

1. Changes:

I have made three main changes for my website.

The initial version of the web looked pretty simple and unattractive, which has nothing but the navigation bars, basic-styled content with two functioning buttons at the end of the page; so I attempted to keep the content yet update the style of all pages all over again. Then I attempted to make my navigation bar to be fixed on the website even when the browsers scroll down the page. However, I find it rather inconvenient as it hides parts of the page content.

In the end, I chose the inline style for my navigation bar, which is straightforward and easy to find and use from the browsers' aspect. I also create a shared CSS file for all web pages which is for the common areas (navigation bar, footer or size and font style of content). I also add some effects in the content such as hovering or highlighting keywords or using box shadow.

2. Organisation:

I did create a CSS template which is responsible for the navigation bar, the footer and the general style of the content. Every html file will link to this CSS file, as these parts are exactly the same for all pages, so by using a template file, I can make changes for these specific parts of all web pages only once, which can save my time and effort.

Inside my folder, I have three other main folders, one stores images for the website, one stores all html, CSS and JavaScript files for web design and one store the document for planning and testing details of the web pages. In website design file, I arrange the files by name, so all file of html, CSS or JavaScript types but with the same name will be together, which is time-consuming for me when looking for files designed for a certain web page to make some specific changes.

3. Optimisation:

I applied JavaScript in my Quiz page and Data Visualisation page, yet I put the JavaScript linkage at the end of the body part of the html file. This means the page will load the main content part of the web first then the JavaScript file, so the loading time of JavaScript file in this website is insignificant and unnoticeable.

4. Security:

In my Contact web page, I set the result of the form to be sent to my email address when the users fill in required information and click "Submit" button. I have not been able to set "http" or "https" for this web page as I have not known how to, yet with my slight research on these two keywords, I would choose "https" if I can make it, as the details of the users can be encrypted and any negative issues about security can be minimised.

5. Debugging:

I use Chrome DevTools for debugging tool (right click + inspect). I use the tool to detect any errors in any file that build the web page and also the network tool to see if a JavaScript file was being loaded.

Besides, I also look up on Google and validate my CSS files and html files via these websites respectively (<https://jigsaw.w3.org/css-validator/> or https://validator.w3.org/#validate_by_upload), which are parts of the website I used for references of accessibility issues. There were some errors detected yet I could correct them and make files free from potential errors as well as warnings thanks to this validator tool. This is one sample result of my file validation, which I applied to the CSS template file and html file on Data Visualisation page, which I used mainly JavaScript on that page.

W3C CSS Validator results for common.css (CSS level 3 + SVG)

Congratulations! No Error Found.

This document validates as **CSS level 3 + SVG** !

To show your readers that you've taken the care to create an interoperable Web page, you may display this icon on any page that validates. Here is the XHTML you could use to add this icon to your Web page:



```
<p>
  <a href="http://jigsaw.w3.org/css-validator/check/referer">
    
  </a>
</p>
```



```
<p>
  <a href="http://jigsaw.w3.org/css-validator/check/referer">
    
  </a>
</p>
```

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for uploaded file **DataVisualisation.html**

Checker Input

Show ☐ source ☐ outline ☐ image report

Check by No file chosen

Uploaded files with .xhtml or .xht extensions are parsed using the XML parser.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 8 milliseconds.

