HTML

Link with elements - https://developer.mozilla.org/en-US/docs/Web/HTML/Element

Element: a start tag, content, and an end tag

Attributes: Always provided in start tag, give additional information about elements.

Responsive design guidelines

1. Use Emulators to test different devices
   1. Different websites - <http://www.browserstack.com/>
   2. Open developer tools on chrome with CTRL SHIFT J or ⌘ + ⌥ + J
   3. Debugging with [iphone](https://learn.udacity.com/courses/ud893/lessons/1862788f-f274-40af-a8b0-73a2b20289f6/concepts/3eb38dbf-7550-47aa-af8e-9466eb18f723)

| Doctype |  | <!DOCTYPE html> | States document is in HTML5 format |
| --- | --- | --- | --- |
| HTML |  | <HTML> \_\_\_ </HTML> | Root element of an HTML page |
| LANG |  | <HTML lang=”x”> | Language of page. Can have country codes too, like lang=”en-US” |
| Comments |  | <! - - comment - - > | Not displayed. Can be used to hide content` |
| Favicon |  | <head>  <link rel=”icon” type=”image/x-icon” href=”LINK”>  </head> | Icon next to website name on tab |
| Title |  | <head>  <title> TEXT </title>  </head> | Title element adds title shown in browser bar |
| Class |  | <style>  .CLASSNAME {  PROPERTIES  }  </style> | Used to define preset properties in the styling sheet that can then be called. Used by javascript to manipulate elements with that class. |
|  | Calling Classes | <h1 class=”**CLASS1 CLASS2**”> text </h1> | Can give one element multiple classes using a space |
| id |  | <style>  #idname {  PROPERTIES  }  </style>  <h1 id=”idname”> | Lets you create unique properties for an element that you can then call to.  # creates the id. id=”x” calls the id.  Unlike classes only one element can call that id |
| Layout Elements | | | |
| Header |  | <header> | Defines header for a document or section |
| Nav |  |  | Defines set of navigation links |
| Section |  |  | Section of document |
| Article |  |  | Self-contained content |
| Aside |  |  | sidebar |
| Footer |  |  | fooer |
| Details |  |  | Additional info user can open and close on demand |
| Summary |  |  | Heading for details element |
| Meta Data | | | |
| Meta Data | Head | <HEAD> \_\_\_ </HEAD> | Metadata about position of content |
|  | Body | <BODY> \_\_\_ </BODY> |  |
|  | Viewport | <meta name=”viewport” content=”width=device-width, initial-scale=1.0”> | Initial scale sets initial zoom level  width=device-width to set page width to whatever is the device’s |
| Base |  | <base href=”LINK”> | Specifies a default URL and target for all links on a page. |
| Break |  | <br> | Line break |
| Horizontal Rule |  | <hr> | Thematic break |
| Preformatted Text |  | <pre> \_\_ </pre> | Creates preformatted text. Preserves spaces and line breaks |
| Div |  | <div>  ELEMENTS  </div> | Used as a container for other elements. Takes up the full width of the page. |
|  | Margin | <style>  div {  **margin: auto;**  }  </style> | When margins are auto, it aligns the division block in the center of the page. |
| Multiple in-line elements | Defining super block | <style>  div.**CLASSNAME** {  **width:100%;**  **Overflow:auto;**  }  div.**CLASSNAME** div {  width:25%;  Float:left;  } | Makes a line of division blocks.  div.**BLOCKNAME** {  **width:100%;**  **Overflow:auto;**  }  Class Name is just a label. Width means what % of the page you want the entire line to take up. Overflow is the direction you want extra space to go.  div.**BLOCKNAME** div {  width:25%;  Float:left;  }  This is a division of the div.**CLASSNAME** division. Each element within will take width % of the block and the float direction is the direction it will open. |
|  | Removing breaks | <style>  div {  **width: 30%;**  **display: inline-block;**  }  </style> | Second option is to use **display: inline-block;** toremovethe break before and after normally associated with block elements. Width just determines what % of screen it’ll take. |
|  | Flex blocking | <style>  .CLASSNAME {  **Display: flex;**  }  .BLOCKNAME > div {  width:33%;  }  </style> | The (Display: flex;) modifier is an alternative |
|  | Grid | <style>  .CLASSNAME {  **Display:** grid;  **Grid-template-columns:**33% 33% 33%;  }  </style> | Alternative. Lets you define more than one row and position each row individually. Requires you to specify the width of each column |
