

Semester Assignment

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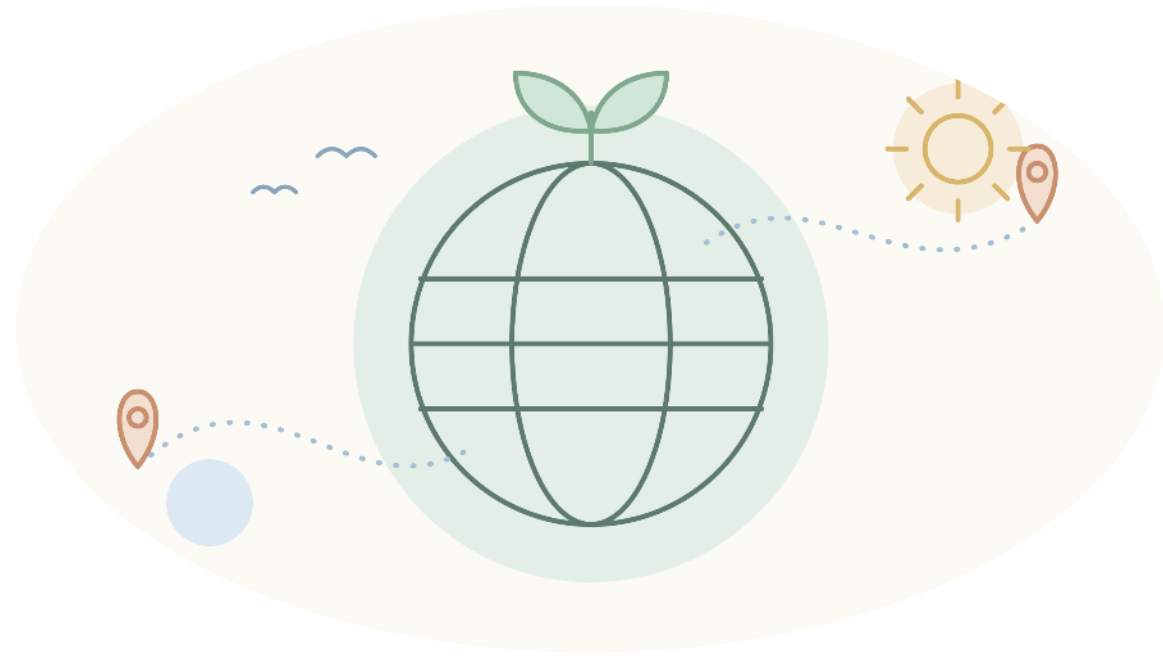


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Introduction

The issue of pollution is, on the rise primarily due to industrialization population growth and increased consumption. It is crucial for us as individuals to recognize our responsibilities in addressing this problem and being mindful of the environment. I plan to develop an application that contributes to this cause and raises awareness about it. The idea behind the app revolves around creating a travel application that minimizes environmental impact, supports communities and preserves nature for generations. As people become more concerned about climate change and the well being of our planet they actively seek travel options that align with these values. However sustainable travel can sometimes be complicated as it requires individuals to make decisions regarding activities, accommodations and transportation that're respectful of cultures while also being environmentally friendly. My aim is to simplify this process by developing a user application that helps users make decisions, about eco friendly travel options. To achieve this goal effectively my research will involve conducting both quantitative studies through literature reviews. I plan on completing this project in stages using design thinking methodologies.

Research Goal

What obstacles do environmentally conscious, youthful solo travellers encounter in sustainable travel?

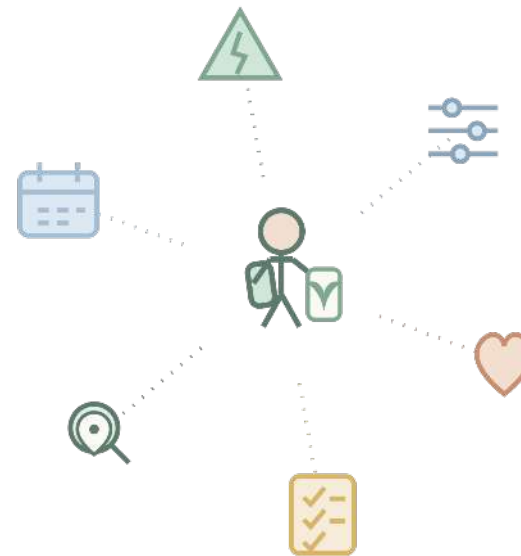
In what ways can the platform be tailored to specifically accommodate the requirements of youthful, environmentally aware lone travellers?

Why is it especially crucial for young solitary travellers to have access to a specialized platform for sustainable travel?

What are the most desired features or resources for these travellers in a sustainable travel platform?

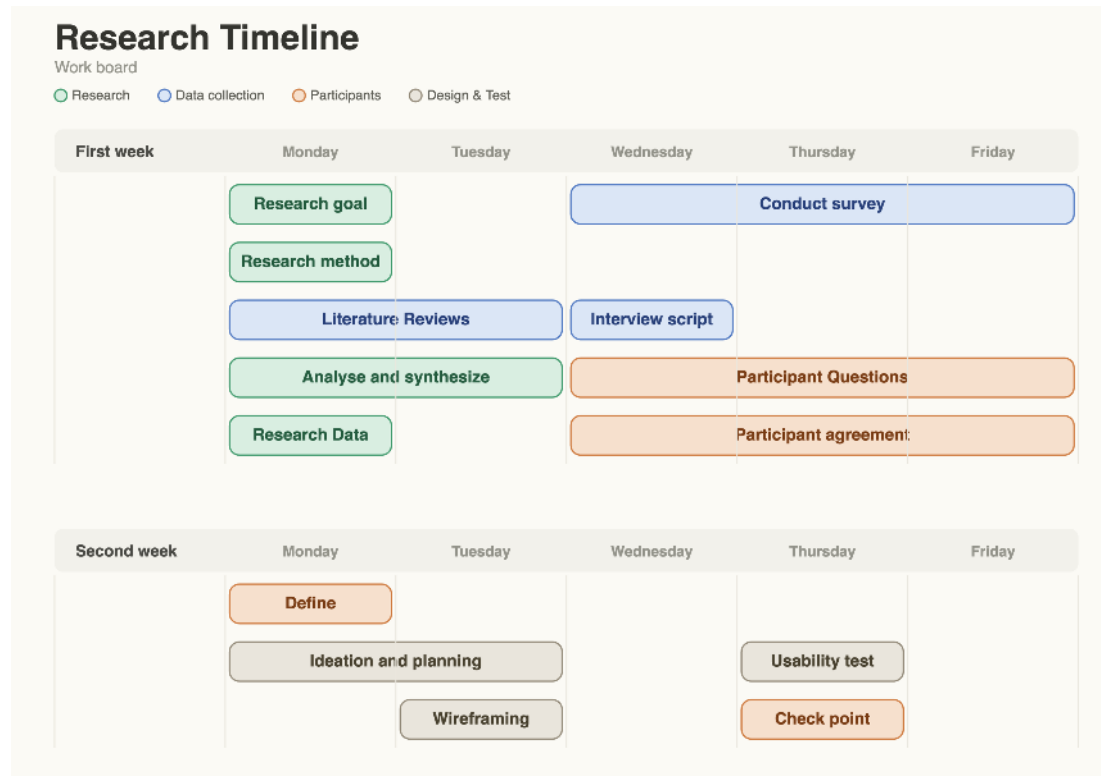
Where do these youthful travellers commonly locate information or resources about the organization of sustainable journeys?

