HexalBytes

Progress Presentation 3

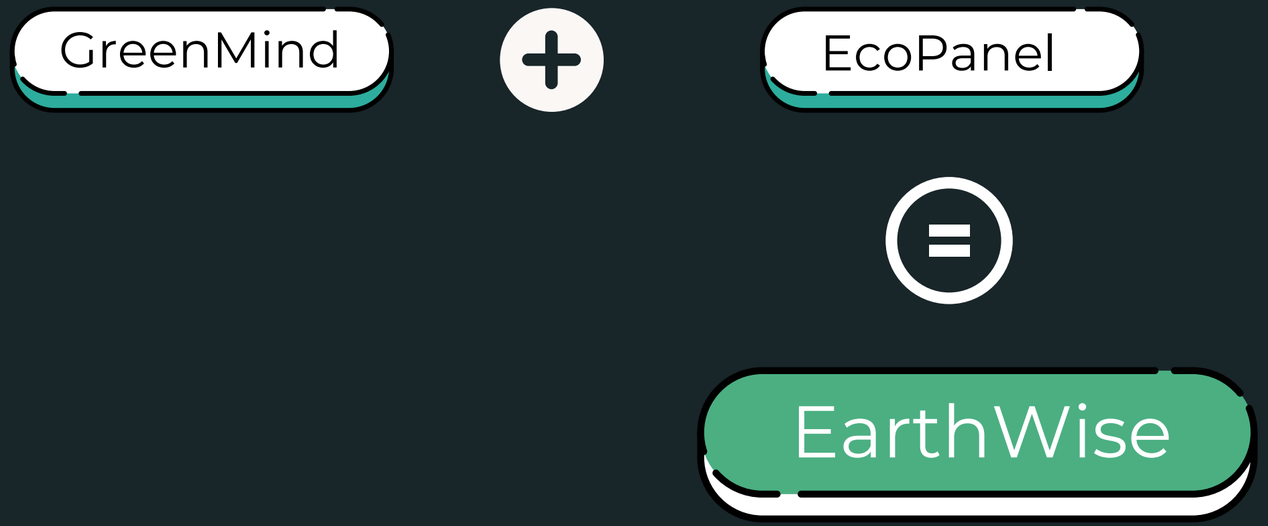
Our Mission

Get everyone involved in protecting the environment
TO
build a better and green world.

Recap our Soltuion

- Three potential solutions in our Presentation 2
  - **GreenMind:** online forum
  - **EcoPanel:** information share website
  - **EarthNet:** carbon footprint tracking mobile APP

- In A2, we merged them together and got a completely new and innovative solution.



What is EarthWise?

Slogan: You are part of the solution, not the pollution.

- EarthWise is an AI-driven super mobile APP that provides environmentally friendly suggestions and tracks users' green history.

- In EarthWise, there are four main functionalities:

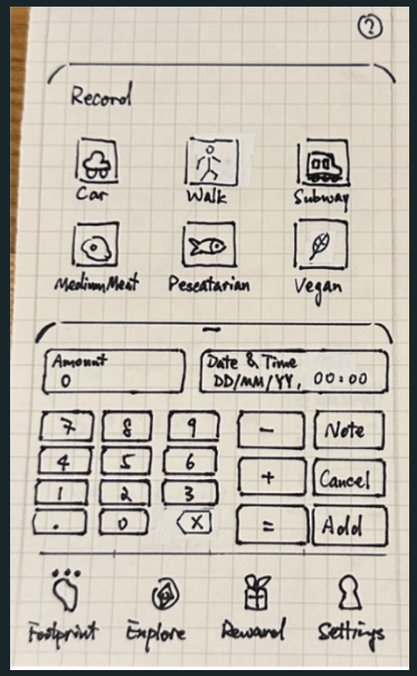
    - TRACKING
    - LEARNING
    - SHARING
    - EARNING

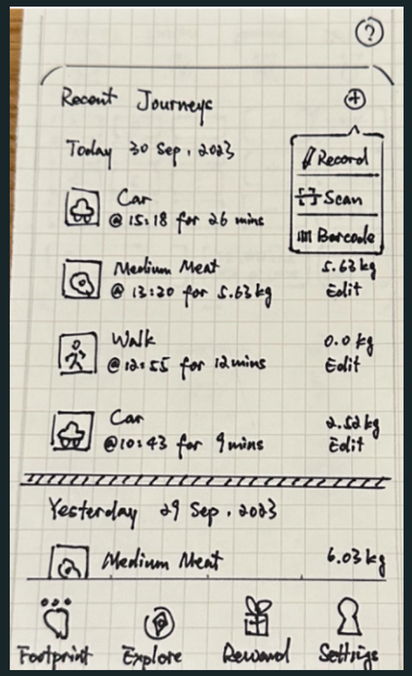
What is EarthWise?

