Trail Tracker Case Study

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Project overview

The product:

Trail Tracker is a finder of new hiking trails in the surroundings of Madrid. It shows every hiking trail and they can be sorted and filter by distance, level and length. The apps target users are people who want to discover and track their new favorite trail.

Project duration:

February 2021 to November 2021.

Project overview

The problem:

It is not easy to find new trails and there isn’t a place to store and track all the routes from the area.

The goal:

Create an app for users who wants to discover new and near trails around them.

Project overview

My role:

UX designer designing from conception to delivery.

Responsibilities:

Conducting interviews, paper and digital wireframing, low and high-fidelity prototyping, conducting usability studies, accounting for accessibility, and iterating on designs.

Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

User research: summary

I conducted interviews and created empathy maps to understand the users I'm designing for and their needs. A primary user group identified through research was people who don't have the knowledge of finding new trails.

This user group confirmed initial assumptions about potential users, but research also revealed that people know new trails by word of mouth.
Other user problems included challenges that make it difficult to find new trails without knowing other hikers.

User research: pain points

1

Accessibility

It is hard to find the information of these trails and a JSON file provided by the government is not something accessible.

2

Distance

User sometimes can’t go by car to hike and want to hike in the nearest trail as possible.

3

Information

Sometimes the users want to know the level of the trail before they started it. Family trips can turn into a nightmare.

Persona: **Mikal**

Problem statement:

Mikal is a student who needs to find an advanced trail because he wants to spend time in the nature and exercise.

Mikal

Age: 20
Education: University Degree
Hometown: V. de la Cañada, Madrid
Family: Single
Occupation: Student

"Spending time in the nature is no time wasted"

Goals

- Find new trails to go with his friends.
- Track successfully his movement and trails.

Frustrations

- Some trails are not accessible.
- Some trails are not well designed or there are some trails errors.

Mikal is a student and feels passion about hiking. He knows lots of people with the same passion. He likes to go hiking at weekends. He have time and is strong enough to do long and advance trails.

Persona: **Henry**

Problem statement:

Henry is a school administrator and a father who needs to find an undemanding trail because he wants to spend time with his family while having a walk.

Henry

Age: 49
Education: MBA
Hometown: Quijorna, Madrid
Family: 3 sibling and married
Occupation: Administration

"When you're old you need to know everything that could happen and be prepared."

Goals

- Find new trails to go with his family.
- Know information about the trail.

Frustrations

- Some trails are not accessible by car.
- Some trails are not easy for his children.

Henry is a 49 year old man that works as a school administrator. He likes to enjoy nature with his family and loves spending time with them. He loves music and like to know where he is going.

User journey map

Goal: Find and go to an advanced level hiking trail with his friends.