| Span |  | <p> TEXT  <span> TEXT </span>  TEXT </p> | An in-line container used to mark-up a specific part of a line. Doesn't take up full width. |
| Links | | | |
| Link |  | <a href=”LINK”> TEXT </a> | <a> is the hyperlink tag. Href is the reference to a url of a page. Text is the text in the body. |
|  | Title (Tooltip) | <a href=”LINK title=”Tooltip””> TEXT </a> | Tooltip when mousing over text |
|  | Email Link | <a href=”mailto:EMAIL”> TEXT </a> | Email link |
|  | Target | <a href=”LINK” target=”\_\_”> TEXT </a> | Where the link should open.  \_self = same window as clicked  \_blank = new window or tab  \_parent = parent frame  \_top = full body of window |
|  | Absolute URL | href=”https://www.img.jpg” | Hosted on another site |
|  | Relative URL | href=”img.jpg”  href=”/images/img.jpg” | Hosted within the website. If it has a / at the start it’s relative to domain vs relative to current page. |
|  | Image Link | <a href=”LINK”>  <img src=”LINK” alt=”TEXT” style=”width:x;height:y;”>  </a> | Link opened through image |
|  | Button | <button onclick=”link”> TEXT </button> | Creates button that opens link |
| Bookmark | Location | <p id=”TAG”> TEXT </p> | Tag is the unique bookmark id. Unique to page |
|  | Hyperlink | <p href=”#TAG”> TEXT </p> | Can also hyperlink to bookmark on other page by typing. # are a call to a TAG  <a href=”link#TAG”> TEXT </a> |
| Images | | | |
| Images |  | <img src=”LINK” alt=”TEXT” style=”float:l/r;width:x;height:y;”> | Src is a reference to the path of image. Alt is text displayed when image is not. Width and height are in pixels. Float makes image hover left or right of text |
|  | Areas | <img src=”LINK” alt=”TEXT” usemap=”#MAPNAME”>  <map name=”MAPNAME”>  <area shape=”SHAPE” coords=”X,Y,X,Y” alt=”TEXT” href=”LINK”>  </map> | Make specific sections of the image clickable. Shapes are rect, circle, poly, default.  Coordinate format  Rectangles: TL**X**, TL**Y**, BR**X**, BR**Y**  Circle: C**X**, C**Y, Radius**  Poly: **X**1,**Y**1, **X**2,**Y**2,**X**3,**Y**3,**X**4,**Y**4 |
| Relative paths | Current folder | <img src=”image\_name.jpg” | Hosted within the website. If it has a / at the start it’s relative to domain vs relative to current page. |
|  | In folder at current folder | <img src=”folder\_name/image\_name.jpg” |  |
|  | At root folder | <img src=”/folder\_name/image\_name.jpg” |  |
|  | One level up | <img src=”../image\_name.jpg” |  |
|  | Absolute Paths | <img src=”https://www.link.jpg”> | Hosted on another site |
| Background |  | <p style=”background-image: url(LINK);”> | Makes the background of an element an image. Can add it to the style action of the head section. |
|  | Repeating | <style>  body {  background-image: url(‘LINK);  **background-repeat: no-repeat;**  }  </style> | Makes the background image not repeat. |
|  | Size & Attachment | <style>  body {  background-image: url(‘LINK);  background-repeat: no-repeat**;**  **background-attachment: fixed;**  **background-size: cover;**  }  </style> | Attachment - Fixed means that the image will always cover the whole element.  Sizes  Cover - Will cover the whole element  100% 100% - Will cover whole element, change to stretch image |
| Picture |  | <picture>  <source media=”(min-width: 600px)” srcset=”LINK1”>  <source media=”(min-width: 400px)” srcset=”LINK2”>  <img src=”LINK3”>  </picture> | Contains multiple source elements so the browser can choose the image based on criteria.  Order matters, the browser uses the first element that matches the value and ignores others. <img> element needs to be last.  The criteria in this example is media width.  Can also be used to use different image formats like jpg, png, gif and the browser uses first it recognizes |
| Tables | | | |
| Table |  | <table>  <caption>  <tr>  <th> header 1 </th>  <th> header 2 </th>  <th> header 3 </th>  </tr>  <tr>  <td> row 1 data 1 </td>  <td> row 1 data 2 </td>  <td> row 1 data 3 </td>  </tr>  <tr>  <td> row 2 data 1 </td>  <td> row 2 data 2 </td>  <td> row 2 data 3 </td>  </tr>  </table> | <table> is just creating table  <tr> contains each row, including header.  <th> contains each header text  <td> contains each data text.  Can make vertical tables by switching the first td of every row with a th.  <caption> goes above the table as a header for the whole table. |
