the Reduce Advocates Co.

An app dedicated to the 3R's

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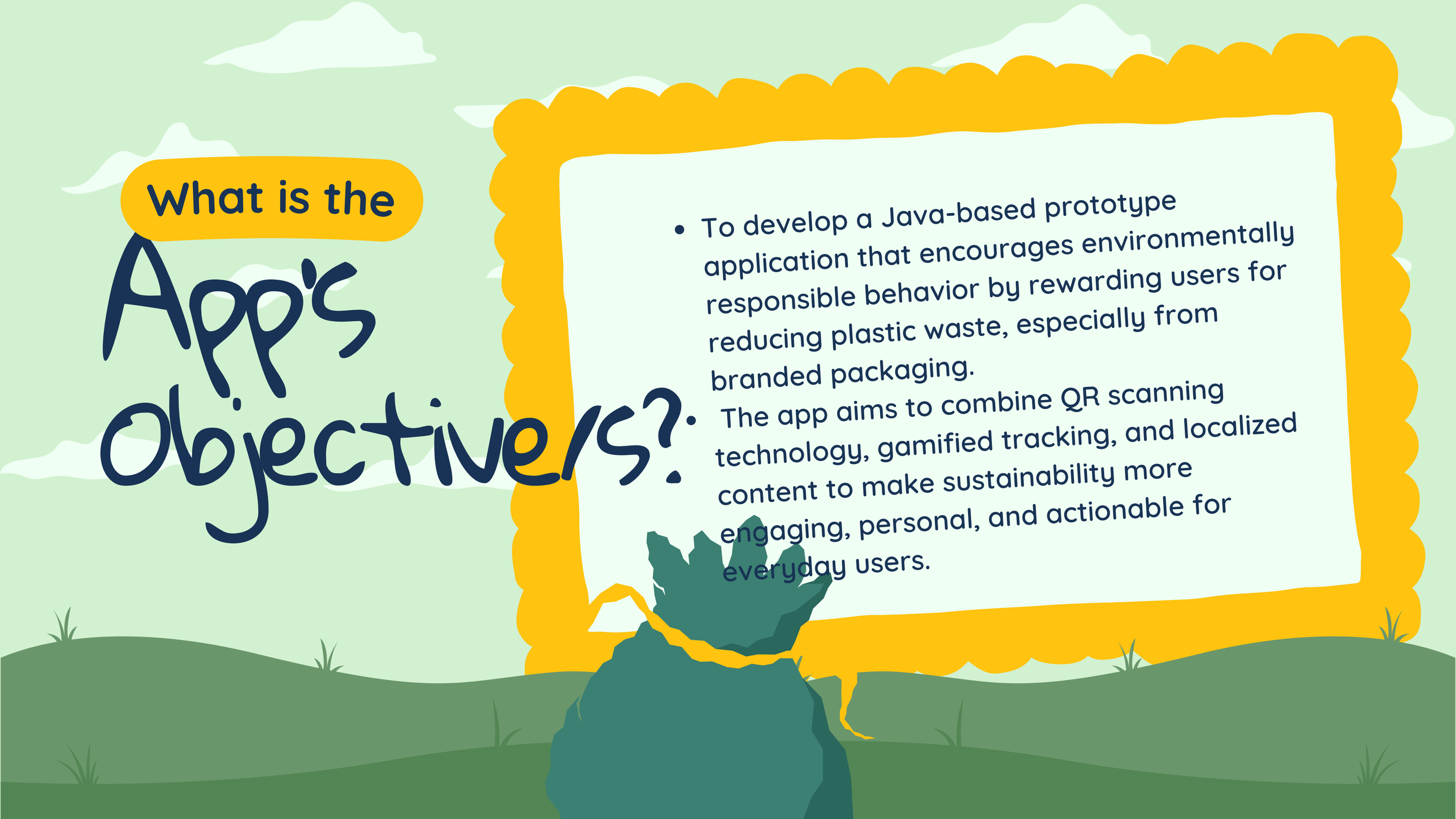
What is the App's objectives?

- To develop a Java-based prototype application that encourages environmentally responsible behavior by rewarding users for reducing plastic waste, especially from branded packaging.
- The app aims to combine QR scanning technology, gamified tracking, and localized content to make sustainability more engaging, personal, and actionable for everyday users.



Motivation:

-Which challenge prompted the development of this solution?

Plastic waste continues to flood our communities, especially from frequently used products like canned drinks and food.

