- **Changes**

  Design of my website has not changed a lot. I decided to add some media queries in the mobile CSS file, because I was not sure how viewport property works and that they are eventually needed to control size of fonts and table for different mobile screens. I added media queries for minimum screen size of 400px and 700px.

  I also added round corners because my website has a maximum size and now borders look better. I wanted to show some of my work but eventually I decided that none of the pieces of code is really interesting for target audience, so instead I put in the degree page images that illustrate every module in the simple way.

- **Organisation**

  I created template for HTML file with the same header, nav and footer elements. Then I copied it six times and created different main sections in every page. I created additional folders for CSS files, JavaScript files and images. In debugging I mainly used console.log() to print values in Google Chrome Developer Mode and see if the code works correctly. I also used JSLint and JSHint to find any problems with my code. Most of the problems in canvas.js file occurred due to missing semicolons and too many characters in a line. There were no problems with the quiz.js file.

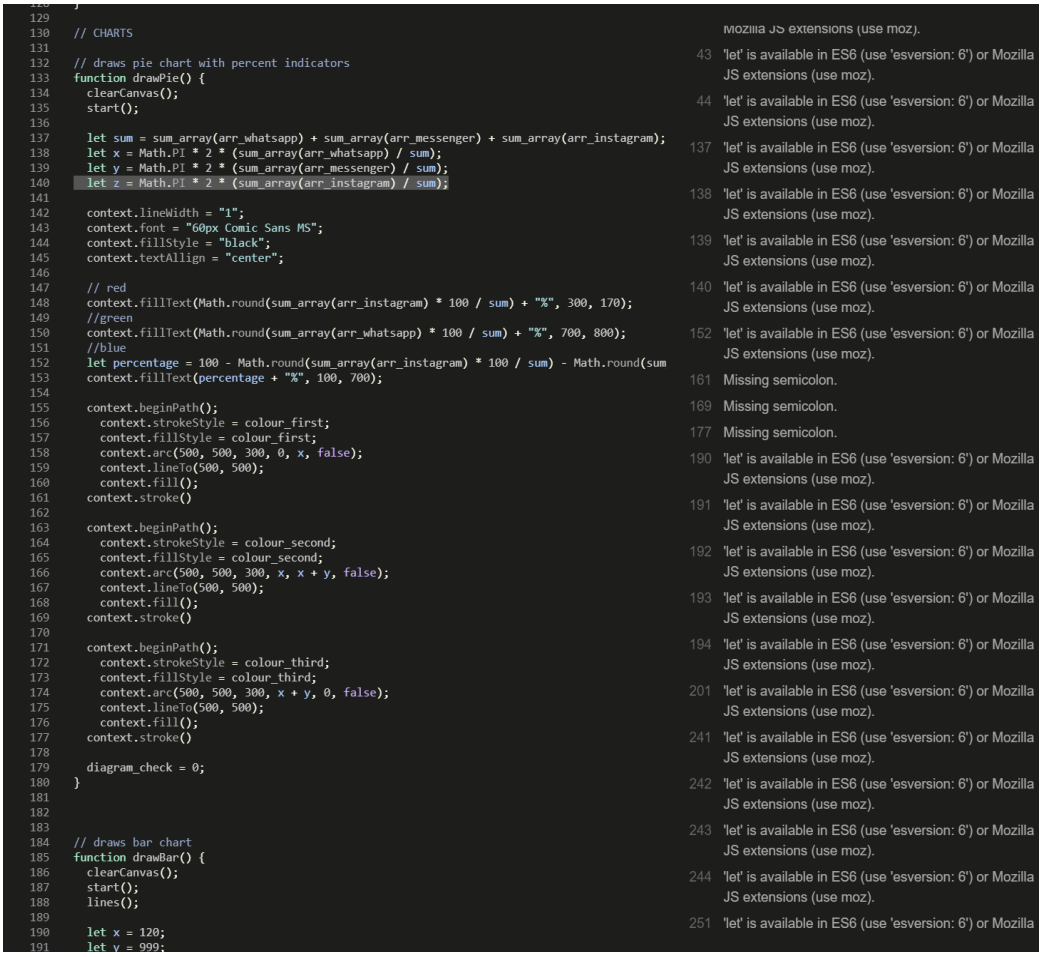


Figure 1 - JSHint check

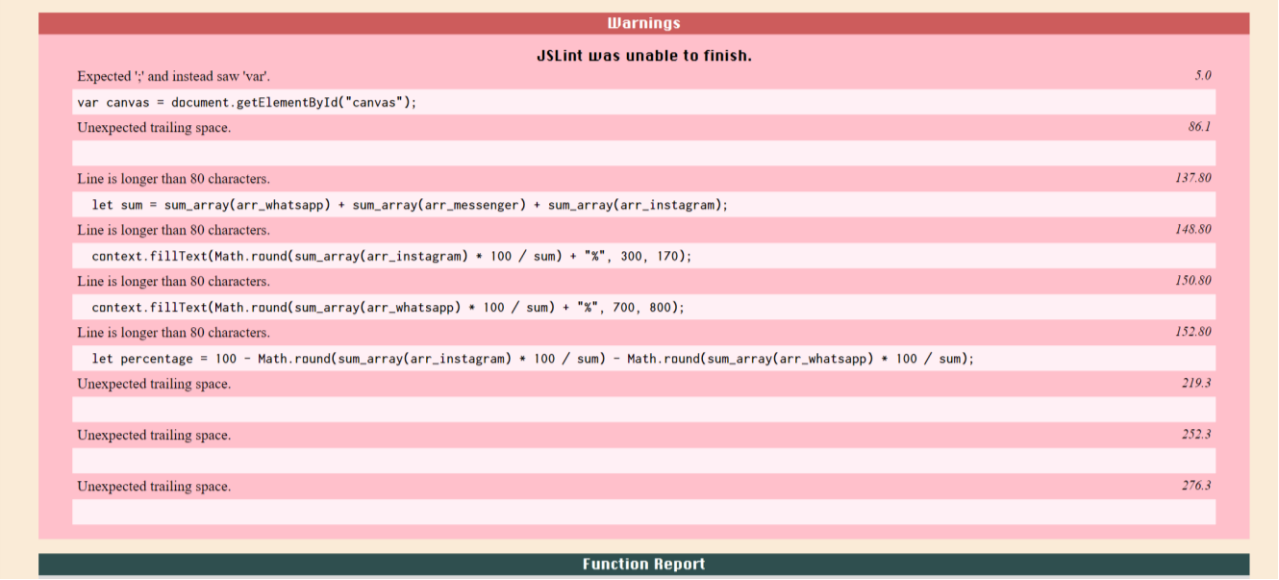


Figure 2- JSLint check

- **Optimisation**
  I used Google Lighthouse to determine whether my page has problems with loading time. Several times I needed to compress images, especially ones on pages with multiple images, to improve the website performance.

- **Security**

  My page will not be put onto the public server, but if I wanted to, I would protect it with HTTPS. Every unprotected website can be used to reveal information about the user. That is because intruder can see all communication between a browser and a server. Having in mind that my website contains a form it would be a good approach to create function which encodes special character in the place control characters. It would prevent execution of intruder's code.

  References:

  https://developer.mozilla.org/en-US/docs/Learn/Server-side/First_steps/Website_security

  https://web.dev/why-https-matters/

- **Debugging**

  I used HTML and CSS validators

  HTML:

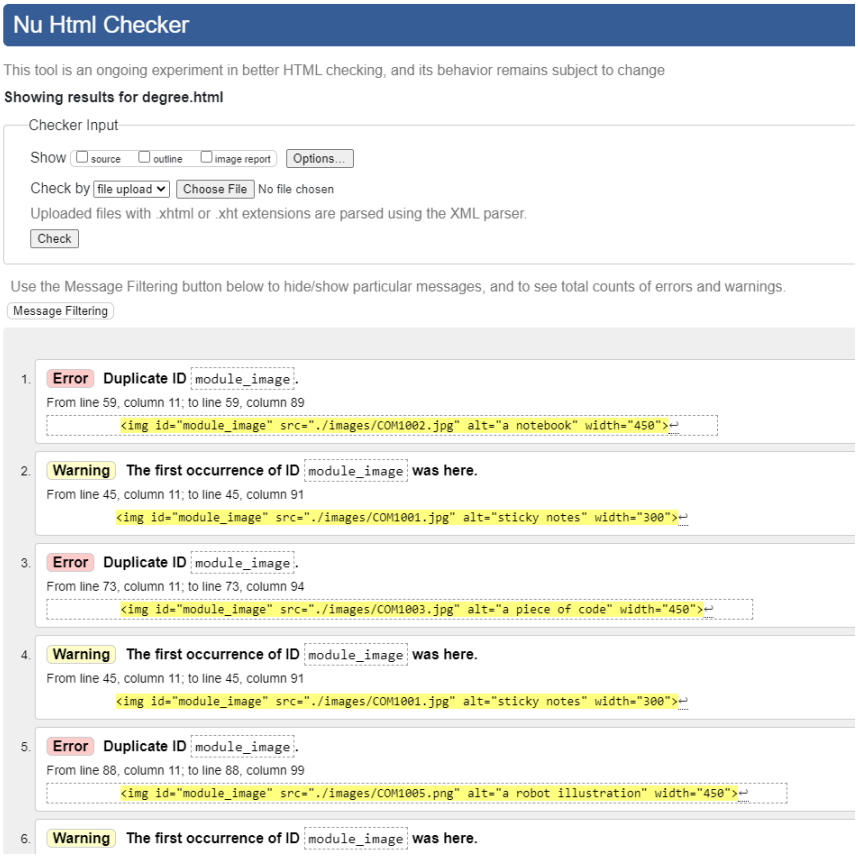


Figure 3 - HTML degree check

I accidently copied the same ID for all degree images.

CSS:

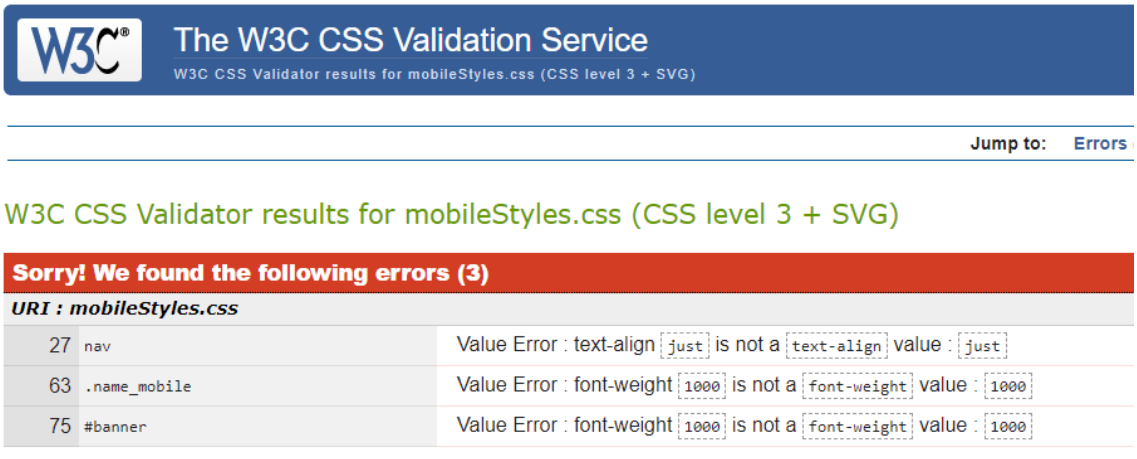


Figure 4 - CSS mobile check

I used here wrong values for text-align and font-weight properties. The first one should be justify and the second one should be 900.

