

GreenLine

★ Powered by *GreenLine AI*™



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Meet the team



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Fourth Year



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About

Problem Statement

Young travelers struggle to balance their love of traveling with their concern for the environment. With how pressing of an issue climate change has become and the effect it will have on younger generations, there is a pressure to always make environmentally conscious decisions without the knowledge of how to do so.

Main Task

Help users make the most environmentally conscious travel decisions through an informative award-based application.

Target Audience

Young adults, ages 18-35 who are eco-conscious and sustainable travelers who do not know too much about how to lower their carbon footprint but want to

How Might We

How might we encourage more sustainable travel to younger adults who are more concerned about pricing over carbon footprint, even though they are conscious of climate problems.

Submission Summary

For this design challenge, our goal was to address the pressing issue of climate change and the impact of carbon emitted from traveling. In this report, we have included a survey of people ranging from ages 18-38+, as well as two individuals who value traveling and sustainable living, along with research we conducted to better understand the climate issue and how users would interact with our app idea. We then used all of the data we collected to work together and create an app that not only guides travelers, but also incentivizes them to make more sustainable choices when choosing their modes of transportation. The app rewards users for picking travel options that emit less carbon with travel miles or gift cards of our app's partners, allowing the app to be for-profit, as it works in collaboration with airlines and other companies. After booking a trip based on and ranked by sustainability, users are suggested eco-friendly options to add to their itinerary in the place they are visiting.

Why we Created GreenLine

Young people are at the forefront of the climate change movement, and will be most effected by global warming in their lifetimes. In fact, 70% of 16–25-year-olds surveyed across ten countries claim to feel worried to extremely worried about climate change. In addition, greenhouse gas (GHG) emissions from transportation account for 28%, (the largest contributor) of the total U.S. GHG emissions. Although 83% of travelers confirm that sustainable travel is important to them and 92% acknowledge the importance of sustainable travel, a little less than 57% said they practiced it.

Research & Statistics

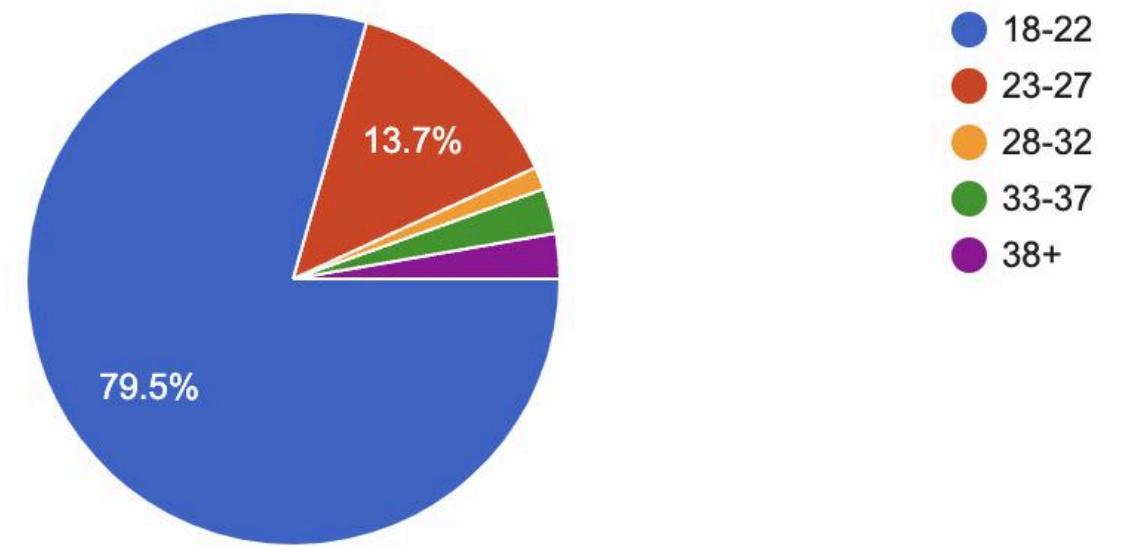
We surveyed 73 people to get their insights on their sustainability values and how this influences their travel decisions.

User Lifestyle:

- 93.2% are ages **18-27**
- 68.5% are **female**
- Most were **frequent travelers**, with 38.4% going on trips outside their city every few months

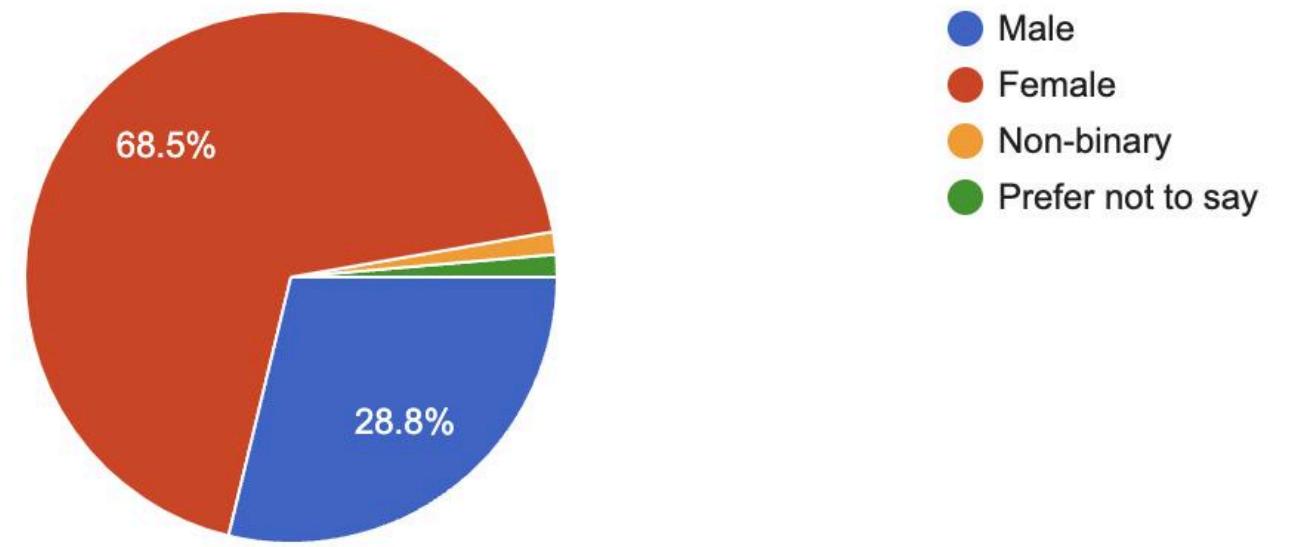
What is your age?

73 responses



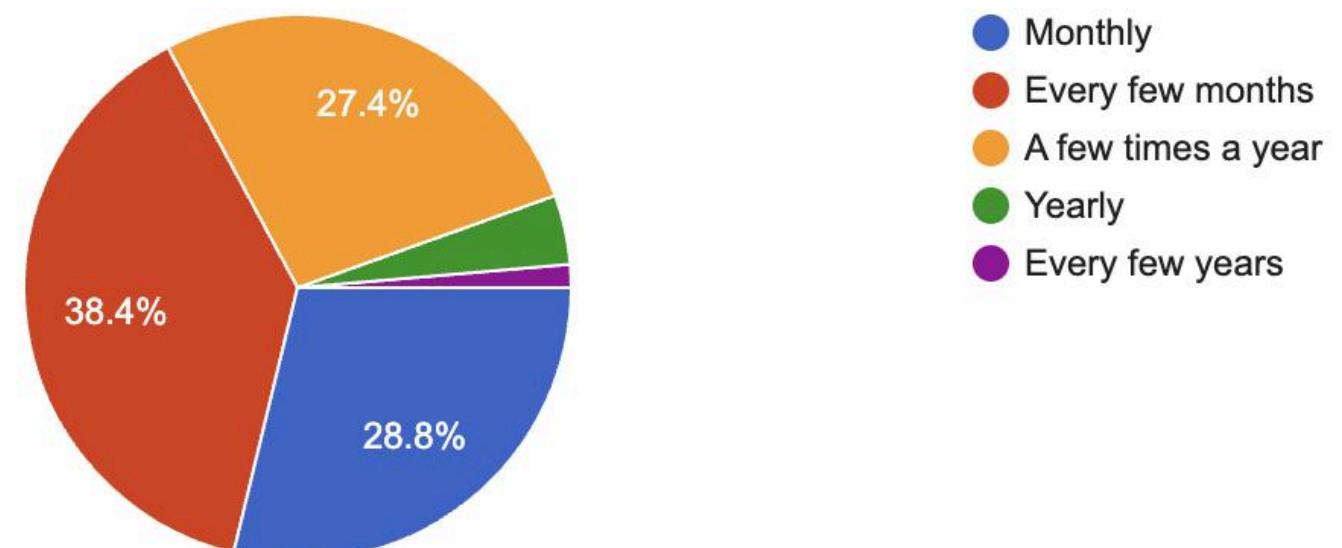
What is your gender?

73 responses



How often do you plan a trip outside your city?