From personal volunteering experience, we witnessed that the majority of waste came from the same consumer brands.

Despite awareness campaigns, many people still lack motivation to reduce, reuse, and recycle.

The problem: How do we make sustainability personal, actionable, and rewarding?

Top requirements:

What feedback or input did users provide?

Essential Keypoints

Through early user insights and environmental discussions, we identified key needs:

- Simplicity: Users want a system that's easy to use with minimal setup.
- Reward-Driven Action: People are more engaged when eco-friendly habits come with incentives.
- Brand-Specific Tracking: Users are curious about which brands contribute most to plastic waste.
- Localized Content: Generic recycling info doesn't resonate, users want articles that reflect local context.

Design The Prototype

Sign In

9:41

the Reduce
Advocates Co.

Create an account

Enter your email to sign up for this app

email@domain.com

Continue

or

Continue with Google

Continue with Apple

By clicking continue, you agree to our Terms of Service and Privacy Policy

Homepage

9:41

Search

Favorites | History | Articles

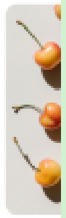
claim your redeemables

scan QR code here

Have trash? You might wanna redeem now!

Plastic Bottles
Softdrinks

Cans
Canned Goods



Plastic
Food

Redeeming of Points

Redeem Code

ITEMS	DESCRIPTION	POINTS
	ConcernedApe Joja Cola Metal Can Quantity: 01	0.04
	ConcernedApe Joja Water Hard Plastic - Bottle Quantity: 01	0.07

Total 0.11

Redeem

Profile

9:41

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Joja | Nature's Spring

Joja Cola

0.04

+7% reduction this week.

Joja Water

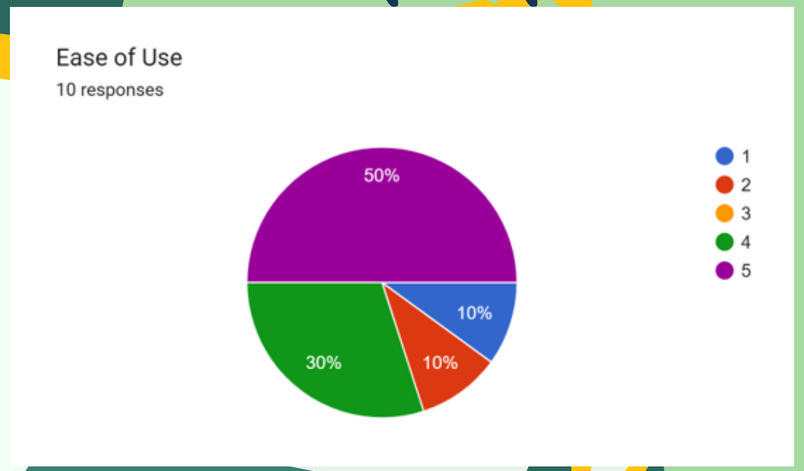
0.07

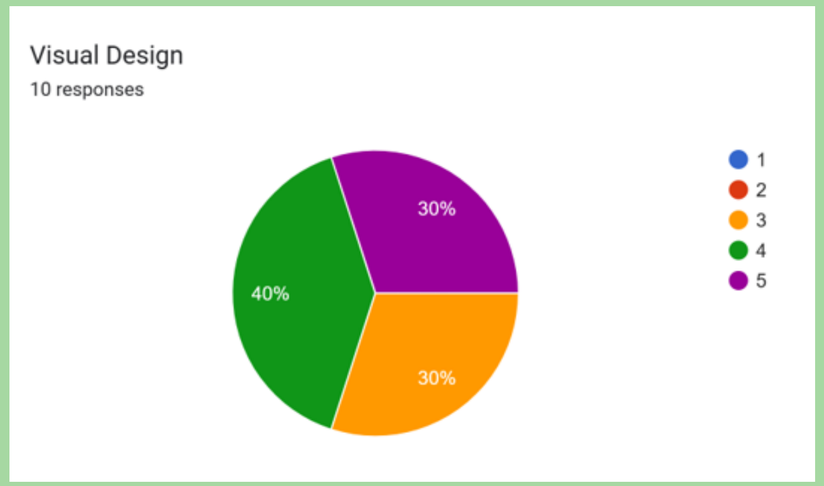
+25% reduction this week.

