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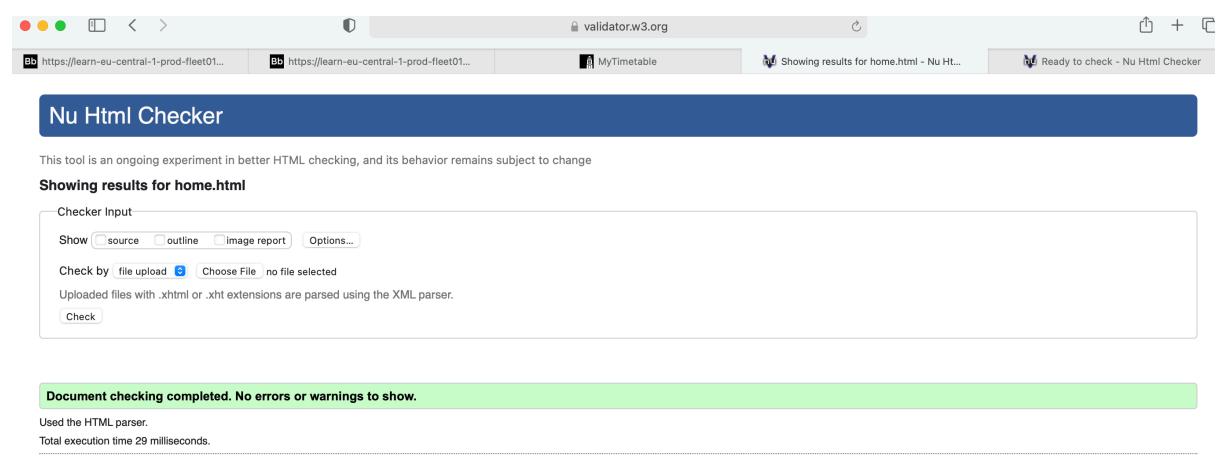
COMP1021 Coursework 2

Design Document

Reflections based on Coursework 1 Feedback

Based on the feedback for coursework 1, I decided to apply it and change the website accordingly. I have changed the layout from a grid based system to a standard dynamically extended design in order to allow for compatibility with other resolutions and allow for responsive features to work. As such, the website no longer “relies a lot on basic vertical display”. To ensure the website conforms to the HTML5 and CSS3 standards, I have performed compatibility checks and they have all passed successfully with no errors or warnings. The evidence can be seen below.

Compatibility checks



The screenshot shows a web browser window with several tabs open. The tabs include "validator.w3.org", "MyTimetable", and "Showing results for home.html - Nu Ht...". Below the tabs, the browser title bar reads "Nu Html Checker". The main content area displays the Nu Html Checker interface. It has a blue header bar with the text "Nu Html Checker". Below this, a message states "This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change". A section titled "Showing results for home.html" is shown. It contains a "Checker Input" field with options for "source", "outline", "image report", and "Options...". Below this, there's a "Check by" section with "file upload" and "Choose File" buttons, both of which show "no file selected". A note says "Uploaded files with .xhtml or .xht extensions are parsed using the XML parser." At the bottom of this section is a "Check" button. At the very bottom of the page, a green bar indicates "Document checking completed. No errors or warnings to show." and provides credits: "Used the HTML parser.", "Total execution time 29 milliseconds.", "About this checker • Report an issue • Version: 22.4.22".

Screenshot of the Nu Html Checker interface showing the "Showing results for blog1.html" page. The interface includes a "Checker Input" section with options for "source", "outline", "image report", and "Options...". It also has a "Check by" section with "file upload" and "Choose File" buttons, both currently showing "no file selected". A note states that ".xhtml" or ".xht" files are parsed using the XML parser. A "Check" button is present.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 24 milliseconds.

[About this checker](#) • [Report an issue](#) • Version: 22.4.22

Screenshot of the Nu Html Checker interface showing the "Showing results for blog2.html" page. The interface is identical to the first screenshot, with the "Checker Input" section and "Check by" section. A note about XML parsing for ".xhtml" or ".xht" files is present.

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 27 milliseconds.

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Screenshot of the W3C CSS Validator interface showing the "Showing results for settings.html" page. The interface includes a "Jump to:" dropdown set to "Validated CSS". Below it, the title "W3C CSS Validator results for main.css (CSS level 3 + SVG)" is displayed. A green banner at the top says "Congratulations! No Error Found." A note states that the document validates as "CSS level 3 + SVG". Below this, instructions for adding the validation icon to a Web page are provided, along with two examples of the code snippets:

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



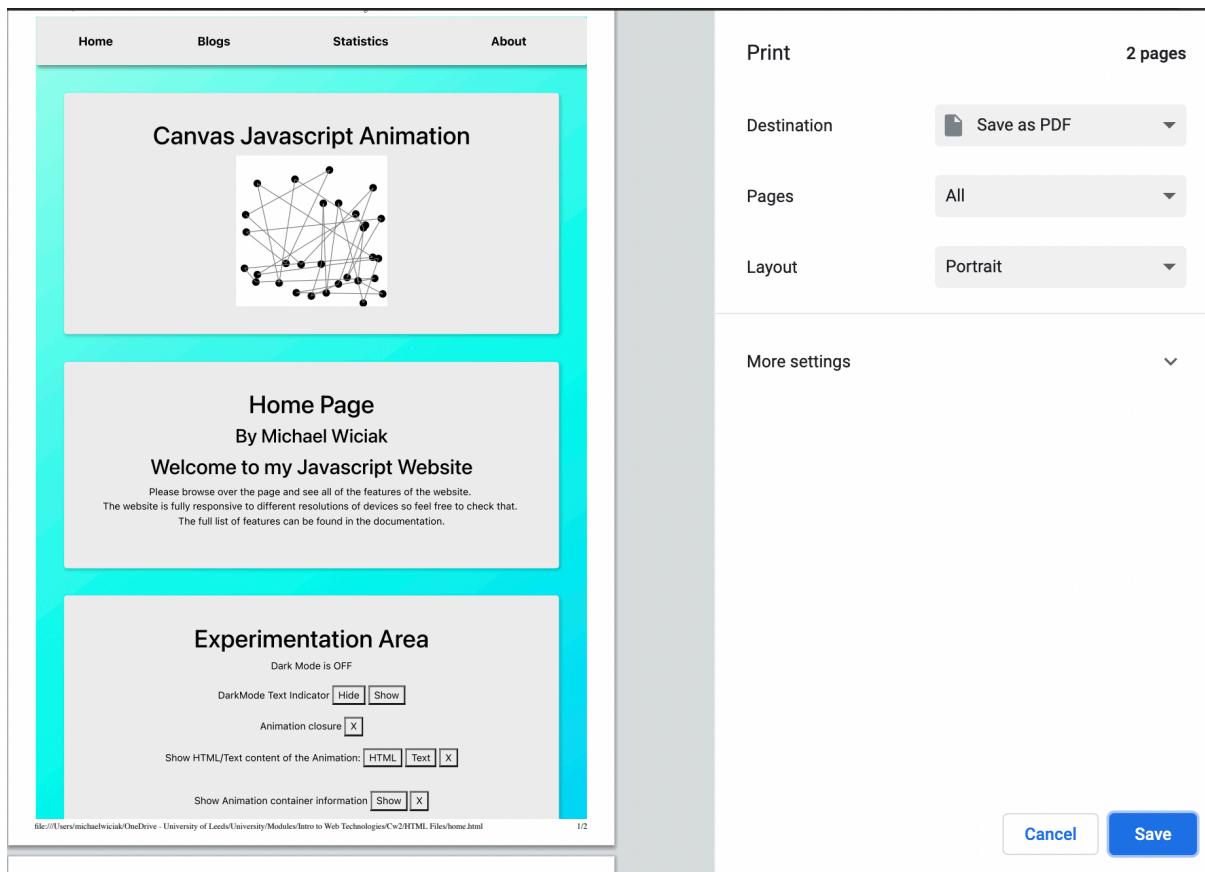
```
<p>
  <a href="http://jigsaw.w3.org/css-validator/check/referer">
    
  </a>
</p>
```

This screenshot shows the Nu Html Checker interface. The title bar says "Nu Html Checker". Below it, a message states: "This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change". A section titled "Showing results for forms.html" is displayed. It includes a "Checker Input" area with options to "Show source", "outline", "image report", and "Options...". Below this is a file upload section with a "Check by file upload" button and a "Choose File" input field showing "no file selected". A note says "Uploaded files with .xhtml or .xht extensions are parsed using the XML parser." and a "Check" button. At the bottom, a green bar says "Document checking completed. No errors or warnings to show." followed by "Used the HTML parser." and "Total execution time 24 milliseconds."

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This screenshot shows the Nu Html Checker interface. The title bar says "Nu Html Checker". Below it, a message states: "This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change". A section titled "Showing results for settings.html" is displayed. It includes a "Checker Input" area with options to "Show source", "outline", "image report", and "Options...". Below this is a file upload section with a "Check by file upload" button and a "Choose File" input field showing "no file selected". A note says "Uploaded files with .xhtml or .xht extensions are parsed using the XML parser." and a "Check" button. At the bottom, a green bar says "Document checking completed. No errors or warnings to show." followed by "Used the HTML parser." and "Total execution time 14 milliseconds."

