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Development of sat

Informatics

**Testing Table:**

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| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual Result | How it was Fixed |
| That the site was connected to XAMPP | Using XAMPP and google chrome | There is no error message saying that url was accepted | Error message |  |
| That the site was connected to XAMPP | Using XAMPP and google chrome | There is no error message saying that url was accepted | Blank page | Checked the file was in the right place |
| The site displays text | Using a simple <h3> tag in code | The page displays “Test” | “Test” |  |
| Have a div with a background image | Used a card with a background image | A page with a full image | An image with a border on it | Change method to using a jumbotron with a background image |
| Have a div with a background image | Refreshed page | A page with a full image | An image with greyish background stretching width of page. (image only took up 1/3 of the page. | Changed method to using a normal div with an image in it and CSS the width of div |
| Have a div with a background image | Refreshed page | A page with a full image | Image that took up most of the page. | Re-arranged code to using a div, but put image tag in CSS as “Background-image” |
| Have a div with a background image | Refreshed page | A page with a full image | A page with a full image | Used more CSS instead of html |
| Have image disappear once he user scrolls to next section | Add in next section to see if image does not continue | Image div stops and next div appears. | The image background takes up entire page | Forgot to close image div before next section |
| Have image disappear once he user scrolls to next section | Add in next section to see if image does not continue | Image div stops and next div appears. | Image div stops and next div appears. |  |
| Heading on top of image div | Add a heading inside image div | Heading appears above image | Heading appears after the image div. Further down the page | Structure the code better |
| Heading on top of image div | Place a div after the image div | Heading appears above image | Still appears after the image | Put the two separate divs inside a third together |
| Heading on top of image div | Refreshed page | Heading appears above image | Heading appears above and in the centre of the image |  |
| Changing the “Learn More” buttons background | Change CSS btn class background colour | The background of “Learn More” is white | Nothing happened | Changed wrong class, changed CSS of the <a> class background colour instead of the btn |
| Changing the “Learn More” buttons background | Refreshed page | The background of “Learn More” is white | The background is white however the text is also white | Change CSS btn class text colour to black |
| Changing the “Learn More” buttons text | Refresh page | The text colour of “Learn More” is black | The background is white with black text inside |  |
| Jumbotron’s width | Have the Jumbotron in a div class row | The Jumbotron fits the width of page | The jumbotron only stretches 2/3 of the way | Apply a column class to div |
| Jumbotron’s width | Have the Jumbotron in a div class row and then a column class with md of 12 | The Jumbotron fits the width of page | The Jumbotron stretches the whole page |  |
| Content Images | Apply a col-md-5 to each image div and then a div in-between the images | The images are all inline with space all around | The images are all inline with space all around.  (Don’t like the appearance) |  |
| Content Images | Apply a col-md-6 to each image div | The images are all inline and bunched together | The images are all inline and bunched together | Removed the spacing around the images |
| Hovering of the Content images | Added in a hover effect | The images when hover by user zooms in and slightly tint | The images when hover by user zooms in but the tint is too dark | Change the tint |
| Hovering of the Content images | Edited CSS changed the tint to lighter | The images when hover by user zooms in and slightly tint | The images when hover by user zooms in and slightly tint |  |
| Hovering of the Content images | Add in a Learn More div that is a link to other page | A Learn More message is displayed | A Learn More message is displayed |  |
| Hovering of the Content images | Apply the box shadow class to the hover effect | The Learn More button has a box shadow | The Learn More button has a box shadow |  |
| The link from the first Learn More link | Apply an id tag to the desired link section | The Learn More button takes user to next section | Cuts off the heading of the next page | Padding around the heading of the next section |
| The link from first Learn More cuts off heading of next section | Clicked on link and showed the full section | The Learn More button takes user to next section | The Learn More button takes user to next section |  |
| Navigation sticky fix when scrolled down the page | Scrolled down the page see if it sticks | The navigation bar moves with the page | The navigation did not move it remained at the top | Included fixed-top in the nav class |
| Navigation sticky fix when scrolled down the page | Scrolled down the page see if it sticks | The navigation bar moves with the page | The navigation bar moves with the page |  |
| Learn More button on each page | Clicked on the button | Takes the user to the next section | Takes the user to the next section |  |
