



Untouched

A New Zealand Teen's Tramping Online Blog

Digital Technology 3.4 AS91903

https://github.com/paigekm/digital_media_outcome.github.io



Project Proposal

The purpose of this blog website is to provide information about the tramps across New Zealand; particularly focussing on walks in the Greater Wellington region. The aim is to encourage other Wellington teenagers to get outdoors and explore the country by tramping.

The stakeholder would like a site designed, which in the future can be published with the purpose of being interactive so that other trampers around the country and world, can also post their own tramping experiences, tips and stories. This will begin with a registration form to sign up for regular newsletters/updates, but later users could be able to add their own tramping tracks to the site too.

The site should be appealing to a younger audience. The purpose of the site is to engage teenagers who live in cities to encourage them to go outdoors. The site should look aesthetic.

Project Stakeholder:

Wellington City Youth Council is a stakeholder that has interest in my webpage.

Their aim is to entice more 13-18 year olds to explore the local tramps and day walks available in the wider Wellington region and beyond. They have asked me to design a website which is a blog in style, focussing on specific tramps, tips, safety, and locations of tramps in the Greater Wellington region.

The purpose of this site is to be interactive and conversational, in order to appeal to a teen age bracket.

The site is intended to provide helpful information to anyone who is interested in tramping regardless of prior experience, and to inspire youth to explore the tramping tracks that are available right on their doorstep.





User personas

Alice Ogle, 18 Avid trumper

Alice completes annual tramps with her own family and is keen to explore more local tramps in the Wellington/local region.

Alice's Frustrations and Goals:

Frustrations:

- Wants to see a range of new tramps, but has already completed most of the tramps referred to on the site

Goals:

- Is interested in getting involved in a wider tramping club/group in Wellington
- Wants to explore future tramp locations to complete with her family and friends



Steve Butler, 52

Experienced hunter and trumper.

Steve is keen to go on more tramps in the local area and around NZ with his family and children aged 13 and 17.

Steve's Frustrations and Goals:

Frustrations:

- Wants to explore tracks mostly located locally and near Wellington
- Is interested in more “off-the-beaten track” hunting trails

Goals:

- Wants to explore tramps which are suitable difficulty for his 13 and 17 year old children
- Wants to learn tips about modern and lightweight tramping gear and how to reduce his pack weight



Grace Kerr, 15 New to tramping, Bronze Duke of Edinburgh participant

Grace is an inexperienced and anxious Duke of Edinburgh participant who is looking to learn more about tramping in New Zealand.

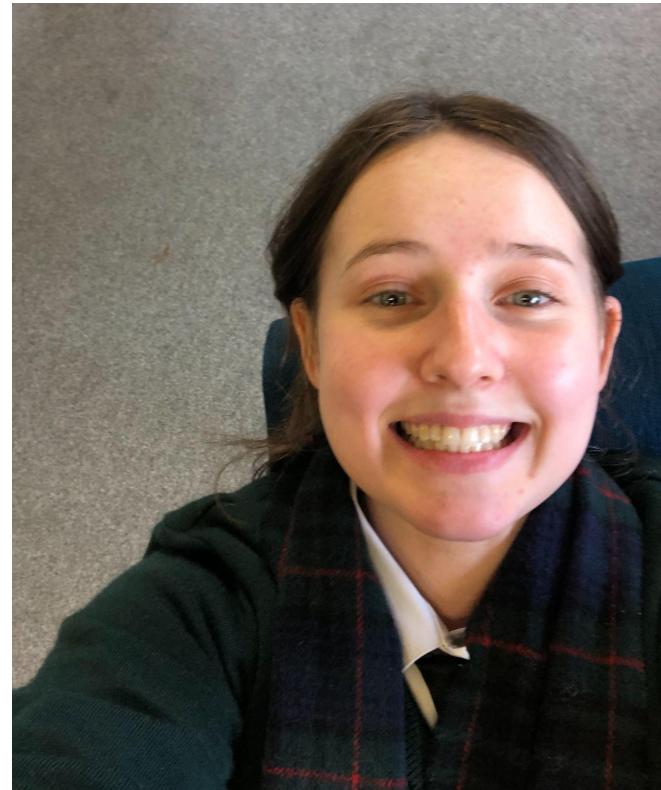
Grace's Frustrations and Goals:

Frustrations:

- Family doesn't tramp and has zero tramping experience
- Doesn't know what to pack, or what to expect when it comes to tramping in the NZ outdoors
- Is worried about the 'Adventurous Journey' section of her DOE award, and for her safety

Goals:

- Learn tips about tramping and what to pack
- Wants to feel prepared and potentially encourage her family to go tramping this Summer





Research

Website layout inspiration:

Features I was inspired to include:

- Square and rectangle based layout
- Lots of columns containing information
- Vibrant and engaging colour scheme
- Bright images containing people to attract the users' attention
- Modern and simple aesthetic



the good ritual

the good ritual.

Our vision is to empower busy women by providing convenient products that come with added health benefits.

Our vision is to empower busy women by providing a convenient products that comes with added health benefits.

Beautiful toothcare. Delivered to your door.

Why we're different.

Better quality.

Better for you.



Competitors Analysis

Tramping.net <https://tramping.net.nz/blog/#>

Strengths:

- Carousel at top of webpage
- Photos are interactive as info bar pops up if you hover over

Weaknesses:

- Site is very slow to load
- Images need to be optimized for fast performance
- Too much information
- Information is not helpful for younger, more inexperienced trampers



tramping new zealand

38 almost epic adventures on the South and Stewart Islands

some tramping blogs for your vicarious pleasure

In my travels I like to jot down a few thoughts at the end of the day, intending, usually unsuccessfully, to encourage others with engaging with the Great Outdoors.

Occasionally these blogs may mention what I had for breakfast, well might as well tell you now, it's always porridge and coffee, glad we got that out of

tramping New Zealand

Te Araroa | The Long Pathway

37 tramping routes

Tramper.nz <https://tramper.nz/>

New Zealand Tramper

Explore New Zealand's Great Walks

The screenshot shows a grid of six cards, each representing a different track:

- Abel Tasman Coast Track** • 3 – 5 days. Easy. One way. Easy, sunny coastal track with golden sands and excellent swimming. The busiest track in the country, following the length of ...
- Heaphy Track** • 4 – 6 days. Easy. One way. A classic crossing of the geologically and biologically diverse northwest corner of the South Island. The track is also open to ...
- Kepler Track** • 3 – 4 days. Easy/medium. Loop track. Popular loop track providing access to the mountains around Lake Te Anau.
- Paparoa Track** • 3 days. Easy/medium. One way. "The Lake Track." Busy track in summer with
- Lake Waikaremoana Track** • 3 – 4 days. Easy/medium. One way.
- Milford Track** • 4 days. Easy/medium. One way. The Milford Track is an alpine journey through

Strengths:

- Nice photography, high quality images
- Good use of cards
- Cards link to other sections of the web-page with more info
- Effective Track finder feature

Weaknesses:

- Cards are of different sizes as there are different amounts of text in each

Tiny Tramper <https://tinytrammer.com/>

Strengths:

- Contains many features such as window view of social media and cards running down the side

Weaknesses:

- Contains too much information
- Distracting and disorienting for the user
- Too much irrelevant text, which the user can't scan quickly

South West Coast Path: A glorious 43 day walk 1,000 Kms around the UK coast from Minehead to Poole (July 2018). [View my itinerary](#) or read my full [SWCP blog](#).