When do these travellers anticipate and execute sustainable travel the most frequently?



Research Methods

I plan to conduct Integrate a blend of qualitative and quantitative research methodologies, such as observational studies, surveys, interviews, and focus groups. Secondary research in sustainable tourism will be undertaken by examining industry reports, case studies, and existing literature.



Generative research

Litarature reviews (Secondary research)----Qualitative

Exploratory research

Interviews----survey : primary research----Quantitive

Literature Reviews

Travel websites play a role, in shaping how tourists plan their shopping experiences. People who use information providing applications for travel contribute to tourism by making the most of their time. The choices made by tourist groups often have an influence on tourist destinations. The culture of a place affects how individuals interact with each other their satisfaction with apps and the extent to which they use travel related applications. The development of destinations focuses on enhancing and optimizing visitor experiences. The expenses associated with travel and tourism services might pose accessibility challenges, for individuals. App based technological advancements have the potential to inspire people to explore travel opportunities.

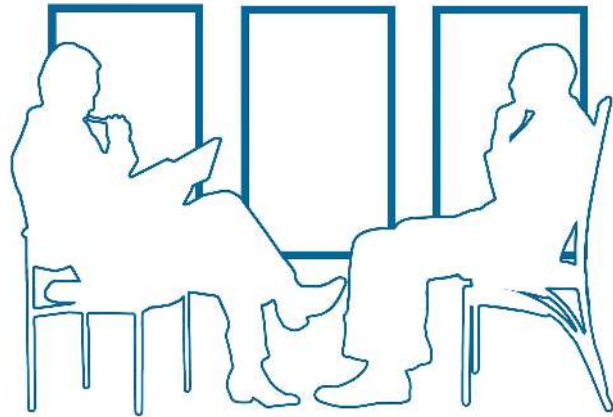


Interviews Questions

WARM-UP Q'S

Could you tell me a bit about yourself?

How do you spend your days?



FOLLOW-UP QUESTIONS

Can you tell me more about that?

What do you mean?

Why do you think...

MAIN Q'S

Have you ever had a travel experience where using a travel app made your trip better? What specific aspects of the app were most helpful, to you?

Tell me about an eco trip you went on and what factors influenced your decision to choose that particular trip.

If you could design an eco travel app, what features would it have? Why do you think these features are important, for promoting travel?

During your travel planning or actual trips have you encountered any challenges or frustrations? If so how did you overcome those obstacles?

What would motivate you to use a travel app? Are there any features or incentives that would encourage you to choose eco travel options more often?

Survey Questions

What challenges do you face when trying to travel ?
You can select options from the following list;

Lack of information

Difficulty understanding the impact of choices

Higher costs

Less convenience

Limited sustainable options

Which incentives would motivate you to make more sustainable travel choices? You can select options from the following list; Here are some available choices;

Enjoy discounts when booking eco accommodations.

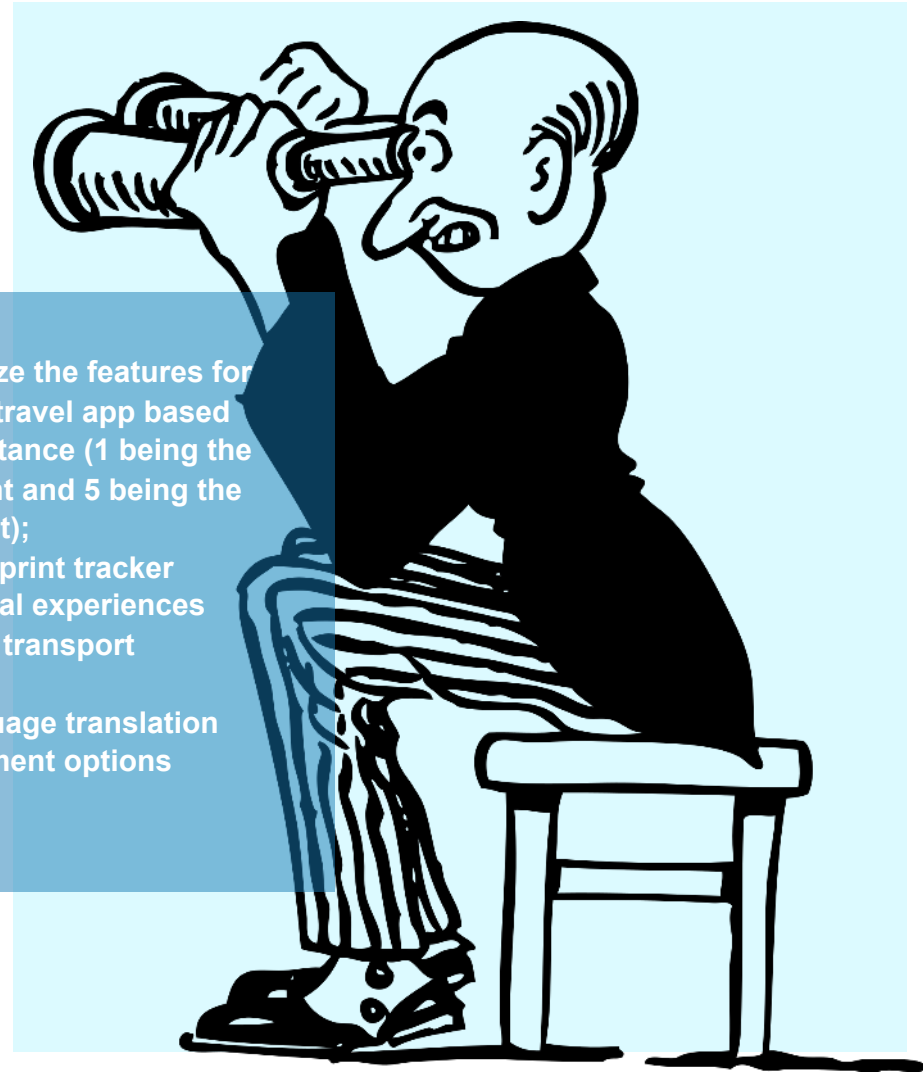
Get detailed information about how the places you visit affect the world.