73 responses



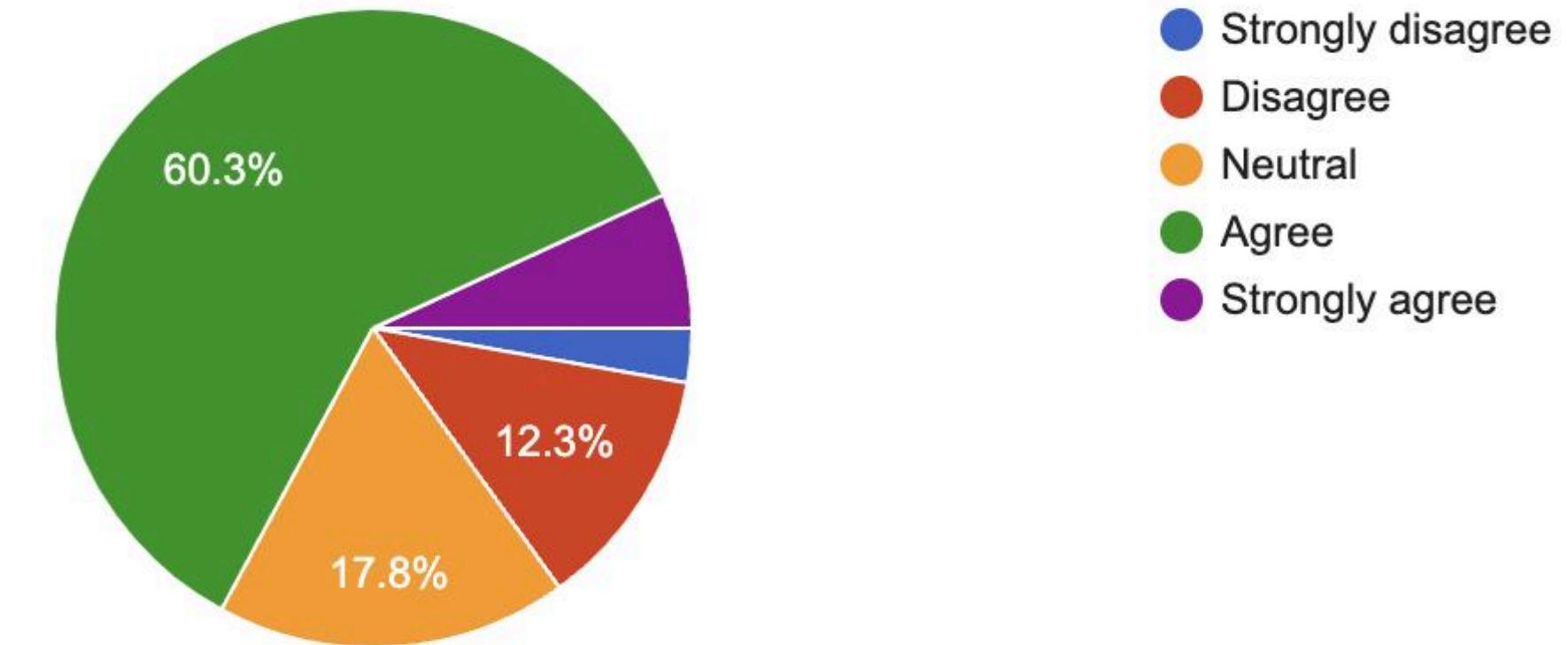
Research & Statistics – Key Points

Highlights:

- **60.3% are aware of their carbon footprint and the contributing factors**
- **71.2% ranked high importance of the prioritization of sustainability**

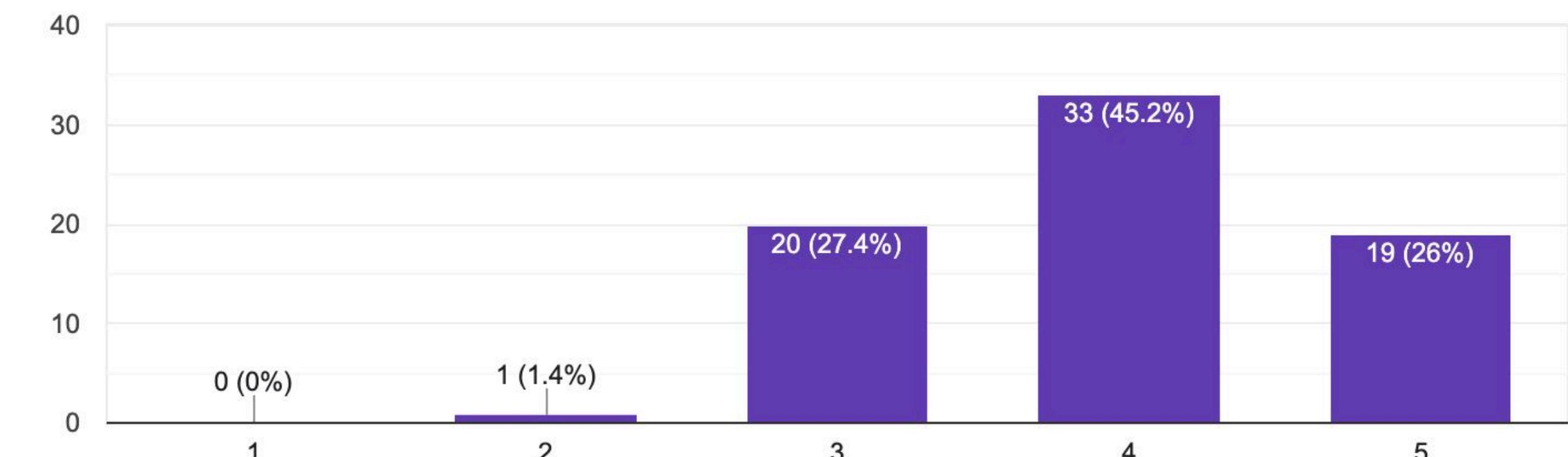
I am aware of my carbon footprint and the actions that contribute to it.

73 responses



How important to you is sustainability?

73 responses



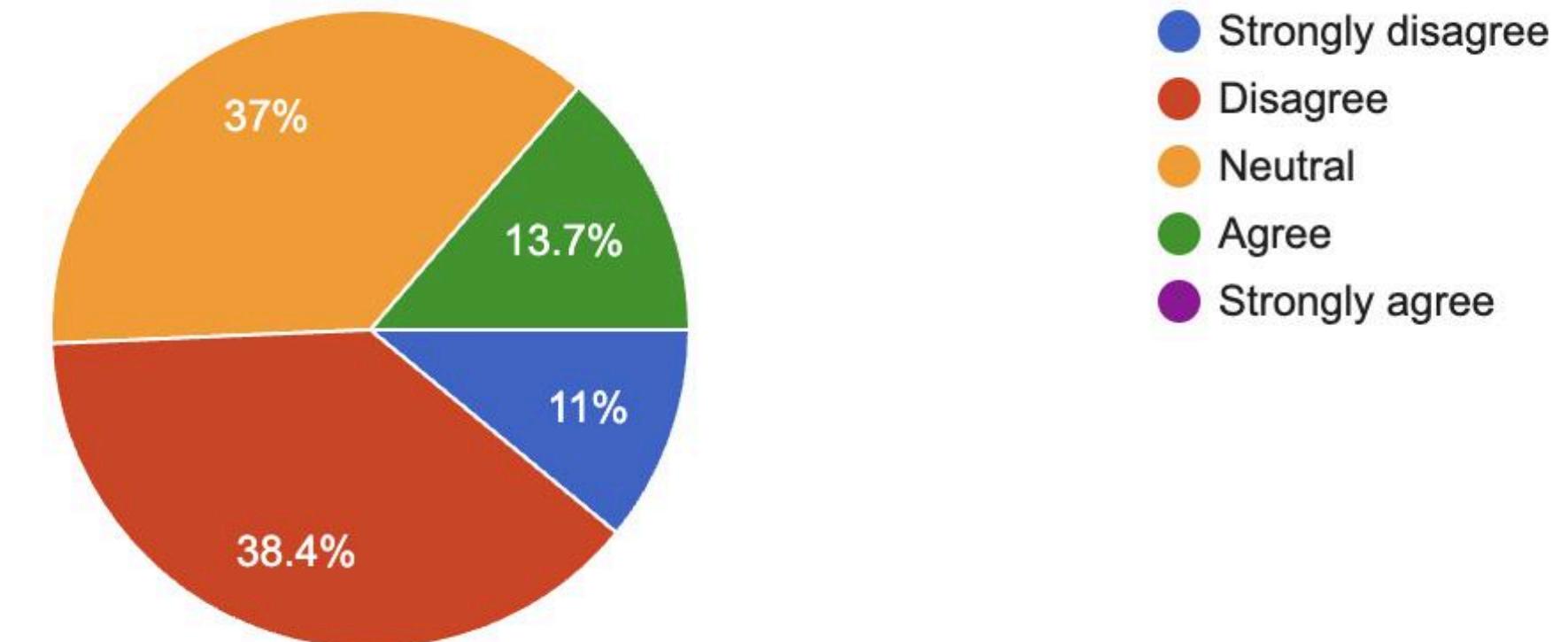
Research & Statistics – Key Points Cont.

Areas of Improvement:

- When provided with the scenario of prioritizing affordability or sustainability, **94.5% would disregard sustainability for a cheaper price**
- **38.4% disagreed** that they consider the environmental impact of their travel choices

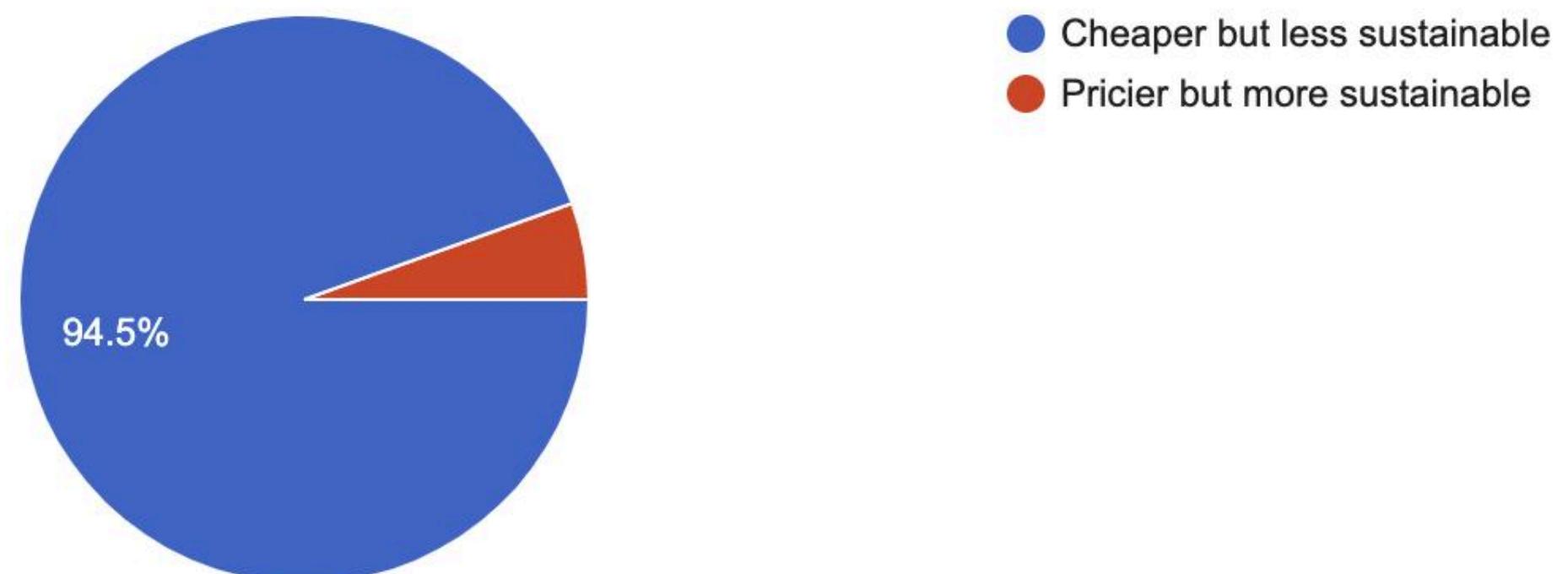
I consider the environmental impact of my travel choices when booking a trip.