[Follow Me](#)

Gear Lists and Planning

Check out my [planning page for Te Araroa](#) and my [gear list](#) – useful if you are planning your own Te Araroa trail or another long-distance (summer) thru-hike.

About Me

I'm Jules – a tiny tramper and weekend adventurer. I emigrated from the UK to New Zealand in 2006 and ten years later I became a Kiwi. What better way to celebrate than by hiking [Te Araroa trail](#) the length of New Zealand! I blogged my experiences for my friends and family, which has become a useful resource for other walkers.

I have since settled in Nelson at the top of the South Island, and with three national parks on my doorstep, I continue to enjoy the backcountry almost every weekend.

- [Wilderness Magazine: Faces of Thru Hiking – April 2019](#)
- [Wilderness Magazine: The Trials of the Trail – October 2018](#)
- [Wilderlife Magazine: A Taste of Te Araroa – Part 1 Preparation – 2018](#)
- [Wilderlife Magazine: A Taste of Te Araroa – Part 2 What it means to be a Kiwi – 2018](#)
- [Stuff: Julie Stacey Walks Te Araroa Trail – November 2017](#)

FACEBOOK



Tinytrammer
on Sunday

Excellent scramble up the ridge from Pussy Stream towards Lake Man biv - in the Doubtful Range. One of my fave trips from last summer linking the Hope, Doubtful & Nina 🤗☀️ #tinytrammer #doubtfulrange #canterburynz #rockscramble #nzmountains #lastsummer #tramping #hikerchick #lovenz

My point of difference from competitors:

After researching into pages which are offering a similar product and information as me, I can see what these competitors offer and which significant features of their webpages are effective and enticing to the user.

I was inspired to also incorporate:

- High quality and captivating photos, optimised for fast performance to ensure quick loading
- Use of cards to manage information specific to different tracks
- Carousel photo slide show at the top of the home page

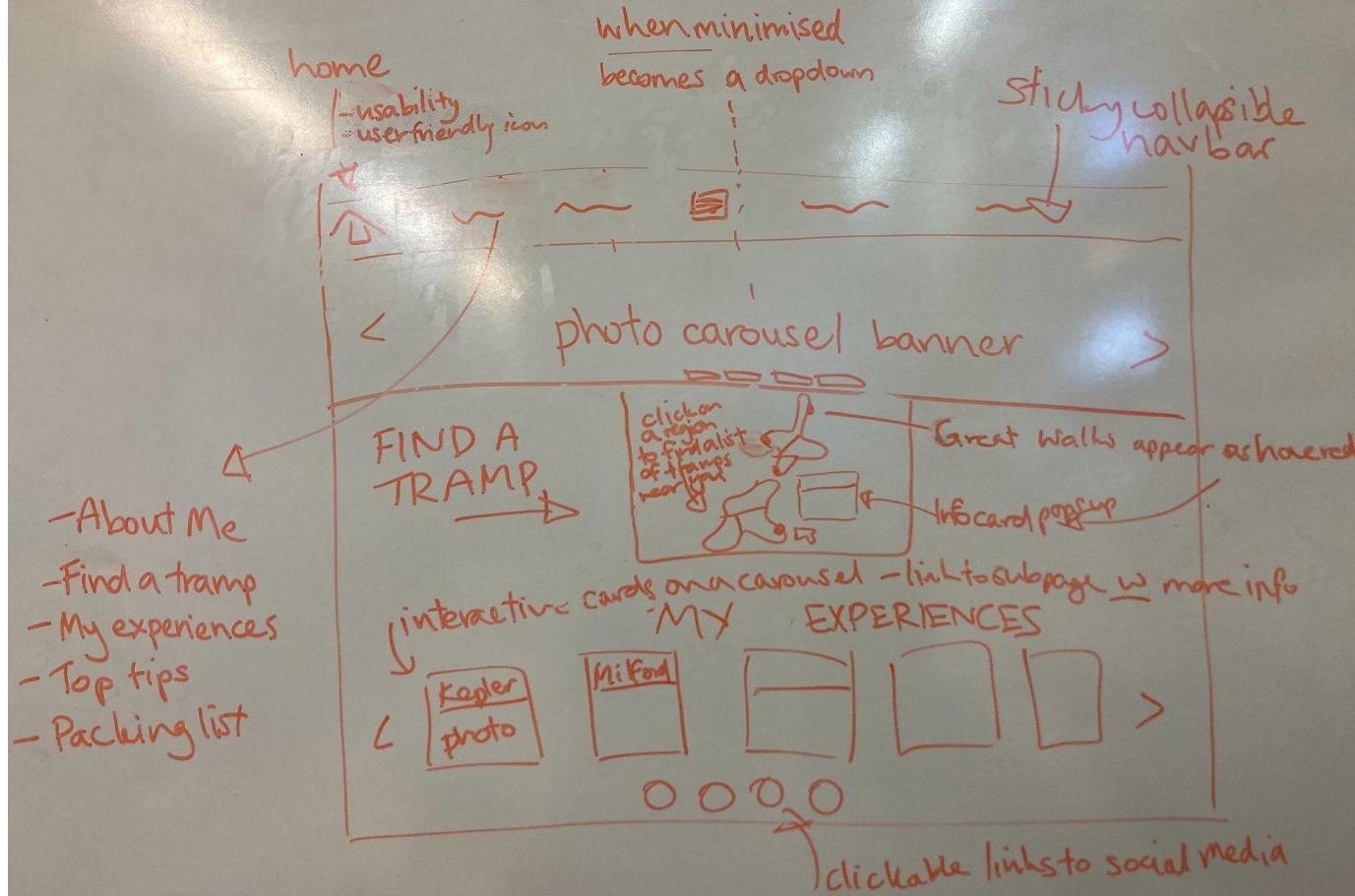
I can improve:

- Many competitor sites contain too much information.
 - My goal is to keep my site **simple**.
 - It is aimed at younger users who are likely to access the site on their phones (so the site must be responsive to different screen sizes), and who like visuals and information delivered in smaller and clearer blocks.



Development Process

Site Plan:



Outline for the web page:

Heading-level outline

<h1> Victoria University of Wellington Tramping Club's Online Journal

<h2> Who is the VUWTC:

<h2> Our Tramps:

<h2> Top tips from us

<h2> Find a tramp near you:

Structural outline

└ Victoria University of Wellington Tramping Club's Online Journal

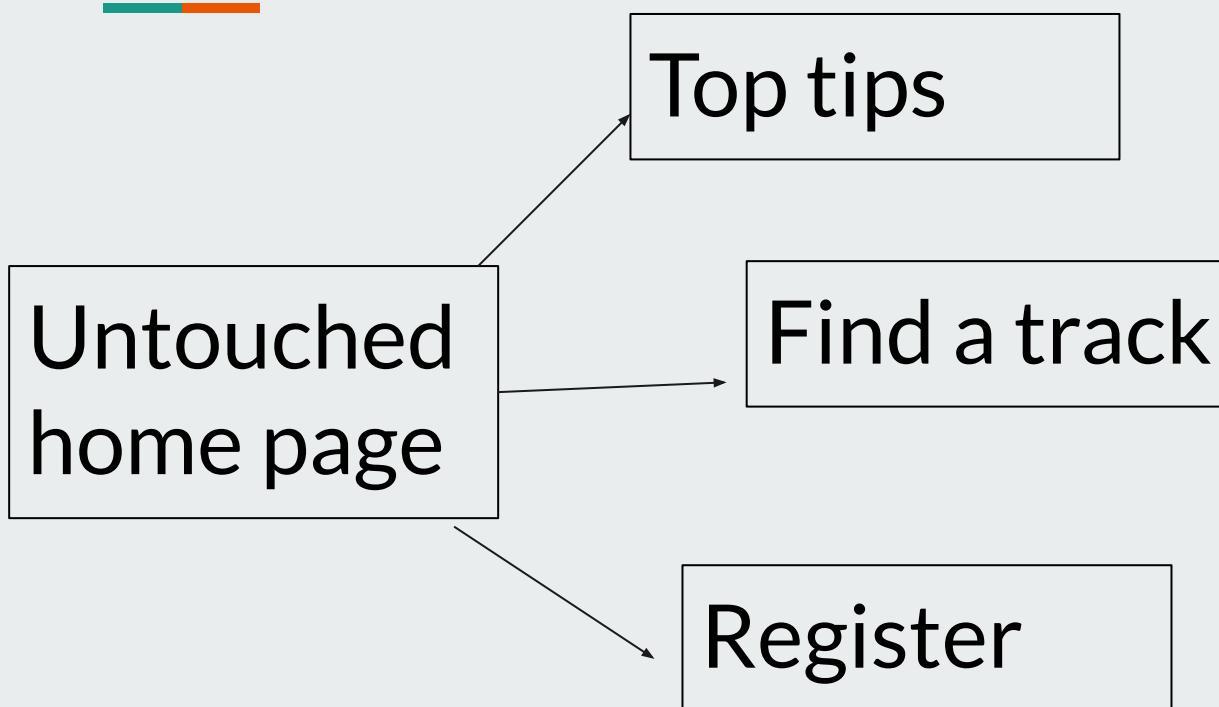
 └ Who is the VUWTC:

 └ Our Tramps:

 └ Top tips from us

 └ Find a tramp near you:

Basic Site Map



Common features:
Banner image carousel
Navigation bar
Footer

Home page:
Cards for key tramps
Statistics
Quote

Top Tips page:
Cards with tips
Checklists for packing

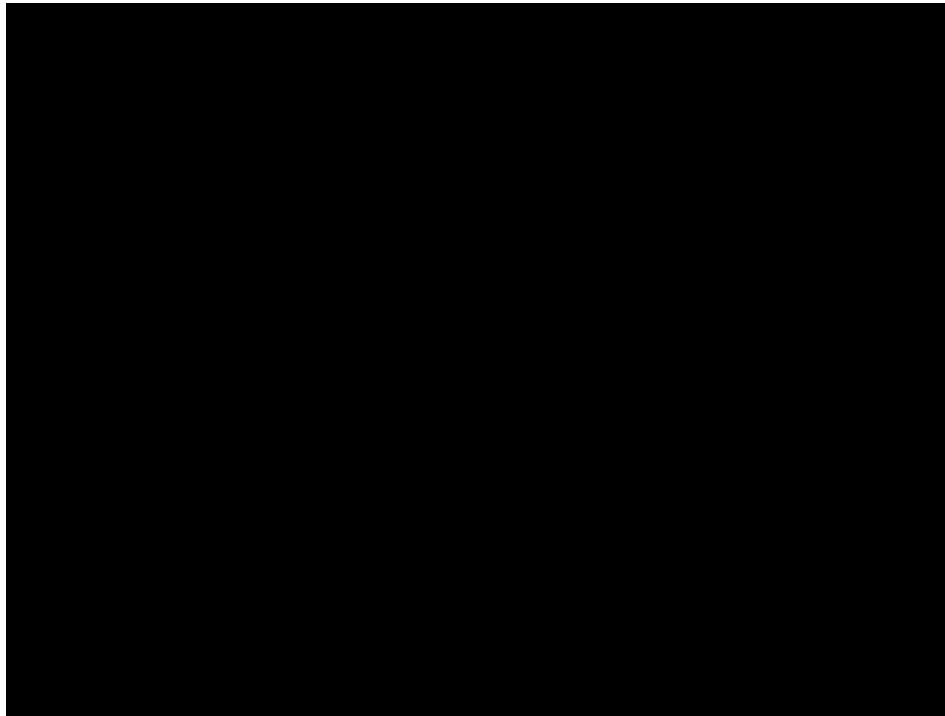
Find a track page:
Interactive maps
Gallery of cards

Register page:
Validated Form
Connected to an outside page
which allows you to review
your entries