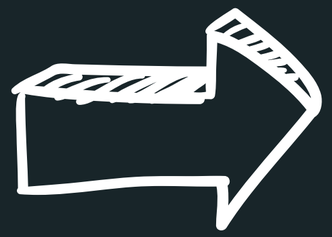
Team HexalBytes

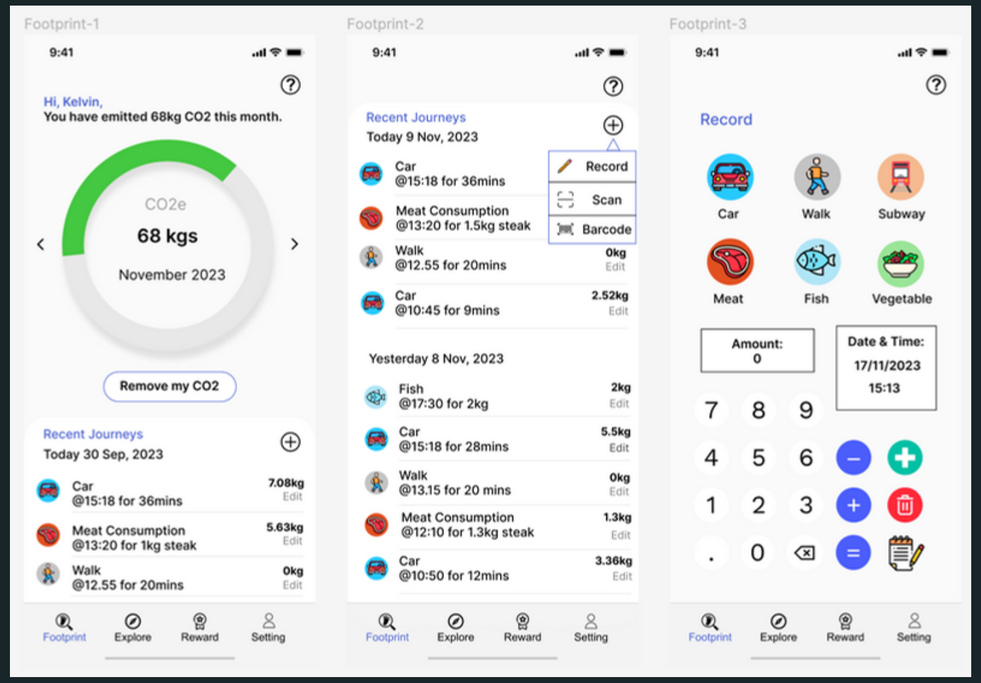
TRACKING

Users can track their carbon footprint easily.









What is EarthWise?

