App and Responsive Website
"WeFlower" – helps conserve endangered species of flower

Ilze Dūmiņa

Google UX Design
Professional Certification
Program

Google

Project overview

The product:

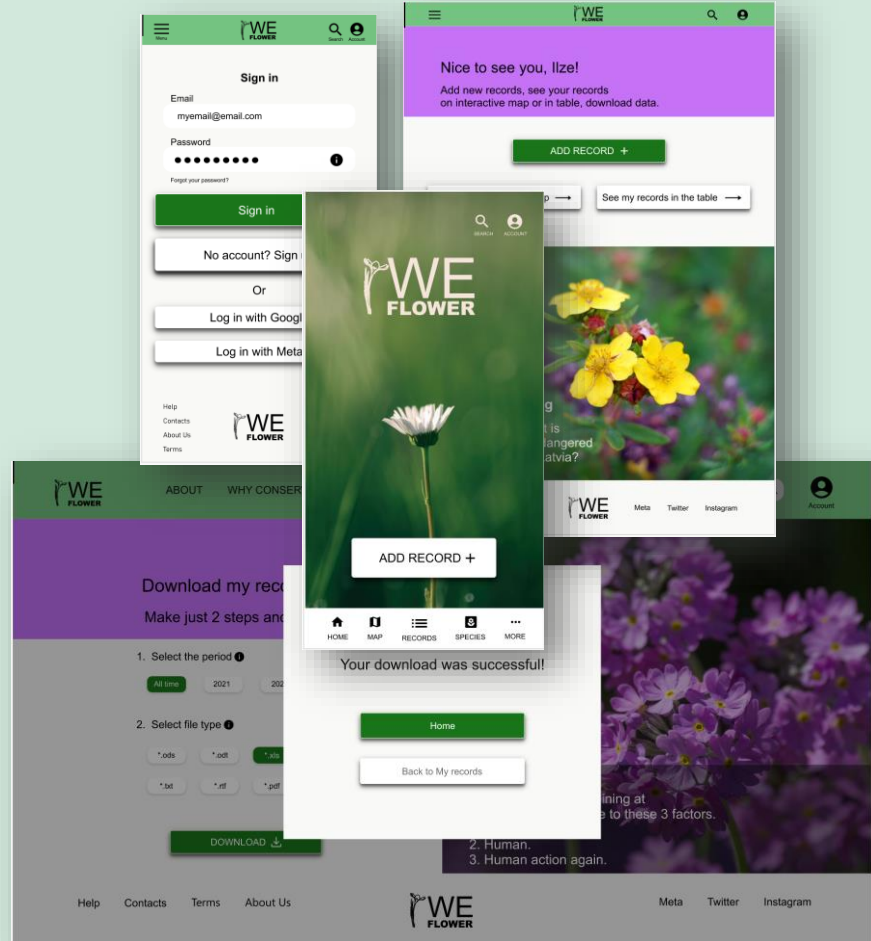*WeFlower* is in Latvia based organization focused on conserving endangered species of flower.

The organization needs a tool that helps protect and save endangered species of flower.

WeFlower primary target users include college students and adults for whom it is important to take care of nature and protect it.

Project duration:

July 2022

Project overview

The problem:

In Latvia, only 0.7% of the country's territory contains semi-natural grasslands, which contain protected and endangered flower species. Given today's agricultural and land-use patterns, this number can drop rapidly every year. Our job is to protect these grasslands and flowers.

The goal:

Design an app that will help conserve endangered species of flower and will improve education about the meaning and importance of protected species.

Project overview

My role:

UX designer leading the app and responsive website design from conception to delivery.

Responsibilities:

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

Understanding the user

- User research
- Personas
- Problem statements
- User Journey Maps
- Competitive audit
- Ideation

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User research: summary

I used *WeFlower* data to develop interview questions, which were then used to conduct user interviews. Most interview participants reported feeling badly about crisis situation of endangered species of flower, but they didn't actively try to do anything to help these species. The feedback received through research made it very clear that users would help by counting flower species if there was a convenient and easy-to-use app.

