

Tool to study the effects of air and water pollution App and Responsive Website

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Project overview



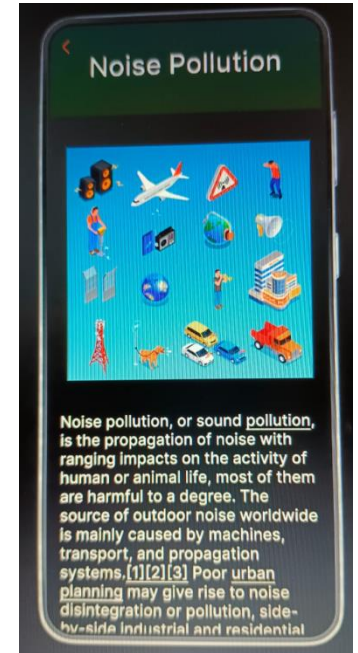
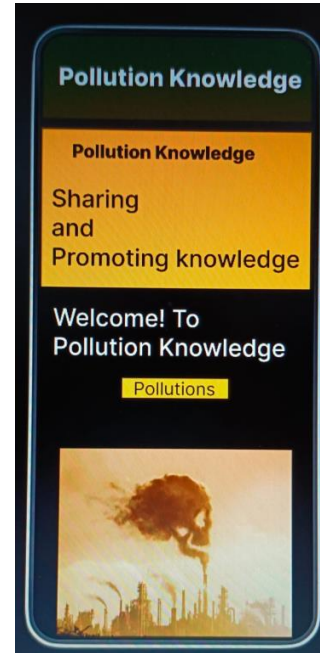
The product:

This app is an Indian-based organization focused on giving knowledge about pollution. The organization needs a tool that helps people learn about pollution. This app's main focus is to provide knowledge about pollution and the generational effects of pollution to students and people interested in learning about pollution and making some changes to prevent the environment from pollution.



Project duration:

Sep 2022- Feb 2023



Project overview



The problem:

Many people are unaware of the truth about pollution. Students and people should learn about the generational effects of pollution.



The goal:

Design an app that will help people to share knowledge about pollution.

Project overview



My role:

UX designer leading the app and responsive website design from conception to giving knowledge



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
- Competitive audit
- Ideation

User research: summary



I used the Pollution data tool to develop interview questions, which were then used to conduct user interviews. Most interview participants reported feeling bad about not having knowledge about pollution, but they didn't actively try to learn the pollution knowledge. The feedback received through research made it very clear that users would be open and willing to work towards learning about pollution if they had access to an easy-to-use tool to help guide them.

Persona 1: Lily

“Studying about Water Pollution Is Important”

Problem statement:

Lily is an engineering student who wants to collect information about water pollution to give a seminar in university



Lily

Age: 25

Education: Engineering

Hometown: India

Family: Lives with parents

Occupation: Engineer

Goals

- She wants to learn about Air and water pollution and has to give a nice presentation

Frustrations

- She cannot find the knowledge topics on air and water pollution

Lily is a student who has to give a good presentation about air and water pollution. She wants to find a website that provides information about the generational effects of air and water pollution so that she can present a good presentation.

Persona 2: Mahi

Problem statement:

Mahi is an high school student who wants to write essay on the topic air and water pollution

“Air and Water Pollution Knowledge should be known”



Mahi

Age: 17

Education: School

Hometown : India

Family: Lives with parents

Occupation: Engineer

Goals

- he wants to learn about Air and water pollution

Frustrations

- he cannot find the knowledge topics on air and water pollution

Mahi is an engineer who has an interest in air and water pollution. he wants to find a website that provides information about the generational effects of air and water pollution so that he can gain knowledge.

