

**Achievement Number:** 91903 Version: 1 Level: 3 Credit: 4

**Achievement Name:** Use complex techniques to develop a digital media outcome

techniques to develop a digital media outcome.

develop an informed digital media outcome.

develop a refined digital media outcome.

**Achievement Criteria:**

**Important - If a student does not gain a Merit or Excellence on their first attempt, then a resubmission attempt can only gain Achieved.**

**Students clearly print your name here:** Nico Cook

**Assessment Start Date:** ..... **Assessment Due Date:** .....

This assessment will take place over a seven-week time frame.

**Authenticity Statement:**

This assessment has been done entirely by myself. I have neither borrowed work from others nor lent my work to others to use:

**Student must Sign** - Nico Cook

**Assessor Marking Comments:**

**Achievement Grade awarded: First Attempt** \_\_\_\_\_ **Final Attempt** \_\_\_\_\_

I the assessor sign to confirm that the student named above has successfully completed the requirements for AS91903v1.

Signed ..... Assessor

Date.....

**Background**

In this assessment you will use a **text editor** eg Notepad, Notepad ++, to write HTML and CSS code and produce a minimum of **four** linked web pages to the given brief. Any type of web authoring package such as Dreamweaver/Sharepoint Designer/Frontpage etc are not allowed. Any form of HTML code generator is **not allowed**. Students **must create their own HTML/CSS** you are not allowed to copy code from other sources.

## **The Scenario**

Sharks have existed long before the age of the dinosaurs. But the word "shark" alone brings fear to many humans. More people die from bee stings and lightning strikes each year than from shark attacks. Few people have even seen a shark. But the thought of "shark attack" is in many people's minds when they go into the sea for swimming, surfing or boating. This is even more predominate due to very recent televised events from around the world of terrifying shark attacks.

Fear or fascination? fact or fiction? How many types of sharks are there? how many are dangerous to humans? Where do the most dangerous types exist? How do sharks hunt? What senses do they use? Recent shark attacks, why did these occur? Is there a growing risk? These are just some of the many questions and concerns that arise.

You are to investigate aspects of sharks that you think are relevant to your design. Then produce web pages to inform on sharks and to assist people in understanding them and to alert people to the real risks involved. Dispelling the myths and revealing the facts.

Your finished design must inform on the world of sharks, which to many are a source of fear and often misunderstanding.

All work must be suitable for public display.

**Text is allowed to be used from acknowledged sources.**

**These sources must be quoted where used.**

**Otherwise text must be in your own words.**

You are to carry out all the necessary research and decide what relevant information should be used to design the content and layout of your web pages.

The research, design and development of this digital outcome must be learner-driven. The presentation and structure of the submitted evidence must show an independent response.

To ensure the design meets web page content requirements you must demonstrate the following in your content:

1. All images used must have a relevant and meaningful ALT tag.
2. All pages to have linked navigation, all page navigation to be suitable & clear.
3. All HTML and CSS to have relevant comments.
4. The first web page must be saved as **index.html** and all other pages must be saved with meaningful file names.
5. A suitable table with at least two columns & six rows – must display borders.
6. All pages have a coloured background.
7. A bulleted list or a numbered list must be used (minimum 5 elements).
8. All pages must have a HTML metatag section for title, author, keywords and description.
9. Integrating original media assets Part 1:

You must create an original image map, using the supplied 3D Great White shark anatomy model. A minimum of three active areas must either link to relevant internet sites or link internally to relevant information. This does not have to be responsive.

10. Integrating original media assets Part 2:

Using the supplied genuine blacktip reef shark jaw. This has been sourced from a supplier in USA Miami with it guaranteed that it was sourced from natural safe to the environment means. Use this to create additional still images for use in your web design.

11. Integrating original media assets Part 3:

You are to maximise the use of supplied original media and minimise the use of media from other sources.

You are to use where suitable the range of scale shark models provided.

12. When creating your web pages ensure your entire design is located in your **Documents folder** called: “**yourname AS91903**” Ensure all required content for your web pages is contained in this folder. This must contain all images, animations, movie/videos, html and txt files etc.
13. Navigation button text or navigation link text names must relate to web page content.

Is it safe to swim/dive with sharks?

Mr McKeown in the Indian Ocean about  
60 ft down off the Maldives Islands.

Photographing a 5 ft White Tip Reef Shark.  
This was only one out of a group of four.



Actual photo from the underwater camera. Long before the days of digital cameras.



**Task 1** Clearly identify the target audience for your website:

This webpage is designed for those who have an interest in various / certain aspects of sharks. It provides local and external resources to useful information surrounding various shark species. It ideally targets those above the age of ~10, and at a capable age to use a web browser / device (this includes devices to support those with impairment).

**Task 2** Clearly state the **purpose** of these web pages, you will have to demonstrate this has been carried out in a later task:

The purpose of these web pages is to provide various information about sharks to the end user, in a simple manner that can be easily navigated and understood. It will use easy-to-digest content with word definitions and external links, to ensure the user can continue learning around the key purpose.

**Task 3** Clearly state the **end-user requirements** for these web pages, you will have to demonstrate that these have been carried out in a later task:

At least **five requirements** are needed (must include people with visual impairment and colour blind-ness)

State the end-user requirements:	
1	Support a visually impaired-friendly color scheme for improved readability.
2	Alt tags / other element attributes for those who utilise different means of page viewing, such as screen readers, non-standard web browsers, eg.
3	Include references to other pages for further exploration of information.
4	A clear and concise layout, to ensure the user can easily navigate the page.
5	Responsive design, to ensure the page is accessible on all devices, including mobile phones, tablets, and desktops.
6	Utilize a sans-serif font for improved content readability. (Gill Sans)
7	Optimize page loading speed (through the use of tools like Photoshop) for a seamless user experience.
8	Ensure compatibility with all major web browsers (Chrome, Firefox, Safari, Edge, and Internet Explorer).
9	Tabular navigation should be supplied automatically by the browser, but there may be a need to assign tab indexing to certain elements for those without a mouse or using cognitive devices.

**Task 4** State the type/version of mark-up language used throughout the web site:

The page utilises the web standards supplied by the active web browser as it is a local/static website:  
HTML 5 / CSS 3 / Most likely ES6 with V8, but depends on the browser.

**Task 5 – Concept design**

Once you have completed the necessary research for this design.

On separate sheets, neatly sketch a **conceptual design** for your webpages.

The concept designs should clearly show the layout of your webpages.

