



MA Web Design and Content Planning

Major Project

Nepal Trails



Name: Pravin Ale

Student ID: 001494451

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Abstract

Nepal Trails is a responsive web application that is developed to explore the trekking areas in Nepal. Its website aims to primarily serve beginner trekkers, with the provision of information on popular treks, difficulty level, duration, seasons, height, packing tips, emergency tips and interactive maps.

Developed with WordPress CMS, PHP backend, HTML, CSS, JavaScript and GSAP animations for an engaging user experience. Dynamic content management was implemented using Advanced Custom Fields (ACF) so that the content of trekking information can be updated without changing the source code.

The website also has an interactive map for every trekking route, enabling trekkers to see the entire trail and make-up of trekking points like villages, viewpoints, lakes, and mountain passes. GPS route data was transformed from GPX files into a GeoJSON format and was visualized with the Leaflet.js mapping library, which is easy to understand and is a great tool for navigation during the trek. Responsive design will make your website accessible to desktop, tablet and mobile devices.

The project is to create a learning and user-friendly platform to make the trekking preparation easier and help promote tourism in Nepal. The responsive design, dynamic content management, interactive mapping, and accessibility principles are all integrated into the application, showcasing the modern approaches of web development, as Nepal Trails does.

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Concept

Initial Idea

My Concept

The inspiration for Nepal Trails first originated from my personal passion of trekking and seeing the natural beauty of Nepal. Nepal is famous for its Himalayan mountains and trekking areas but finding information which is clear, organized and easy to access about these areas was not easy.

A lot of the existing trekking and travel web pages are mainly commercial, that is, they sell trekking packages, trekking tours, trekking accommodation, or any other travel service. These sites are helpful to plan and book trips, but didn't think it was necessary to have a site dedicated to educating and informing about trekking destinations in Nepal more specifically.

So, I thought it's a good idea to build a site which gives some helpful facts and information about the regions of Nepal, destinations, routes, level of difficulty, altitudes, seasons, and other related information with trekking. The web site wouldn't be restricted for experienced trekkers or those who are already planning a trek. Rather, it would also be created for those who are just interested in learning about the Himalayas of Nepal and the possible destinations.

The prime goal of the project is to inform the users about Nepal's trekking areas prior to the decision-making process to visit or to go trekking. Nepal Trails will encourage people to discover Nepal's Himalayan regions, and also help them to make better informed decisions about their trips.

Thus, the idea of a trekking platform, in fact not a trekking website where the focus is more on

Feedback

I got positive comments regarding the overall concept during the development process of the Nepal Trails project. The concept of developing an educational and information trekking site was found useful and relevant, especially due to its emphasis on information rather than primarily on the commercial aspect of trekking.

I did get a few ideas and questions from other people though that I used to make the project even better and even make it clearer. The most common feedback mentioned related to the information found on the website and its sources and reliability. Went to read the information on trekking in multiple sources and made it clear where the information is from. Since information could be gathered and checked from other sources, I was also advised to put a disclaimer which states that the website is for general informational and educational purposes and that the conditions in which trekking takes place can change.

Images and visual content were another key aspect of feedback. I was told not to just search for images on Google or to copy images from other sites, as they are copyrighted. Rather, I was encouraged to use my own photos or photos that are original and have the proper licensing for use where possible.

I also got tips to add an interactive or integrated map to show the geographical areas of trekking routes and destinations. This will make the website more useful and help in understanding the location of different trekking routes in Nepal.

At first, I thought to add many trekking places and area in Nepal. But it was suggested that if I had taken just one trek area to do more development on the project than it would be more focused and manageable. This would help me to study the chosen area in greater detail and give more informative and detailed information.

Last but not least, I was told that the sharing of first-hand information and accuracy matters. While much of the information I could find online was helpful, I was urged to talk to people who have trekked and learn what they have experienced and how they have gained insights from their trek. This may give a more authentic idea of what it's like to trek, what it's hard to do, how it's prepared, and what it's like from the point of view of real trekkers.

Overall, the feedback enabled me to identify some areas which would need to be improved in the project, mainly with regards to reliability of information, copyright and image usage, geographical representation, project scope and first-hand research. These suggestions, in turn, guided a number of decisions made late in the Nepal Trails project.

Response to feedback

The main issue faced in research and feedback was the lack of information on the trail of Nepal, which is clear, organized and reliable. There are lots of trekking, travel websites there but a lot of this information is about services like booking packages, accommodation and prices, etc. It can be challenging for the novice or independent hiker to locate the practical information they need in one location.

I was able to obtain some content from people who have personally been on a trek in Nepal, such as friends who have run more than one trek and trust that they would be reliable sources of such information. The experiences helped me to learn some practical information on trekking which may not always be clear in commercial websites. I also referred to websites for trekking and travelling for research of destinations and comparison of information. Photos for visual content: I used the photos given by the people who have firsthand experience in trekking and also images from Unsplash where images can be used under their license conditions.

Final Idea

Problems the project solves

Nepal Trails is an attempt to address these issues by offering a very modern, easy-to-use and user-friendly informational trekking site. The website is not just about offering the package for trekking; it is also about providing understanding about a destination and preparing for a trek.

The major issues tackled in the project are:

- **Lack of organized information:** Trekking information may be distributed across various websites and sources. Nepal Trails is to compile the important information at a single point.
- **Existing websites with a commercial focus:** Many trekking websites are designed for the commercial aspect of their website, such as tour and service selling. Nepal Trails' main business is not to sell trekking packages, but to educate, inform and guide.
- **Information overload:** Novices may struggle to comprehend technical trekking information. The site has a clear, simple structure and language.
- **Confusing trekking routes:** An interactive map can help users to better understand the location and the path of a trek.
- **lacks in practice information:** The site's goal is to give information on the local people and places, food, accommodation, facilities available, safety, emergency information, altitude and many other useful aspects of trekking.
- **Challenge in planning as a novice or solitary hiker:** The site can compile key information and present it to the user, allowing him or her to make informed choices before heading out on a trip.

Value Proposition

The USP of Nepal Trails is its informative, simple and clean guide for trekking in Nepal to minimize any confusion among beginners. It's not a site designed to entice visitors to buy a specific trekking service; it's a site that offers clarity, safety, and preparation information and practical information.

The platform is designed to make available some useful information including:

- Trekking routes and interactive maps
- Difficulty levels
- Altitude information

- Recommended seasons
- Estimated cost ranges
- Equipment and packing guidance
- Permits and important requirements
- Safety information and emergency guidance
- Accommodation and facilities
- Local food, culture, people, and places
- Practical information for beginners and solo trekkers

Unique Selling Point (USP)

Nepal Trails' unique selling point is its friendly, beginner-friendly and non-commercial approach. Nepal Trails is an informational and educational site, unlike websites that are just selling trekking packages.

The project focuses on:

- **Beginner-friendly information** presented in simple language
- **Easy navigation** and a clean, modern interface
- **Information rather than sales**, without focusing on tour packages or upselling
- **Safety-first content** with clear guidance for preparation and responsible trekking
- **Interactive geographical information** to help users understand trekking locations and routes
- **Practical local information** to give users a better understanding of the places they may visit

In summary, Nepal Trails exists to simplify the task of newcomers to trekking in Nepal by compiling all the necessary information in an interactive, accessible and understandable website. The purpose isn't only to simply inform users of where to go, but rather to educate the users of the destination and enable them to make informed decisions before starting out on their adventure.

Project Goal

Nepal Trails is mainly focused on establishing a modern, educative and user-friendly trekking information website that can introduce people to the trekking destinations in Nepal before they start planning and going trekking. The project aims to offer information that is meaningful and structured, and less on the commercial trekking services.

One of the main objectives of the project is bringing the information of trekking to people's easier understanding, especially for the beginners and independent or single trekker who may have little experience of trekking in Nepal. The website strives to present information in simple language, provide easy navigation and include an organized layout, to ensure users can locate relevant information without needing to trawl through several websites.

The objective of Nepal Trails is to give the details about treks, destinations, difficulty level, altitude, recommended season, accommodation, facilities, local food and culture, safety, emergency, and other aspects of trekking. Interactive map features are also included to give users a better understanding of geographically where a trek is and where it is going.

Another key aim is to supply information that's as useful and accurate as possible. Aside from the investigation of the available information online, the project relies on knowledge and experiences acquired from individuals who have already completed trekking routes. This helps give a realistic idea about what you can expect on the trek!

The project also seeks to raise awareness of Nepal's Himalayan destinations, enabling users to explore and learn about the various destinations before coming to Nepal. Nepal Trails is not just about booking a trek, it's about educating, preparing, staying safe and making an informed choice.