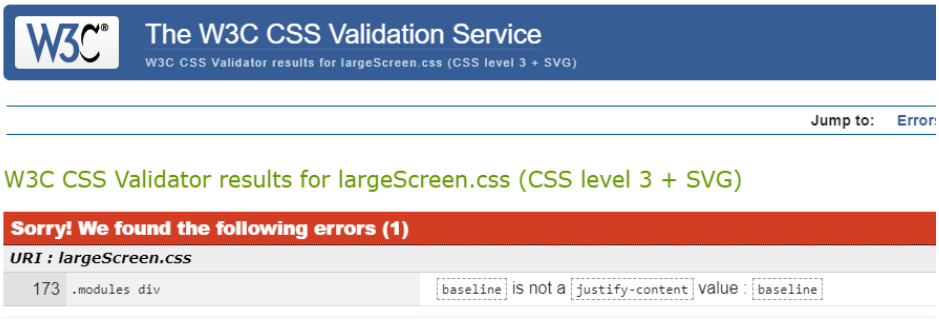


Figure 5 - CSS desktop check

I used here justify-content instead of align-items.

All other files did not have any errors.

- **Testing**

I tested how my website looks and behave on different browsers and I have not noticed any problem with pages, especially I looked at quiz and canvas pages.

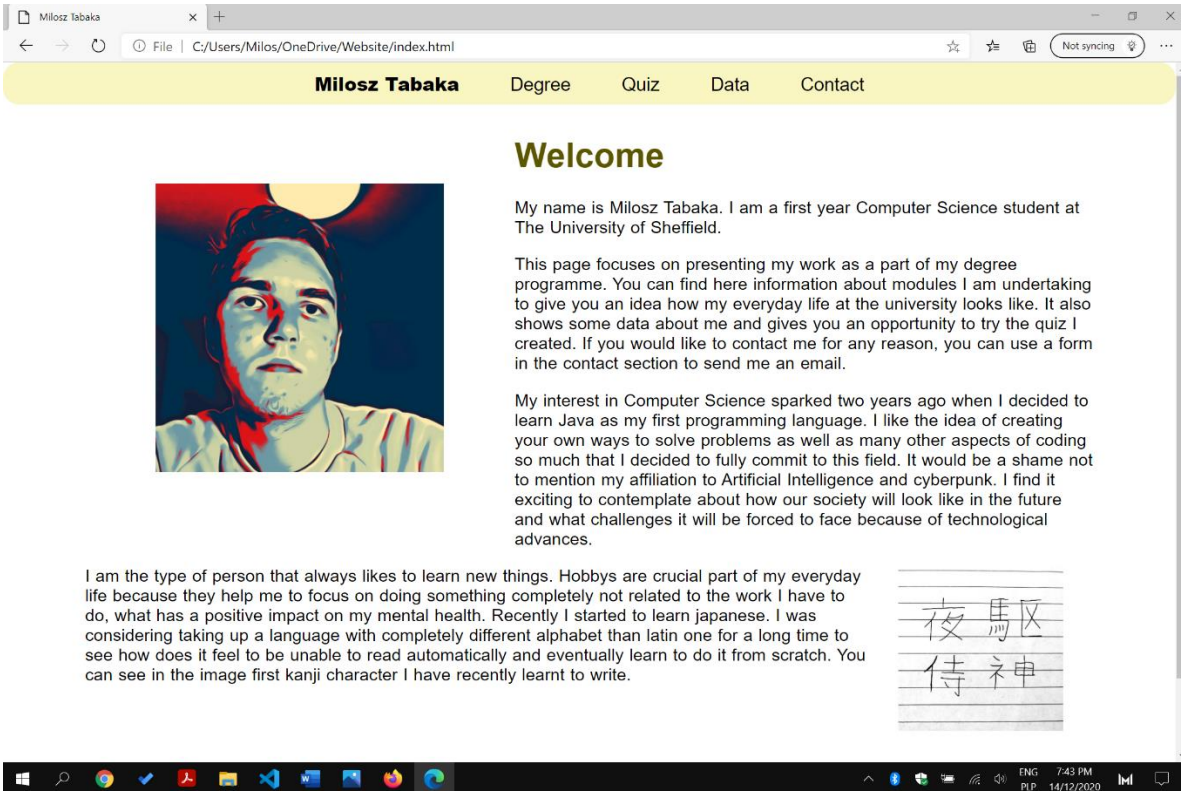


Figure 6 - Microsoft Edge test

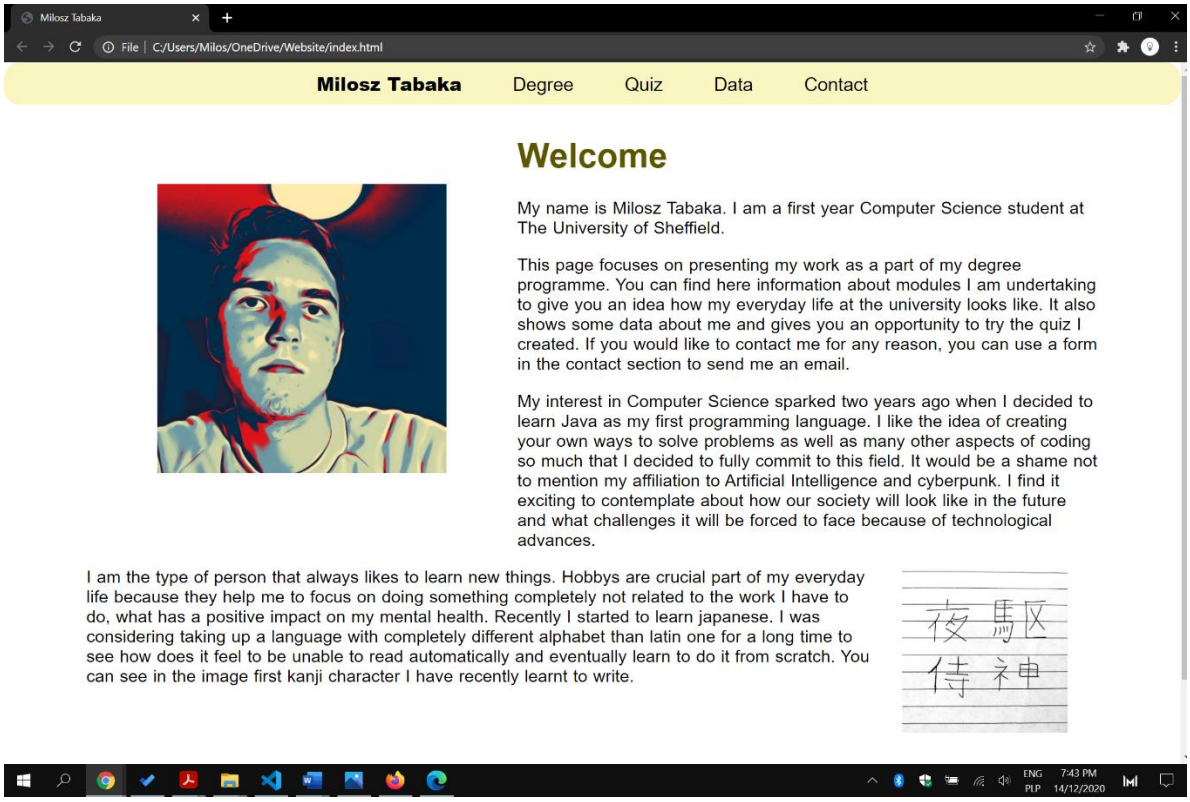