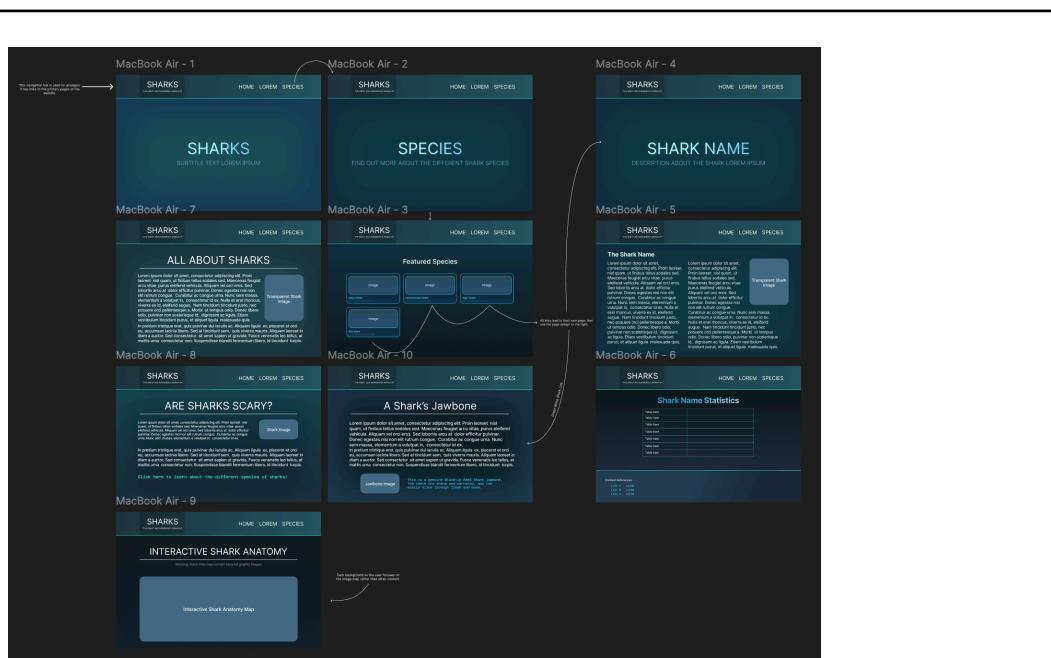
For each web page: Label the diagram of each web page to show the layout and position of each element specific to the page including:

- Refer to Task 6

- Content – position of main text content
- Main headings & subheadings – show size, position
- Media – positions of media elements, sizing
- Navigation – position and sizing
- Colours – main colours to be used
- Other design elements

### Task 6 - Students must have this page completed

Once you have fully completed the concept design, present your plans to your assessor for sign off:



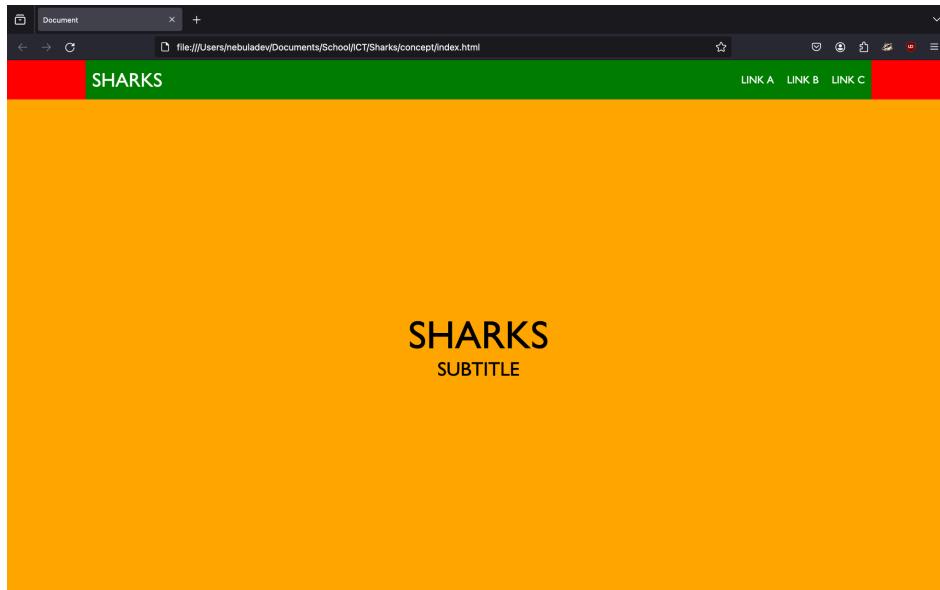
- See /concept design/Design OpenMe.html  
and /concept design/Design Screenshot.png  
for further information.

### ***The HTML concept design (for starting the actual development):***

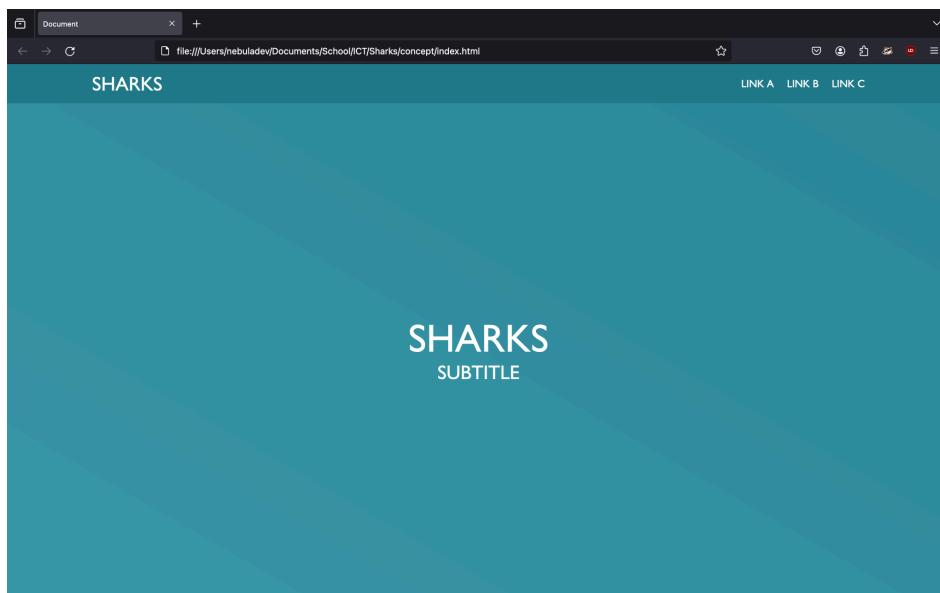
***The initial layout concept was to find a viable navbar layout, with a parent navbar element (red; which was sticky in this instance, but I decided to use fixed later), and a navbar-content (green) inner element to space the contents of the navbar from the parent element. (the vivid colours were***

**(used to easily dissect the different components, and were changed in the second iteration to show the visual concepts)**

**The primary header element (orange) is simply  $\text{calc}(100vh - 60px)$ , with 60px being the height of our navbar. In the final page, I used css @root variables to simplify constants.**



**Example instance with a colour scheme (I decided to use alternate colours in the final design).**



**All other components/elements used on the page were written on-the-go, but all pages followed the base layout design from above, with a  $\text{min-(100vh-nav)-height}$  rule so the header for each page covered the screen. The navbar is separated into two simple sections - left and right - using flexbox to easily manage the layout (justify-between). Further comments on this design were left in the source code.**