| Navigation on home page | Clicked on the hypothesis hyperlink, aswell as the content and home links. | Takes the user to the desired section | Takes the user to the desired section |  |
| Navigation on The Issue Page | Clicked on all links in navigation bar | Takes the user to the desired page | Takes the user to the desired page |  |
| Navigation on Plastic Bags Page | Clicked on all links in navigation bar | Takes the user to the desired page | Takes the user to the desired page |  |
| Navigation on Food Waste Page | Clicked on all links in navigation bar | Takes the user to the desired page | Takes the user to the desired page |  |
| Navigation on Landfill Page | Clicked on all links in navigation bar | Takes the user to the desired page | Takes the user to the desired page |  |
| Navigation on Solutions Page | Clicked on all links in navigation bar | Takes the user to the desired page | Takes the user to the desired page |  |
| Charts | Entered dummy data into a chart | Chart is shown | Nothing was shown | Incorrect code the id didn’t correspond with the Java class |
| Charts | Fixed code to have clear links | Chart is shown | Chart is shown |  |
| Displaying two charts on the same page | Copied code from first chart and pasted below to see if two appeared | Two charts appear | Only one chart appeared | Changed the id of one of the charts |
| Displaying two charts on the same page | Refreshed page to see changes | Two charts appear | Only one chart appeared | Checked error message in inspect. Forgot to apply id in Javascript |
| Displaying two charts on the same page | Refreshed page to see changes then check error message | Two charts appear | Only one chart appeared | The “var CHART” was not recognized. Changed the CHART to fCHART |
| Displaying two charts on the same page | Refreshed page to see changes | Two charts appear | Two charts appeared. |  |
| Chart colours | Changed the background colour code | Red line chart | Blue line chart | Had the wrong colour code |
| Chart colours | Changed the background colour of a line chart | Red line chart | Red line chart |  |
| Chart Scales for all bar and line charts | Applied the options category in code to have y-axis | Chart has a scaled y-axis | Chart disappeared on page | Checked code and forgot to a closing bracket |
| Chart Scales for all bar and line charts | Refreshed page | Chart has a scaled y-axis | Chart has y-axis gridlines |  |
| Chart 1 on plastic bags page | Included a bar chart | Bar chart is displayed | Nothing appears | The getElementById did not coincide with the class |
| Chart 1 on plastic bags page | Changed class to link | Bar chart is displayed | Bar chart is displayed however values are incorrect | Changed dataset to show right values with labels |
| Chart 1 on plastic bags page | Refreshed page | Bar chart is displayed | Bar chart is displayed with correct values |  |
| Chart 2 on plastic bags page | Included a line chart | Line chart is displayed | Line chart is displayed but don’t like colour | Changed the border colour to display path of points better |
| Chart 2 on food plastic bags page | Refreshed page | Line chart is displayed | Line chart is displayed |  |
| Chart 1 on food waste page | Include a bar chart | Bar chart is displayed | Bar chart is displayed but don’t like because diversity of charts is required | Changed bar chart to radar chart instead |
| Chart 1 on food waste page | Change code to radar chart | Rader Chart is displayed | Rader Chart is displayed but with the y-axis | Removed y-axis on radar chart |
| Chart 1 on food waste page | Refreshed page | Rader Chart is displayed | Rader Chart is displayed |  |
| Chart 2 on food waste page | Include a pie chart | Pie chart is displayed | Pie chart is displayed but on the wrong side of the page | Changed code format to have text div before the chart div |
| Chart 2 on food waste page | Refreshed page | Pie chart is displayed on correct side | Pie chart is displayed on correct side |  |
| Chart 1 on landfill page | Included a bar chart | Bar chart displayed | Bar chart displayed |  |
| Chart 2 on landfill page | Pie chart is coded into page | Pie chart is displayed | Pie chart is displayed but too large for required space | Made col smaller and added in extra div to fill space |
| Chart 2 on landfill page | Refreshed page | Pie chart is right size | Pie chart is right size |  |
| Chart 3 on landfill page | Doughnut chart is implemented | Doughnut chart is displayed | Doughnut chart is displayed missing two colours | Add in two additional background colours in code. |
| Chart 3 on landfill page | Refresh page | Doughnut chart is displayed | Doughnut chart is displayed |  |
| Text is displayed (Pages 2,3,4,) | Entered a p tag in a div to see if text appeared | Text appears on site | Text appeared on site |  |
| Text is displayed  (Pages 2,3,4) | Applying a col-md-6 to div | Text appears on the left side of page | Text appears in the centre | Added in another div of col-md-6 |
| Text is displayed  (Pages 2,3,4) | Applying a col-md-6 to div and included another div | Text appears on the left side of page | Text appears on the left side of page |  |
| Text is displayed  (Pages 2,3,4) | New row with text div displaying on the right | Text appears on the right | Text appears on the right |  |
| Text and a chart  (Pages 2,3,4) | Text div of col-md-6 is in a row with a chart in similar div | Text appears next to chart | Text appears next to chart |  |