Figure 7 - Google Chrome test

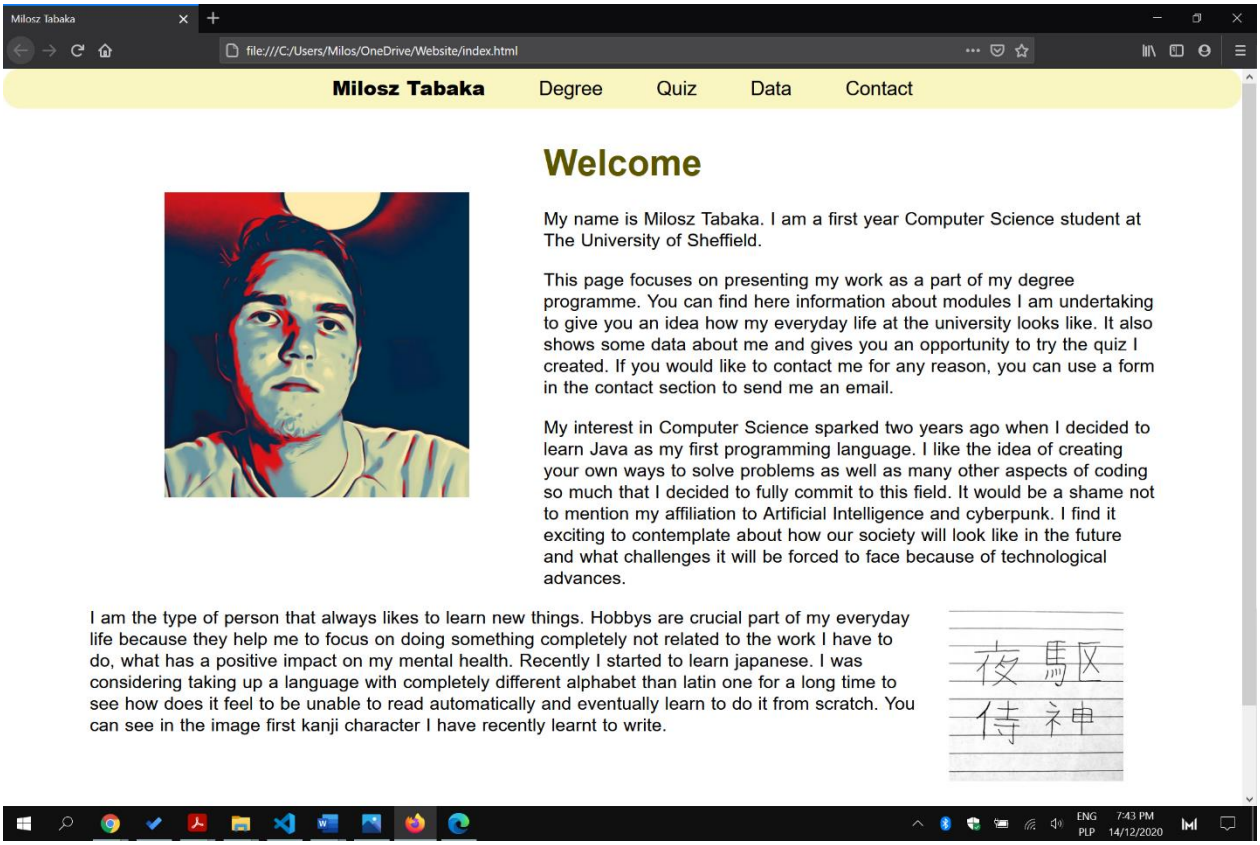


Figure 8 - Mozilla Firefox test

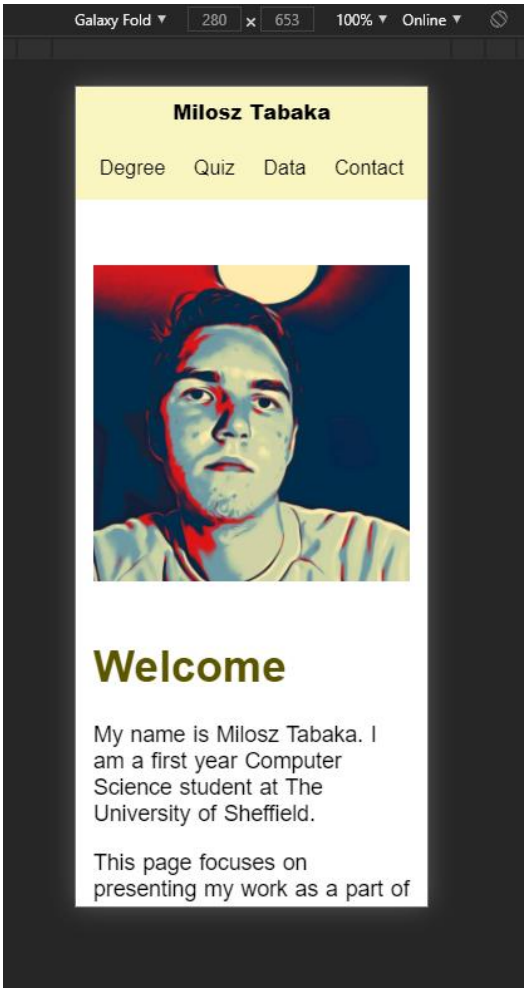


Figure 9 - Minimum screen size test

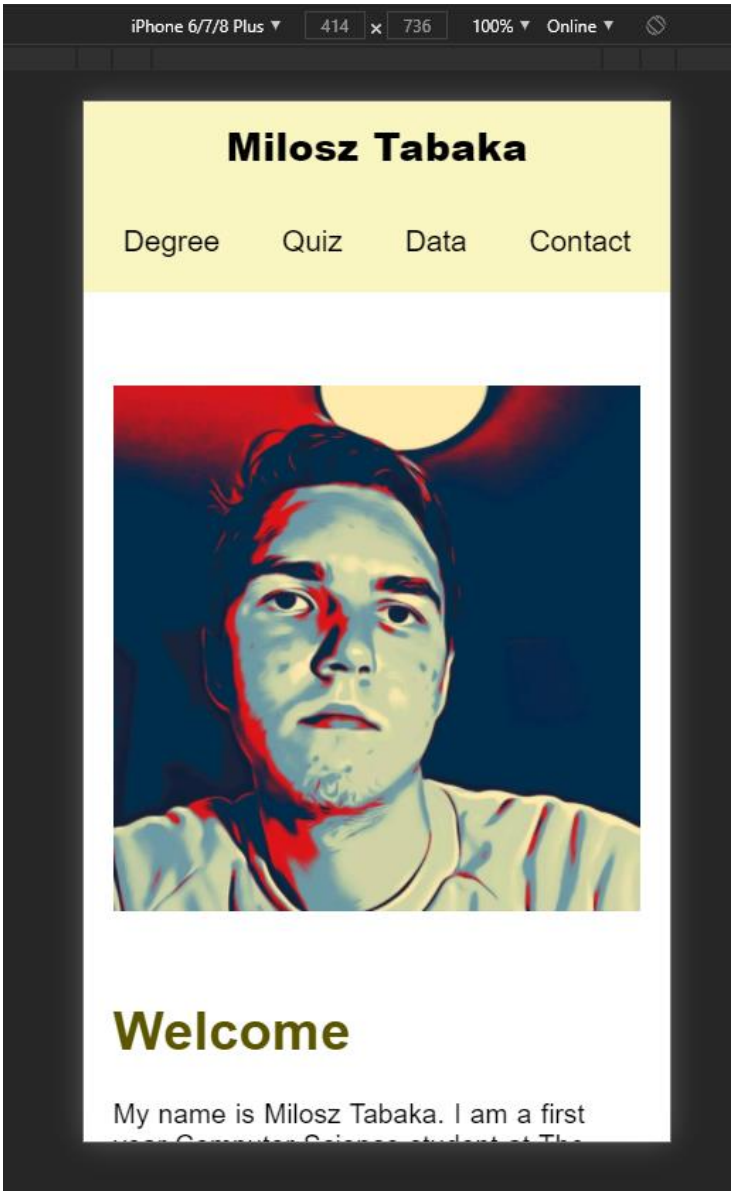


Figure 10 - Second breakpoint test

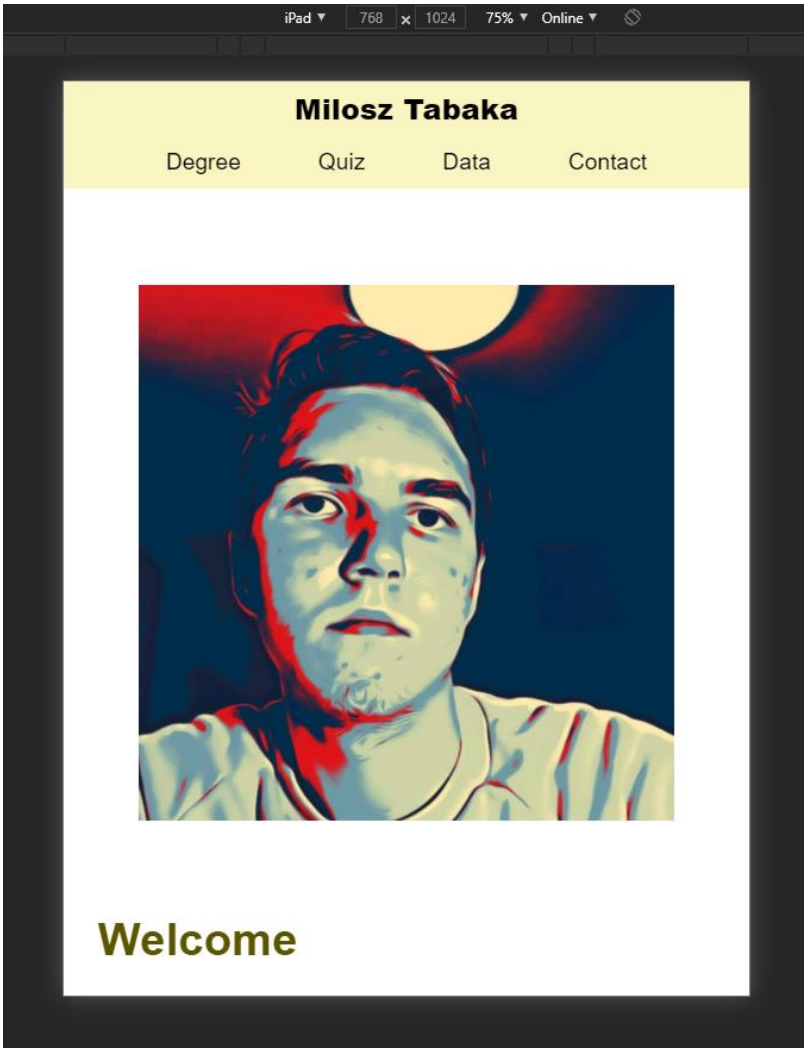


Figure 11 - Third breakpoint test

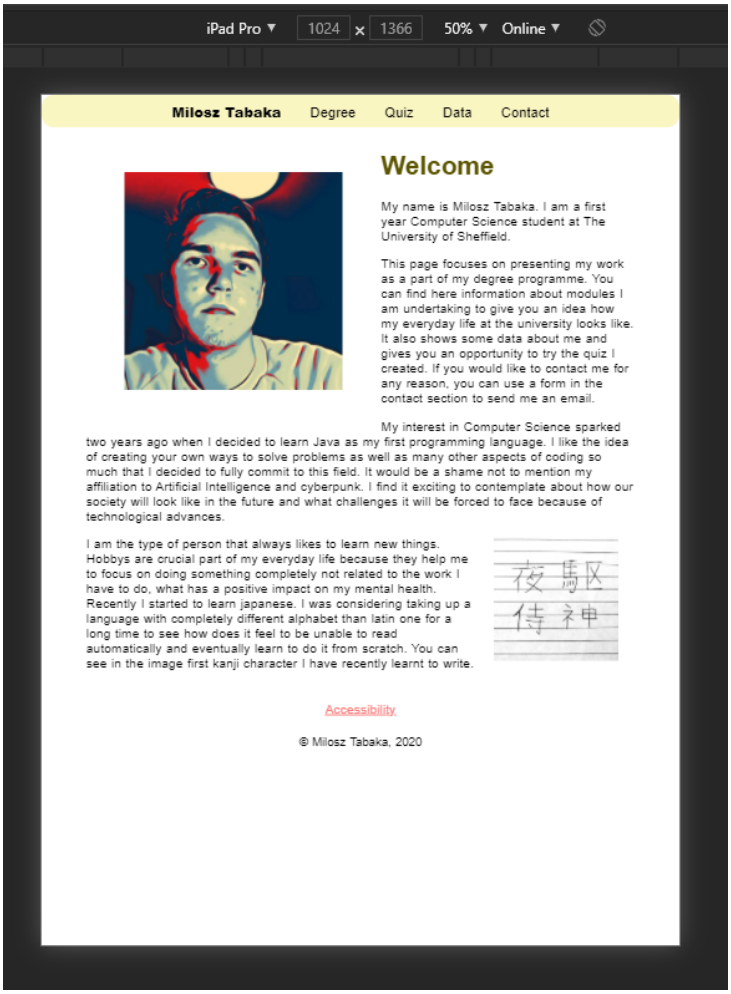


Figure 12 - Minimum desktop screen size test

I also tested every page using Google Lighthouse Tool