| Width & Height |  | <table **style=”width:100%**”>  <tr **style=”width:100%**>  <th **style=”width:100%**> header 1 </th>  <th> header 2 </th>  <th> header 3 </th>  </tr>  </table> | Width & Height can go in any bolded position, affect either whole table, row, or column |
| Padding & spacing |  | th,td {  Padding: xpx;  border-spacing: xpx  }  Optional:  Padding-top: xpx;  Padding-bottom: xpx;  Padding-left: xpx;  Padding-right: xpx; | Padding is space between cell edges and cell content. Spacing is the space between the cell border and next cell border over. |
| Col & Rowspan |  | <table>  <caption>  <tr>  <th **colspan=”x”**> header 1 </th>  <th **rowspan=”2”**> header 2 </th>  <th> header 3 </th>  </tr>  </table> | colspan=”x” makes cell span x columns.  rowspan=”x” makes cell span x rows |
| Borders |  | <head>  <style>  table, th, td {  border: 1px solid black;  }  </style>  </head> | Goes in CSS file. Dont need all 3 table, th,td.. Table borders the entire table.  Th borders headers  td borders data.  1px is thickness  Solid is style  Black is color |
|  | Color | table, th, td {  border-color: COLOR;  } | Could use border-color, but won’t accept style or thickness. |
|  | Styles | table, th, td {  border-style: STYLE;  } | Could use border-style, but style doesn’t accept color or thickness.  Styles are:  Dotted, Dashed, Solid, Double, Groove, Ridge, Inset, Outset, None, Hidden |
|  | border-collapse | table, th, td {  border: 1px solid black;  **Border-collapse: collapse;**  } | This line makes the borders shared between neighboring cells |
| Background Color | Cell color | table, th, td {  border: 1px solid black;  border-collapse: collapse;  }  th,td {  **background-color: COLOR;**  } | Sets color for cells specified. In this case th and td |
|  | Alternating Row / Column color | tr:nth-child(even) {  **background-color: COLOR;**  } | Colors every even row. Can make command  td:nth-child(even), th:nth-child(even) {  **background-color: COLOR;**  }  This makes columns colored |
|  | Hover | tr: hover {background-color: COLOR;} | Makes rows (or th/td) color if it’s hovered over |
|  | Rounded edges | table, th, td {  border: 1px solid black;  **border-radius: 10px;**  } | Rounds corners |
| Column Groups |  | <table>  <colgroup>  <col span=**”x”** style=**”Y”**>  </colgroup>  <table>  <colgroup>  <col span=**”x”** style=**”Y”**>  <col span=**”A”** style=**”B”**>  </colgroup> | Creates column grouping that spans **X** columns and has **Y** styling.  Acceptable stylings  Width  Visibility (visibility:collapse makes invisible)  Background  border  Multiple groups need to be stacked sequentially in the colgroup element. Like the second code block. It begins after first |
| Data Type | | | |
| Abbreviation |  | <abbr title=”x”> \_\_\_\_ </abbr> | Abbreviation or tooltip |
| Title (Tooltip) |  | <p title=”\_\_\_”> \_\_\_ </p> | A tooltip when moused over |
| Cite |  | <cite> work name </cite> | Defines title of creative work. Usually italics |
| Quote block |  | <blockquote cite=”link”> \_\_ </blockquote> | Inserts a quote block from another source |
|  | Short quotes | <q> \_\_\_ </q> |  |
| Address |  | <address>  Address 1  Address 2  </address> | Defines an address. Usually italics. Adds break before and after. Keeps prefixed formatting |
| iFrame |  | <ifram src=”URL” title=”Desc”> </iframe> | Embeds another document within the current HTML doc. Can display web pages too.  Can set height & width either with height=”x” width = “y” or with style=”height:x;width:y”  Remove border with style=”border:none”  Make target frame of link by  <iframe src=”URL” name=”NAME” title=”DESC”> </frame  <a href=”LINK” **target=”NAME”**> TEXT </a> |
| Text Formatting | | | |
| Text Size / Text type | h1 - h6 | <h1> \_\_\_\_\_ </h1> | H1 is the largest and most important, h6 is least. More than just about size. Search engines use headings to index sturcture |
|  | Paragraph | <p> \_\_\_\_\_ </p> |  |
| Style |  | <p style=”**x**;”> \_\_\_ </p> |  |
|  | Font Size | <p style=”font-size:**20px**;”> \_\_\_ </p> | Makes font 20px. Could use % as well. Can use vw (viewport width) to adjust itself based on device |
|  | Font Family | <p style=”font-family:**courier**;”> \_\_\_ </p> | Changes font to courier |