| Text is displayed (Page 1) | Entered a p tag in a div to see if text appeared | Text appears on site | Text appeared on site |  |
| Text and image (Page 1) | Include an image within p tag | Text appears alongside image | Image is out of proportion | Put image inside a div |
| Text and Image (Page 1) | Include image in div with text in a separate div | Text appears alongside image | Image appears underneath text out of proportion | Style image and text divs with col-md-6 |
| Text and Image (Page 1) | Image and text divs are styled | Text appears alongside image | Text appears alongside image |  |
| Text is displayed (Page 5) | Entered a p tag in a div to see if text appeared | Text appears on site | Text appeared on site |  |
| Text and Image (Page 5) | Include image in div with text in a separate div | Text appears alongside image | Image appears underneath text out of proportion | Style image and text divs with col-md-6 |
| Text and Image (Page 5) | Image and text divs are styled | Text appears alongside image | Image is too big | Re-style image div with col-md-2 |
| Text and Image (Page 5) | Re-styled image div | Text appears alongside image | Image and text is not balanced on page | Add in an extra div to complete col-md-12 |
| Text and Image (Page 5) | Added extra div so there was a col-md-3 + col-md-3 + col-md-3 | Text appears alongside image | Text appears alongside image | Decided to include image on either side of text |
| Text and Images (Page 5) | Added another image on the other side of text | Text appears alongside images on either side | Text appears alongside images |  |
| Loading Time | Re-entered the website through multiple internet connections | Page loading speed works quickly | Page loading speed works quickly |  |
| Browser Compatibility | Opened the website on different platforms. Safari, Chrome, Firefox. | Page appears the same on all platforms and does not rely on one platform | Page is the same on all platforms |  |
| CSS | Inspected all pages for the same format | Same formatting on each page | Same formatting on each page |  |
| User affordance | View the page and decide if it is understandable | The user is able to understand the conventions | The page is understandable |  |
| Navigation of page | Go through the process of page | The user is able to flow through the page by following clear directions | Easy navigation |  |
| Readability | Asked a volunteer to go through pages and see if the information makes sense | Report on page is that it is easy to read | Found areas of the pages that did not make sense and need further clarification | Went through and changed the text to make simpler |
| Readability | Asked a volunteer to go through pages and see if the information makes sense | Report on page is that it is easy to read | Reader said text made sense and was explained thoroughly |  |
| Readability | Asked a volunteer to go through pages and see if the colour and text size was appropriate | Report on page is that it is easy to read | Reader said text size was appropriate however a different colour for the headings is a good idea | Changed h3 headings to red to signify importance and blue for sub headings |
| Readability | Asked a volunteer to go through pages and see if the colour and text size was appropriate | Report on page is that it is easy to read | Reader feedback was positive |  |
| Readability | Asked a volunteer to go through pages and inspect graphs | Report on page is that it is easy to read and graphs make sense | Found an error with a graph labelling and association with text | Changed labels to make sense with information |
| Readability | Asked a volunteer to go through pages and inspect graphs | Report on page is that it is easy to read and graphs make sense | Graphs all make sense |  |
| Readability | Asked a volunteer to go through pages and inspect layout pages | Report on page is that the layout is good | The format is consistent throughout the pages |  |
| Readability | Asked a volunteer to go through pages and inspect story of pages | Report on page is that the site has clear process | Volunteer commented to changing a page and splitting it into two rather than one | Split the two pages and shuffled order to make the pages have an order |
| Readability | Asked a volunteer to go through pages and inspect story of pages | Report on page is that the site has clear process | Pages have a smart order of introduction, learning and then conclusion |  |
| Readability | Asked a volunteer to go through pages and inspect the paragraphs formatting | Report from Volunteer is that the site has correct spacing in text | Not consistent spacing | Between every new point in a paragraph there was a space to make text clearer and neater |
| Balance of page | Had divs in rows with col-md-6 | Evenly spaced site | Evenly spaced but the divs are right on the edge of page | Added in extra divs on either side of the chart and text of col-md-1. To have the page look nicer. |
| Smaller browser | Resized the web browser to see how site responds | The webpage moves smoothly and nab bar changes to icon form | All divs change size evenly and smoothly nav bar changes |  |
| Mobile Browser | Changed setting to mobile form in inspect | The webpage suits the mobile format | The webpage suits the mobile format |  |
| Running page without internet connection | Switched off internet and re-entered site | Site performs perfectly and has no errors | Site performs perfectly and has no errors |  |