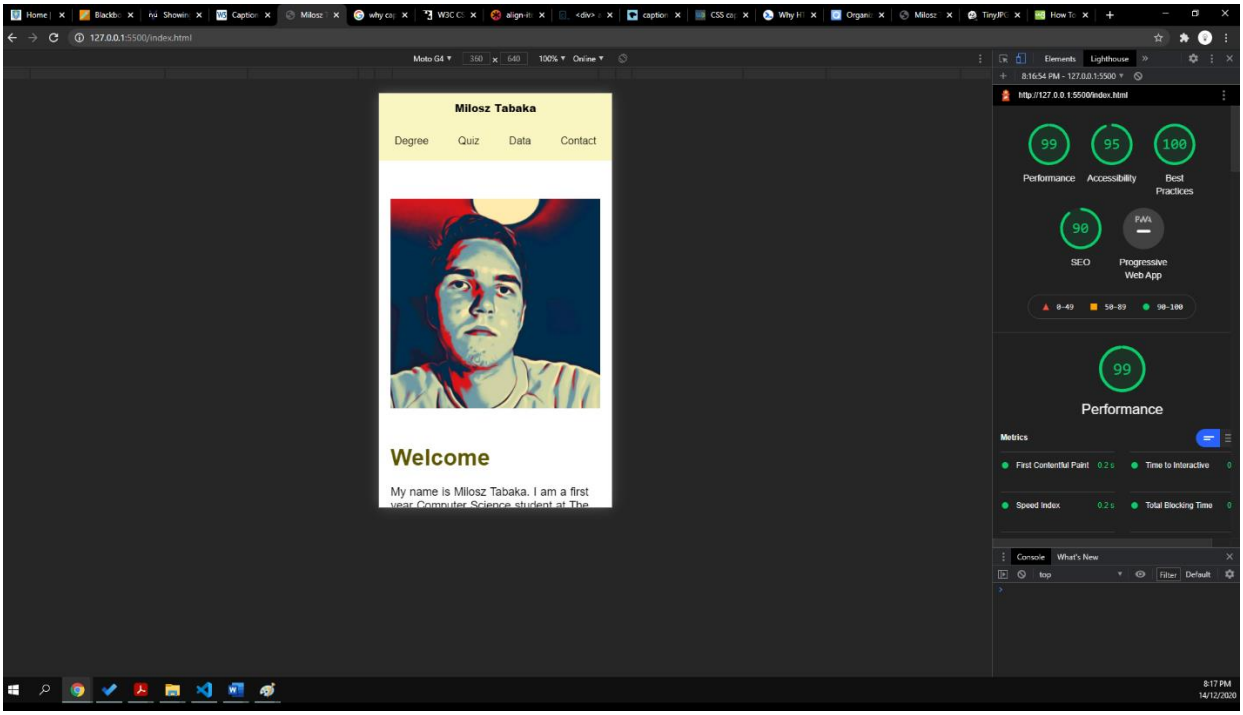


Figure 13 - Mobile Index test

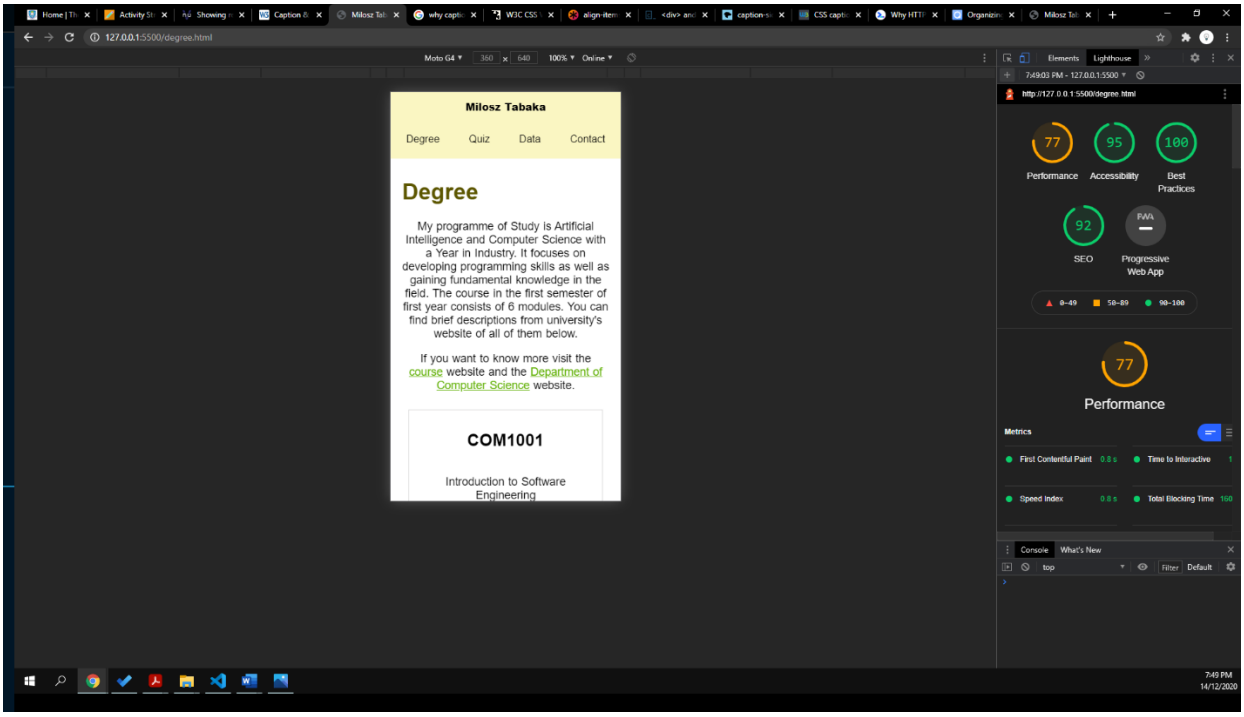


Figure 14 - Mobile Degree test (before compression)

Here I compressed the images

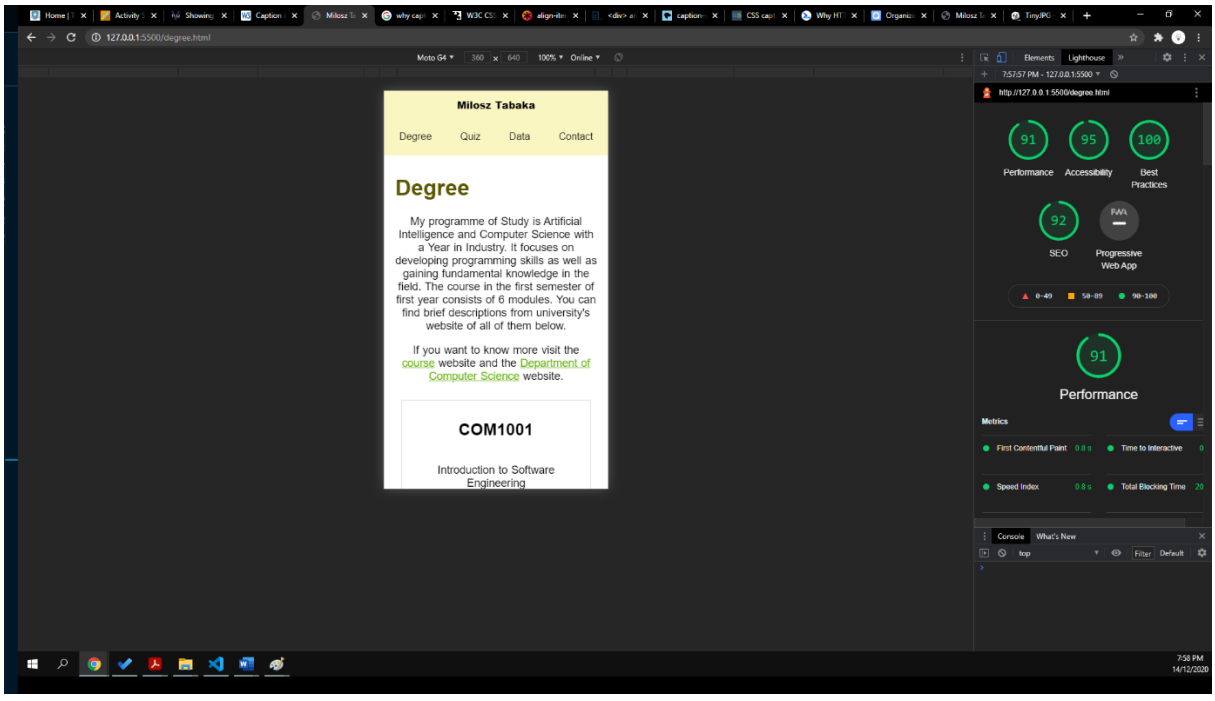


Figure 15 - Mobile Degree test (after compression)

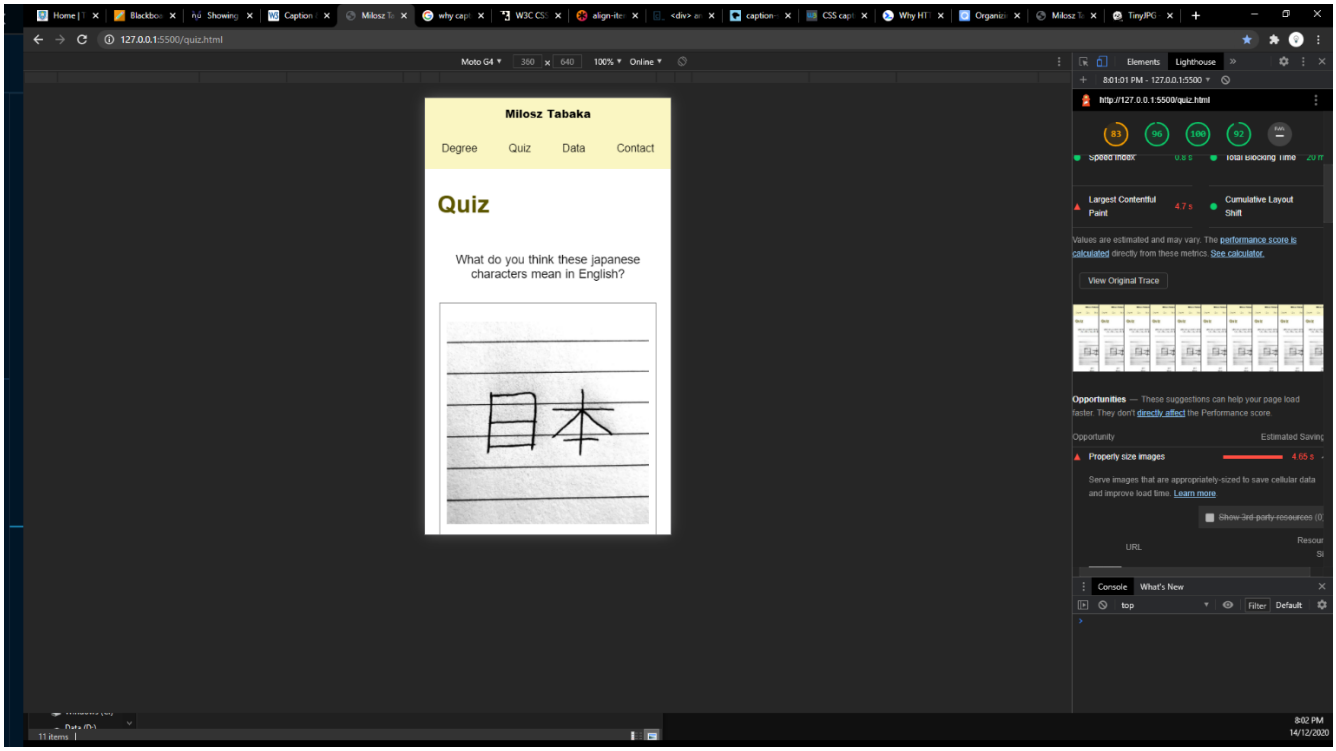


Figure 16 - Mobile Quiz test

Here I also compressed the images a few times, but still that is the best result I achieved