Earn rewards for making low carbon travel decisions.

Read user reviews on options to make informed choices. Get personalized suggestions, for engaging in sustainable activities during your trip.

Please prioritize the features for a sustainable travel app based on their importance (1 being the most important and 5 being the least important);

1. Carbon footprint tracker
2. Local cultural experiences
3. Time public transport information
4. In app language translation
5. Mobile payment options



Online Survey Conduct

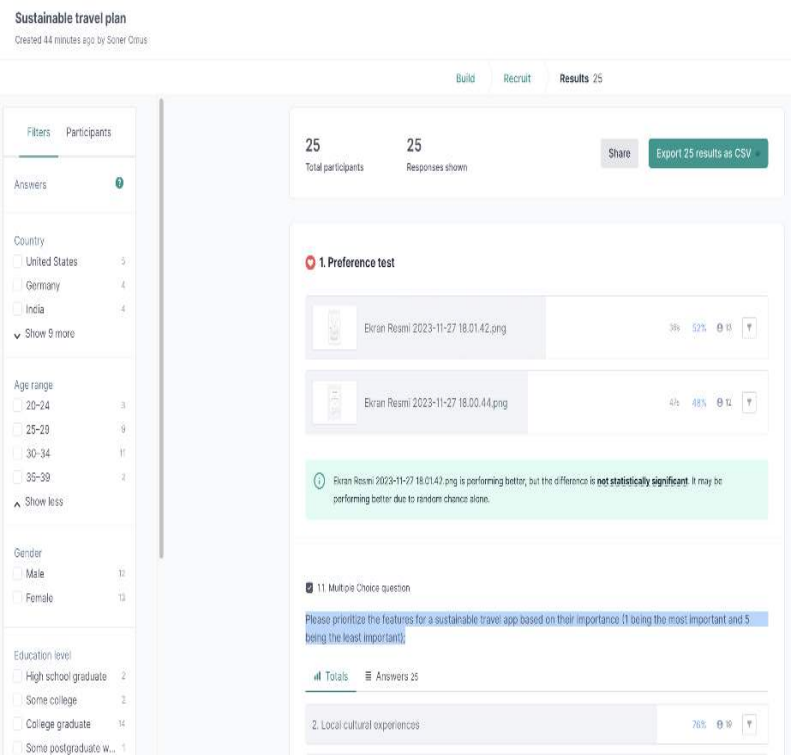
50 Participans

Age:18-35

Education Level:High School graduate-College graduate

Employment Status: Full-time employed

Work Travel: A few times a month



Research participants

Participant 1

Name: Ayse

Age:35

Profession: Teacher

Marital Status: Married

Participant 2

Name: Jamaica

Age:22

Profession: Student

Marital Status: Single

Participant 3

Name: Simen

Age:37

Profession: Student

Marital Status: Single

Data analysis survey-

Summarising insights

The findings that follow based on data gathered through a survey provide insights, into the features and motivations of mobile apps designed to encourage sustainable travel planning.

Participants were asked to rank the features they value most in a travel app. It was clear that they highly prioritize experiences that immerse them in culture timely information about transportation and language translation within the app. Although features like mobile payment options and tracking carbon footprints were also appreciated their importance was slightly lower.

In terms of incentives that would encourage users to make environmentally friendly travel decisions there was great enthusiasm for earning rewards when opting for low carbon travel options and receiving discounts when booking eco friendly accommodations. Detailed information about the impact of travel destinations and personalized suggestions for activities were also deemed important.



Data analysis survey- Summarising insights

The survey revealed challenges faced by users when attempting to travel sustainably. These include costs associated with eco options a lack of readily available information, limited choices, for sustainable alternatives reduced convenience compared to traditional modes of transport/accommodation and difficulty understanding the environmental impact of their travel decisions.

By collecting and analyzing this data from the survey respondents it becomes possible to develop and enhance an app that caters effectively to conscious travelers.

By prioritizing the desired features and offering users incentives app developers can encourage users to adopt a more eco friendly approach and address their needs simultaneously.



Summarising Insight

According to the individuals I interviewed, using transportation is seen as a way to contribute to sustainability.

During my interviews participants expressed their appreciation, for culturally enriching experiences. However they also mentioned that many individuals lack awareness in this regard.

They found digital mapping services such as Google Maps to be helpful in finding routes and obtaining real time traffic updates.

Travel applications that offer language switching tools are considered valuable by those who're not fluent in the language. The participants believe that such apps can encourage behavior among people.

The cost and time factors were highlighted by the participants as considerations when making travel choices.

Moreover they expressed concerns about the accuracy of information provided by travel applications when planning their trips.



Users of travel services like Vy are more likely to continue using the app due, to discounts and benefits offered. This approach can be utilized to promote actions.

While acknowledging the importance of eco travel participants noted that personal comfort, cost and time often take precedence over sustainability when making travel decisions.



Define a problem statement and vision statement

Using the four Ws to analyze the issue facing young travelers.

Who is affected by the issue?

What is the difficulty?

Where does the issue appear itself?

Why does it matter?

Our young conscious solo travelers are not fully embracing travel through mobile apps due, to the lack of integrated tools that make planning for sustainable travel easy and comprehensive. If we can find a solution to this issue it would have an impact, on our customer segment by providing them with a user platform that simplifies the complexities of making sustainable travel choices. Moreover it would also benefit our business by attracting and retaining a growing market segment that prioritizes responsibility and environmental stewardship.

This problem statement clearly identifies the target customers highlights the problem they are facing explains why this problem exists and demonstrates how solving it would bring benefits to both customers and the business.