**This all uses fairly straightforward code, although it could be simplified / compressed. Keep in mind, this is just the base layout for all pages, and doesn't represent the content, which wasn't produced via conceptual design:**

```
body {
  padding: 0;
  margin: 0;
  font-family: "Gill Sans", sans-serif;
  background: black;
}

.th {
  height: 100%;
}
.fw {
  width: 100%;
}
.fs {
  width: 100%;
  height: 100%;
}

.navbar {
  position: sticky;
  top: 0;
  left: 0;
  height: 60px;
  background: #rgb(33, 121, 136);
}

.navbar-content {
  width: calc(100% - 100px);
  max-width: 1200px;
  justify-content: space-between !important;
}

.flex-center {
  display: flex;
  justify-content: center;
  align-items: center;
}

.navbar-left,
.navbar-right {
  width: fit-content;
}

.navbar-header,
.navbar-link {
  color: white;
  text-transform: uppercase;
  text-decoration: none;
  padding: 0 10px;
}

.navbar-header {
  font-size: 30px;
}

.header {
  width: 100%;
  height: calc(100vh - 60px);
  background: #rgb(100, 90, 162);
}

.header-content {
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: center;
}

.header-title,
.header-subtitle {
  text-transform: uppercase;
}

.header-title {
  font-size: 60px;
}

.header-subtitle {
  font-size: 30px;
}
```

