Structure

This is the basic template or barebone structure of HTML.

Boilerplate

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Document</title>
</head>
<body>

</body>
</html>
```

Headings

There are six headings available in HTML, H1 is the largest among all, and H6 is the smallest.

<h1> Tag

```
<h1>Heading 1</h1>
```

<h2> Tag

```
<h2>Heading 2</h2>
```

<h3> Tag

```
<h3>Heading 3</h3>
```

h4 Tag

```
<h4>Heading 4</h4>
```

h5 Tag

```
<h5>Heading 5</h5>
```

h6 Tag

```
<h6>Heading 6</h6>
```

Container

Container tags are the tags that contain some data such as text, image, etc. There are several container tags in HTML.

div tag

div tag or division tag is used to make blocks or divisions in the document.

```
<div> This is div block </div>
```

span tag

span is a container for inline content

```
<span> This is span block </span>
```

p tag

Paragraph

```
<p> This is a paragraph </p>
```

pre tag

pre tag represents pre-formatted text

```
<pre> Hello World </pre>
```

code tag

code tag is used to represent source codes

```
<code>
import python
</code>
```

Text Formatting

Text formatting tags are used to format text or data of HTML documents. You can do certain things like creating italic, bold, strong text to make your document look more attractive and understandable.

<b> tag

```
<b>I'm bold text</b>
```

tag

```
<strong>I'm important text</strong>
```

<i> tag

```
<i>I'm italic text</i>
```

tag

```
<em>Emphasized text</em>
```

<sub> tag

```
<sub>Subscript</sub>
```

<sup> tag

```
<sup>Superscript</sup>
```

Lists

Lists can be either numerical, alphabetic, bullet, or other symbols. You can specify list type and list items in HTML for the clean document.

 tag

Ordered list starts with <ol> tag and each list item starts with <li> tag

```
<ol>
<li>Data 1</li>
<li>Data 2</li>
<li>Data 3</li>
</ol>
```

 tag

```
<ul>
<li>Your Data</li>
<li>Your Data</li>
</ul>
```

Media

Media is anything that is present in digital form such as image, video, audio, etc.

<audio> tag

It is used to embed sound content in the document.

```
<audio controls>
<source src="demo.mp3" type="audio/mpeg">
Your browser does not support the audio element.
</audio>
```

<img> tag

It is used to embed or import image in a webpage.

```
<img src="Source_of_image" alt="Alternate text">
```

<video> tag

It is used to embed video in the webpage.

```
<video width="480" height="320" controls>
<source src="demo_move.mp4" type="video/mp4">
Your browser does not support the video tag.
</video>
```

Table

A table is a collection of rows and columns. It is used to represent data in tabular form.

Table Structure

```
<table>
<caption>Demo Table</caption>
<thead>
<tr>
<th>Column1</th>
<th colspan="2">Column2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data1</td>
<td>Data2</td>
<td>Data2</td>
</tr>
<tr>
<td>Data1</td>
<td>Data2</td>
<td>Data2</td>
</tr>
</tbody>
<tfoot>
<tr>
<td> </td>
<td>Data</td>
<td>Data</td>
</tr>
```

```
</tfoot>
</table>
```

Links

Links are clickable text that can redirect you to some other page.

<a> tag

<a> or anchor tag defines a hyperlink.

```
<a href="https://www.codewithharry.com/">Visit CodeWithHarry.com!</a>
```

Form

Sample Form

Form is used to collect user's input, generally user's data is sent to server for further processing.

```
<form action="/action.php" method="post">
Name: <input name="name" type="text" /> <br />
Age: <input max="90" min="1" name="age" step="1" type="number" value="18" />
<select name="gender">
<option selected="selected" value="male">Male</option>
<option value="female">Female</option>
</select><br />
<input checked="checked" name="newsletter" type="radio" value="daily" /> Dai
type="radio" value="weekly" /> Weekly<br />
<textarea cols="20" name="comments" rows="5">Comment</textarea><br />
<label><input name="terms" type="checkbox" value="tandc" />Accept terms</lab
<input type="submit" value="Submit" />
</form>
```

Characters & Symbols

Some symbols are not directly present on the keyboard, but there are some ways to use them in HTML documents. We can display them either by entity name, decimal, or hexadecimal value.

Copyright Symbol (©)

```
&copy;
```

Less than (<)

```
&lt
```

Greater than (>)

```
&gt;
```

Ampersand (&)

```
&amp;
```

Dollar ($)