|  | Color | <p style=”color:**red**;”> \_\_\_ </p> | Makes text red. Can use RGB,HEX, HSL, RGBA, and HSLA values instead of color name.  <p style=”color:**rgb(x,y,z)**;”> \_\_\_ </p> |
|  | Background Color | <p style=”background-color:**red**;”> \_\_\_ </p> | Makes background color red |
|  | Border Color | <p style=”border: **2px** **solid** **red**;> \_\_\_ </p> | Makes a red, solid, 2px border around text. |
|  | Alignment | <p style=”text-align:**center**;”> \_\_\_ </p> | Centers text |
|  | Margin | <p style=”margin:**50px**;”> \_\_\_ </p> | Makes a margin of 50px. This is outside the paragraph. |
|  | Padding | <p style=”margin:**30px**;”> \_\_\_ </p> | Makes a padding of 30px. This is inside the paragraph space. |
| Formatting | Bold | <b> \_\_\_ </b> |  |
|  | Strong | <strong> \_\_\_ </strong> | Strong importance, typically bold |
|  | Italic | <i> \_\_\_ </i> |  |
|  | Emphasized | <em> \_\_\_ </em> | Emphasized text, typically italicized |
|  | Marked | <mark> \_\_\_ </mark> | Highlighted |
|  | Smaller | <small> \_\_\_ </small> | Smaller |
|  | Deleted | <del> \_\_\_ </del> | Strike-through |
|  | Inserted | <ins> \_\_\_ </ins> | Underlined |
|  | Subscript | <sub> \_\_\_ </sub> | subscript |
|  | Superscript | <sup> \_\_\_ </sup> | superscript |
| Bi-direction override |  | <bdo dir=”rtl”> \_\_\_\_</bdo> | Right to left |
| Lists | Unordered | <ul>  <li> item 1 </li>  <ul>  <li> nest 1 </li>  <li> nest 2 </li>  <li> nest 3 </li>  </ul>  <li> item 2 </li>  <li> item 3 </li>  </ul> | Makes unordered list. List can also be nested  Bullet points options  <ul style=”list-style-type:TYPE;”>  Types  Disc  Circle  Square  None |
|  | Ordered List | <ol>  <li> item 1 </li>  <li> item 2 </li>  <li> item 3 </li>  </ol> | Makes ordered list.  Bullet options  Numbered (Type=”1”)  Uppercase Letters (Type=”A”)  Lowercase Letters (Type=”a”)  Uppercase Roman Numbers (Type=”I”)  Lowercase Roman Numbers (Type=”i”)  To start at different value:  <ol start=”x”>  LIST  </ol> |
|  | Description List | <dl>  <dt> term 1 </dt>  <dd> definition 1</dd>  <dt> term 2 </dt>  <dd> definition 2</dd>  <dt> term 3 </dt>  <dd> definition 3</dd>  </dl> | Creates a description list where <DL> is the list. <dt> is the term, and <dd> is the definition> |
|  | Horizontal List | Li {  Float: left;  } | Makes horizontal list, like for a menu |
| CSS - Cascading Style Sheet | | | |
| Inline |  | <h1 style=”color:blue;”> \_\_ </h1>  <p style=”color:red;”> \_\_ </p> | Used to add styling to just one line or element. This example is a blue header with a red paragraph |
| Internal |  | <html>  <head>  <style>  body {background-color: blue;}  h1 {color:red;}  p {color:green;}  </style>  </head> | Used to add styling to the entire page. Added in the head section.  Can specify styling to text style |
| External |  | <DOCTYPE html>  <html>  <head>  <link href=”styles.css” rel=stylesheet>  </head> | Links to an external sheet. Link added to it at the head section. Href is a reference to hyperlink. Can be a URL on another site or a file saved locally or in the website. More efficient, multiple pages can reference one sheet, so only have to edit styling in 1 location. |
| Elements Size | | | |
| Block Level | <address>  <article>  <aside>  <blockquote>  <canvas>  <dd>  <div>  <dl>  <dt>  <fieldset>  <figcaption>  <figure>  <footer>  <form>  <h1-h6> | <header>  <hr>  <li>  <main>  <nav>  <noscript>  <ol>  <p>  <pre>  <section>  <table>  <tfoot>  <ul>  <video> | Starts on a new line and adds margin before and after elements. Always take up full width. |
| Inline | <a>  <abbr>  <acronym>  <b>  <bdo>  <big>  <br>  <button>  <cite>  <code>  <dfn>  <em>  <i>  <img>  <input>  <kbd>  <label> | <map>  <objective>  <output>  <q>  <samp>  <script>  <select>  <small>  <span>  <strong>  <sub>  <sup>  <textarea>  <times>  <tt>  <var> | Does not start new line, is within a paragraph/block level element |

Style guidelines

* First line is always declare document type, usually <!DOCTYPE html>
* Always include <title> , <html> and <body>
* Close all elements
* Lowercase element
* Lowercase attribute
* Quote attribute values
* No spaces around = sign
  + <element attr=”value”;>
* Images: always specify alt, width, and height
* Lowercase file name
* Define character set in meta