73 responses



Which of the two options would you be more likely to choose when booking a trip?

73 responses



Survey Synopsis & Conclusions

Our Findings:

The majority of those surveyed claim to prioritize sustainability and were generally conscious of the contributions to their own carbon footprint. When it comes to traveling (*most commonly every few months*), the majority of those surveyed **do not consider the environmental impacts** of their travel choices when booking a trip and would prioritize cheaper prices over more sustainable alternatives.

According to both our surveying and outside sources, a principal reason for people not choosing sustainable travel options is a lack of clear understanding of our transportation's carbon footprint and lack of financial incentive and/or ability. Knowing this, we sought out a solution to give sustainable travel opportunities **AND** financial incentives for young people to travel!

Contextual Inquiry



Alexandra Hill

ⓘ 23 Years Old

📍 Los Angeles, California

Wants/Needs

- Wants to avoid spending a lot on traveling
- Wants to be more sustainable, but does not know how to go about it / what research to do
- Needs some sort of compensation if she is going to spend more money to be sustainable

Findings

- Less conscious about sustainability due to desire for cheapest option
- Only ever thought about sustainability when an airline mentioned she could pay extra to "cover" her carbon footprint
- Looks at every transportation option only prioritizing the price



Asha Budge

ⓘ 21 Years Old

📍 Seattle, Washington

Wants/Needs

- Needs the ability to filter by pricing and additional features
- Wants to make sustainable choices, which is a priority over cost, but needs more info on how to
- Needs to account for lots of long driving trips and occasional international trips

Findings

- Knows about the option to "buy back" the CO2 she emits
- Appreciates apps that provide above average CO2 notifications
- Willing to pay more for sustainable depends on the price difference,
- Would appreciate incentives that "reimbursed" her, (E.g. gas gift card)

User Persona



Nikola Poppins

ⓘ 22 Years Old

📍 San Francisco, California

Personality

Adventurous • Sustainability-Minded • Friendly

About

- Nikola is a recently graduated young adult who is ready to take on the world and travel, but wants to make sure she does not harm the environment in the process.
- She loves going on trips every few months and knows somewhat about her carbon footprint, but she wants to find out ways on how she can be even more sustainable in the choices she is making when traveling without breaking the bank.

Challenges

- Finding out how to lower her personal carbon emissions
- Booking the most sustainable route when planning a trip
- Finding a way to make up for the extra money she spends to be more sustainable

Goals & Needs

- To book more sustainable trips
- To “reimburse” the extra funds she spends on sustainable traveling methods
- An easy way to organize her trip

Competitor Analysis



Rome2Rio

4.7/5

- shows variety of ways to get there
- labels as cheapest and recommended
- pricing shown
- out of app navigation
- breakdown of route

Pain Points

- users complain about outside of app purchasing
- users complain that search sometimes does not match the information that we entered
- does not include stops along the route



Expedia

4.8/5

- labels routes as above or below average CO2
- allows users to compare different flights
- allows users to filter based on time of travel and price

Pain Points

- Customers complain that tickets booked tickets through Expedia may not work because of third party booking
- hidden fees



FairTrip Travel Guide

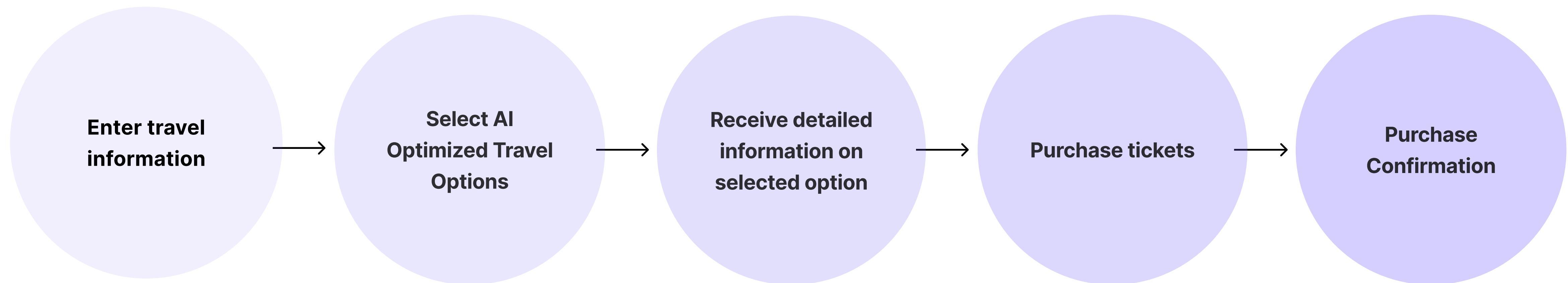
4.5/5

- Gives a variation of sustainability options
- offers a map and search
- shows distance from your location
- has a community aspect

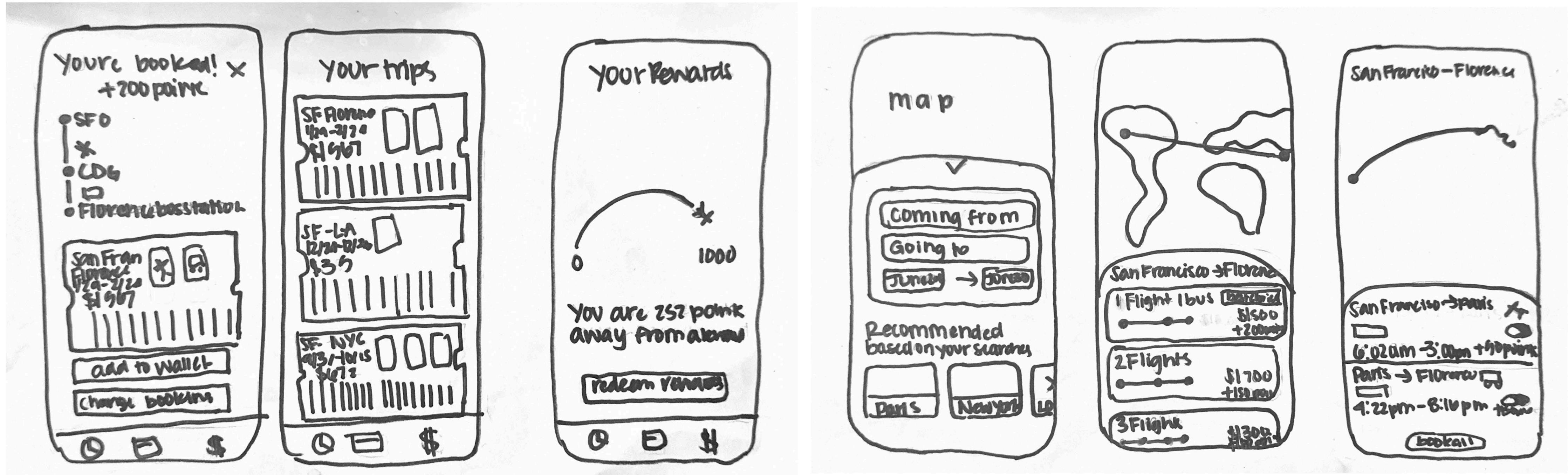
Pain Points

- only shows places within a city, not how to get there
- no in app navigation and no way to exit the app straight to navigation
- not focused on traveling to get there

