

1 What is HTML?

2 HTML stands for Hypertext Markup language, its an  
standard markup language for creating web pages to serve  
web content over the network.

3 standard markup language = it has defined pre-defined  
tags with structure, that is interpreted by a web browser  
in displaying data.

4

5 HTML Tags indicates

6 1. Structure for a web pages

7 2. Tells the browser how to render the text of information

8 3. For each text we display we bind a label in HTML  
categorizing the type of display.

9

10 How does the structure of an HTML document looks like?

11 1. <!DOCTYPE html>

12 The above tag indicates 2 things.

13 1. The type of document is HTML to the web browser

14 2. This tag helps the browsers to identify the start of  
the document, so many javascript scroll functions works  
on this tag only

15 3. This tag even indicates the HTML we are using is  
HTML5 version.

16

17 2. <html></html>

18 This is the first/root container element of an HTML page  
indicates all of the contents inside the tags should be  
rendered by the browser.

19 Inside the <html> tags we have 2 more child tags

20

21 3. <head></head>

22 Here goes the metadata information about the page that  
web browser will use for interpreting the contents of  
your page. The elements we write inside the <head/> will  
not be written to the browser

23 Inside the head we have an element called <title> which  
displays the title of the page in browser title bar.

24

25 4. <body></body>

26 Written inside the <html> tag, mostly next to the <head>  
element and the contents of the <body> element will be  
rendered inthe web browser.

27

28

29 <!DOCTYPE html>

30 <html>

31 <head>

32 <title>Hurray! its my first HTML</title>

33 </head>

34 <body>

```
35     This content goes to the browser for display
36     </body>
37 </html>
38 -----
39 The contents of the HTML are written in HTML Elements. An
    element is something that is written with
    <openTag>content</closeTag>. There are several different
    HTML Elements that renders the contents inside them
    specially for example
40 <p> = tag
41 <b> = tag
42 <h> = header
43
44 There are some empty tags are also available in HTML like
    hr, br img etc which doesnt have body so even end-tags
    are also not required.
45
46 HTML Attributes
47 -----
48 For every HTML Tag almost has attributes describing
    additional information in rendering the elements.
49 for eg.. <p title="">paragraph<p> = tooltip information
    displayed for the paragraph
50 <img src=""> = here src is an attribute we write for an
    image tag for passing the location of the image.
51
52 HTML Heading Tags
53 -----
54 Heading tags are used for display the text of information
    formatted as heading, these tags are used by search
    engines for identifying the page information.
55 There are total 6 heading tags are there start from <h1>
    = biggest and <h6> = the lowest
56
57 HTML Comments
58 -----
59 We can write comments in the HTML so that browsers will
    not interpret this content and will not render it as part
    of page.
60 The developers write the comments for documentation
    purpose.
61 <!-- Commented section -->
62
63 HTML Formatting
64 -----
65 There are Formatting tags used for displaying the text in
    special form on the browser.
66 1. <b> = bold text
67 2. <strong> = important text
```