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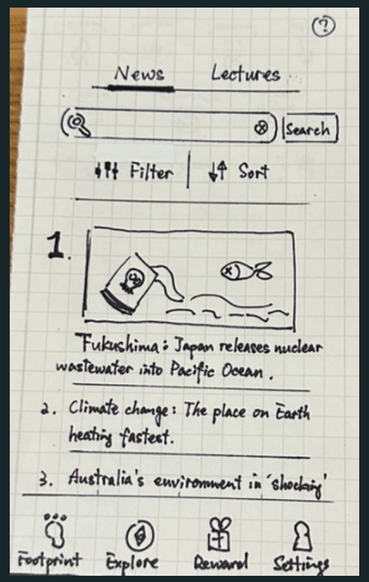
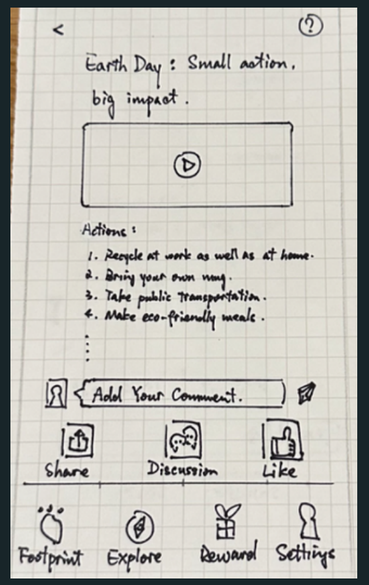
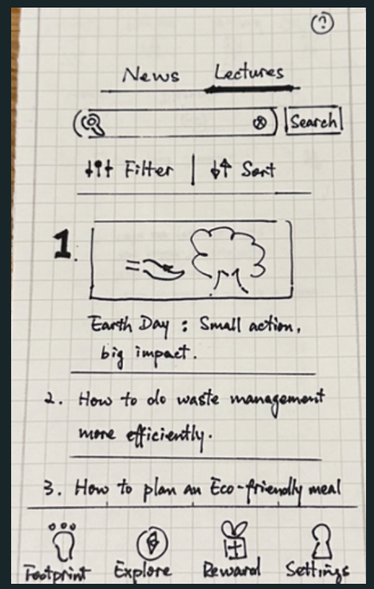
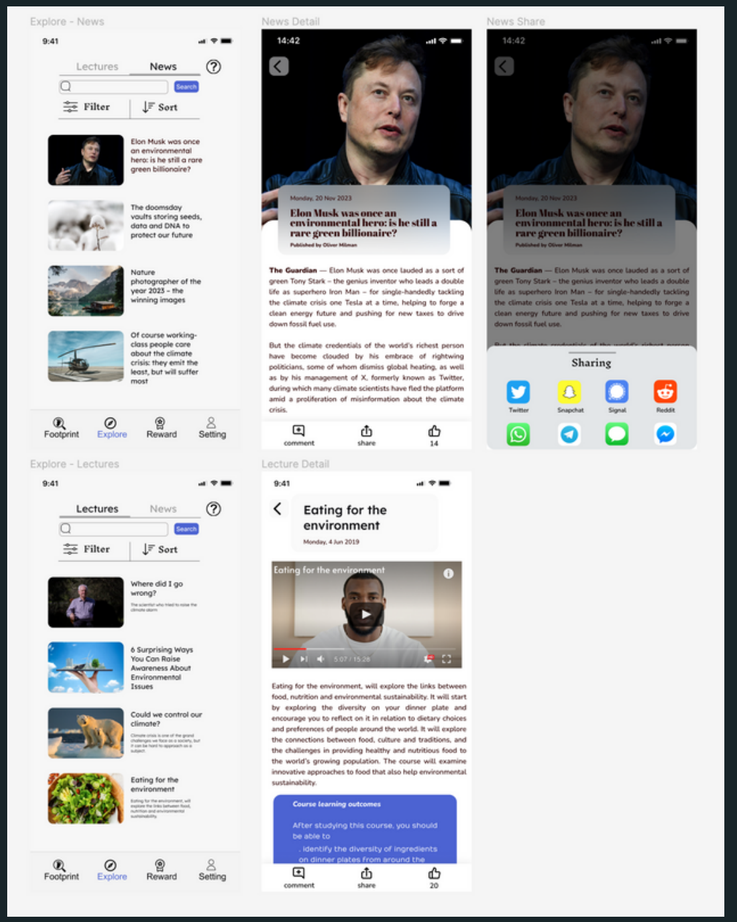
LEARNING + SHARING

Keep up with the latest environmental news, watch online courses and live streams.









What is EarthWise?