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Additional Features

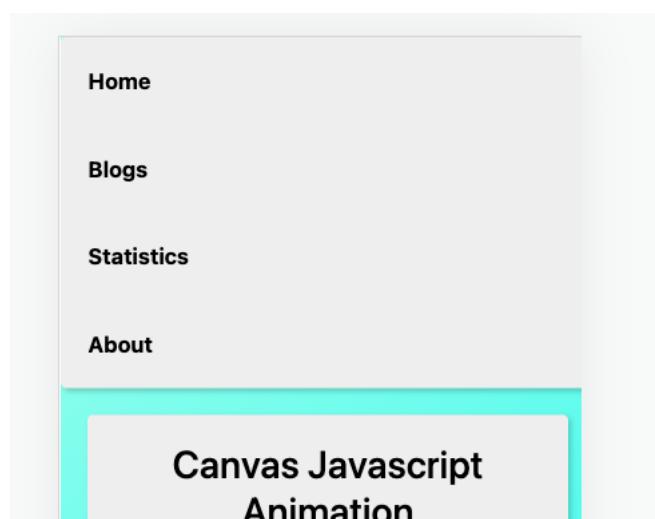
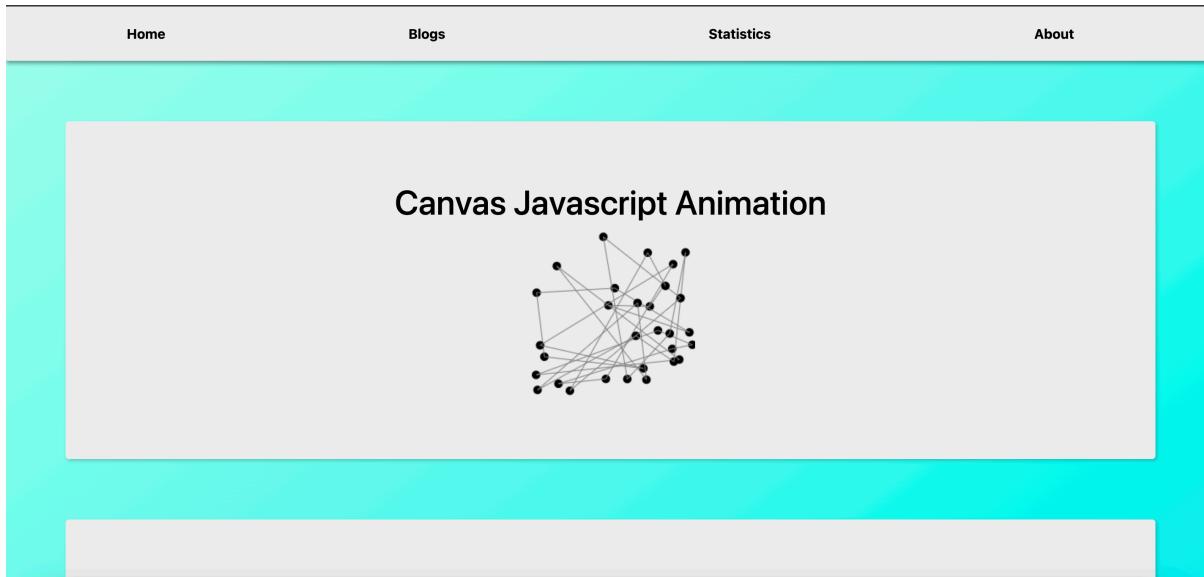
CSS

The CSS style and layout implemented allows for successful printing of the web pages. Below is showed an example of what happens when trying to print home.html page.

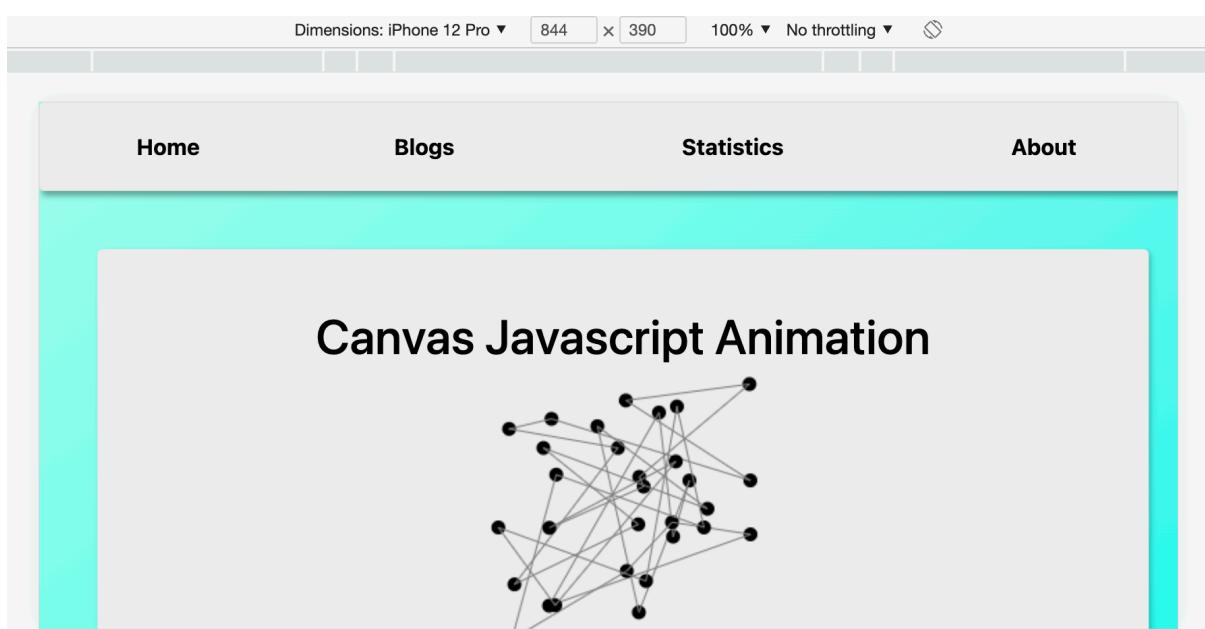
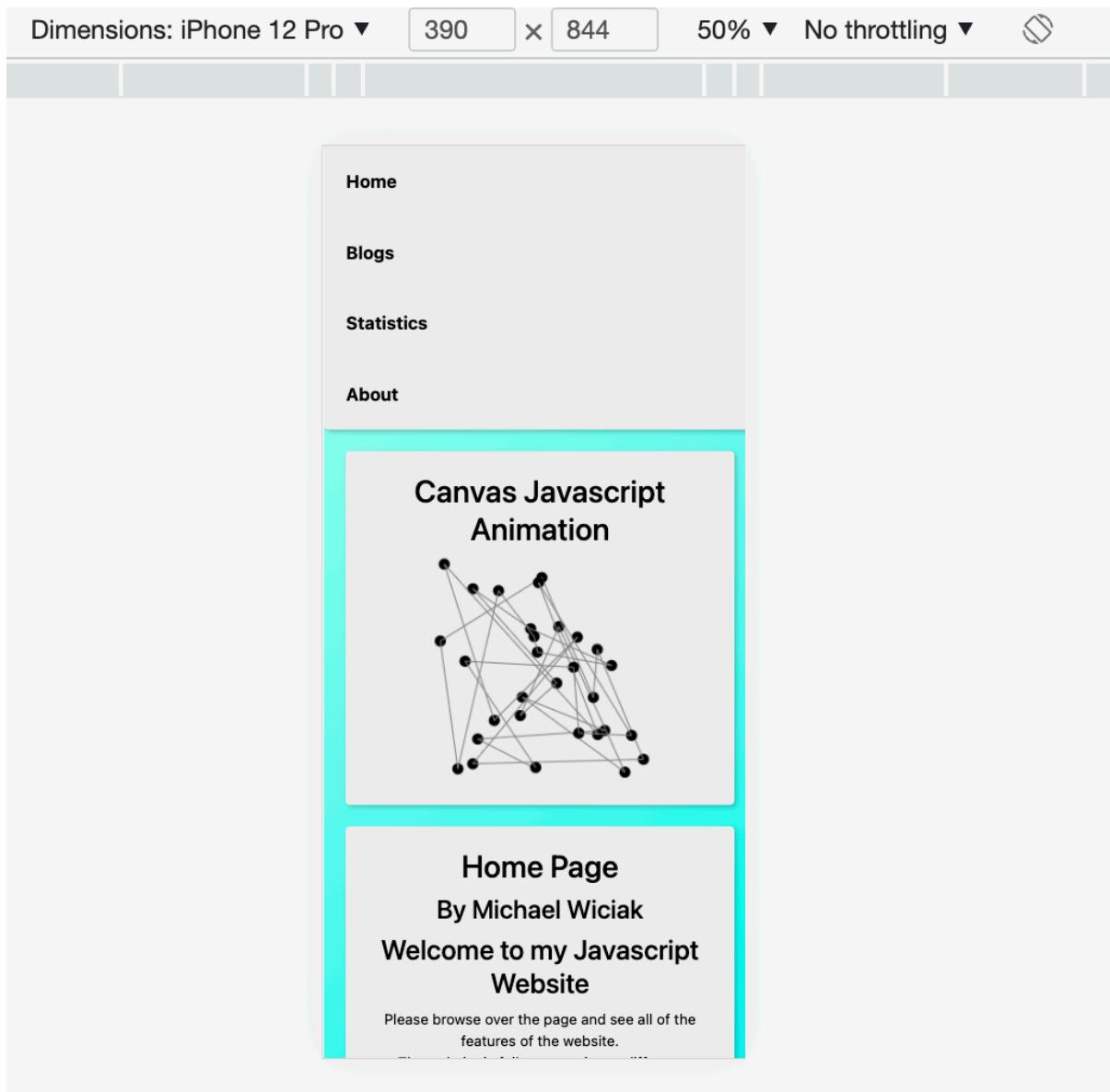
As you can see, the printed version of the website reflects correctly on the layout that can be seen when accessing the website on any device and the CSS style in the printed version is consistent with what was implemented by me.

