



# HTML & CSS FOR ARTISTS

**SAM HEMPHILL**

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# WHO AM I?

## I AM SAM

- I've been developing websites for around 15 years.
- My main coding work is in html, css, JavaScript and sometimes php.
- I've worked for agencies as well as client-side and also freelance.
- I've had the pleasure of working with some great clients including Qantas, Australian Government, Cricket Australia, EPA, ME Bank & ANZ.



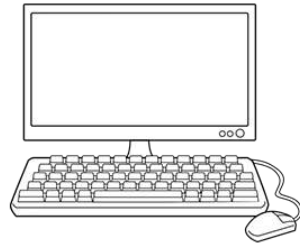
# HTML & CSS FOR ARTISTS: AGENDA

- How the internet works
- How websites work
- Who does what
- HTML
  - Terms and examples
  - Create a simple HTML page
- CSS
  - Terms and examples
  - Add style to the HTML page
- Q&A (we'll actually Q&A all the way through)

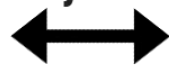
**WELCOME TO THE INTERNET**

# HELLO 'CLOUD'

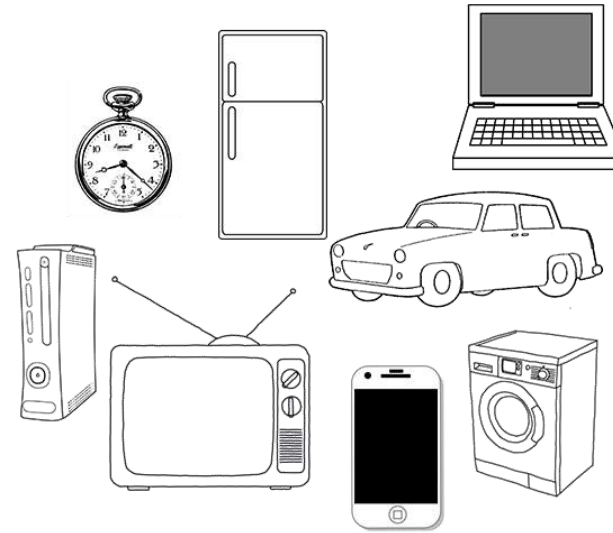
## SERVER



How you doin'?



## CLIENT



# WHAT ABOUT BROWSERS?



Browsers interpret information from the server so your client can display it

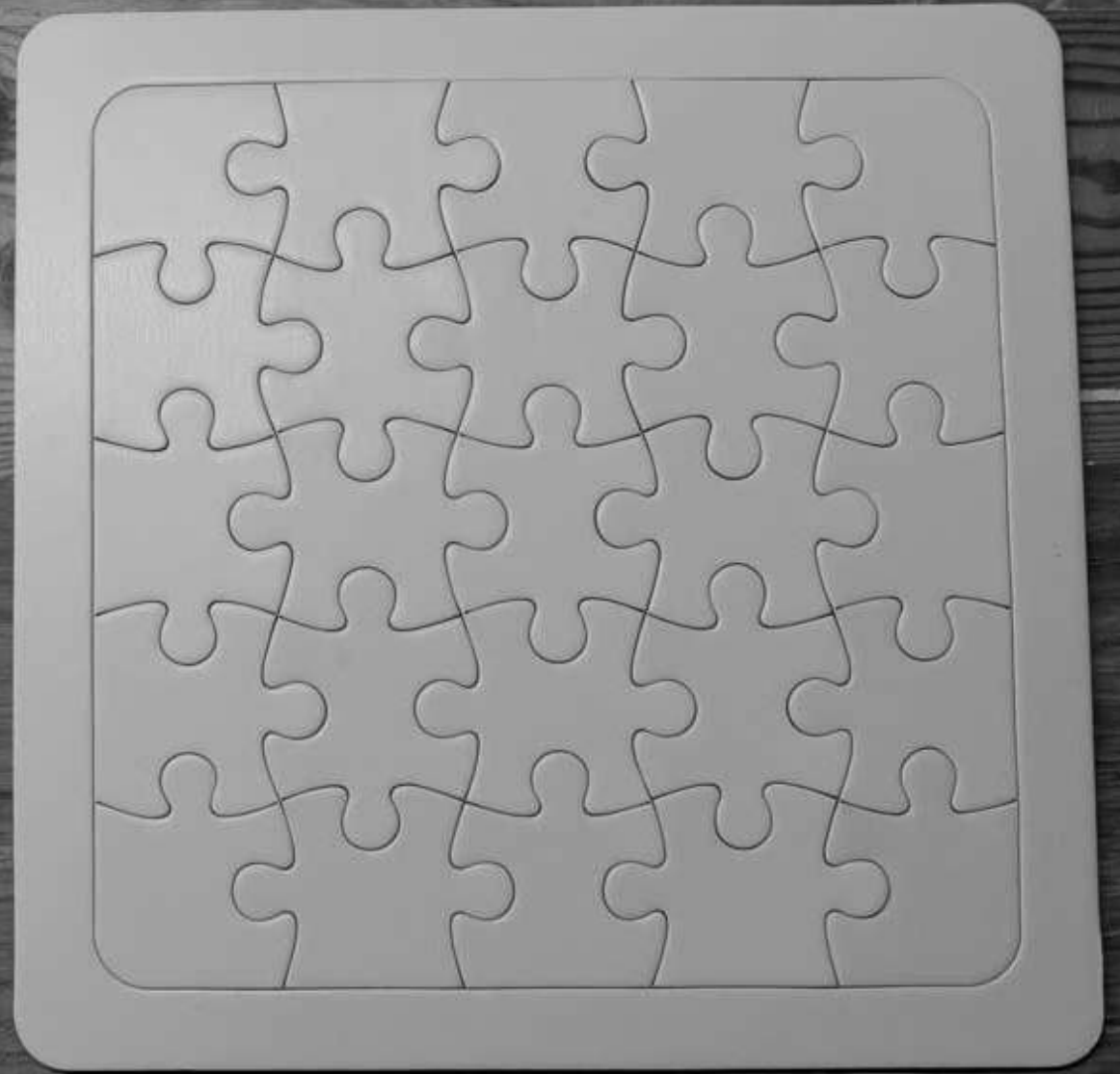


# WHAT ABOUT A WEBSITE?

Think of it like a house

Lots of people working together to create something that's greater than the sum of its parts