68 3. <em> = Emphasized  
69 4. <mark> = marked  
70 5. <small> = small text  
71 6. <sub> = subscript  
72 7. <sup> = superscript  
73 8. <del> = deleted text  
74 9. <i> = italic  
75 10. <ins> = inserted text  
76  
77 HTML Paragraph tag  
78 -----  
79 Paragraph tag always displays the text content starting  
from an new line only.  
80  
81 <body>  
82     How are you?  
83     Had your breakfast?  
84 </body>  
85  
86 The browser displays both lines of contents in a single  
line  
87  
88 When we write text content in a html page with new lines  
or spaces the browser while displaying the text as part  
of it automatically removes the new lines and spaces we  
inserted to match the screen sizes of the display  
automatically.  
89  
90 Using a <p> tag we can always can render 2 paragraphs of  
information in starting with new lines.  
91 Within the paragraph if you write multiple lines of text  
also with spaces again browser will ignore them and  
display in one single line.  
92  
93 If we want to add new lines within a paragraph there are  
2 options we have  
94 1. hr = horizontal rule = adds an horizontal line through  
out the width the document  
95 2. br = break line, will not writes a line rather breaks  
the content into starting new line.  
96  
97 Instead of using <p> tag to display the text with spaces  
and new lines we can use <pre> tag  
98 <pre> tag = indicates pre-formatted text of information,  
where the text content placed in pre tag will be  
displayed with special font and displays the text content  
with spaces and newlines as written as part of the  
document.  
99  
100 HTML Image tags

```
101 -----
102 <img> = tag is used for displaying images as part of an
103 web page. it has few attributes as below.
104 src = indicates the location of the image from where it
105 has display
106 height = height of the image area to be displayed
107 width = width of the image area to be displayed
108 alt = incase of broken image location, display alternate
109 text
110
111 <img src=""> = attribute can take image location as
112 absolute or relative to the project
113
114  =
122 indicates external server location from where it should
123 download and display.
124
125  = relative to the project directory = send
126 the request to the server of the same website.
127
128 Image Map
129 We can create clickable areas with in an image that can
130 be mapped to a different page to be opened using image
131 maps.
132
133 
134 <map name="officeMap">
135     <area coords="34,44, 340, 450" href="lounge.htm"/>
136     <area
137 </map>
138
139 html document structure
140 text formatting tags
141 html elements header, p, br, hr
142 pre formatting text = pre
```

```
135  img tag
136  img map
137  -----
138  Links
139  HTML Links are hyperlinks in page, upon clicking on them
    we jump to another document. An hyperlink can be created
    for a text as well an image also.
140
141  using <a> tag we write hyperlinks
142  href="" = url of the page to be opened up clicking
143  target="" = about how the target page should be rendered
144
145  the default behaviour of a hyperlink
146  1. unvisited = blue
147  2. visited = red
148  3. hover = it display underline with red
149
150  what are the possible vaules a target can take
151  _blank = always the hyperlink page to be display in new
    browser window or tab
152  _self = same window or tag where it is clicked
153  _parent = opens document in parent frame
154  _top = opens the document in the full body of window
155
156
157  hyperlink to an image
158  <a href="url">
159      
160  </a>
161
162  hyperlink with an mailto
163  <a href="mailto:tech.sriman@gmail.com">Write to Us</a> =
    opens the default mail client of your computer asking to
    send an email to the address specified.
164  -----
165
166  HTML Tables
167  -----
168  Tables allows us to represent the data interms of rows
    and columns
169  we define table using a <table> tag, inside it we write
    data into rows using <tr> tag.
170  In a <tr> tag we can have either <th> or <td> inside it
171
172  <th> = table header, these are centered and bold by HTML
173  <td> = table cell data which are displayed with regular
    font with aligned left
174
```

```

175 table is a structured representation, where each row
    should have same no of columns
176 <table>
177     <tr>
178         <th>Employee No</th>
179         <th>Employee Name</th>
180         <th>Designation</th>
181         <th>Salary</th>
182     </tr>
183     <tr>
184         <td>E001</td>
185         <td>Adam</td>
186         <td>Senior Manager</td>
187         <td>10000</td>
188     </tr>
189 </table>
190 By default table will not be displayed with border.
191 we can add borders to the table using border attribute.
192
193 <table border="1">
194 </table>
195 this will display borders to table, td and th so a double
    border will appear. If we want to remove double borders
    we need to write a style attribute border-collapse:
    collapse
196
197 <table border="1" style="border-collapse: collapse">
198 </table>
199 Note: border-collapse, the padding, margin, spacing will
    not work.
200
201 colspan = is an attribute written at th or td level to
    indicate this cell will span to how many columns next
202 lets say 1 and 2nd column should be merged into 1 single
    column then in 1st td we can use colspan as 2
203 <td colspan="2"></td>
204 -----
    -----
205 Lists
206 These are used for displaying a list of values in a HTML
    Document. A list can be ordered or unordered list.
207 if it is an order list it starts with <ol>
208 un-ordered list starts with <ul>
209 inside the list we write every element using <li>
    indicates list item.
210
211 <ul>
212     <li>banana</li>
213     <li>apple</li>
214     <li>papaya</li>

```

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215     <li>orange</li>
216 </ul>
217
218 <ol>
219     <li>Thumbsup</li>
220     <li>coke</li>
221 </ol>
222 -----
223
223 html link
224     - text
225     - image
226 target = _blank, _self, _parent, _top
227
228 html table
229     tr = displays rows
230     th = table headers
231     td = table data
232 thead = group of table headers
233 tbody = group of table data
234 tfooter = table footer
235 caption = displaying title of the table
236 colspan = for merging 2 consecutive cells
237
238 html lists
239 How many types of lists are there
240     3 types are there
241 order list
242 unordered list
243 descriptive lists
244
245 <ol type="1|a|A|i|I">
246     <li></li>
247 </ol>
248
249 <ul type="disc|square|circle|radio">
250     <li></li>
251 </ul>
252
253 <dl>
254     <dt>Descriptive Term</dt>
255     <dd>Description</dd>
256 </dl>
257 -----
258
258 Block vs Inline
259
260 Block-level elements always starts in a new line and
    streches as much as possible horizontal to occupy the
    entire document. These elements we can apply top and a

```

bottom margin to position the elements appropriately