Persona 1: Albert

Problem statement:

Albert is an organic farm`s owner and parent who needs a way to see as fast as possible his entered records of all time about endangered flowers in his farm because he doesn`t have enough free time.

"I want to have a convenient website where I can view or add data about endangered flowers, for example, I can see my added data from beginning. It must be done fast, because I don't have much free time"

Goals

- I want to compare whether my semi-natural grasslands still have all the protected species from year to year

Frustrations

- I don't have time to learn all the information about endangered flowers, for me the photo to identify flower is most important thing

Albert

Age: 37
Education: Master`s in Botanica
Hometown: Stelpe, LV
Family: Married, 2 Kids
Occupation: Organic farm owner

Albert comes from a small village where he inherited his parents' farm. He lives there with his wife and school-aged children. Thanks to the knowledge acquired at the university, he understands how to farm so as not to harm his health and nature with organic farming. Unfortunately, there are large farms around that use chemicals and deplete the land, which is a big threat to organic biodiversity and flowers. Albert wants to farm responsibly, teach it to his children and continue the tradition of counting and caring for protected and endangered species.

Persona 2: **Julia**

Problem statement:

Julia is a working student who needs a way to find out the name of flowers and if they are endangered, because she doesn`t want to carry books with her during the trip and wants to protect the nature.

"I don't want to carry a botanical encyclopedia in my backpack when I go on a trip to find out what flower I've found, whether it's endangered."

Goals
- Find out about unknown species in nature, especially endangered
- Record the data for herself, using app, not paper
- Always wanted to protect the nature

Frustrations
- Don't have information about the names of plants, whether it is endangered
- I always can't remember places I found beautiful flowers, I need a map

Julia

Age: 19
Education: Student
Hometown: Riga, LV
Family: Single
Occupation: Part time as waitress

I've spent my whole life downtown. That's why I enjoy every vacation when I can go on excursions or hikes in pure nature, away from the chaos of the city. And I have my phone with me because I collect beautiful pictures of plants, especially flowers. I would love to look it all up on the internet, but it is time consuming. It's a shame that we weren't taught about protected species at school, because I've seen flowers that I've never seen before. It would be nice to have a platform where you can find out the information.

User journey map

Mapping **Albert`s user journey** revealed how effective it would be to add the ability to view your records and download the information.

ACTION	Find, open website	Browse the website	Seeing records
TASK LIST	Tasks A. Search the website in web browser B. Open the website	Tasks A. Log in account B. Find where is his records in table	Tasks A. Open the My Records B. See all the information in table C. Download table
FEELING ADJECTIVE	Happy that website is easy to find	Excited logging in via e-mail or social media, Angry when it is hard to find My Records list	Happy he found it fast and download was easy
IMPROVEMENT OPPORTUNITIES	Make Google display ads for app/website, optimize SEO. App/website must be in "first lines"	Make easy registration/log in option Make sure site is easy to use for everyone.	Make sure there are all information (place, date, link to map, coordination's, photo of flower, name, his recorded information)

User journey map

Goal: She wants to use an app to find out if flower is endangered or not, and add it to records

Julia`s user journey revealed how good it would be to add the step by step way for adding information and possibility to edit it, before submitting.

ACTION	Find app	Browse the app	Adding record	Add information	Submit
TASK LIST	Tasks A. Download app from website or phone`s app store B. Open the app	Tasks A. Create account B. Start using app without registration	Tasks A. Find a way to add flower C. Find out a flowers name	Tasks A. Add place B. Add date C. A way to add notes D. A way to add photo	Tasks A. Submit or edit information B. Can open the map or list of records
FEELING ADJECTIVE	Happy that app downloads fast Annoyed if app is too big and downloads slow	Excited of easy use of app Annoyed if there is needed registration right now	Excited about adding endangered species in app Worried, not to find flowers name, other information	Wishing this all information could be done in fast way	Happy for opportunity edit the information, review and submit Frustrated of not knowing what to open better – map or records
IMPROVEMENT OPPORTUNITIES	Make Google display ads for app/website, optimize SEO. App/website must be in "first lines"	You can use app without registration, registration could be done anytime later with option to save all recorded data or delete in new account	This is the important step – CTA button to add new record, so it must be outstanding and easy to understand After tapping the CTA button, user should choose scan the phone form phone or search flower from existing catalog in app Also if there are more than one specie of flowers, must be option for adding more at once.	There must be a few steps for adding information about place, time where this endangered specie of flower was found. Also it would be nice if there was option for adding notes and photo.	See record in Map or in My records should be with descriptions to easy understand