In general, Nepal Trails aims to provide an interactive, easy-to-navigate and user-friendly platform, which would help to make information about trekking in Nepal more accessible and comprehensible, and to inspire people to explore Nepal's natural and cultural diversity responsibly.

Research

Research for ideas

Prior to developing Nepal Trails, I conducted research to gain insight into the current trekking and travel websites, what information they offer, and what the needs of those interested in trekking in Nepal were. This study aimed to uncover the flaws with the current platforms and identify avenues for developing a website with a different, user-centric approach.

In addition, I studied current trekking sites, travel sites, online articles, maps, images and information about popular trekking sites in Nepal. I spoke with friends who had already made several treks and learned about trekking experiences. Their first-hand accounts of routes, lodging, food, facilities, preparation, level of difficulty and overall experience on the trekking route were helpful for understanding the practicalities of trekking.

One of the principal results on which my research has led me to believe is that a good deal of the information on the web that is related to trekking is linked to commercial trekking firms. While these websites usually offer good information, they are mainly used to offer and sell trekking packages, guides, accommodation and other travel services. This is what was behind my choice of developing Nepal Trails as an informational and educational site instead of a commercial booking site.

I also did a bit of research to see how the information on trips is normally presented online. I found that in many instances the information could be found in more than one page or site, which can make it hard to explore, particularly for novices. This got me thinking of making a simple design that allows me to have lots of relevant data about a trek displayed in one place.

The research also influenced several design decisions. I identified the importance of:

- Simple and easy-to-understand language.
- Clear and straightforward navigation.
- Well-organized trekking information.
- Interactive maps and route information.
- Information about difficulty and altitude.
- Seasonal and weather considerations.
- Accommodation and available facilities.
- Local food, culture, and places.

- Safety and emergency information.
- Practical guidance for beginners and independent trekkers.
- Original or appropriately licensed visual content.

Overall, the research enabled Nepal Trails to set a direction and gave a foundation for design and development decisions taken during the project.

Competitors

In this research I reviewed a number of the websites that already exist in the travelling and trekking market to gain an understanding of their strengths and weaknesses as well as their visual presentation, navigation, content and overall user experience. Competitor research was also crucial as it gave me an idea of what is successful on platforms already in place and what Nepal Trails could offer that was different. They were trekking companies, travel sites and information sources offering information on trekking destinations in Nepal. I was especially interested in the way they describe trekking routes, difficulty, price, and travel arrangements, as well as maps, photos, and other practical information.

Commercial Trekking Websites

There are many different websites for trekking companies that offer specific information on individual trekking packages, such as itineraries, duration, costs, accommodation, transportation, guides, permits, etc. These websites can come in handy when the individual is ready to make a trek booking. Most of the time, though, their content is geared toward a specific package or service. This was useful to me in understanding an important area of difference for Nepal Trails. Nepal Trails does not push for any particular package; instead it aims at making users familiar with a trek and to do research about it before deciding on which package to go for.

Travel and Tourism Websites

There are general travel and tour websites which give information about Nepal and the things to do in Nepal including trekking places. Have a broader selection of content including hotels, restaurants, attractions, activities, and travel services. But, sometimes the trekking information is not their top priority. From this research I came to the conclusion that Nepal Trails should include more specific trekking information, and present more detailed information based on practice.

Competitor Analysis

The competitor analysis provided me with a list of some of the similarities of current websites:

Area	Existing Websites	Nepal Trails Approach
Main purpose	Often commercial or booking-focused	Informational and educational
Information	Frequently spread across different sections	Organized into clear sections
Target users	Often tourists or customers booking packages	Beginners, trekkers and general visitors
Language	Can contain technical or detailed information	Simple and accessible language
Navigation	Can contain many menus and options	Simple and easy navigation
Maps	Varies between websites	Interactive map as an important feature
Local information	Often limited or secondary	Includes local places, food, people and facilities
Pricing	Often focused on package prices	Information can include cost ranges without making booking the main purpose

The competitor research consequently helped define the special niche of Nepal Trails. The project doesn't aim for direct competition with trekking packages offered by trekking companies, but rather to ensure that people can easily access clear and useful information that allows them to research a destination on their own.

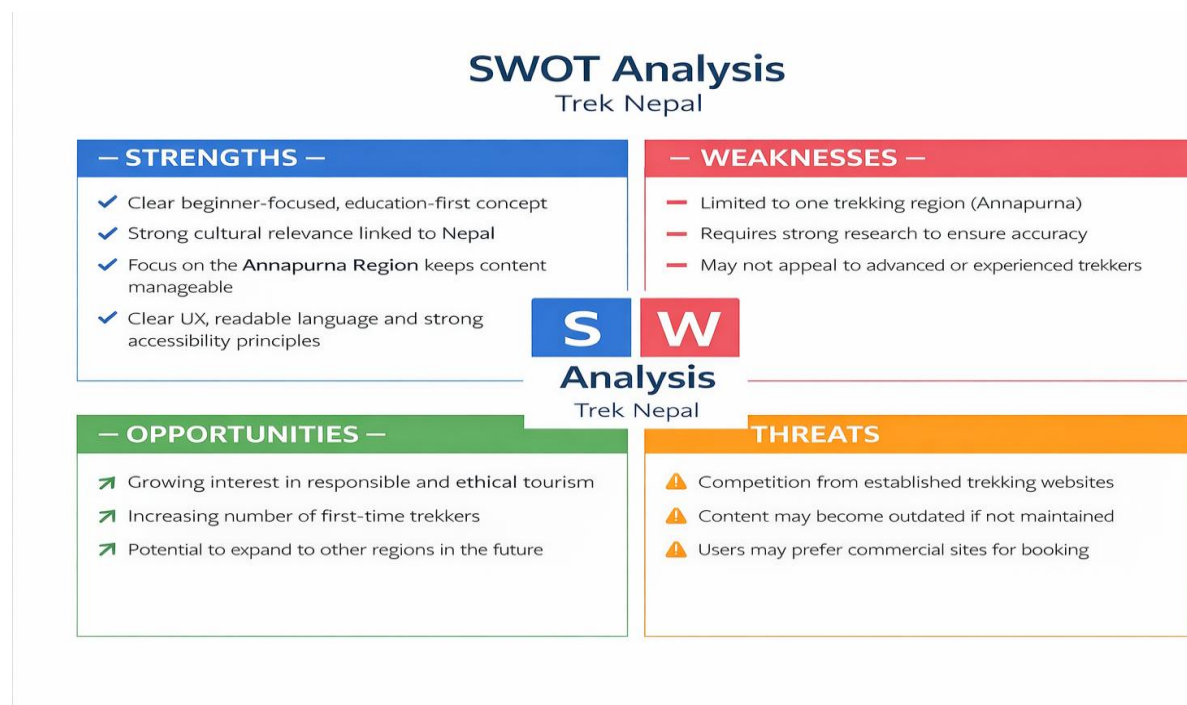
The design of the website also went through changes and revisions based on this research. I wanted Nepal Trails to be something that was modern, clean, and easy to use, with clear sections of information, easy navigation, easy-to-read text, and interactive features, so that visiting the site to explore trekking information was more interesting.

Crits Summary

Crit-1 Concept

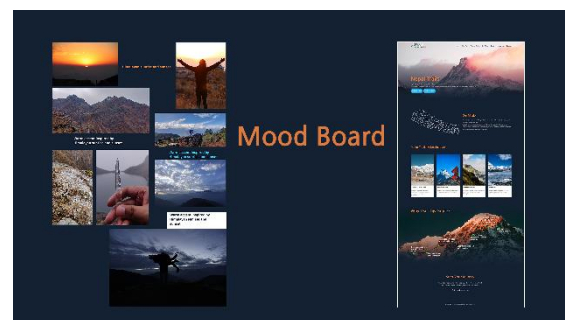
The first critique focused on establishing the overall direction and purpose of the trekking website. The feedback supported developing a **beginner-focused platform** that provides clear, accessible, and honest trekking information for first-time international trekkers. It was identified that many existing trekking websites are mainly sales-driven and often assume that users already have some knowledge or experience of trekking. This can make it difficult for beginners to understand trek difficulty, preparation requirements, and realistic expectations. The project was therefore positioned as an education-first platform that helps users make informed decisions while encouraging responsible and respectful trekking in Nepal.

The critique also helped define the project's **target audience, content direction, and wider purpose**. The website was aimed primarily at international first-time trekkers aged 18–40 rather than professional mountaineers or tour operators. The content would focus on clear trek overviews, preparation guidance, cultural awareness, responsible tourism, and simple visual communication. The feedback also highlighted the personal importance of the project, as it connects with my interest in Nepal and trekking while allowing me to develop skills in UX research, information architecture, accessibility, and digital design. Overall, Crit 1 established the foundation for the project's user-focused and educational approach.