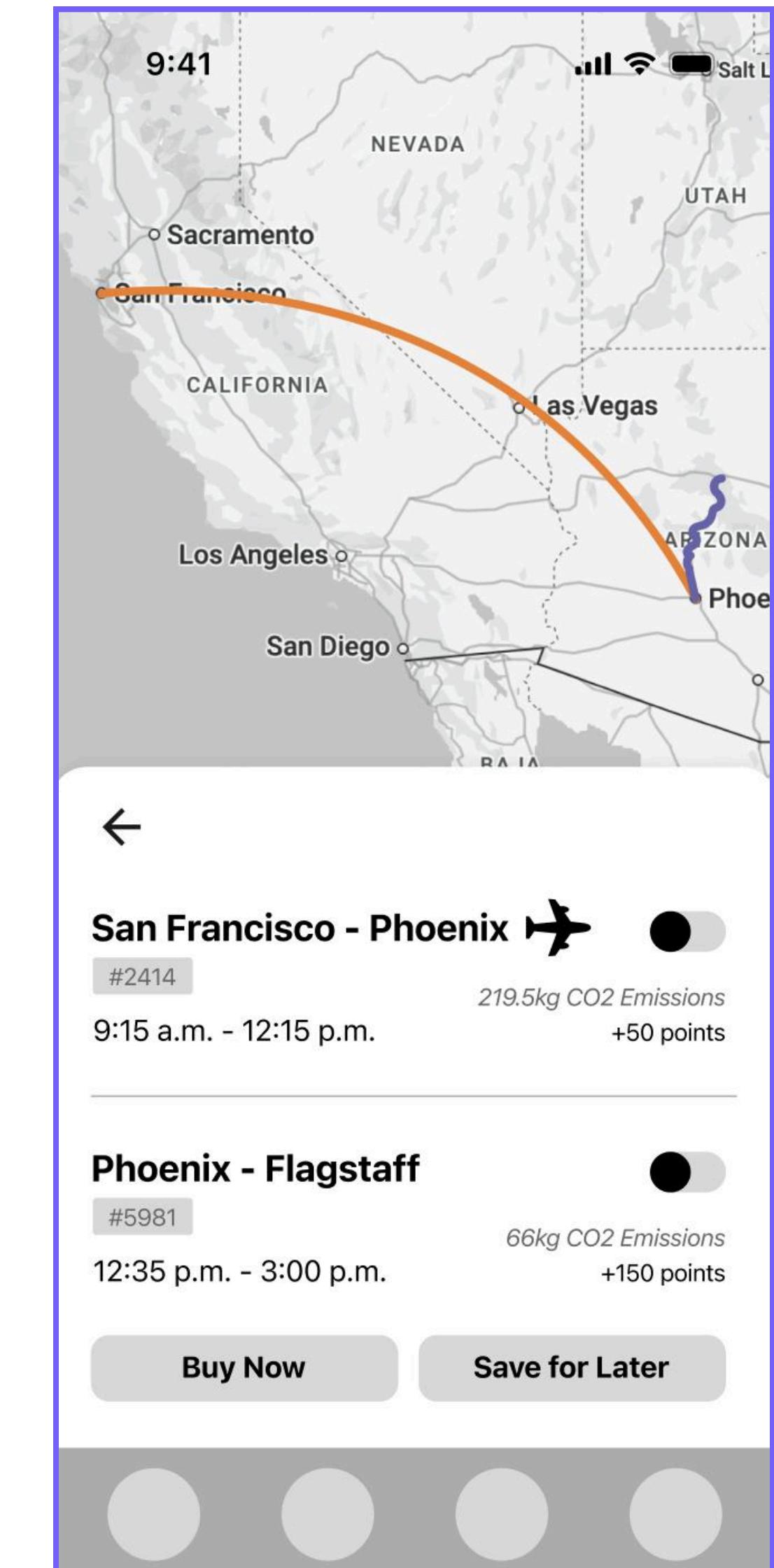
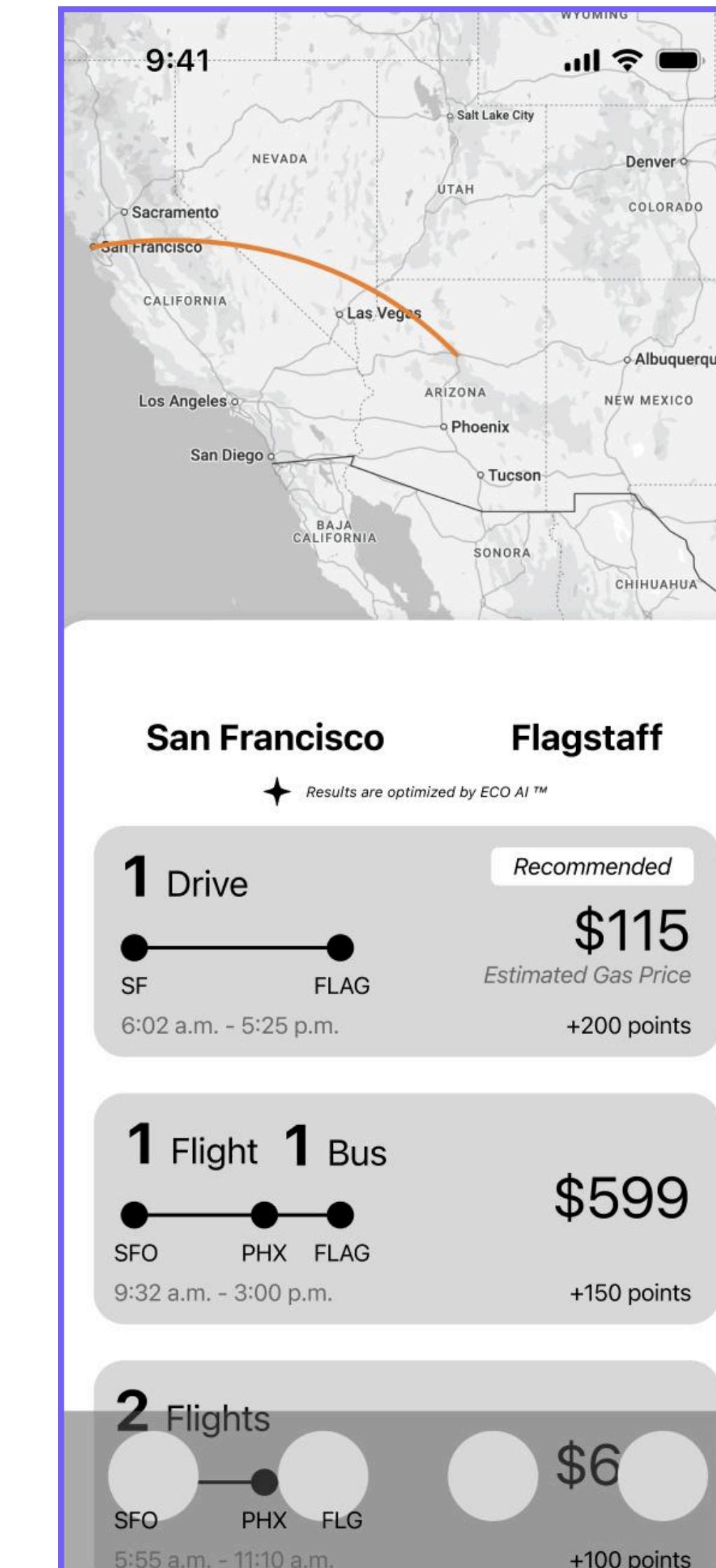
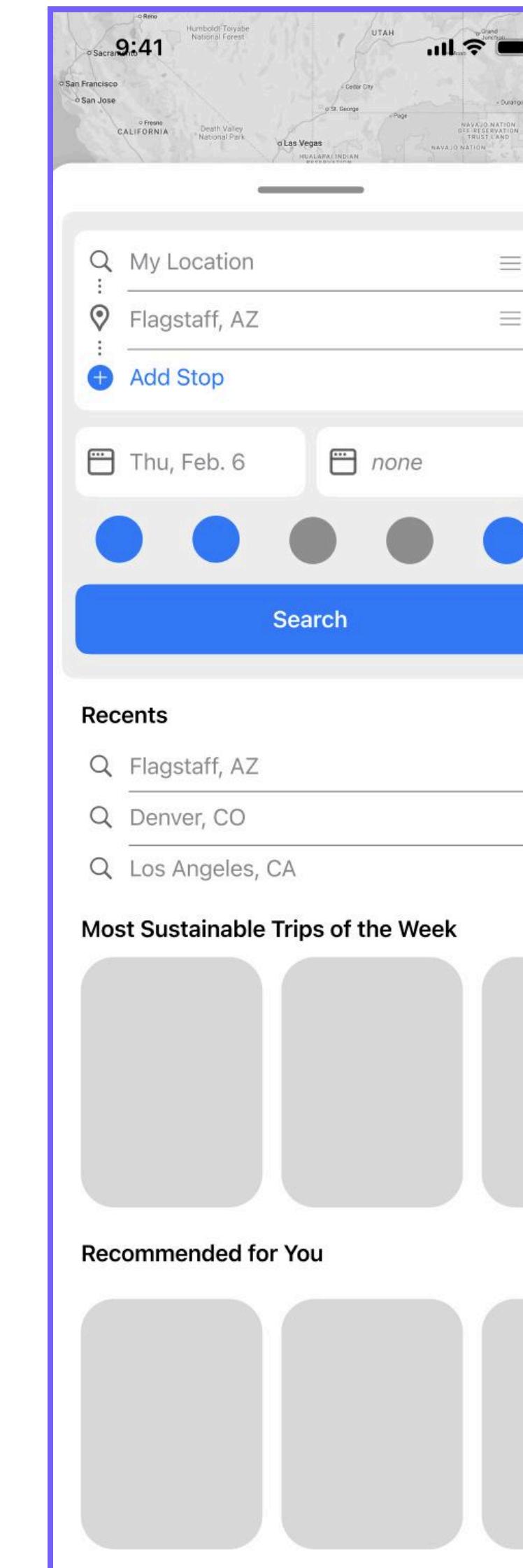
Task Flow