Basis of site information - style less site

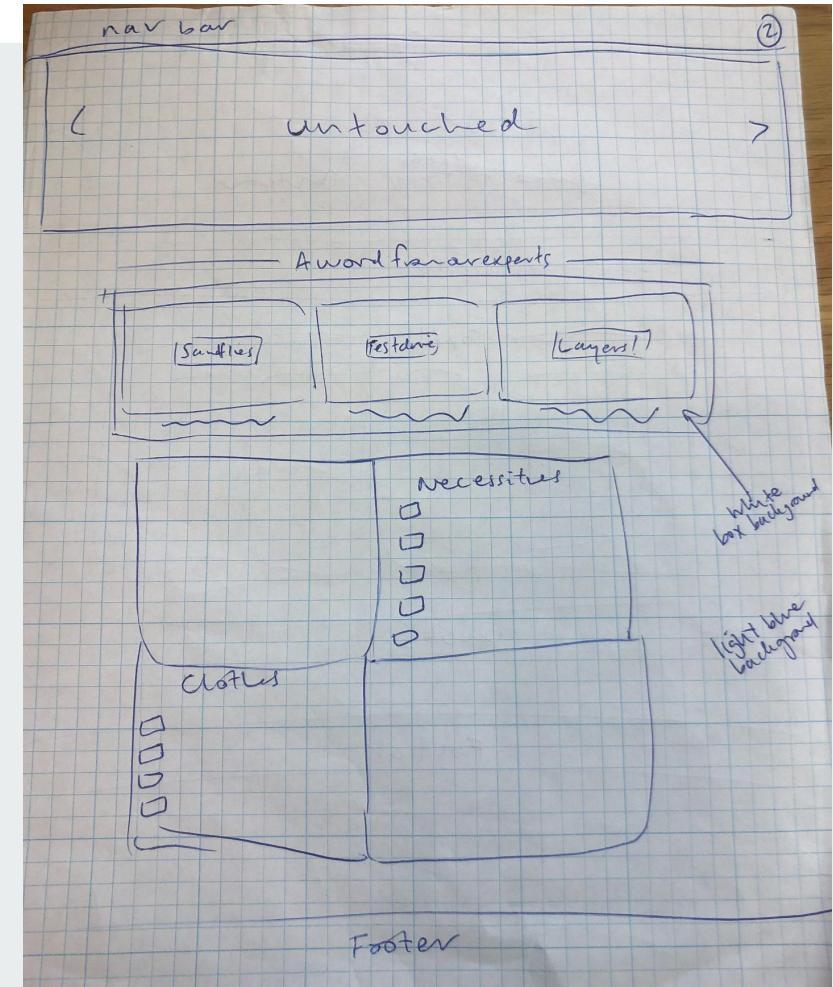
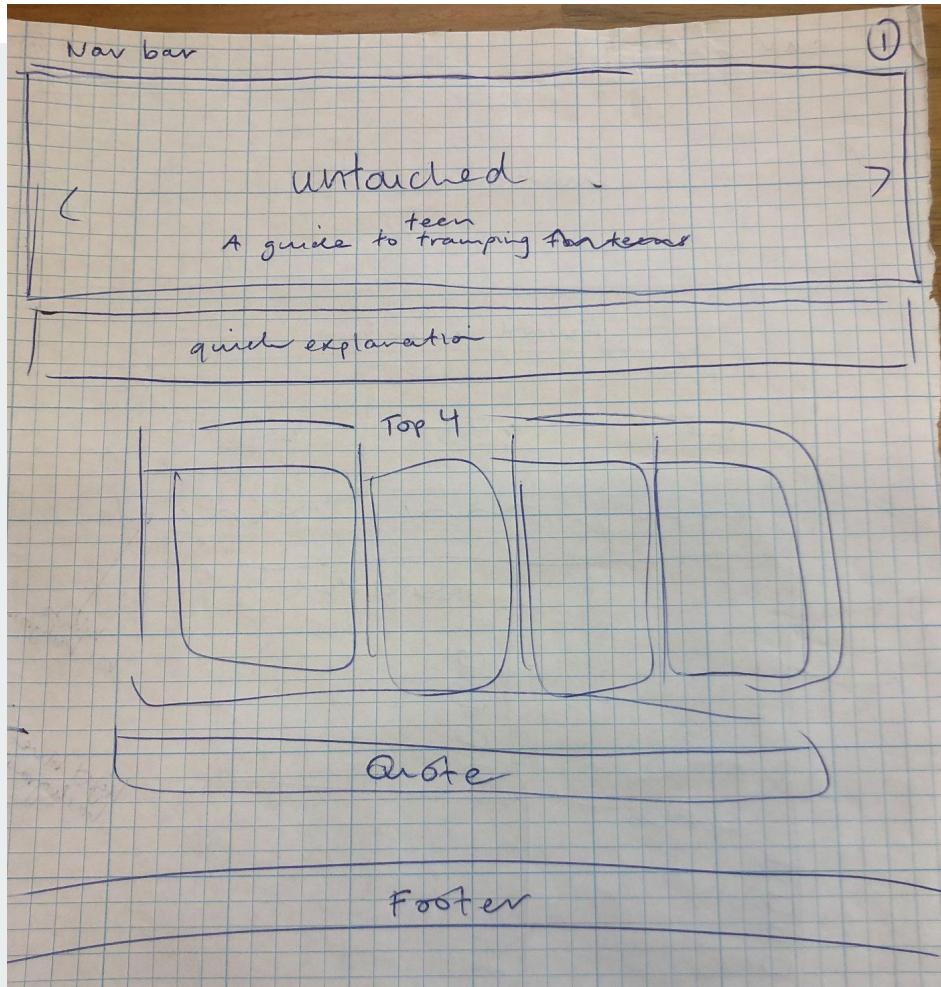
As a first step, I constructed all of the information to go in my site, with no styles and no Bootstrap yet. This led to my site having characteristics such as effective navigation, being easy to scan and having good information architecture. The tool Webaim, also allowed me to see my site in a style-less form and to review the structure of the page at a later point in the development process.

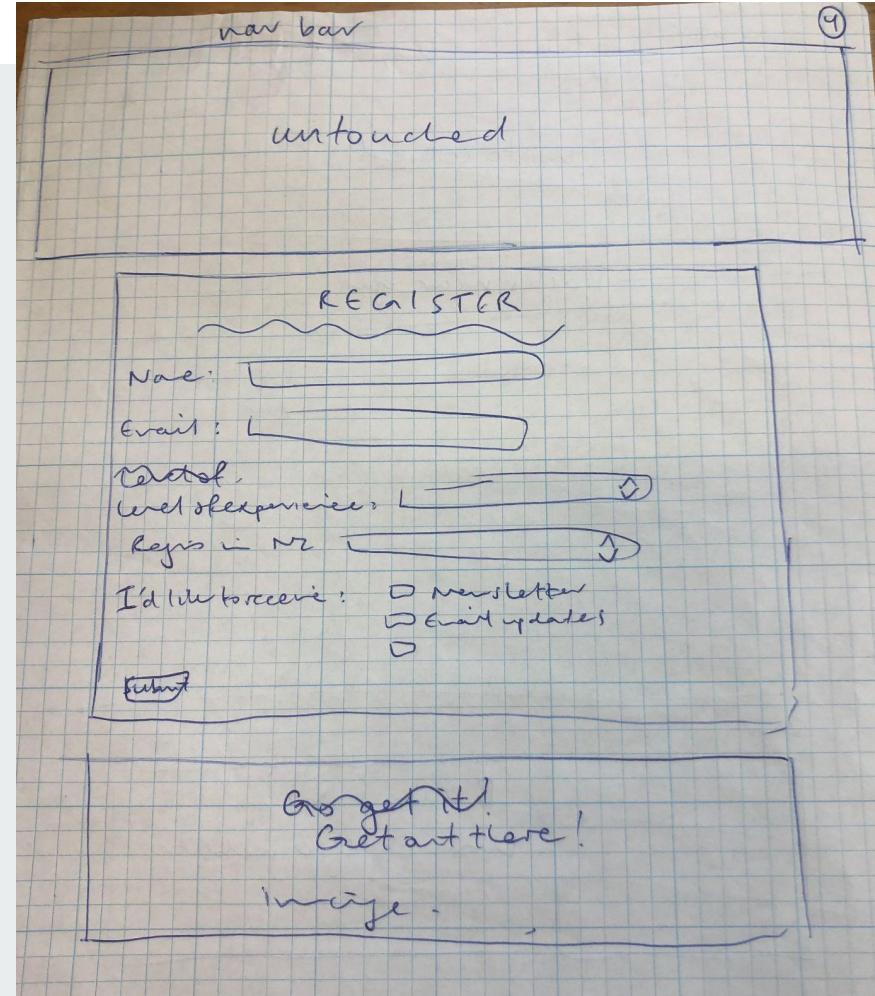
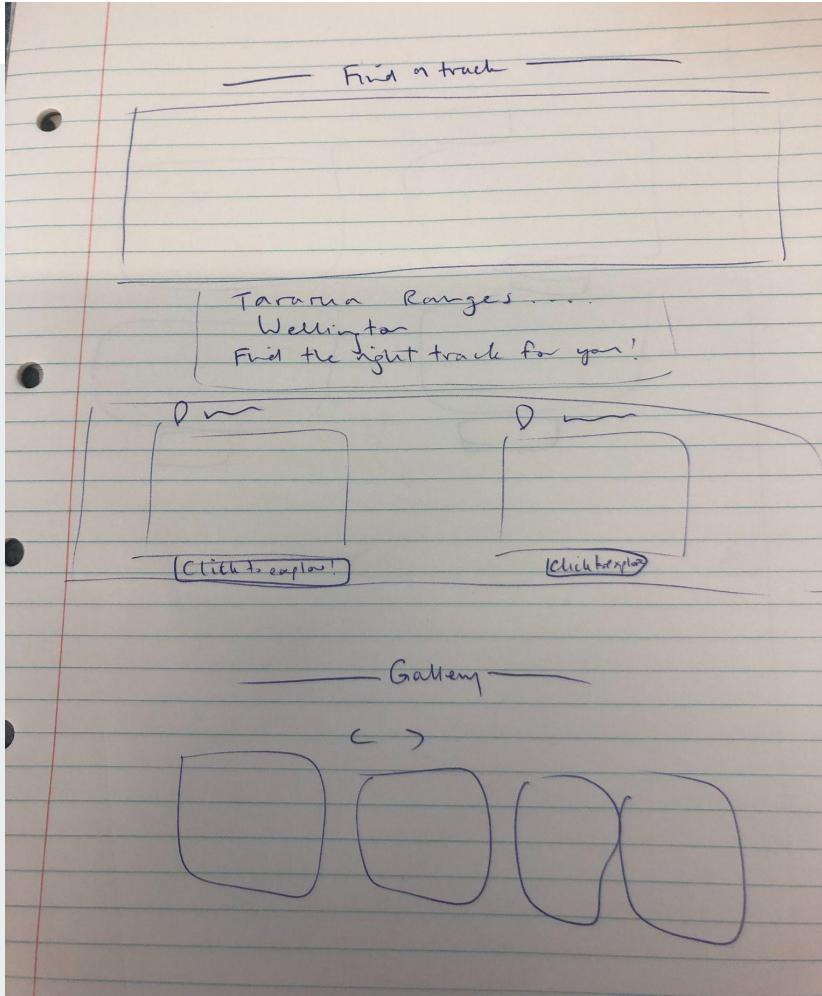
From this original version, you can see that my image choices have since changed. This was as I learnt the importance of clear, striking and colourful images to appeal to my teenage target audience.

