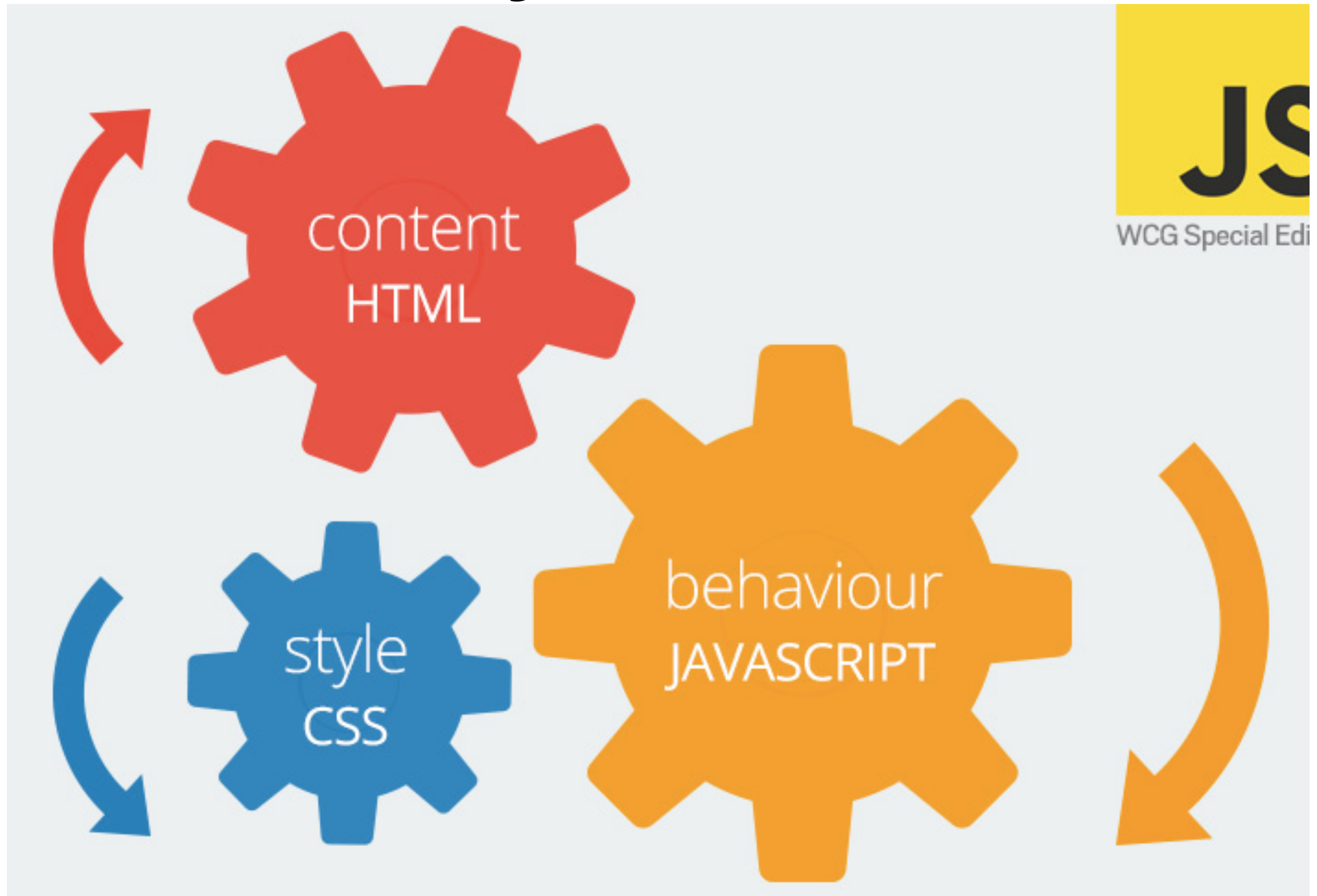# Learning to Code Session 1

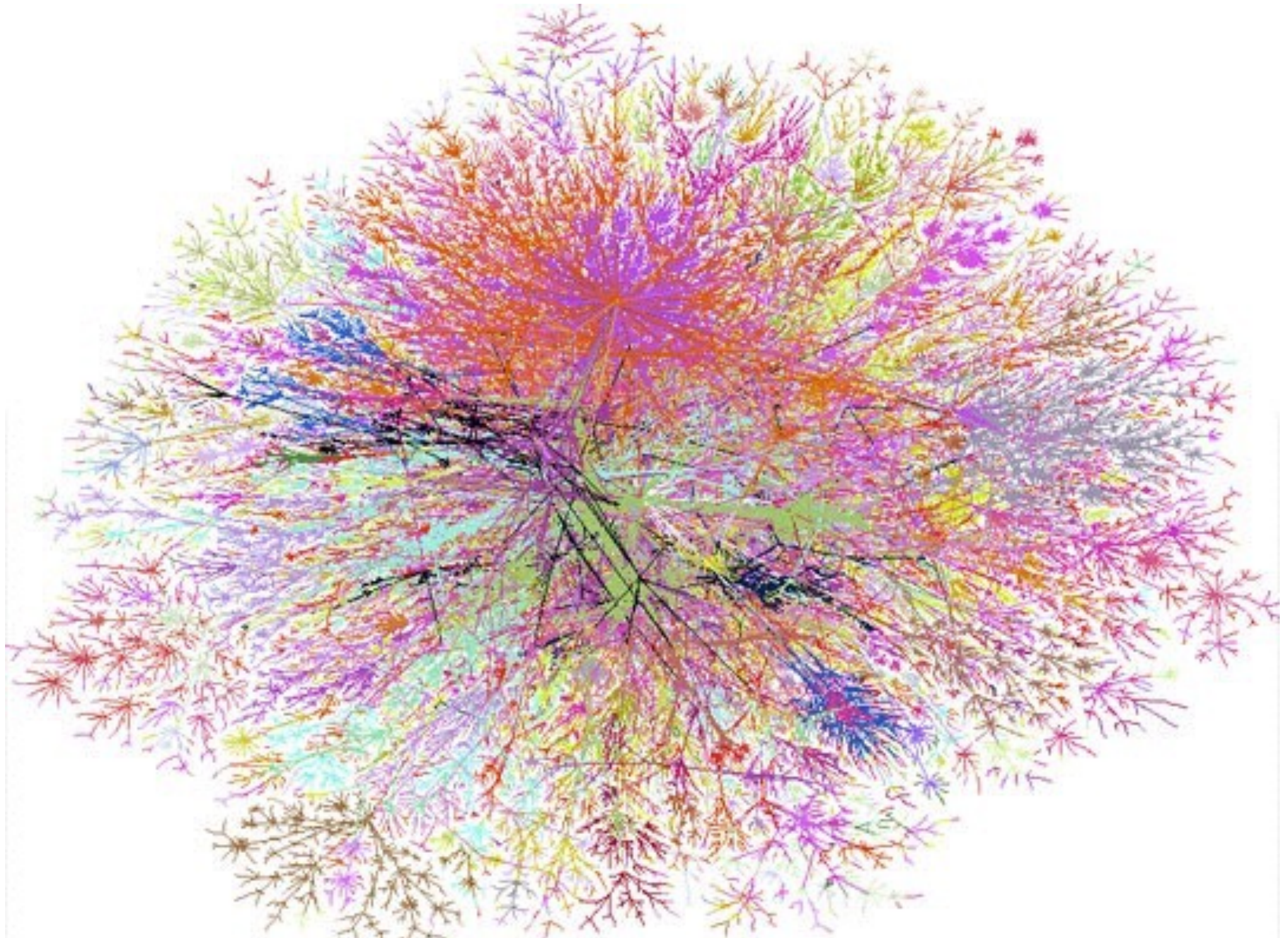