**SO, WHO DOES WHAT?**





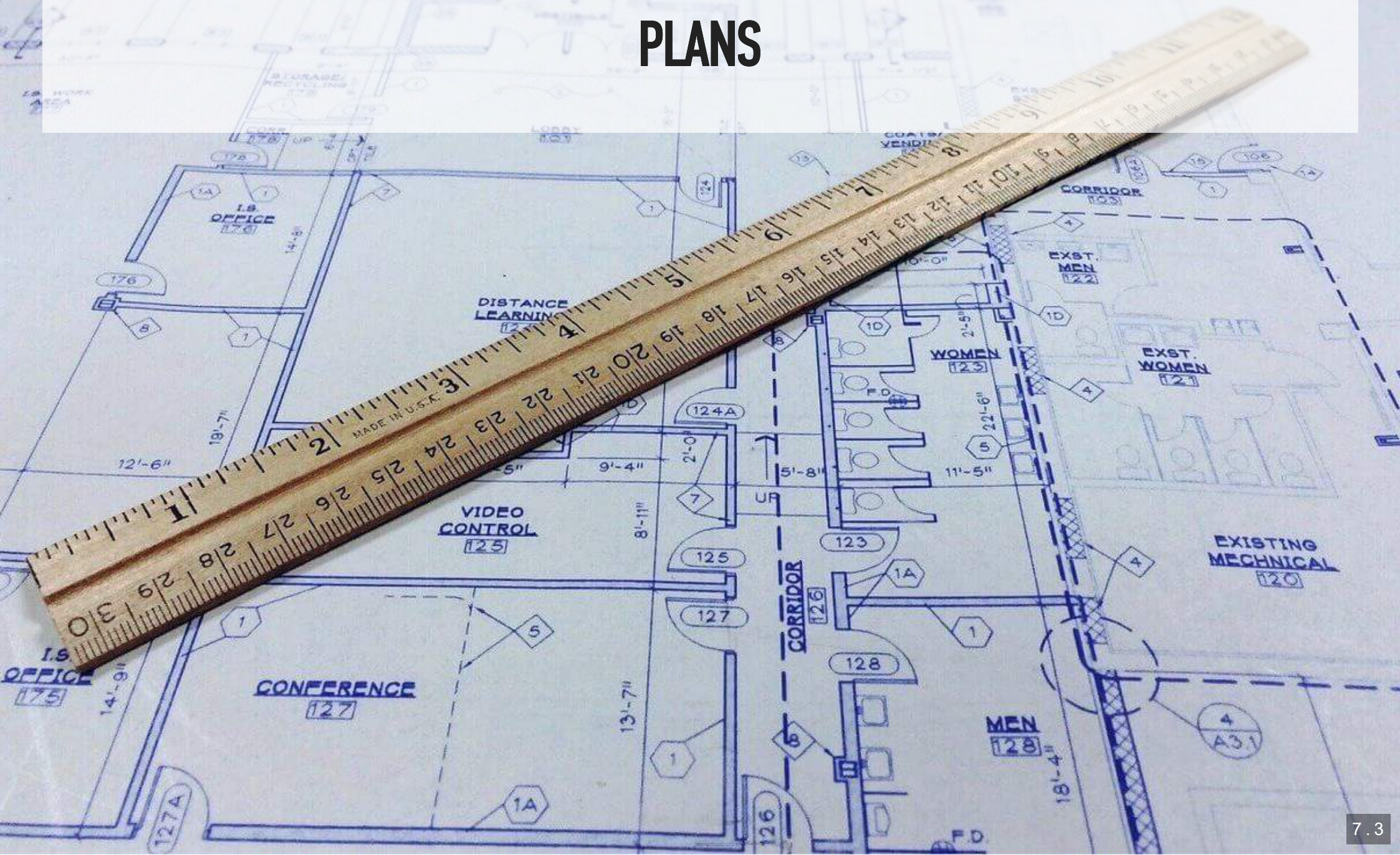
**WEB DESIGNERS**

# ARCHITECTS AND WEB DESIGNERS BOTH HELP THE CLIENT MAKE DECISIONS





# ARCHITECTS WORK OUT WHERE THINGS WILL GO WITH HOUSE PLANS





# WEB DESIGNERS WORK OUT WHERE THINGS WILL GO WITH WIREFRAMES





# ARCHITECTS CREATE COLOURS AND FITTINGS



# WEB DESIGNERS CREATE COLOURS AND ELEMENTS

## Headings // 20pt Black

**Body:** Avenir Medium 16pt #6c7079

**Heading:** Avenir Black 20pt #3c4146

Regular text would look like

this. 16pt, 32pt line-height..

Check out this [blog post](#), and  
maybe bold this **word** too.

## Tooltips

Item 1  
Item 2  
Item 3  
Item 4

## Toggles



84x43px Inactive

#5799d6

84x43px Active

#5799d6

84x43px Inactive

#e96565

84x43px Active

#d75c5c

84x43px Inactive

#e96565

84x43px Active

#52b596

## Radio/Check Btns

Check



Radio



Type in me..