Competitive audit

An audit of a few competitor's products provided direction on gaps and opportunities to address with the *WeFlower* app.

Competitive audit	Competitive audit goal: Compare the user experience of each competitor's website										
	General information									**First impressions**	
	Competitor type (direct or indirect)	**Location(s)**	**Product offering**	**Price** ($ - $$$$)	**Website** (URL)	**Business size** (small, medium, large)	**Target audience**	**Unique value proposition**		**Desktop website experience**	**App or mobile website experience**
GreenMountainEnergy	Indirect	USA	App and website that help with daily tips to live greener and cleaner every day	$$	www.greenmountainenergy.com	Large	Adults and all interests	"The POWER to make a difference. "		**Outstanding** + Easy to navigate + Strong branding and visual design + All features are useful and intuitive	**Outstanding** + Easy to navigate + Strong branding and visual design + All features are useful and intuitive
Nurmenuuk	Direct	Most major European	Website and app where you can make an observation of cowslips, adding your info, photos of flower	$	nurmenukk.ee/observation	Medium	Teenagers, Adults	"Looking for Cowslips"		**Outstanding** + Easy to navigate + Strong branding and visual design + All features are useful and intuitive	**Outstanding** + Easy to navigate + Strong branding and visual design + All features are useful and intuitive
iRecord	Indirect	Worldwide	Website and app where you can makesan observation of species, adding your info	$	irecord.org.uk	Large	Adults, Students	"We DECIDE"		**Okay** + Easy to navigate - Feels like it's a some kind of draft version with too much information	**Okay** + Easy to navigate - Feels like too much information in some places

Competitive audit	UX (rated: needs work, okay, good, or outstanding)								
			Interaction				**Visual design**	**Content**	
	Features	**Accessibility**	**User flow**	**Navigation**		**Brand identity**	**Tone**	**Descriptiveness**	
GreenMountainEnergy	**Good** + Ability to create profile - Need to pay for registration	**Good** + Strong use of visuals + Use of color is accessibility-friendly	**Needs work** - User flow is informative, because I must do registration	**Outstanding** + Straightforward navigation + Clear indication of clickable elements		**Outstanding** + Strong brand identify reflected throughout design + Consistently strong UI, including use of high-quality images + Consistent use of modern font that aligns with	Smart, conversational tone that aligns well with branding.	**Outstanding** + Conveys information clearly + Descriptions are succinct and to-the-point	
Nurmenuuk	**Good** + Geographic locator feature + Don't need to create profile	**Good** + Strong use of visuals + Use of color is accessibility-friendly	**Outstanding** + Adding record flow is easy and fast	**Outstanding** + Straightforward navigation + Clear indication of clickable elements		**Outstanding** + Strong brand identify reflected throughout design + Consistently strong UI, including use of high-quality images + Consistent use of modern font that aligns with	Formal but friendly. Doesn't feel "stiff". Works with brand identify.	**Outstanding** + Conveys information clearly + Descriptions are succinct and to-the-point	
iRecord	**Good** + Geographic locator feature + Ability to create profile	**Good** + Strong use of visuals + Use of color is accessibility-friendly	**Okay** + Some many choices to select - Hard to understand without guide what kind of data enter	**Good** + Comprehensive navigation menu - Offering so many supplier options is overwhelming at times		**Good** + Strong brand identify reflected throughout design + Consistently strong UI, including use of high-quality images - Inconsistent font usage	Conversational tone that aligns well with branding.	**Good** + Conveys information clearly - Overly descriptive at times	