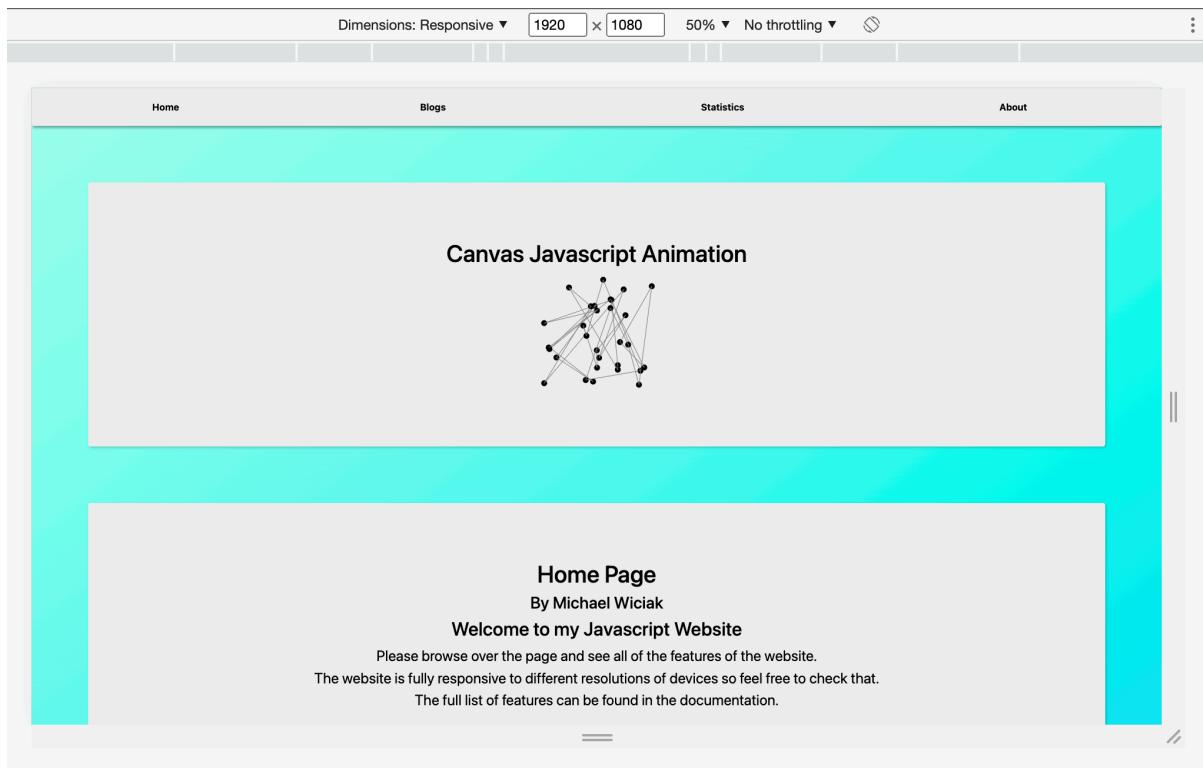
To fully enable responsive web in the website, I have used @media tags in CSS classes that can be prone over-stretching in both width and height on varying resolutions. These risky classes are changed in low width/height resolutions to display items, rather than in one line, to display the vertically using display: flex. Additionally, some classes have minimum text size and flex-direction: column, to ensure that when the device changes, the website is still readable without the need for any zooming. Below is an example of this implementation:

```
.clicky-menu {  
    justify-content: stretch;  
    margin: 0;  
    padding: 0;  
    list-style: none;  
}  
@media (min-width: 540px) {  
    .clicky-menu {  
        display: flex;  
    }  
}
```



I am happy with the effectiveness of this implementation in my CSS as the website adapts correctly to changes in resolutions. Below is an example on the navigation bar in the 1920x1080 resolution vs the resolution of a mobile device.





To see the implementation of the responsive web in my website, please look at the comparison between home.html in 1920x1080 resolution vs mobile device resolution.

Everything stretches vertically as intended, to allow for clarity and readability. This doesn't compromise on the desktop version of the website as both have a consistent layout and style. As already stated and seen in the screenshots in the Compatibility section of this document, the CSS validates without any errors or warnings.

```

html body div#animationContainer.text
Styles Computed Layout Event Listeners DOM Breakpoints >
Filter :hov .cls +
*, ::after, ::before {
  box-sizing: border-box;
}
div {
  display: block;
}
Inherited from body
body {
  margin: 0;
  font-family: var(--bs-body-font-family);
  font-size: var(--bs-body-font-size);
  font-weight: var(--bs-body-font-weight);
  line-height: var(--bs-body-line-height);
  color: var(--bs-body-color);
  text-align: var(--bs-body-text-align);
  background-color: var(--bs-body-bg);
  -webkit-text-size-adjust: 100%;
  -webkit-tap-highlight-color: transparent;
}

```

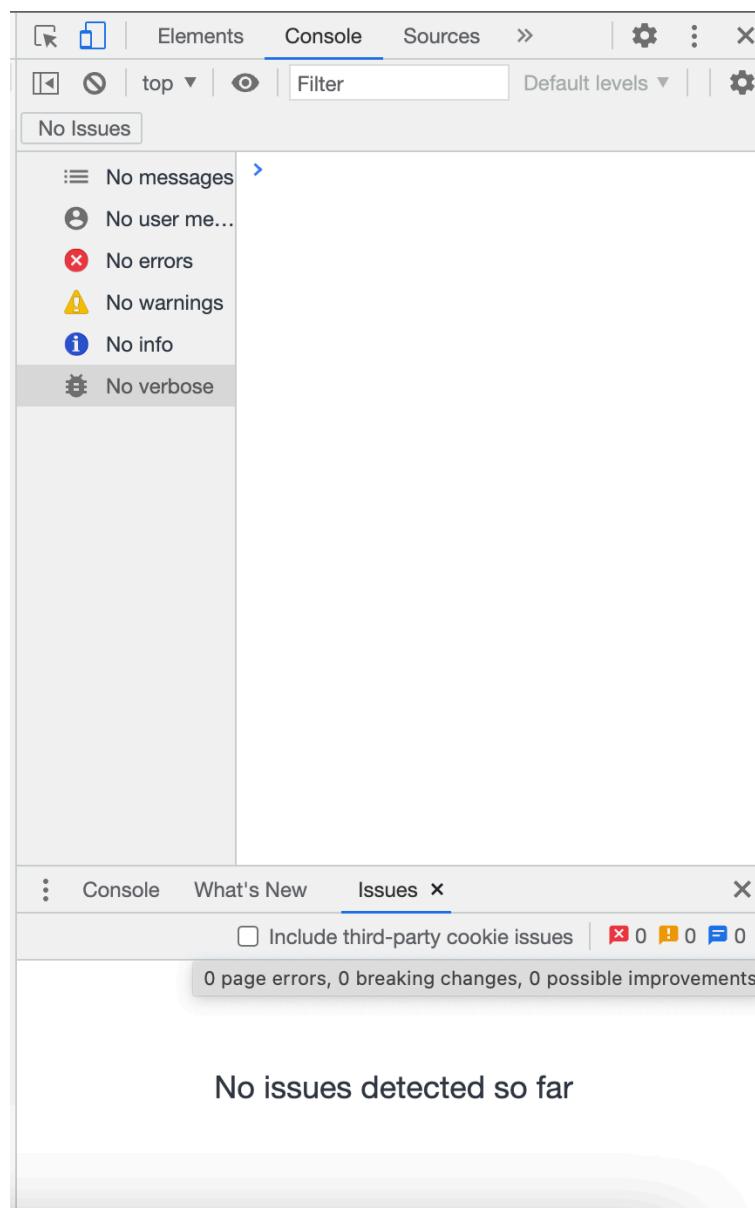
I have also fully integrated Bootstrap into my website to allow for even more responsive website. The Bootstrap being used can be seen in every element of the website as shown by the screenshot below.

As seen, the Div element with ID animationContainer and with .text class also inherits css styling from reboot.scss, which is the Bootstrap CSS file.

I am happy with this implementation as it allows my website to use many styling techniques that I didn't know of previously (such as -webkit) which ensures the website is mobile friendly accessible to as many devices as possible.

JavaScript and jQuery

I have implemented a substantial amount of JavaScript programs which add functionality to my website. I have also used jQuery effectively, which interacts with the JavaScript programs,



to provide dynamic content to the website.

The JavaScript and jQuery implemented produces no errors and no warnings as seen in the screenshot below.

I have separated my scripts into separate files based on functionality provided by that

The screenshot shows a file explorer interface with a sidebar on the left and a main content area on the right. In the sidebar, there is a list of files and folders:

- animation.js
- changeImageSize.js
- clicky-menus.css
- clicky-menus.js
- darkMode.js
- form.js
- gallery.js
- geolocation.js
- HTML Files
- Images
- randomBackground.js** (highlighted with a blue background)
- settings.js
- showDarkModeText.js
- siteVisited.js
- time.js

In the main content area, the code for **randomBackground.js** is displayed:

```
function randomColour() {  
    var x = Math.floor(Math.random() *  
256);  
    var y = Math.floor(Math.random() *  
256);  
    var z = Math.floor(Math.random() *  
256);  
    var colour = "rgb(" + x + "," + y +  
, " + z + ")";  
    return colour;  
}  
  
function randomBackgroundColour(){  
    var c1 = randomColour();  
    var c2 = randomColour();  
    var c3 = randomColour();  
    var gradientColour = "linear-
```

randomBackground.js
text document - 507 bytes
Information

More...

program. I have attached below a screenshot of the directory of my submission to evidence this.

Design of Features

Site Visited Feature

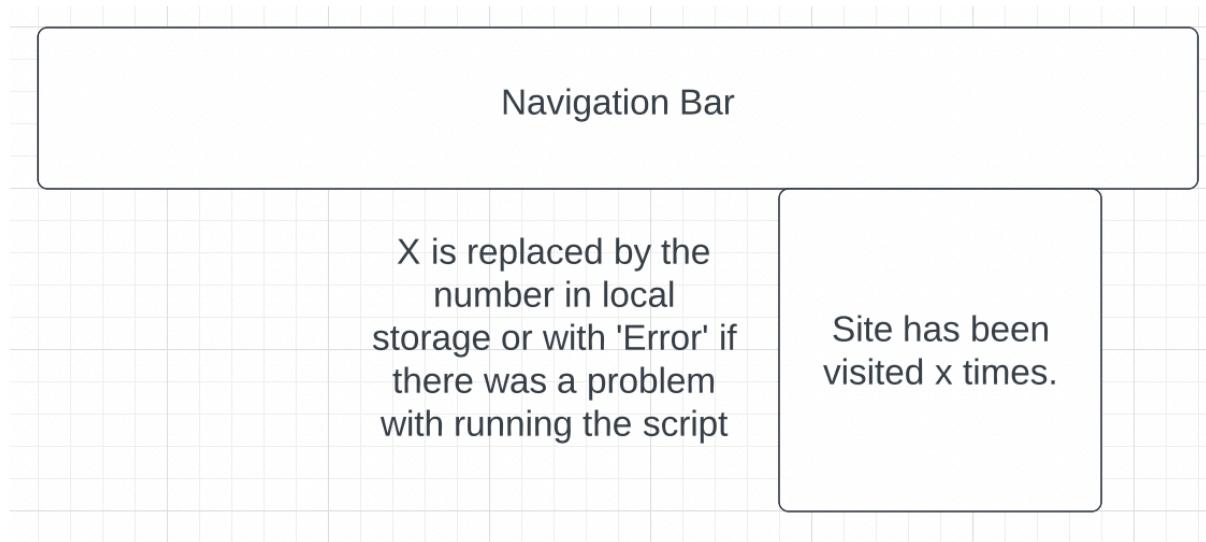
Aim of this feature is to implement a Site Visited Counter, which can be seen by the user.