I'm active!

Theres a problem here..

Everythings all good!

## Feed





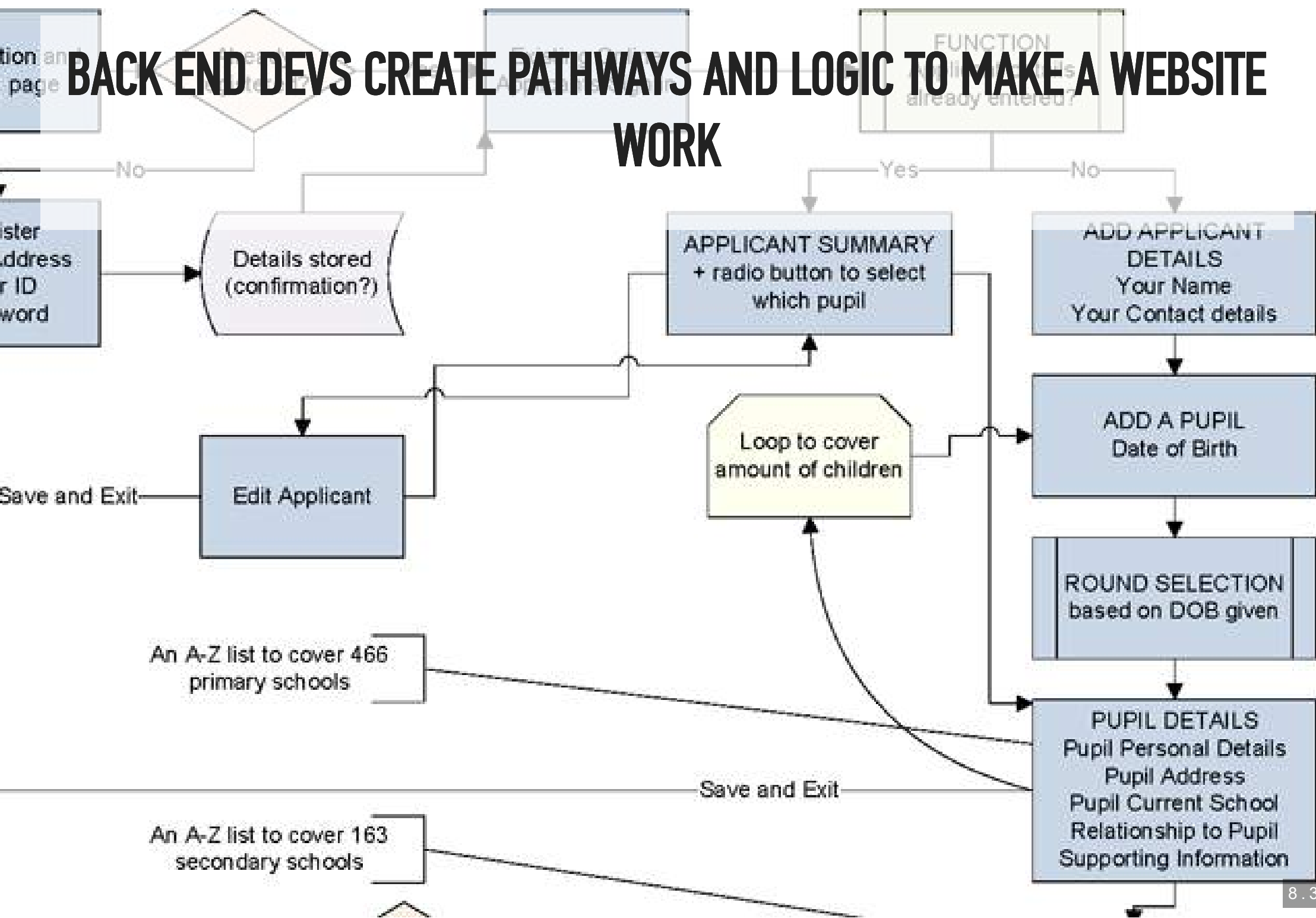


**BACK END DEVELOPERS**

# **ELECTRICIANS AND PLUMBERS LAY PIPES AND WIRING SO TAPS AND LIGHTS CAN TURN ON AND OFF**



# BACK END DEVS CREATE PATHWAYS AND LOGIC TO MAKE A WEBSITE WORK





# HTML



# CSS



## WHAT ABOUT HTML & CSS?

# HTML & CSS DEVELOPERS

AKA

- Front End Developer
- Front End Engineer
- User Interface (UI) Developer
- Client Side Developer
- Front End Designer (a FED that also does design)
- Full Stack Developer (a FED that also does Back End Dev)

# FRONT END DEVELOPERS ARE THE BUILDERS IN THE HOUSE ANALOGY





A builder takes the architects drawings and builds the house using the wiring and piping the electrician and plumber have laid.

**A FED TAKES THE DESIGNS AND MARRIES THEM UP WITH THE BACK END LOGIC, TO MAKE A USABLE INTERFACE BETWEEN WHAT A WEBSITE LOOKS LIKE, AND WHAT IT DOES.**



Front End Development is the creation of the elements of a website that users see and interact with directly.

It is a combination of programming skills and aesthetics.