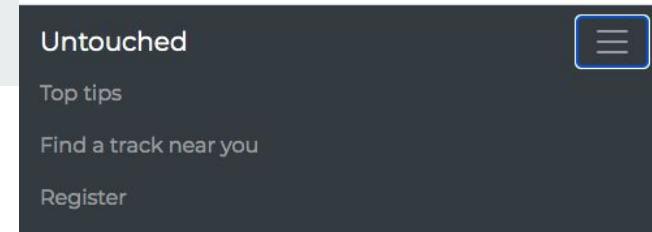


I also reduced the amount of text in my site during the development process to ensure I keep my teen-aged target audience engaged, and to present relevant information that is easily scannable.

Planning







< Dropdown navbar
(mobile-first design)

Bootstrap

I then incorporated Bootstrap classes into my site. I decided to use the Bootstrap framework (rather than just CSS/HTML). This enabled the characteristic of my webpage; its mobile-first design and responsive and fluid features. Bootstrap was a tool I used to develop the outcome, as it comes with ready-made classes to create collapsible columns, 'hamburger' menus and dropdown navigation bars which are responsive to smaller screen sizes.

This decision to use the Bootstrap framework and these mobile first design characteristics, was influenced by stakeholder feedback and completing user stories.

After talking to my stakeholder, the Wellington City Youth Council, I realised the importance of appealing to my youth target audience. These users are most likely to view webpages on a mobile phone, so it was important that my site appears consistently and aesthetically on smaller screen sizes too.

Using Bootstrap also allowed me to speed-up my design process, as I could use classes from W3Schools which I knew were already thoroughly tested and which could be adapted quickly to meet my needs.

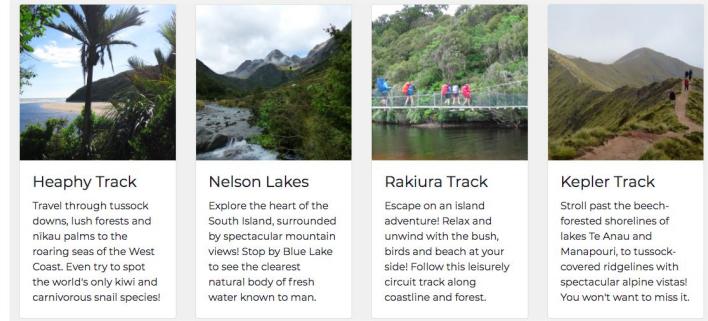
Stakeholder expectations

The stakeholder has asked for a basic site featuring:

- Information about 4 different tramps
- Engaging photography
- Introductory line to 'hook' you in
- Discussion about how to organise yourself to go on a tramp

They would like to see this as a first stage of the project.

If it works well they would like to then develop the site's technical sides more substantially, for example building an administration page, for users to subscribe to a newsletter.



Heaphy Track

Travel through tussock downs, lush forests and nikau palms to the roaring seas of the West Coast. Even try to spot the world's only kiwi and carnivorous snail species!

Nelson Lakes

Explore the heart of the South Island, surrounded by spectacular mountain views! Stop by Blue Lake to see the clearest natural body of fresh water known to man.

Rakiura Track

Escape on an island adventure! Relax and unwind with the bush, birds and beach at your side! Follow this leisurely circuit track along coastline and forest.

Kepler Track

Stroll past the beech-forested shorelines of lakes Te Anau and Manapouri, to tussock-covered ridgelines with spectacular alpine vistas! You won't want to miss it.

Sign up for free, to receive our monthly newsletter!

More tips, discount offers on gear and track recommendations right to your inbox.



Full Name:

Enter your full name

User 1 testing

Their comments:

“Can there be more interactive features?”

“Can the banner image please be smaller so it takes us less of the page?”

“I like the quote and colour scheme”

“Can you make it more professional looking?”

How I addressed this:

After receiving this feedback, I incorporated more elements that allowed user interaction. For example, an carousel banner image and gallery, to-do style packing lists with interactive checkboxes (addresses the usability heuristic of match between system and real world), and an interactive registration form (with validation to ensure I met the Usability heuristic of helping users recognise, diagnose and recover from errors).

I followed their advice and ensured the banner image only takes up $\frac{1}{3}$ of the screen.

I ensured a professional-looking site by using the same Google Font across the entire site. This ensured consistency and a more modern and professional aesthetic. The only time I didn't use this font was for my ‘Untouched’ heading in the banner, but that was a purposeful ‘branding’ choice, and added variation to catch the user’s eye immediately..

User 2 testing - Charlotte (17yrs inexperienced trumper)

Their comments:

“I think the site needs more colour”

“Change the banner image to be a brighter image”

“Make sure the page dividers have equal length lines”

“Maybe consider a tramping colour scheme with lots of green and blue”

“Use simple words and less writing”

“I like the carousel banner image and the interactive navbar which shows me when I have clicked on a link”

How I addressed this:

I decided on a colour scheme of white, grey, DOC green and blue. These colours helped to create a simple, effective and modern aesthetic, while connecting to the ‘natural’ theme of my site and allowing the user to form a connection to the colours that are found on DOC websites, signs and maps.

I adjusted the page dividers to all be the same length, and choose more vibrant and enticing banner images.

I also reduced the amount of text on my site considerably. By being purposeful about the number of characters I had in each paragraph, my cards all sat evenly, and the user was also not overloaded with irrelevant information, or too much content at once.



