**HTML Basics (Hyper Text Markup Language)**

**Branching**

You can think of an HTML document as a tree: elements "branch out" from the main trunk (the **<html></html>** tags). The first two big branches are <head> and <body>, and branches multiply and become finer as you get to elements like <div>s, <table>s, and text (headers and paragraphs).

If you think of the **<html>** tag as the trunk of the tree, you can think of its immediate branches—<head> and <body>—as its **children**. Both tags are children of <html>, and <html> is their **parent** element. Because they are both immediate children of <html> (that is, they are both only one element away), they are **siblings**.

<!DOCTYPE html>

<html> <!--The trunk of the tree!-->

<head> <!--Child of html, parent of title,

sibling of body-->

<title></title> <!--Immediate child of head,

child of head AND html-->

</head>

<body> <!--Child of html, parent of p,

sibling of head-->

<p></p> <!--Immediate child of body,

child of body AND html-->

</body>

</html>

**Code Layout (Nested Lists)**

<!DOCTYPE html>

<html>

<head>

<title>Nested lists</title>

</head>

<body>

<ol>

<li>Dad's interests

<ul>

<li>football</li>

<li>knitting</li>

</ul>

</li>

<li>Mom's interests

<ul>

<li>hating football</li>

<li>skydiving</li>

</ul>

</li>

</ol>

</body>

</html>

**Headings**

<!DOCTYPE html>

<html>

<head>

<title>

Headings & Paragraphs

</title>

</head>

<body>

<h1>H1 Heading</h1>

<p>Writing</p>

<h2>H2 Heading<h2>

<p>Writing</p>

<h3>H3 Heading</h3>

<p>More writing</p>

<h4>H4 Heading</h4>

<p>Writing</p>

<h5>H5 Heading</h5>

<p>writing</p>

<h6>H6 Heading</h6>

<p>Writing</p>

</body>

</html>

1. HTML is used to give websites structure.
2. We open HTML files using a browser, and the browser **renders** (shows us) the file.
3. HTML files have a <head> and a <body> (just like you!)
4. In the head, we have the <title> tags, and we use these to specify the webpage's name.
5. How to make headings and paragraphs.

**Insert a Hyperlink**

<!DOCTYPE html>

<html>

<head>

<title></title>

</head>

<body>

<a href="http://www.codecademy.com">This site</a>

</body>

</html>

**Insert an Image**

<!DOCTYPE html>

<html>

<head>

<title></title>

</head>

<body>

<img src="https://s3.amazonaws.com/codecademy-blog/assets/f3a16fb6.jpg" />

<img src="https://s3.amazonaws.com/codecademy-blog/assets/ninja\_zpsa5dbe37a.jpg" />

</body>

</html>

**Make the image a link**

<!DOCTYPE html>

<html>

<head>

<title></title>

</head>

<body>

<a href="http://www.codecademy.com"><img src="https://s3.amazonaws.com/codecademy-blog/assets/f3a16fb6.jpg"/></a>

<img src="https://s3.amazonaws.com/codecademy-blog/assets/ninja\_zpsa5dbe37a.jpg" />

</body>

</html>

**Clickable Photopage**

<!DOCTYPE html>

<html>

<head>

<link type="text/css" rel="stylesheet" href="stylesheet.css" />

<title>My Photo Page</title>

</head>

<body>

<table>

<thead>

<th>Clickable Photo Page</th>

<tr>

<td>

<a href="http://codecademy.co <! - - Website address - -!>

<img src="https://www.pexels.com/photo/grass-sport-game-match-39562/"/></td></a> <! - - Photo link - -!>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/grass-grassland-54567/"/></td>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/sport-game-match-brasil-41257/"/></td></tr>

<tr>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/football-sport-soccer-stadium-8590/"/></td>

<td><a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/field-stadium-soccer-argentina-61135/"></td>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/stadium-flag-holding-cheering-58461/"></td></tr>

<tr>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/people-men-grass-sport-2209/"></td>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/game-match-stadium-football-9003/"></td>

<td>

<a href="http://codecademy.com">

<img src="https://www.pexels.com/photo/sky-grass-sport-ball-35781/"></td></tr>

</thead>

</table>

</body>

</html>

**Font styling**

<!DOCTYPE html>

<html>

<head>

<title>First font size change</title>

</head>

<body>

<p style="font-size: 10px"> Some text for you to make tiny! </p>

<p style="font-size: 20px"> Some text for you to make normal size!</p>

<<p style="font-size: 40px"> Some text for you to make super big!</p>

</body>

</html>

**Font color (Americanised)**

<!DOCTYPE html>

<html>

<head>

<title>Changing the colors!</title>

</head>

<body>

<h1 style="**colo**r:green; font-size:16">Big Heading</h1>

<p style = "**color**:violet"> A giant bear and a little duck were friends.</p>

<p style="**color**:red; font-size:10">But the bear got hungry and ate the duck.</p>