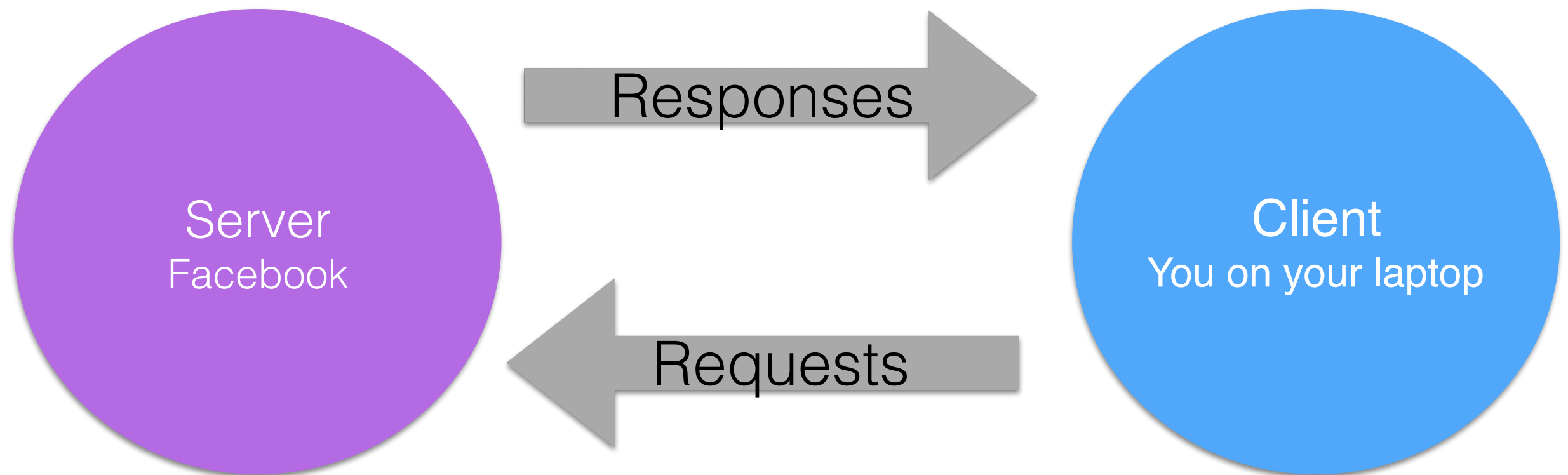## Internet 101 ll HTML Basics