Ideation

I did a quick ideation exercise to come up with ideas for how to address gaps identified in the competitive audit. My focus was specifically on **finding flowers by image or filter method, or by scanning with the camera.**
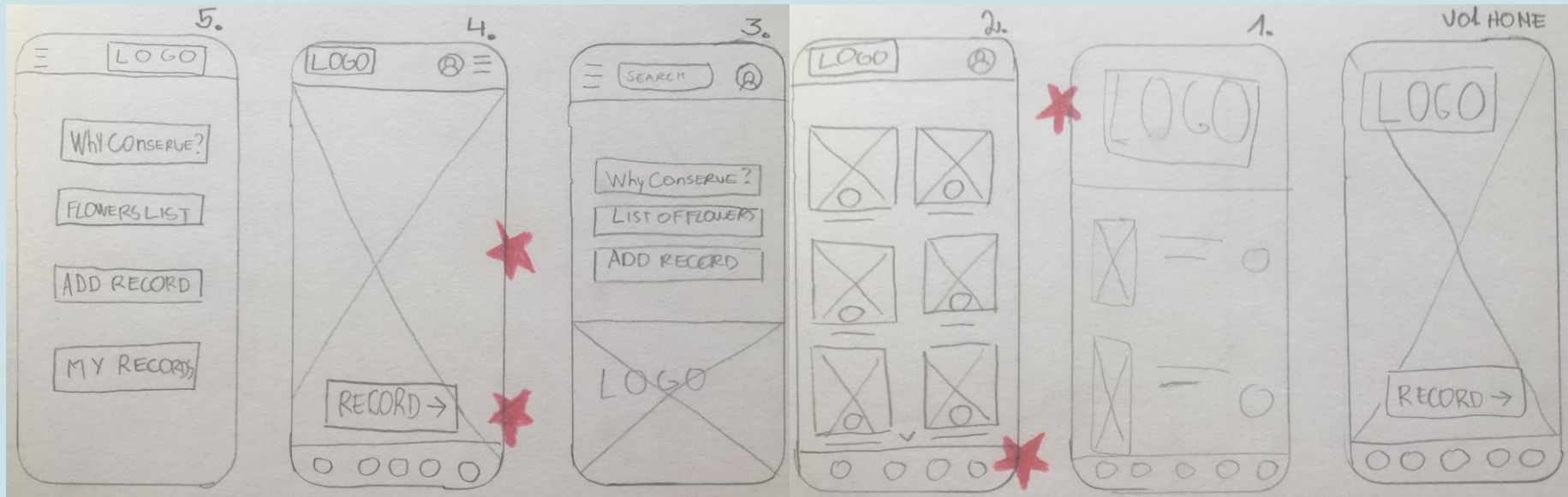
Starting the design

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

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Paper wireframes

Paper wireframe ideas focused on things to make easy steps for user recording the flowers.

For the **home screen**, I prioritized the **record CTA button,** large **hero image** and **logo.**

Digital wireframes

After ideating and drafting
some paper wireframes, I
created the initial designs
for the *WeFlo*wer app.

In the navbar
there is search
option and
account.

LOGO

One main CTA
button is visible on
the surrounding
background.
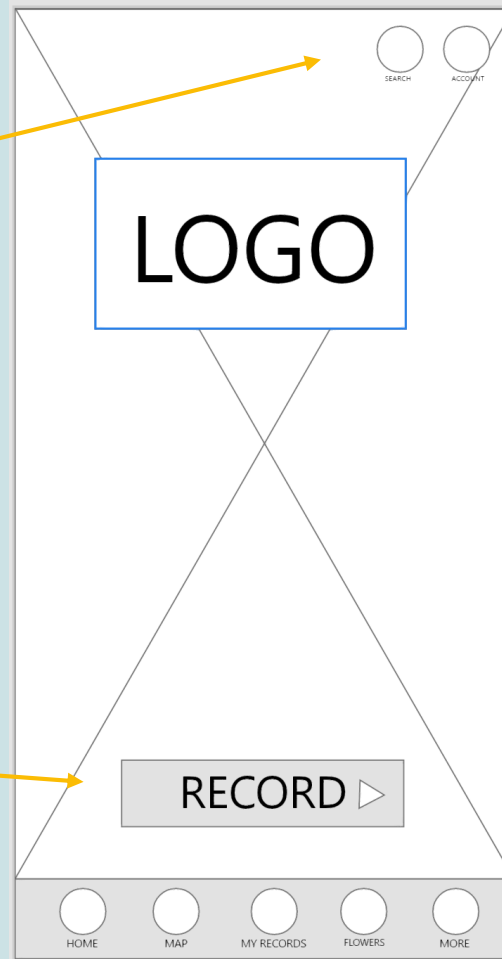
RECORD ▷