Competitive audit

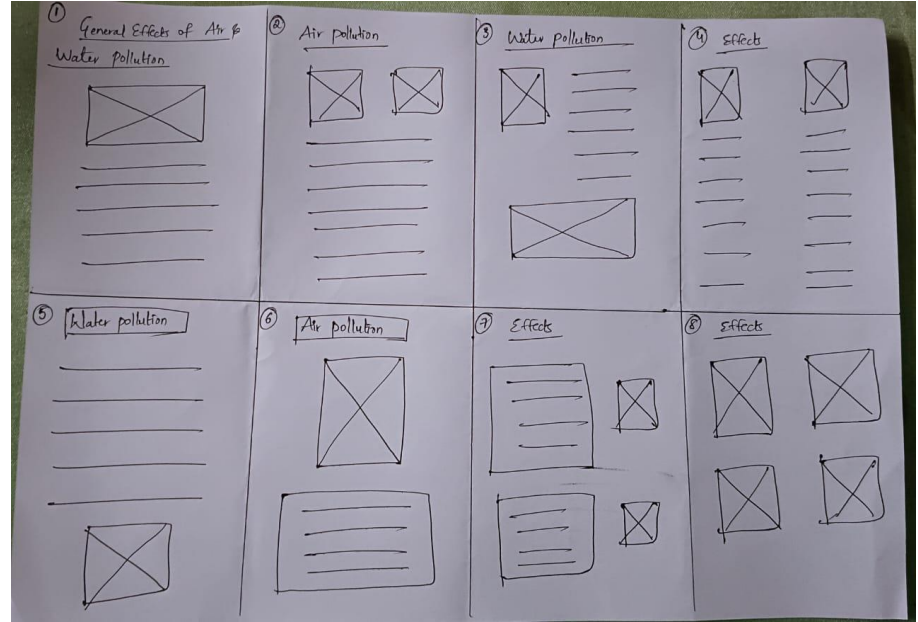
An audit of a few competitors' products provided direction on gaps and opportunities to address with the pollution knowledge app.

General information									
Competitor type (small or medium)	Location(s)	Product offering	Price (\$, 500k)	Website (URL)	Business size (small, medium, large)	Target audience	Unique value proposition		Desktop website expert
Stop global destruction	Direct	CA	Non-profit organisation	No Cost	https://www.stopglobaldestruction.org/	Large	People	Together we can use alternative energies	RATING + Useful
Longdom	Direct	Spain	Non-profit organisation	No Cost	https://www.longdom.org/	Large	People	Promoting knowledge	RATING + Good

Competitor	UX (and user work, not just browser/usage)						Content	
	Features	Accessibility	Interaction		Visual design	Content		
			User flow	Navigation	Brand identity	Tone	Discrepancies	
RATING No app	RATING + Successes + Drawbacks	RATING + Simple and clear	RATING + Easy	RATING + Di	RATING + Simple	Simple and clear with helpful information	OK	
RATING No app	RATING + Clear	RATING + Easy	RATING + Comfortable	RATING + Easy	RATING + Clear and understandable	Clear and knowledgeable site	RATING + Information is good	

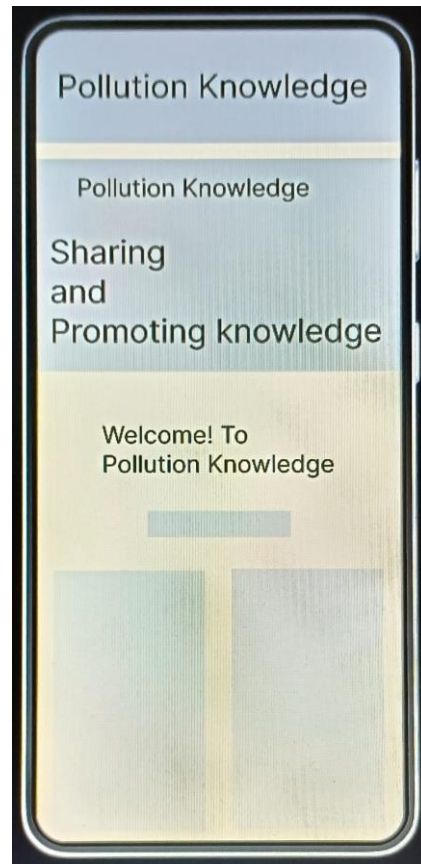
Ideation

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 **sharing the generational effects of air and water pollution.**