Crit-2 Brand Design

The second critique focused on establishing the initial **brand identity and visual direction** of Nepal Trails. At this stage, the branding was considered an early iteration rather than the final design, with the main focus on defining the project's tone, typography, color palette, layout, and overall visual style. The brand was designed to communicate guidance, clarity, authenticity, and cultural awareness rather than the marketing-focused style commonly associated with commercial trekking websites. A dark background (#142132) was selected to create a calm and focused atmosphere, while soft grey text (#D8D8D8) was used to support comfortable reading. Sky blue (#38BDF8) was chosen for interactive elements, and a warm Himalayan-inspired orange (#E07A3F) was used for headings to add warmth and contrast.

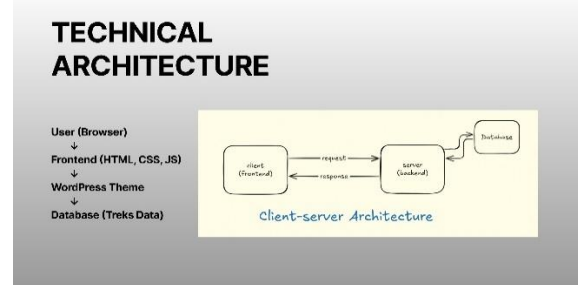
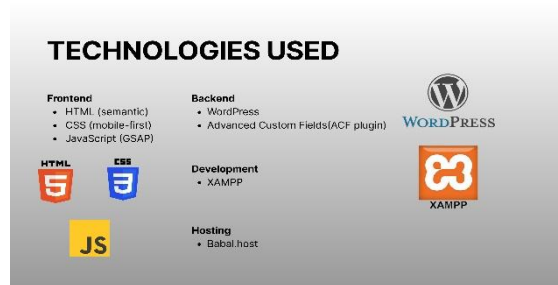


The critique also established the visual and UX principles that would guide further development. **Nanum Gothic** was selected for headings because of its clean and structured appearance, while **IBM Plex Sans** was chosen for body text because of its readability across digital devices. The layout uses intentional white space and clearly separated sections to reduce cognitive overload and make information easier to scan. Photography is intended to show authentic trekking experiences rather than create a commercial travel aesthetic, while icons and maps help users understand important information quickly. The initial logo uses a simple mountain reference connected to trekking, and the mood board establishes a visual direction based on natural tones, warmth, and Himalayan environments. Overall, Crit 2 provided the foundation for the visual identity and design system while leaving room for further refinement through testing and development.

Crit-3 Technical Planning

The third critique focused on the **technical planning and architecture** of Nepal Trails. The project was planned as a mainly content-driven website containing both static and dynamic content. Static content includes pages such as the homepage, safety information, and general trekking guidance, while dynamic content is used for individual trek pages containing structured information such as difficulty, duration, altitude, and other trek details. WordPress was selected as the backend content management system, with Advanced Custom Fields (ACF) used to

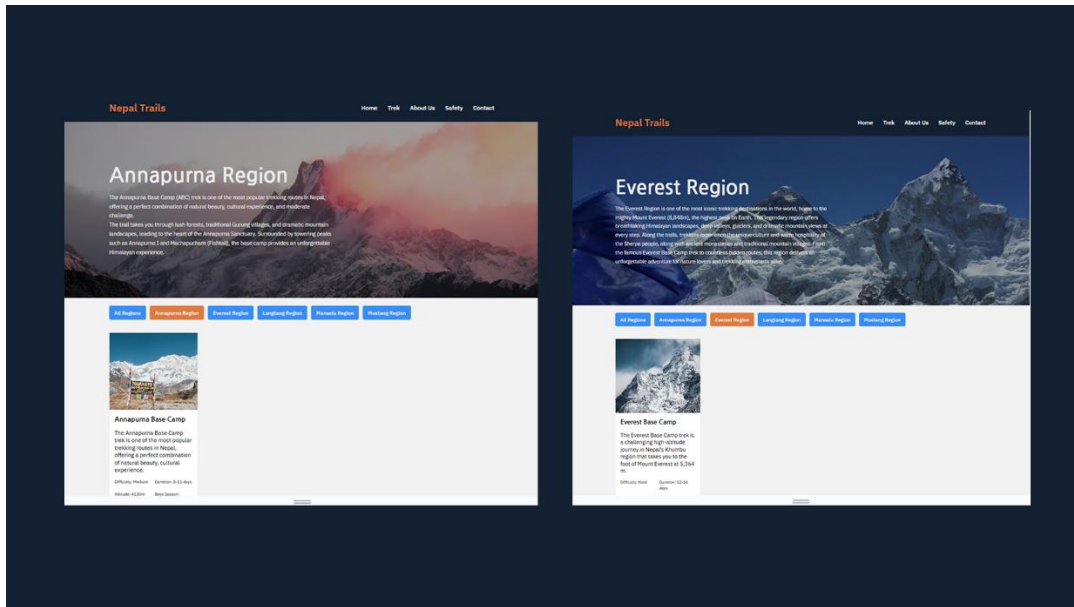
structure and manage trek information consistently. This approach allows new trekking destinations to be added or existing information to be updated without making changes directly to the website code, making the system more maintainable and scalable.



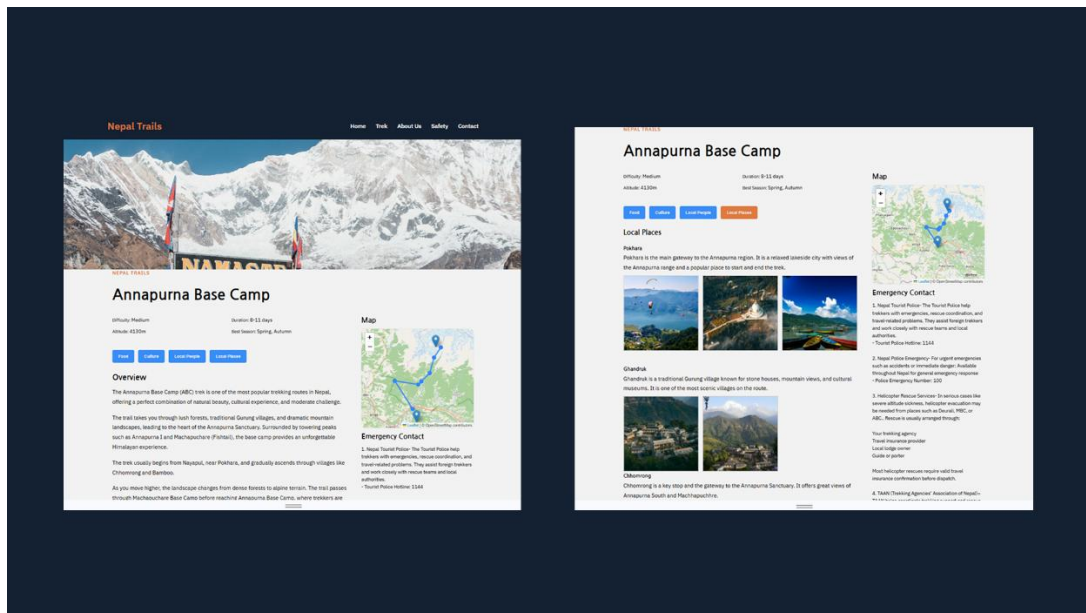
The critique also considered **users, accessibility, performance, technologies, and system architecture**. The website is designed for international, non-international, and beginner trekkers, with a mobile-first approach because users may access the website while travelling. Lightweight pages and optimized content were considered important for users with slower internet connections. Clear typography, simple navigation, semantic HTML, and responsive design were also planned to improve accessibility and usability. The frontend uses HTML, CSS, and JavaScript, while WordPress manages the dynamic content and ACF manages structured trek data. Development was carried out locally using XAMPP. The overall architecture separates the frontend, WordPress backend, and database, allowing content and design to remain organized while making the website easier to maintain, update, and expand in the future.

Crit-4 Prototype

The fourth critique focused on the **prototype and overall user experience** of Nepal Trails. The prototype demonstrates the main structure of the website, including static pages, region-based trekking pages, individual trek detail pages, and the main navigation system. Although the website was still under development at this stage, the prototype clearly demonstrated the intended design direction and user experience. The main focus was on usability, consistent layouts, clear navigation, and strong visual presentation. The prototype was developed using WordPress with a custom theme, HTML, CSS, and JavaScript, with Advanced Custom Fields (ACF) used to manage structured trekking information such as difficulty, altitude, and itinerary details.