Vision statement

Our goal is to transform the way people travel by empowering solo travelers who care about the environment. We will develop an app that seamlessly combines sustainable travel options making it easier, for eco-conscious travelers to plan their trips. Our mission goes beyond simplifying travel planning. We want to inspire a community of like-minded travelers who are dedicated to making positive environmental choices. By leveraging technology and personalized features we aim to be at the forefront of tourism, where every journey not only benefits the traveler but also contributes positively to our planet.

Primary Persona



Name: Nico Thorn

Age: 30

Profession: Sales Manager

Marital Status: Single

"Traveling sustainably is not just a choice, it's a responsibility."

Bio: Nico Thorn is motivated by both personal and professional goals. Outside of work Nico finds joy in exploring destinations and embracing the experiences they offer. He strongly believes that traveling should not negatively impact the environment or local communities considering this belief to be a part of his identity. Nico actively engages in eco travel practices contributes to causes and actively promotes environmental initiatives, in both his personal life and professional endeavors.

Needs;

- ⊙ Information on sustainable transportation methods in various locations.
- ⊙ Tools for mobile carbon footprint monitoring and reduction.
- ⊙ Community support and networking.
- ⊙ Creating a travel planning platform.

Frustrations;

- ⊙ Seeking integrated tools to simplify ecological trip planning.
- ⊙ Tourism advice and carbon footprint tracking can be difficult to find.
- ⊙ Travel companies' sustainability efforts are often misrepresented.

Motivations;

- ⊙ Minimize impacts when traveling and experiencing cultures.
- ⊙ A genuine desire to help communities.
- ⊙ Interest in travel apps.
- ⊙ Desire to change the world.

Goals;

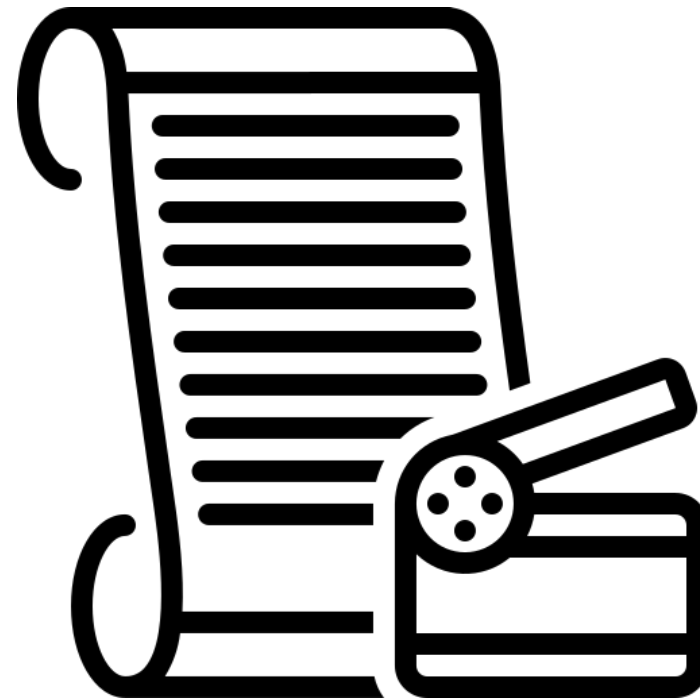
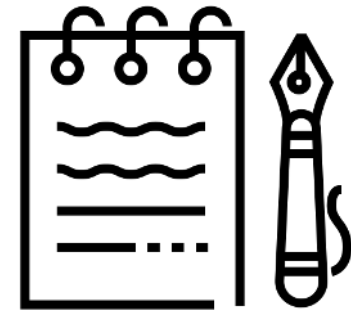
- ⊙ To plan and arrange eco trips that contribute positively to the environment.
- ⊙ To actively seek out opportunities to travel and fully embrace them.
- ⊙ To make an impact on the world through eco travel.

Scenario

After returning from his trip Nico felt a sense of disconnection and disappointment due, to the lack of eco options. Recognizing the need for change he sets out on a mission to discover travel alternatives that're more environmentally friendly. However his online research proves to be frustrating as the information is scattered and not user friendly. Undeterred Nico stumbles upon a few blogs and niche websites that provide insights. Yet he quickly realizes that these sources lack planning tools leaving him longing for more.

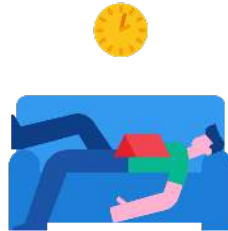
Driven by his determination to make an impact Nico decides to engage with communities on social media. He aims to gauge interest in developing a travel platform that can meet all his needs. Alongside sharing his ideas with others he also starts a petition as evidence of demand for such a service among potential investors.

Encouraged by the support he receives Nico takes the initiative to create an integrated mobile app plan. This app would seamlessly integrate accommodation options, transportation choices and local sustainable businesses into one platform. With a vision, in mind Nico begins collaborating with app developers and eco friendly businesses tirelessly working towards turning his concept into reality.



Scenario Step

In this series of panels we witness Nico experiencing a sense of disconnection upon returning from his trip.



He becomes frustrated while conducting research online.

Eventually stumbles upon yet isolated resources.



Seeking insights he engages with communities.



Inspired by his findings Nico starts sketching out his app idea.

To garner support he turns to media.



Starts a petition.

As his idea gains traction Nico collaborates with developers and businesses to bring it to life.



To sum it up this scenario highlights Nicos journey, from confronting a problem to working towards finding a solution. It underscores the importance of user centered design in creating products that cater to tourists while promoting sustainable tourism practices. By combining his skills with his passions in this way Nico is able to make a meaningful impact, in the travel industry.

Ideation

We understand that design oriented thinking revolves around comprehension. It caters to the needs of users placing an emphasis, on their preferences. Brainstorming plays a role in the process allowing for a wide range of ideas to be generated prioritizing quantity over initial quality. We create an environment that fosters flow of thoughts and ideas devoid of judgment. We value perspectives. Encourage the exploration of various concepts and possibilities without necessarily seeking immediate solutions. This phase often leads to discoveries. Is critical, in transforming our understanding of user needs and issues into concrete concepts.





How Might We Question

During the idea generation sessions, I will evaluate all positive and negative solutions and identify the most suitable solution and the subsequent procedures. After identifying the most suitable idea, I will start the process of finding a solution.



How can we design a mobile app interface that's user friendly and appeals, to travelers who're eager to explore new places?

How can we carefully incorporate a range of travel options into our app to cater to the preferences and concerns of travelers?

