

# CF:G INTRODUCTION TO WEB DEVELOPMENT

**Week 1 – HTML**

WELCOME!

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- How the courses will be run
- What we will learn on this course
  - HTML
  - CSS
  - UX – User Experience
  - GitHub, repositories and versions control
  - Twitter Bootstrap
  - Javascript and JQuery
- Introducing our instructors
- Introduce yourself! If you were a biscuit, what biscuit would you be?

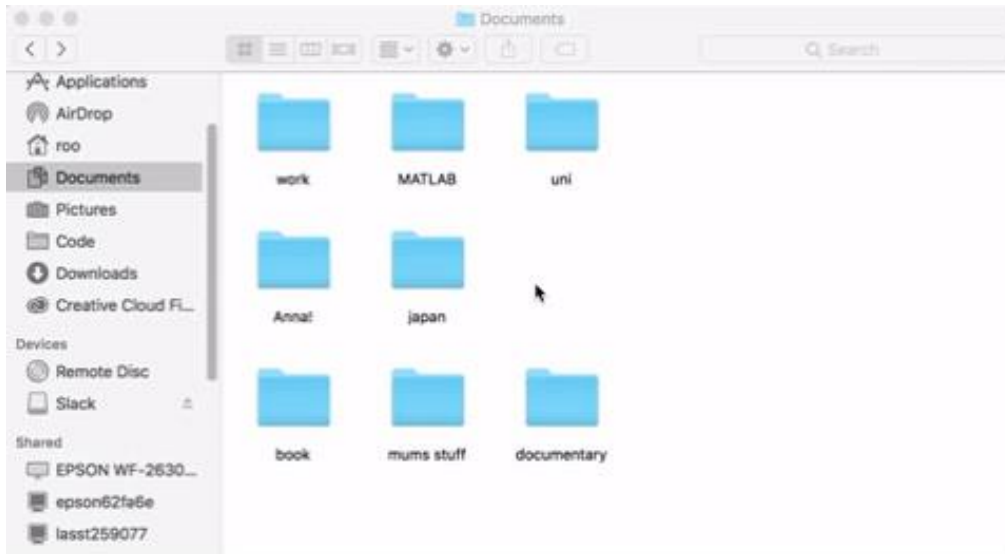
# INSTALLATIONS

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- Check that you have the following on your computer
  - The text editing programme called '**Atom**' [<https://atom.io/>]
  - The web browser '**Google Chrome**' [<https://www.google.com/chrome/browser/desktop/index.html>]
  - GitHub desktop client application <https://desktop.github.com/>
- Register yourself for a '**GitHub**' account
  - Go to <https://github.com>
- Download your course documents (PDF format) onto your desktop

**If you don't have any of the above or having any issues, just let your instructor know!**

# TASK: CREATE A CODING\_COURSE FOLDER






In your documents, create a folder called `'coding_course'`. This will be where you will keep all the websites you will be making over the next few weeks.

When you download files from github, make sure you move them into here, so they are all in one place and easy to find!

# INTRODUCTION TO CODING

# WHAT MAKES A WEBSITE?

<div>HTML</div> <div><i>HyperText Markup Language</i></div> <div></div>	<div>CSS</div> <div><i>Cascading Style Sheets</i></div> <div></div>	<div>JavaScript</div> <div></div> <div></div>
<div>a markup language</div> <div><b>Describes</b> the <b>structure</b> of web pages.</div> <div>HTML documents are described by <b>HTML tags</b>, and each tag <b>describes</b> different element.</div>	<div>a stylesheet language</div> <div><b>Describes</b> the <b>presentation</b> of web pages, including colors, layout, and fonts.</div> <div>It enables <b>responsive design</b>; for one to adapt the presentation to different types of devices.</div>	<div>a programming language</div> <div>Allows user interactivity, and enables web pages to be dynamic. (Usually without needing to reload the page)</div> <div>*It is a type of programming language, <u>scripting</u>.</div>

A helpful analogy: HTML is for saying “there’s a box on the page”, CSS says “that box is pink” and JavaScript is for saying “when you click on that box, an alert will pop up!”



# **There are no secrets in HTML, CSS or JS**

Find out using Google Chrome Dev Tools

# TASK - HACK OUR WEBSITE!

- Demonstration of the Web Dev tools in Chrome
- go to <http://www.codefirstgirls.org.uk> in Chrome
- Making changes to the HTML and CSS code of a web page:  
how does it work?
- Try this out yourself in pairs!

# CHAPTER 1: WHAT EVEN IS THE INTERNET AND THE WORLD WIDE WEB?

# WHAT IS THE INTERNET AND HOW DOES IT WORK?

## Internet

### HARDWARE

- A large network
- A lot of computers connected to each other
- **servers**

## Web

### SOFTWARE

- The system you use to access the internet
- Browser, email, instant messaging, ...
- **clients**

# HOW DOES THE INTERNET WORK?

## **server**

The computers  
holding web pages,  
sites and applications

requests



respond



## **clients**

The software on  
computers people use  
to access the web

Desktop computer, laptop,  
phone, ...