A Lovely Threesome

Make the News

- Open **Google Chrome**

- Go to your favourite **news site** (i.e. www.theguardian.com)

- Right-click "**Inspect**"

- Click the **arrow button** on the top left (this allows you to select an element on the page)

- Now, select a heading on the news site (remember to use the arrow button). This is highlight the HTML code - you can edit this!

How the internet works

Clients and Servers

Server
Facebook

Responses →

← Requests

Client
You on your laptop

Other Webby Things

- **URL** - Uniform Resource Locator

http:/ /www.bbc.co.uk /news/

Protocol (HOW)   Host (WHERE)   Path (WHAT)

- **DNS** - Domain Naming System (like a phone number), e.g. 213.123.245.98

- To host a website you need: a **server** and a **domain name** (which you can get from 123reg or godaddy, etc)

Front-end   Back-end

- Usually consists of web design and front-end web development

- Uses HTML, CSS and usually Javascript (including jQuery)
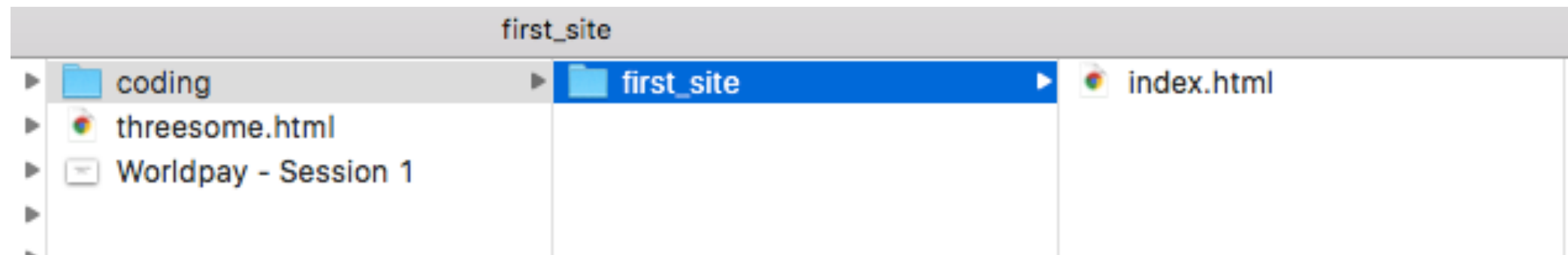
- Generally, client-side (in the browser)