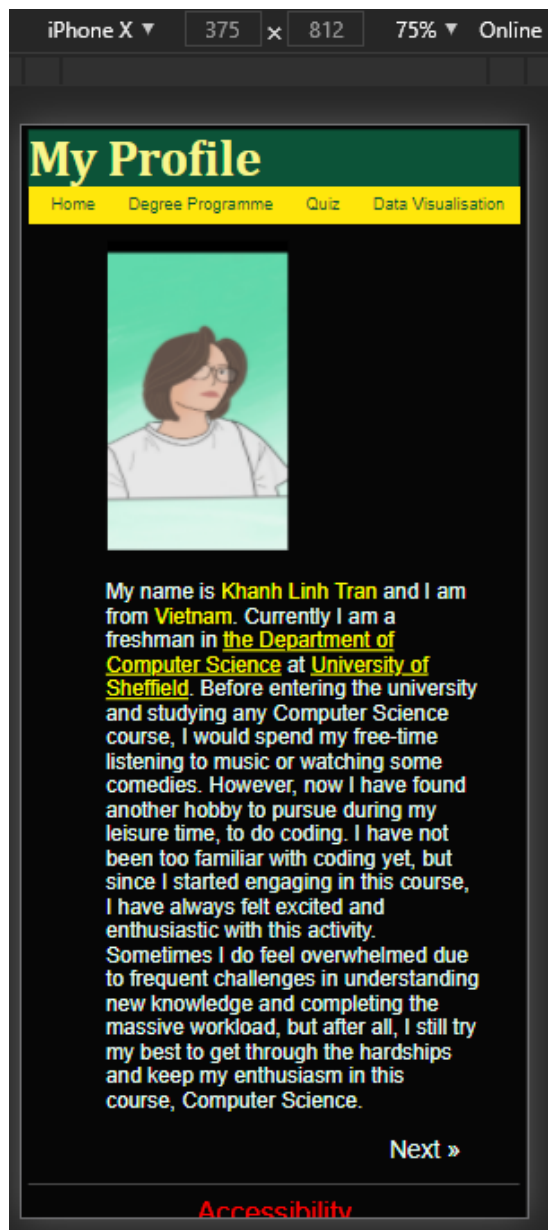
6. Testing:

❖ Home page:

- Desktop site:

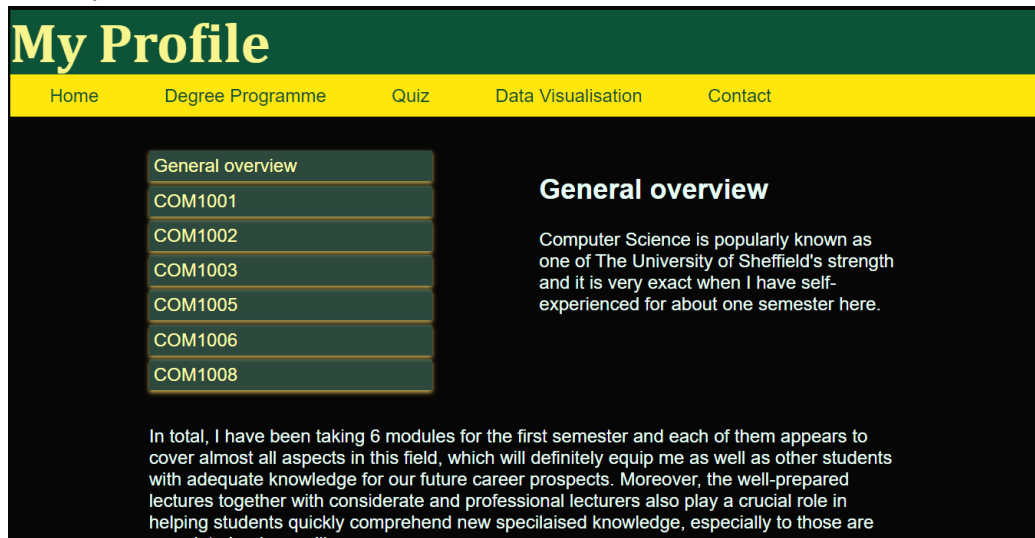


- ◆ Mobile site (here I test on iPhone X size, which has one of the most latest smartphone screen scale)