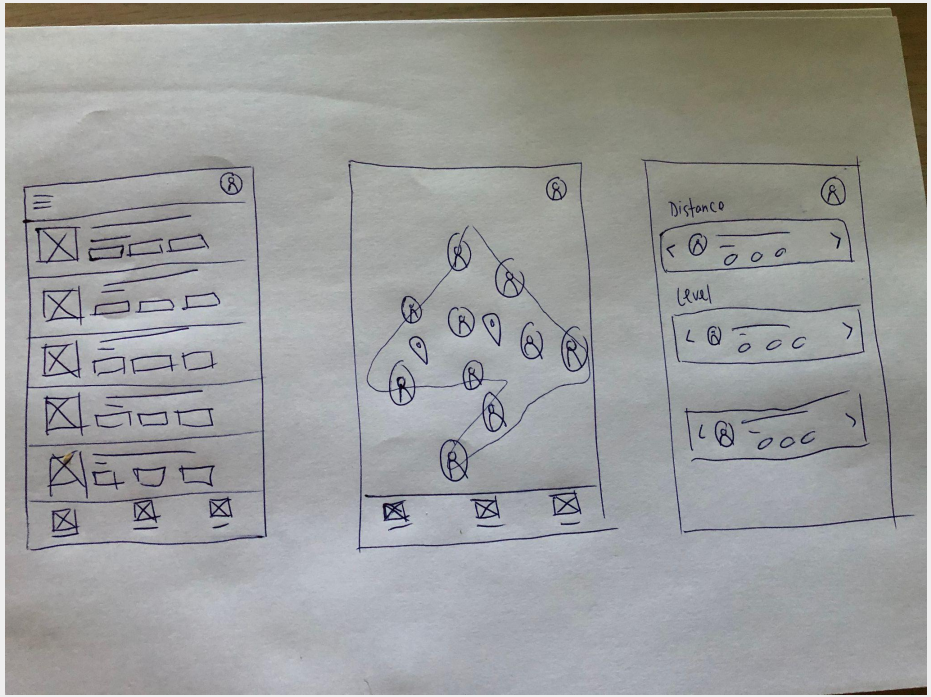
ACTION	Determine the source of information	Download and install the app	Find the correct path for him	Find good and precise data about the trail he has chosen	Going to the trail's start point	Track and analyze the route
TASK LIST	Tasks A. Ask friends and professional hikers. B. Search on google. C. Search in apps stores.	Tasks A. Navigate through google's or apple's menus. B. Initial configuration	Tasks A. Find accessible trail B. Find a good level trail C. Save it for later	Tasks A. Check the trail's information B. Do a brief scouting of the trail in G maps	Tasks A. Take a bus, he don't have a car. B. Find the trail's starting point.	Tasks A. Track information of the route B. Check the right path
FEELING ADJECTIVE	• Lost • Intimidated	• Confused • Hopeful	• Overwhelmed • Satisfied	• Hopeful • Satisfied	• Frustrated	• Excited • Hopeful
IMPROVEMENT OPPORTUNITIES	• Better wayfinding • Advertisements	• Easy first steps • Brief tutorial if needed.	• Favorites routes management. • Good trail filtering	• Giving trail information • Show trail in a map	• Easy to access "Go to starting point in G maps" button. • Show bus stations and stops	• Tell the user the more information the better. Altitude, time, distance, rests points, etc

Starting the design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies

Paper wireframes

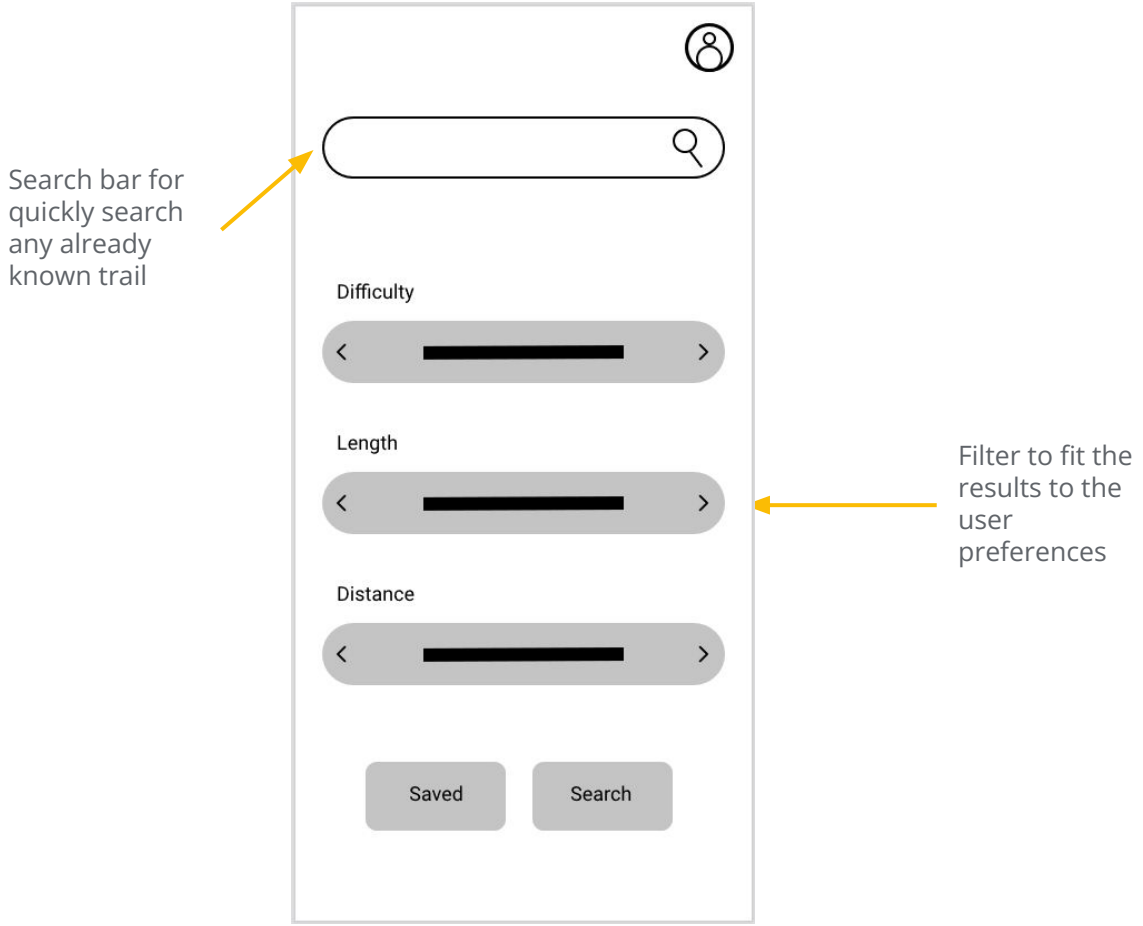
Taking the time to draft iterations of each screen of the app on paper ensured that the elements that made it to digital wireframes would be well-suited to address user pain points.