Easy access to
app features
from global
navigation

SEARCH   ACCOUNT

HOME   MAP   MY RECORDS   FLOWERS   MORE

Low-fidelity prototype

To prepare for usability testing, I created a low-fidelity prototype that connected the user flow of adding a record of flower/-s.

View *WeFlower* low-fidelity prototype
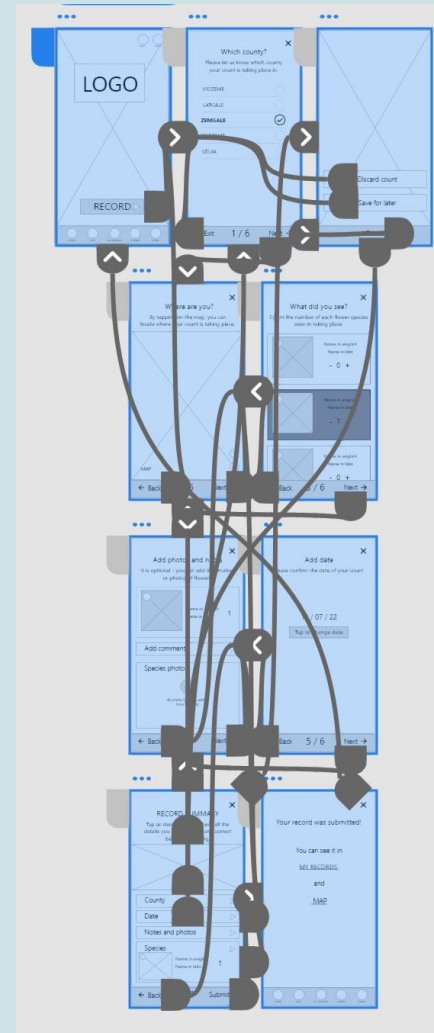
Usability study: parameters

Study type:

Unmoderated usability study

Location:

Latvia, remote

Participants:

6 participants

Length:

30-40 minutes

Usability study: findings

These were the main findings uncovered by the usability study:

1

Selected feature

People need better visual difference between selected/unselected fields

2

Account

People are used to find the account icon in the navbar.

3

Search bar

People are used to find search bar in a convenient place.