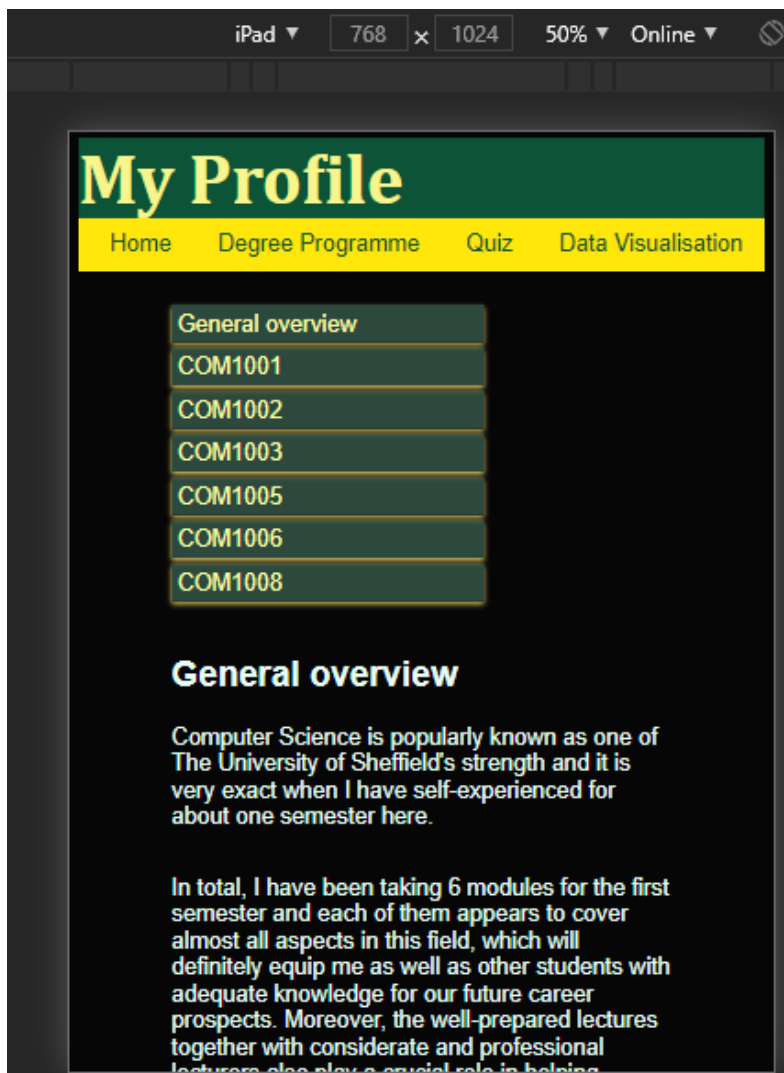


❖ Degree Programme page:

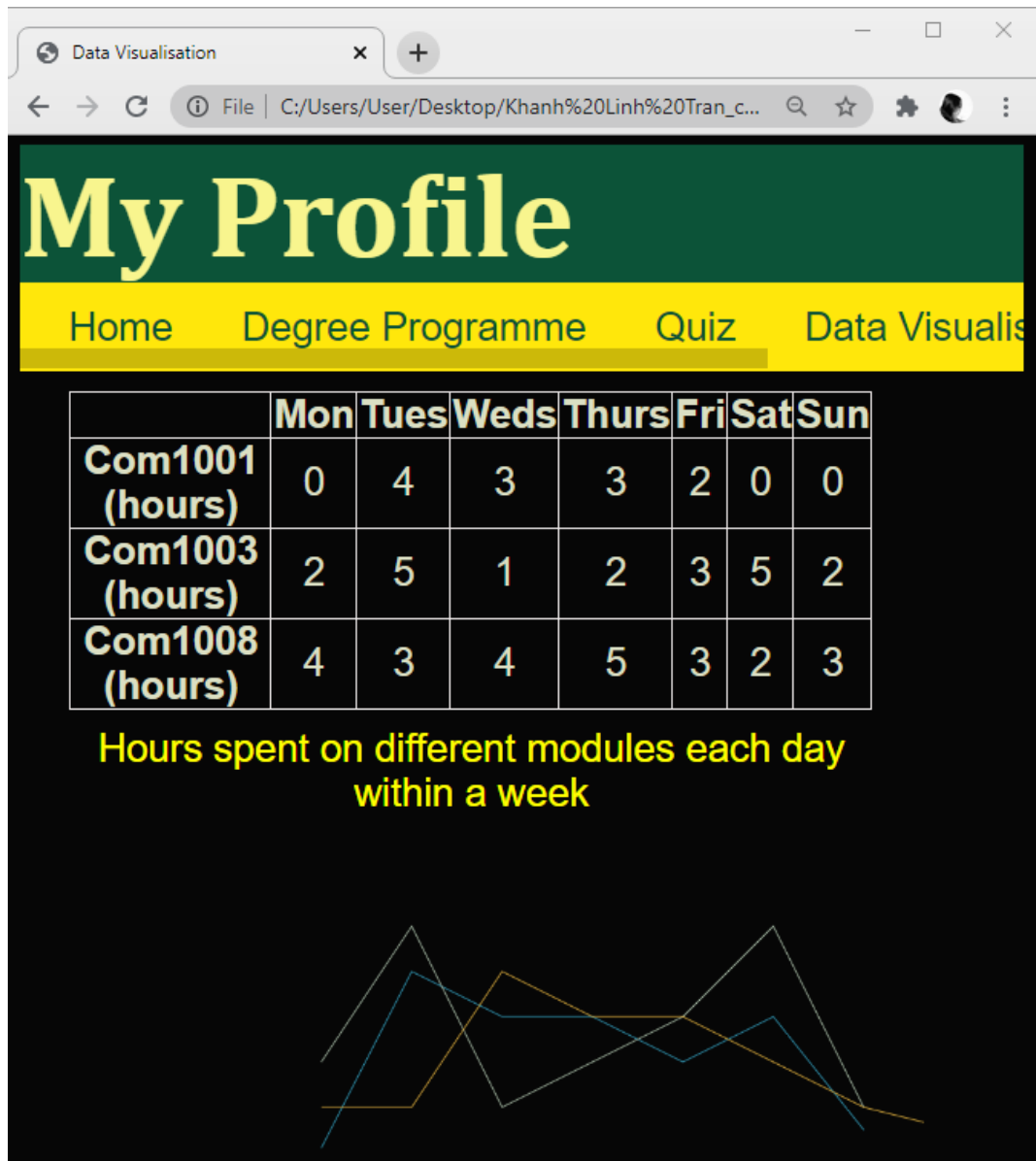
➤ Desktop size:



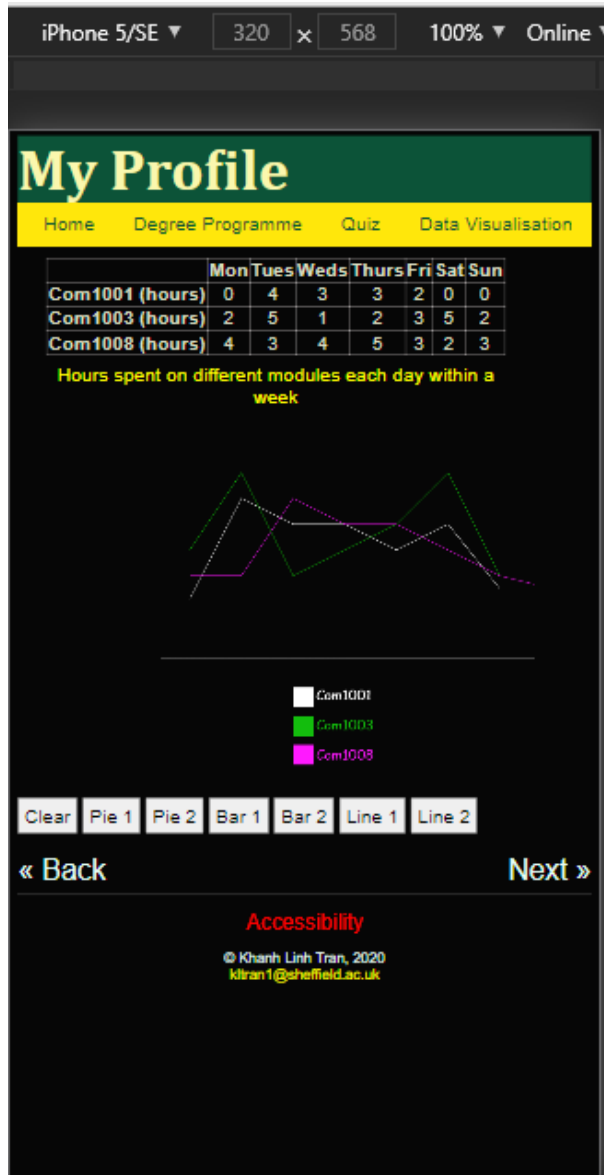
➤ Tablet size:



- ❖ Data Visualisation page:
 - Desktop minimised size:



- Mobile size (I test this web page on iPhone 5/SE, which has a relatively small screen scale compared to the latest phone screens yet lots of people are still using them daily, yet I want to test everything especially the buttons are visible on such small screens):



❖ Some contrast result:

- Between background colour and font colour of the page content:

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground Color
 Please enter a valid [hex triplet](#), or use the color picker.

 Lightness:

Background Color


 Lightness:


Contrast Ratio
19.44:1

- Between background colour and font colour of the header:

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground Color
#FAF7AE
Lightness


Background Color
#0C5338
Lightness


Contrast Ratio
8.21:1
[permalink](#)