HTML 2

HTML Structure and Syntax

HTML Mini Exercises

Recreate the HTML Structure of a sample site

HTML STRUCTURE

```html
<!DOCTYPE html>
<html lang="en-US">
<body>
<h1>This is the Main Heading</h1>

<p>This text might be an introduction to the rest of
the page. And if the page is a long one it might
be split up into several sub-headings.

<p>

<h2>This is a Sub-Heading</h2>

<p>Many long articles have sub-headings so to help
you follow the structure of what is being written.
There may even be sub-sub-headings (or lower-level
headings).</p>

<h2>Another Sub-Heading</h2>
<p>Here you can see another sub-heading.</p>

</body>
</html>
```

Syntax Overview

CODE

```html
<html>
    <body>
        <h1>This is the Main Heading</h1>
        <p>This text might be an introduction to the rest of
           the page. And if the page is a long one it might
           be split up into several sub-headings.<p>

        <h2>This is a Sub-Heading</h2>
        <p>Many long articles have sub-headings so to help
           you follow the structure of what is being written.
           There may even be sub-sub-headings (or lower-level
           headings).</p>

        <h2>Another Sub-Heading</h2>
        <p>Here you can see another sub-heading.</p>
    </body>
</html>
```

Syntax Overview

DESCRIPTION

The opening `<html>` tag indicates that anything between it and a closing `</html>` tag is HTML code.

The `<body>` tag indicates that anything between it and the closing `</body>` tag should be shown inside the main browser window.

Words between `<h1>` and `</h1>` are a main heading.

A paragraph of text appears between these `<p>` and `</p>` tags.

Words between `<h2>` and `</h2>` form a sub-heading.

Here is another paragraph between opening `<p>` and closing `</p>` tags.

Another sub-heading inside `<h2>` and `</h2>` tags.

Another paragraph inside `<p>` and `</p>` tags.

The closing `</body>` tag indicates the end of what should appear in the main browser window.

The closing `</html>` tag indicates that it is the end of the HTML code.

Like a Word Document

Open
Body
Heading
Paragraph

Sub Heading
Paragraph

Close

Opening tags can carry attributes, which tell us more about the content of that element.

Attributes require a name and a value.

```
<!-- This is a comment -->


<!-- Used to Self Document and for working in groups -->

<!--[if IE 8]>
```
Place your IE 8 HTML Code here
```
<![endif]-->
```

Heading:

```
<h1>This is a Main Heading</h1>
<h2>This is a Level 2 Heading</h2>
<h3>This is a Level 3 Heading</h3>
<h4>This is a Level 4 Heading</h4>
<h5>This is a Level 5 Heading</h5>
<h6>This is a Level 6 Heading</h6>
```

Formatting:

```
<b>Makes Bold Text</b>
<i>This is Italics</i>
<strong>Emphasizes Text</strong>
<small>Reduces Text Size</small>
<em>Emphasis</em>
<sup> Super Script used for Dates</sup>
<sub> Sub Script used for Formulas</sub>
```

Formatting Cont'd:

```
<br>break to Next Line</b>
<p>New Paragraph</p>
<hr />Horizontal Rule or Section Break
```

HTML

```
<p>On the 4<sup>th</sup> of September you will learn
   about E=MC<sup>2</sup>.</p>
<p>The amount of CO<sub>2</sub> in the atmosphere
   grew by 2ppm in 2009<sub>1</sub>.</p>
```

RESULT

On the 4th of September you will learn about $E=MC^2$.

The amount of CO_2 in the atmosphere grew by 2ppm in 2009[1].

Formatting Blocks of Content:

Paragraphs and Line Breaks:

```
<br>Break to Next Line</b>

<p>New Paragraph</p>

<hr />Horizontal Rule or Section Break
```

Quotes and Abbreviations:

```
<blockquote cite="http://www.whatever.com">Will
Indent Content, Content Quoted from another
site</blockquote>
<q>Quote</q>

<p><abbr title="Professor">Prof</abbr> Joe
Barber</p>

<p><acronym title="National Aeronautics and Space
Administration">NASA</acronym> do some crazy
space stuff.</p>
```

Addresses:

```
<address>
<p><a href="mailto:homer@example.org">
homer@example.org</a></p>

<p>742 Evergreen Terrace, Springfield.</p>
</address>
```

Strikethrough:

```
<p>Laptop computer:</p>
<p><s>Was $995</s></p>
<p>Now only $375</p>
```

HTML elements are used to describe the structure of the page (e.g. headings, sub-headings, paragraphs).

They also provide semantic information (e.g. where emphasis should be placed, the definition of any acronyms   used, when given text is a quotation).