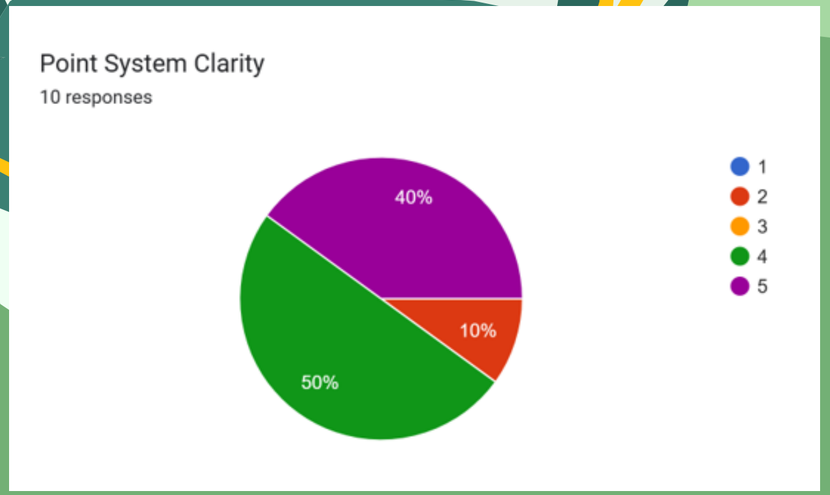
99.89 points left for a free **Joja gift card**

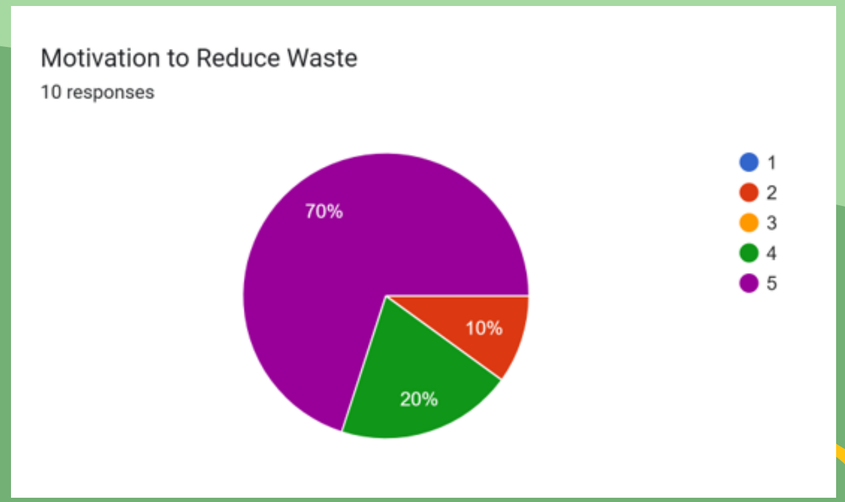
Responses and Evaluation

What form does your proposed solution take?









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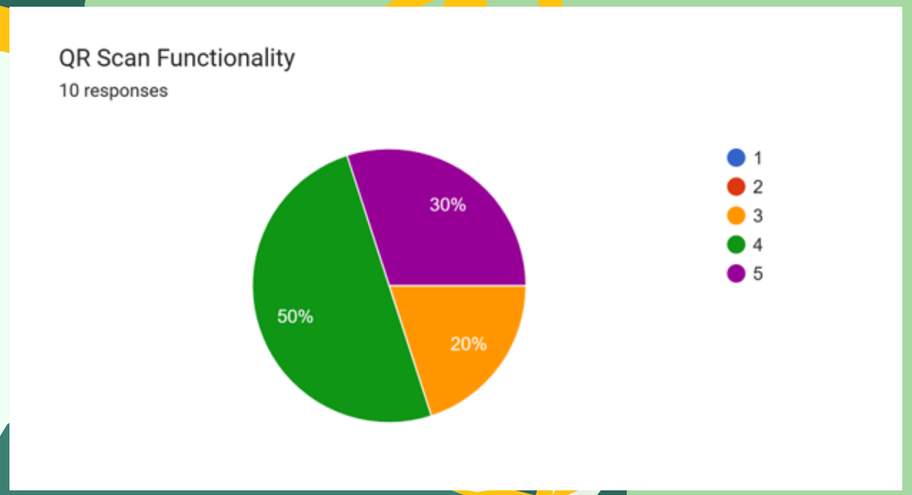