The prototype also demonstrated the integration of **Leaflet.js for interactive maps**, helping users better understand trekking locations and routes. The website was designed to be fully responsive across desktop, tablet, and mobile devices. The critique also considered the design principles of **commodity, firmness, and delight**. Commodity refers to ensuring that the website is useful and practical for its intended users; firmness focuses on creating a clear, consistent, and reliable structure and navigation system; and delight focuses on providing an engaging and visually immersive experience. These principles helped guide the final development of Nepal Trails and maintain a balance between functionality and visual design.



UX Research

Target audience

The main target group for Nepal Trails are first time trekkers and trekking beginners, especially international trekkers interested in trekking in Nepal but with little prior knowledge or experience of Nepal's trekking routes.

The website is primarily for individuals in their 20's to 40's who are looking at trekking in Nepal. The site may be useful to anyone, however, for experienced trekkers, independent travelers and those interested in learning about the Himalayan regions of Nepal.

The target users may be with different levels of trekking experience but the main target is beginners. They will probably want details regarding trekking difficulty, altitude, routes, seasons, accommodation, food, facilities, safety, preparation and emergency. They might also wish to learn some of the local environment, culture, and communities, prior to their visit.

User Persona

The personae I created made it easier for me to make my design and content choices based on the needs of a realistic target user instead of only my own. I could imagine what it is like to do this as a beginner like Jenny, and what information and features would be best to look into and prepare for a trek. The persona also enabled me to focus on the practical information.

The information which was emphasized included trek difficulty, altitude, duration, trek itinerary, accommodation, food, facilities, safety and emergency considerations, since a first-time trekker is likely to consult these before deciding. Interactive maps were also provided for the users to gain a sense of geographical position and direction, rather than just relying on description.

JENNY HATHAWAY



 **Age:** 31

 **Occupation:** Travel Blogger

 **Location:** Sydney, Australia

Primary Goal: Plan a trekking trip to Nepal that is well-informed, visually inspiring, and easy to understand.

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EMPATHY MAP

SAYS

- "I want to know what to expect before I go."
- "Good visuals really help me decide."
- "I need clear travel and cultural information."

THINKS

- Is this trek worth the time and effort?
- Will I feel prepared as a foreign visitor?"
- "I want a smooth planning experience."

JENNY HATHAWAY
Empathy Map

FEELS

- Excited about travel and exploration
- Slightly anxious about logistics and unfamiliar locations
- Inspired by strong visuals and stories

✓ DOES

- Browses trekking websites and travel blogs
- Looks at photos, itineraries, and reviews

DOES

- Browses trekking websites and travel blogs
- Looks at photos, itineraries, and reviews
- Saves useful pages for later reference

User Journey Map

User Journey Map for Jenny Hathaway

Stage	User Actions	Pain Points	Opportunities for Website
Discovery	Searches for trekking destinations	Too much scattered information	Create clear overview pages
Inspiration	Looks at images and trek stories	Hard to visualize the experience	Use high-quality images and summaries
Understanding	Reads trek details and requirements	Unclear logistics for tourists	Add travel tips and FAQs
Planning	Saves information for later	Information spread across pages	Provide structured content sections
Confidence	Decides on a trek	Needs reassurance	Use clear explanations and guidance

Design

Branding

Nepal Trails’ branding has been created to capture the essence of the natural environment in Nepal, yet to be modern and educational. The visual approach includes dark backgrounds, warm hues inspired by the Himalayas, sleek typography and minimalist layouts. The brand was designed to convey the messages of trust, exploration, clarity and connection with the Himalayan environment.

Color

The color is chosen to provide balance between calmness, readability, warmth and visual contrast. Overall, the primary color is likely a warm shade like orange, red, or yellow, which helps to evoke a sense of warmth and nature in the overall design. The dark background is used to provide a sense of depth and contrast, making the text and images appear more prominent and interesting.

Color	Hex Code	Purpose
Primary	#E07A3F	Headings, highlights and important visual elements
Primary Hover	#C66B36	Hover state for primary elements
Dark Background	#142132	Main dark sections and background
Light Background	#F2F2F2	Light sections and content areas
Light Text	#EEEEED	Text displayed on dark backgrounds
Dark Text	#1E1F21	Text displayed on light backgrounds
Button	#388DF8	Interactive buttons and calls to action
Button Hover	#C66B36	Button hover state

The background features a dark hue, creating a sense of depth and focus, with the light text elements adding contrast and clarity. The primary color is orange, which helps to add warmth and bring a sense of the natural environment to the foreground of the image. Buttons have a clear visual indicator in blue.

The colors are also used consistently throughout the interface to make it easy for users to identify headings, buttons, links and other interactive elements.

Typo

Typography was chosen for readability and uniformity on various screens. Body text and paragraphs are primarily displayed in **Red Hat Display**.

The font itself looks clean and modern, which is suitable for digital applications. It is easy to read and has a modern look to it, like the other Nepal Trails products. Typography was also used to create clear visual hierarchy between the headings, subheadings, body text, buttons and supporting information. This enables users to scan a lot of trekking information more easily.

Logo

The Nepal Trails logo was created with simplicity, mountains and exploration in mind. The Himalayan context of the mountain is directly linked to the Nepal context and the primary objective of the website. The logo doesn't appear too commercial or detailed. Rather, the website's educational and informational identity is bolstered by its simple visual structure. The logo also must look good when scaled up or down, such as when it is used on smaller screens, like a mobile device, and in the site navigation.



Visual

Nepal Trails' visual design is centered on the clean and organized interface, enabling information to be the focal point.

The key visual design ideas are:

- **Clear space** – White space helps to avoid crowding in the user interface and makes the content more readable.
- **Clear visual hierarchy** – Different sizes of heading, spacing, and imagery helps the user decipher the importance of the different bits of information.
- **Structured/Sectioned** – Information is organized logically into sections for easier scanning and locating specific details for information.

- **Minimal decorative elements** – Educational elements should be the focus and decoration is kept to a minimum.
- **Authentic imagery** – Images are used to create context and help users understand the landscapes, places and experiences of trekking.

UI

Layout design

The interface was built mobile first, it was designed first for smaller screens and then adapted to the larger screen sizes. This was significant as users can access trekking information from their smartphones on the go.

Mobile-First Layout - The mobile design focuses on key information and streamlines the menus. Content blocks are vertically stacked in order for users to scroll naturally without having to interact with the content in complex ways.

Adaptive Layout - The web site is responsive, adjusting content and components to fit various screen sizes. The layout adapts suitably for the mobile, tablet and desktop space and ensures consistent spacing, typography and hierarchy.

Consistent Navigation - Consistent navigation, ensuring users know how to navigate the site and between pages and sections. The main navigation will be used to access key sections of the site, but not become too complicated.

Structured Content Blocks - Trekking information is broken down into easily digestible content blocks. Important data like difficulty, duration, altitude, itinerary, accommodation and other trek information can be broken up into sections, for example. This helps with scanning and comprehension of the vast amount of information.

Prototype

This prototype was created to experiment with the proposed design as an interactive website. It covered the main navigation, homepage structure, trekking region pages, individual trek pages, content sections and interactive features. The prototype was used to test the overall layout, visual hierarchy, navigation and user experience, both prior to and throughout the development of the final website. It also aided in highlighting areas that required improvement, including spacing, the organization of content, responsive behavior and location of interactive elements. The prototype thus served as a link between the ideas of the initial design and the actual website implementation on WordPress.

Technology

Front-End

HTML, CSS, and JavaScript have been used to create the front-end of Nepal Trails. The structure, visual appearance, responsiveness and interactive behavior of the site was created using these technologies. A custom WordPress theme was created to ensure that their front-end design was linked to the dynamic content handled via WordPress.

Html

The website structure and semantic content was created using HTML. Headings, paragraphs, images, navigation, sections, buttons, links and more were organized with different HTML elements. Nepal Trails has a great deal of informational content, so semantic HTML was important. An organized document structure enables users to know what level of information the document outlines as well as makes it easier to gain access to and enhance the chances of discovering via search engines. Dynamic trekking content was also generated and structured with HTML via WordPress theme. This enabled information (including trek descriptions, difficulty, duration, altitude, itinerary and other information) to be presented in a consistent layout.

CSS

Nepal Trails' visual appearance and layout was controlled by the use of CSS. Was responsible for typography, colors, spacing, backgrounds, buttons, navigation, cards, images, and responsive layouts. The project had a clearly defined visual identity and color system which were the basis for the CSS. Dark / light backgrounds, main color (orange), button styling, typography and spacing were used across the site. Responsive layouts were also developed using CSS to ensure that the content adapts to different screen sizes. A consistent interface was applied across the devices by using flexbox, grid, media queries, spacing systems, etc. when necessary.