The tools and techniques used in Front End Development change often, so developers need to constantly be aware of how the field is evolving.

```
<tr class="row-1 row-first row-last">
  <td class="col-1 col-first">
    <div class="views-field views-field-title"> <span class="field-content"> <a href="/yellowleather/products/
    <div class="views-field views-field-uc-product-image">
      <div class="field-content">
        <a href="/yellowleather/products/shoes/comfy-leather-shoes">  <span class="views-label views-label-display-price">
    </div>
  </td>
  <td class="col-2">
    <div class="views-field views-field-title"> <span class="field-content"> <a href="/yellowleather/products/
    <div class="views-field views-field-uc-product-image">
      <div class="field-content">
        <a href="/yellowleather/products/belts/embossed-spread-wing-eagle-belt">  <span class="views-label views-label-display-price">
    </div>
  </td>
  <td class="col-3 col-last">
    <div class="views-field views-field-title"> <span class="field-content"> <a href="/yellowleather/products/
    <div class="views-field views-field-uc-product-image">
      <div class="field-content">
        <a href="/yellowleather/products/hats/leather-hat">  <span class="views-label views-label-display-price">
    </div>
  </td>
</tr>
```

WHAT DOES THE FRONT END CODE DO?

# HTML

The guts of the page- all the structure and content is here.

Every page on the internet is made from html.

*HTML is the walls of our house.*

# CSS

Controls how the page looks.

Gets all the content displayed by the html and makes it pretty.

*CSS is the paint and fancy bathroom tiles.*

# JAVASCRIPT

Presentational JavaScript controls much of the interactivity, and often works with the css to add a bit more flair to the user experience.

*JavaScript is the spa jets in the bath, or dimmer switches on our lights.*



HTML + CSS + JS example on Codepen

All files used for Front End Development are just text files with a different extension.

Your computer knows what to do with a file by its extension.

.docx will open MS Word

.pdf will open Adobe Acrobat

.txt will open your text editor

Your computer also knows what to do with FED files by their extension:

**.html** is the extension for html files

**.css** is the extension for css files

**.js** is the extension for Javascript files

```

class="container">


# WHAT IS HTML?



11/1


```

# HYPERTEXT MARKUP LANGUAGE

HTML (sometimes just called markup) is the building block of the web and is the only language you need to build a webpage- it'll just be really ugly and won't do much by itself.

Every web page EVER is built from html.

View source of any webpage and the bulk of what you'll see is html.

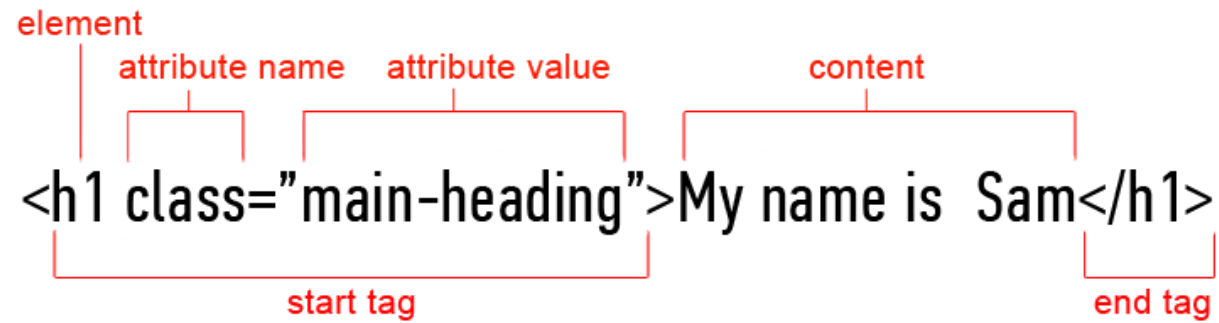
HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like `<html>`).

HTML tags most commonly come in pairs like `<h1>` and `</h1>`.

The first tag in a pair is the start tag, and the second tag is the end tag (they are also called opening and closing tags).



# HTML TAGS







# HTML SEMANTICS



# HTML SEMANTICS

Semantics is the study of language. More specifically, it is the branch of linguistics and logic concerned with meaning.

Therefore, semantic elements means that the elements have meaning.

You should only put content in the tags they're meant to be in.

An example of this is the **<nav>** tag. You wouldn't put a copyright notice in a nav tag, because it would not be semantically correct.

Some other examples of semantic elements include **<article>**, **<header>** , and **<footer>**.

Check out [Mozilla Developer Network HTML element reference](#).

# HEADINGS HIERARCHY EXAMPLE

Major headings go inside `<h1></h1>` tags.

The **h** in h1 stands for heading. Headings are semantic by hierarchy.

The next level of heading after `<h1>` is `<h2>`, then `<h3>` etc

Their sole purpose is to designate a hierarchy of headline importance, so both human readers and automated search engines can look at a document and easily determine its information structure.

Heading hierarchy can be a difficult concept to wrap your head round. Think of them like subheadings in an assignment.



# HEADINGS HIERARCHY EXAMPLE

eg: <https://codepen.io/meeum/pen/brEoGq>

```
<h1>Bruce Springsteen discography</h1>
```

```
<h2>Born to Run</h2>
```

```
<p>...</p>
```

```
<h3>Release date</h3>
```

```
<p>...</p>
```

```
<h3>Chart position</h3>
```

```
<p>...</p>
```

```
<h2>Darkness on the Edge of Town</h2>
```

```
<p>...</p>
```

```
<h3>Release and reception</h3>
```

```
<p>...</p>
```

```
<h3>Track listing</h3>
```

```
<p>...</p>
```

# ANATOMY OF A WEB PAGE

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Page title</title>
    <link rel="stylesheet" href="style.css" media="screen">