Digital wireframes

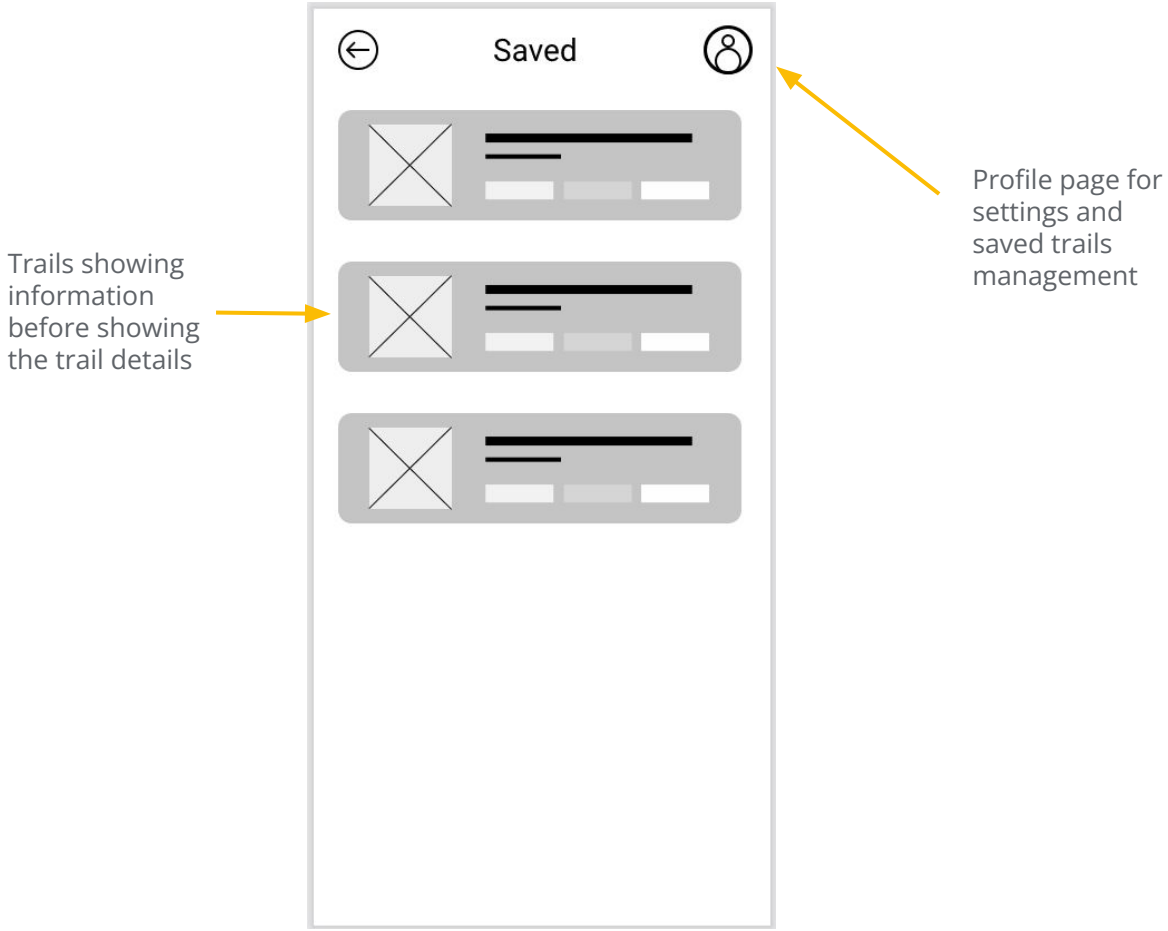
As the initial design phase continued, I made sure to base screen designs on feedback and findings from the user research.