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="style.css">
  <title>Document</title>
</head>
<body>
  <div id="navbar" class="fw flex-center">
    <div class="navbar-content fw flex-center">
      <div class="navbar-left fw flex-center">
        <a href="#" class="navbar-header fw flex-center">Sharks</a>
      </div>
      <div class="navbar-right fw flex-center">
        <a href="#" class="navbar-link fw flex-center">Link A</a>
        <a href="#" class="navbar-link fw flex-center">Link B</a>
        <a href="#" class="navbar-link fw flex-center">Link C</a>
      </div>
    </div>
  </div>
  <div id="content">
    <div class="header flex-center">
      <div class="header-content">
        <div class="header-title">Sharks</div>
        <div class="header-subtitle">Subtitle</div>
      </div>
    </div>
  </div>
</body>
</html>
```

**Assessor Signed ICT dept SBHS**

You are to review the **Assessor Comments** made above and make the necessary

revisions to your designs.

### Task 7 – Design brief page contents

As part of the overall content checking, confirm the following:

	<b>Required content</b>	Student checked state page or pages where used	Assessor confirmed
1	All pages have meaningful page titles and sub-headings	All Pages	
2	<b>Original media assets</b>  These must be clearly identified, including the type of media	index.html  sharks/jawbone.html	
3	<b>Hotspot image and original media</b> – a minimum of three suitable active areas  <b>3D Great White shark anatomy model is used</b>	index.html	
4	Using the supplied genuine <b>blacktip reef shark jaw</b> to create <b>original media</b> material	sharks/jawbone.html	
5	Lists: a <b>bulleted list or a numbered list</b> must be used ( <b>minimum 5 elements</b> )	sharks/tiger.html	
6	Suitable <b>table</b> (borders must be visible – state number of rows & columns – used, minimum 2 columns, 6 rows)	All Shark Pages (/sharks/*)	
7	Metatags <b>for title, author, keywords and description.</b>	All Pages	
8	Correct tags are used to include <!DOCTYPE HTML>, <HEAD>, <TITLE>, <BODY>, end tags are used correctly	All Pages	
9	Navigation button text or navigation link text names must relate to web page content.	All Pages	
10	HTML & CSS have suitable <b>comments</b>	All Files	
11	Images have relevant <b>ALT tags</b>	All Images	
12	All text that is not original must be referenced	All Shark Pages (/sharks/*)	

## **Task 8 - Folder structure**

Ensure a suitable folder structure is created and used for your web pages.

Create a folder called “**student name AS91903**” in your network folder “documents”. This will be used to store your web pages

Subfolders should be created as relevant to the design content.

## **Task 9 End-user Documentation**

You are to write a simple user document that explains how to access and use the website.

You are to create this user document in a format that other users can easily access.

It should be saved as: “**student name AS91903 EndUser Document**” that includes the following information:

1. The name of the website, folder location and instructions of how to access it. (✓)
2. The purpose of the website, explain to the user what information they expect to see. (✓)
3. Provide an overview of the content of your web pages & how to navigate through it. (✓)
4. Ensure you include within your user document a **site map diagram** (a graphical representation of the architecture of a website that shows the relationship between pages of a website, in a hierarchical layout). To show the structure of the website that identifies the internal and external links between each web page, ensure you label all web pages and links clearly. (✓)
5. This document must also be saved in a **pdf format** to allow any user the ability to view this document. (✓)

Ensure this document is saved in the folder containing all your main web site information

Print this user document out when finished and hand it in with all other documentation.

**Task 10** Use complex techniques to develop a digital media outcome involves:

As part of complex techniques, you **must demonstrate** the following criteria:

**Integration of original media assets.**

These criteria must be consistently applied for all achievement grades.

Clear testing evidence must be provided for this.

You must confirm what original media assets have been integrated into your web pages.

State what has been created and what page it has been used on. Create a folder to save this material into.

You must prove to your assessor that you have integrated original media assets.

**Task 10 part A:** You must create an **original image map**, using the supplied **3D Great White shark anatomy model**. A **minimum of three active areas** must either link to relevant internet sites or link internally to relevant information. (✓)

**Note this image map does not have to be part of the overall responsive design.**

**Task 10 part B:** Using the supplied genuine **blacktip reef shark jaw**. Use this to create additional still images for use in your web design. (✓)

**Task 10 part C:** You are to maximise the use of supplied original media and minimise the use of media from other sources. (–)

**Create a document to store the details and screenshot evidence for this task.**

**Visual evidence of this being carried out must be submitted.**

- Refer to the End User Document for visual evidence.

**Task 11 Part A:** Use complex techniques to develop a digital media outcome involves:

As part of complex techniques, you **must demonstrate** the following criteria:

**Responsive design for use on multiple devices.**

These criteria must be consistently applied for all achievement grades.

Clear testing evidence must be provided for this.

- Refer to the End User Document for visual evidence.

You must prove to your assessor that you have a **responsive design for use on multiple devices**.

**The image map is excluded from being part of the responsive design.**

**State the devices that your design has been tested on (minimum of two different devices):**

1	Macbook Pro 2015 / macOS 14
2	HP AIO / Windows 10
3	Corsair Desktop PC / Windows 10

**Create a document to store the details and screenshot evidence for this task. (✓)**

**Visual evidence of this being carried out must be submitted**

- Refer to the End User Document for visual evidence.