```
261
262 Inline-Level elements always floats next to another
    element and only occupies the area based on the content
    they hold.
263
264 <div>Block-level element</div>
265 Hi
266 <div>2</div>
267
268 Below are the block-level in HTML
269 <div>, <li>, <ul>, <ol>, <p>, <pre>, <table>, <header>,
    <footer>, <hr>
270
271 Inline elements example
272 <span>, <a>, <i>, <b>, <small>, <sub>, <sup>, <em>,
    <strong>, <input>, <select>, <textarea>, <img>, <button>,
    <del>, <br>
273 -----
    -----
274 what is an iframe?
275 iframe is used for embed another html document inside an
    document.
276 we can use width and height attributes for an iframe to
    resize the frame. we can remove border for an iframe
    using style="border: none"
277
278 stores.html
279 <body>
280     <iframe src="products.html">
281
282 </body>
283
284 products.html
285 <html>
286     <body>
287         Following are the products very popular in our store.
288     </body>
289 </html>
290
291 We can target an iframe using a link
292
293 <iframe src="products.html" name="frame1"></iframe>
294
295 <ul type="none">
296     <li><a href="products.htm"
        target="#frame1">products</a></li>
297     <li><a href="merchants.htm"
        target="#frame1">merchants</a></li>
298 </ul>
```



```

299 -----
300 HTML Form
301
302 Forms are used for collecting the user inputs and send
303 them to the server. The form tag has below attributes
304 1. action = the url pointing the server whom we want to
305 send the input data
306 2. method = http request method to used while submitting
307 the data to the server (GET|POST)
308 3. target =
309 _blank = response will be displayed in a new page
310 _self = response will be rendered in the current window
311 _parent = parent frame
312 _top = full body of the window
313 framename = iframe
314
315 4. autocomplete = we can disable the form input history
316 using autocomplete
317 5. novalidate = the input controls will not be validated
318
319 <form action="jobdetails.html" method="POST"
320 target="_blank" autocomplete="off" novalidate>
321     <label>Your Name:</label>
322     <input type="text" name="name"/><br>
323     <label>Experience:</label>
324     <input type="text" name="experience"/><br>
325     <label>Working Company:</label>
326     <input type="text" name="company"><br/>
327     <input type="submit" value="apply">
328 </form>
329
330 label = helps the accessibility aspects of your page
331 validation errors can be binded using label
332
333 -----
334
335 Different Types of HTML Input controls available in HTML
336 Form
337 1. <input type="text"/> = text box
338 2. <input type="checkbox"/> = checkbox
339 3. <input type="radio"/> = radio = group the radio
340 buttons using name
341 4. <input type="submit"/>
342 5. <input type="button"/>
343 6. <input type="password"/>
344 7. <textarea name="" rows="" cols=""/>
345 8. <select name><option
346 value="value">label</option></select>
347 9. <input type="file"/> = File chooser

```

```

339 10. <input type="reset"/> = to reset the form data
340 11. <input type="hidden"/> = hidden field to hold the data
341 -----
342 12. <input type="color"/>
343 13. <input type="date"/>
344 14. <input type="email"/>
345 15. <input type="month"/>
346 16. <input type="number" min="1" max="5"/>
347 17. <input type="range" min="0" max="100"/>
348 18. <input type="tel" pattern=""/>
349 19. <input type="time" />
350 20. <input type="url"/>
351 21. <input type="week"/>
352 22. <input type="search"/>
353 -----
354 html picture tag = HTML5
355
356 <body>
357     
358 </body>
359
360 while rendering the web page in the web browser, browser
will parse one tag after another tag and when it
encounters the img tag it sends the request to the server
for downloading the image we specified in src attribute
of image tag.
361
362 we are accessing web pages from different types of
devices with different aspect ratios and bandwidth
capacities
363 1. mobile
364 2. tablets
365 3. desktop/laptop computers
366
367 The image tag will pull the same image for all the
devices so what is use of pulling an image of bigger size
and display it on the device with reduced size, this
leads to wastage of bandwidth and slow rendering of the
page. And different browsers supports different image
formats, if we use img tag with jpg and if there is a
device that cannot render jpeg again the image gets
broken. How to solve these problems?
368
369 <picture>
370     <source media="(min-width: 400px;)" srcset="banner.jpg"/>
371     <source media="(min-width: 600px;)"
srcset="banner1.jpg"/>
372     <source media="(min-width: 600px;)"

```

```
srcset="banner1.png"/>
373 
374 </picture>
```

375  
376 In the above if the min-width page is 400px then browser request the server for banner.jpg. If the min-width of the page is 600px based on the supported format of the browser either it sends the request for jpg/png image to server.

377 If browser doesnt support picture tag then it uses <img> written at the last to render the image.

378  
379 To display audio and video plays with controls we can use the below html tags.

```
380
381 <audio controls>
382   <source src="a.mp3" type="audio/mp3"/>
383 </audio>
384
385 <video controls height="" width="">
386   <source src="v1.mp4" type="video/mp4"/>
387 </vidoe>
```

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388 -----
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