  </head>
  <body>
    <div class="my-div">
      Welcome to my website
    </div>

  </body>
</html>
```



**LET'S GET SOME CODE**

Go to:

[code.meeum.com/artists](https://code.meeum.com/artists)

1. Download **website.zip**
2. Extract the folder to your desktop (or anywhere on your computer)
  - Mac - double click zip file
  - PC - right click -> Extract All
3. Click through into the 'website' folder to see **index.html**. There's also a folder of resources there that we'll look at later.
4. Double click on **index.html** to open in Chrome (or your browser of choice)





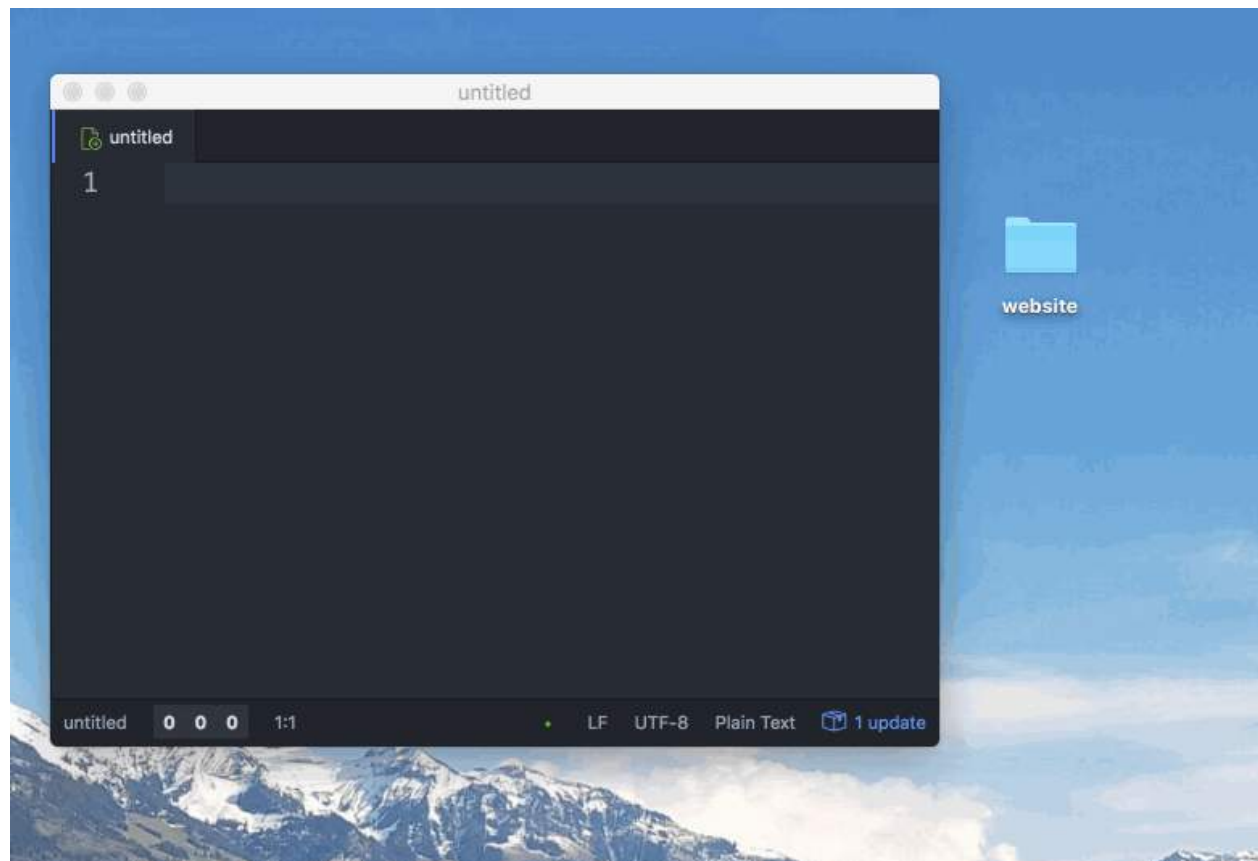
# ATOM

**ATOM SETUP**

# FOLDER SETUP

Go to the website folder we just downloaded and drag it into Atom.

Double click on **index.html** so we can look at what's there.





**LET'S SETUP THE BONES OF OUR  
HTML**

# HTML REVISIT

As we said previously:

1. Everything on a webpage is wrapped in `<html>` tags
2. Everything that the browser needs to know, but doesn't actually display is in the `<head>`
3. Everything the browser displays is in `<body>`
4. For the most part, HTML tags are like a country gate.... **if you open it , you close it.**



# THE DOCTYPE

1. Double click and open index.html inside our text editor
2. Ignore all the text at the moment - that's the beginning of our first website.
3. We're going to start by giving the page a doctype - this tells the browser that this is an html5 page.
4. Type this code on the first line of **index.html**

```
<!doctype html>
```

[Read more about the HTML5 doctype on MDN](#)

# LET'S ADD SOME WRAPPING TAGS

```
<html>
```

```
  <head>
```

```
  </head>
```

```
  <body>
```

```
  </body>
```

```
</html>
```

# TITLE

Let's add a title to our page, and then we can get to writing some real code.

In between your `<head>` tags, type the following:

```
<title>EarWax the band - official website</title>
```

The title tag is a required tag in all HTML documents, and should convey what the webpage is about.

# SANITY CHECK

Let's see the fruits of our labour so far.

Find **index.html** in Finder or Windows Explorer and double click it to open in your default browser.

We should see whatever we wrote in the title to be viewable in the tab.



# WHY IS THE TITLE TAG SO IMPORTANT?

1. Whatever you have in your **<title>** tag is also what is displayed when adding to favourites, or when you add to homescreen on mobile.
2. Whatever is in the title tag is also what will show in Google, Bing, Yahoo etc



<https://moz.com/learn/seo/title-tag>



**LET'S WRITE SOME CODE!**

# LET'S WRITE SOME MORE HTML

Semantic headings! Think about accessibility and SEO...