Relevant Implications

Functionality

The relevant implication of Functionality refers to the smooth performance of a site across different user-interfaces; browsers, screen-sizes and devices.

I addressed Functionality by creating a functional mobile-first website that has a logical user interface and program structure. Using the Bootstrap CSS framework I designed my site for ‘mobile-first’, by incorporating collapsible columns and card structures which would resize and align accordingly to screens of different widths. I also carried out extensive testing through live-posting my site on Git, using the Chrome development environment (right click for inspector) and Webaim to ensure my site functioned well on many different browsers (Google Chrome and Safari) and various screen-sizes. I tested my site’s functionality on mobile phone, laptop and desktop computer.

Accessibility

The relevant implication of Accessibility addresses a site's design and code to ensure a wide range of people can use it.

Considering the end-user and collecting stakeholder feedback, led me to address the implication of accessibility. This meant that I carried out extensive testing, such as using Webaim, Pingdom, tabbing, screen-reading etc. to ensure my site loads quickly, has good information architecture and can be tracked through easily. These characteristics are not only important to engage my target audience of 13-18 year old teenagers, but also to be considerate of users who may be colour-blind or using a screen reader due to other disabilities. To further address accessibility I used alt tags on all of my images, to ensure that a screen-reader can describe the image content to any blind users.



Aesthetics

The relevant implication of Aesthetics refers to how positive and easy a user's experience with the site, is. A site's aesthetic (visual appearance and cohesion) ultimately determines if a user 'likes' the site and will therefore not navigate away to a competitor's site.

Through consideration of my aged 13-18 end-users, I ensured that I addressed Aesthetics. I learnt from talking to users and my stakeholder as part of my development process, that teenage users are expectant of professional, simple looking sites with good contrast, consistent typography and colour schemes. This encouraged me to adhere to web design standards and principles and use the CRAP design methodology (Contrast, Repetition, Alignment and Proximity).



Contrast

- Effective when used well, to create an appealing site to the eye
- Use of both dark and light colours
- Small and large images used in contrast with each other
- Areas of white space, but also areas of no white space
- Avoid text over images

Repetition

- Ensures familiarity between the site's pages
- Website appears cohesively
- Consistency helps to build a 'brand' and site 'image'
- Consistent font type and size, and colour scheme means the site is viewed as 'a whole'
- Recurring navbar, banner carousel and header - addressed through Flask

Alignment

- Organising information to create order and to make it easy for the user to scan
- Text and images centre aligned (image and text alignment achieved through my use of the ratio tool on Photoshop)
- Implementation of columns and rows using grid structures available from the Bootstrap framework

Proximity

- Refers to the close proximity of elements of the site which are associated
- Good proximity in site architecture and design doesn't overwhelm the user with information
- Ensures a pleasant user experience
- Grouping or placing together elements which are related (rather than spreading content across the entire web space)
- Noticeable gaps between blocks of text to indicate a differentiation

Cultural and Intellectual Property

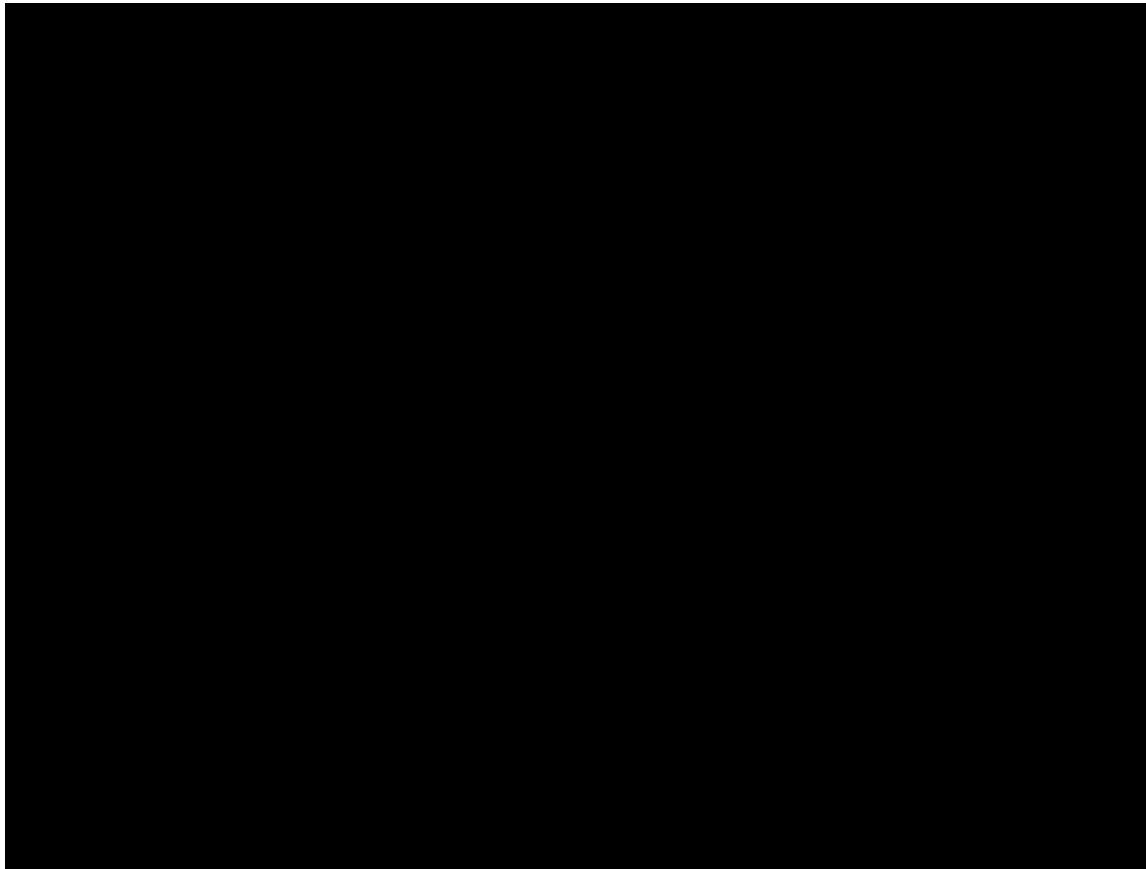
I further addressed the Relevant Implications of Cultural (addressing an inclusive, multi-cultural and sensitive site) by ensuring my site was sensitive to any Māori words having the correct macrons.

I addressed Intellectual Property by only using photos that I had sourced myself from family tramping trips. This ensured that I had the rights to use every photo that features on my site. To further ensure I considered privacy, I asked any people who featured in these images if they minded being included in my site, before publishing it live.



