**Web-GIS Portfolio diary**

**10/03/2025**:

I reviewed unit\_two of the portfolio and wanted to avoid using CommonJS. This due the marking scheme highlighting the code needs to ensure loose coupling and high cohesion. A good example of this move was on review of the blue plaques task. In the original code, it was suggested to load script tags sequentially:

But this creates issues in terms of maintainability, i.e. when test\_plaques.js declares ``var os\_markers`` it becomes a global variable attached to the window object, where other files can use this variable without any real clear connection between them. Due to this and the supplementary research material used (code academy), I wanted to develop code in-line with modern practices.

**12/03/2025**:

Today, was about tackling unit\_one .

While evaluating the provided document, one of the first thoughts was creating a separation of concerns between implementation and configuration. So, the developer can focus on marker map implementation while the coordinate configuration file can be maintained separately, as coordinates will frequently alter while mapping logic will remain stable.

For this reason, a coordinates.json file containing a key as the location and the above values for latitude, longitude, and description was developed.

On researching on how to obtain the JSON data, fetch appeared as first choice <https://www.codecademy.com/learn/introduction-to-javascript/modules/intermediate-javascript-requests/cheatsheet>

Lastly, I wanted to modularize aspects of this code: separated files containing utility functions, e.g. add markers, add polygon and map loading – where a main.js file kicks starts the process after the DOM is loaded. However, I do think that there can be too much of separation: in that a sole helper.js file could be implemented containing the required exported functions

**18/03/2025**

A week ago, I mentioned vulnerabilities using CommonJS. I don't think refactoring the jscoord library was worth the potential licensing complications, so I'll continue using it as-is while maintaining ES6 standards in my code. One of the first tasks that I wanted to do was ideally re-use code from the previous unit, i.e. use of fetch for retrieving external sources of information. However, there was an issue if we converted from Excel to CSV and JSON. The key value pairs must be altered, and that we would need to start from ‘Burley Bar Stone’. So, this meant skipping index 0.

Additionally, some thoughts on how the website should be laid out: as the requirements stated, some information on the blue plaques and images should be displayed on the screen. A website that I usually frequent is Square Enix (a game development company). It seemed logical to copy this layout as the appearance seemed manageable.

Besides aesthetics, there was a more immediate concern with the JSON file outside of skipping index 0 and renaming it at run time. The dates on the excel sheet and the following JSON were inconsistent and not future proof, e.g. some dates had 10 September ’87 – but we will eventually, reach 2087. The thought process to fix this is to create a cut off take: let’s say 2000 and anything < equates to 19XX anything > equates to 2010 etc.

**9/4/2025**

The task for this appeared relatively straightforward, as I had previous experience with SQL at university. One of the areas, I was interested in querying the earthquake data around eastern Russia and most of SEA (South East Asia) – a region, I’m really familiar with and have travelled to. Especially, with the recent earthquake hitting Myanmar.

It was here when I decided to use the square enix style I managed to develop and use the CSS as portfolio landing page.

**12/4/2025**

One of the more interesting aspects of displaying the tweets was the type of SQL query which could be made. I was interested in displaying tweets stating: emergency, help, evac, etc, as they seemed to indicate more genuine and relevant tweets during the crisis. Additionally, I also wanted to limit tweets outside of US region to try to understand international thoughts on the crisis. However, the tweet themselves are too redacted to obtain any type of useful information.