**Software Functions and Techniques**

The software application that was used was a coding application called ATOM.

In this software when applying a new coding tag, it is **automatically indented** in the file along with the closing tag to coincide with each other.

There was no **auto-save** function available in the software however, saving could be done with an easy ‘file save’ that updated the file since the last changes that were made.

**Save As** was also used to save multiple copies of the file as to ensure code can be recovered if one file was lost. This was implemented after a file at the beginning of the development was accidentally deleted and the site was lost so had to be started again.

**Copy, Paste and Cut** were all used throughout the development to have a consistent theme throughout. By copying the code from one page to the next it ensures the site had consistency and made it easier to finish coding the template faster.

The text editor used was Microsoft word, this holds all the text that was to be put into the site.

By using Microsoft Word it was easy to ensure **spelling and grammar** was correct due to the auto-correct that is already present in word.

By using word it was easy to test different **fonts and text sizes** that could work well with the site. This was done by using the software in word under the home tab bar.

**Font styling** was also easy to implement by using word as to discover what colours, boldness and underlining works well with sections.

The text was also copied and pasted into the text editor online called Grammarly to check for **grammar**. This application allowed for the text to have proper and correct grammar that makes sense to readers.

Adobe Photoshop was the image software that was used to change and develop the images in the site.

The **cropping feature** was used to cut the image to only show the parts that were wanted and necessary in the site.

The **resizing** feature was used to ensure that the image fits in the required space on the page and that all images that are related are of the same size.

Chart.js was a tool used to manipulate the **charts** that were displayed on the webpage.

The JavaScript file was downloaded off the webpage to have the charts display the way they are supposed to.

**Copy and paste** was used to copy the code of the charts into the files to display the charts.

Elements of Bootstrap were incorporated into the site to create the design and structure of the site.

By **copying code** from the bootstrap website and then **altering the code** to suit dimensions, theme and design of the site. The site was able to represent the desired navigation, divs, columns and buttons that make up the site.

Google Images was used to select **images** that would be placed onto the website and edited.

**Management of Files:**

**Naming:**

All the files that were used in the development stage had short but meaningful names and all followed camelcase were applicable.

The images used were reduced to one worded names were possible to reduce errors in the code. However, when required to have two words these words followed the conventions of camelcase.

**Storage and protection of files:**

The images were stored in a folder called 'img', this folder was stored in a folder called sat with the HTML and CSS files.

The sat folder was stored on a local computer that is regularly backed-up, it was also stored on the cloud using google drive.

The HTML files had two separate copied files of the "master" copy. These copied files were dated and updated were necessary to ensure that the webpage was not lost for any reason. These copies were also labelled as V2 and V3 in order of the date they were allocated.

The backups that were taken were regular using the software application of time machine, this allowed for files from months previous to be recovered.

**File/folder Layout:**

The sat folder that contained all the files had additional folders inside that included a Java folder for the charts, js folder and a css folder for the bootstrap of the site and an img folder for the images. The sat folder was stored in the htdocs of a XAMPP application that was able to display the webpage on a localhost.