```
<h1>EarWax</h1>
```

```
<h2>About EarWax</h2>
```

```
<h2>EarWax Music</h2>
```

```
<h3>Happyrock</h3>
```

```
<h3>Jazz Frenchy</h3>
```

```
<h2>Next Gig</h2>
```

```
<h2>Contact EarWax</h2>
```

# HTML – SEMANTIC WRAPPER TAGS

Remember all those ones over at [Mozilla Developer Network](#) ?

```
<header>
    <h1>EarWax</h1>
</header>

<main>
    <!-- our main content goes in this section -->
</main>

<footer>
    <!-- things like copyright notices, links to privacy policies etc
    tend to go in the footer -->
</footer>
```



# HTML – COMMENTS

We can write notes for ourselves and our fellow developers in these comments.

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

```
<!--  
    comments can also be multi-line  
    So if you really wanted to  
    You  
    could  
    take  
    up  
    a  
    lot  
    of  
    space  
-->
```

# WELCOME TO THE <P> TAG

```
<main>
  <h2>About Earwax</h2>
  <p>The Wiggles are an Australian children's music group...</p>
  <p>Field and Fatt were members of the Australian pop band The Cockroaches in the 1980s...

  <h2>Next Gig</h2>
  <p>23 November @ Metropolis Brisbane Buy Tickets</p>

  <h2>Contact EarWax</h2>
  <p>Call Joe on 0414 123 456 or you can send us an email.</p>
  <p>Follow us on Facebook and Instagram.</p>
</main>

<footer>
  <p>All imagery used ... </p>
  <p>All text used ... </p>
</footer>
```

<p> is for paragraph

Let's add <p> and </p> to the text and then check back on our page in the browser

# HTML – ADDING LINKS

We've already got some links in our page for all the copyright stuff in the footer:

```
All imagery used is licenced as  
<a href="https://creativecommons.org/share-your-work/public-domain/cc0/">Public Domain</a>  
<a href="https://pixabay.com">Pixabay</a> and <a href="https://unsplash.com">Unsplash</a>
```

a is for anchor

href defines a link to a resource as a reference URL

Whatever is between our <a> and </a> tags is what is displayed to the user.

In the above case, that would be "Public Domain", "Pixabay" and "Unsplash".

# HTML – ADDING LINKS

Let's add more links

```
<!-- let's add this under the gigs -->
<a href="http://ticketmaster.com">Buy Tickets</a>

<!-- add links in our contact section -->
<a href="https://facebook.com/yourFBaddress">Facebook</a>
<a href="https://instagram.com/yourIGaddress">Instagram</a>
```

We need the protocol (**https://**) to tell the computer what we're linking to, and so what program to use.

```
<a href="mailto:email@gmail.com">send us an email</a>
```

Note the different uri schemes we can use here. Common ones include **mailto** and **tel**.

There are **plenty of others** with varying support, such as **sms**, **geo** and **skype**.

# ADDING IMAGES

Let's put in an image in between the two paragraphs in the 'About EarWax' section...

```
 tag is one of the few that don't close. This is because it is a 'void element' which means it has no content, or child nodes. It can, however, have attributes.

The 'src' and 'alt' attributes are required (and you can add others if you need/want to).

Read [my article](#) on the best way to add images to your site to increase SEO and accessibility.



# ADDING AUDIO

For years we had to rely on Flash and other additional plugins and scripts to run audio and video.

With HTML5 we can do this natively in almost every browser:

```
<audio controls src="resources/happyrock.mp3"></audio>  
<audio controls src="resources/jazzyfrenchy.mp3"></audio>
```

The audio tag needs a **src** attribute to say where the file is and also needs to **controls** attribute so can can play and pause the audio.

Other attributes can include **autoplay**, **loop** and **muted**.

Read more about the audio property at <https://developer.mozilla.org/en-US/docs/Web/HTML/Element/audio>

**LET'S OPEN OUR NEW WEBSITE**

**B00000000000000R-ING**

This is the moment you've all been waiting for.

**A GLORIOUS WELCOME TO THE MOST FUN YOU CAN HAVE WITH A COMPUTER WHILE  
SITTING IN A ROOM WITH A BUNCH OF STRANGERS.**

**ARE YOU READY?**

**I SAID, ARE YOU READY?**



**WELCOME TO CSS**

## Cascading Style Sheets

CSS is used to format the look of the website.

It is by far the biggest part of FED – it's the bridge where a design can become a website.

There can be no css without html.

Attributes (classes) are like hooks for the css.

A css file is just a text file with an extension of .css

Let's look at [CSS Zen Garden](#).

All the pages have the same html- the only difference is the css.



Class attributes on our HTML are a great way to target using CSS, although we can target elements too.

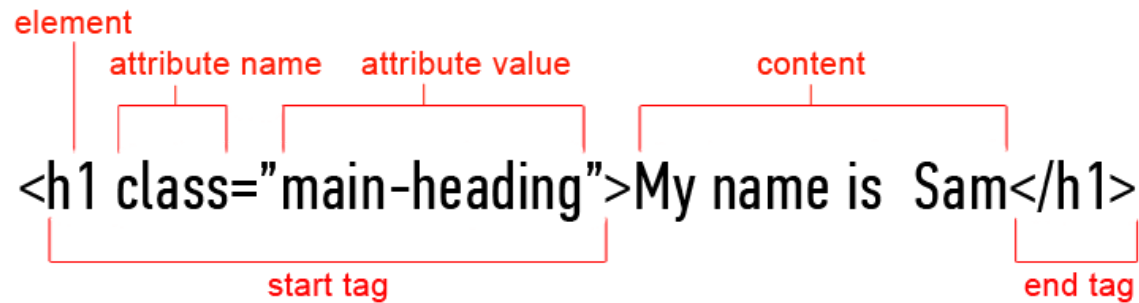
CSS syntax is:

```
element {  
    property: value;  
}  
  
.class-name {  
    property: value;  
}
```

Multiple elements can have the same class, and elements can have multiple classes

CSS cascades is a logical way (order of priority)

## REMEMBER OUR HTML?



## LET'S LOOKS AT THE CORRESPONDING CSS



Just like the crazy big HTML Reference we looked at earlier, there's also a crazy big [Mozilla Developer Network CSS reference](#) too!