Digital wireframes

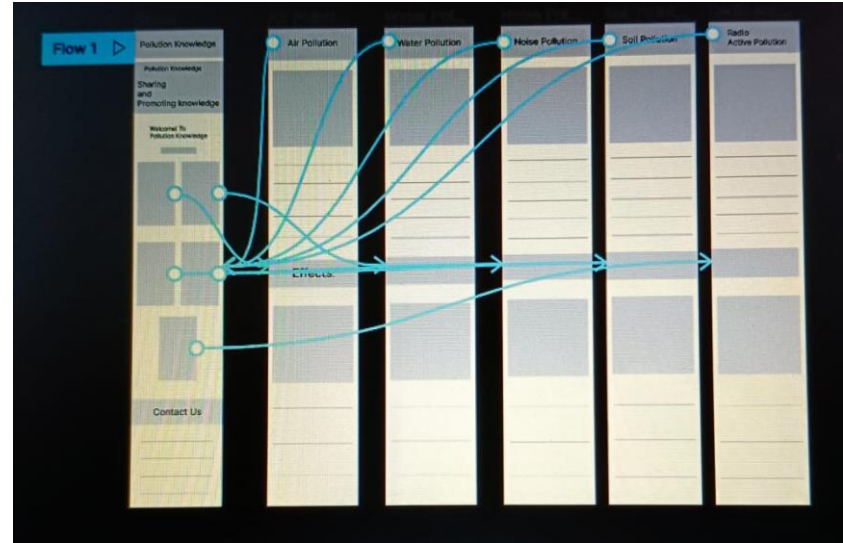
After ideating and drafting some paper wireframes, I created the initial designs for Pollution App. These designs focused on delivering personalized guidance to users to help find the information.



It indicates the pictures of pollution

Low-fidelity prototype

To prepare for usability testing, I created a low-fidelity prototype that connected the user flow by viewing the pollution information and using it in sharable knowledge.



Usability study: parameters



Study type:
Unmoderated usability study



Location:
India, remote



Participants:
5 participants



Length:
30-60 minutes

Usability study: findings

These were the main findings uncovered by the usability study:

1

Information

People want easy access to find information about pollution

2

Difficulty

People had difficulty finding the effects of pollution.

3

Clear

People preferred clear information about pollution and its effects of pollution.

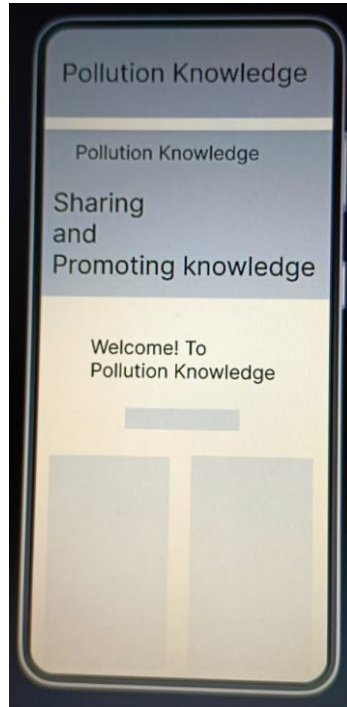
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

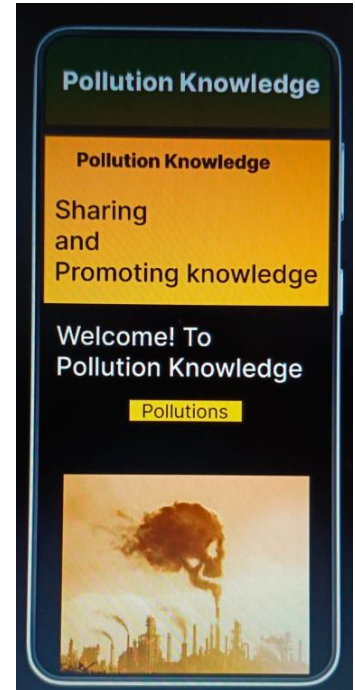
Mockups

Based on the insights from the usability studies, I applied design changes like providing a clear section from the home screen to browse the information by the images of pollution.