JavaScript

The website has been made interactive and dynamic with the use of JavaScript. HTML and CSS give structure and appearance to the interface, and JavaScript enables elements in the interface to react to user interactions. Features like interactive navigation, interface interaction, animations, and other client-side features were implemented in JavaScript. It enhanced the website's topic and product offering while making it more interesting and entertaining. JavaScript also integrates with other technologies utilized in the project, including GSAP and the integration of the map, for a more inter-active user experience.

Gsap Animation

Selected elements of the website were given controlled animations and transitions with the help of GSAP (GreenSock Animation Platform). The animation was employed primarily to enhance the visual appeal and to draw the viewers' attention, rather than just for decoration. Some examples of animation are elements that appear or move as the user moves through or interacts with the page. These graphics not only help to make the site look smoother and more dynamic; they also add to the website's professional and informative appearance. The incorporation of animation was overall kept to a minimum as the main objective of Nepal Trails is to deliver information. Too much animation may divert users from the important trek content, or impact usability and performance.

Responsive design

Responsive design was a key element of Nepal Trails due to the fact that they could use it from any device and screen size, especially while travelling in their mobile phones. The website was built with Mobile First Design, meaning the design was created for the phone size, then expanded to the tablet size, and finally to the desktop size. Using CSS media queries and flexible layouts, elements like navigation, images, content sections, cards, typography and spacing were adjusted to the different sizes of the screens. This responsive design makes the information on the main trek page available and readable on any device. It also helps in achieving the project's aim of providing a user friendly and easy to use platform for both novices and experts in the field.

Interactive Map Implementation

The trekking map is one of the most interactive features of Nepal Trails, where Leaflet.js and JavaScript are used. The idea of the map was to offer more than just a map that can be embedded in a page or a static route picture. The goal was to enable the user to see the real route they were on, locate key waypoints and know where they were on the route.

This map is generated with Leaflet library and offers two types of maps: Street Map (OpenStreetMap tiles) and Satellite (Esri imagery). There are multiple layers to control, to enable users to switch between the views based on their desired level of understanding of the route and surrounding landscape.

Live User Location

I used the Geolocation API of the browser to give the user their actual location. JavaScript's `navigator.geolocation.watchPosition()` will actually be called continuously to monitor the user's position and update the position of the marker on the map. A custom maker is used to indicate the user's position and an accuracy circle indicates the approximate accuracy of the user's position indicated by the device.

Added a control button to the map that lets the user go back to their current location. Automatic following will discontinue if the user moves the map himself, so that he can use the map to explore the route without it continually moving back to his position.

Trek Route

The trekking routes are represented as GeoJSON files, containing the geographical coordinates and the information about the route. The GeoJSON file is dynamically loaded using JavaScript's `fetch()` method. Leaflet's `L.geoJSON()` function is then used to display the route on the map. The trekking route is shown as a highlighted line and important points or trekking stops are shown as markers. These markers could include location name and show it as a popup or tooltip.

The way in which this is done is that the data about the route is separated from the basic web application code. The GeoJSON file can thus be swapped out for different trekking routes, without having to re-implement map functionality code.

Map Interaction

Once the route is loaded then the map automatically sets the route boundaries using `getBounds()` and changes the view using `fitBounds()`. This implies that when users load the map, they can see the entire route for trekking. Responsive behavior is also implemented in the map, using `invalidateSize()`, so that the map will show correctly if the page or container size is changed.

The implementation can be summarized as:

A GeoJSON Route is currently utilized to display treks stops, as well as to load the current user location, which is then displayed on the map. The current GeoJSON Route is currently being used to display the treks stops, and is also used to load the current user location that will be displayed on the map.

Back-End

WordPress is the primary content management system (CMS) that the back end of Nepal Trails is created on. WordPress was chosen as the platform because the project's main product is content and the website needs a content management system that enables adding, editing, and sorting trekking information to the site without modifying the website's front-end code. Additionally, WordPress enables the website to be expanded in the future. The same design and content structure allows for the addition of new trekking regions, destinations and information via the administration area.

WordPress

WordPress is used as the central system for managing the content of Nepal Trails. The website was customized using WordPress to use its specific design and functionality, rather than solely using a pre-built theme. The website content is stored in the WordPress database and the custom theme determines how the content is displayed to users. This separates content management from presentation, so the website can be maintained and updated with ease. WordPress is especially well suited for Nepal Trails since the information about a trek could change over time, such as if route information, the approach to a trek season, facilities or other practical information changes.

Plugins

ACF

Structured fields for trekking information have been created using Advanced Custom Fields (ACF). Specific information can be stored in separate fields rather than all trek information being typing in one block of text.

A hike might include detailed information, including:

- * Trek difficulty
- * Duration
- * Maximum altitude

The locations where to begin and end the ride. Place to start and finish the ride.

- * Trek itinerary
- * Recommended season

This helps to maintain uniformity of content on various trek pages. It also provides the ability to add new trekking destinations without changing the code of the Web site. Thus,

ACF has a significant role in making Nepal Trails scalable and sustainable, especially with the increased number of trekking destinations in the future.

SEO

It was thought that Search Engine Optimization (SEO) would help Nepal Trails to be more visible on search engines. The site should be accessible to the public to give people the information they need about trekking in Nepal. SEO factors involve well-structured headings, readable copy, descriptive URL, use of the right keywords, image optimization, and website structure. There was also an SEO plugin to help manage and optimize SEO settings. Instead of overstuffing keywords into a page or creating content solely for search engine optimum rankings, the SEO method is geared toward making the information simpler to be understood by search engines and end users.

All-in-one WP-Migration

During the development of a WordPress website, All in One WP Migration was used to transfer and backup the site. This was especially helpful in the development of the site in the local environment and then pushing it to the live environment. The plugin enables the WordPress site, including database and content, to be exported and imported into other environments. This made the migration easier and less time consuming, as well as also lessened the need to move parts of WordPress individually and also manual transfer of the database files. The use of a migration and backup solution also meant there was another safeguard in place for the project throughout development and it would be simpler to transfer the completed website from the local development site to the live server.

Xamp

Nepal Trails was built using XAMPP as a local development site. It helped it get the right tools needed to start WordPress locally, and then deploy the website to a live server. Apache was the local web server used from XAMPP and MySQL/MariaDB was the WordPress database. I was able to develop locally, test the custom WordPress theme, content structure, plugins, responsive layouts and then push these changes live to the website without affecting the live site. However, the benefit of using a local environment was that I could test, find out what has gone wrong and improve my changes before sending the website to the hosting server, thus saving me time.

Domain Name

The project's domain name is "nepaltrails.info".

The domain name was selected because it is short, directly related to the goal of the project and easy for the user to connect to a trekking information website pertaining to Nepal. The .info extension also reinforces the project's purpose of being an informational and educational site, and not a commercial trek company.

You can visit the live website at: <https://nepaltrails.info>

Hosting

The Nepal Trails website is run from **Babal.host**.

The WordPress site was then moved to the live WordPress host environment following the main development and testing in the local XAMPP environment. The hosting service is responsible for hosting the server that makes the website available to the public via the **nepaltrails.info** domain name.

The hosting arrangement enables end-users to connect with the website from various gadgets and places. It also will create the environment necessary for the WordPress website database, theme files, plugins, images, and various other components of the project to work together.

Website Performance

Seo

For better visibility in the search engines, the development of the Nepal Trails website was planned with the consideration of SEO. I have been using an SEO plugin to edit page titles, meta descriptions, keywords and other SEO settings for WordPress.

The plugin also gave me some suggestions for each page, which helped me to find and fix elements like content, headlines and image alt attributes. This contributed to the website's search-engine friendliness, while maintaining an understandable and readable content for users.

Accessibility

Accessibility was taken into account during the testing phase, to make sure that the website is usable by as many people as possible. Nepal Trails is packed with information, so readability and easy navigation were important.

The main accessibility considerations included:

- Using clear and readable typography.
- Maintaining sufficient contrast between text and backgrounds.
- Using clear headings to create a logical content structure.
- Keeping navigation simple and consistent.
- Designing the interface responsively for different screen sizes.
- Avoiding unnecessary visual clutter.
- Using descriptive text where appropriate for images and interactive elements.
- Ensuring buttons and interactive elements are easy to identify.
- Using semantic HTML to provide a clearer structure for browsers and assistive technologies.

Accessibility was considered as an integral part of the user experience, not as a standalone component. They wanted the trekking information to be easy to understand, readable and user friendly for both expert users and novices.