How can we foster a sense of community within our app connecting travelers and motivating them to save money while embarking on their journeys?

How can we create a feature, in our app that specifically connects conscious travelers facilitating an eco friendly travel network?

How can we effectively communicate the social impact of users travel choices through our app ensuring they are well informed and engaged?

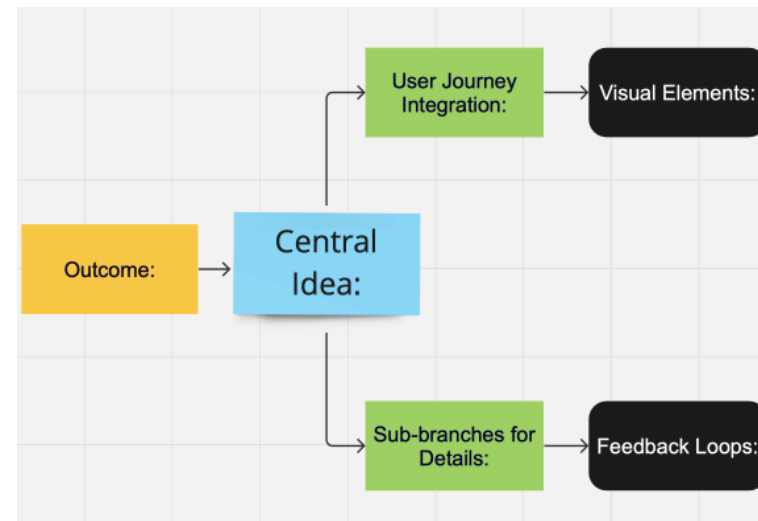
Mind Mapping

I started by brainstorming. Identified the core concept, which I placed at the center of our mind map. The Eco Route Planner. From there we expanded on features, like route optimization, transportation modes and calculating carbon footprints. Each main feature had sub branches that delved into details. For example under transportation modes we explored options such as transport, biking and walking.

To ensure a user experience we considered Nicos journey from planning a trip to completing it and integrated his interactions with each feature accordingly. To aid in understanding the relationships between features our mind map included sketches and icons representing them visually.

I also identified areas where user feedback could be valuable for improving the app. This could include rating routes. Providing suggestions for enhancements.

Overall this mind mapping process was instrumental in organizing and structuring the abundance of ideas generated during our brainstorming session. It provided a visualization of how to develop the Eco Route Planner by highlighting features and their interconnectedness. It allowed me to move from a concept, to a defined and actionable idea.



Generate ideas

Top idea; Eco Friendly Route Planner Within the app there is a feature that allows users to select modes of transportation. It offers choices, like transportation, bike rentals, walking routes and places to charge vehicles. The app provides user maps with highlighted eco routes icons representing different transportation options and information bubbles highlighting eco points of interest. Users can input their destination and preferences (such as the most eco route) and the app will generate the best routes accordingly.



This feature directly addresses Nico's need for sustainable transportation methods and aligns closely with his goals and motivations for eco-friendly travel. It offers practical, immediate value in planning travel routes that are environmentally conscious.

Idea; Sustainable Accommodation Finder This tool helps users find accommodations that prioritize sustainability. It includes hotels, hostels and Airbnb listings that have implemented practices like power usage, water conservation measures or community involvement programs. Users can look at a list or picture of places to stay and use filters to find ones that are eco-friendly. They can also look at reviews from other users. Use simple icons to quickly find eco-friendly features. Users can look based on criteria for a sustainable location, a price range, or read reviews from other eco-friendly travelers.

Idea; Local Eco Friendly Activities Hub This section of the app aims to connect travelers with activities that promote eco friendliness. These activities may include guided nature tours, volunteer opportunities, in initiatives or workshops focused on sustainability practices. The app displays an updating list of activities with images, short descriptions and labels indicating the type of activity (such, as outdoor or educational). Users have the option to browse through these activities filter them based on their interests or location and directly book or sign up for them within the app.

Norman's Three Levels of Design

Visceral Impact

For the appeal I have selected colors and images that evoke a sense of eco friendliness and adventure. Think of greens, calming blues and serene natural landscapes along, with eco travel modes. The aim is to create an connection with users by showcasing inspiring images and stories of sustainable travel making them feel like they are part of a larger environmentally conscious community.

Behavioral Features

So that users can find it easily, the app was made to be simple and clear. It includes features such as real time carbon footprint tracking and personalized suggestions for eco travel options. Additionally there are user planning and booking tools. Users can receive feedback on their travel choices. Track their sustainability progress making the experience more engaging and rewarding.

Reflective

While traveling, the app lets users keep track of their events and think about them. This helps deepen their understanding of how their actions impact the environment and local communities. Moreover users can share their travel stories and tips through various features in the app fostering a sense of contribution and community connection.



Persuasive Design

In a way, the design of the app takes into account both the good and bad things about traveling. This approach aims to make it more relatable and appealing to users. Satisfying, which motivates users to choose sustainable travel options and develop eco friendly travel habits. I highlight the long term benefits of travel, for both the environment and personal well being inspiring users to stick with their travel practices. By adopting this approach I'm transforming the travel app from a planning tool into a helpful guide and companion that assists users on their journey, towards more responsible and eco friendly travel. This not improves the user experience but also aligns with broader goals of environmental sustainability.



Prototyping (wireframing)

I made sure that the app's interface is designed to be straightforward and user friendly. You'll find a search bar at the top where you can enter your desired destination. Once you've entered a destination the app will suggest routes, for you. It even provides information on how environmentally friendly each route is by estimating its carbon footprint. To make it easier for users I used icons to represent transportation options, like cycling taking the bus or walking. Additionally there's a toggle switch that allows users to choose between eco routes. In order to enhance the user experience I added an option for users to rate and review routes or modes of transport based on their eco friendliness and convenience. The primary focus of this prototype is functionality. Providing an user experience.