The purpose of this feature is to show how many times overall has the user visited all of the five webpages combined.

Specification with justification:

1. The Counter increments each time the page is refreshed, including closing and reopening.
Each time the page is refreshed or closed and reopened, the user reloads the website into the browser and as such, they are visiting the website again.

2. The Counter increments each time the user navigates to a different page of the website. Navigation to a different part of the same website still means the user is using and loading a different part of the website and as such, the user is visiting the overall website again.
3. There must be a reset button, which resets the counter to 0. This allows the user to remove their data stored in local storage and gives more control to the user as they decide when they want to reset the counter.
4. The counter and the reset button must be available in the navigation bar. This is for accessibility purposes and that the user will be able to see the counter regardless of what



page of the website they are on, as the navigation bar will be the same in every page.

The wireframe model:

Benefit to Website:

This feature provides a dynamic value on the website which indicates to the user their activity on this website. This is useful for users who like to monitor how many times they have used the website and for programmers to monitor activity on the website, as this local storage data could be sent to a database and additional features could be implemented with this building block.

Geolocation Feature

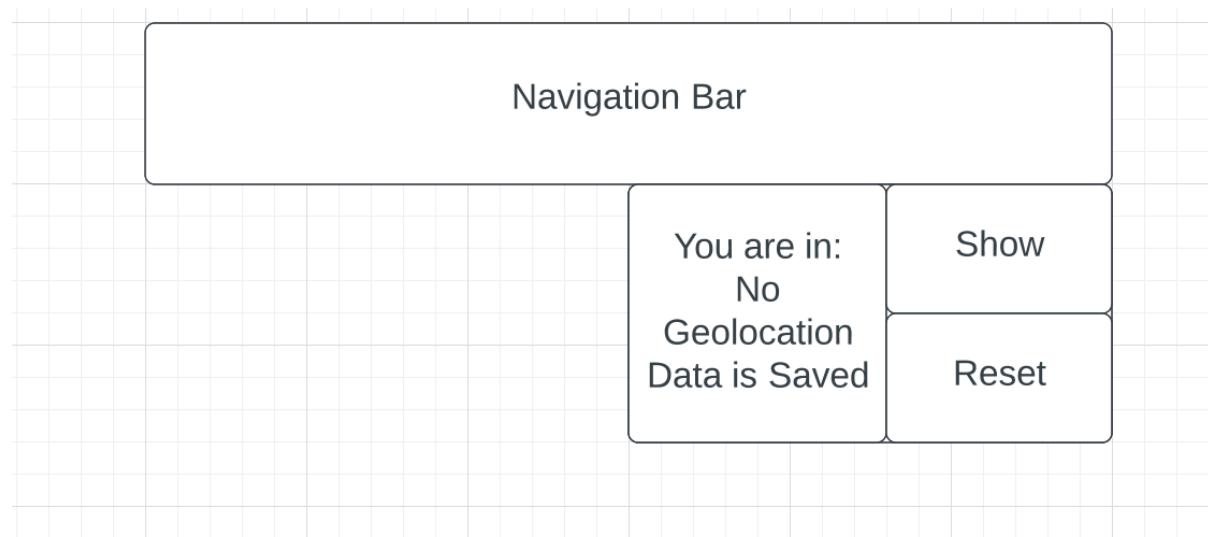
The purpose of this feature is to show the location of the user in longitude and latitude.

Specification with justification:

1. The longitude and latitude of the user is displayed. As the user is consenting to their location data being fetched, they must be aware what is being fetched.

2. If there is no location data yet loaded, a text telling the user this, must be displayed. The user needs to aware if the page is holding location data on them prior to giving consent to it, as it gives the user more insight into the operations of the website and makes it transparent.
3. The location data must be loaded for the first time upon pressing a button and agreeing to the location data being showed by the browser of the user. Otherwise, each time the user refreshed the website, an alert from the browser would be displayed, asking the user for agreeing or disagreeing with sharing their location, which can be annoying for users to constantly click the same buttons.
4. If the geolocation feature is not supported, an error message must replace the text, prompting the user that no locational data can be fetched. For transparency reasons, the user must be aware if ultimately their location was shared or not and if their browser supports the features of the website.
5. Once the data is loaded for the first time, it must be saved to local storage and automatically displayed on other pages without the need of pressing the button again. This eliminates the process of constantly having to press the ‘show’ button if the location was already shared previously.
6. If the location is displayed, any further pressing of the ‘show’ button by the user will add a text telling the user that the data is already displayed. Rather than constantly fetching the location data, if the data is already displayed, there is no need for any updates so such requests must be denied for efficiency purposes.
7. Next to the ‘show’ button, a reset button must be displayed, allowing the user to delete their geolocation data from local storage. This gives the user greater control over the data that the website stores on them and gives them the option to delete it at any time.
8. The geolocation data must be available on every page in the navigation bar. The user needs to be aware at every page their location can and is being used by the website so they understand the consequences of sharing location data.

The wireframe model:



Benefit to Website:

This allows the user to see exactly what kind of information the website receives when location is enabled and it is a good foundation block for programmers to create location specific improvements, such as default language of the website based on coordinates/country. This feature also helps the user find out where they are currently, if they are lost somewhere.

Canvas Animation Feature

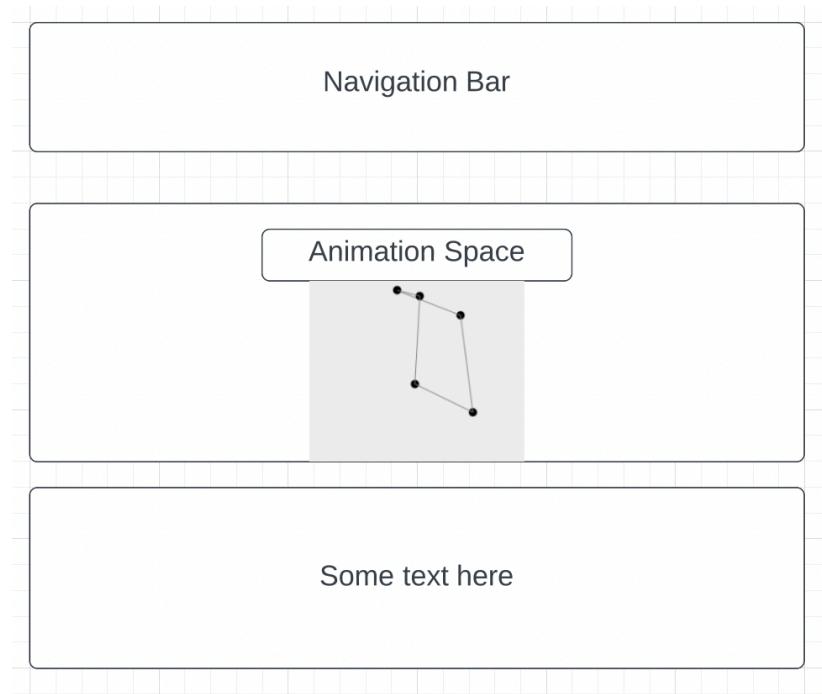
The purpose of this feature is to show the animation on a JavaScript canvas of moving dots with lines connecting them.

Specification with justification:

1. Randomly allocate five dots on the canvas. Connect them with two other dots using straight lines. Move the dots at random speed across the canvas. Reconnect and change the length/rotation of the lines, ensuring they are still connecting two dots together. This creates a dynamic animation, which has the capability of being different each time.
2. The animation must last indefinitely. This is so the website doesn't becomes static over time and keeps seeming to change, irrespective of the time when the page was opened.
3. The animation must be in the standard area of the website where text can be dynamically added. This is so that this animation is unique to a particular page and complements the

text of the page
specifically.

The wireframe model:



Benefit to Website:

This features provides a more dynamic feeling to the website and should increase the engagement of the user as they are not just looking at a static page. Since the animation is randomly generated, each time the user is provided a slightly different animation and as

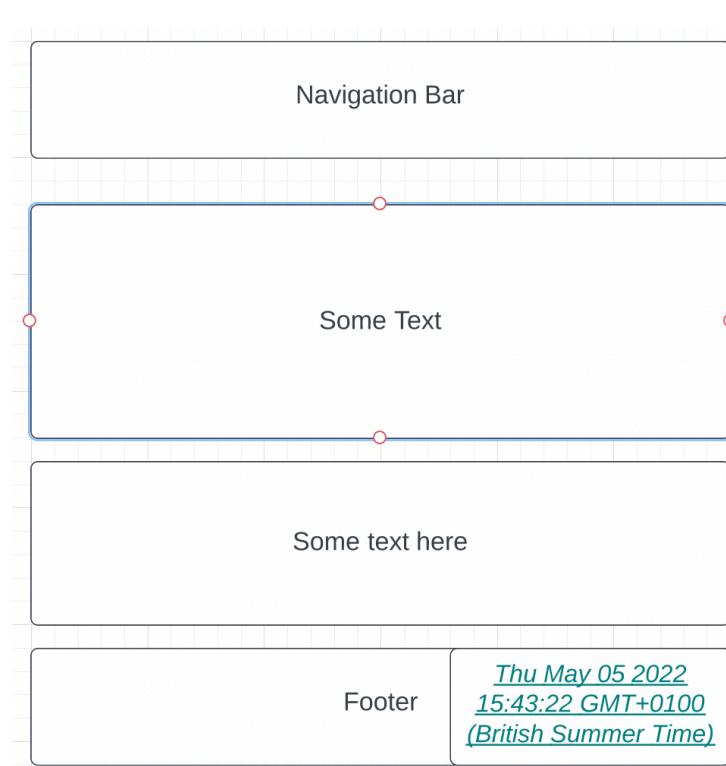
such, there is always new content in the website for the user to explore.