A quick filter screen would make user easier to find what the are looking for.



Digital wireframes

Saving trails is a key feature in order to make to users easy to find their favorites trails.

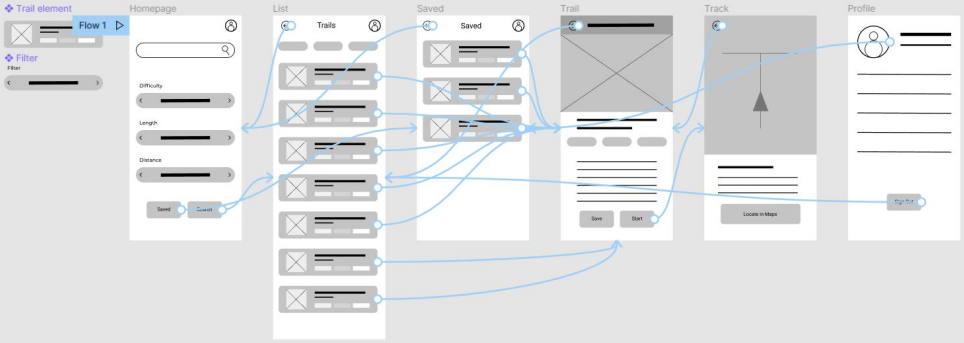


Low-fidelity prototype

Using the completed set of digital wireframes, I created a low-fidelity prototype. The primary user flow I connected was building and ordering a pizza, so the prototype could be used in a usability study.

View the Trail Tracker prototype

Low-Fidelity prototype



Usability study: parameters

Study type:

Usability Study

Location:

Online - Madrid

Participants:

4 participants

Length:

15 minutes

Usability study: findings

I conducted two rounds of usability studies. Findings from the first study helped guide the designs from wireframes to mockups. The second study used a high-fidelity prototype and revealed what aspects of the mockups needed refining.

Round 1 findings

1. Users want to go walking to the start of the trail
2. Users want to know if the will be able to finish the trail
3. Users want to share their experience

Round 2 findings

1. The filtering and searching process could be better
2. The colours might be distracting

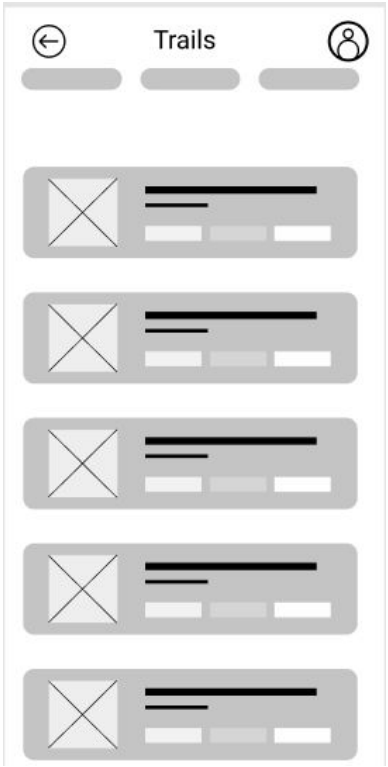
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