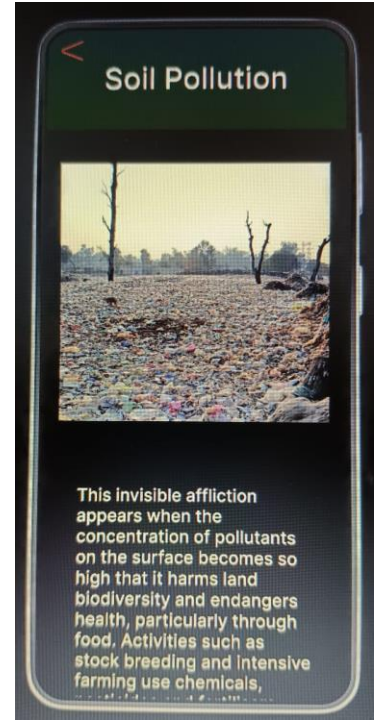
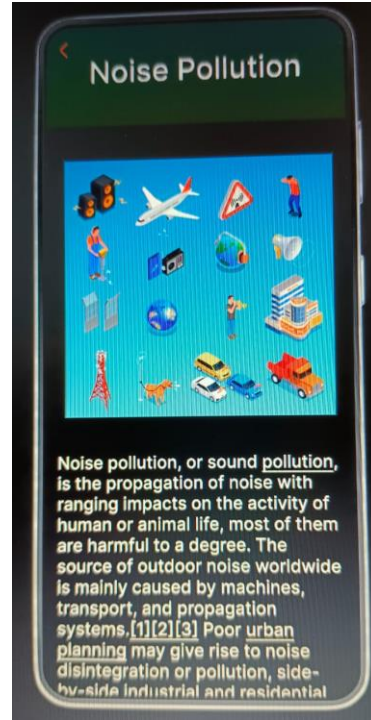
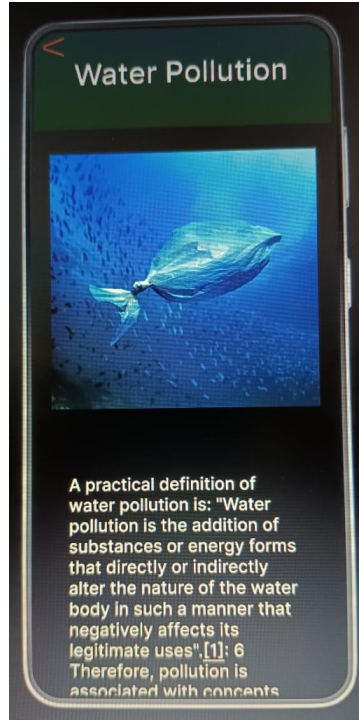
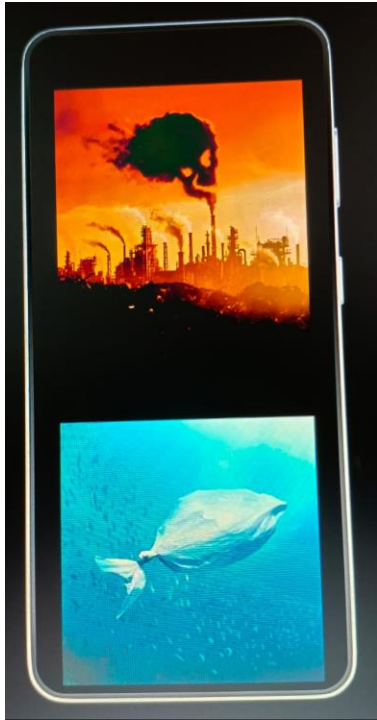
Before usability study



After usability study



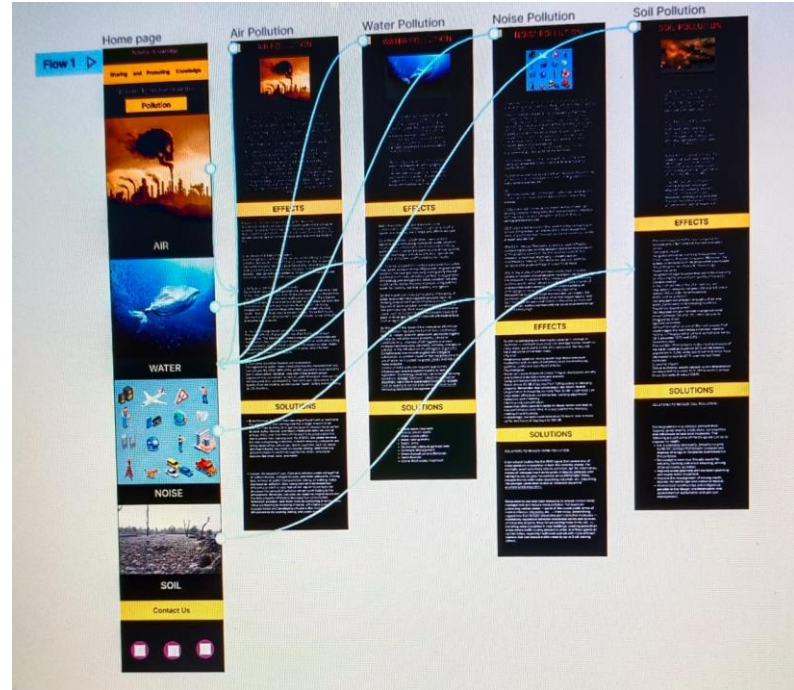
Mockups



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 Pollution knowledge high-fidelity prototype