Time Indicator Feature

The purpose of this feature is to show the current time, date and timezone to the user of the website.

Specification with justification:

1. Display current time, date and timezone. The user should be aware of the current date, time and the timezone for their information.
2. This must be displayed in the footer of the website on every page. This is so to enable the user to see this information regardless what they are currently doing on the website, they can always scroll down to see this information, without having to change pages.



Feature test area

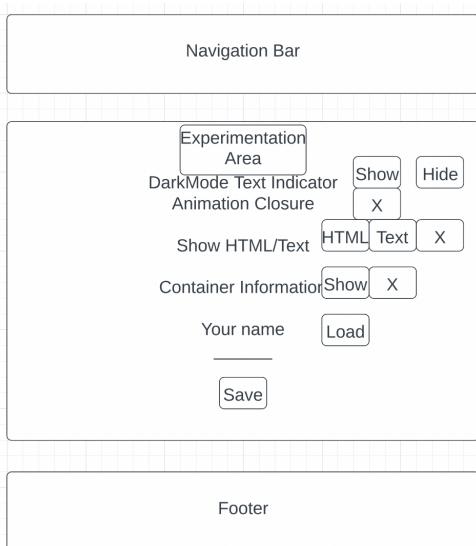
The purpose of this feature is to highlight some functionalities of the interactions between JavaScript and jQuery by providing dynamic page changes, solely depend on the user.

Specification with justification:

1. Two buttons for hiding and showing the dynamic element of 'Dark Mode' indicator. Allows the user to hide this indicator if they wish to not see it, giving more power to the user over the website. This must be available on every non-settings page.
2. Toggle button for hiding the section of the page used for the animation. This gives the user more control over the website and if their device can't handle the animation storage requirements/algorithms, they can always hide to speed up the website loading. If they

change their mind, they can always click the button again to show it since its a toggle button.

3. Toggle button for the section of the page used for the photo gallery. This gives the user more control over the website and if their device can't handle the image storage requirements, they can always hide to speed up the website loading. If they change their mind, they can always click the button again to show it since its a toggle button.
4. Three buttons, one must show the HTML raw content of the animation element, the other to show the text data written for that animation element and the last for taking that information off the screen. This allows the user to see, for educational purposes, what was required to display the animation and allows for that information to not stay there forever since it can be hidden.
5. Two buttons, one for showing the class, ID and href of the animation element and the other for taking that information off the screen. It shows the user the information of that element, if they wish to explore how it works further, without having to look in the first instance of the raw source code allows for that information to not stay there forever since it can be hidden.
6. Two buttons, allowing the user to set their name, save it and load it when they refresh the page. This allows for further customisation of the page and the user's name is displayed in that part of the website.



The wireframe model:

Benefit to Website:

This features illustrates functionalities of jQuery with JavaScript to create animations of fading, sliding and toggles. It also benefits the website by giving user more customisation, such as a saved name, and hiding unnecessary page information they don't want to see.

Photo Gallery Feature

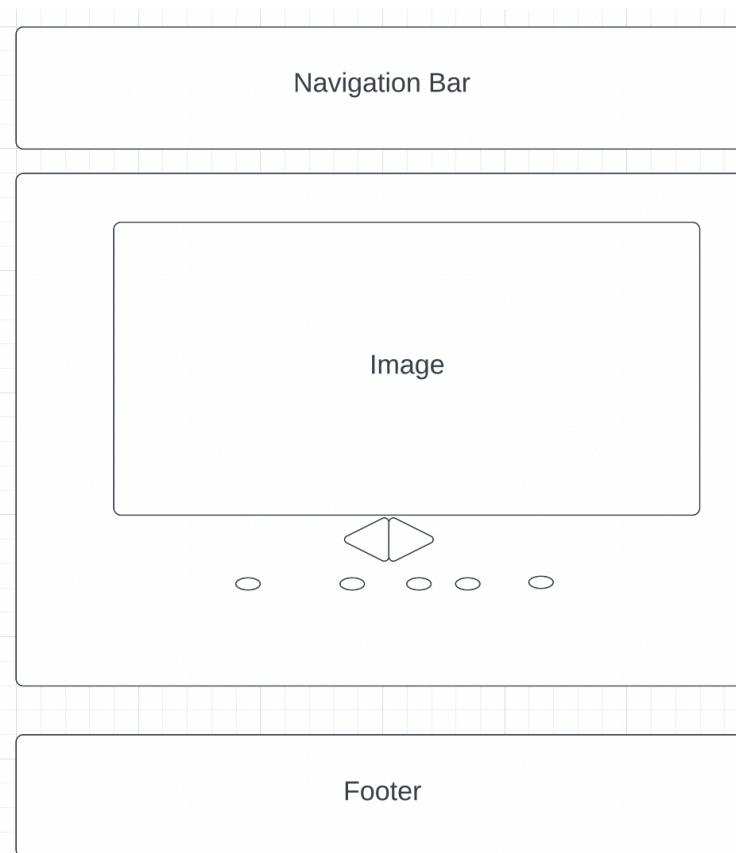
The purpose of this feature is to switch between images of the blogs without them all being displayed at once, using a navigation menu.

Specification with justification:

1. Only one image is displayed at one time with clear indicator that there are more photos available if the user clicks a specific area. This allows for the gallery to condense the images into one space and provided more user interactions with the website.

2. The images can be switched by either clicking navigation arrows or dots which represent on what image they are currently on. The dots act as reference to the index of a particular page. This gives user the power to spend as much time as they like on any particular image and allows them to remember how to find that picture again.
3. The images can be switched in both the left and right direction with rotation to the other side if they hit the end of that side. This enables the user to cycle through the images in both directions.
4. When an image is switched, a short animation must occur, showing the fading from one picture onto another. This gives a more dynamic and real feel to the website.

The wireframe model:



Benefit to Website:
 Gives the user a more interactive and animated way of viewing images of the blog. It will help with engagement of the website make the website more compact with information, without any extra images having to extend the website severely. The user can stay on one part of the website for longer without scrolling and still exploring just as much information from the website.

Form Feature

The purpose of this feature is to provide a way for the user to contact the creator of the website, through the website. Since the website is not live, the information in the form cannot be sent but the information can still be segregated into different sections.

Specification with justification:

- Contain a field for first name, which must be between three and twenty characters long and must be filled out. This is to make sure the form is not being filled with junk data, which can be astronomically large and that essential data is provided.
- Contain a field for last, which must be between three and twenty characters long and must be filled out. This is to make sure the form is not being filled with junk data, which can be astronomically large and that essential data is provided.
- Contains an optional occupation selector, where the user can choose between Student, Professor, Other. This ensure the user can only select one of these occupations for that question.
- A mandatory email field, which is validated whether it is a valid email address. This is so the website creator knows how to contact someone and that they have provided a valid contact method.
- An optional age field, where only a number between 0 and 100 can be inputted. This is so the user provided only a valid and reasonable number for age.
- Contains an optional activity selector, where the user can choose between Walking, Observing, Taking Photos, and Relaxing. This ensure the user can only select one of these activities for that question.
- Contains an optional comments section, allowing the user to type there anything they wish as long as it's between 0 and 100 characters long. This is to make sure the form is not being filled with junk data, which can be astronomically large.

Navigation Bar

First Name _____

Last Name _____

Occupation Student

Email _____

Age _____

Favourite outdoor activity Relaxing

Comments

Footer

The wireframe model:

Benefit to Website:

Provides a way of basic data validation of the data the user is trying to submit. It forces the user to provide at least some sections of the form before submission. It allows for the data provided to be separated into specified fields for easier processing later on when the website is on the server.

Settings feature

The purpose of this feature is for the user to be able to customise the website based on their preferences and be able to save these preferences and automatically loaded when the page is changed or refreshed.

Specification with justification:

1. Contains a Site Visited Counter Reset button which resets that counter to 0 straight away.
This satisfies the specification of the other feature.
2. Dark Mode Button which changes the whole website into a dark mode state, with background being changed to black colours, for text containers becoming black, for text to become white, for the footer to change background and their border to black and text colour to white, change the underlined time/email/link into a silver colour, change the animation in home.html from black dots and lines to white dots and lines. This was chosen as a feature to allow the user to change the mode of the website into a colour which might emit less light and as such, the website is easier to look at when the room is dark.
3. Light Mode Button which changes the whole website into a light mode state, with background being changed to light blue colours, for text containers becoming white, for text to become black, for the footer to change background and their border to blue and text colour to black, change the underlined time/email/link into a cyan colour, change the animation in home.html to black dots and lines. This was chosen as a feature to allow the user to change the mode of the website into a colour which might emit more light and as such, the website is easier to look at when the room is bright.
4. Generate random background button which changes the current background to a random three colour gradient background. This allows the user to change the current default background, regardless of mode (lightMode or darkMode), into a colour they prefer.
5. One button which make the text of the central container bigger and the other to make that text smaller. This ensures the font size is exactly to the needs of the user.



- 6.A save button must be present which saves the current changes made into local storage, so that when the page is refreshed or changed, the changes in mode/background/fontSize are automatically applied to any page, until the user changes them again.