```
&dollar;
```

Random Text

Elon Musk

```
Elon Reeve Musk FRS is an entrepreneur and business magnate. He is the found
```

Semantic Elements

Semantic elements are those elements that are self describable, i.e., from their name itself, you can understand their meaning.

<section> tag

It defines a section in the document

```
<section>This is a section</section>
```

<article> tag

It represents self-contained content

```
<article> Enter your data here </article>
```

<aside> tag

It is used to place content in the sidebar

```
<aside> Your data </aside>
```

Font

There are many properties related to the font, such as the face, weight, style, etc. These properties allow you to change the style or complete look of your text.

Font-Family

```
font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

Font-Style

```
font-style: italic;
```

Font-Variant

```
font-variant: small-caps;
```

Font-Weight

```
font-weight: bold;
```

Font-Size

```
font-size: larger;
```

Font

```
font: style variant weight size family;
```

Text

Text properties allow one to manipulate alignment, spacing, decoration, indentation, etc., in the document.

Text-Align

```
text-align: justify;
```

Letter-Spacing

```
letter-spacing: .15em;
```

Text-Decoration

```
text-decoration: underline;
```

Word-Spacing

```
word-spacing: 0.25em;
```

Text-Transform

```
text-transform: uppercase;
```

Text-Indent

```
text-indent: 0.5cm;
```

Line-Height

```
line-height: normal;
```

Background

As the name suggests, these properties are related to background, i.e., you can change the color, image, position, size, etc., of the document.

Background-Image

```
background-image: url("Path");
```

Background-Position

```
background-position: right top;
```

Background-Size

```
background-size: cover;
```

Background-Repeat

```
background-repeat: no-repeat;
```

Background-Attachment

```
background-attachment: scroll;
```

Background-Color

```
background-color: fuchsia;
```

Background

```
background: color image repeat attachment position;
```

Border

Border properties are used to change the style, radius, color, etc., of buttons or other items of the document.

Border-Width

```
border-width: 5px;
```

Border-Style

```
border-style: solid;
```

Border-Color

```
border-color: aqua;
```

Border-Radius

```
border-radius: 15px;
```

Border

```
border: width style color;
```

Box Model

In laymen's terms, the CSS box model is a container that wraps around every HTML element. It consists of margins, borders, padding, and the actual content. It is used to create the design and layout of web pages.

Float

```
float: none;
```

Clear

```
clear: both;
```

Display

```
display: block;
```

Height

```
height: fit-content;
```

Width

```
width: auto;
```

Margin

```
margin: top right bottom left;
```

Padding

```
padding: top right bottom left;
```

Overflow

```
overflow: hidden;
```

Visibility

```
visibility: visible;
```

Colors

With the help of the color property, one can give color to text, shape, or any other object.

Color

```
color: cornsilk;
```

Opacity

```
opacity: 4;
```

Template Layout

Specifies the visual look of the content inside a template

Box-Align

```
box-align : start;
```

Box-Direction

```
box-direction : normal;
```

Box-Flex

```
box-flex : normal;
```

Box-Flex-Group

```
box-flex-group : 2;
```

Box-Orient

```
box-orient : inline;
```

Box-Pack

```
box-pack : justify;
```

Box-Sizing

```
box-sizing : margin-box;
```

max-width

```
max-width: 800px;
```

min-width

```
min-width: 500px;
```

max-height

```
max-height: 100px;
```

min-height

```
min-height: 80px;
```

Table

Table properties are used to give style to the tables in the document. You can change many things like border spacing, table layout, caption, etc.

Border-Collapse

```
border-collapse: separate;
```

Empty-Cells

```
empty-cells: show;
```

Border-Spacing

```
border-spacing: 2px;
```

Table-Layout

```
table-layout: auto;
```

Caption-Side

```
caption-side: bottom;
```

Columns

These properties are used explicitly with columns of the tables, and they are used to give the table an incredible look.

Column-Count

```
column-count : 10;
```

Column-Gap

```
column-gap : 5px;
```

Column-rule-width

```
column-rule-width : medium;
```

Column-rule-style

```
column-rule-style : dotted ;
```

Column-rule-color

```
column-rule-color : black;
```

Column-width

```
column-width : 10px;
```

Column-span

```
column-span : all;
```

List & Markers

List and marker properties are used to customize lists in the document.

List-style-type

```
list-style-type: square;
```

List-style-position

```
list-style-position : 20px;
```

List-style-image

```
list-style-image : url(image.gif);
```

Marker-offset

```
marker-offset : auto;
```

Animations

CSS animations allow one to animate transitions or other media files on the web page.