**Task 11 Part B:**

Your assessor must confirm that the devices used in **Part A** have been used as part of the testing requirements.

When you are ready to show the testing being carried on these devices call over your assessor to verify this:

- Refer to the End User Document for visual evidence.

**Assessor to sign to confirm the devices stated are used during testing.**

**Task 12** Applying appropriate tools and techniques to meet the purpose and end-user requirements (**refer back to your answers given on page 4**)

Visual evidence can be provided for this task if required

**Part a:** State what **tools** and **techniques** have been used to ensure the **purpose** has been achieved:

Utilise online resources to gain and supply information relating to the purpose.

Use photoshop to enhance images for a better visual experience on the webpage.

Use CSS to style elements formally.

Use 'prettier' formatter to ensure the code is easier to manage.

**Part b:** State what **tools** and **techniques** have been used to ensure the **end-user requirements** has been achieved:

Utilise CSS and photoshop to ensure colour schemes are consistent & capable for visually impaired.

Provide a usage document to ensure the end-user can sufficiently browse the page.

**Task 13** Applying appropriate data integrity and testing procedures:

Create a document to store the details and screenshot evidence for this task.

Visual evidence must be submitted for these.

List/state the **data integrity** you have applied:

**Ensuring that content is referenced and sourced from reliable sources.**

**Ensure that any external media under the image map has an 'external resource' warning for users that would prefer to remain on this webpage.**

**Instance:**

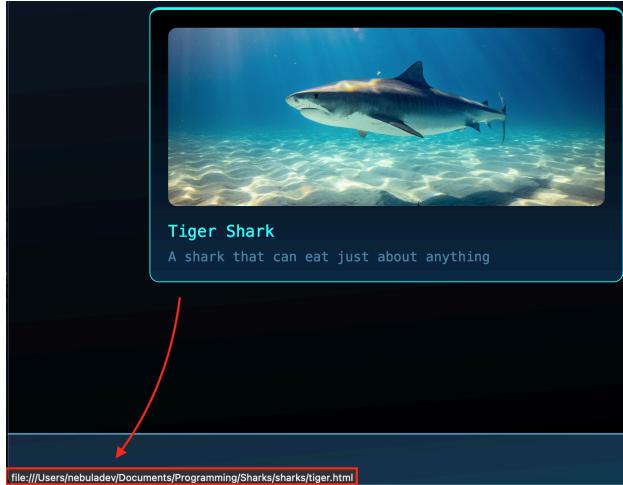
## INTERACTIVE SHARK ANATOMY

Warning: All links are external, and may contain graphic images.

**Ensure that information is correct, by confirming from multiple sources.**

List/state the **testing procedures** you have applied:

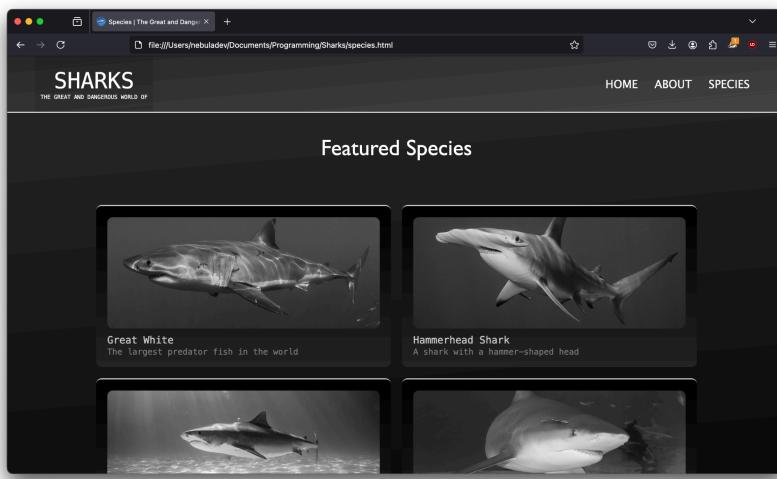
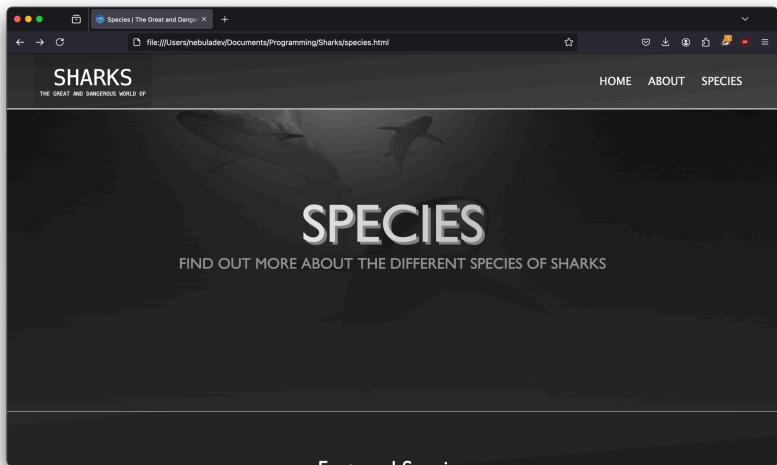
**Ensure that links and references lead to the correct locations. (✓)**



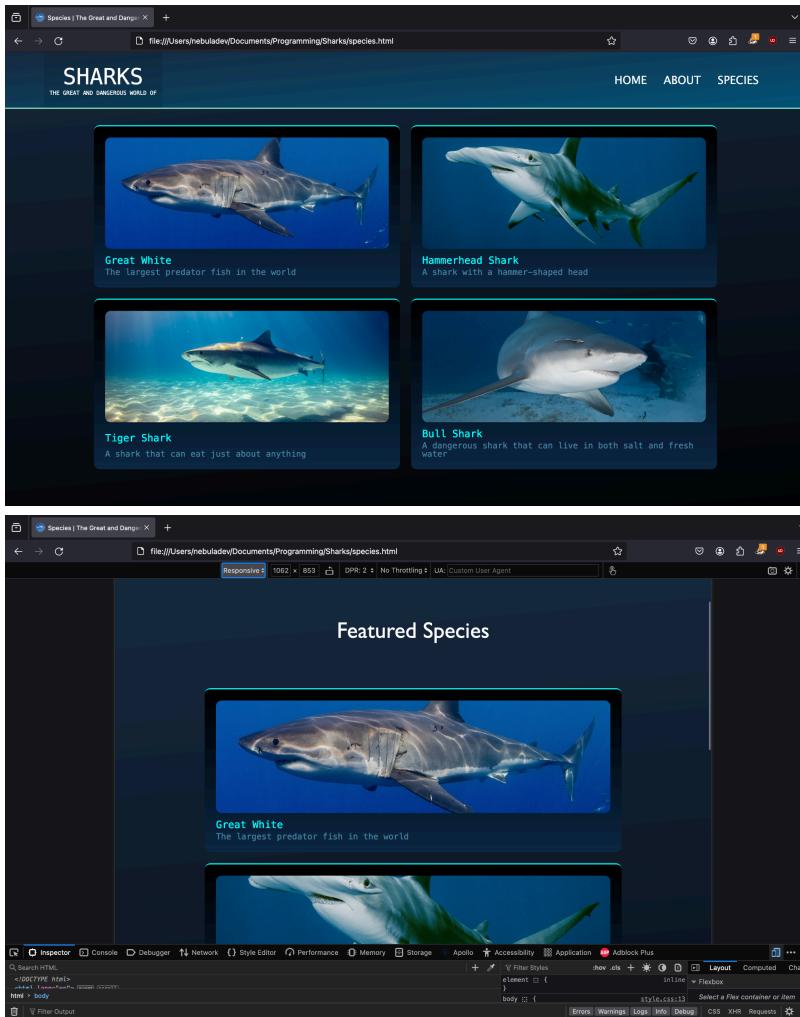
**Ensure the colours view pleasurable on different display settings (night-mode, grayscale, etc) (✓)**

This was done by simply appending 'filter: grayscale(1)' to the body element. By making the page grayscale, you can easily see if the contrasts between elements is viable from a gray perspective, which often helps pick out colour issues.





Ensure that grid elements space evenly on different display sizes. (✓)



Ensure that relatively-referenced files (css/js/html/images) correctly link from their respective directories. (✓)

Ensure that images have alt/title attributes, and they relate to the content in the image.

21 results in 7 files - Open in editor	
✓	index.html
alt="Gray Reef Shark"	6
alt="Scro	alt="Gray Reef Shark"
alt="Repeating wave background"	
alt="Great White Shark"	
alt="Bull Shark"	
alt="Shark Anatomy image with clickable ar...	
✓	species.html
alt="Different Shark Underwater, ref: https:..."	5
alt="Great White Shark"	
alt="Hammerhead Shark"	
alt="Tiger Shark"	
alt="Bull Shark"	
✓	bull-shark.html sharks
alt="Bull Shark"	2
alt="Bull Shark"	
✓	great-white.html sharks
alt="Great White Shark"	2
alt="Great White Shark"	
✓	hammerhead.html sharks
alt="Hammerhead Shark"	2
alt="Hammerhead Shark"	
✓	jawbone.html sharks
alt="Scene from Air Jaws: Final Frontier"	2
...="float: left" width="200" alt="Shark Jaw..."	
✓	tiger.html sharks
alt="Tiger Shark"	M 2
alt="Tiger Shark"	

## Task 14 Applying user experience principles relevant to the purpose of the outcome

User experience principles relevant to this design include:

**1: The design brief, 2: functionality, 3: accessibility, 4: aesthetics and 5; different browsers**

For this section you are to **gather feedback from users**.

**Essential Task**

- Refer to the End User Document for feedback data.

**Create a digital feedback form** so that you can gather and record the feedback from users of your web pages.

Once this has been completed (this must also be **submitted as visual evidence** for this section) you are then to complete this section based on the recorded feedback:

User experience principle	State/explain what was applied so that it was relevant to the purpose of the outcome – visual evidence must be submitted for these
<b>The design brief</b>	<p>The design utilises colours that represent the purpose of the webpage, with a blue / teal primary colour palette respecting the idea of a 'marine animal'.</p> <p>This was the primary palette I produced. Most content on the page utilises it, or shades of colours within it:</p> 

<b>Functionality</b>  (Ease of navigation and finding information)	Information can be easily found via the primary links in the navbar and footer, or other references with relevant content to the current page. I utilised a simple layout, with a navbar   content   extra content   footer style.
<b>Accessibility</b>  (ease of use, access by all), to include people with visual impairment	For visual impairment, I decided upon a color palette that would contrast text with the background, and tinted images to ensure they had a better viewing experience for the end user. Links were made obvious through the use of CSS styling, and made placed in obvious locations for ease of access.
<b>Aesthetics</b>  (visual appeal)	CSS was used to ensure the page had aesthetic appeal, and through the use of flexbox, responsive layouts, color palettes and pseudo classes, to make the frontend of the page feel interactive and relating to the subject (sharks).
<b>Different web browser use (Two needed)</b>  State the browsers used:  1: 2:	I decided to use four different browsers, over two devices. I also decided to primarily use browsers with different render engines, like webkit/gecko/etc. This allows for less biased results, although Chrome and Opera do carry similar traits (both utilising chromium).  macOS: Firefox / Safari / Opera  Windows: Chrome  - Refer to the End User Document for visual evidence.