The wireframe model:

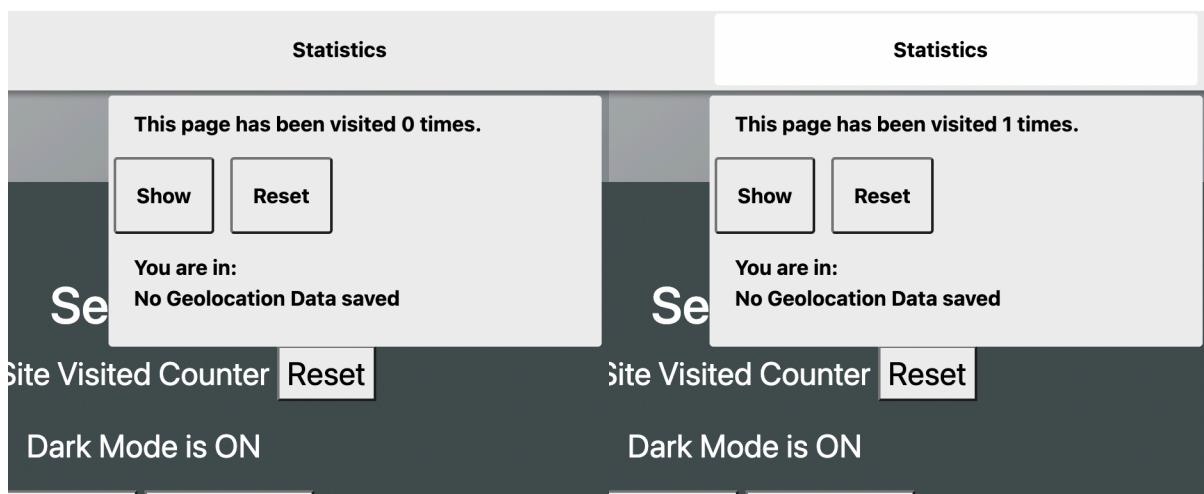
Benefit to Website:

This is a great benefit as it allows the user to customise the website based on their accessibility preferences. It allows the user to find and save a background that they are the most comfortable with and allows them to change the text size so they can use the website, without zooming. It saves a lot of effort from trying to find and save the same settings each time they refresh the page, since that information is saved by their browser and is the new default throughout their usage of the website.

Evaluation

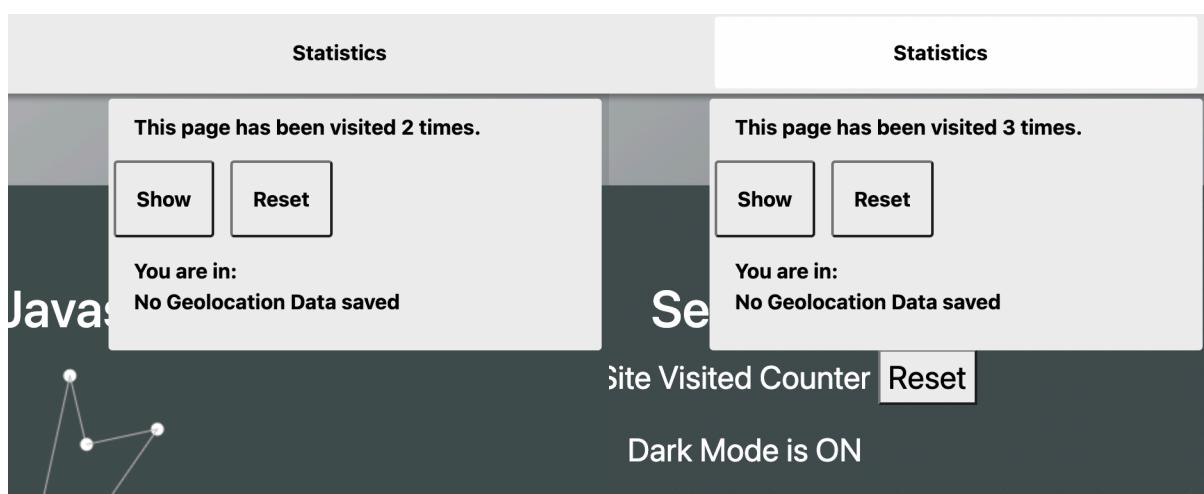
Testing of Site Visited Feature

These screenshots were shot one after another and as part of one process.



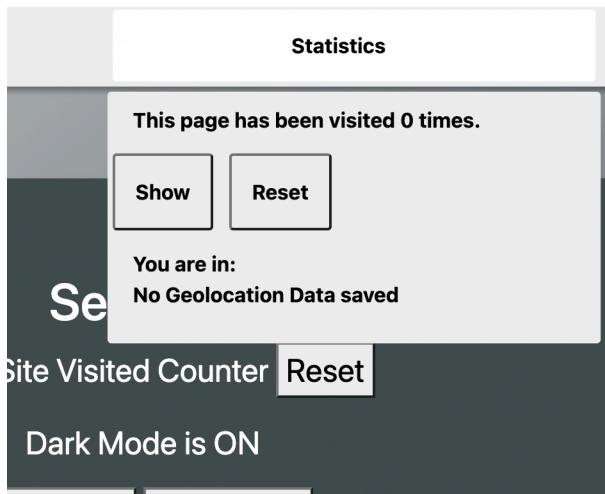
Initialisation: Proves Specification 4

Page refreshed: Proves Specification 1



Navigated to a different page: Proves Specification 2

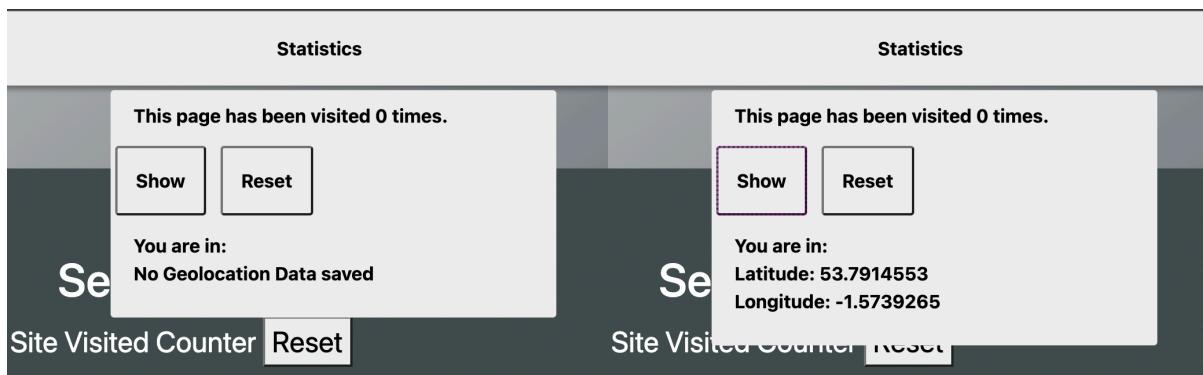
Navigates back to the origin page: Proves Specification 2 Again



Reset button is pressed: Proves Specification 3

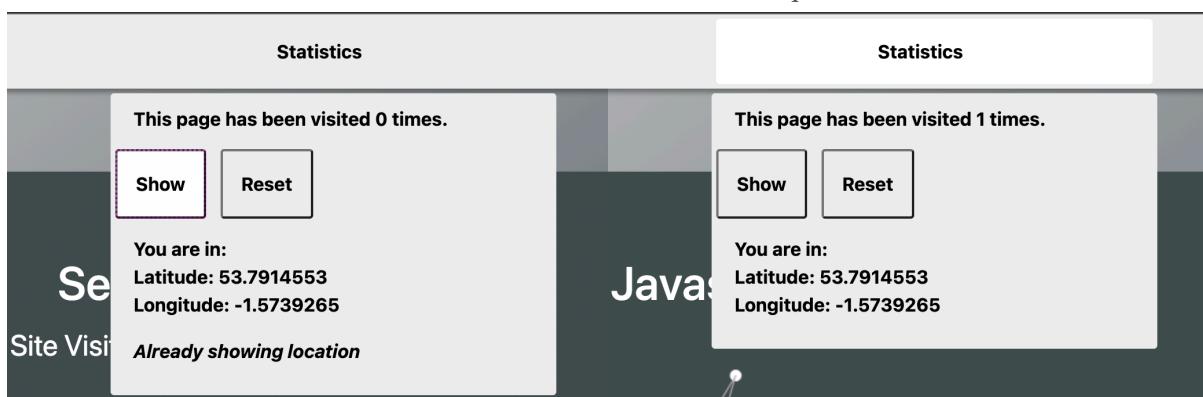
Testing of Geolocation Feature

These screenshots were shot one after another and as part of one process.



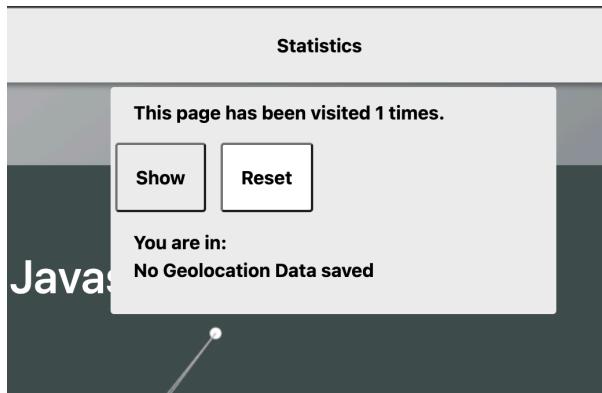
Initialisation: Proves Specification 2 and 8

Clicked the show button: Proves Specification 1 and 3



Clicked the show button again: Proves Specification 6

Navigated to a different page: Proves Specification 5

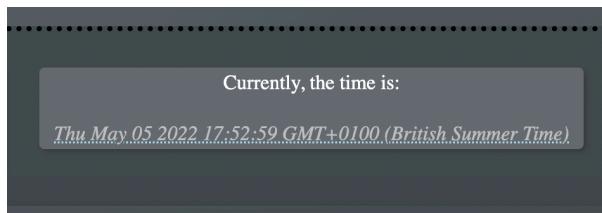


Clicked the reset button: Proves Specification

7

Testing of Time Indicator Feature

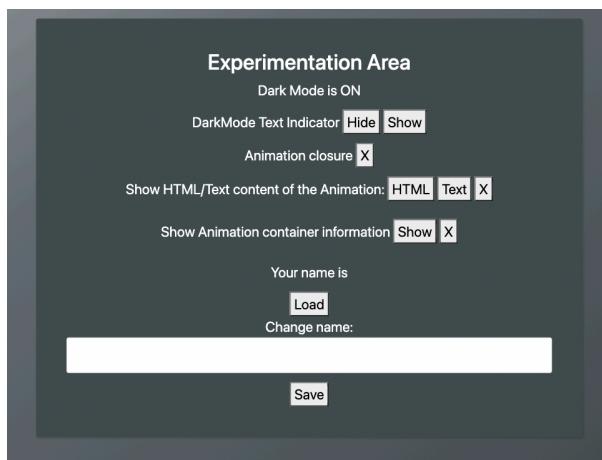
These screenshots were shot one after another and as part of one process.



Initialisation: Proves Specification 1 and 2

Testing of Feature test area

These screenshots were shot one after another and as part of one process.