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

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Mockups

Based on the insights from the usability studies, I applied design changes like adding a search icon and account icon in the navbar section, so users can use app faster and more intuitive.
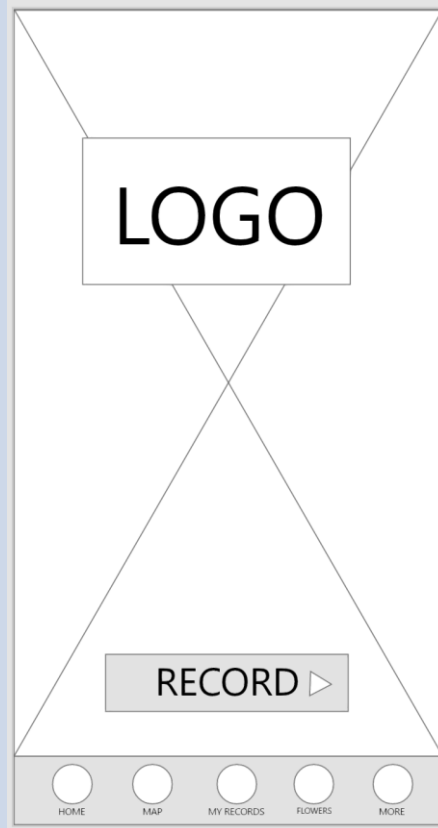
Before usability study
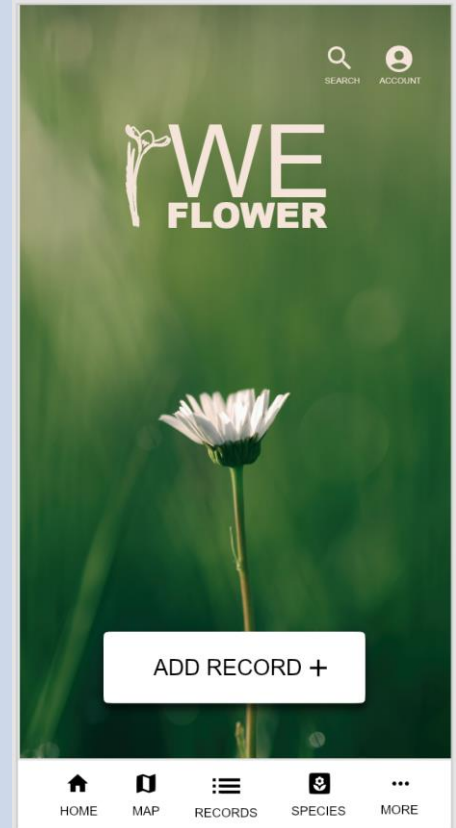
After usability study

Mockups

Additional design changes included better visual difference between selected and unselected features in step "What did you see?".

Before usability study

After usability study

Mockups

Which county?

Please let us know which county your count is taking place in.

VIDZEME ○

LATGALE ○

ZEMGALE ✓

KURZEME ○

SĒLIJA ○

← Exit   1 / 6   Next →

Where are you?

By tapping on the map, you can locate where your count is taking place.

OpenStreetMap
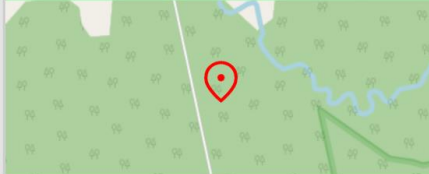
← Back   2 / 6   Next →

Record summary

Tap an item to edit it. Check all the details you have entered and correct before submitting.

County	ZEMGALE
Date	13 / 07 / 22
Photos and notes	No added
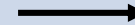
Baltic marsh Orchid
Dactylorhiza baltica