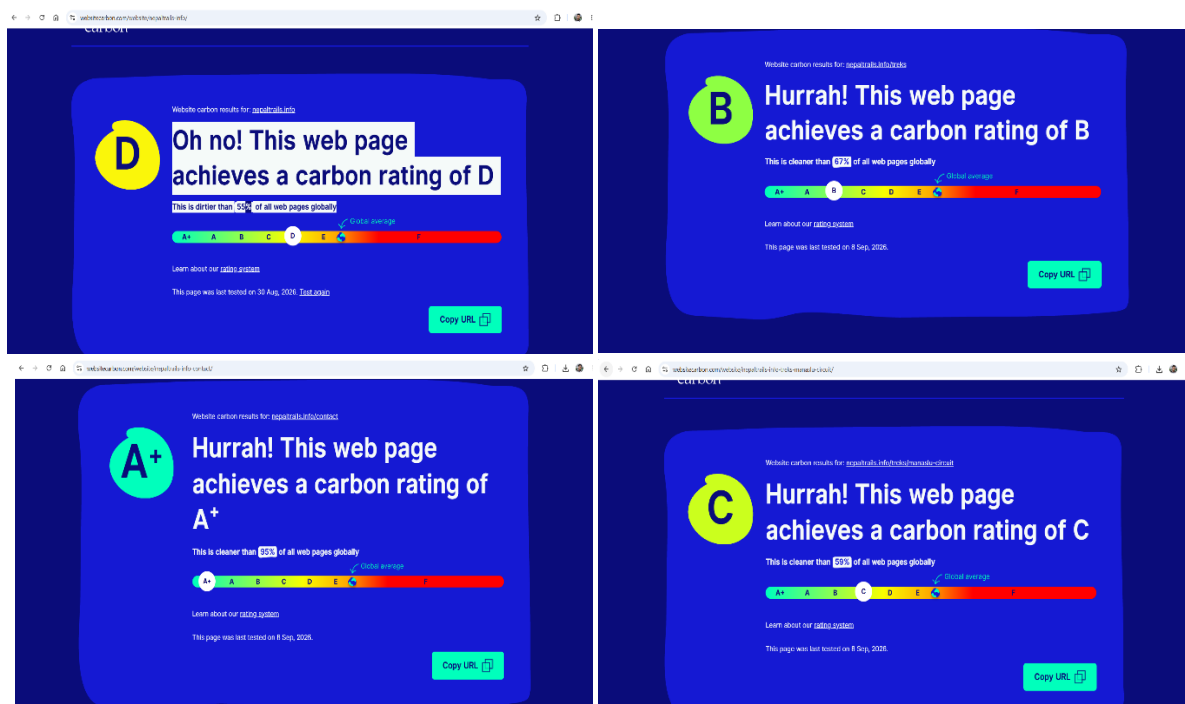
During the development of the Nepal Trails website, a variety of online testing and accessibility tools were used to assess its performance, accessibility, structure and environmental impact.

These tools were useful in highlighting issues and giving feedback that could be used to enhance the quality and usability of the website in general.

CO₂.js / Website Carbon Calculator

CO₂.js and the Website Carbon Calculator were used to assess the environmental impact of the website. The test offered an estimate of the carbon emissions that are generated when the website is loaded. It was helpful for assessing the sustainability of the project and for reflecting on the impact that the image optimization, page size and website performance can have on sustainability.

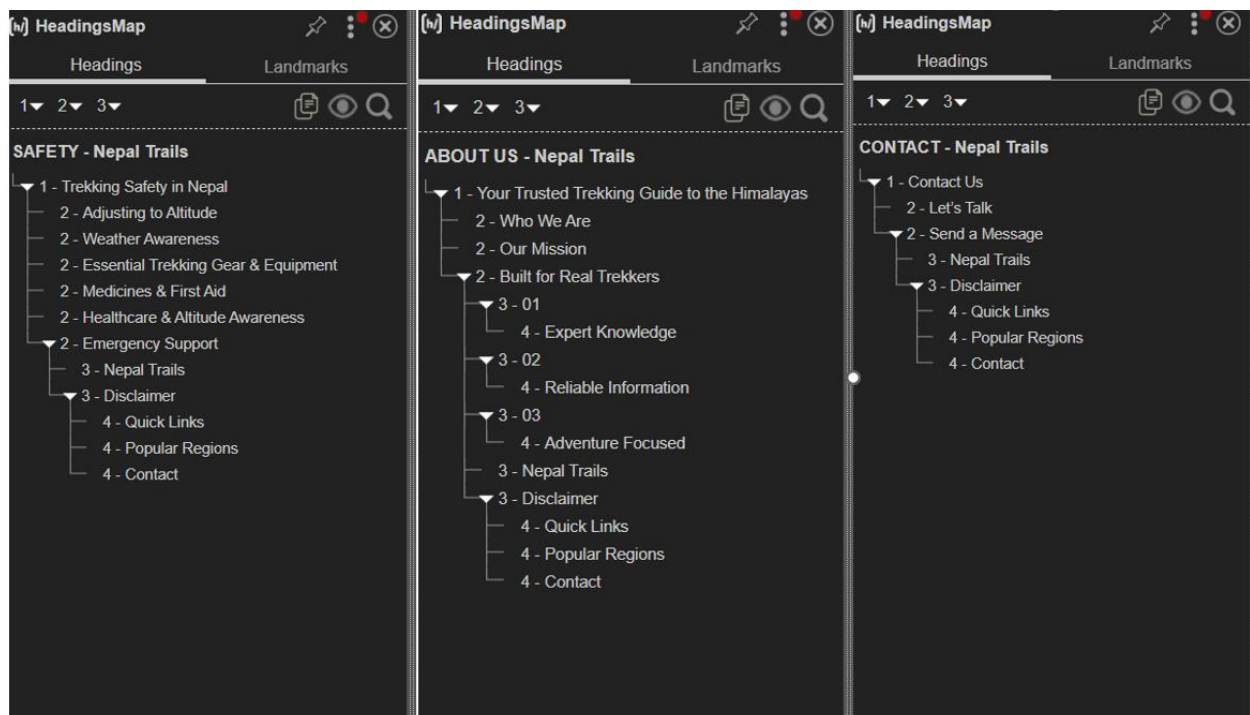
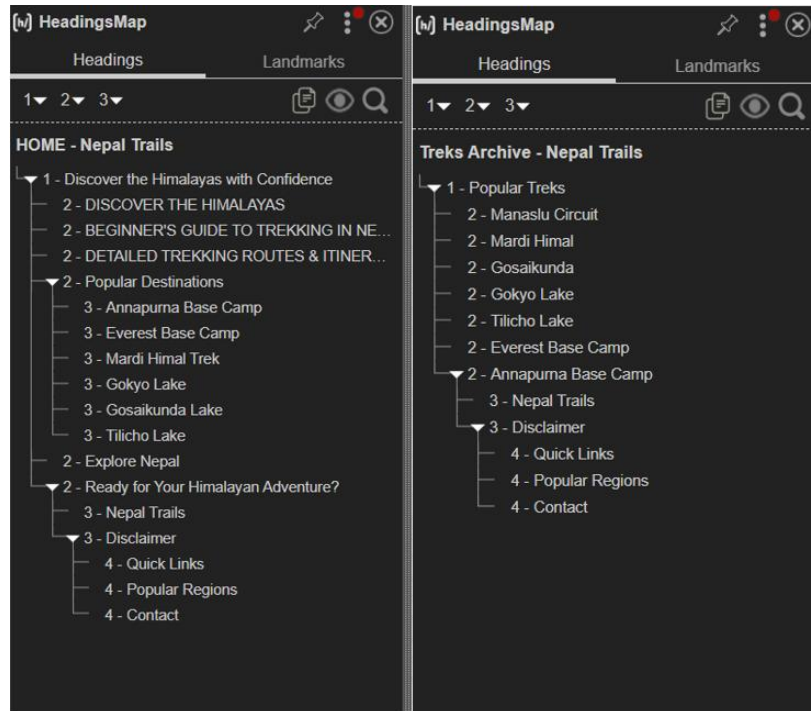
The Website Carbon Calculator was utilised to estimate the environmental footprint of this website. The other pages were rated above C and the homepage was rated D. A higher rating of the homepage is probably due to the content and media-load on the page, especially the images.



The results highlighted the importance of optimizing website assets, especially on the homepage, to reduce the amount of data transferred when the page is loaded. This testing also gave me a greater appreciation for how the design of a site can have an impact on the environmental performance of the site, including the use of high-quality images and interactive elements.