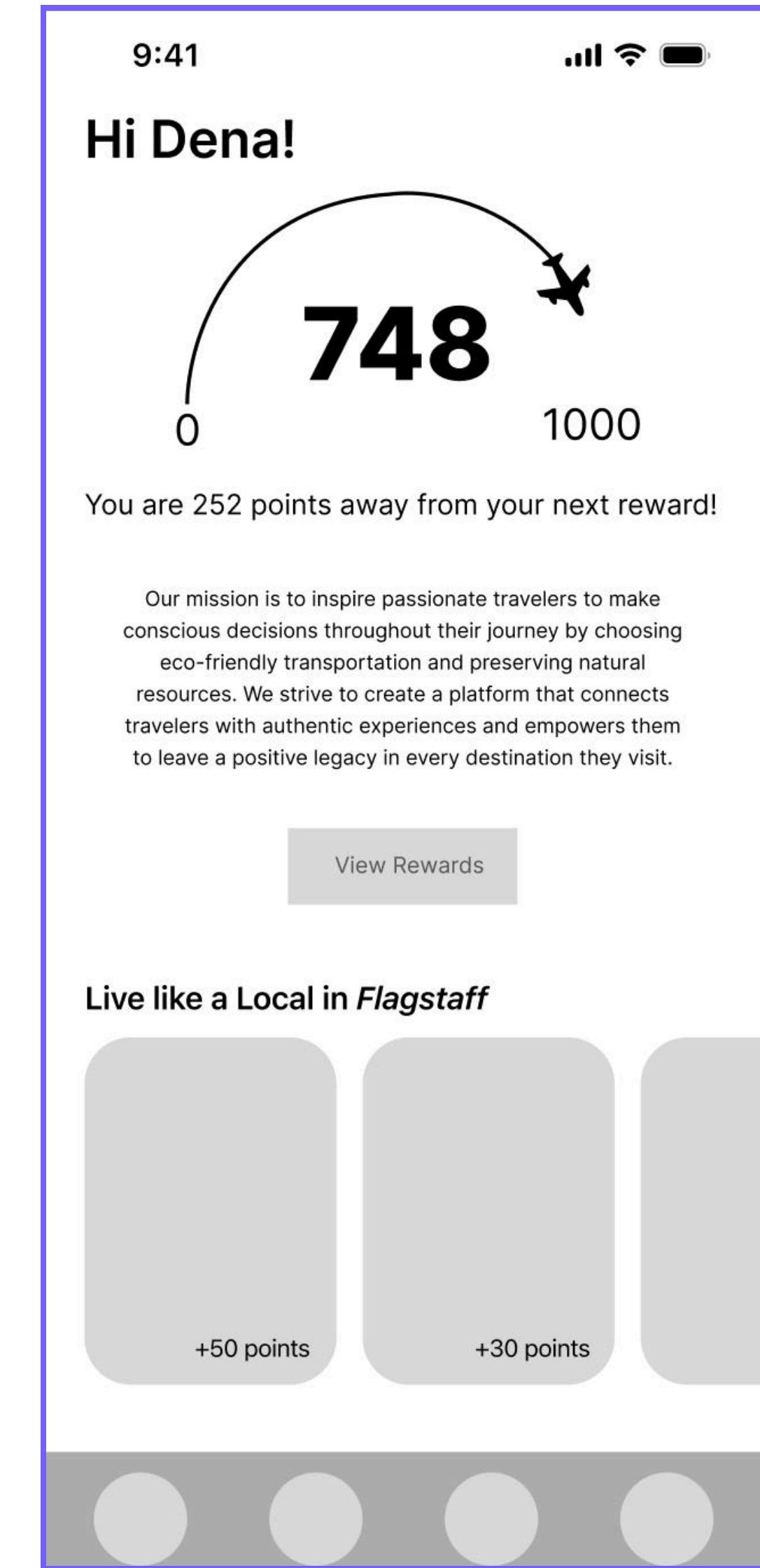
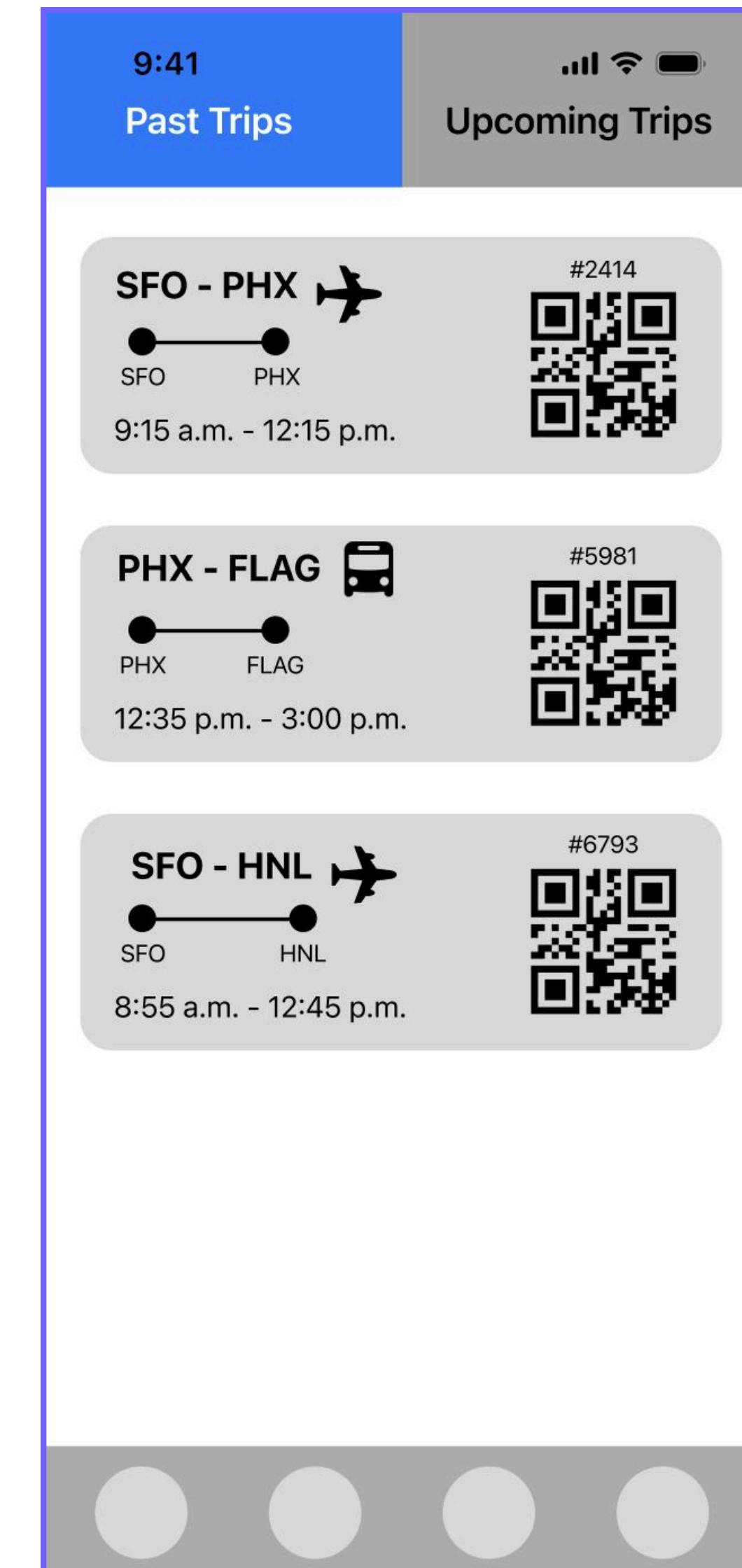
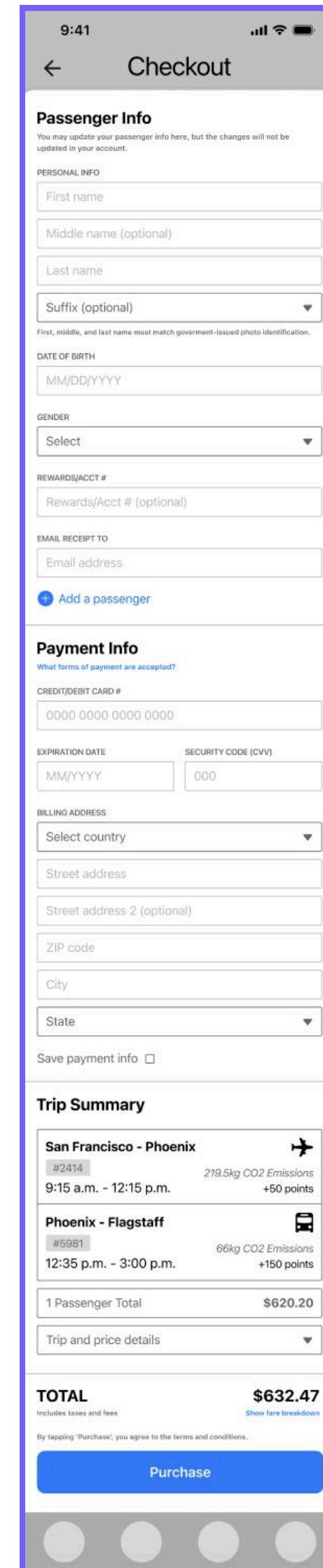
Sketches



Lo-Fi Screens



Lo-Fi Screens



Design System

Typography

We chose *Poppins* for its timeless legibility, yet round friendly feeling to feel less like an emotionless navigation application, and more like an inspiring, sustainable, and satisfying-to-use travel app for young people.

Semibold

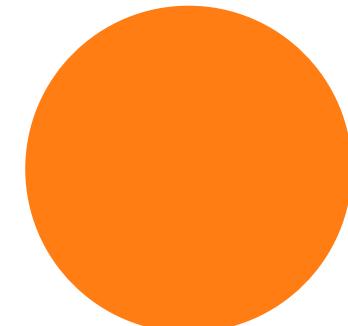
Medium

Regular

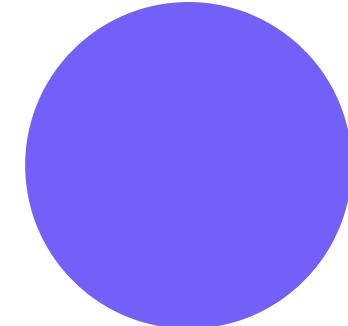
Colors

We color coded our application's colors to our transportation options:

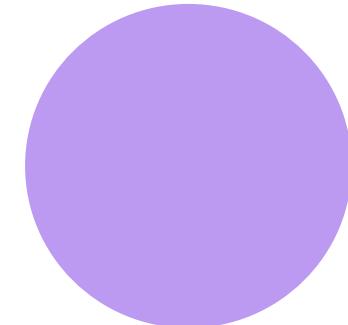
Tangerine, **Iris**, **Lavender**, and **Jade** for easy viewing and maximum contrast and pop. Green alludes to our obvious sustainability goals and practices, and Purple and Lavender are modern takes on transportation apps, with a fun orange pop.