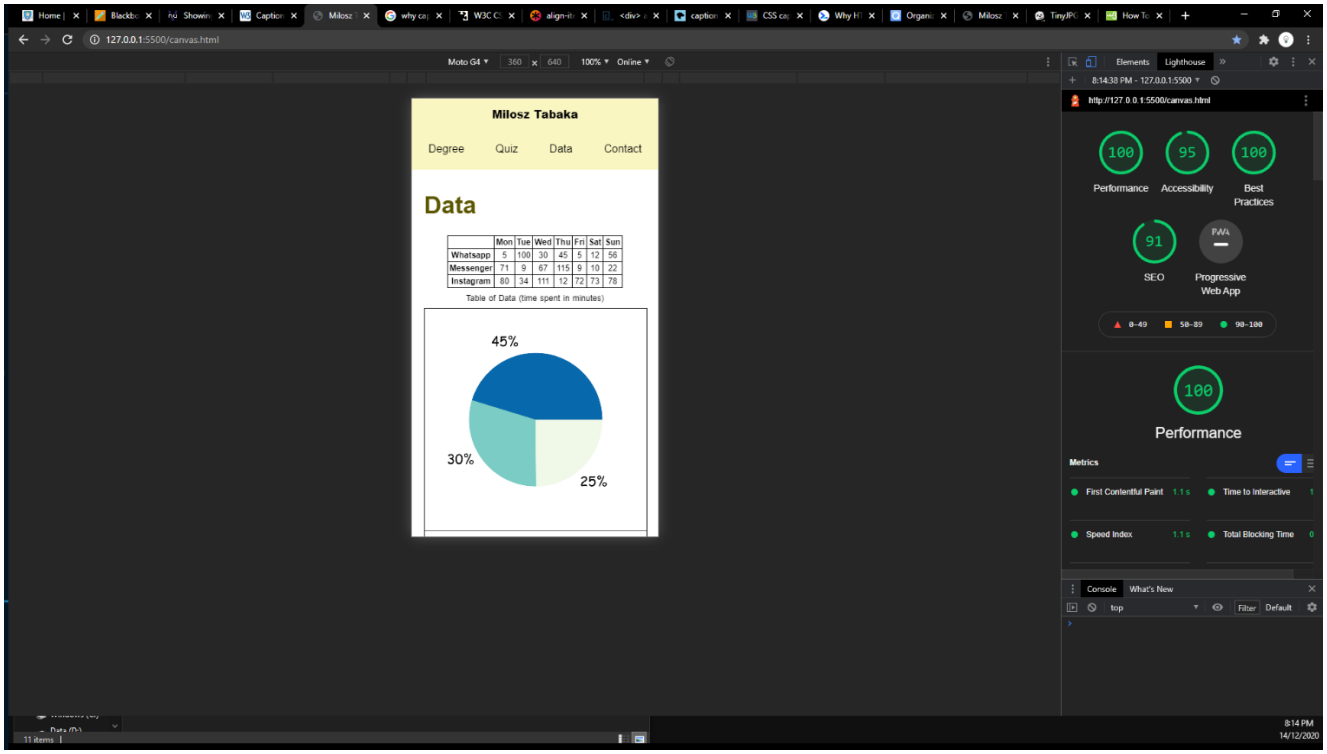


Figure 17 - Mobile Data test

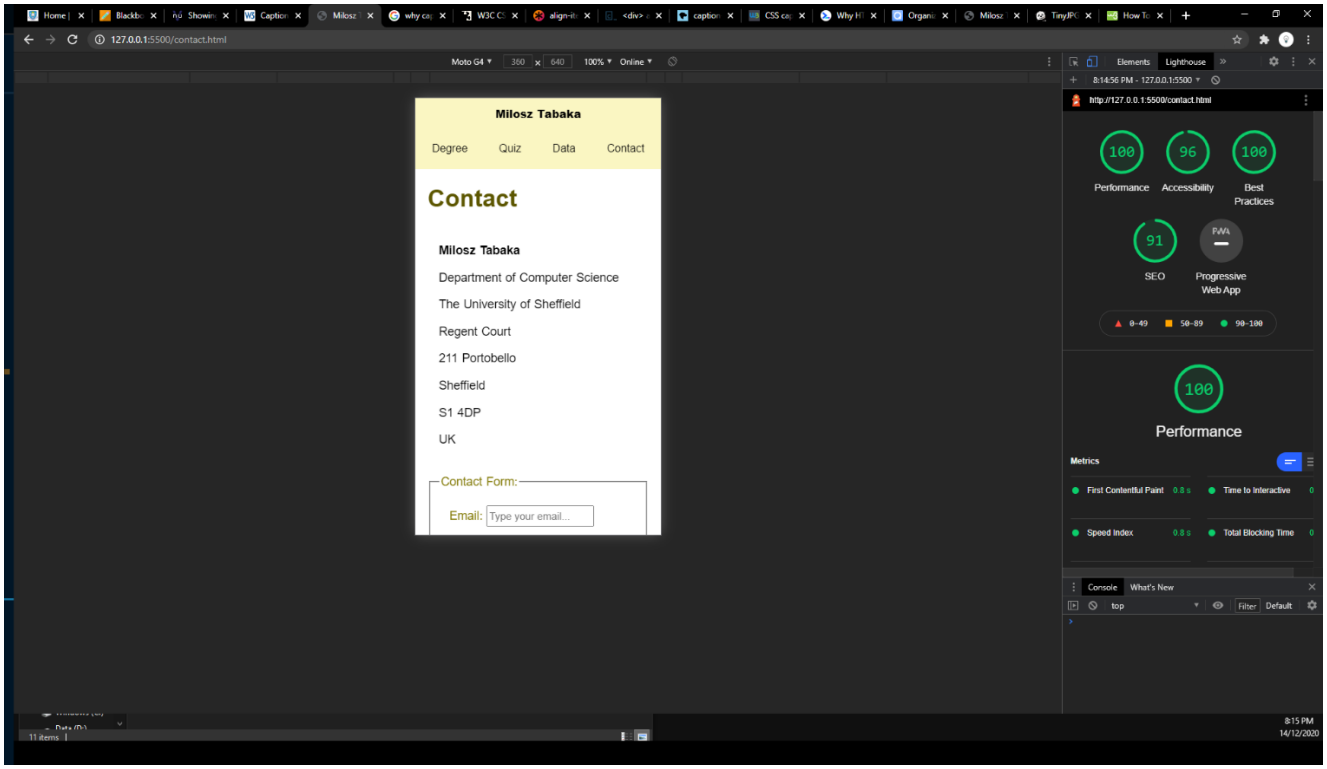


Figure 18 - Mobile Contact test

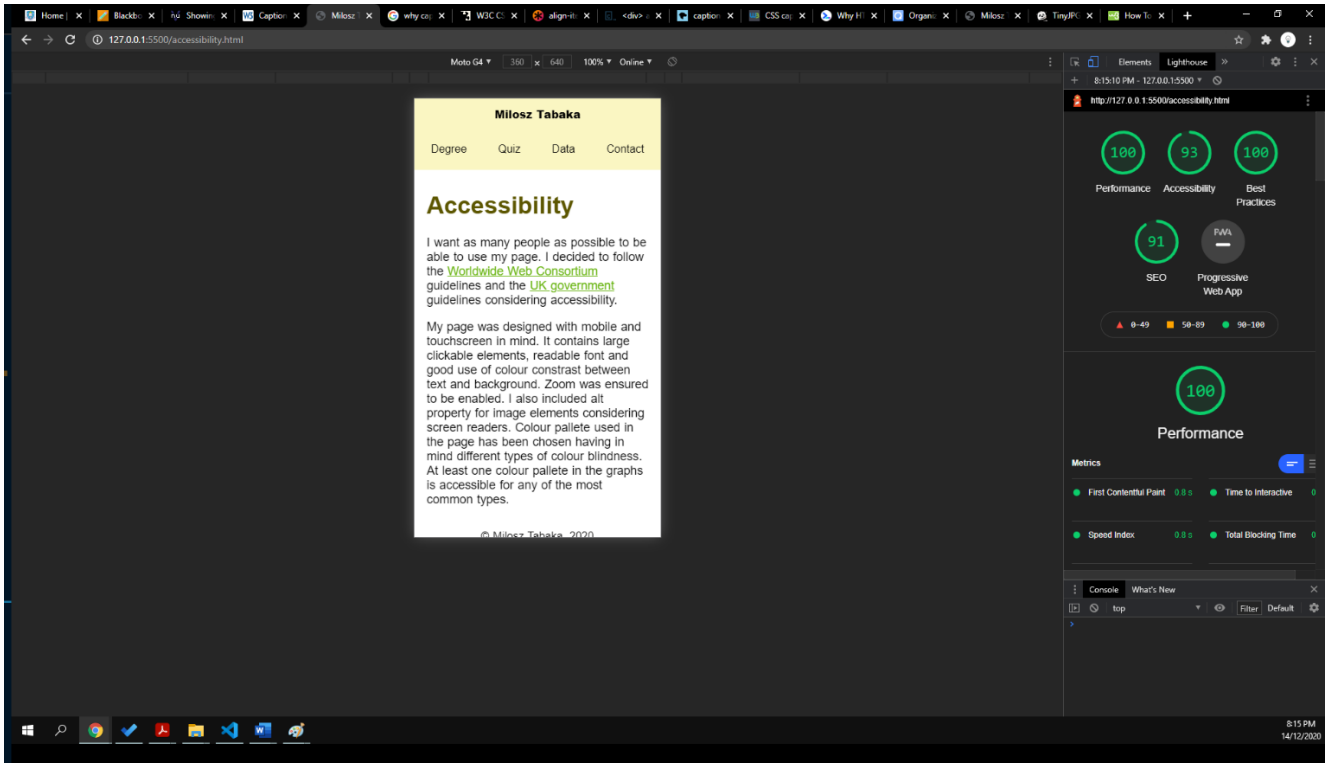


Figure 19 - Mobile Accessibility test

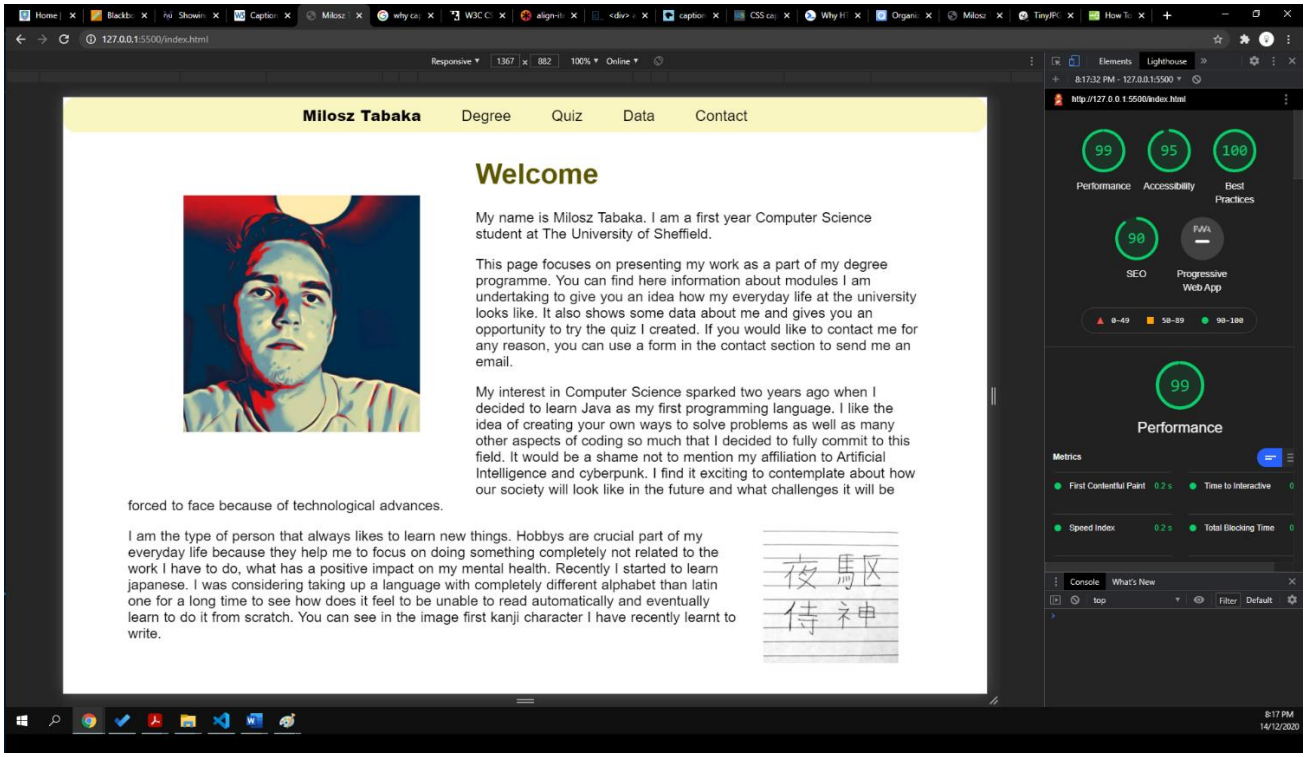


Figure 20 - Desktop Index test

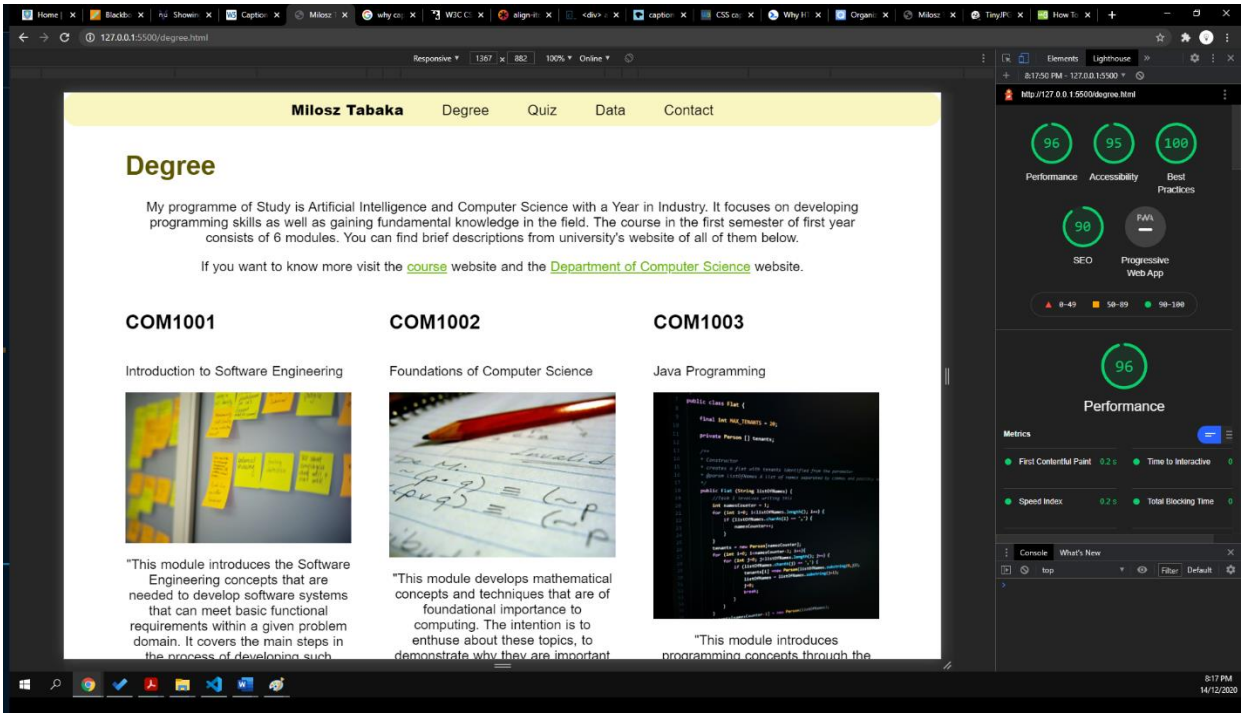


Figure 21 - Desktop Degree test

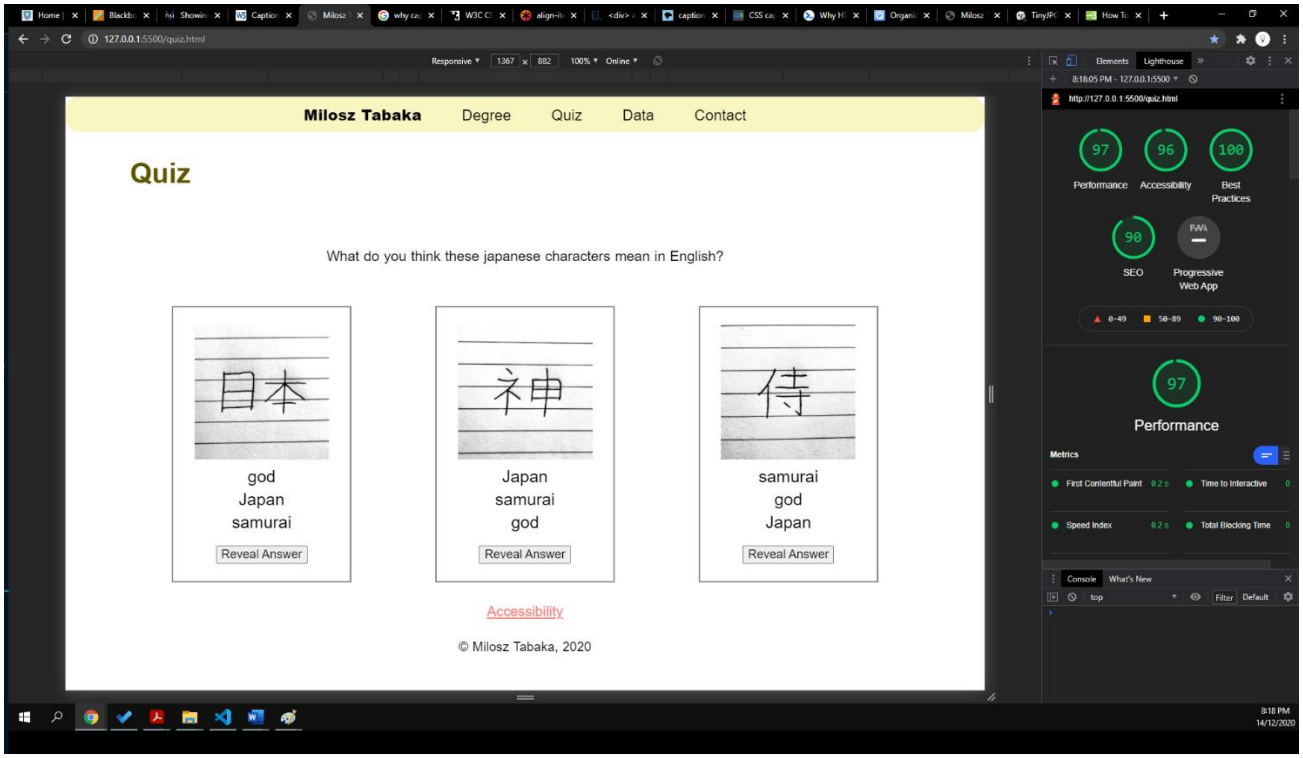


