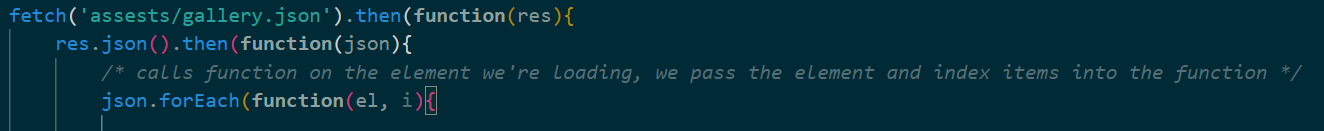
**Task 5 – reflection**

1. **The purpose of website testing and validation is to check for any problems that might occur before making your website live. This is also so that we can optimise the SEO (search engine optimisation) to increase our rank on a browser (we can benefit from a higher rank from a marketing perspective).**

**Some tools we can use to help validate our website include the W3C online validation tools (one of the easy ones to use). This tool essentially allows you to link your files to a live website and help fix outstanding errors you may have.**

1. **The fetch API loads our dataset from JSON if we’ve written it in a separate folder so that we can manipulate it in javascript.**

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**We must return a "promise" that we call a then() function, which calls the data loaded into binary (res) since it's the result called from the fetch. To convert it into usable JSON from binary we just simply use the then() function again.**

1. **Responsive web design exists to optimise pages and load the content as it is intended to be displayed, regardless of the screen size when using a website on different devices.**

**When using responsive web design we can use features such as resizing, moving, adding or hiding content in HTML, CSS and Javascript. Responsive design is useful because we can work on designs from a single implementation rather than having to generate a separate website for different display settings (responsivity).**

**To make a site responsive, there are three main methods we can utilise:**

* **@media methods in CSS which will allow us to define and adjust the screen sizing (this helps for any media we have created, like an image gallery, so that the orientation and measurements stay the same)**
* **Flexible items like fonts and images that scale accordingly**
* **Fluid grid systems which can be created using relevant measurements such as vh, em, rem…**

1. **As HTML develops, what happens to all those old websites still out there?**

**They become harder to read and access since search engines would typically move past them and they haven’t had their HTML updated. We can make use of something called semantics (HTML5) to allow for a more informative web page, and better understandable HTML. An example of a case to use semantics is using structural elements rather than having to use <div> elements. Div elements are not strict on what can be contained within them, therefore not making them appropriate to use with there already being defined semantic elements. Semantics work by referring to a standardised list of elements that are generally accepted rather than relying on user defined elements.**

1. **JavaScript libraries, prewritten snippets of JavaScript code that can be reused over and over again. This can be useful as it makes development a lot easier. Hundreds of thousands of websites put them into action, but this can bring about problems such as identical copies being downloaded each time you enter a website using the same library as one you previously visited. This would most definitely effect the cache and waste resources.**

**Now there is a solution to this such problem, and that would be to try incorporating CDN’s (content delivery networks). This is essentially a system, a third party repository, that essentially saves the cache and the speed of a website loading from having to download a duplicate file. Basically CDN processes mean that if you visit a website with the same library as the previous, it wont be downloaded again since it would already be stored. It’s good practice to have one linked into your codebase rather than a JavaScript library.**

**References –**

**[question 1]**

[**https://blackboard.bangor.ac.uk/ultra/courses/\_122634\_1/outline/file/\_4223552\_1**](https://blackboard.bangor.ac.uk/ultra/courses/_122634_1/outline/file/_4223552_1)

**[question 2]**

[**https://blackboard.bangor.ac.uk/ultra/courses/\_122634\_1/outline/file/\_4207127\_1**](https://blackboard.bangor.ac.uk/ultra/courses/_122634_1/outline/file/_4207127_1)

[**C:\Users\feroz\OneDrive\Documents\web\SAW\js\carousel.js**](file:///C:\Users\feroz\OneDrive\Documents\web\SAW\js\carousel.js) **(My carousel javascript)**

**[question 3]**

[**https://blackboard.bangor.ac.uk/ultra/courses/\_122634\_1/outline/file/\_4226934\_1**](https://blackboard.bangor.ac.uk/ultra/courses/_122634_1/outline/file/_4226934_1)

**[question 4]**

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**[question 5]**

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