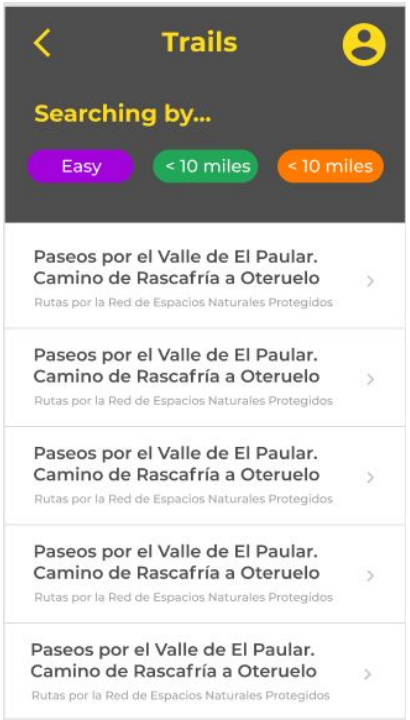
Mockups

Showing all the details in every trail looked overwhelming but now we can see the details above and the list filtered now.

Before usability study



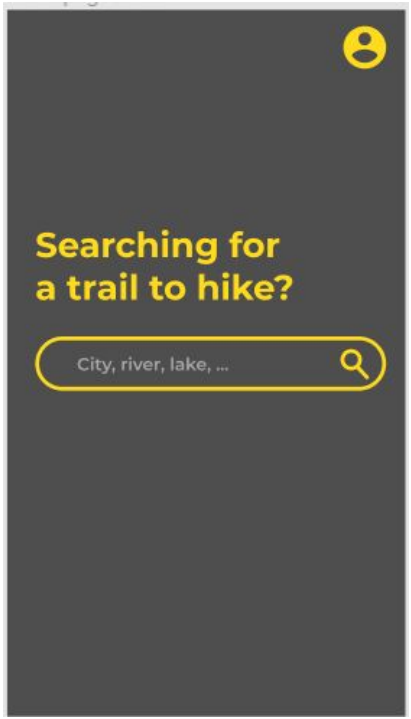
After usability study



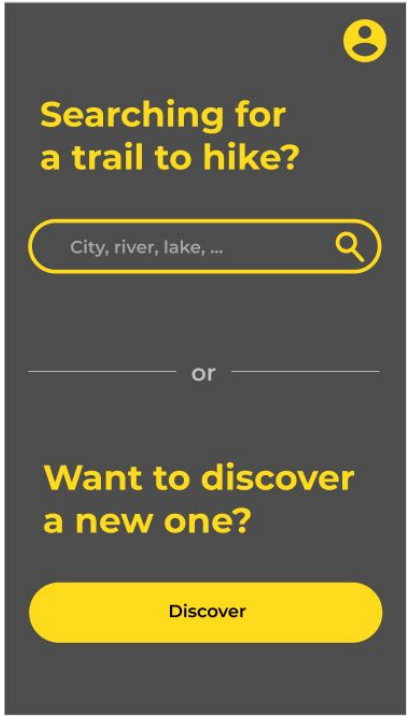
Mockups

Giving the option to the user to choose if he/she wants to discover a new trail is something we should ask the first.