Unordered Lists

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

Ordered Lists

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Nested Lists

```
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
            <li>Black
tea</li>
      <li>Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>
```

Definition Lists

```
<dl>
<dt>Sashimi</dt>
<dd>Sliced raw fish that is served with
condiments such as shredded daikon
radish or ginger root, wasabi and soy
sauce</dd>
</dl>
```

Ordered lists use numbers.

Unordered lists use bullets.

Definition lists are used to define terminology.

Lists can be nested inside one another.

You will commonly come across the following types of links:

Links from one website to another
Links from one page to another on the same website
Links from one part of a web page to another part of the
same page
Links that open in a new browser window
Links that start up your email program and address a new email
to someone

Relative Link- (Uses File Name)

```html
<a href="about.html">About Us Page</a>
```

External Link & Opening A New Window- (Uses URL)

```html
<a href="http://www.w3schools.com/" target="_blank">Visit W3Schools!</a>
```

Linking an Image- (Uses image instead of text to click on)

```html
<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0">
</a>
```
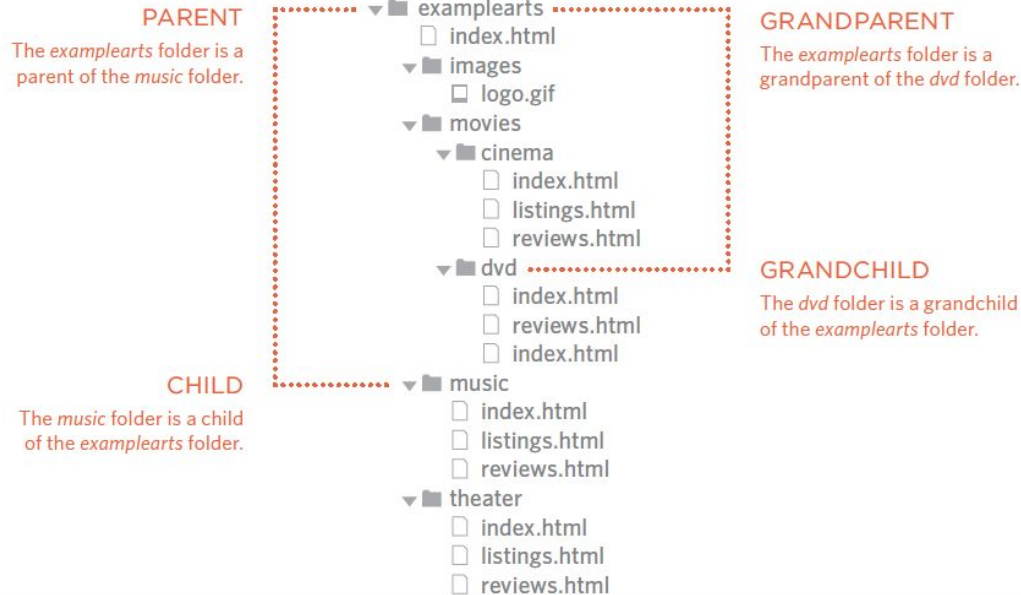
Mail To Link- (Uses Mail Client)

```html
<a href="mailto:jon@example.com">Email Jon</a>
```

Link Inside A Page- (Scrolls Content to top)

```html
<h1 id="top">This is my Top line</a>
Other HTML headings, content, and Paragraphs here, ...lots of content!
<a href="#top">Top of Page</a>
```

"Pay attention to folder/file paths"

```
<a href="images/default.asp"> Drill in -Parent -> Child
<a href="css/icons/default.asp"> Drill in -Parent -> Child-> Grandparent
<a href="../index.html"> -Up a directory
```

PARENT

The *examplearts* folder is a parent of the *music* folder.

GRANDPARENT

The *examplearts* folder is a grandparent of the *dvd* folder.

CHILD

The *music* folder is a child of the *examplearts* folder.

GRANDCHILD

The *dvd* folder is a grandchild of the *examplearts* folder.

▼ ■ examplearts
   ▢ index.html
  ▼ ■ images
    ▢ logo.gif
  ▼ ■ movies
    ▼ ■ cinema
      ▢ index.html
      ▢ listings.html
      ▢ reviews.html
    ▼ ■ dvd
      ▢ index.html
      ▢ reviews.html
      ▢ index.html
  ▼ ■ music
    ▢ index.html
    ▢ listings.html
    ▢ reviews.html
  ▼ ■ theater
    ▢ index.html
    ▢ listings.html
    ▢ reviews.html

Links are created using the <a> element.

The <a> element uses the href attribute to indicate the page you are linking to.

If you are linking to a page within your own site, it is best to use relative links rather than qualified URLs.