Testing

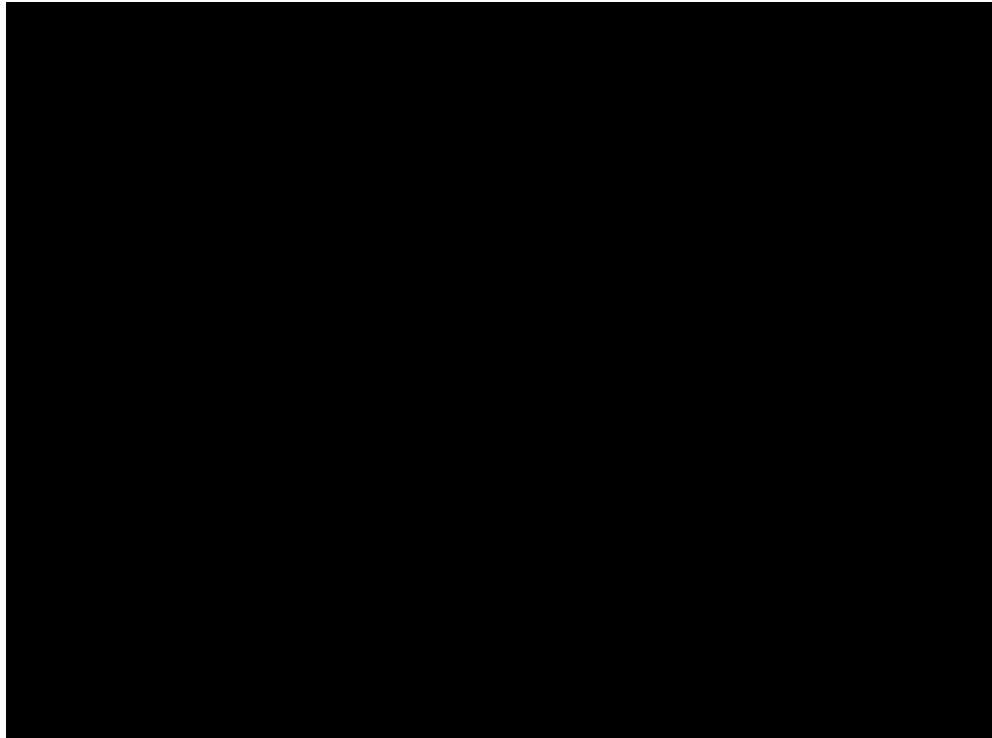
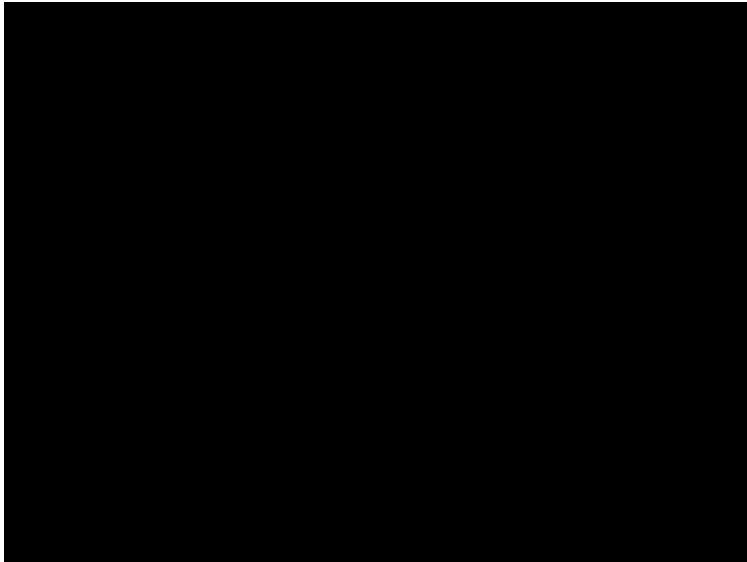
Testing collapsible features by adjusting screen size:



Testing on an Iphone screen

Final test using Chrome Development environment
IPhone6/7/8 screen size

Early test on an Iphone via Git live-post



Testing on an iPhone screen: Problems that I resolved

Problem: Form results
are not responsive to
screen-size

Solved:

Untouched

Full Name:	adlkjask
Email:	paige.martin@marsden.s
Level of Outdoor experience:	24 %
T&Cs:	I have agreed to the Tern Conditions.

Dimensions: iPhone 6/7/8 ▾ 375 x 667 100% ▾ No throttling ▾

Full Name:	jklijas
Email:	jalsk@nckah
Level of Outdoor experience:	22 %
T&Cs:	I have agreed to the Terms and Conditions.

◀ Re-enter Submit and continue ➤

Problem:
Statistics
don't resize
correctly

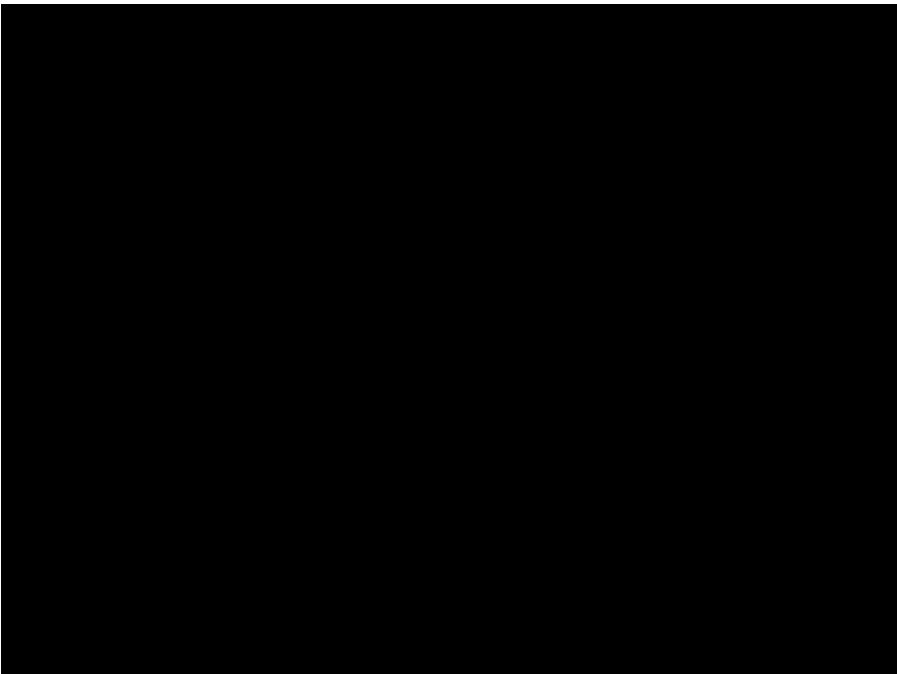


Testing load time

I undertook thorough testing of my site by live-posting the site through Git and opening it on different browsers to ensure all the images and text loaded quickly. It was important to assess the loading speed of my site (good loading speeds is a desirable characteristic of the final site). During meetings with the stakeholder, I realised that the teenage target users are expectant of high functioning sites with fast load speeds, and my own further research proved that most users will navigate away from a site unless it loads within 4-6 seconds.

In order to ensure my site has a fast-load time, I had to ensure my image selection was purposeful and that I was considerate of finding a good balance between high quality images and having low image sizes (under 150kb).