Initialisation

The image shows two side-by-side screenshots of a web application interface.

Left Screenshot (Experimentation Area):

- Header:** Home Page, By Michael Wiciak, Welcome to my Javascript Website
- Text:** Please browse over the page and see all of the features of the website. The website is fully responsive to different resolutions of devices so feel free to check that. The full list of features can be found in the documentation.
- Section:** Experimentation Area
- Buttons:** DarkMode Text Indicator (Hide Show), Animation closure (X), Show HTML/Text content of the Animation (HTML Text X), Text: Canvas Javascript Animation, Show Animation container information (Show X), class: text, href: undefined, ID: animationContainer
- Text Input:** Your name is Steve
- Buttons:** Load, Change name: (input field), Save

Right Screenshot (Random HTML Text):

- Header:** Random HTML Text
- Text:** Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo. Quisque sit amet est et sapien ullamcorper pharetra. Vestibulum erat wisi, condimentum sed, commodo vitae, ornare sit amet, wisi. Aenean fermentum, elit eget tincidunt condimentum, eros ipsum rutrum orci, sagittis tempus lacus enim ac dui. Donec non enim in turpis pulvinar facilisis. Ut felis.
- Section:** Header Level 2
- List:**
 1. Lorem ipsum dolor sit amet, consectetur adipiscing elit.
 2. Aliquam tincidunt mauris eu risus.

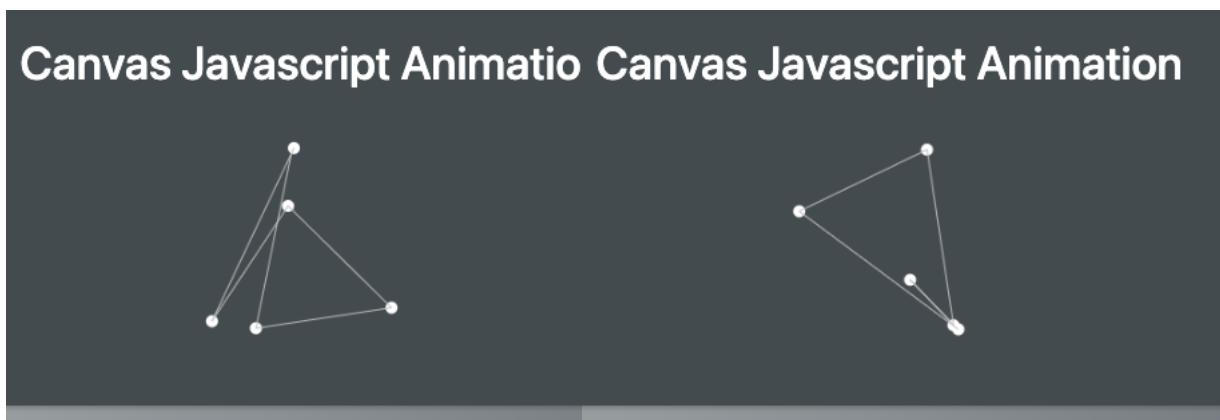
1. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus magna. Cras in mi at felis aliquet congue. Ut a est eget ligula molestie gravida. Curabitur massa. Donec eleifend, libero at sagittis mollis, tellus est malesuada tellus, at luctus turpis elit sit amet quam. Vivamus pretium ornare est.
- Section:** Header Level 3
- List:**
 - Lorem ipsum dolor sit amet, consectetur adipiscing elit.
 - Aliquam tincidunt mauris eu risus.
- Buttons:** DarkMode Text Indicator (Hide Show), Gallery photo closure (X)

After Clicking all the buttons: Proves Specification 1,2,4,5 and 6

Doing the same in blog1.html: Proves specification 3 and 1

Testing of Canvas Animation Feature

These screenshots were shot one after another and as part of one process.

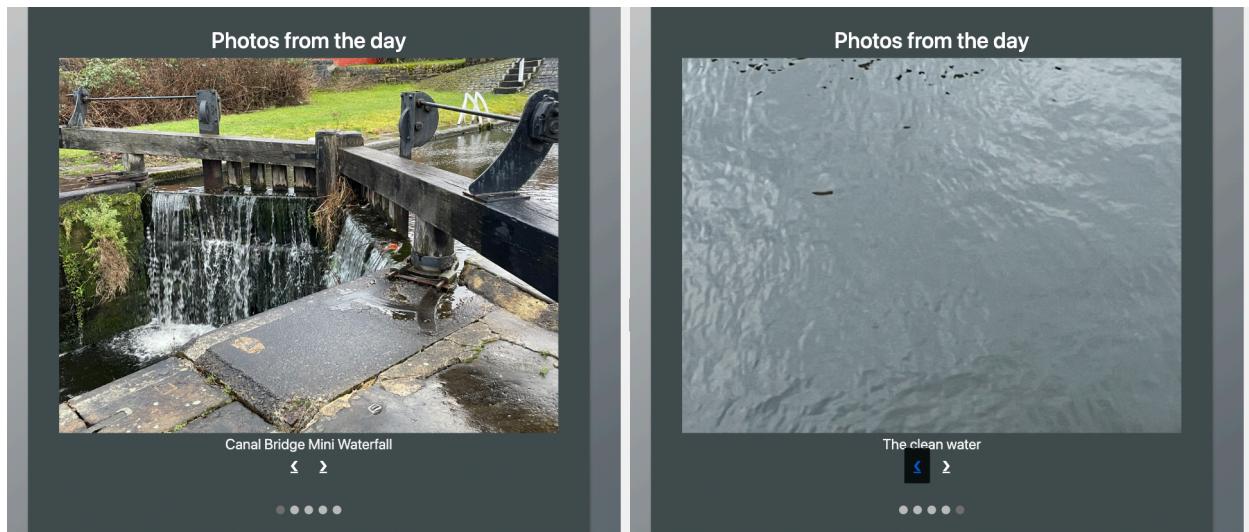


Initialisation: Proves Specification 3

Waiting 5 seconds: Proves specification 1 and 2

Testing of Photo Gallery Feature

These screenshots were shot one after another and as part of one process.



Initialisation: Proves Specification 1

Clicking the left arrow: Proves Specification 1,2, 3 and 4

Testing of Forms Feature

These screenshots were shot one after another and as part of one process.

Contact Form	
First Name *	<input type="text"/> Your name... ! Please fill in this field.
Your last name...	<input type="text"/>
Occupation	<input type="text"/> Student
Email *	<input type="text"/> Your email... ! Please fill in this field.
Age	<input type="text"/> 21 Jay a Walking Michael Please enter Steve Malgorzata ds
Comments	<input type="text"/> Please enter your comments here...
<input type="button" value="Submit"/>	

Pressing submit with an empty form: Proves for all specifications that form will not submit if required fields are not filled in correctly.

Filling out a field incorrectly: Proves for all specifications that incorrect inputs will not be submitted.

Contact Form

First Name *

Last Name *

Occupation

Email *

! Please include an '@' in the email address. 'a' is missing an '@'.

Favourite outdoor activity

Comments

Please enter your comments here...

Submit

Contact Form

First Name *

Last Name *

Occupation

Email *

Age

! Please enter a number.

Comments

Please enter your comments here...

Submit

Invalid email entered: Proves specification 4

Invalid age: Proves Specification 5

Spie... aakashns/01-pyto...

Dimensions: Responsive ▾ 1079

This page says

The form was filled out correctly.

OK

Contact Form

First Name *

Last Name *

Occupation

Email *

Age

Favourite outdoor activity

Comments

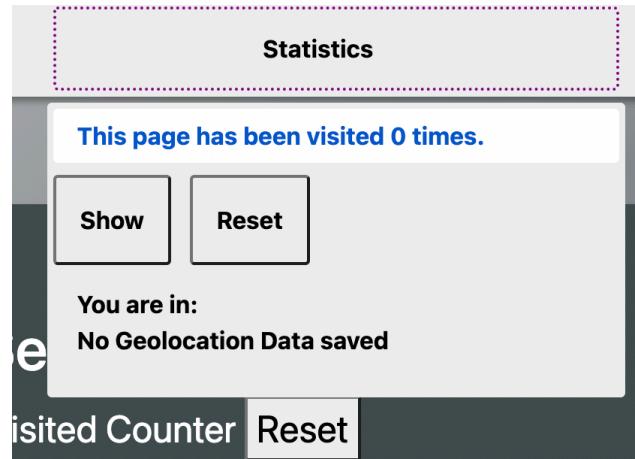
dasdsada

Submit

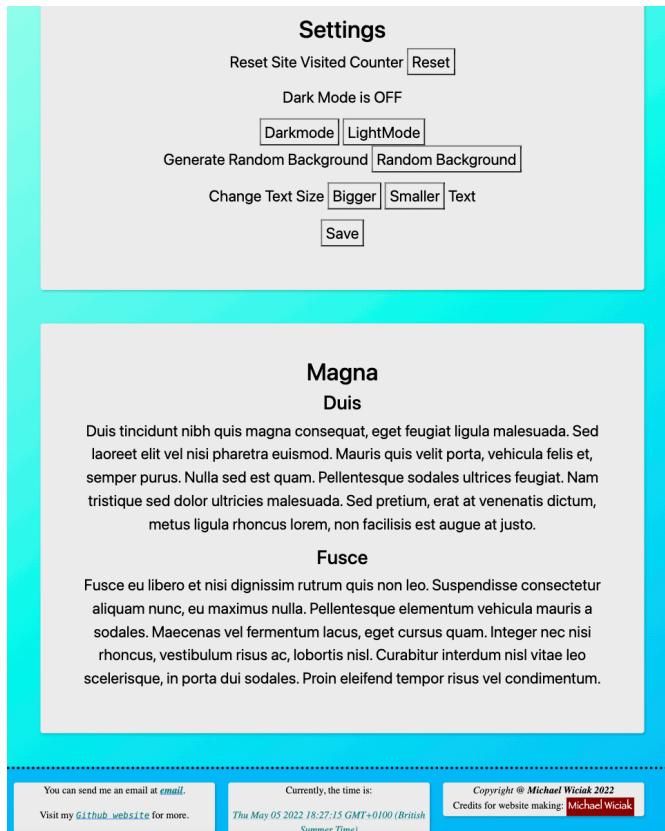
Correct Input Form Submitted: Proves Specification 1,2,3,4,5,6 and 7

