Student objective: to build a simple page in less than 1 hour with no prior html knowledge. Age group 9/10+
We usually achieve a result within 15minutes i.e. publicly viewable web-page.

Deliverable: Student learns the basic building blocks of a webpage using a class story. Each student will tell a simple one page story, 3-5 lines. Lessons 2-6 will build on this to create a useful website

Preparation: Decide on a theme for the class story eg local history, sport or fundraiser. Prepare Flashcards with for each HTML tag as a reminder.


Method: Explain that HTML "Hyper Text Markup Language" is the language of the internet akin to a spoken language. The learning concept in this lesson is that the HTML tags are presented as words to the internet in a stream of speech and "it needs to know what to do with them, such as display a picture or show words". We will use the simple book analogy for the class story: cover, title and pages with words and pictures.


Outcome: Students will exit the class with their own website link they can show to others.

**1 Write each tag below on the board. Put the story text between the tags which is about the class story. <html>"tells the internet" that the tags coming next are going to describe a page in a book.**

**<title>the book title</title>**
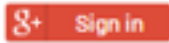**<body>coming next is what will be on the page**

**<p>tells the internet to start a new paragraph (story body)</p> </body>end of the page**
**</html>end of the book**

**The idea at this point is to show that you only need 4 tags to create a simple page. If available have the [site] up, showing the blank page;**

# CoderDojo

## Skeleton Page

1. Go to http://quickdojo.com
2. Click this:



# Students should now code  this:

```
<HTML>
  <HEAD>
    <TITLE>My First Page</TITLE>
  </HEAD>

  <BODY>

  <P>Hello World!</P>

  </BODY>
</HTML>
```

**Notes:**
1. This is a very basic web page.
2. Every tag is paired up (opened and closed), e.g. **<HTML>** and **</HTML>**
3. Tags are not case sensitive: **<BODY>** and **<body>** are both fine.
4. Indentation and separate lines makes it easier to read and easier to spot mistakes, but is not required. This will also work:

```
<HTML><HEAD><TITLE>My First Page</TITLE></HEAD><BODY><P>Hello World!</P></
BODY> </HTML>
```

## Some Common Elements

All on-screen content appears between the **<BODY>** and **</BODY>** tags, and that applies to all common tags on the next few pages.

## Lists

```
<HTML>
  <HEAD>
    <TITLE>My First Page</TITLE>
  </HEAD>

  <BODY>

  <P>This is an unordered list (UL):</P>

  <UL>
      <LI>Item One</LI>
      <LI>Item Two</LI>
      <LI>Item Three</LI>
  </UL>

  <P>This is an ordered list (OL):</P>

  <OL>
      <LI>Item One</LI>
      <LI>Item Two</LI>
      <LI>Item Three</LI>
  </OL>

  </BODY>
</HTML>
```

**Notes:**
1. <UL> is an unordered list (each item is prefixed with a bullet point).
2. <OL> is an ordered list (each item is prefixed with a number).

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# Images

```
<HTML>
  <HEAD>
    <TITLE>My First Page</TITLE>
  </HEAD>

  <BODY>

  <P>This is an image:</P>

  <IMG src="http://www.sensorpro.net/coderdojo/cat.jpg">

  </BODY>
</HTML>
```

**Notes:**
1. Some HTML tags have **attributes** - extra values that appear inside the < > of the tag (see **src** above)
2. **src** in this case is the "source" of an image (i.e. where it exists on the internet).
3. Some tags (like <IMG>) are standalone tags and don't need a closing tag.
4. The cat image is an image on the internet. You can replace this with any image you want.

**Exercise:**

Try replacing the cat image with one of your own!

a. Go to http://images.google.com
b. Find an image
c. Click it, then "View Image".
d. Grab the link from the location bar in your browser



e. Replace the **src** value in the image link above (the value between the double quotation marks)

# Tables

```
<HTML>
  <HEAD>
    <TITLE>My First Page</TITLE>
  </HEAD>

  <BODY>

  <P>This is a table:</P>

  <TABLE width="100%" cellpadding="2" cellspacing="2" border="1">
  <TR>
      <TD>Top Row Cell 1</TD>
      <TD>Top Row Cell 2</TD>
      <TD>Top Row Cell 3</TD>
  </TR>
  <TR>
      <TD>Middle Row Cell 1</TD>
      <TD>Middle Row Cell 2</TD>
      <TD>Middle Row Cell 3</TD>
  </TR>
  <TR>
      <TD>Bottom Row Cell 1</TD>
      <TD>Bottom Row Cell 2</TD>
      <TD>Bottom Row Cell 3</TD>
  </TR>
  </TABLE>

  </BODY>
</HTML>
```

**Notes:**
1. A table starts with a <TABLE> tag and ends with a </TABLE> tag.
2. <TR> is a table row.
3. <TD> is a table cell.
4. Anything between <TD> and </TD> will be displayed on screen.
5. Table attributes:
    a. **width** is the width of the table
    b. **cellpadding** is the space between the cell contents and the border around the cell.
    c. **cellspacing** is the space between each individual cell.

**Exercise:**

1. Try increasing **cellpadding** and see what happens!
2. Try increasing **cellspacing** and see what happens!
3. Try changing the width of the table.
4. Try adding a 4th row to the table above.

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# Troubleshooting

Why isn't my page working?

1. Do you have **one** <HTML> tag in your document? (should be at the top)
2. Do you have **one** corresponding </HTML> tag at the bottom? (Should be the last line)
3. Do you have **one** <BODY> tag?
4. Do you have **one** corresponding </BODY> tag at the bottom? (Should be the second last line)
5. Do you have any broken/mistyped tags? Some common mistakes:

   **Mistake:** <LI.  (tag not closed correctly)
   **Solution:** <LI> -- applies to any tag, not just <LI>

   **Mistake:** <\TABLE> (incorrect slash character)
   **Solution:** </TABLE> -- applies to any tag - make sure you have the correct /

   **Mistake:** "colour" as an attribute, e.g. **colour="red"**
   **Solution:** Should be "color" (American Spelling), e.g. **color="red"**