Webaim testing



Feedback:

2 Errors

2 X Empty link



1 Alerts

1 X Missing first level heading



Resolved:

```
.hide-header{  
    position: absolute;  
    top: 0px;  
    left: -10000%;  
}
```

Clean results from Webaim aside from 2 missing links:

2 Errors

2 X Empty link



9 Features

8 X Alternative text



1 X Language



2

Errors

0

Contrast Errors

0

Alerts

9

Features

12 Structural Elements

1 X Heading level 1



1 X Heading level 2



2 X Heading level 3

12

Structural Elements

0

ARIA

View details >

Heading structure of index.html - Webaim

Heading-level outline

```
<h1> Untouched
  <h2> Tramps
    <h3> Cards for each tramp
      <h4> Heaphy Track
      <h4> Nelson Lakes
      <h4> Rakiura Track
      <h4> Kepler Track
    <h3> Of all the paths you take in life, make sure a few of them are untouched
```

Structural outline

```
[body element with no heading]
  [nav element with no heading]
```

```
Untouched
  Tramps
    Cards for each tramp
      Heaphy Track
      Nelson Lakes
      Rakiura Track
      Kepler Track
```

Of all the paths you take in life, make sure a few of them are untouched

12 Structural Elements

- 1 X Heading level 1
 -  
- 1 X Heading level 2
 -  
- 2 X Heading level 3
 -   
- 4 X Heading level 4
 -     
- 2 X Unordered list
 -   
- 1 X Navigation
 -  
- 1 X Footer
 -  

W3 Code Validator

I also decided to use W3 code validator to test my site and troubleshoot for errors. This ensured my site had the characteristic of valid markup and clean code. Stakeholder feedback suggested that after I have designed my site, the Wellington City Youth Council would like to see a potentially shippable product with 4 pages, but that can still be adapted and expanded if they want to in the future. Having clean code helps future developers to understand my code and to build more features.

Home Page

Nu Html Checker

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

Showing results for contents of text-input area

Checker Input

Show source outline image report Options...

Check by text input CSS

```
<!DOCTYPE html>
<html lang="en">

  <head>
    <title>
      Untouched
    </title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

Document checking completed. No errors or warnings to show.

Top Tips Page

Nu Html Checker

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

Showing results for contents of text-input area

Checker Input

Show source outline image report Options...

Check by text input CSS

```
<!DOCTYPE html>
<html lang="en">

  <head>
    <title>
      Top tips
    </title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

Document checking completed. No errors or warnings to show.

Find Track Page

Nu Html Checker

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

Showing results for contents of text-input area

Checker Input

Show source outline image report Options...

Check by text input CSS

```
<!DOCTYPE html>
<html lang="en">

  <head>
    <title>
      Find a track
    </title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

Document checking completed. No errors or warnings to show.

Register Page

Nu Html Checker

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

Showing results for contents of text-input area

Checker Input

Show source outline image report Options...

Check by text input CSS

```
<!DOCTYPE html>
<html lang="en">

  <head>
    <title>
      Register
    </title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

Document checking completed. No errors or warnings to show.



Iterative Improvement

Agile planning and development methods

During the development process, I used Scrum techniques to tackle the project using a Sprint system; where I reviewed my site (it's successful features, what needs to be improved, and next steps) after each new feature was added. I made a new Sprint for each new feature.

I also used Kanban planning boards to organise the tasks I needed to accomplish.

The image shows a digital Kanban board with the following structure:

- Project Backlog - Untouched webpage**
Updated 2 minutes ago
- To do** (6 cards):
 - Sprint Six: Interactive map
 - More stakeholder feedback and end-user testing
 - Sprint Five: Packing list
 - interactive to-do style checkboxes (like real-world)
 - Extensive testing: Webaim, Pingdom, W3 code validator, Git
- In progress** (3 cards):
 - Chrome development environment (right click for inspector) to trial dif screen sizes
 - Sprint Four: Carousel banner image
 - resize images on photoshop
 - trial in a separate file
 - Sprint Three: Cards
 - resize card images on photoshop
 - use bootstrap to create responsive cards
 - minimise the amount of text to have approx same number of characters
- Done** (3 cards):
 - Sprint Two: Home page
 - hero image
 - basic navigation bar
 - footer and heading
 - Sprint One: One page site without any styles
 - all content (text and images) on the page (organised into relevant sections)
 - basic information architecture by h1,h2 etc. headings
 - Meet with Stakeholder and create User Stories

A search bar at the top right says "Filter cards".

Examples of iterative improvements:

Use of Semantic html:

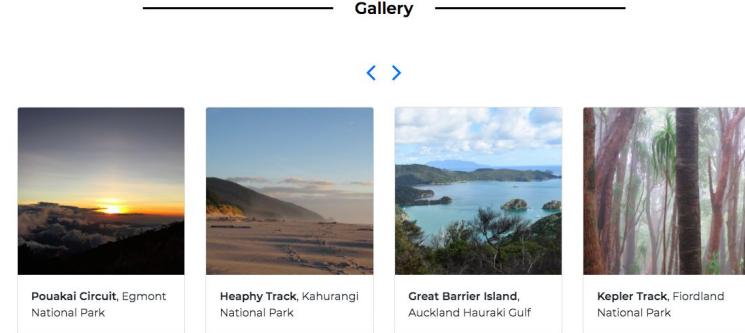
I realised that my code contained too many `<div>` tags so it became confusing for any future programmers to adapt and understand my code. I decided to replace the `<div>` tags with more specific semantic html tags. For example, `<nav>` `<header>` `<section>` and more, to improve accessibility, and as I gained a greater understanding of HTML.

Using H tags appropriately:

I originally used H1,H2 etc. headings in order to print text of different sizes. However through the development process I learnt that these Heading tags serve a greater purpose; creating the architecture and structure of the page. I also gained a greater understanding of how to style text through a style sheet instead (and adjust font-size that way). I now use H tags to define the structure of the page and to organise the information, and all text styling and sizing is defined by CSS.

One iterative decision I had to make, was how to display my gallery.

Option A



Option B



I chose Option A as it is the more interactive and engaging way of displaying my images. I ensured my gallery was on an automatic rotation to catch the users eye and seem sophisticated and professional.

Option A col-md-6

September's Top 4

Heaphy Track	Nelson Lakes	Rakiura Track	Kepler Track
Travel through tussock	Explore the heart of the	Escape on an island	Stroll past the beech-



Another iterative decision I made was choosing at which stage to let my columns collapse and form another row (go from 4 columns to 2 columns across). I was using Bootstrap's Grid System to create my columns, and explored different grid options in my development process.

Both of these screenshots are from the point right before the columns collapse from being 4 across, to 2 across.

Option B col-xl-6

September's Top 4

Heaphy Track	Nelson Lakes	Rakiura Track	Kepler Track
Travel through	Explore the heart of	Escape on an island	Stroll past the beech-



Option A (max-container width of 720px col-md) meant that my headings and text became too condensed and the column width only fit a couple of words on each line. I decided this didn't look as professional as I wanted, and also made reading the information difficult.

For ease of reading and aesthetics, I decided that Option B, where the columns collapse once the screen size goes below 1140px (col-xl), created the best visual user experience.

Flask

I improved my development process and final outcome, by using a more advanced templating system, Flask. Flask allows my site to be expanded and templated more easily.

Firstly, in order to use the Flask framework I had to create a separate stylesheet containing all of the styles that are applied on the 4 pages of the site.

Through Flask I was able to avoid repetition of big sections of code for features that are repeated on all 4 pages. For example all of the style and scripts, nav bar, carousel banner image and footer could be stored in a main_layout file.

I could then use each page's individual file for code of unique features only. I could change these 'repeated' features to be unique on each page too, for example changing the carousel banner image to start on a new image for each different page and for page titles to be unique to their respective page.

```
<!-- end of nav and carousel -->
```

```
{% block content %} {% endblock %}
```

```
<!-- Footer -->
```