# TWO TYPES OF WEBSITE

## **Static**

- Pre-prepared
- Always same

## **Dynamic**

- Generated on the fly
- Pulls data from a database

E.g. facebook.com

# PUTTING UP A WEBSITE

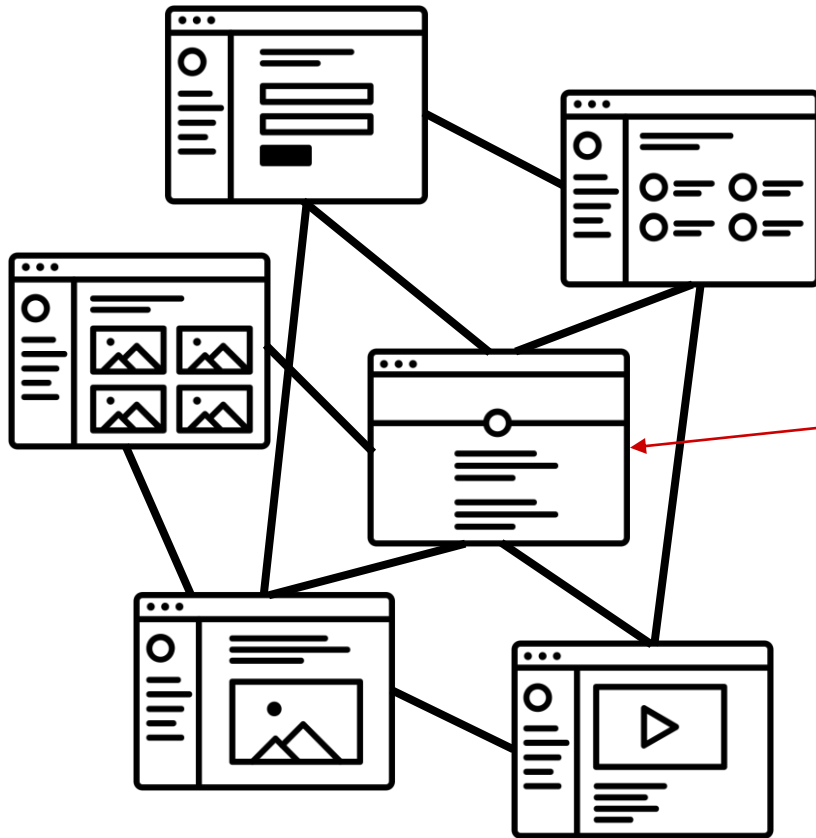
## **Hosting**

A server to host your website

## **Domain**

A domain name to point towards

# CHAPTER 2: WHAT MAKES A WEBSITE?



## Website

- A collection of linked web pages
- The home page is **index.html**

Icons by KAPKLAM from the Noun Project



# THE COMPONENTS OF A WEB PAGE

**HTML**

words

the backbone

---

**CSS**

style

how it looks

---

**JavaScript**

scripts

how it interacts

---

**Images, video,  
audio, etc.**

media

entertainment

---

HYPER TEXT MARKUP  
LANGUAGE OR  
"HTML"

# CHAPTER 3: CREATING A BASIC HTML PAGE

All you need is:

- A text editor
- A web browser

# HTML ELEMENTS

<h1>Hello World codepen demo</h1>

```
<h1>Hello world</h1>
```

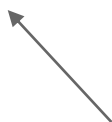
```
<p>This is my first website!</p>
```

# OPEN AND CLOSE ELEMENTS

**<tag>** .. stuff .. **</tag>**



Opening tag



Closing tag

```
<h1>Hello world</h1>
```

```
<p>This is my first website!</p>
```

```
<p>I am learning to <code>code</code>. </p>
```