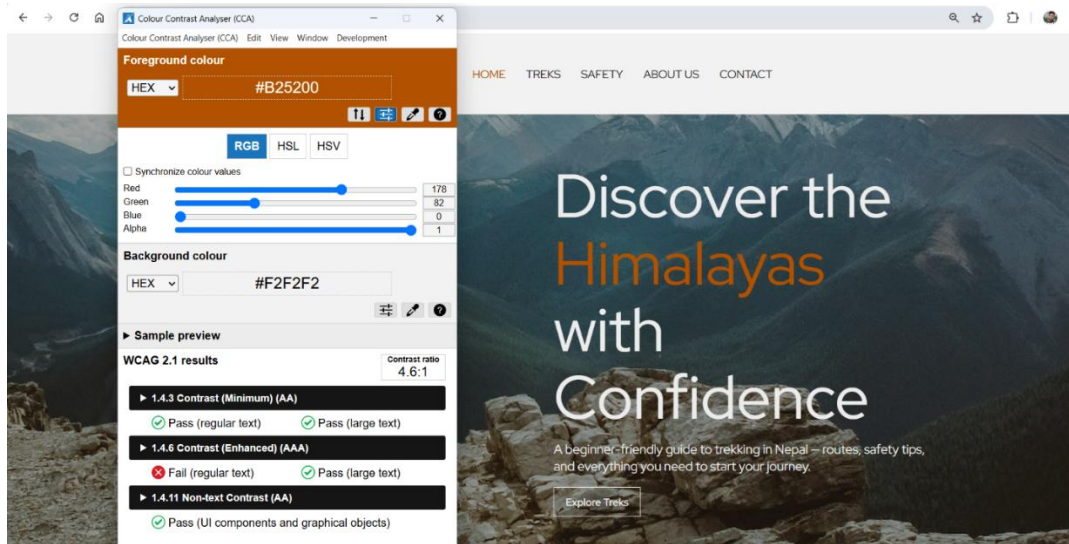
Headings Map

The structure and hierarchy of the website was tested using Headings Map. It verified whether the headings (H1, H2, H3) were presented in a logical sequence. This was especially significant for accessibility as the proper heading structure enables ease of understanding and navigation of the content for users, including users of screen readers.



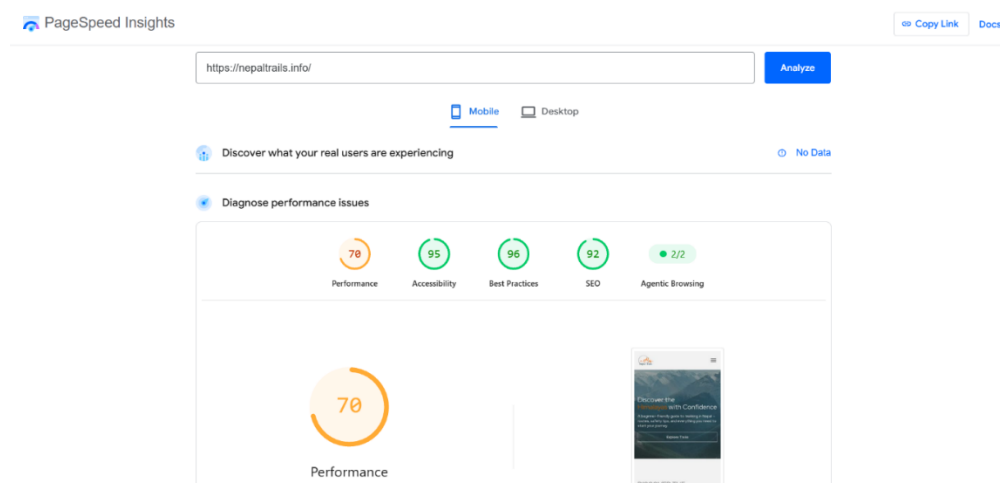
Color Contrast Analyzer

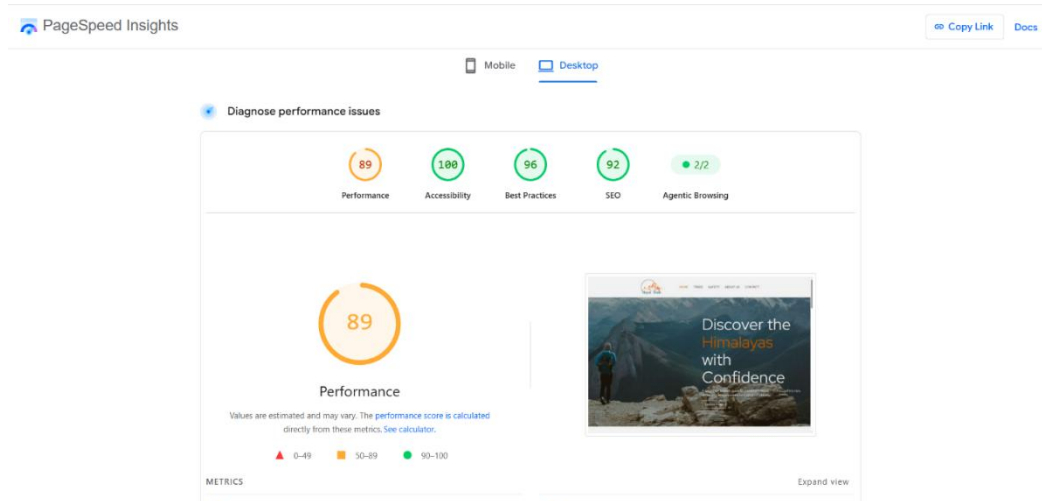
Contrast between foreground text and background colors were tested using a Color Contrast Analyzer. It was able to determine if text and interface elements had adequate contrast for reading and accessibility. Some colors were enhanced to better contrast the content and make it easier to use.



Google PageSpeed Insights

The website was tested using Google PageSpeed Insights for mobile and desktop. The tool gave performance metrics and recommendations on loading speed, responsiveness, accessibility, best practices and other performance factors. These results were used to pinpoint website optimization opportunities including optimizing images and removing unnecessary resources.





Testing Outcome

These tools enabled the site to be tested from multiple angles and not just visual. Through the testing process, the website's accessibility, content structure, performance, readability and environmental efficiency were improved. Any problems that arose during testing were discussed and corrected as appropriate before the final Nepal Trails was created.

Journey

Initially, when I was just starting off Nepal Trails, it seemed difficult because there was so much to do and I didn't really know where to start. I think you have to take the first step before you know what you're capable of, though. The moment I understood what the site is about and the objective it was aiming at, I got more excited and felt that I will be able to finish this site.

It took a lot of steps to get to the design and development phase, including research and gathering content. When it came to research, one of the main difficulties that I had was the lack of reliable information provided for all of the trekking destinations. I was having a problem getting all my things together. But the more I went searching around for information, the more I got, from other sites that I used as a reference and from friends who had personally trekked. At times, this was tedious, but it also taught me that all good research requires time and that information is more readily available when one knows what he/she wants.

Once I had gathered most of the information I began the designing process, and it was even more difficult for me. I had some experience with front-end development, but not design. I felt a bit lost at one time, not knowing how to think like a designer, or what questions to ask to make decisions. Then I began to recall what I'd learned in my design classes. I knew that there had to be a story and purpose behind good design. I began to wonder why I was picking this color? Is it just because I like it, or for a reason? This led me to a different approach to design. I started linking colors to trekking experiences, like mountains, clear skies, spectacular sunsets, dark nights, and so on, and eventually I was able to work out the color palette for Nepal Trails.

The layout design was done in a similar manner. I have done my research to understand how information can be organized and presented, got ideas from various websites, and then incorporated my own ideas. Over time, I established a website format that seemed to be appropriate for my website and my visitors. Once the design phase was over, I felt quite good about myself, and was looking forward to the development phase.

Now it was time for the development phase — coding. Initially, I began working with HTML and CSS, and WordPress. It was my first time working with WordPress to create my own custom theme, however, so it was a completely new challenge. I completed the development process I had learnt in class and also received some support from tutorials, AI when needed. At some point I got an understanding of how WordPress themes work and I got to a point where I thought, " Okay, now I know it. I can build with WordPress.

However, I quickly discovered that knowing the theme was just one of the issues. While I was very excited to be making my own WordPress theme, I hadn't thought about how I would handle all the trekking data, how I would set it up, or how I would incorporate the interactive map. This was the first time I've been able to get my front-end programming skills working with WordPress. The

integration of the maps was also something new to me. At that point, the project became much more challenging — and, in my own words, the nightmare began!

Although all this was frustrating, these challenges proved to be the most invaluable aspects of the project. Every problem required me to look for information, try things, get it wrong and fix it! In hindsight, the ups and downs of Nepal Trails did not exist outside of learning, they were learning.