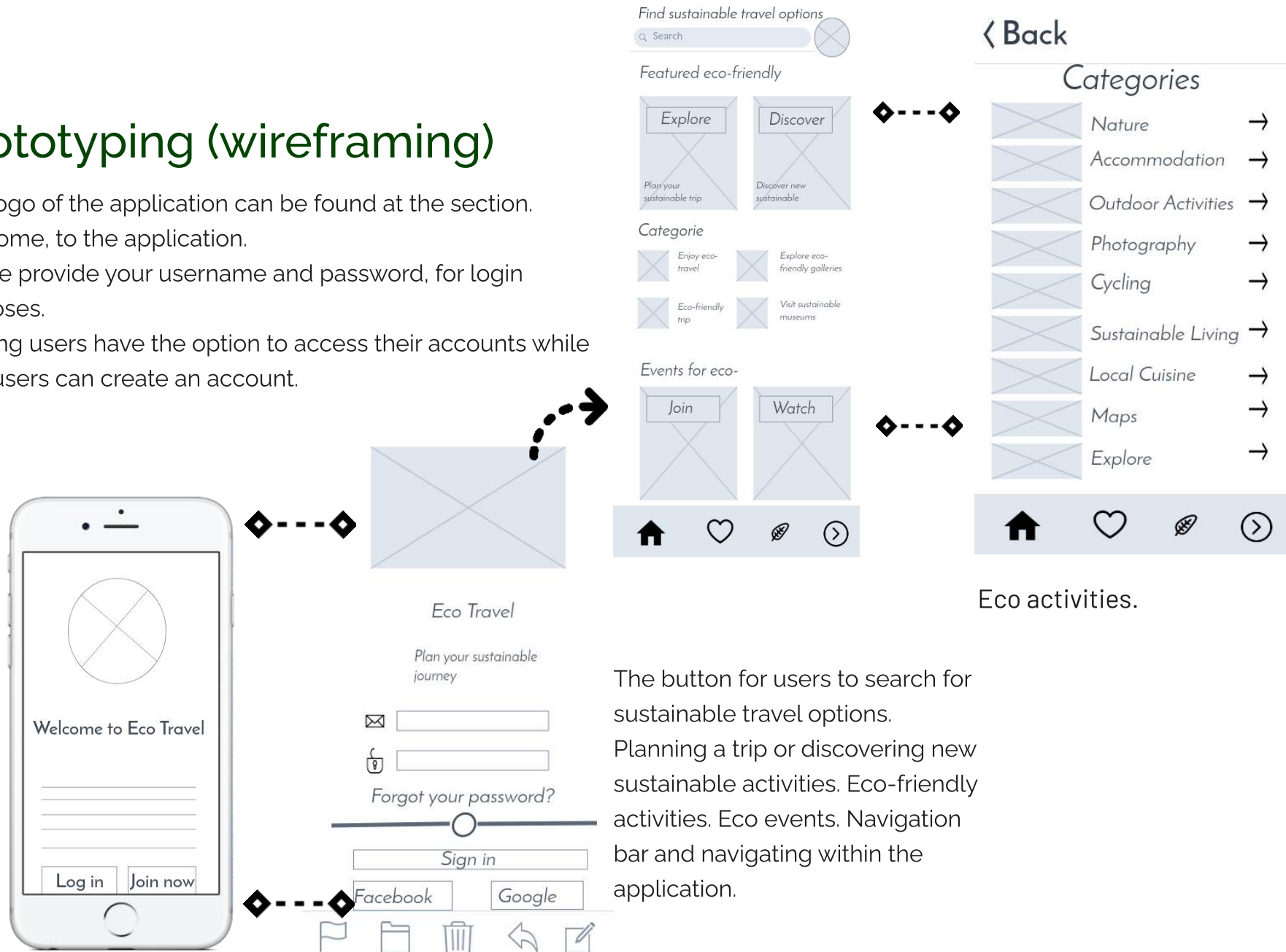
Prototyping (wireframing)

The logo of the application can be found at the section.

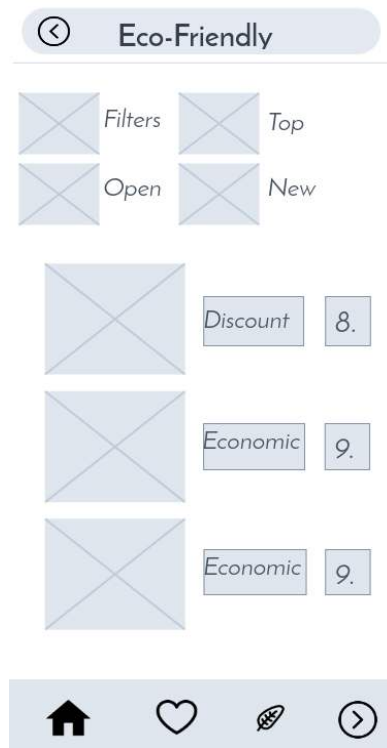
Welcome, to the application.

Please provide your username and password, for login purposes.

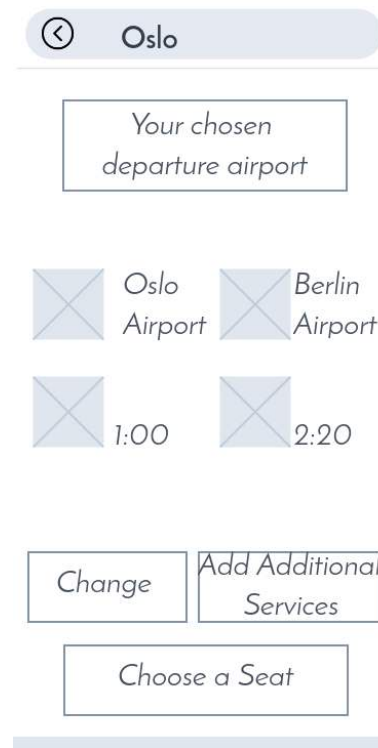
Existing users have the option to access their accounts while new users can create an account.



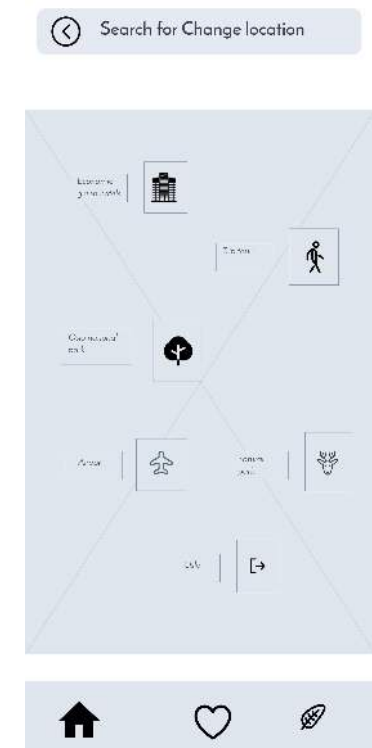
The button for users to search for sustainable travel options. Planning a trip or discovering new sustainable activities. Eco-friendly activities. Eco events. Navigation bar and navigating within the application.