Figure 22 - Desktop Quiz test

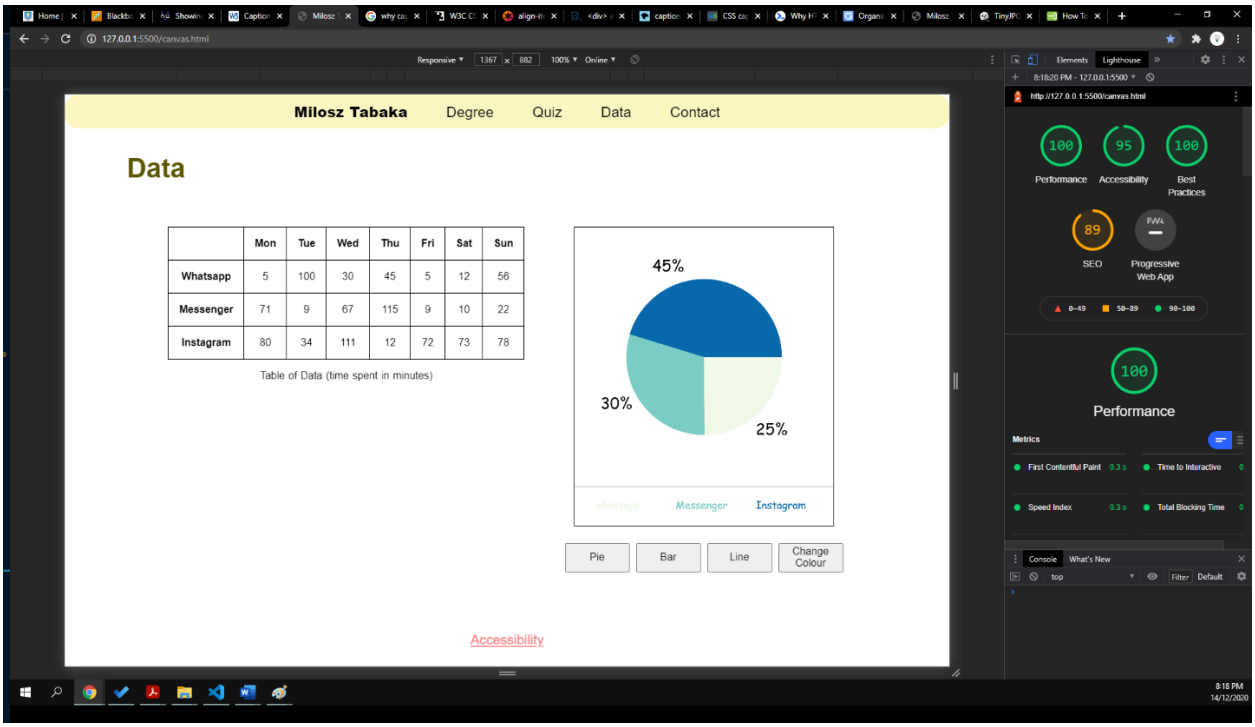


Figure 23 - Desktop Data test

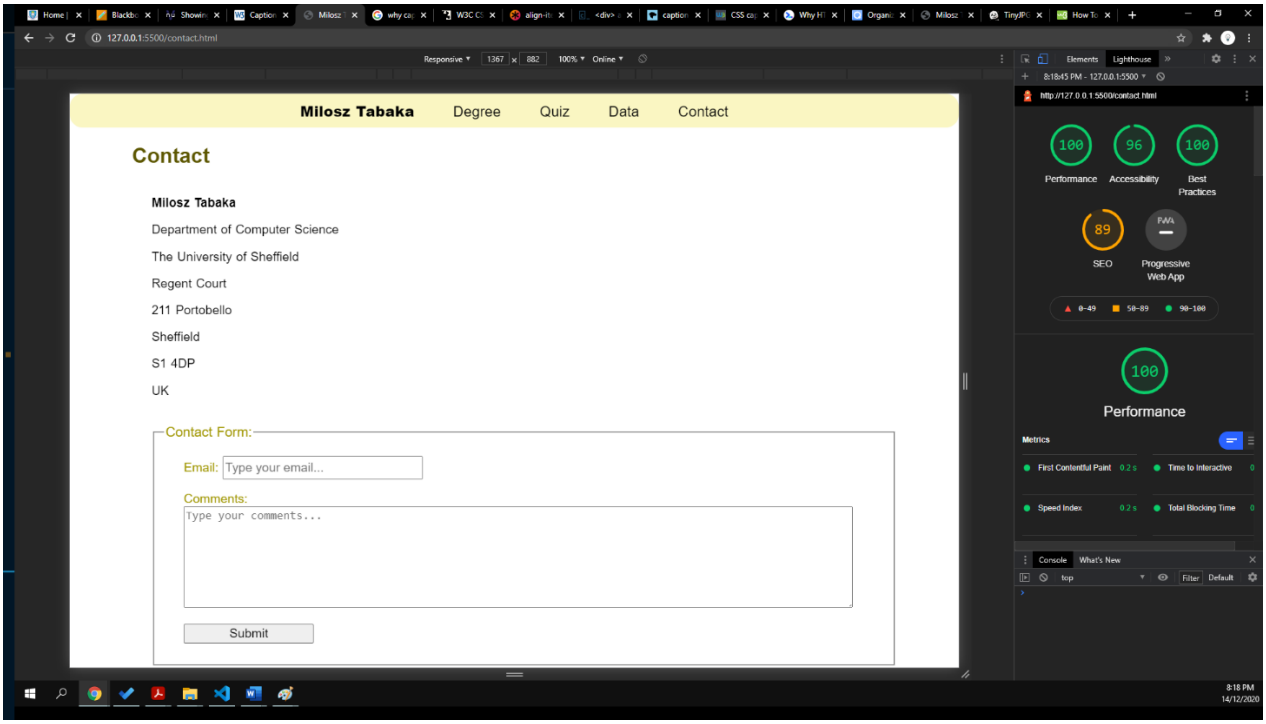


Figure 24 - Desktop Contact test

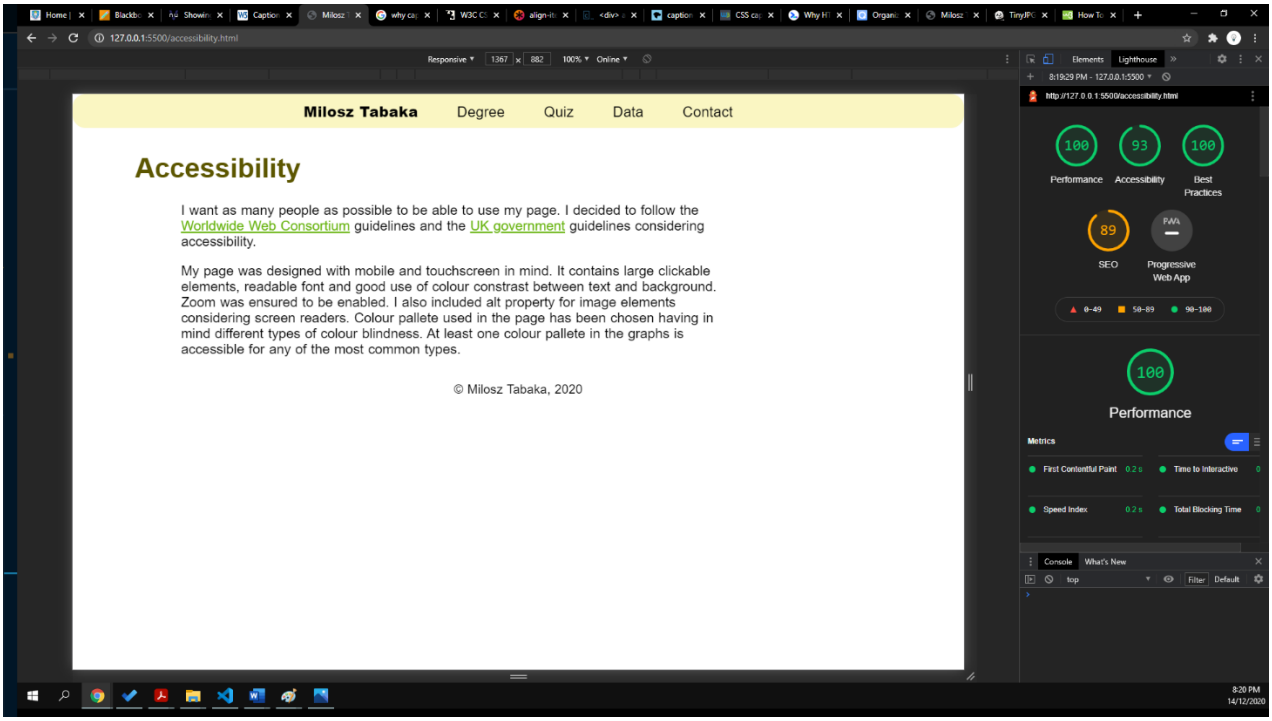
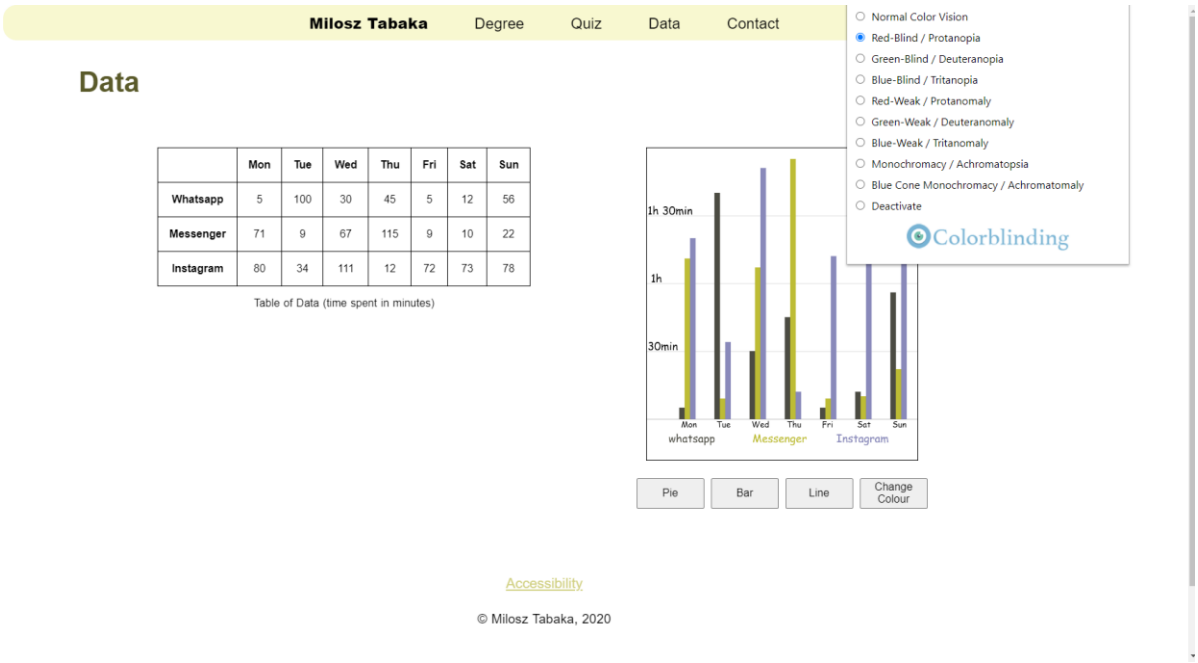


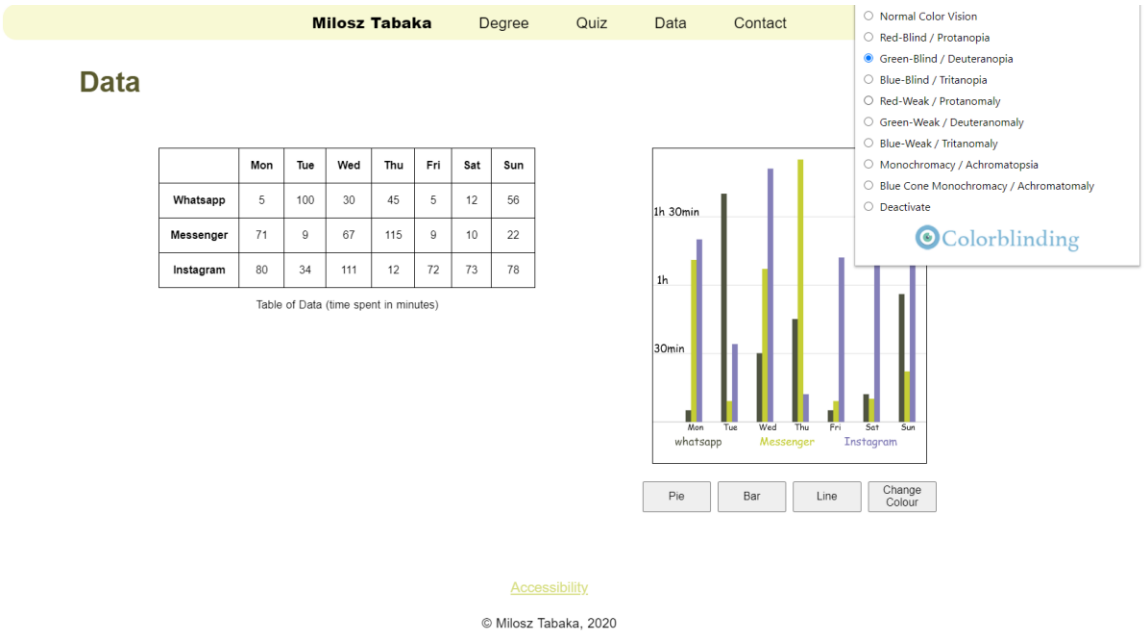
Figure 25 - Desktop Accessibility test

I also tested my website for colour blindness accessibility using Colorbliding Tool for Google Chrome. The results are visible especially good on canvas.



	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Whatsapp	5	100	30	45	5	12	56
Messenger	71	9	67	115	9	10	22
Instagram	80	34	111	12	72	73	78

Figure 26 - Protanopia test



	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Whatsapp	5	100	30	45	5	12	56
Messenger	71	9	67	115	9	10	22
Instagram	80	34	111	12	72	73	78