- Usually consists of a server, an application and a database (think of this like a massive excel sheet)

- Can use a range of technologies: Ruby, Java, Python, PHP, etc

- Generally, server-side (on the website's server)

Coding Time

Let the fun begin…

- Create a new folder (called "**coding**")

- Create a folder within this folder called "**first_site**"

- Open your text editor (Sublime, Atom, etc)

- Type:

  > Hello, world.

- Save this as "**index.html**" in your **first_site** folder

- Open the file in **Chrome** (right-click "Open with")

HTML Time

- Go back to your **index.html** file in your text editor

- Change the text to

```
<h1> Hello, world. </h1>
```

- Refresh the page in Google Chrome

- This is your first line of HTML
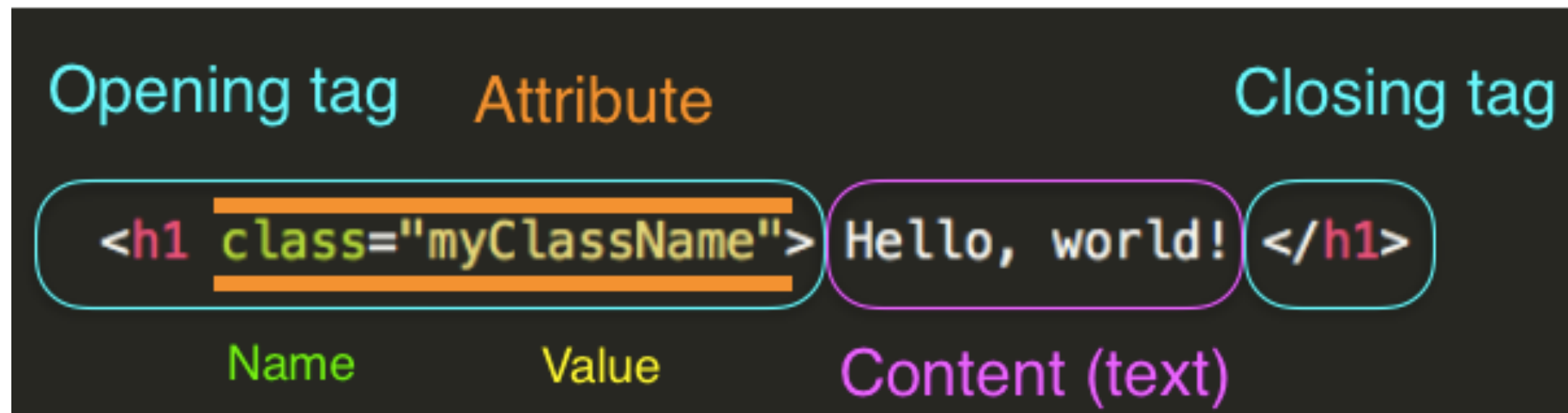
Elements, Tags & Attributes

- HTML has predefined **elements** for different types of content, e.g. headings, paragraphs, images, tables

- These elements include **tags** (usually one opening, one closing and all the stuff in between)

```
<tag> Words </close tag>

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

<img src="imagename.jpg" alt="sometext">
```

- The above contains some **attributes** about the element - these contain a **name** (src) and a **value** (imagename.jpg)

Example Element

HTML DOM

- **Document Object Model** - agreed upon hierarchical layout of the HTML document

- Note: if using html4 or earlier, specific in the DOCTYPE

- **<head>** contains all the information (it's the brain)

- **<body>** is displayed on the page

Learning More / Troubleshooting

- Google

- Stackoverflow

- W3C Schools

- Codecademy

- General Assembly Dash

Homework - Blog

- Headings

- Text

- Images

- Bullet Points

- Tables

- Links

- Any extra HTML you can work out how to do

Next Time

- More HTML (include forms and buttons)

- CSS - making your site pretty