Team: EcoCycle

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Overview of the Problem

Plastic trash, especially from single-use plastics, is among the primary causes of environmental degradation. Even with increased awareness, plastics recycling and disposal are still a problem because of the lack of motivation or an accessible system. Urban dwellers and human beings overall are typically not motivated to observe ecologically friendly ways of disposing of trash, resulting in more pollution and environmental degradation.

This issue requires an infrastructure that not only facilitates the right kind of plastic disposal but also encourages people to practice proactive behavior. A web platform ensuring sustainable activity with substantial rewards has the capacity to bring about lasting change in green behavior. The objective is to preserve natural resources for generations to come.

Solving the Problem

In order to address the problem of plastic litter and encourage sustainable behavior, we propose developing a mobile application that includes an incentive-based reward system. Users will be rewarded with points for correctly disposing of single-use plastics using intelligent bins. Points can be used to redeem discounts or free products with partner firms, encouraging frequent use.

By tapping the power of behavioral psychology specifically the power of incentives this solution aims to render sustainable behaviors a positive and social experience. This solution is scalable and adaptable, fostering long-term commitment to plastic waste reduction.

The Application

Application Name: Reduce

What it is:

Reduce is a mobile application designed by Reduce Advocates Co. to inspire users to actively participate in plastic waste reduction. The app connects digital rewards with real-world sustainable behavior by encouraging users to properly dispose of plastics in specially adapted bins. It promotes environmental responsibility through an accessible, user-friendly platform aimed at mobile phone subscribers and the general public.

Features:

- The application will include the following features to promote and support eco-conscious behavior:
- Plastic Disposal Tracker: Users can scan QR codes on smart bins when disposing of single-use plastics to earn points.
- Rewards System: Accumulated points can be redeemed for discounts or freebies at partnered restaurants and stores.
- Community Leaderboard: Displays top contributors to promote friendly competition and encourage more active participation.
- Eco-Education Hub: Offers short educational materials about plastic pollution, recycling techniques, and sustainability tips.
- Partner Store Locator: Helps users locate the nearest businesses where they can redeem points or find recycling bins.
- Sustainability Goals Tracker: Allows users to set personal eco-goals and monitor their impact on the environment over time.

Questions about the Application

Who are the potential users?

The app targets environmentally conscious individuals, particularly mobile phone users in urban settings. This includes students, working professionals, and community members who want to contribute to sustainability efforts through a modern and convenient approach.

What tasks do they seek to perform?

Users aim to dispose of plastic responsibly, earn rewards for sustainable actions, learn about plastic waste impacts, and engage with like-minded individuals. They also want to find participating businesses and keep track of their eco-contributions.

What functionality should any system provide to these users?

The system should enable easy logging of plastic disposal, manage point accumulation and redemption, educate users on environmental issues, and support community interaction through leaderboards and shared goals.

What constraints will be placed on your eventual design?

The application must be lightweight and accessible for a wide range of mobile devices. It should offer intuitive navigation, and its design must accommodate users of varying tech literacy levels. The app should also function effectively in offline or low-connectivity environments, as some users may not always have stable internet access.

What criteria should be used to judge if your design is a success or not?

Success will be measured by:

- Increase in proper plastic disposal in participating areas
- Number of app users and active participants
- User feedback on the usability and motivation provided by the app
- Positive environmental impact data (e.g., reduced plastic waste)
- Engagement rates with the reward system and community features

Figure 1. FlowChart

Start

Spot the Problem:
People are using too much plastic, and there's not enough motivation to dispose of it properly.

Come Up with a Solution:
Let's build an app—called "Reduce"— that makes it rewarding to recycle plastic.

Talk to People:
We'll ask mobile users and city residents what they'd want in an app like this.

Plan the Main Features:
• Scan bins to log plastic drop-offs
• Earn points and trade them for discounts or freebies
• See how you rank on a community leaderboard
• Learn cool facts and tips about plastic and the planet
• Find nearby stores and partner drop-off spots
• Set personal eco-goals and track your progress

Build a First Version:
• Make it super easy to use
• Keep people motivated with real rewards
• Help users build lasting, eco-friendly habits
• Ensure it works smoothly on all kinds of phones

Listen and Improve:
We'll take feedback seriously and make the app even better

END