Testing of Settings Feature

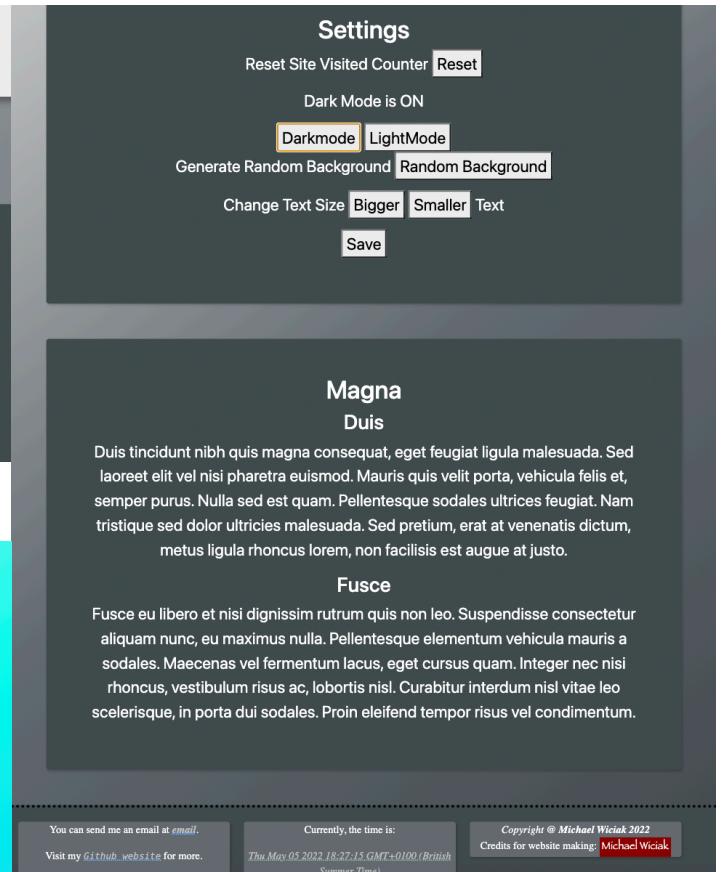
These screenshots were shot one after another and as part of one process.



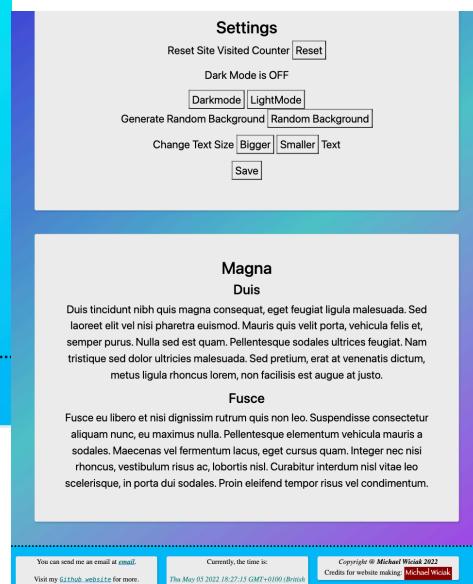
Pressed the reset button: Proves specification 1



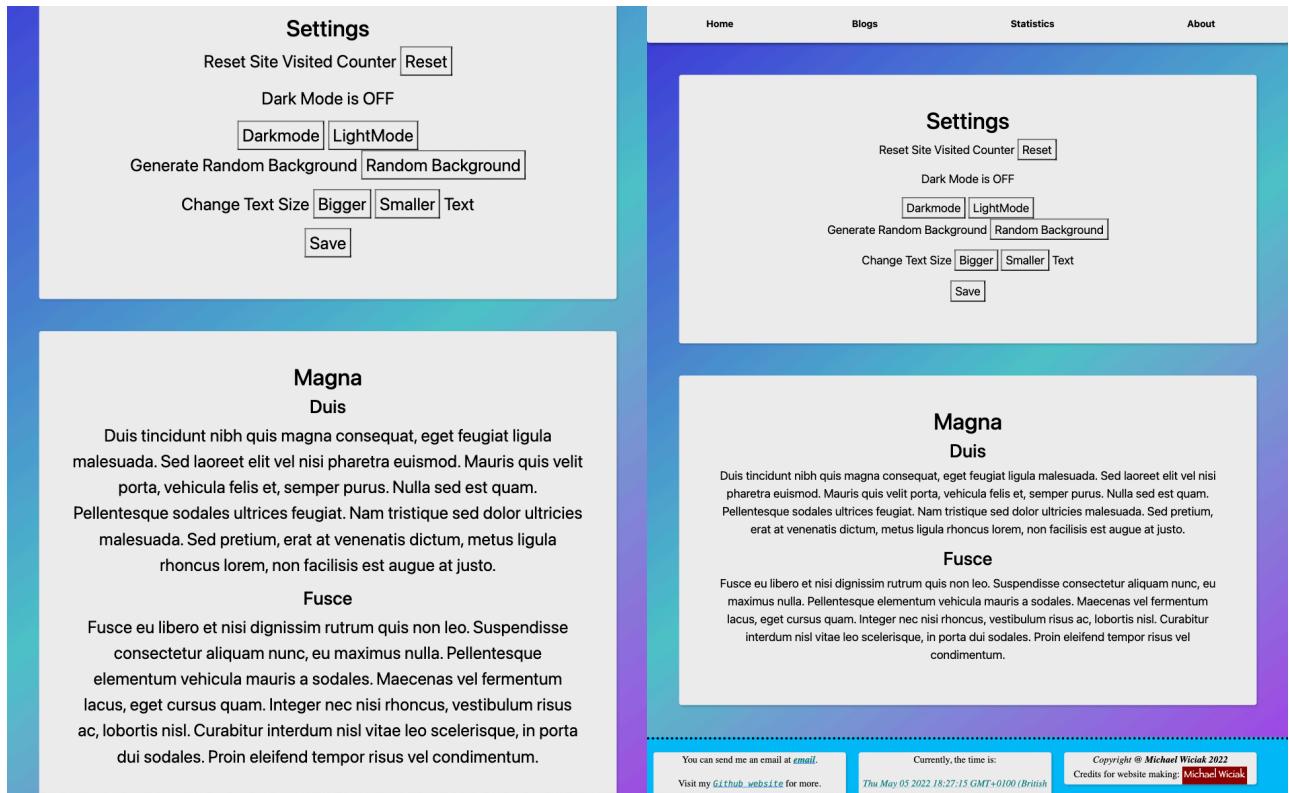
Pressed the LightMode button: Proves specification 3



DarkMode button Pressed: Proves Specification 2



Random Background Button Pressed: Proves Specification 4



Bigger Button Pressed: Proves Specification 5

Smaller Button Pressed: Proves Specification 6

Overall Evaluation

My final website satisfies all of the requirements set out in the design phase. As can be seen in the testing, for each features, most of its specification are met and their purpose is fully implemented. However, for some specifications, it was harder to test, the only non-satisfied specification was browser compatibility with certain HTML5 features for geolocation. feature. As these browsers are no longer available except a few archaic ones, these sorts of specifications were not tested. In retrospect, these requirements could have been tested using online tools which provide older emulated browser. As such, this was changed from my design as the code is written but not tested.

Although I am happy with all of my implementations, they could have been a bit deeper in final result. Such as, while coding the geolocation features, I got the idea to the implementation of reverse geolocation, allowing the website to display the city and the map of where the user is exactly. This addition was not implemented as it requires the usage of 3rd party support API and in some cases, required a financial subscription to their services.

The site visited counter was implemented as a features fully to specification

Many of my features could have been improved, such as the Canvas Animation. It could be bettered by making sure the random destinations of the dots are further apart so that a twitching like effect would not occur, that will make the whole animation a lot smoother.

The new features implemented will have an enormous impact on my website as it seems to have become ‘alive’. The various animations of the canvas and photo gallery, give the website a much more dynamic/changing feeling than the original website. The new website is no longer static in content and there is always something going on the screen. This must impact user engagement of the website is a positive direction. The new features also introduce the concept of customisation, which allows the user to change the website however they like and save it for future use. As such, this will impact accessibility largely as no next is too small or too big now as it can be increased/decreased how they prefer, no background is the wrong contrast as it can be changed, and the website can be used during the bright and dark hours of the day as lightMode darkMode features reduce the impact of differences in brightness with the website and outside world.

The time indicator was implemented as stated in the specification, however it always displayed too much data like (British Summer Time) which is unnecessary. As such, that features could have manipulated the time object a bit more to make it fit more to the specifications.

To conclude, all of my initial features were implemented and as shown in testing section, are working according to specification.

Additional Features

Many improvements can be made to the website by deepening the functionalities of the already existing features.

Geolocation can be improved by implementing reverse geolocation, allowing the user to see the city they are in based their coordinates and by changing the language of the text based on they country. This will make the website much more friendly to non-english speakers and might remove the inconvenience of typing the country/city name when filling out forms, improving user experience.

The site counter could be improved by recording every click by the user and the time they spend on the website, as such storing much more data for the user to use. Whatever the user wanted to use that information for, now there is more of it and much more reliable as it comes from various sources. Additionally, these features would be a great addition to any kind of achievement pages of the website, where the users get rewarded in some way for spending more time on the website, further improving user experience.

The forms could be improved by checking the validity of the fields further before submission to prevent spamming of valid but incorrect data. At the moment, an email like ‘a@a.s’ is a valid email for the form, however there is no server @a.s so its an incorrect email that no one can use. This will ensure that the receiver of the data can actually use the data as it force more correct data before submission.

Settings could be improved by allowing the user to export their settings to other devices by downloading a file and importing it when using the website in a new device for the first time. This will help uses who switch from one device to another and want to keep the same settings.

This could be solved using an online account login system where each account has an associated settings with it, allowing just a simple login to that account to transfer all the settings onto any device.

References

All of the images used in the assignment were taken by me as such no references are required.

The Lorem Ipsum text used throughout my website was generated using a Lorem Ipsum Generator which can be found at <https://www.lipsum.com/>.