You can create links to open email programs with an email address in the "to" field.

You can use the id attribute to target elements within a page that can be linked to.

src- Tells the browser where to find the file

alt - Provides a description of the image is it doesn't display

title - tooltip giving more information about the image

height - specifies height in pixels

width - specifies width in pixels

```
<img src="pbcs.jpg"alt="Palm Beach Code School logo" width="104" height="142" />
```

Save images at the size you will be using them on the web page!

```
<figure>

<img src="pbcs.jpg"alt="Palm Beach Code School
logo" width="104" height="142" />

<br />

<figcaption>
Caption for the picture, places it at the bottom
</figcaption>

</figure>
```

Used if your image has a caption associated with it.

Save images at the size you will be using them on the web page!

HTML Tables

```html
<table>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

Table 1

```html
<table border="1">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
      <th>Cost</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

Table 2

```html
<table border="1">
  <caption>Monthly savings</caption>
  <tr>
    <th colspan="2">Month</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

Table 3

Jill Smith   50
Eve Jackson 94

Table 1

Monthly
savings

Month	
January	$100
February	$50

Table 3

Monthly
savings

Month	Cost
January	$100
February	$50

Table 2

Table 1 has no border, 2
rows, 3 columns and has

Table 2 has , a border, caption.
2 table headers, 3 rows, 2
columns

Table 3 has, a border, caption,
3 rows, 2 columns, table
head spans two columns

HTML Nested Tables

```html
<table border="1">
  <tr>
    <td>

            <table width="400" border="1">
  <tr>
    <td>Cell 1  Row 1 of second Table</td>
            <td>Cell 2  Row 1 of second Table</td>
  </tr>
  <tr>
    <td>Cell 2  Row 1 of second Table;</td>
            <td>Cell 2  Row 1 of second Table;</td>
  </tr>
</table>

</td>
            </tr>
  <tr>
    <td>Bottom Row</td>
            <td>Bottom Row</td>
  </tr>
</table>
```

Cell 1 Row 1 of second Table	Cell 2 Row 1 of second Table	
Cell 2 Row 1 of second Table;	Cell 2 Row 1 of second Table;	
Bottom Row		Bottom Row

3 Elements to distinguish main content of a table

<thead></thead>
<tbody></tbody>
<tfoot></tfoot>

<thead>

The headings of the table should sit inside the <thead> element.

<tbody>

The body should sit inside the <tbody> element.

<tfoot>

The footer belongs inside the <tfoot> element.

```html
<table>
  <thead>
    <tr>
      <th>Date</th>
      <th>Income</th>
      <th>Expenditure</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th>1st January</th>
      <td>250</td>
      <td>36</td>
    </tr>
    <tr>
      <th>2nd January</th>
      <td>285</td>
      <td>48</td>
    </tr>
    <!-- additional rows as above -->
    <tr>
      <th>31st January</th>
      <td>129</td>
      <td>64</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <td></td>
      <td>7824</td>
      <td>1241</td>
    </tr>
  </tfoot>
</table>
```

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    <tr>
      <td></td>
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      <td>1241</td>
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  </tfoot>
</table>
```

The <table> element is used to add tables to a web page.

A table is drawn out row by row. Each row is created with the <tr> element.

Inside each row there are a number of cells represented by the <td> element (or <th> if it is a header).

You can make cells of a table span more than one row or column using the rowspan and colspan attributes.