Accessibility considerations

1

Clear labels for interactive elements that can be read by screen readers.

2

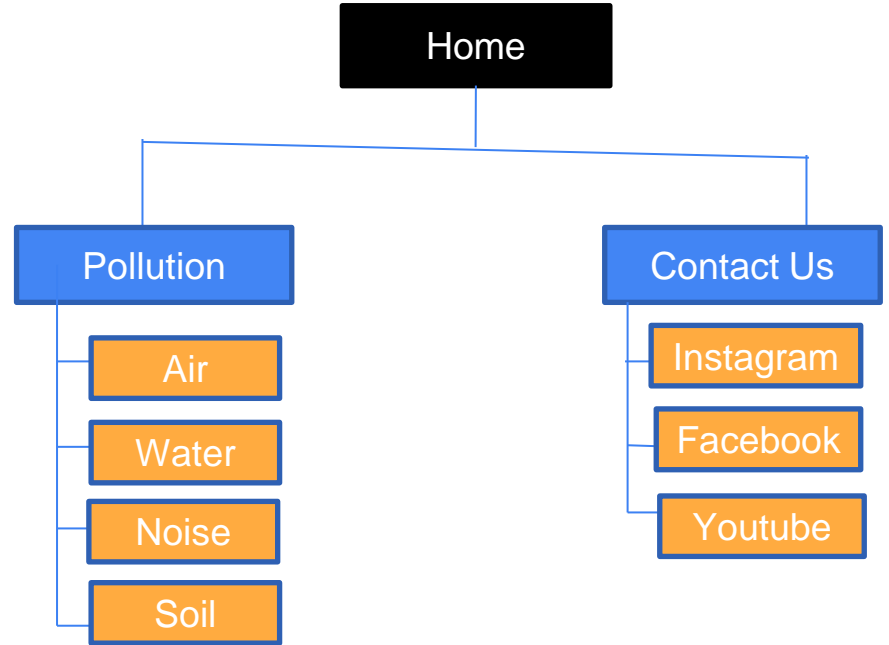
The initial focus of the home screen on personalized recommendations helps define the primary task or action for the user.

Responsive Design

- Information architecture
- Responsive design

Sitemap

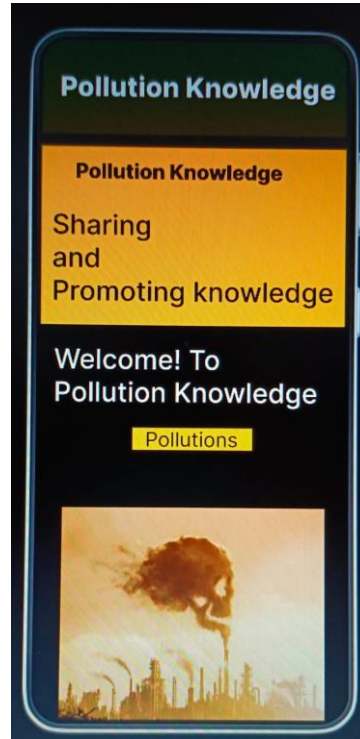
With the app designs completed, I started work on designing the responsive website. I used the Pollution knowledge sitemap to guide the organizational structure of each screen's design to ensure a cohesive and consistent experience across devices.



Responsive designs

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

Mobile



Desktop



Going forward

- Takeaways
- Next steps

Takeaways



Impact:

Users shared that the app made food waste seem like something they could actually help reduce. One quote from peer feedback was that “Pollution knowledge app helps bring caring about the environment to a personal level in a way that’s easy and engaging.”



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 to be 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 reduce food waste.

2

Add more educational resources for users to learn about pollution.

3

Provide incentives and rewards to users for successfully reducing pollution.

Let's connect!



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

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