Figure 27 - Deuteranopia test

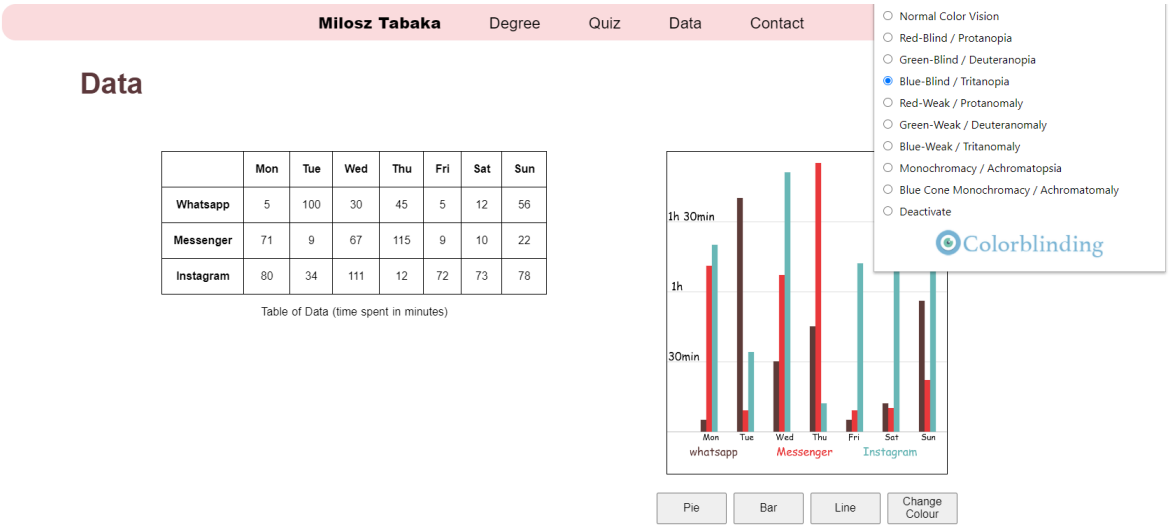


Figure 28 – Tritanopia test

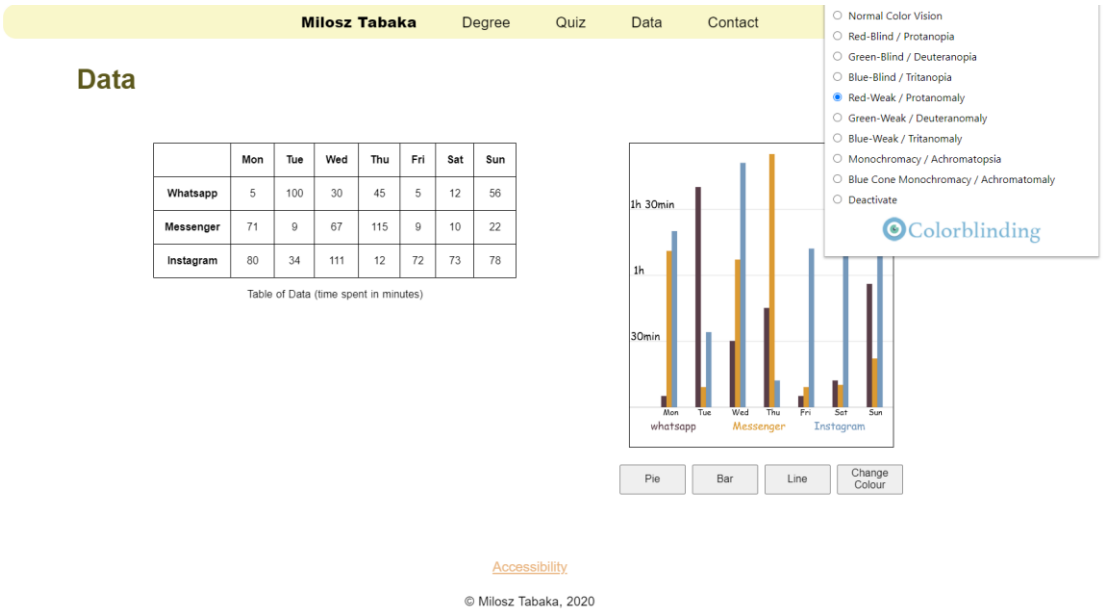


Figure 29 - Protanomaly test

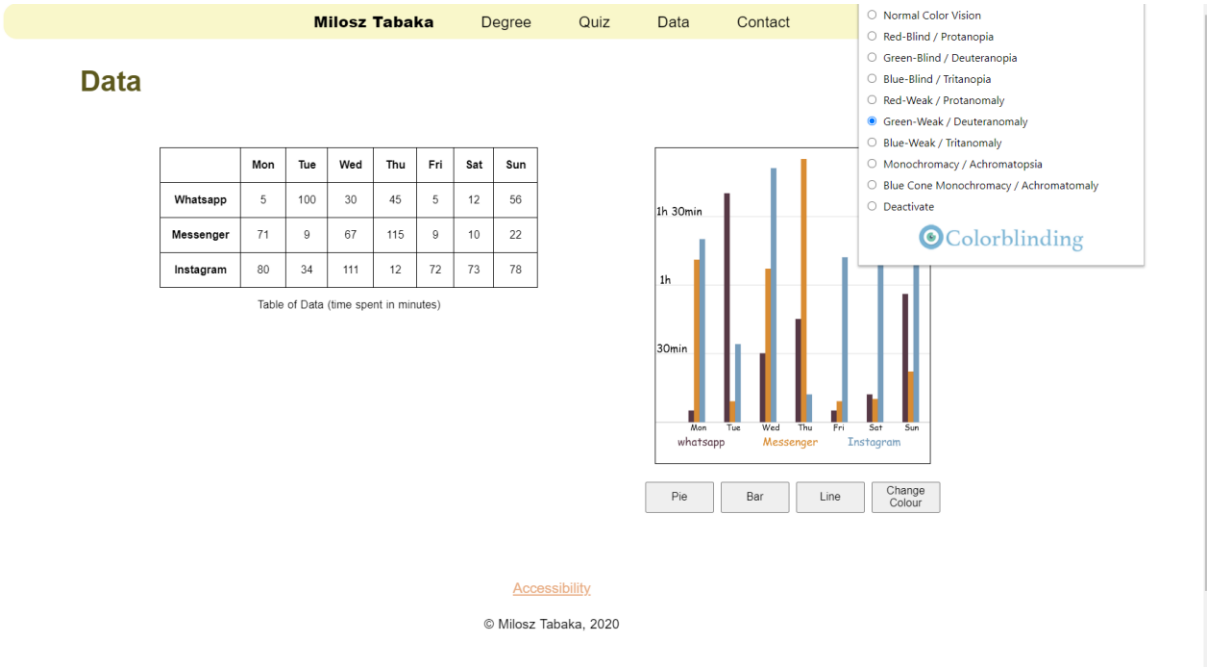


Figure 30 - Deuteranomaly test

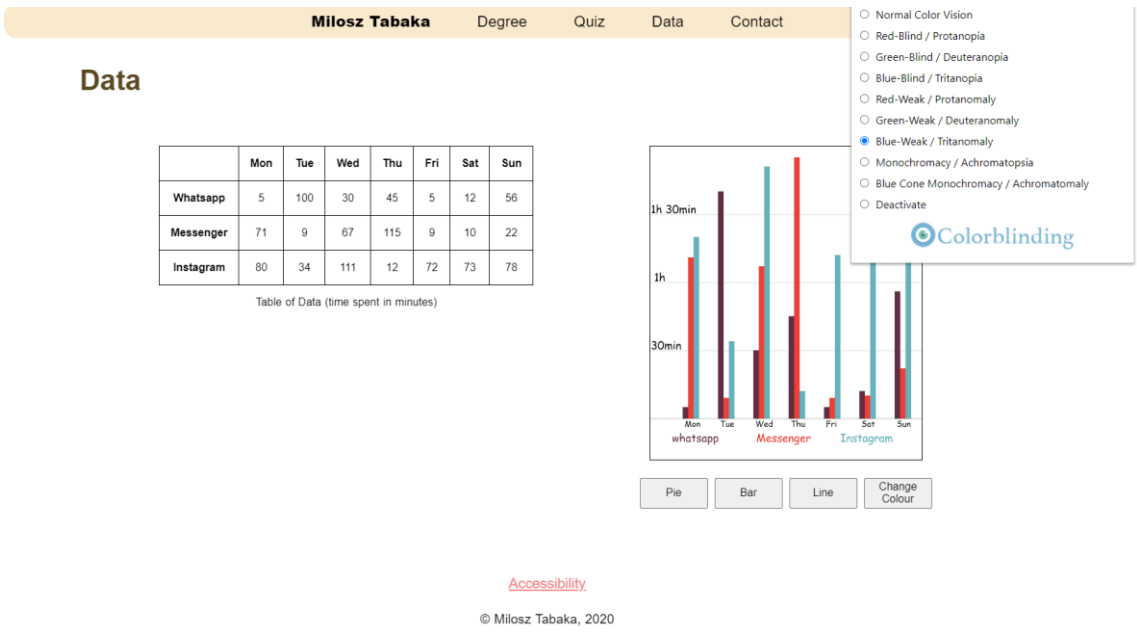


Figure 31 - Tritanomaly test

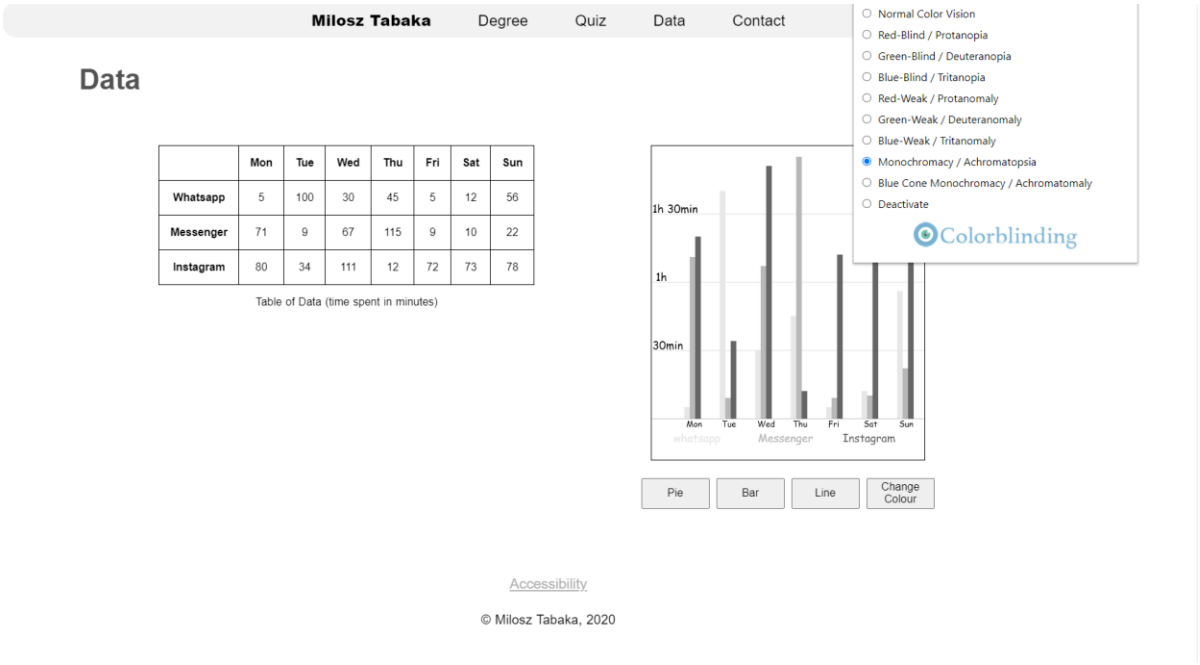


Figure 32 – Achromatopsia test

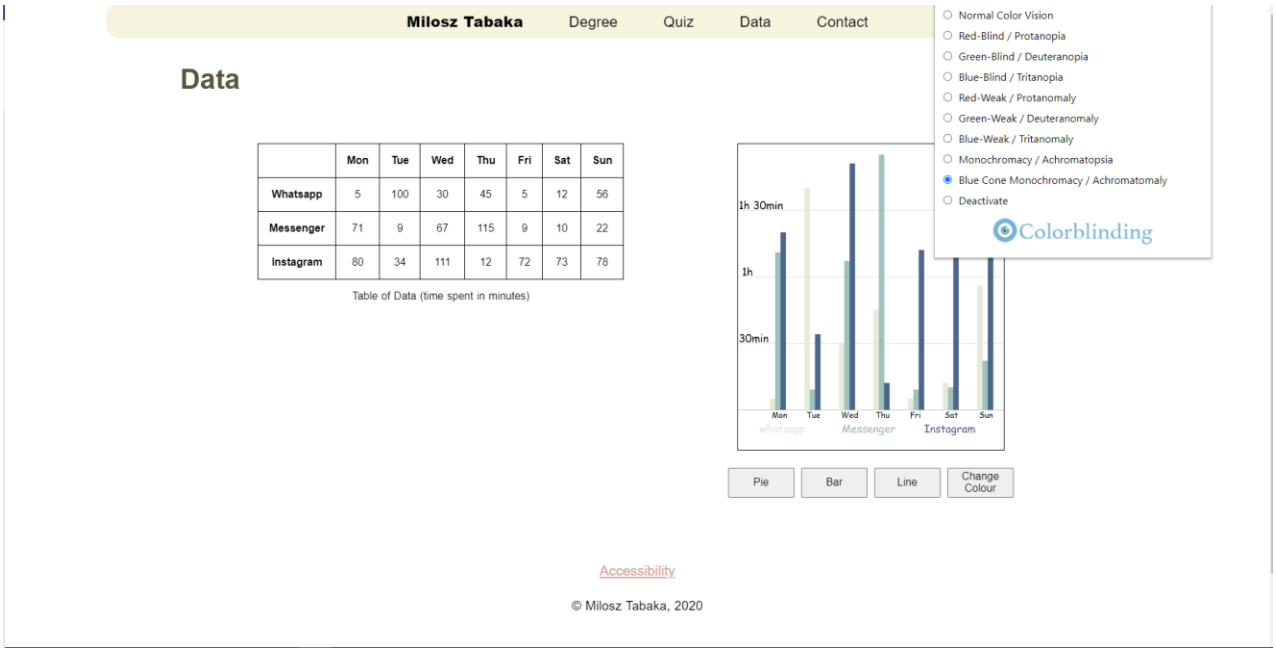


Figure 33 - Achromatomaly test