**Task 15 - Achieved – Addressing relevant implications** (think about and begin to deal with it – solve the problem). For each of these implications you are to state what you have actually done/created to ensure each of them has been incorporated into your final design.

Relevant Implication:	Describe what you created/designed in order that this relevant implication was incorporated into your final design
<b>1. Legal</b>	Legal implication was followed by making sure all external text was referenced and/or paraphrased, to prevent directly copying content from other resources. Additionally, links were provided to the original content, and images were from respected content sources.
<b>2. Ethical</b>	Ensuring the content and visuals of the webpage followed ethical requirements consisted of checking links and images for any graphic or explicit content, making sure all content visible on the page (graphic external pages were marked with a warning) would be safe to show to those within the target audience.
<b>3. Functionality (Ease of navigation and</b>	Layout was designed with a fundamental base, and each page would branch off

finding information)	that base, following a simple design to ensure content was visible, accessible, and understandable to the end user. This included making the navbar sticky, so it was consistently at the top of the page for easy access, and the footer, which was always under the primary content.
<b>4. Aesthetics</b> (Visual appeal)	Many lines of CSS were implemented to ensure the page followed aesthetic appeal, and complimented the functionality / layout of the page respectively. The key purpose of the page - shark information - was complimented with a blue colour palette, and capitalized text / other styles that can help bring out the purpose of the page through graphics.
<b>5. End-user considerations:</b> Must include people with visual impairment and colour blind-ness	<p>As shown in Task 14, the likes of color palettes and other attributes were used to ensure that the page was accessible to those with visual impairment / colour blindness, and the functionality of the page was designed to allow for easy tabular access, and screen readers. (By ensuring content was top-down, rather than doing something like putting the navbar at the bottom of the page, then moving it with css. That tends to annoy reader modes and other browser-specific things..)</p> <p>Tests were done (like grayscale appearance) to ensure all types of browsers / devices would have a generally good experience viewing the page.</p>

### Merit requirements:

Use complex techniques to develop an informed digital media outcome involves:

- using information from testing procedures to improve the quality of the digital media outcome
- applying user experience principles to improve the quality of the digital media outcome.

### Task 16 – Merit

Using information from **testing procedures** to **improve the quality** of the digital media **outcome**.

Github was used to ensure a streamlined development process across multiple devices. It allowed me to view previous versions of the page.

The screenshot shows the GitHub repository 'Sharks' with the following details:

- Code**: master branch, 22 commits.
- Issues**: 0 issues.
- Pull requests**: 0 pull requests.
- Actions**: 0 actions.
- Projects**: 0 projects.
- Wiki**: 0 wiki pages.
- Security**: 0 security scans.
- Insights**: 0 insights.
- Settings**: 0 settings.

**Commits:**

- Fix Tiger Shark link location (commit 522ed69, 2 days ago)
- Add hover tooltips (commit 522ed69, last month)
- Add initial comments (commit 522ed69, last week)
- Add initial comments (commit 522ed69, last week)
- Fix Tiger Shark link location (commit 522ed69, 2 days ago)
- Add initial comments (commit 522ed69, last week)
- Add base species page (commit 522ed69, 3 weeks ago)
- Nico Cook AS91903 EndUser Document (commit 522ed69, 3 weeks ago)
- as91903v1/assessment2024/mod1.docx (commit 522ed69, last week)
- Add favicon (commit 522ed69, 3 weeks ago)
- index.html (commit 522ed69, 2 days ago)
- map.html (commit 522ed69, 2 weeks ago)

**Repository Statistics:**

- Activity: 0 stars, 0 watching, 0 forks.
- Releases: No releases published. Create a new release.
- Packages: No packages published. Publish your first package.
- Languages: HTML 75.6%, CSS 21.8%, JavaScript 7.1%.

### Version history:

The screenshot shows the commit history for the 'master' branch:

- Fix Tiger Shark link location (commit 522ed69, 2 days ago)
- Push doc changes (commit 742138d, last week)
- Add initial comments (commit 81d787c, last week)
- Add comments (commit 487a82b, 2 weeks ago)
- Add interactive map section (commit c8d1089, 2 weeks ago)
- General cleanup (commit 857a069, 3 weeks ago)
- Add favicon (commit 522ed69, 3 weeks ago)

The usage of this for testing was further explained in Task 18.

As shown in Task 13, different tests were performed like colour filters to ensure the page would viewably on different devices and browsers:

The screenshot shows the 'Hammerhead Shark Stats' page with the following content:

### Hammerhead Shark Stats

Scientific Name	Sphyrnidae
Average Length	13-20 feet
Average Weight	500-1,000 pounds
Average Lifespan	20-30 years
Habitat	Warm coastal waters
Diet	Fish, squid, other sharks
Conservation Status	Vulnerable

**Content references:**

- Hammerhead Shark - Britannica
- Hammerhead Sharks - Australian Marine Conservation Society

This helped me iteratively improve the design and styles of the page, to ensure that the background contrasted with the foreground, and the content was easy to read.

## Task 17 – Merit

Applying user experience principles to **improve** the **quality** of the digital media **outcome**.

You must refer back to Task 14 and use the feedback gathered from the end users and changes made to improve the quality.

**Labelled screenshot evidence must be included.**

**Essential Task**

State what user experience principles were used to improve the quality of the web page content:

**Clearly labelled visual evidence must be submitted for this task**

**(Refer to Task 14 page 12)**

**Making sure the navbar is available at all times to allow access to key content, which utilises key user experience principles to allow the end user to access content on the page easily.**



I decided to make the hotspot interacting areas have a shadow, to ensure the user can understand what they are able to interact with. This was done with a polygon svg, and a small amount of javascript:



```
$('body').on('contextmenu', 'area', function (e) {
    return false;
});

$('body').on('mouseover', 'area', function (e) {
    svg.css('opacity', '1');

    var coords = e.target
        .getAttribute('coords')
        .split(',')
        .map(function (coord) {
            return parseInt(coord);
        });

    var points = [];
    for (var i = 0; i < coords.length; i += 2) {
        points.push(coords.slice(i, i + 2));
    }

    var path = points
        .map(function (point) {
            return point.join(',');
        })
        .join(' ');

    polygon.attr('points', path);
});

$('body').on('mouseout', 'area', function (e) {
    svg.css('opacity', '0');
});
```

## **Excellence requirements:**

Use complex techniques to develop a refined digital media outcome involves:

- iterative improvement throughout the design, development and testing process to produce a high-quality outcome
- using efficient tools and techniques in the outcome's production.

## **Task 18 – Excellence**

**Iterative improvement** throughout the design, development and testing process to produce a **high-quality outcome**.

Include references to evidence from reflections on the success and further improvements made to the website which should include

**end user and/or stakeholder feedback.**

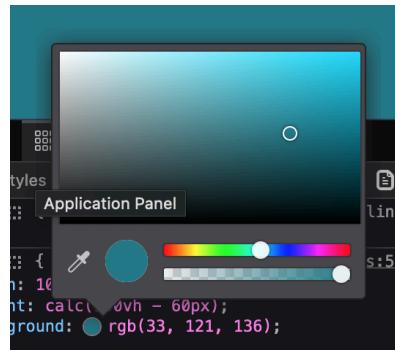
**Essential Task**

State what iterative improvements were made to produce a high-quality outcome:

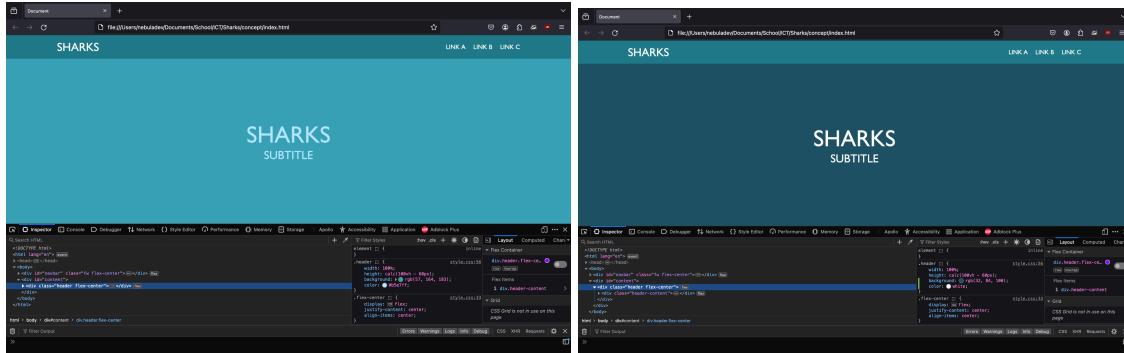
**Clearly labelled visual evidence must be submitted for this task.**

**Before and after screenshots must be provided as proof of this sequence.**

Colour palettes were carefully chosen through the use of direct color-picking from within the developer tools of the browser.



This allowed for quickly manipulating colours and other attributes of the page, and was usually a try-fix-repeat cycle, replacing the actual CSS values with those from the developer tools:



With this came many considerations - making the navbar darker/brighter than the content of the page. Whether the page should use a dark or bright color scheme, with white or black text? Each of these contribute to the feel and first-impressions of the page.

Stylistic and content changes from prior versions on GitHub, making sure that the page design was taken in the right direction:

**SHARKS**  
THE GREAT AND DANGEROUS WORLD OF SHARKS

## ALL ABOUT SHARKS

Sharks are sea animals that have been around for more than 400 million years. There are over 500 different species of sharks, and ranging from the tiny dwarf lanternshark, which is only 6 inches long, to the whale shark, which can be up to 50 feet long. Most sharks are predators, meaning they hunt and eat fish, seals, and other sea animals. Some sharks eat plankton, the smallest creatures in the ocean, and are called filter feeders.

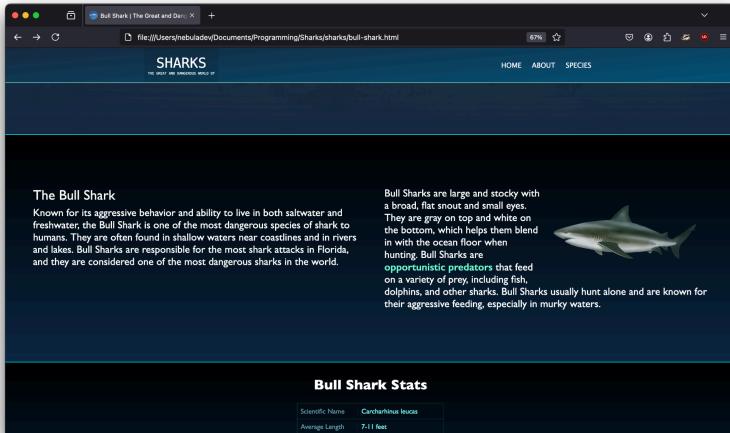
**SHARKS**  
THE GREAT AND DANGEROUS WORLD OF SHARKS

## ARE SHARKS SCARY?

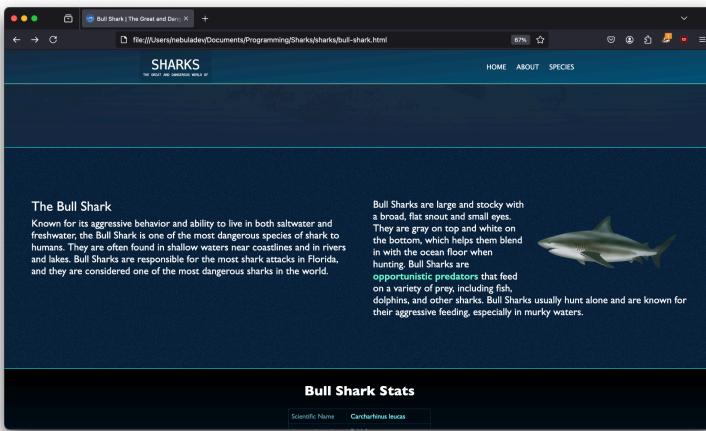
Sharks are often thought of as dangerous killers that attack humans, but this is **usually not the case.** Most sharks are not interested in attacking humans, and will only do so if they are confused or curious.

Sometimes, a shark may mistake a human for a seal, or may be curious about what that human is. But, **this is not to say that sharks are not dangerous!** Some species of sharks are more aggressive than others, and some are more likely to attack humans. This includes the **great white shark, the tiger shark, and the bull shark.** However, these sharks

I was able to see some changes that could be made to improve certain aspects of the page, most importantly, visual updates. The shark pages originally had rather bland backgrounds:



To make the content feel less empty, I decided to utilise noise (static), and with a short few lines of CSS, it made the content background feel more textured: (you may need to zoom in)



Photoshop was used to improve the quality of images utilised on the page. This was done through colour correction, background removal (with masks), and other effects to make the images suit the pages better:

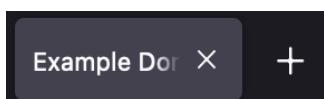


After using Photoshop:



I used a darker, blue-colour correction to make the image fit in with contrast to the background. Although it looks dark in this context, on the page it suits.

One other iterative design feature was the inclusion of a *favicon*. This is the icon visible at the top of tabs, which without one will be a simple document icon, or won't show up at all based on the browser:



Using Photoshop, I designed a simple logo that made the page look more 'real'.



## Task 19 – Excellence

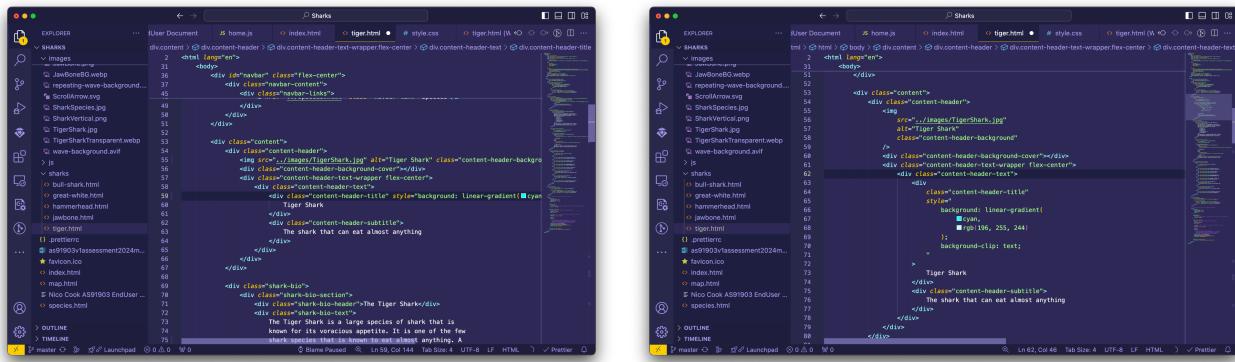
Using **efficient tools and techniques** in the outcome's production.

**Evidence from changes made** to the code and/or design of the website can provide proof that the various complex techniques have been utilised.

State what **efficient tools and techniques** were used to produce a **high-quality outcome**:

**Clearly labelled visual evidence must be submitted for this task**

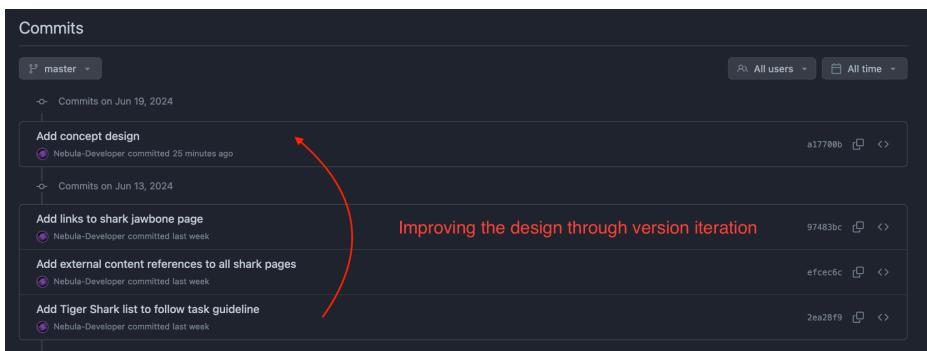
One tool I made use of was the Prettier HTML/CSS/JS formatter, to ensure the code formatting followed generally advised rules. This made the development process much cleaner and simpler.



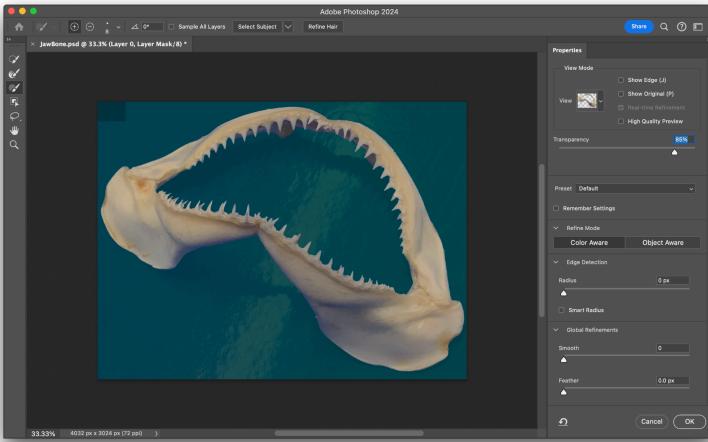
The image shows two side-by-side screenshots of a code editor interface, likely Visual Studio Code, displaying HTML code for a website. The left screenshot shows the original, less formatted code with many line breaks and irregular indentation. The right screenshot shows the same code after being run through Prettier, resulting in a clean, modernized format with consistent indentation and spacing. Both screenshots show the file path: 'User Document / tiger.html'.