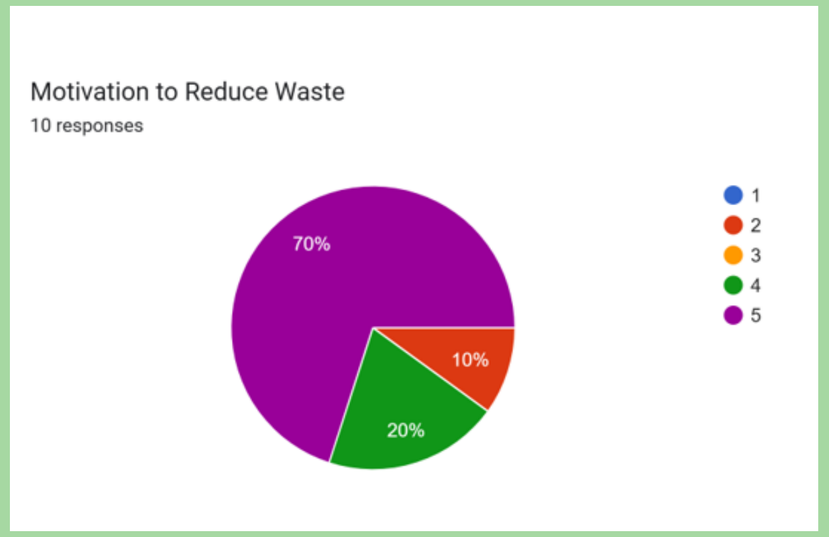

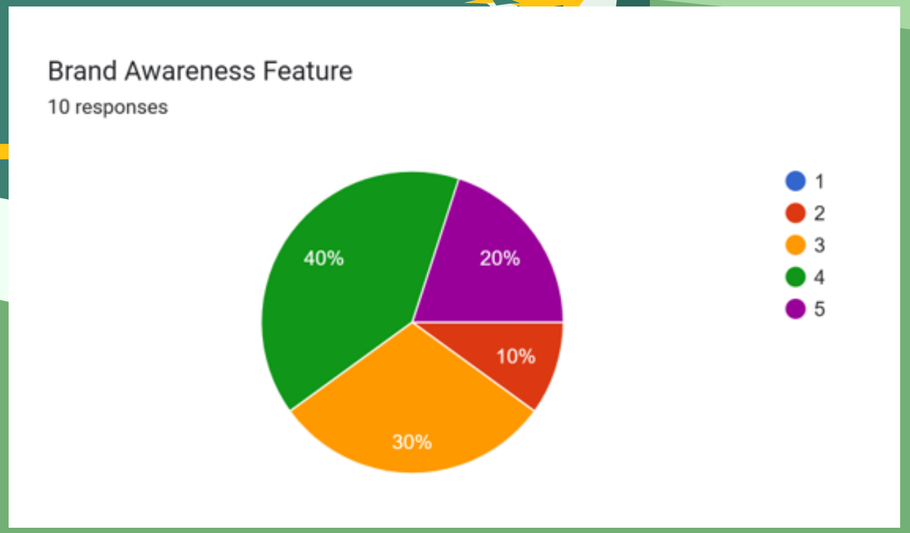

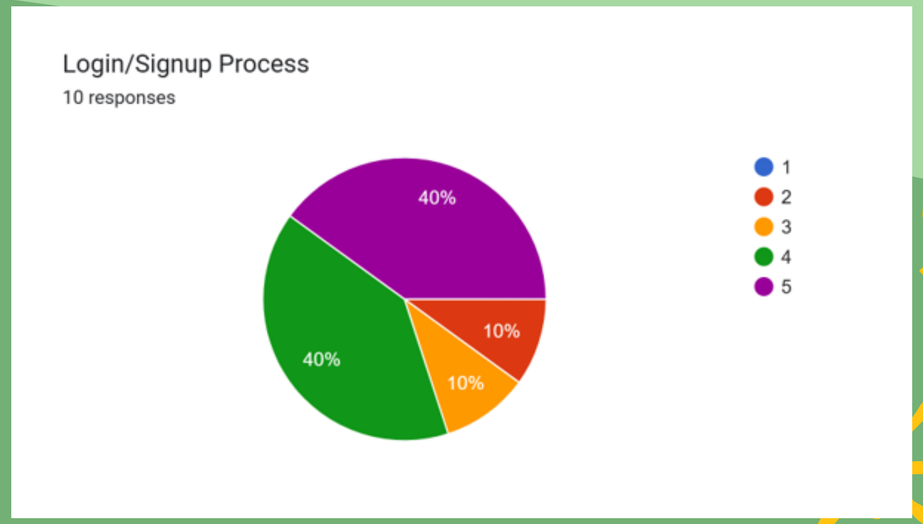

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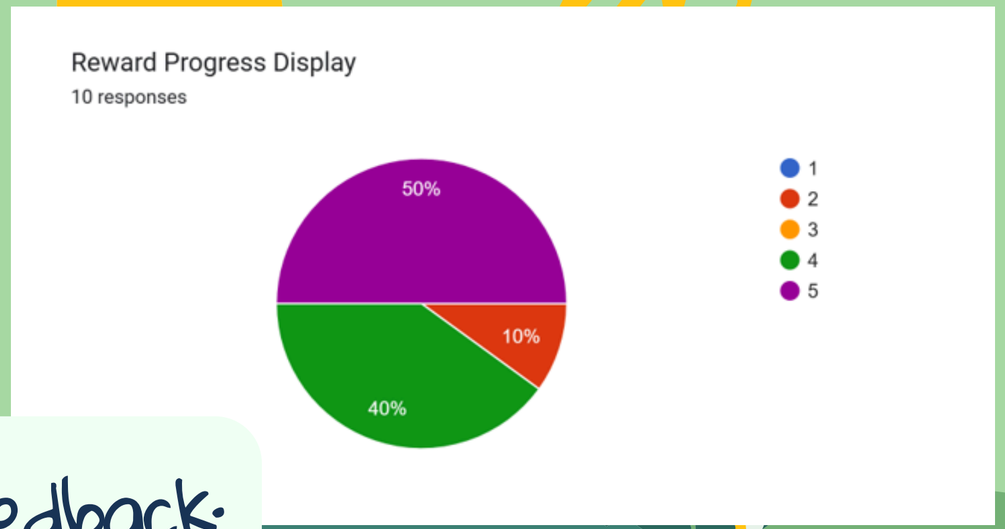

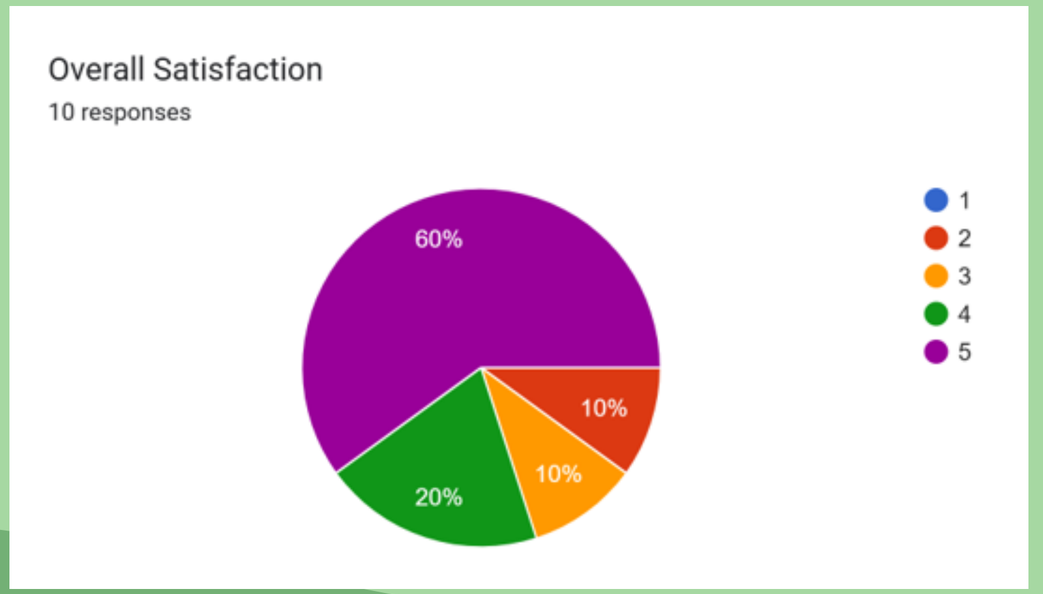

Feedback:

- “Preface seems user friendly. Though I’d love to see a leaderboard (for competitive people such as I)”
- “It would be good to add dark mode”
- “Good” as said by 2 of my respondents.

Conclusions - What methods were used to assess the solution, and what did you find?

If given more time and resources, we would:

- Integrate barcode scanning for wider packaging recognition
- Build multilingual support for broader accessibility
- Add a leaderboard system to drive community competition
- Partner with more brands and LGUs to scale reward systems
- Transition to Android-native or Flutter for a more polished UI/UX

Slides end here

THANK YOU!

Do you have any queries and feedbacks?