I had to spend more time looking into WordPress and working out a solution to the trekking data. After a number of days of trial and error, I found a plugin called Advanced Custom Fields (ACF). This was a pivotal moment in the process of developing it as it became a clear way to organize and manipulate the information on the trek in a way that I designed. I began investigating ACF, how to make custom fields and how to link custom fields to my WordPress theme. After I grasped it, I knew that it was well suited to Nepal Trails. But I don't have to manually update the code every time I want to modify an update to a trek, I could handle information like difficulty, altitude, duration, itinerary, and other information through the WordPress interface. When I discovered ACF, I felt a sense of relief and confidence that I now had a solution that was a connection between my design and the content management aspect of the web site.

I'm thrilled and relieved to find ACF and solve one of my main issues. It helped me to remember that I don't need to do everything in one go, I can do it in steps. At the same time, I also knew that if I didn't take a break I would be in a very stressful situation. So, I came up with the idea of taking a few days off from the project, forget about the problems, just rest. This helped me to get a fresh perspective and clear my mind. I came to understand that a break would not be losing time, but time that would enable me to come back to the project with energy and zeal.

The Map

The next big issue was how to integrate the interactive map. I immediately knew it was going to be a whole new ball game as I had never done anything like this before. This actually was the hardest part of the overall development process, to be honest.

I did not wish to just include a map in an iframe, or just use a static image of the trekking route. I wanted something more useful and interactive, a map which could display the actual trekking route, the current location of the user and a route which the user could follow from the starting point to the end point. This meant that I had to learn something completely new.

I began my research again, but that this time was much more difficult than I had hoped. I did various things and attempted various solutions and always ended up with something that didn't work, and couldn't figure out what the issue was or how to fix it. I had a moment where I seriously

thought to remove the interactive map and just put in a simple embedded map / image. It was annoying, because I had been working so hard to get it to work.

As I went on, though, I could feel I was growing closer to understanding the problem the more I tried, but the more I tried, the more I could see that I was growing closer to the problem of understanding. I simply needed to take time off and give it some time. I did some more digging around and eventually discovered one that was free, and it had what I wanted — a file with the coordinates of the trekking path I was looking for. This is my savior.

I took these coordinates, tested them, changed and incorporated my own code with them and added it to the website. Then, miraculously, it did! None of the attempts and frustration, it was one of the most satisfying moments of the whole project. What I wanted, and finally got, was an interactive map that would display the trek route and the current position of the user, so that the user would have a clear idea of the route and be able to follow it along from the origin to its destination.

I felt at that moment that after all the difficult hours of research and testing all the hard work had paid off. Now that it was night time, nightmare part two was done — job done!

The Logo

One thing still remained for me to do: create a logo. It was certainly not as hard as the map integration though I would call it Nightmare Part Three. This time the challenge wasn't on the technical side; it was all about the creative side and the fitting visual identity for the website.

I was actually considering the logo since the start of the project. I made other versions to different names, colors, shapes and more complicated, colorful designs. First, I believed more detailed and colorful logo could make this site more appealing. But, as I began to examine them in conjunction with the rest of my site, I saw that they didn't match.

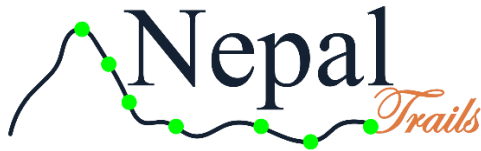
I had to remind myself that Nepal Trails was a trail and not a what? It wasn't a travel service or a package selling website. Therefore, it was an educational and informational platform and the logo had to impart this as well. A complicated, or colorful logo might make the website look more commercial and not work well with the simple, and calming, look I had already put together.

This gave me the idea of making the logo simple yet with some trekking, Nepal and education emphasis. So, I began to ask myself, "What logo looks the coolest?" and changed it to "What logo actually fits Nepal Trails?".

I was then thinking that way and that was the beginning of a much simpler idea. I was able to concentrate on the mountain, trekking, exploration and Nepal, without overwhelming the design

with too much detail, while still fitting into the visual style of the website. This was a time when I felt like I was starting to design rather than just picking things out of the hat that I liked.

I experimented with a number of concepts and finally created a simple logo design influenced by the mountains of Nepal. Although it was a small success, it was a significant step towards building the brand identity of Nepal Trails.



Following feedback on my first design, I was also given valuable feedback from my teacher who spoke to us about design principles. She presented me with a few ideas and re-did my logo with her own concept. The outcomes were quite different from what I had been doing at first, but all of the variations were visually pleasing and I was really drawn to the possibilities of being able to take the ideas further.



What I did learn from this experience was, "That's the difference between a professional and a learner." It opened my mind to how experience, design knowledge and a different point of view can make something more refined than a simple idea. I took a lot of time looking into various designs, but eventually I found the one I liked best and thought it was the most appropriate.

Once the research, UX, branding, development, ACF and particularly the map integration was done, creating the logo was the next part of the project that seemed to fall into place. Finally, the third part of the Nightmare series of novels.

As Nepal Trails has evolved, I have run into many issues and errors, particularly in the design, WordPress, data input and integration with the maps. I wasn't discouraged by these mistakes, but I learned to research the problem, experiment with solutions, take a break if necessary and perseverance until I gained an understanding of what was going wrong.

Each time I solved a problem, I felt that I had accomplished something and felt very good. Getting the interactive map to work, and having a way to manage trekking data within ACF were particularly satisfying – at first these were both thought to be very challenging.

The most satisfying was the culmination of all parts. The research, content, UX, branding, design, coding, WordPress, trekking data, and interactive features were all done as separate elements slowly combined and became the one unified site. The work that went into finding all the mistakes, the frustration and hours of work were all worthwhile seeing Nepal Trails make it through from a simple idea to a functioning website.

My reflection.

It has certainly come a long way since this project began and Nepal Trails has become so much more than I ever could have envisioned. It began with an idea that I had from my own interest in trekking and it turned into a full website of research, user experience, branding, design, coding, WordPress, content management, and interactive.

There were a lot of times where we were not technically successful, and a lot of times we were frustrated, but every time we faced something new I learned something. I learned that building a website isn't only about coding, it's also about understanding users, having a motive for design decisions, structuring information and being prepared to alter my concepts when they don't work.

It is my great pleasure to observe the development of the website gradually and smoothly. It was a great feeling when I saw a concept that I had envisioned come to life like a platform! Most importantly, I have grown more confident in my ability to learn new technologies and solve problems on my own with this project.

In case I would go on developing Nepal Trails, I would add more trekking regions and destinations to the website, modify some of the features and collect further information from experienced trekkers. Overall, this project was tough, but rewarding and I'm proud of how much I've gotten the initial concept to.

Conclusion

It began with a personal idea, as I was interested in trekking and wanted to share the nature, culture and trekking experience of Nepal with others. The concept evolved over the course of the project into a non-commercial, informational and educational trekking platform that would serve tourists, beginners and experienced trekkers. This research and competitor analysis, UX research, feedback and user persona helped me to understand what user needs and the direction of the website.

The project also provided an opportunity to build up my knowledge in UX research, branding, visual design, front-end development, WordPress, content management, responsive web design and interactive maps. By working with HTML, CSS, JavaScript, WordPress, ACF, GSAP and Leaflet.js, I had the chance to learn new things to me. However, not all parts went smoothly, such as the interface design, managing structured trekking data and incorporating the interactive map. But these issues were amongst the most beneficial learning opportunities of the project.

In general, the overall objective of Nepal Trails was fulfilled by providing a simple, user-friendly and information-rich website, where users can learn about trekking routes and get practical information. The project also taught me that designing around users is important to consider, not only how the website looks. This was the result of feedback, error, research and endless testing.

The present website will evolve and be developed, but it is a good starting point. Additional trekking regions and destinations are added, and existing features can be enhanced on the basis of additional user feedback and user testing. This project has offered me most importantly more confidence in design and development and has been a real learning curve as I have seen how much research, creativity, problem solving, patience and learning go into taking an idea from concept to a working website!

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- iTrek Nepal. *Trekking and travel information*. Available at: <https://itreknepal.com/>

Website used for trekking route/coordinate data

- Samir Adhikari. *TrekGuard – Trekking Route and Coordinate Data*. Available at: [TrekGuard](#)

Testing and Accessibility Tools

- **CO₂.js / Website Carbon Calculator** — used to assess the environmental impact/carbon footprint of the website. <https://www.websitecarbon.com/>
- **HeadingsMap** — used to check the heading structure and hierarchy of the website, helping ensure that headings such as H1, H2, and H3 were organized correctly.
- **Color Contrast Analyzer** — used to test the contrast between text and background colors and improve accessibility and readability.
- **Google (n.d.). PageSpeed Insights**. Available at: [PageSpeed Insights](#) (Accessed: 8 September 2026). <https://pagespeed.web.dev/>