```
diff --git a/tiger.html b/tiger.html
--- a/tiger.html
+++ b/tiger.html
@@ -1,10 +1,10 @@
 <div><!-- content -->
   <div><!-- content-header -->
     <div><!-- content-header-text -->
       <div><!-- flex-center -->
         <div><!-- header-content -->
           <div><!-- never-links -->
             <div><!-- content -->
               <div><!-- content-header -->
                 <div><!-- content-header-text -->
                   <div><!-- flex-center -->
                     <div><!-- content-header-background -->
                       <div><!-- repeating-wave-background -->
                         <div><!-- scroll-marrow -->
                           <div><!-- scroll-marrow -->
                         </div>
                       </div>
                     </div>
                   </div>
                 </div>
               </div>
             </div>
           </div>
         </div>
       </div>
     </div>
   </div>
</div>
```

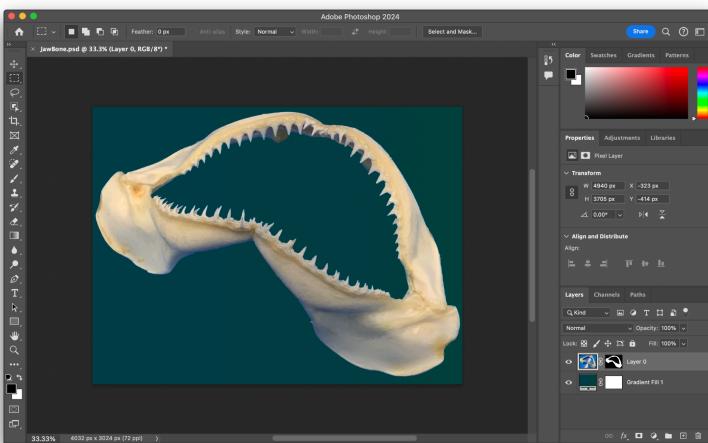
GitHub was another tool that allowed for development across multiple platforms, making testing simplified and allowed for versioning control. This would let me look back on older versions of the page, and judge whether the new changes were sufficient through version-compare testing:



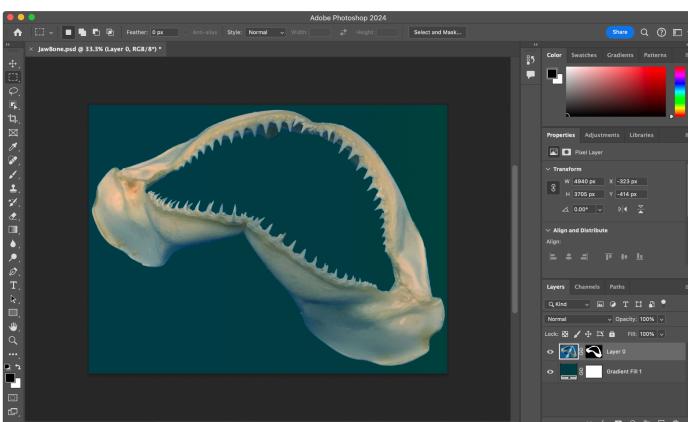
Photoshop was used to manipulate and improve images on the page. By taking the images with a mobile device, I can remove the background of these images, and use altering effects like colour correction to improve the visuals when the image is on the page:



Removing the background:



Fixing the colours to match the background (we use a gradient that is similar to the page's colour palette to judge its contrast):



CSS variables were used to store constant values, in our case, the height of the navbar. This allows for referencing this value throughout all of our CSS, and being able to change the value at any point, from one place. This is commonly used in larger-scale

pages to ensure global definitions that the developer doesn't have to change all instances of:

```
:root {  
  --navbar-height: 100px;  
}
```

Also, CSS animations were used to make the page feel more alive, or dynamic:

```
/* This is a simple bounce animation that appears on the home page  
 (you will notice it in the arrow at the bottom of the front page) */  
 @keyframes bounce {  
   0% {  
     /* translateX -50% because $1/2p - 1/2c = center$ and we aren't using flexbox.  
      (Although I probably should have) */  
     transform: translateY(0) translateX(-50%);  
   }  
  
   50% {  
     transform: translateY(-10px) translateX(-50%);  
     box-shadow: 0px 0px 10px 2px #rgb(72, 76, 87);  
   }  
  
   100% {  
     transform: translateY(0) translateX(-50%);  
   }  
 }
```

This is the arrow featured on the root (index) of the page, at the bottom of the front page header.

Additionally, [Vite](#) was used to make the development process more efficient, allowing for a simple static server that features hot reloading - meaning that when I save a piece of code, it will automatically show the changes in the browser, without the need to refresh:

```
o ➔ ~/D/P/Sharks on master x vite  
Re-optimizing dependencies because vite config has changed  
  
  VITE v5.2.11 ready in 286 ms  
  
  → Local: http://localhost:5173/  
  → Network: use --host to expose  
  → press h + enter to show help
```

Achievement Grade awarded: First Attempt \_\_\_\_\_ Final Attempt \_\_\_\_\_

	<b>Achieved</b>	<b>Achieved with Merit</b>	<b>Achieved with Excellence</b>
<b>Task 1</b>	Target audience	As per requirements	As per requirements
<b>Task 2</b>	Purpose of the web pages		
<b>Task 3</b>	End user requirements		
<b>Task 4</b>	HTML/CSS version		
<b>Task 5</b>	Concept designs		
<b>Task 6</b>	Concept design feedback		
<b>Task 7</b>	Design brief contents		
<b>Task 8</b>	Folder structure		
<b>Task 9</b>	End user documentation		
<b>Task 10</b>	Integration of original media with visual evidence Part A image map Part B shark jaw Part C – additional media		
<b>Task 11</b>	Responsive design with visual evidence excludes the image map		
<b>Task 12</b>	Applying appropriate tools and techniques Visual evidence if required		
<b>Task 13</b>	Applying data integrity and testing procedures with visual evidence		
<b>Task 14</b>	Applying user experience principles <b>User feedback must be submitted as Visual evidence</b>		
<b>Task 15</b>	Addressing relevant implications		
<b>Task 16</b> Testing procedures to improve the quality	<b>Not required</b>	Written answers plus before and after sequence visual evidence	As per merit requirements
<b>Task 17</b> Applying user experience principles to improve the quality	<b>Not required</b>	Written answers plus visual evidence	As per merit requirements
<b>Task 18</b> Iterative improvement	<b>Not required</b>	<b>Not required</b>	Written answers plus visual evidence
<b>Task 19</b> Using efficient tools and techniques in	<b>Not require6</b>	<b>Not required</b>	Written answers plus before and after sequence visual evidence