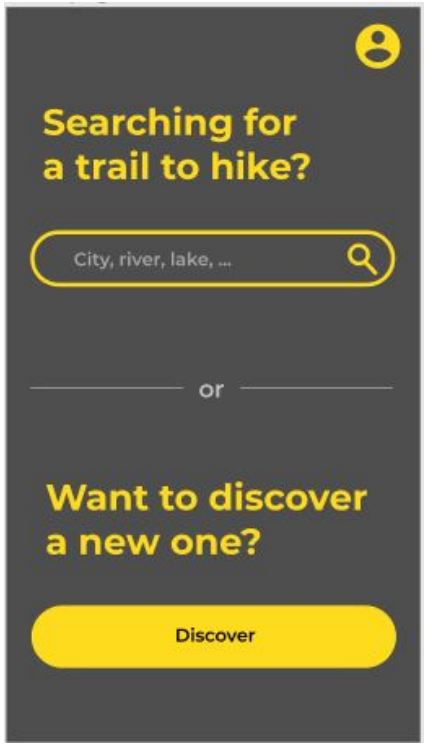
Before usability study



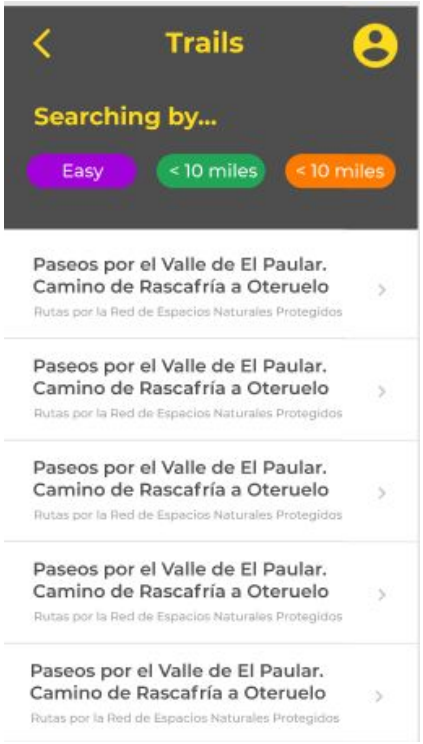
After usability study



Key mockups


Searching for a trail to hike?
City, river, lake, ...
or
Want to discover a new one?
Discover


Find your next big adventure
Difficulty
Easy
Length
10 km
Distance
10 km
Search


Trails
Searching by...
Easy
< 10 miles
< 10 miles
Paseos por el Valle de El Paular. Camino de Rascafría a Oteruelo
Rutas por la Red de Espacios Naturales Protegidos
Paseos por el Valle de El Paular. Camino de Rascafría a Oteruelo
Rutas por la Red de Espacios Naturales Protegidos
Paseos por el Valle de El Paular. Camino de Rascafría a Oteruelo
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Rutas por la Red de Espacios Naturales Protegidos
Paseos por el Valle de El Paular. Camino de Rascafría a Oteruelo
Rutas por la Red de Espacios Naturales Protegidos


Largo Marinai d'Italia
Liceo Artistico Callisto Piazza
Via Cesare Battisti
Viale Trent
Paseos por el Valle de El Paular. Camino de Rascafría a Oteruelo
Open in Google Maps

High-fidelity prototype

The final high-fidelity prototype presented cleaner user flows for finding a trail and starting it. You can also save a trail and filter by your needs.

[View the trail tracker high-fidelity prototype]

Accessibility considerations

1

High contrast for vision impaired people.

2

Big spacing and big buttons for people with cognitive disabilities

Going forward

- Takeaways
- Next steps

Takeaways

Impact:

The app makes users feel like they can go everywhere and they will find a nice trail to hike no matter where they are.

What I learned:

While designing the app, I learned that the first ideas for the app are only the beginning of the process. Usability studies and peer feedback influenced each iteration of the app’s designs. From now on I will take more care about accessibility in my designs.

Next steps

1

Conduct another round of usability studies to validate whether the pain points users experienced have been effectively addressed.

2

Conduct more user research to determine any new areas of need.

Let’s connect!

Thank you for your time reviewing my work on the Trail Tracker app! If you’d like to see more or get in touch, my contact information is provided below.

Email: aaronperezmail@gmail.com

Thank you!