

Development and testing

Changes:

The design for the news page, and the way the website logo and name are displayed on each page on desktop were changed.

This was done as a purely aesthetic choice, with the website looking more uniform on desktop if the logo is displayed above the name. Additionally, the news page was changed to ensure the page was easy to look at, with the news stories being hidden behind buttons.

On top of this, the accessibility page link was moved from the dropdown menu/navigation bar to the footer to make it look less cramped, and because it's not as frequently used as the other links so does not need to be in the main navigation section.

Organisation:

The files were organised to ensure that all images were together in a folder that could be accessed using relative address without issue. Furthermore, all html files are kept within the same folder so any page can be accessed from another without needing to sort through folders. The menus worked by connecting each page together through simple href links.

Optimisation:

The image load times were optimised by using images that were of specific dimensions, especially with the game. By this i mean that the images on the game were only displayed at either 150px, 100px, or 50px, so to ensure they loaded fast i used images that were only these sizes, rather than using the same image and resizing it for each version of the game.

Additionally, for the css file, any changes that affected the same element were included within the same styling change notes - e.g:

```
header h1 {*change 1*; *change 2*}
```

Rather than:

```
header h1 {*change 1*;}  
header h1 {*change 2*};
```

Security:

The main security concern with the website was the potential exploitation of the name input on the game page. This was prevented by using 'innerText' as opposed to 'innerHTML' with the user's name, which stops the text inputted from being read as HTML, but rather it is read as a raw string and will not be executed.

Another problem there could have been was if the contact us page asked for more sensitive information, in which case techniques like hashing passwords or hiding other personal information would be required. However, there was no information like this so no need to add these unnecessary processes.

Debugging:

For debugging i used W3Schools debugger. This initially raised a number of issues. Namely was the naming of the image files, as they all included spaces - which is illegal with files. This was fixed very easily and the errors relating to this stopped. As well as this, the debugger initially flagged up an error with the first few lines of each of my web pages - where the meta tag proceeded the head tag. This created an error where the head element was used while a head element was already 'open'. To fix this issue, I just placed the meta tags inside the head element.

Once these were resolved, there were no more issues with the HTML. Neither CSS file had any errors or warnings, so there was no need to change any of the content within them.

Testing:

For testing, I made use of a chrome's built-in device mode to ensure the website worked for a large number of devices and screen sizes.

The smallest device available for use with the device mode is the iPhone SE, which I used primarily as my phone testing, with the iPad being my tablet testing and the standard window as the desktop test.