# ALL-IN-ONE ELEMENTS

`<tag attribute="value" >`

↑  
The tag  
opens  
here

↖  
The content of the  
element is  
contained in an  
attribute

↗  
The tag  
closes  
here

```

```

# ATTRIBUTES

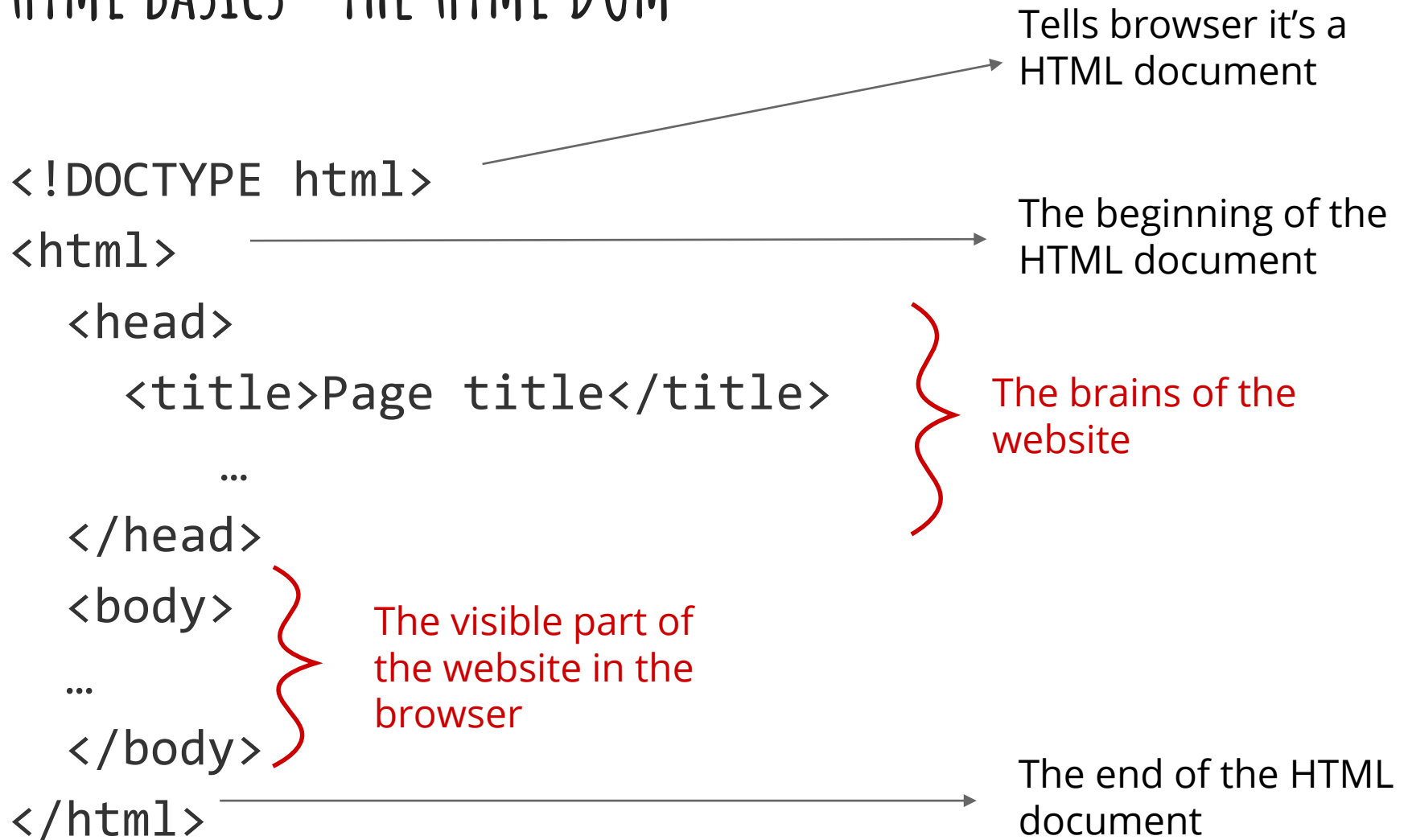
`<tag attribute="value" >`

No spaces on  
either side of  
the = sign

Quote marks  
surrounding the  
value of the  
attribute

```
<div class="image">  
  <a href="www.link.com">  
      
  </a>  
</div>
```

# HTML BASICS "THE HTML DOM"





# GOOD CODE PRACTICE

- Always indent nested code.
- The last tag you opened is the first tag you close.
- Your editor will help you with this! When you make a mistake it will often highlight it in a different colour

## VALID CODE

```
<div>
  <h1>Hello world</h1>
  <p>
    <em>I
  <strong>really</strong>
    mean that</em>
  <p>

  <div>
    <h2>A subtitle</p>
    <p>A few sentences to go with
    the subtitle. About nothing
in
    particular, just making up
the
    numbers.</p>
  </div>
</div>
```

## TASKS

1. Go to the github repository for this session:  
<https://github.com/CodeFirstGirls/beginners-week-one>
1. Follow the instructions on the README file and carry out the tasks
2. Make sure you finish all the tasks, as we will be using this file as a basis of your personal website over the next three weeks!

# HOMEWORK

1. Finish the HTML exercise from the last section. If you are struggling, the solution for the first exercise can be [found here](#).  
(there is nothing wrong with copying in web dev!)

## Preparation for next time

1. What is CSS? Get ready for the next class by watching [this fun video](#).

# EXTRA RESOURCES

[This video](#) talks about how the Internet works in 5 minutes

[A summary](#) of the different components of the Internet

[File organising](#) for your website

[Introduction to servers](#) by Eli the Tech Guy

An article from Mozilla's Developer Guides: [Introduction to HTML](#)

[W3 Schools HTML Tutorial](#)

[HTML Terms Glossary](#)

[HTML DOM](#)

[Web Monkey HTML Cheatsheet](#)

[Simple HTML Guide Cheatsheet](#)

[A HTML Validator that checks your HTML code](#)