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.

Dingle Coderdojo 1

Week 1

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;

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).

Images

```
<HTML>
    <HEAD>
        <TITLE>My First Page</TITLE>
    </HEAD>
    <BODY>
    <P>This is an image:</P>
    <IMG src="https://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 https://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.

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"