Animation-name

```
animation-name : myanimation;
```

Animation-duration

```
animation-duration : 10s;
```

Animation-timing-function

```
animation-timing-function : ease;
```

Animation-delay

```
animation-delay : 5ms;
```

Animation-iteration-count

```
animation-iteration-count : 3;
```

Animation-direction

```
animation-direction : normal;
```

Animation-play-state

```
animation-play-state : running;
```

Animation-fill-mode

```
animation-fill-mode : both;
```

Transitions

Transitions let you define the transition between two states of an element.

Transition-property

```
transition-property: none;
```

Transition-duration

```
transition-duration : 2s;
```

Transition-timing-function

```
transition-timing-function: ease-in-out;
```

Transition-delay

```
transition-delay : 20ms;
```

CSS Flexbox

Flexbox is a layout of CSS that lets you format HTML easily. Flexbox makes it simple to align items vertically and horizontally using rows and columns. Items will "flex" to different sizes to fill the space. And overall, it makes the responsive design more manageable.

Parent Properties (flex container)

display

```
display: flex;
```

flex-direction

```
flex-direction: row | row-reverse | column | column-reverse;
```

flex-wrap

```
flex-wrap: nowrap | wrap | wrap-reverse;
```

flex-flow

```
flex-flow: column wrap;
```

justify-content

```
justify-content: flex-start | flex-end | center | space-between | space-arou
```

align-items

```
align-items: stretch | flex-start | flex-end | center | baseline | first bas
```

align-content

```
align-content: flex-start | flex-end | center | space-between | space-around
```

Child Properties (flex items)

order

```
order: 5; /* default is 0 */
```

flex-grow

```
flex-grow: 4; /* default 0 */
```

flex-shrink

```
flex-shrink: 3; /* default 1 */
```

flex-basis

```
flex-basis: | auto; /* default auto */
```

flex shorthand

```
flex: none | [ <'flex-grow'> <'flex-shrink'>? || <'flex-basis'> ]
```

align-self

```
align-self: auto | flex-start | flex-end | center | baseline | stretch;
```

CSS Grid

Grid layout is a 2-Dimensional grid system to CSS that creates complex responsive web design layouts more easily and consistently across browsers.

Parent Properties (Grid container)

display

```
display: grid | inline-grid;
```

grid-template-columns

```
grid-template-columns: 12px 12px 12px;
```

grid-template-rows

```
grid-template-rows: 8px auto 12px;
```

grid-template

```
grid-template: none | <grid-template-rows> / <grid-template-columns>;
```

column-gap

```
column-gap: <line-size>;
```

row-gap

```
row-gap: <line-size>;
```

grid-column-gap

```
grid-column-gap: <line-size>;
```

grid-row-gap

```
grid-row-gap: <line-size>;
```

gap shorthand

```
gap: <grid-row-gap> <grid-column-gap>;
```

grid-gap shorthand

```
grid-gap: <grid-row-gap> <grid-column-gap>;
```

justify-items

```
justify-items: start | end | center | stretch;
```

align-items

```
align-items: start | end | center | stretch;
```

place-items

```
place-items: center;
```

justify-content

```
justify-content: start | end | center | stretch | space-around | space-betwe
```

align-content

```
align-content: start | end | center | stretch | space-around | space-between
```

place-content

```
place-content: <align-content> / <justify-content> ;
```

grid-auto-columns

```
grid-auto-columns: <track-size> ...;
```

grid-auto-rows

```
grid-auto-rows: <track-size> ...;
```

grid-auto-flow

```
grid-auto-flow: row | column | row dense | column dense;
```

Child Properties (Grid items)

grid-column-start

```
grid-column-start: <number> | <name> | span <number> | span <name> | auto;
```

grid-column-end

```
grid-column-end: <number> | <name> | span <number> | span <name> | auto;
```

grid-row-start

```
grid-row-start: <number> | <name> | span <number> | span <name> | auto;
```

grid-row-end

```
grid-row-end: <number> | <name> | span <number> | span <name> | auto;
```

grid-column shorthand

```
grid-column: <start-line> / <end-line> | <start-line> / span <value>;
```

grid-row shorthand

```
grid-row: <start-line> / <end-line> | <start-line> / span <value>;
```

grid-area

```
grid-area: <name> | <row-start> / <column-start> / <row-end> / <column-end>;
```

justify-self

```
justify-self: start | end | center | stretch;
```

align-self

```
align-self: start | end | center | stretch;
```

place-self

```
place-self: center;
```