The amount

1

← Back   6 / 6   Next →

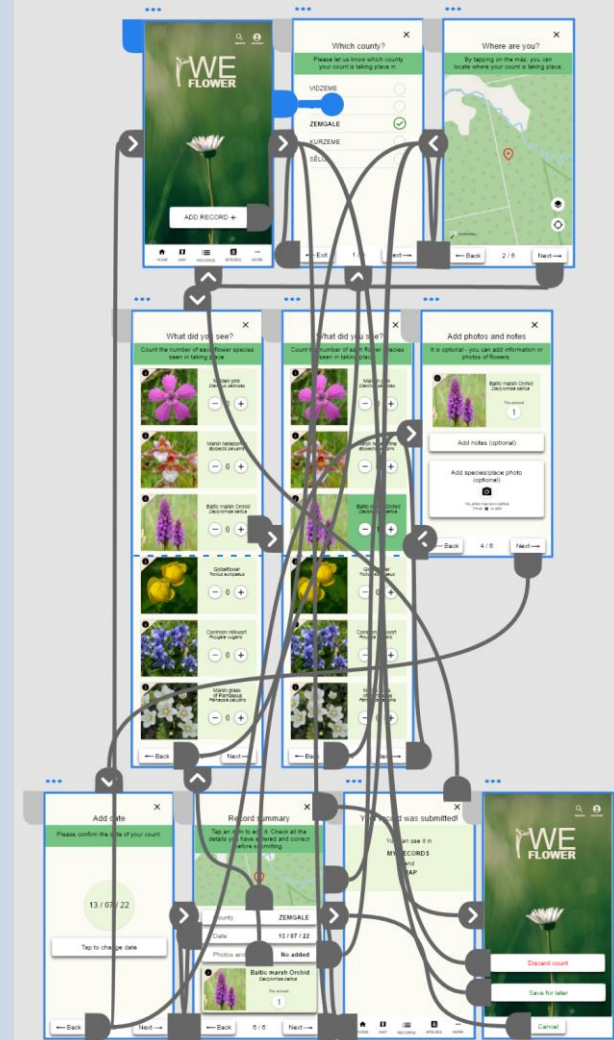SEARCH   ACCOUNT

WE FLOWER

Discard count

Save for later

Cancel

High-fidelity prototype

The high-fidelity prototype
followed the same user flow as
the low-fidelity prototype,
including design changes made
after the usability study.

View the *WeFlower* high-fidelity
prototype

Accessibility considerations

1

I used **icons** that visualize the text or CTA. This allows the user to grasp the thought more easily and quickly.

2

I added simple and logical **motion** between screens that make it easier for the user to navigate the app.

Responsive Design

- Information architecture
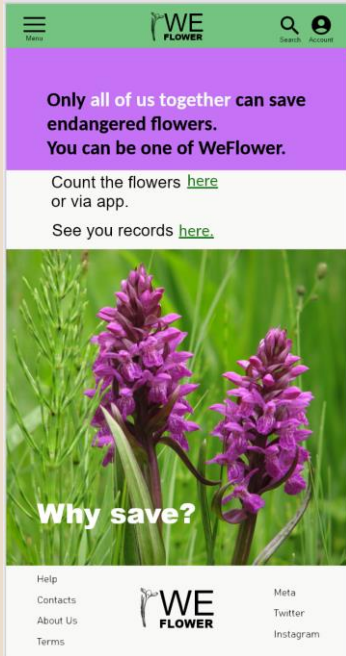- Responsive design