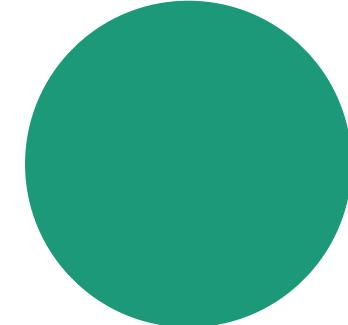
Tangerine
#FF7D13



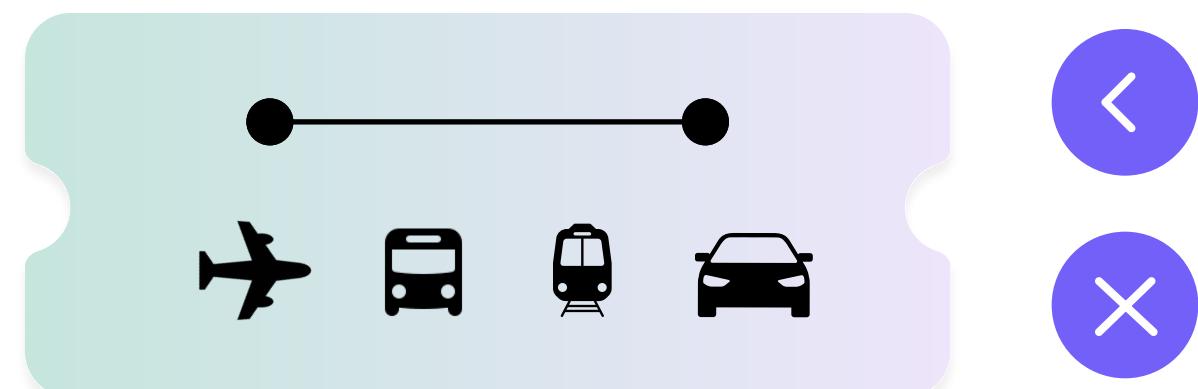
Iris
#7360F8



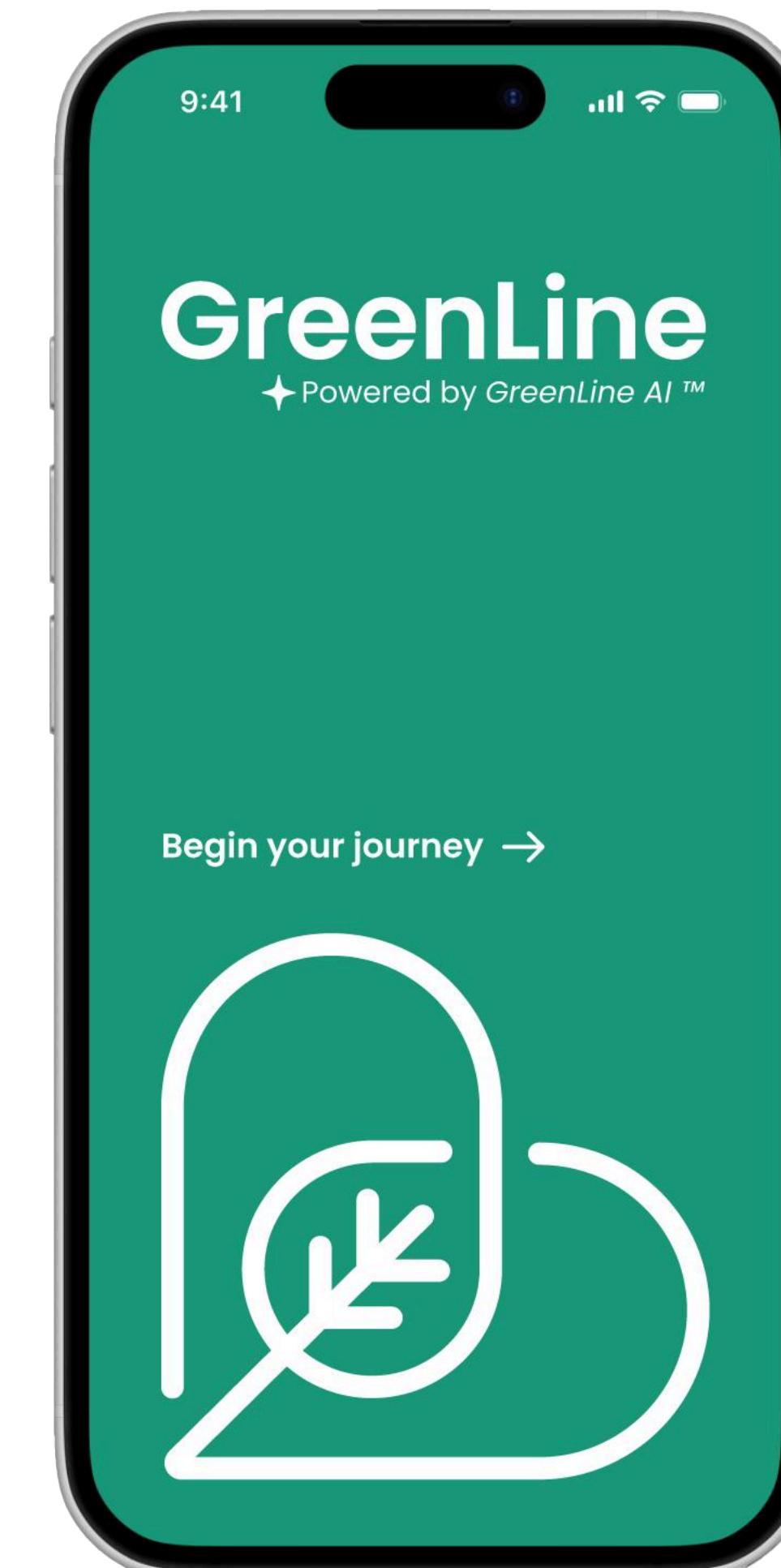
Lavender
#BC9BF2



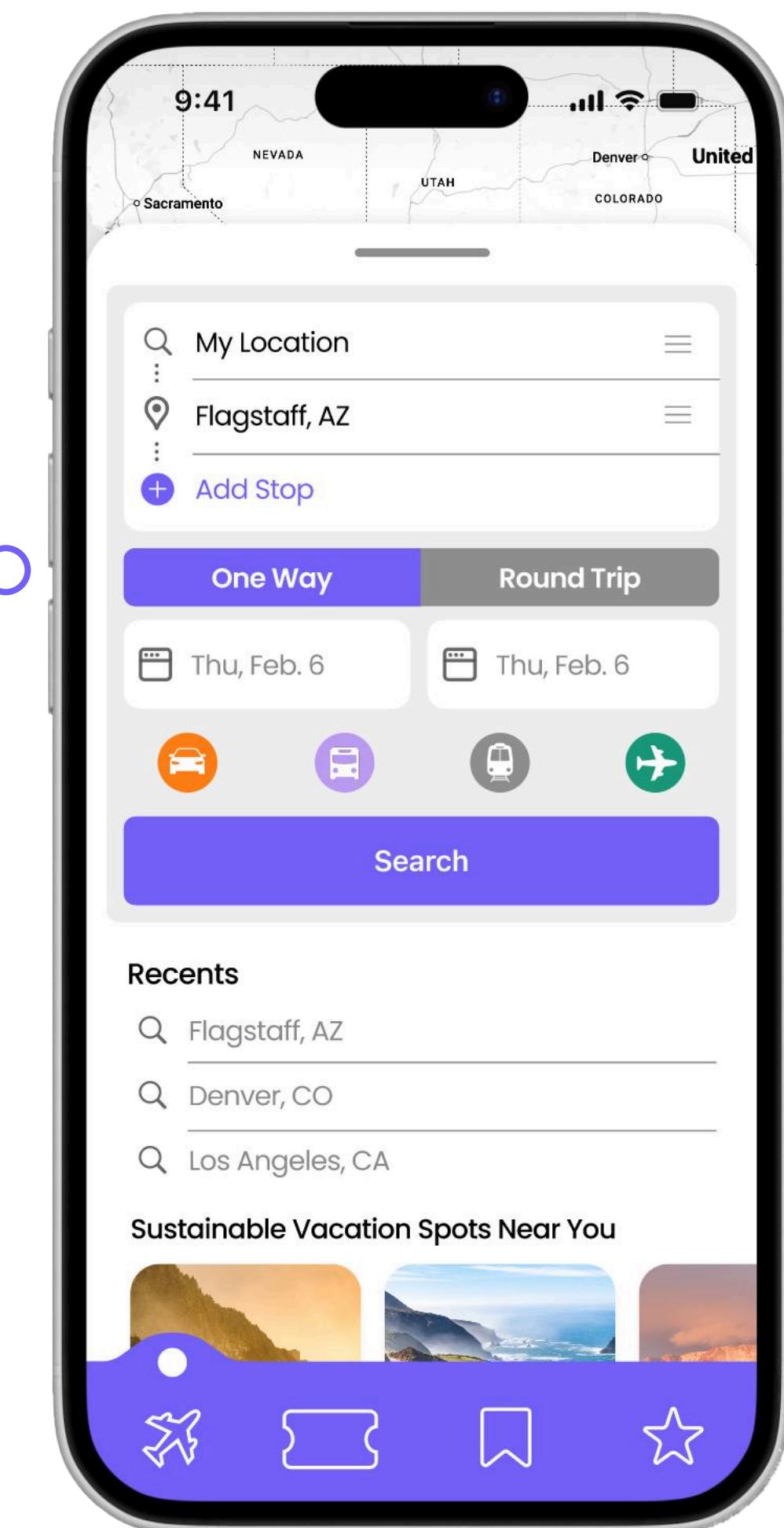
Jade
#1B997A



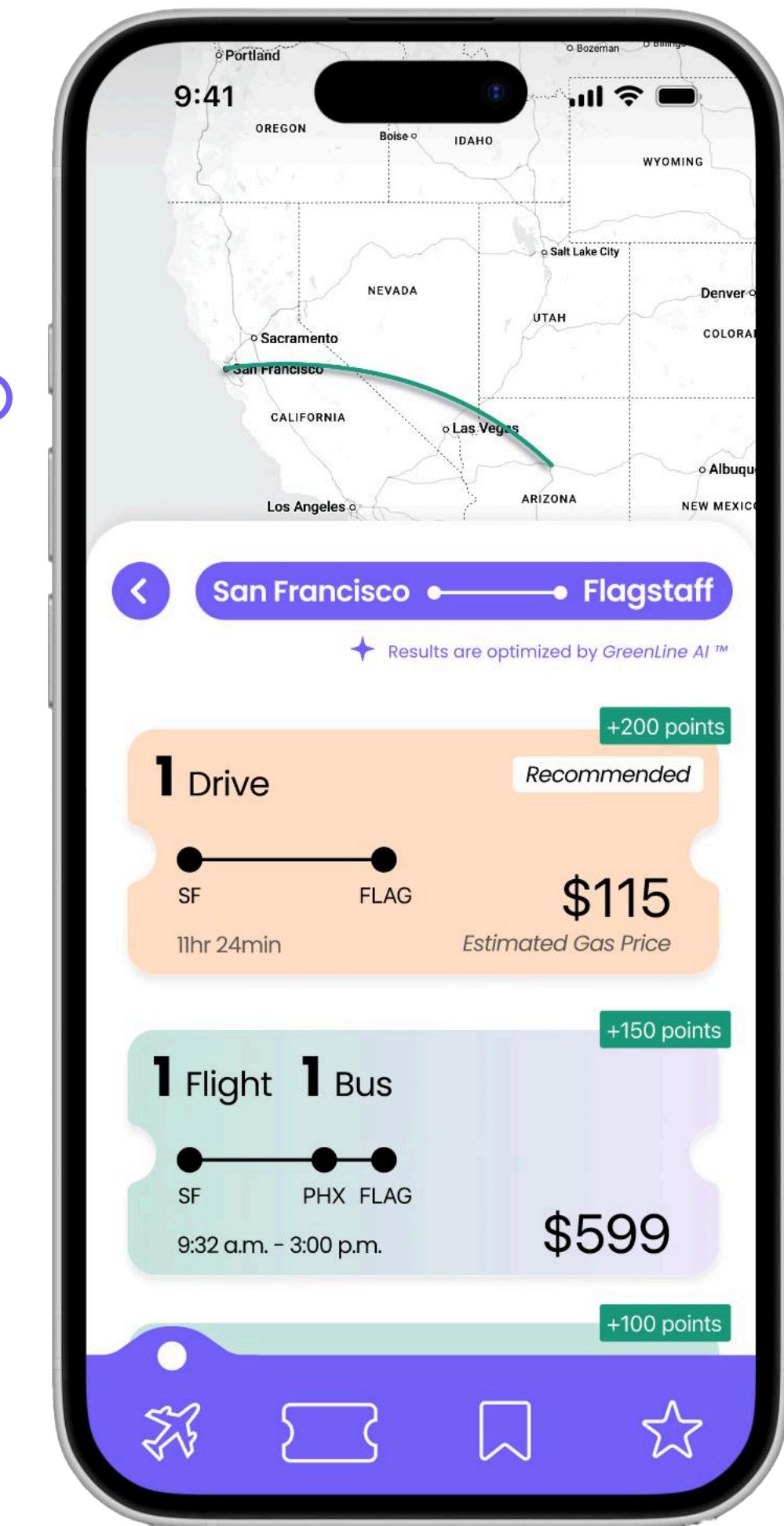
Final Design



Input information, toggle between one way and round trip, and choose modes of transportation



Overview of what the route would look like from point A to point B