Shows different types of deals or pricing categories for environmentally friendly listings.



Travel planning.

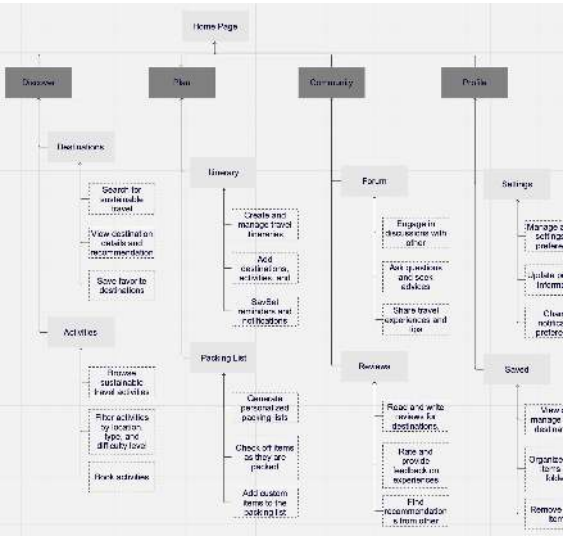


There are various points of interest related to travel and tourism.

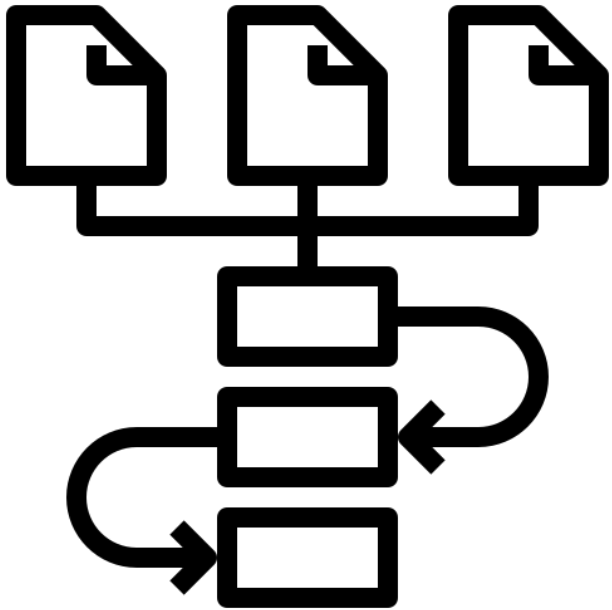
Requirements

Feature Categories					
		Data	Function	Context	Technical
Sustainable Destination Explorer		- Curated list of sustainable destinations - Environmental impact statistics - User ratings and reviews	- Allow users to explore and select travel destinations based on sustainability criteria. - Provide detailed environmental impact reports and user reviews.	- Facilitate users' destination-making process by furnishing an all-encompassing synopsis of various destinations. - Encourage exploration within the app.	- Interactive map integration - Dynamic content loading - User rating system
Green Travel Itinerary Planner		- User preferences (travel styles, budget, interests) - Transport options with carbon emission data - Scheduling details	- Create a personalized travel itinerary that prioritizes low carbon emissions. - Compare alternative routes and transport methods for sustainability.	Used during the travel planning phase to optimize for sustainability.	- Custom algorithm for itinerary generation - Database connectivity for real-time data - User account integration for saving preferences
Eco-Friendly Accommodation Booking		- Listings of eco-certified hotels and lodgings - Availability and booking conditions	- Provide a booking interface for eco-friendly accommodations. - Filter and recommend accommodations based on user preferences and sustainability ratings.	Enable users to book accommodations directly through the app.	- Secure API integration for booking services - User interface for filters and selection - Payment gateway integration

Information Architecture

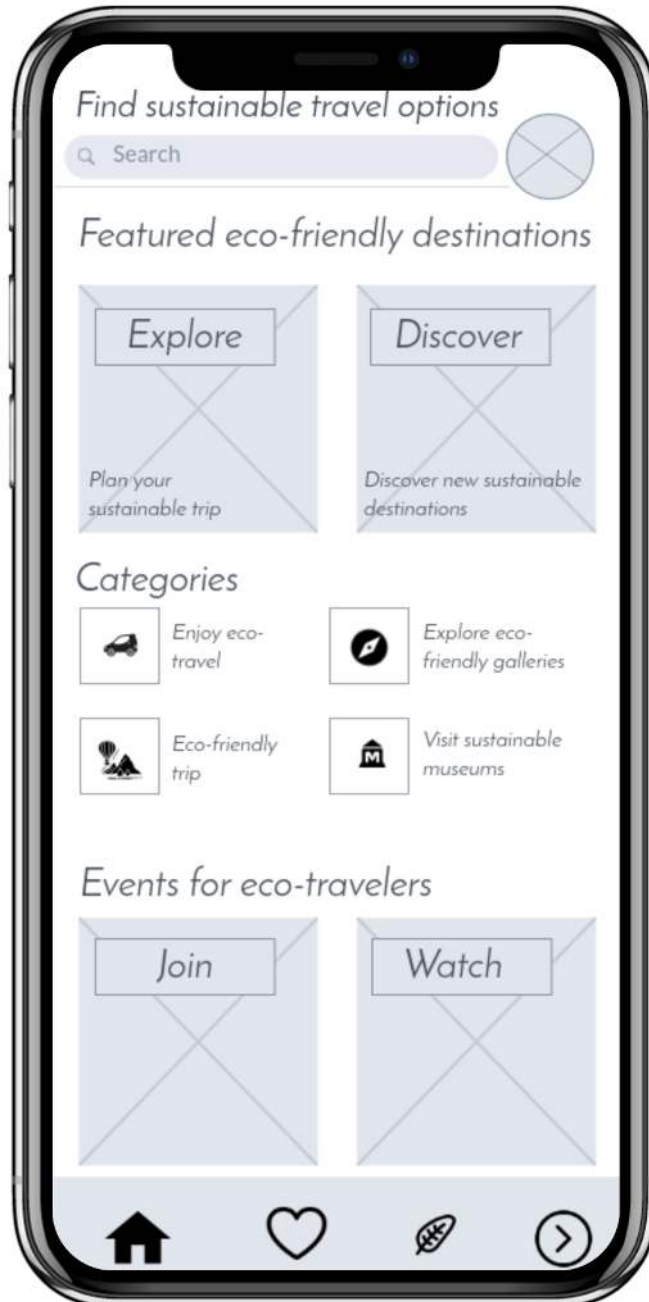
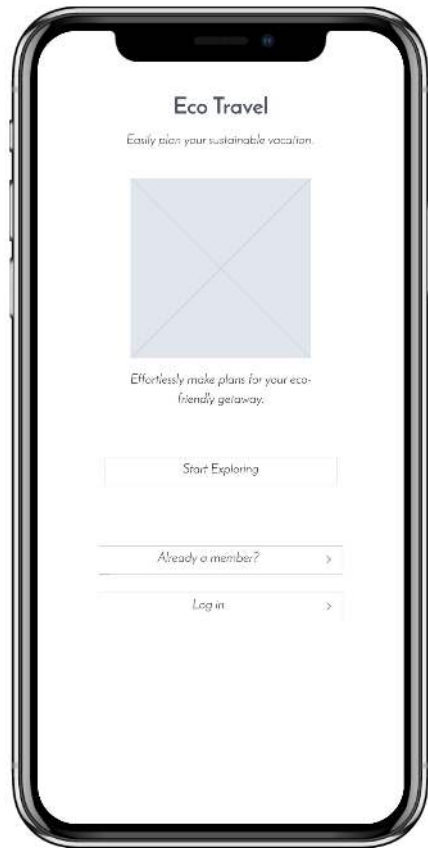