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Sitemap

With the app designs completed, I started work on designing the responsive website. I used the *WeFlower* sitemap to guide the organizational structure of each screen's design to ensure a cohesive and consistent experience across devices.
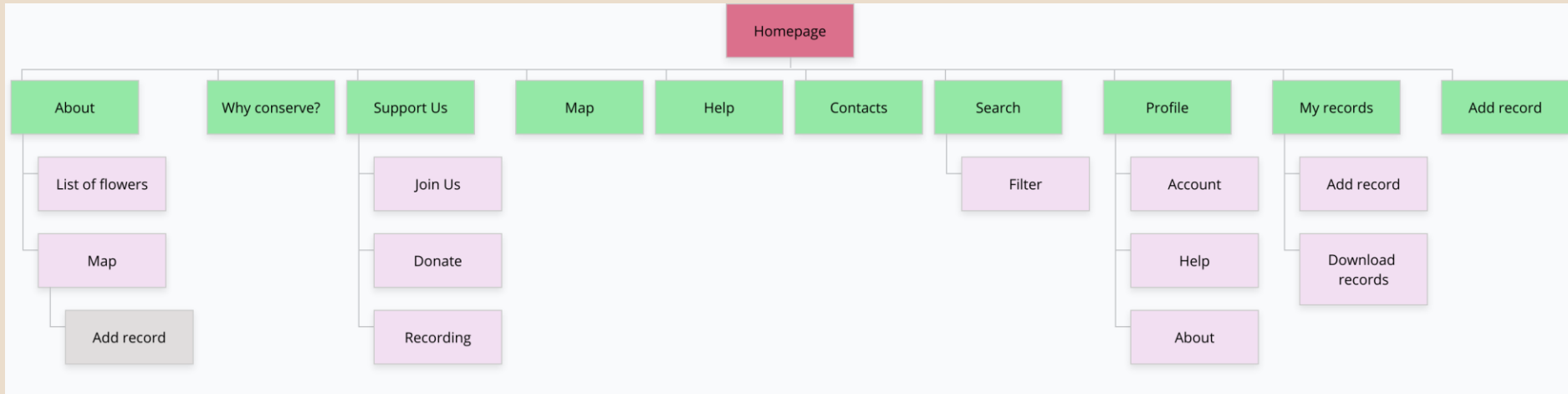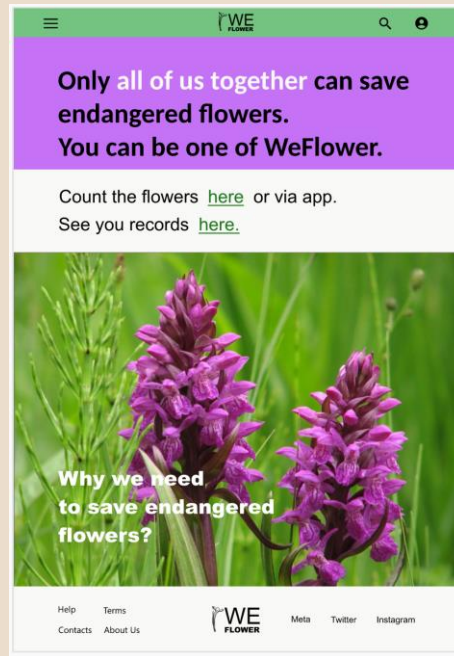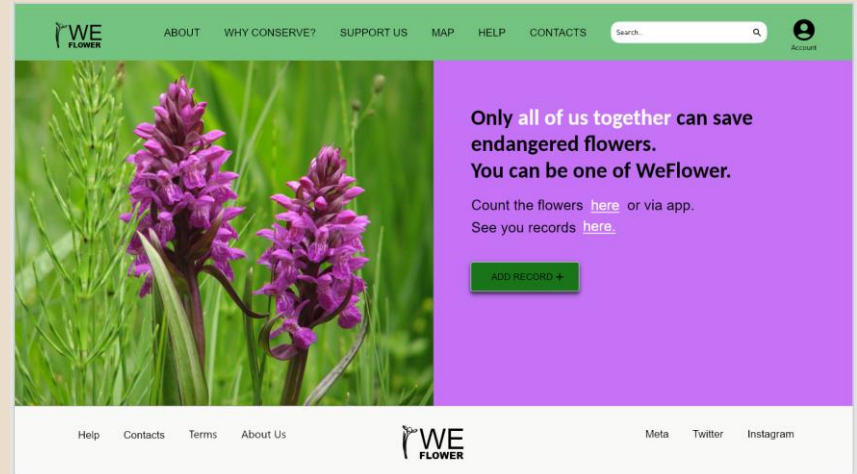
Responsive designs

The designs for screen size variation included mobile, tablet, and desktop. I optimized the designs to fit specific user needs of each device and screen size.

Mobile website

Tablet

Desktop

Responsive designs high fidelity prototypes

Mobile website

View the *WeFlowe*r responsive website for mobile hi-fi prototype

Tablet

View the *WeFlowe*r responsive website for tablet hi-fi prototype

Desktop

View the *WeFlowe*r responsive website for desktop hi-fi prototype

Going forward

- Takeaways
- Next steps

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Takeaways

Impact:

Users shared that the app makes you think about how vulnerable and quickly destructible the nature around us really is. One quote from peer feedback was that "The WeFlower app helps you care for nature on a personal level in an easy and engaging way."

What I learned:

I learned that even though the problem I was trying to solve was a big one, diligently going through each step of the design process and aligning with specific user needs helped me come up with solutions that were both feasible and useful.

Next steps

1

Conduct research on how successful the app is in reaching the goal to record flower species.

2

Add more educational resources for users to learn about endangered species.

3

Give incentives and rewards to users for counting flowers for a certain number of years.

Let's connect!

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

Email: ilz.dumina@gmail.com
Portfolio: https://snowy-summers-smile.tumblr.com/

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Thank you!