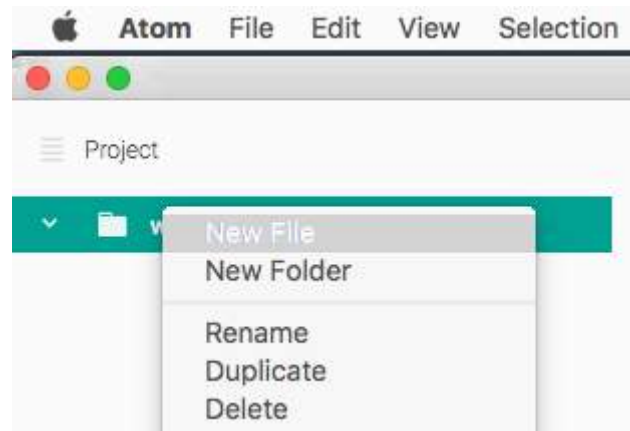


**LET'S ADD SOME CSS TO OUR PAGE**

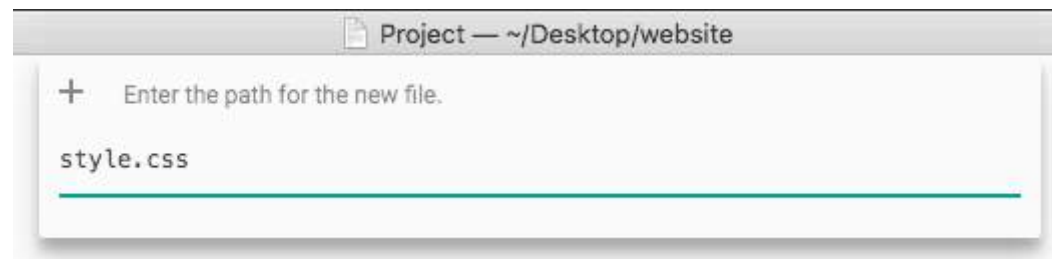
# CREATE CSS FILE

In our text editor, right click on our **website** folder

Hit **New File**

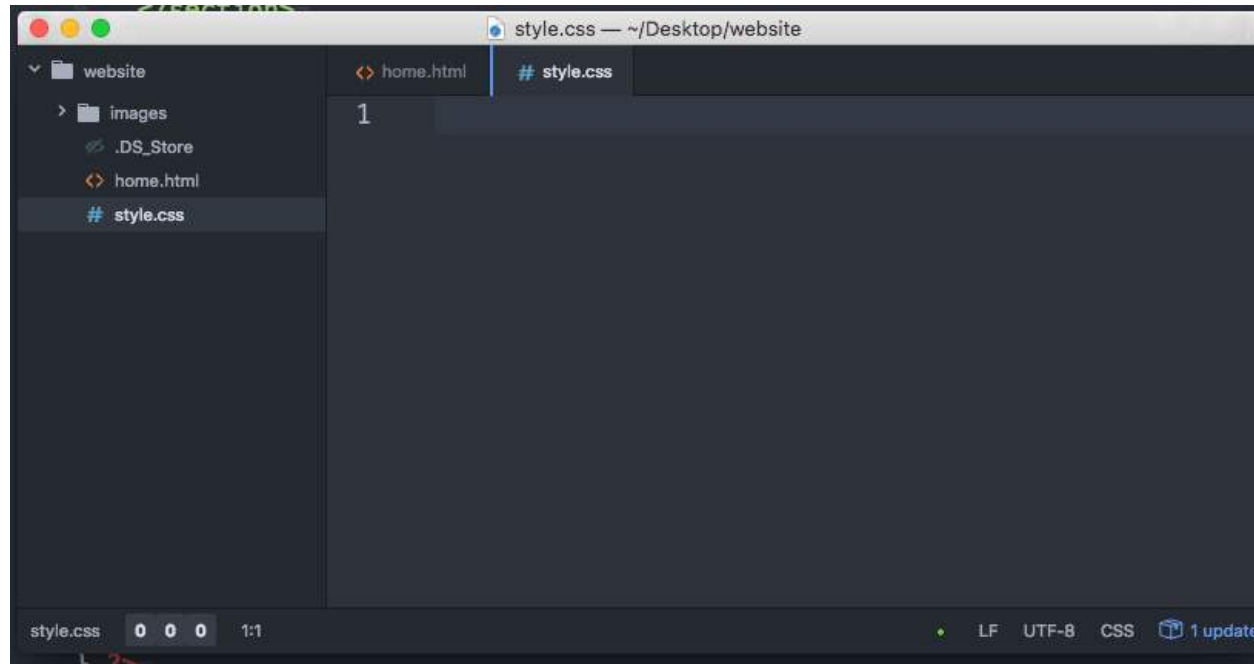


A naming dialog will pop up. Let's call the file **style.css**





# OPEN OUR CSS FILE IN OUR TEXT EDITOR



# TIME TO WRITE SOME CSS

We'll add the style defaults to our `<body>` tag which can be overridden later on with more specific tags.

