HTML. So for changing background colour use

eg → <body style = "background-color: grey;">

DATE: / /
PAGE NO.

Imp Points (More about HTML)

1- To open a link in new tab/window add attribute target = "_blank"
eg → <a href = "url" target = "_blank>

2- for table
<table> // to specify that table will be constructed
<tr> // for specify that row is made
<th> Month </th> // Heading or Column name in 1st row
<th> Savings </th>
</tr>
<tr>
<td> January </td> // Data or record
<td> $100 </td>
</tr>
</table>

Output

Month	Savings
January	$100

3- There are 2 types of elements/tags in HTML
i) Block level tags: eg starts on a new line & takes up full width available
eg → , <header>, <footer>, <ol>, <ul>, <body>, <head>

ii) Inline tags: Does not start on new line & takes width as much necessary
eg → , <a>, <br>, <b>, <i>,

4- <textarea> tag is used to create text area
eg → <label for="w3review"> Review: </label>
<textarea id="w3review" rows="4" cols="10">
~~</text~~ Type text here
</textarea>

5- For adding background image use style attribute in body tag
eg- <body style = "background-image: url('img-girl.jpg'); ">
If the image size is longer than body of page then it will repeat itself.
Don't use double comma (" ") for url of image as double comma is already used for the value → background image just like in python →
means if double comma is used outside then if comma is required then only single comma is to be used & if single comma is used outside then vice versa.
Also
eg → ~~style~~ <head> <style>
body { background-image: url('img_girl.jpg'); }
</style>
</head> To stop repeating images use attribute background-repeat : no-repeat;

6- ~~Ifr~~ <iframe> tag is used to display a web page within a web page
eg- <iframe src="demo_iframe.htm" height="200" width="300" title="Iframe Example"> </iframe>
name = "iframe_a"

Also instead of opening link as a separate page we can open link in the same iframe too.
  w3schools.com

But value of target should be equal to the name of iframe ie 'iframe_a'.
↑ attribute of iframe

7- Graphic is designed in XML format
In HTML we can directly embed SVG (Scalable Vector Graphics) elements into HTML pages
eg → <svg width="100" height="100">
<circle cx="50" cy="50" r="40" stroke: green stroke-width="4" fill="yellow"> </circle>
</svg>
Also <circle ---- "yellow"/> is also valid
cx & cy are coordinates of center of circle.
By default it is (0,0).
stroke → border of circle ; fill → to fill with yellow colour.

r → radius → By default, width, height & radius is in pixels.

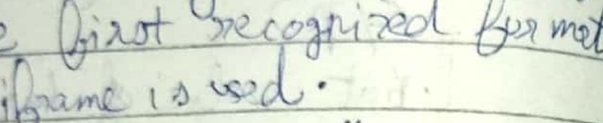
8- i) <video> tag is used to show a video in HTML
eg → <video width="320" height="240" autoplay controls>
<source src="movie.mp4" type="video/mp4">
<source src="movie.ogg" type="video/ogg">

DATE: / /
PAGE NO.

Error → This msg will displayed if browser doesn't support video formats
</video>

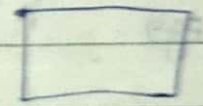
- autoplay is for enabling autoplay; controls is for enabling buttons like play, pause, volume, etc.
- source tag is used to specify alternate video files from which browser does first recognized format

ii) For youtube videos iframe is used.
After the video link → "https:..../7uq" &
?autoplay=1 is used can be used for enabling autoplay but browser has strict autoplay policy to use mute by default if autoplay is enabled so
Eg → <iframe width="420" height="315"
src="https://www.youtube.com/embed/tgbNymZ7vqY?autoplay=1&mute=1">

iii) like video <audio> tag is used to play audio. & rest attributes are mostly same as in <video> element/tag
For embedding youtube videos in src attribute value must start with always https..../embed/id
id is there after watch?

copy this id & paste after embed/ here

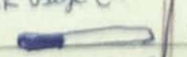
9- contenteditable is global attribute specifying if content of element is editable or not.
eg → this is para

10- onfocus attribute runs the script when element gets focus.
eg → Enter your name: <input type="text" id="myInput" onfocus="focusFunction()">
Here when input field is clicked focusfunction() runs.
onblur attribute is opposite of onfocus & it runs script when user leaves input field

11- <canvas> element is used to draw graphics via javascript. It is only a container for graphics. Canvas is just a rectangular area on HTML page & inside graphics is drawn.
eg → <canvas id="myCanvas" width="200" height="100">
</canvas> Output →


12- input type="range" is used for range control like a slider control. default range → 0-100
attributes are → max, min, step, value
step → no. of intervals value → default value
eg → <input type="range" id="vol" min="0" max="50">
Output → Volume:  slider control

13- <meter> tag defines a scalar measurement within a known range or fractional value.
eg → <label for="disk_c">Disk Usage C:</label>
<meter id="disk_c" value="2" min="0" max="10">
</meter>. Also value = 0-6 is also possible
default value of min = 0
max = 1

Output:
Disk Usage C:

2 out of 10