Features & Functionalities

Persuasive Technologies

- Rewards and Incentives: Players earn digital cards and XP when they scan QR codes. These rewards serve as incentives, encouraging visits to sustainability-focused sites like refill stations, public transport hubs, and recycling points.
- <u>Progress Tracking:</u> As users accumulate cards and XP, they can track their progress via an inventory and XP level display. This ongoing feedback fosters a sense of achievement and drives continued interaction with the app.
- <u>Commitment and Consistency:</u> By regularly scanning QR codes at eco-friendly locations, users build a consistent, sustainable habit. Once engaged, this routine behavior helps reinforce their commitment to environmental actions.
- Social Influence (Future Features): Upcoming features include options for trading cards and engaging in battles with other users. These social elements are designed to tap into competitive instincts and community spirit, further motivating participation.

Key Features

- QR Codes & Locations: A game master is tasked with placing QR codes across campus in areas that best demonstrate sustainable practices. Users can scan these codes using the app's interface, which then unlocks a pack of cards and launches the gameplay.
- <u>Cards & Packs:</u> At every designated location, players have the opportunity to secure a pack of cards that is unique to that area. These cards offer information on local sustainability efforts and provide tips on how to contribute, while also awarding XP that helps players level up in the game.
- Gamification Process (Battles & Trading): The collected cards are not only collectibles but also tools for interaction. They enable players to engage in battles and trade with one another. All such activities are managed by the game master, who oversees the distribution and use of cards to maintain a balanced and engaging gaming environment.

Sprint 2 Developments:

- The Trading functionality was implemented in Sprint 2 however, Battles were not implemented due to time constraints.
- The Persuasive technologies for the overall project remains the same, however the Key Features were developed with the following:
 - Trading: Allowing communication between users in viewing inventory, viewing trades and executing bids & offers.
 - Game Master (Increase Functionality): Increasing the overall scope of admin activity & controls over game management.
 - Leaderboard: Displaying top 10 users filtered by levels and demonstrating overall effort towards sustainability.
 - As mentioned during the prototype presentation, these functionalities aimed to be developed were completed in Sprint 2, and will be showcased at the Final Presentation.

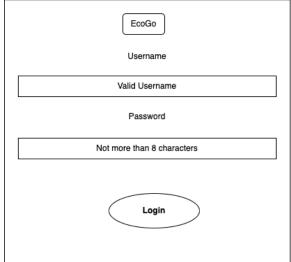
UI/UX Mockups and Basic Interface

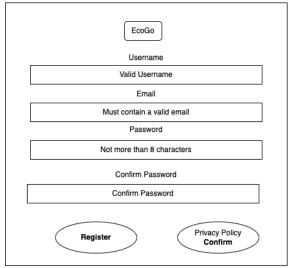
The UI Mockups are presented for the Landing, Login & Register pages. These pages then direct users to their user inventory page, which is primarily the user dashboard. A description of these designs is provided below, along with supporting UI designs. Please note, that the dashboard functions have separate pages, which are to be developed during the next sprint.

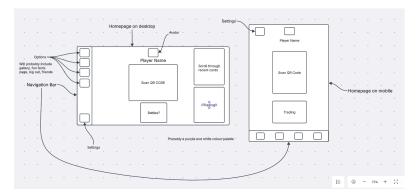
The overall high-level UI design demonstrates functionalities for Scanning QR Code, Participating in Battles, Scrolling through Recent Cards, Trading Cards & a Navigation Bar. This has been adapted for both Desktop & Mobile access configurations. The User's Avatar is presented at the Top with the Player Name and an option to view User Profile within the Settings.

- Scanning QR Code: This function is centered within the UI, prompting a camera
 where the user may scan the respective QR code at their location. This then opens
 up to a range of cards which the user might be able to collect from that location after
 scanning.
- Scrolling through Cards & Trading: This panel allows users to view all the cards in their portfolio, each card has specific details and features that have been explained previously. These have been added for the overall gamification design, as this panel links to the trading panel which allows users to view potential trades and interact with other users.
- Navigation Bar: This section allows users to view facts, settings and manage their overall user profile. Furthermore, it is an icon that allows overall navigation to the other functions defined previously.





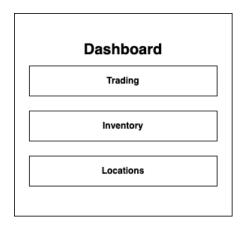




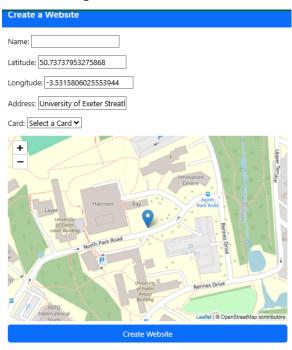
Design - Leaderboard UI

Design - Sprint 2 Dashboard Increment





Design - Game Master View



Design - Trading Dashboard