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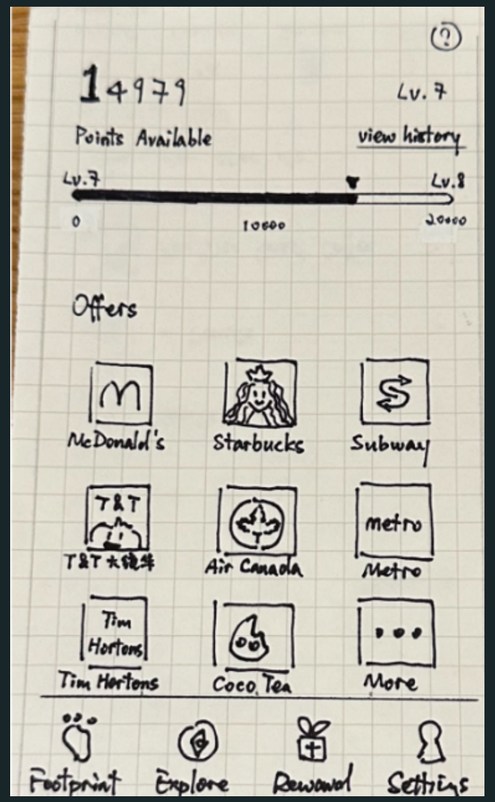
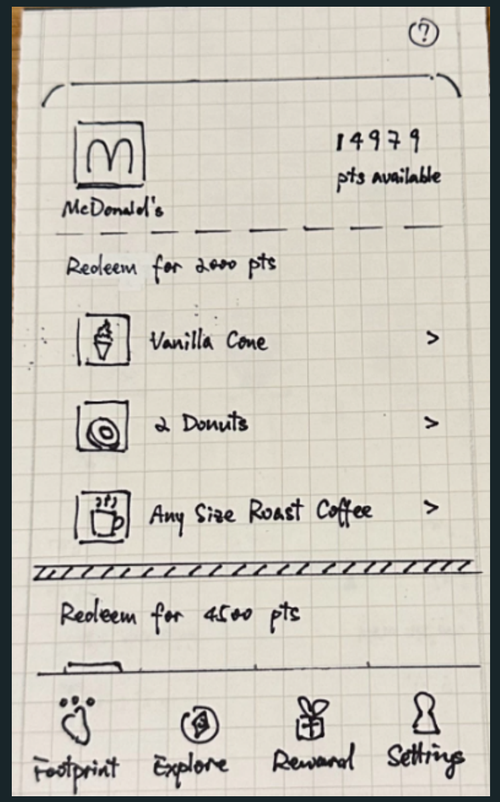
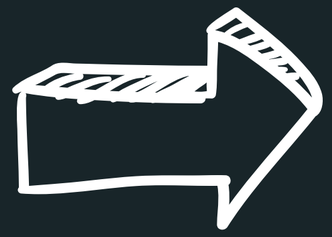
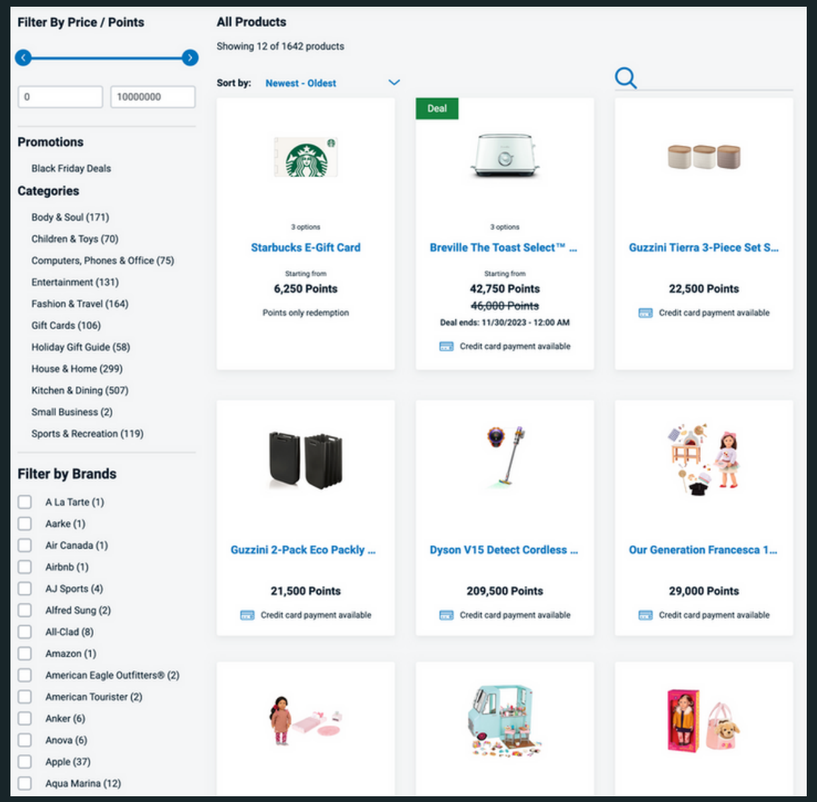
EARNING

Doing green(environmentally friendly) behaviours or watching lectures can earn rewards; use your rewards to redeem whatever you want.