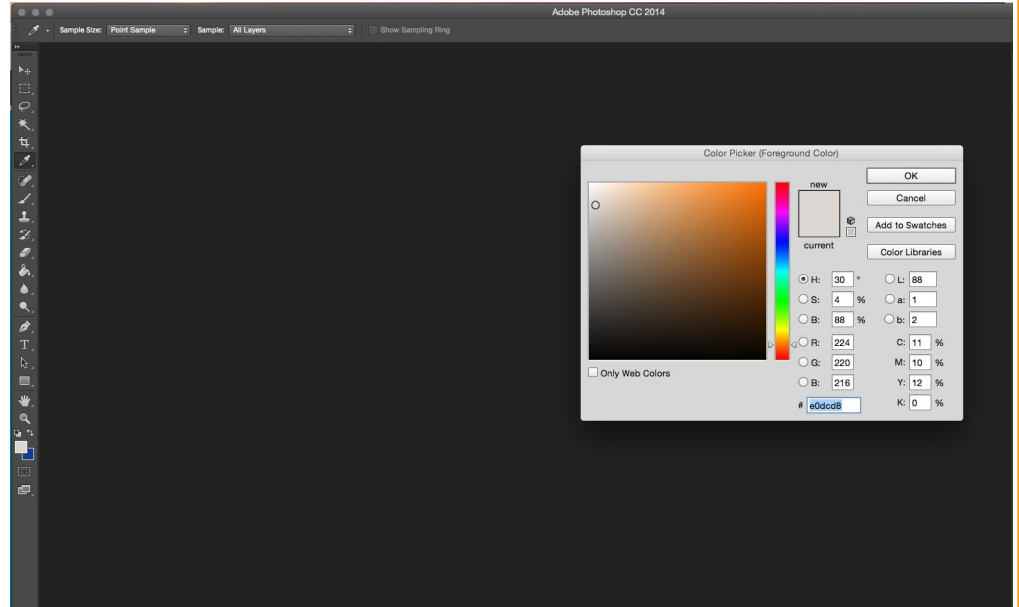For long tables you can split the table into a <thead>,<tbody>, and <tfoot>.

```html
<body style="background-color:lightgrey">

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
```

```html
<h1 style="color:blue">This is a heading</h1>
<p style="color:red">This is a paragraph.</p>
```
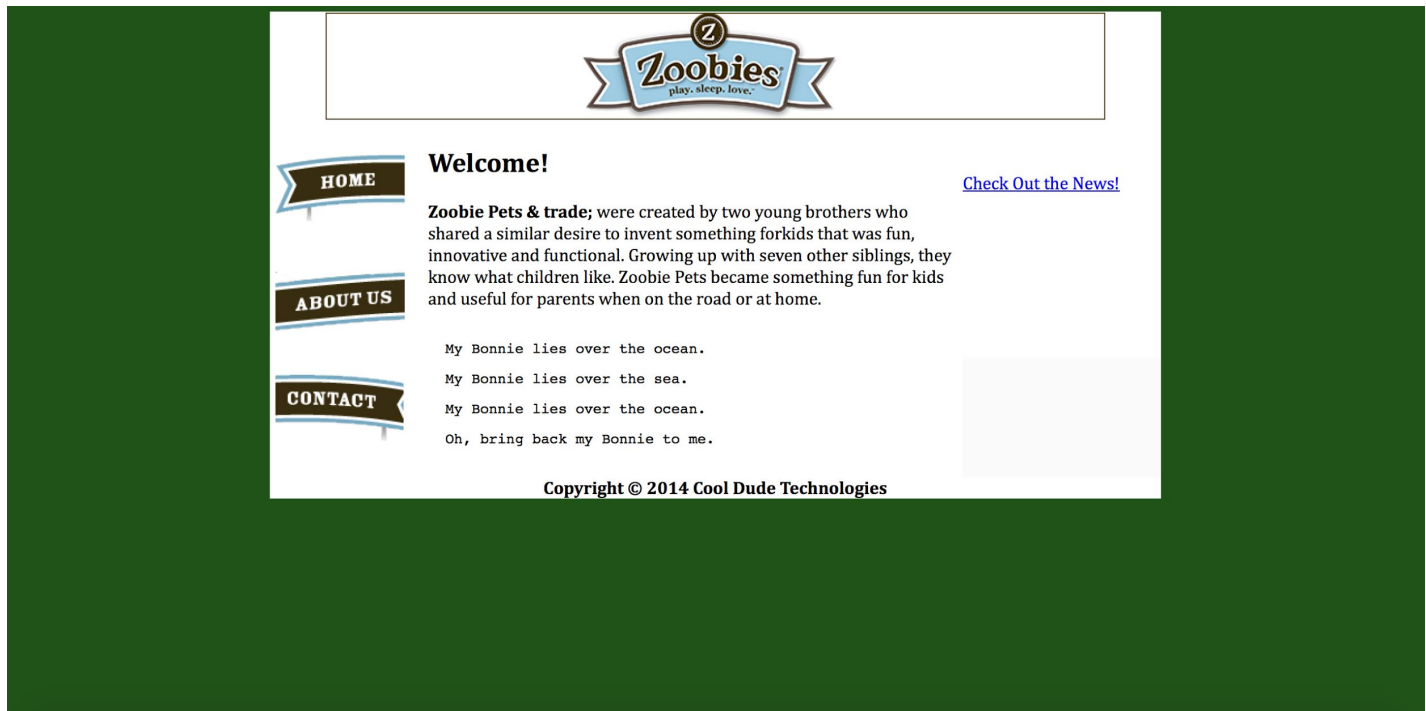
Coding Exercise

Code This Page Together Using Nested Tables and Formatting

Finish Coding Page for Homework

Cut out images using Photoshop
Put images and verbiage on site using tables
Post Results to the PBCS web server under new project
folder called Zoobies