Colours can be written as their name: **background-color: black;**

OR a hex: **background-color: #000000;**

OR as RGB: **background-color: rgb(0,0,0);**

```
/* This is a CSS comment.  
Always comment your work to explain what you're doing */  
  
body {  
    font-family: arial, sans-serif;  
    background-color: black;  
}
```

# ADDING CSS FILE PATH TO OUR HTML

Nothing happened when we refreshed because our HTML document doesn't know the CSS file exists.

Add this code to the **<head>**

```
<link rel="stylesheet" href="style.css">
```

While we're here, we need to tell the browser we want our page to look wonderful on mobile too.

```
<meta name="viewport" content="width=device-width">
```

# SOME BASE STYLES FOR MAJOR ELEMENTS

```
/* we can comme separate elements to have same style */

header,
footer {
    text-align: center;
    color: white;
}

footer {
    font-size: 12px;
}

/* Also note that HTML and CSS use American spelling (color not colour). */
main {
    background-color: rgba(240, 248, 255, 0.8);

    padding: 20px;

    max-width: 1000px;

    margin-left: auto;
    margin-right: auto;
    margin-bottom: 50px;
}
```

For a full list of named colors, check out <http://htmlcolorcodes.com/color-names/>

```
/* TYPOGRAPHY*/  
  
h1 {  
    font-size: 100px;  
}  
  
h2 {  
    font-size: 40px;  
}
```



# CSS FOR IMAGES

```
/* IMAGES - max-width so we're responsive out of the box */  
img {  
    max-width: 100%;  
    height: auto;  
    margin-bottom: 20px;  
}
```

Codepen showing **height: auto**: <https://codepen.io/meeum/pen/xXGrWo>

# BACKGROUND IMAGES

This site is looking a bit drab. Let's add a background image...

```
background-image: url("resources/earwax-live-shot.jpg");  
background-repeat: no-repeat;  
background-attachment: fixed;  
background-position: center top;  
background-size: cover;
```

All of that could be shortened to

```
background: url("resources/earwax-live-shot.jpg") no-repeat fixed center top #000 / cover
```

More on CSS background at [MDN](#).

# CSS FOR OUR LINKS

```
/* LINKS*/  
a {  
    color: crimson;  
}  
  
.footer a {  
    color: white;  
}
```

# CSS FOR OUR LINKS

Let's give the link to ticket sales a **class** attribute:

```
<a class="button" href="http://ticketmaster.com">Buy Tickets</a>
```

And add the CSS for that:

```
.button {  
    background-color: black;  
    color: white;  
  
    text-decoration: none;  
  
    padding: 10px;  
  
    border: 1px solid black;  
}  
  
.button:hover {  
    background-color: white;  
}
```

# A QUICK WORD ON PSEUDO-CLASSES

A pseudo-class is used to define a special state of an element (eg: hover).

```
:hover  
:focus  
:active  
:visited  
:first-child  
:first-of-type  
  
selector:pseudo-class {  
    property:value;  
}
```

More info: <https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-classes>

# OUR FIRST WEBSITE!

Let's go back to the browser and look at our finished product.

[meeum.github.io/html-and-css-for-artists/](http://meeum.github.io/html-and-css-for-artists/)

## EarWax

### About Earwax

Earwax are an Australian children's music group formed in Sydney, New South Wales, in 1991. Since 2012, the group members are Anthony Field, Lachlan Gillespie, Simon Pryce, and Emma Watkins. The original members were Field, Phillip Wilcher, Murray Cook, Greg Page, and Jeff Fatt. Wilcher left the group after their first album. Page retired in 2006 due to ill health and was replaced by understudy Sam Moran, but returned in 2012, replacing Moran. At the end of 2012, Page, Cook, and Fatt retired, and were replaced by Gillespie.





# RESOURCES

# WEBSITES

## IF YOU HAVE ISSUES

- Your best friend is Google
- [Stack Overflow](#) is an excellent resource for specific issues

## REFERENCE

- [Mozilla Developer Network](#)
- [CSS Tricks Almanac](#)

## BLOGS / SITES TO FOLLOW

- [Meeum.com](#) (of course)
- [CSS Tricks](#)
- [Smashing Magazine](#)
- [Sitepoint](#)
- [AtoZ CSS](#)
- [A List Apart](#)
- [A11y Weekly](#) (Accessibility newsletter)
- Webdev and Front End Subreddits if you're into Reddit
- [W3 spec](#) if you have a lot of time on your hands

# TEACH YOURSELF ONLINE

- [Codeschool](#)
- [Treehouse](#)
- [Wes Bos \(CSS Grid\)](#)
- [Wes Bos \(CSS Flexbox\)](#)
- [Wes Bos \(Javascript 30\)](#)

## COMPATABILITY AND ACCESSIBILITY

- [Can I Use](#)
- [W3 Validator \(Code errors\)](#)
- [A Checker \(Accessibility\)](#)
- [WebAim \(Accessibility\)](#)

## PODCASTS

- [Syntax](#)
- [Shoptalk Show](#)
- [Tools Day](#)
- [Front End Happy Hour](#)
- [Developer Tea](#)

Here's an article I wrote on [podcasts I like](#).

## BOOKS

- [A Book Apart](#)
- [Anything by Jon Duckett](#)
- [Sitepoint books](#)



**WHERE TO FROM HERE?**



We're adding new workshops all the time, and most of what we do is aimed right at beginner level.

## **Anyone can do this!**

We have workshops from 3 hours to 3 days, and are always adding new workshops aimed at different interests.

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