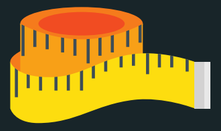








Insights from A2 -- Evaluation of the Low-Fidelity Prototype
Think Aloud Studies



Ambiguity in measuring units when users are recording environmentally friendly actions in our carbon footprint calculator

The “more” button in reward redeem page are found to be redundant

The list of rewards are very long and users find it tedious to scroll through an extensive list of rewards to find the one they actually wish to redeem

When reporting technical difficulties, most users have the initial intuition to click on “Settings” instead of clicking on our “?” sign at the top right corner of the screen.

Insights from A2 -- Evaluation of the Low-Fidelity Prototype

Heuristic Evaluations

The “pull-up interface” in footprint module can be easily overlooked

The “add button” in the upper right corner of the “pull-up interface” is quite small and does not clearly indicate its functionality

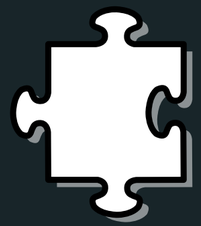
The process of adding carbon footprint relies on the users' proactive search, as there were no corresponding guidance

The participants were quite accustomed and proficient in using the comment functions under lectures and news and the feature to communicate with others

Lessons Learned and Implications for Design

the functionalities of features such as options, buttons, or display of information should be made as clear as possible

customization options should be made available in modules where users have lots of freedom for navigation



unnecessary or redundant features should be avoided

further considertation on how to automatically connect with the activities users are engaged in

List of Changes to our Design

- Add units to each activity when user wants to add to the recent journey
- Write "help" next to the question mark in the upper right corner of the interface
- The "recent journey" is no longer a pull-up interface, but a button that links to the interface when clicked
- A pop-up will appear when users adds a carbon footprint,when clicked, shows details about environmental protection knowledge
- Remove the "More" button in the reward module because it is a redundant feature
- Add a search function to the reward interface and include filters to help users find the prizes they need quickly

Usability Study Plan

- Target participants
  - primary stakeholders
  - secondary stakeholders

- Evaluation Protocols and Instructions
  - Quantitative Objective: completion time and error rate of the “ADD” button
  - Quantitative Subjective: Likert-scale questionnaire
  - Qualitative Objective: recorded observations of navigation patterns for “Reward”

Target Participants

- Group 1: primary stakeholders (3 participants)
Individuals who are conscious of the need for eco protection but are uncertain about the specific actions they can take.

- Group 2: secondary stakeholders (1-2 participants)
people who are not only aware of eco issues but have also taken steps towards mitigating them.

Evaluation Protocol and Instructions

- Quantitative Objective: completion time and error rate of the “ADD” button

1. ask participants to add their recent events to the journey list on “Footprint” interface
2. record the time for each participant to complete the task
3. observe if participants are able to successfully find the “ADD” button

- Quantitative Subjective: Likert-scale questionnaire

1. ask participants to fill out the questionnaire after they explore the design, scale each question (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)
2. I think I would like to use this system frequently.
3. I thought the system was easy to use.

Evaluation Protocol and Instructions

- Qualitative Objective: recorded observations of navigation patterns for “Reward”

1. ask participants to navigate the “Reward” interface with think-aloud comments
2. record their actions and thinking process
3. figure out similarities and differences in navigation patterns or preferences

We are open for any questions or feedbacks from the audience :)

Aspects of our prototype

- Learning and Sharing: How can we suggest content related to user recorded acitivities?

Testing Limitations

- for our quantitative objective evaluation, should we come up with more sets of contexts and task?
- qualitative objective evaluation, are there any good advice for analyzing the recorded observation patterns?

Citations

[1]