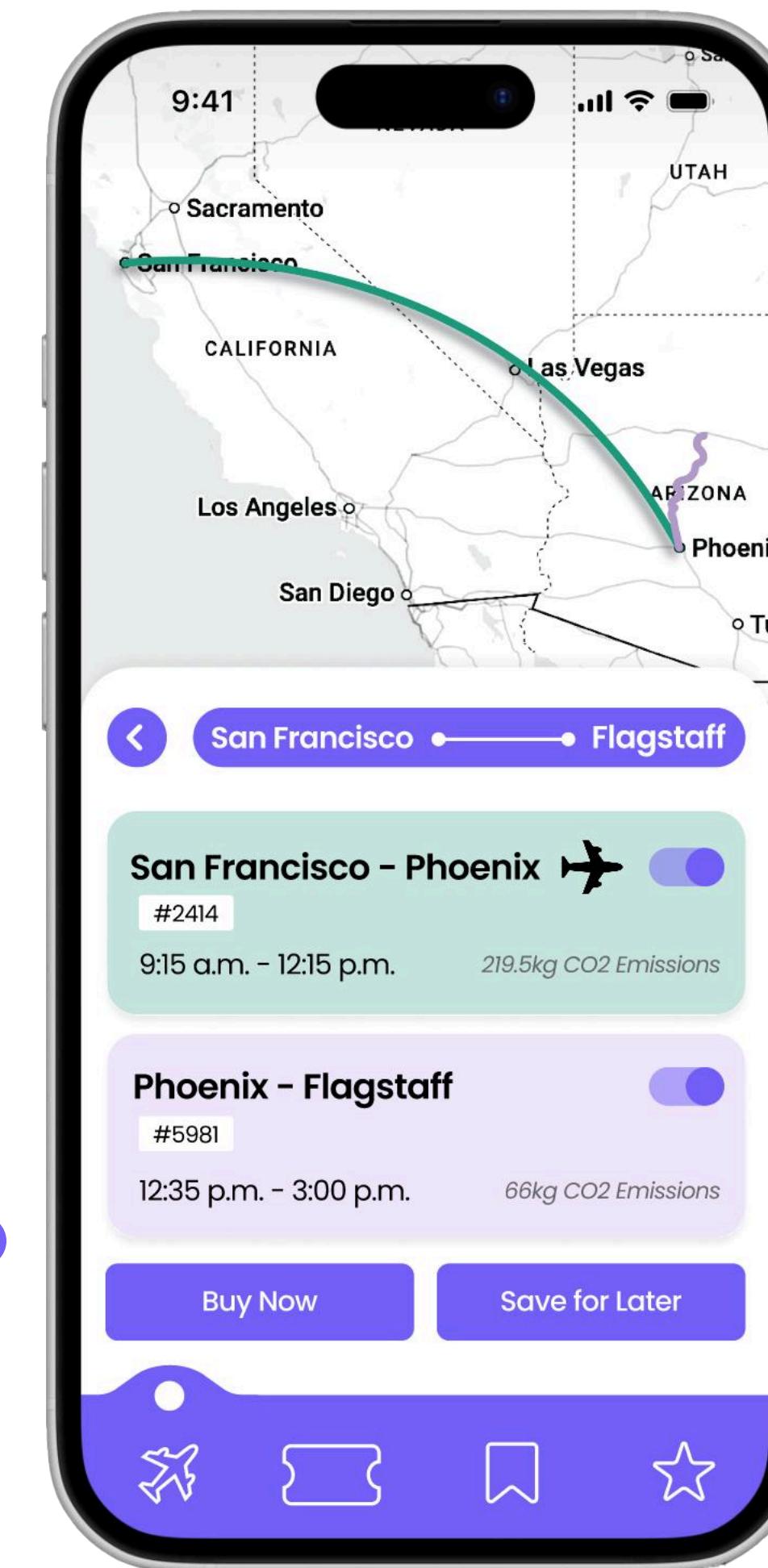
If driving were chosen, a link to your choice of map application would appear, and rewards would be given after the drive was tracked.

Recommended trips based on your previous trips/searches. Suggested sustainable destinations.

Color labeled choices sorted by most sustainable to least sustainable. Reward amount listed at the top for the biggest incentive.