User Flow



Task Flow

Usability testing





Usability Test Plan; Preparation and planning

The evaluation will include the Eco Travel app, which includes destinations and responses, from participants to tasks presented in both face to face and remote testing situations.

Goals of the Usability Test;

To assess how easy it is to navigate the app and find information.

To evaluate how effectively the apps features help users plan an eco trip.

To gauge the level of engagement and user friendliness of the community and social features, in the app.

To identify any usability issues.

UsabilityTest Questions;

Task 1:

Find Information About Eco-Friendly Destinations

Where would you click to find more about a destination?

Is the destination information clear to you?

What would you improve on this screen?

Task 2:

Identify How to Plan a Sustainable Journey

How would you start planning your trip here?

Are the planning tools visible and clear?

What's missing on this screen for planning?

Task 3:

Locate and Join a Community Event

How would you sign up for an event here?

Does signing up for an event seem straightforward?

Would you use this events feature?

1: Based on the screenshot, how confident do you feel that you could find eco-friendly destination information?

Very Confident

Confident

Somewhat Confident

Not Very Confident

Not Confident At All

2: How clear do you think the process of planning a sustainable journey is in the app?

Very Clear Clear

Somewhat Clear

Unclear

Very Unclear

3: How easy do you perceive it would be to sign up for a community event based on the screenshot provided?

Very Easy

Easy

Somewhat Easy

Difficult

Very Difficult

4: How likely would you be to use the community events feature based on its presentation in the screenshot?

Very Likely

Likely

Neutral

Unlikely

Very Unlikely

Recruit

I set some criteria for selecting the participants. The participant's age range, continuous travelling, environmentally sensitive people. Of course, since it is difficult to find participants who meet all the criteria, I found people who are close to these criteria. Since I had difficulty in finding participants, session planning was irregular.

Conduct

My participant interviews lasted about half an hour.



Usability Test Participants

Participant 1

Name: Ayse

Age:35

Profession: Teacher

Marital Status: Married

Participant 2

Name: Jamaica

Age:22

Profession: Student

Marital Status: Single

Participant 3

Name: Simen

Age:37

Profession: Student

Marital Status: Single

Participant 4

Name: User

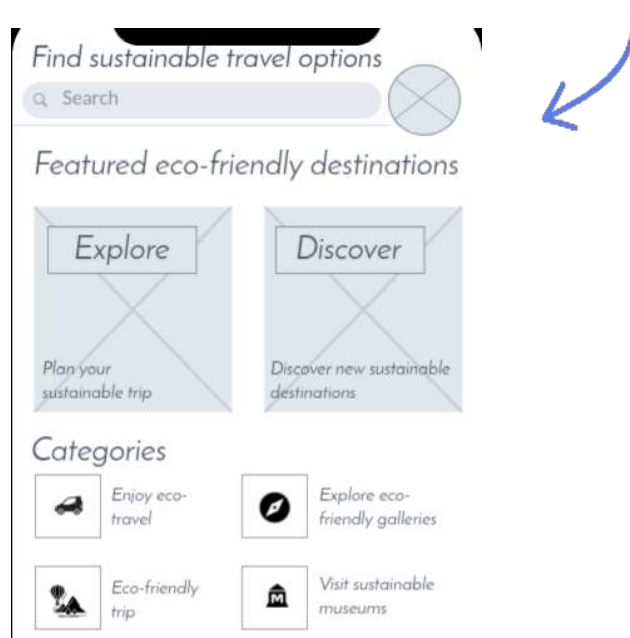
Age: 18-35

Profession: Student

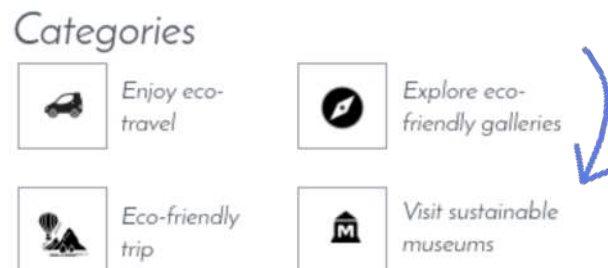
Marital Status: Single

Observations and Feedback

My participants said that they understood how to find information about environmentally friendly destinations.



One of my participants stated that when he saw the museum in the application, he could not make a connection with sustainability. I think there is some confusion about the categorisation of destinations.



Analysis

The participants found it quite easy to plan a trip using the application.

They particularly liked the apps layout and how user friendly it was for navigation.

Some suggestions made by the participants included adding activities and travel options such as train journeys.

Furthermore participants recommended including descriptions for each destination and incorporating detailed planning tools like a day to day itinerary planner.

They also suggested providing options for eco travel and including detailed descriptions and travel distance information for each destination.

Lastly they expressed interest in having a feature that allows them to plan and save their travel days along, with their interests.

Conclusion

Based on the usability test findings it is evident that although the app is easy to use and understandable there are opportunities, for enhancements. Specifically there is a need to offer details and planning features. By prioritizing these aspects the app can evolve into a tool, for facilitating travel plans.

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Appendix

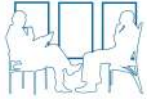


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