</body>

</html>

**Font Family**

<!DOCTYPE html>

<html>

<head>

<title>Loving the font changes</title>

</head>

<body>

<h1 style="font-family: Arial">Big title</h1>

<ol>

<li style="font-family: Arial; font-size: 16">This item is big Arial.</li>

<li style="font-family: Verdana; font-size: 12">This item is medium Verdana.</li>

<li style="font-family: Impact; font-size: 10">This item is small Impact.</li>

</ol>

</body>

</html>

**Aligning Text**

<!DOCTYPE html>

<html>

<head>

<title>Sexy background color!</title>

</head>

<body>

<h3 style="text-align:center">Favorite Football Teams</h3>

<ol>

<li>The Hawthorn Football Club</li>

<li h1 style="text-align:center">San Franscisco 49ers</li>

<li style="text-align:right">Barcelona FC</li>

</ol>

</body>

</html>

**Strong Words**

<!DOCTYPE html>

<html>

<head>

<title>Viva La Revolution!</title>

</head>

<body>

<p>Do you hear the people <strong>sing</strong>?</p>

<p>No I don't. I'm <strong>too</strong> busy eating cake.</p>

</body>

</html>

**Emphasise words**

<!DOCTYPE html>

<html>

<head>

<title>Some nice practice</title>

</head>

<body>

<p>Hey, don't say <em>*that*</em>!</p> *<! - - Make a word itallic - - !>*

<p>I am <em>so</em> tired.</p>

</body>

</html>

**Adding Tables & rows**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table>

<tr></tr>

<!-- Add two more rows below this! -->

<tr></tr>

<tr></tr>

</table>

</body>

</html>

**Adding data to tables**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table border="1px">

<tr> <!- - Table row! - - >

<td>One</td> <!- - Table data! - - >

</tr>

<td>Two</td>

<tr>

<td>Three</td>

</tr>

<tr>

</tr>

</table>

</body>

</html>

**Adding more columns**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table border="1px">

<tr>

<td>King Kong</td>

<td>1933</td>

</tr>

<tr>

<td>Dracula</td

<td>1897</td>

</tr>

<tr>

<td>Bride of Frankenstein</td>

<td>1935</td>

</tr>

</table>

</body>

</html>

**Adding Table Heads**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table border="1px">

<thead>

<tr>

<th>Famous Monster</th> <! - - Column Heading! - - >

<th>Birth Year</th> <! - - Column Heading! - - >

</tr>

</thead>

<tbody>

<tr>

<td>King Kong</td>

<td>1933</td>

</tr>

<tr>

<td>Dracula</td>

<td>1897</td>

</tr>

<tr>

<td>Bride of Frankenstein</td>

<td>1935</td>

</tr>

</tbody>

</table>

</body>

</html>

**Naming a Table**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table border="1px">

<thead>

<tr>

<th colspan="2">Famous Monsters by Birth Year</th> <! - - Span number of cols for Header - - !>

</tr>

<tr>

<th>Famous Monster</th>

<th>Birth Year</th>

</tr>

</thead>

<tbody>

<tr>

<td>King Kong</td>

<td>1933</td>

</tr>

<tr>

<td>Dracula</td>

<td>1897</td>

</tr>

<tr>

<td>Bride of Frankenstein</td>

<td>1935</td>

</tr>

</tbody>

</table>

</body>

</html>

**Add Styling to the Header**

<html>

<head>

<title>Table Time</title>

</head>

<body>

<table style="border-collapse:collapse;">

<thead>

<tr>

<th style = "color:red" colspan="2">Famous Monsters by Birth Year</th> <! - -Header Red - -!>

</tr>

<tr style="border-bottom:1px solid black;">

<th style="padding:5px;"><em>Famous Monster</em>

</th>

<th style="padding:5px;border-left:1px solid black;"><em>Birth Year<em/></th>

</tr>

</thead>

<tbody>

<tr>

<td style="padding:5px;">King Kong</td>

<td style="padding:5px;border-left:1px solid black;">1933</td>

</tr>

<tr>

<td style="padding:5px;">Dracula</td>

<td style="padding:5px;border-left:1px solid black;">1897</td>

</tr>

<tr>

<td style="padding:5px;">Bride of Frankenstein</td>

<td style="padding:5px;border-left:1px solid black;">1944</td>

</tr>

</tbody>

</table>

</body>

</html>

**Divisions**

<!DOCTYPE html>

<html>

<head>

<title>Result</title>

</head>

<body>

<div style=" width:50px width:50px; height:50px; background-color:red"></div> <! - - Allows you to divide a page into containers - - !>

<div style="width:50px; height:50px; background-color:blue"></div>

<div style="width:50px; height:50px; background-color:green"></div>

<a> <! - - Allows you to make it into a link by clicking on it - - !>

<div style="width:50px; height:50px; background-color:yellow"></div>

</a>

</body>

</html>

**Spans**

<!DOCTYPE html>

<html>

<head>

<title></title>

</head>

<body>

<p>This text is black, except for the word <span style="color: red;"> red!</span></p>

</body>

</html>

<! - - <span> allows you to control styling for smaller parts of your page, such as text. For example, if you always want the first word of your paragraphs to be red, you can wrap each first word in <span></span> tags and make them red using CSS! - - !>