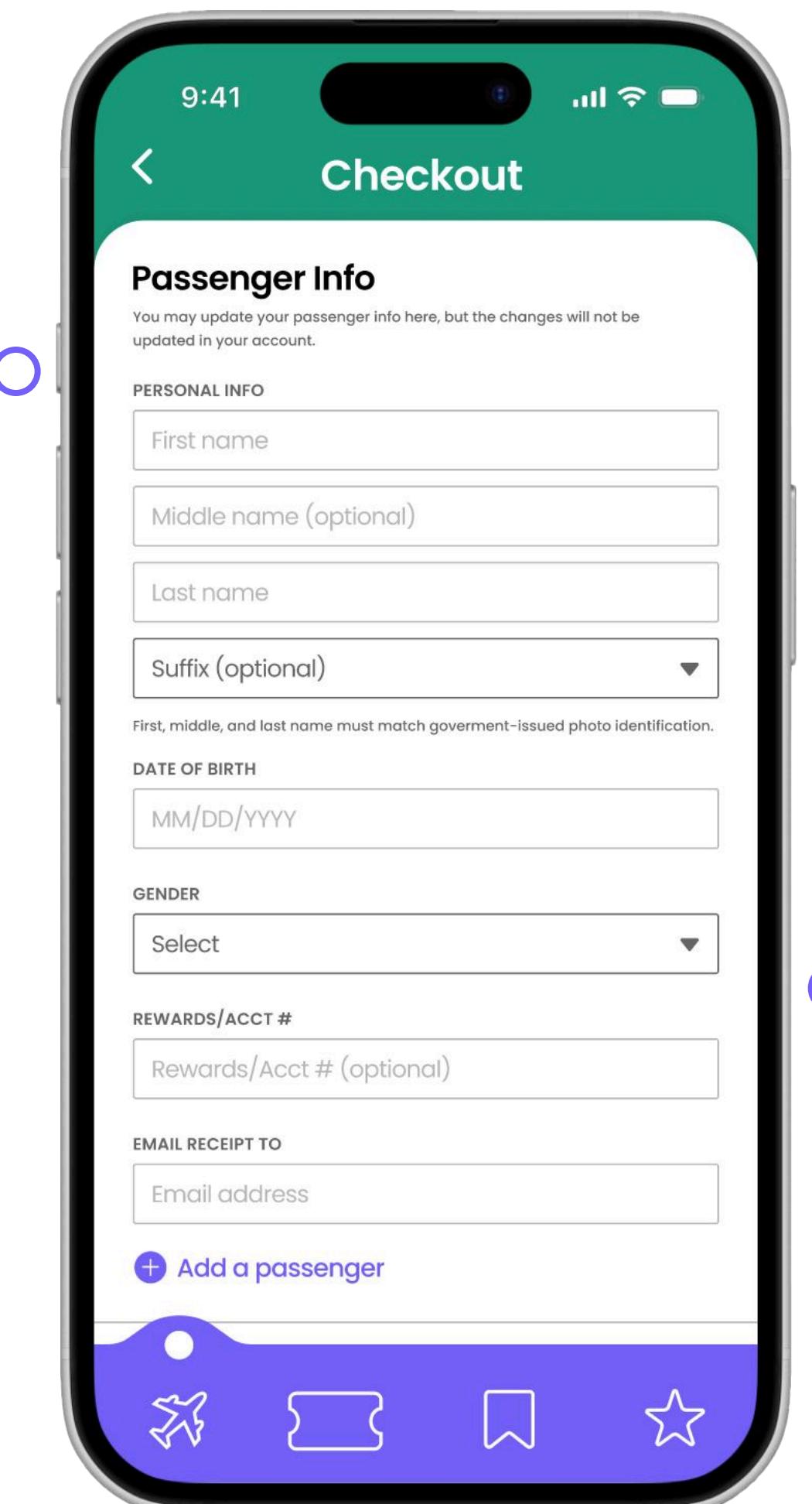
Final Design

Color coded map with sectors of the route to match the mode of transportation



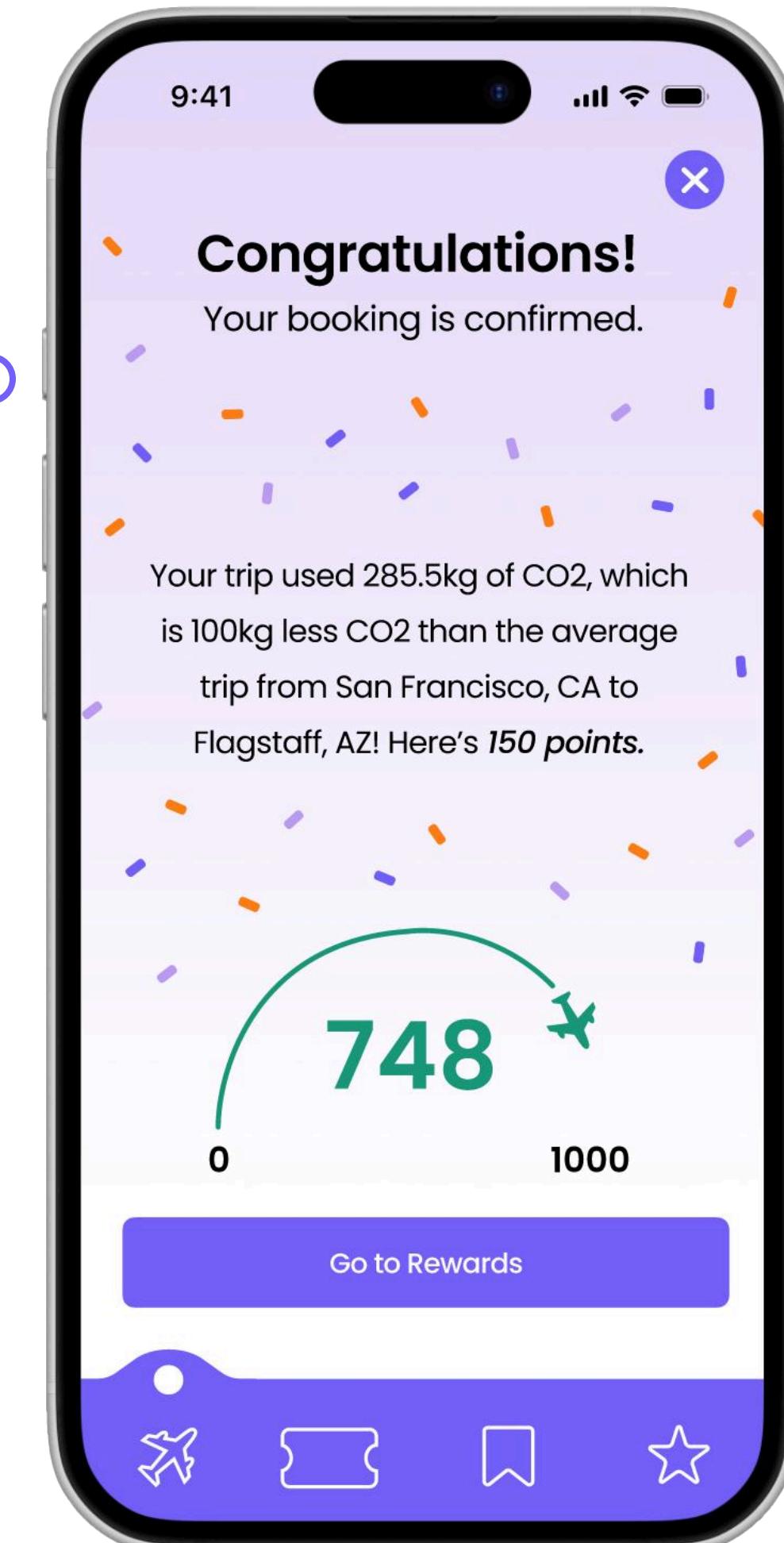
Sectors of the trip separated with more information about each mode of transportation. Options to purchase now or save for later.

One screen to fill out all passenger information for all modes of transportation, keeping them all in one place.



Option to add a passenger later on in the process

Confirmation booking screen to assure users the success of their purchase.

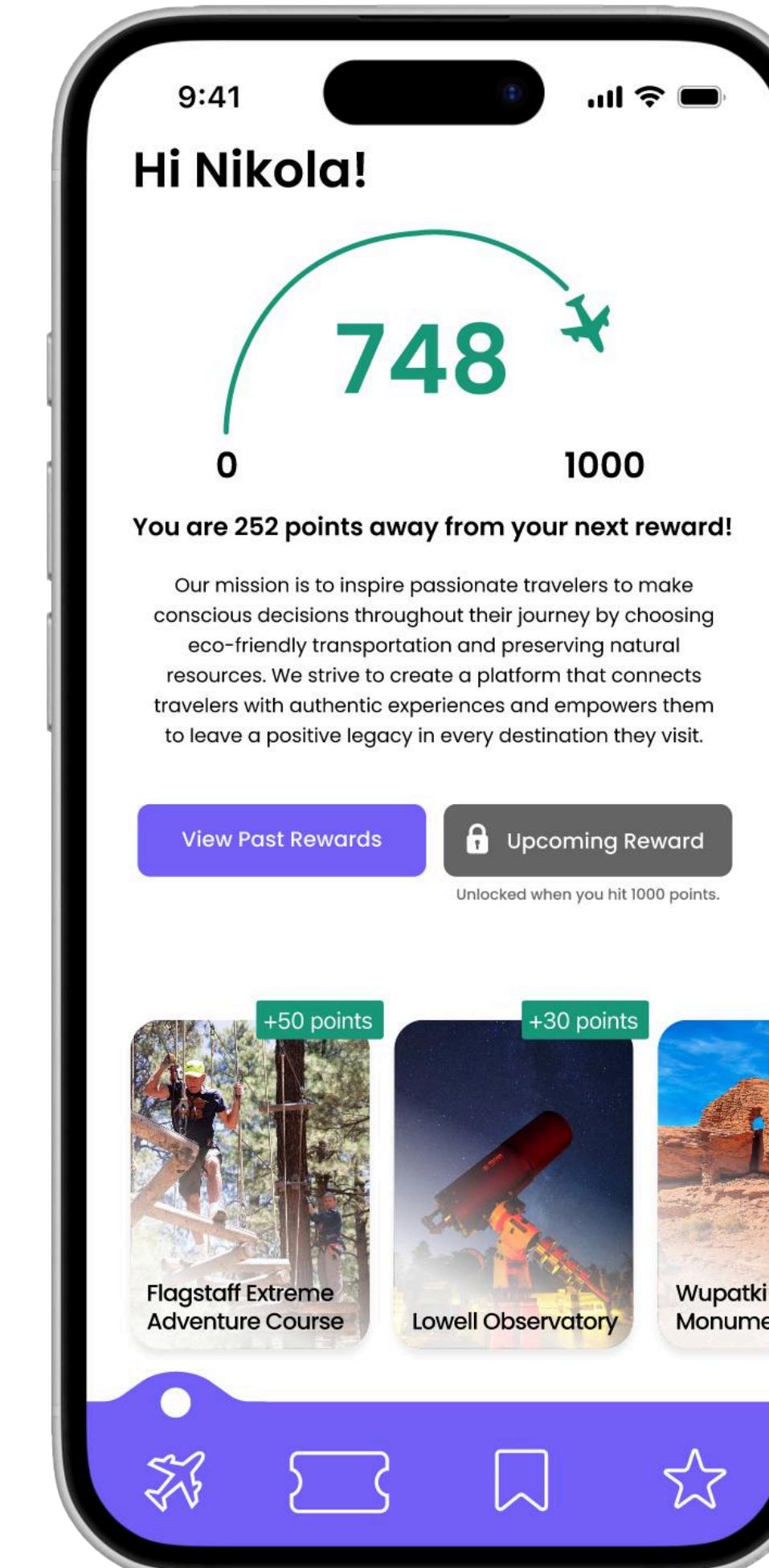


A preview of rewards status, with an option to go directly to rewards. A breakdown of your CO2 emissions vs the average.

Saved for later tab

Final Design

A radial dial to show progress towards rewards. A mission statement is listed to educate users on why their decision is important.



Options of sustainable activities based on recent purchase history, and the rewards that come with them.



Toggle between upcoming trips and previous trips for easy access.

QR code for each mode of transportation, all in one place.

Walk-Through

[View our Prototype](#)

Works Cited

- <https://www.weforum.org/stories/2022/10/chart-shows-global-youth-perspectives-on-climate-change/>
- <https://www.gstcouncil.org/booking-sustainable-travel-report-2024/#:~:text=While%20this%20year's%20research%20reveals,to%20make%20more%20sustainable%20travel>
- [https://www.epa.gov/transportation-air-pollution-and-climate-change/carbon-pollution-transportation#:~:text=Transportation%20and%20Climate%20Change,-Burning%20fossil%20fuels&text=%E2%80%8BGreenhouse%20gas%20\(GHG\)%20emissions,contributor%20of%20U.S.%20GHG%20emissions.](https://www.epa.gov/transportation-air-pollution-and-climate-change/carbon-pollution-transportation#:~:text=Transportation%20and%20Climate%20Change,-Burning%20fossil%20fuels&text=%E2%80%8BGreenhouse%20gas%20(GHG)%20emissions,contributor%20of%20U.S.%20GHG%20emissions.)
- " <https://skift.com/2024/10/21/travelers-do-think-of-sustainability-but-theyre-not-sure-how-to-act-on-it/#:~:text=While%2092%25%20acknowledge%20the%20importance,clear%20understanding%20of%20the%20concept.%E2%80%9D>
- <https://curb6.com/calculators/plane>

Thank you!

