



ECOMON

Team Beep

Boris Cheung, Finlay Fordham, Jacob McAllister,
Lorenzo Meixieira, Adam O'Neill, Angelo Thind, Callum Ward



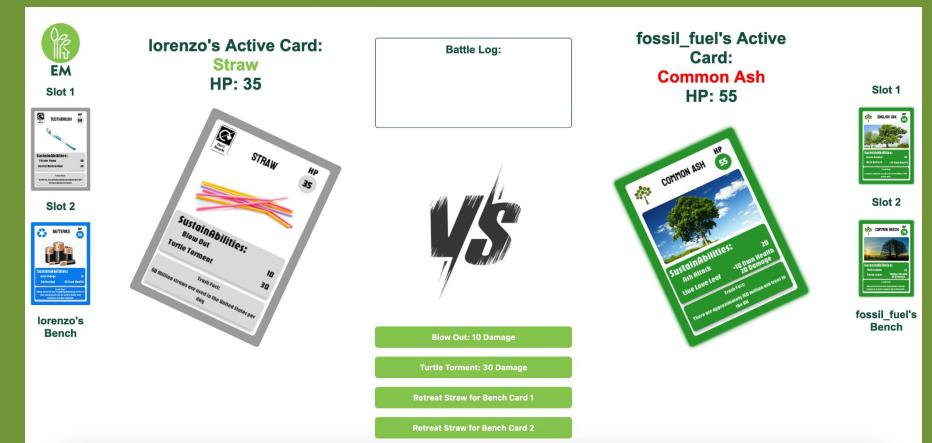
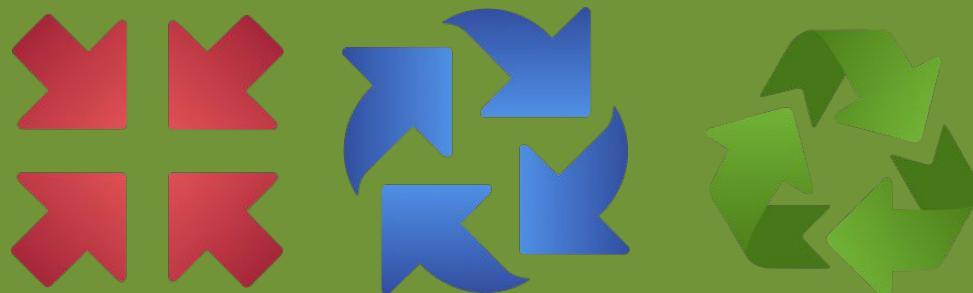
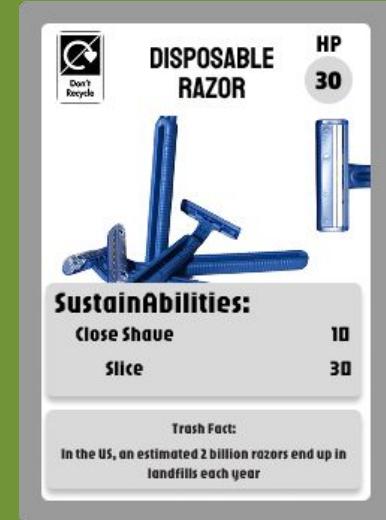
OBJECTIVES

- Promote Environmental Awareness
 - Plastic Consumption on Campus
 - Bin Usage and Recycling
- Gamification
 - Put a positive spin on visiting bins in real life
 - Gamify the ideas of plastic consumption and recycling



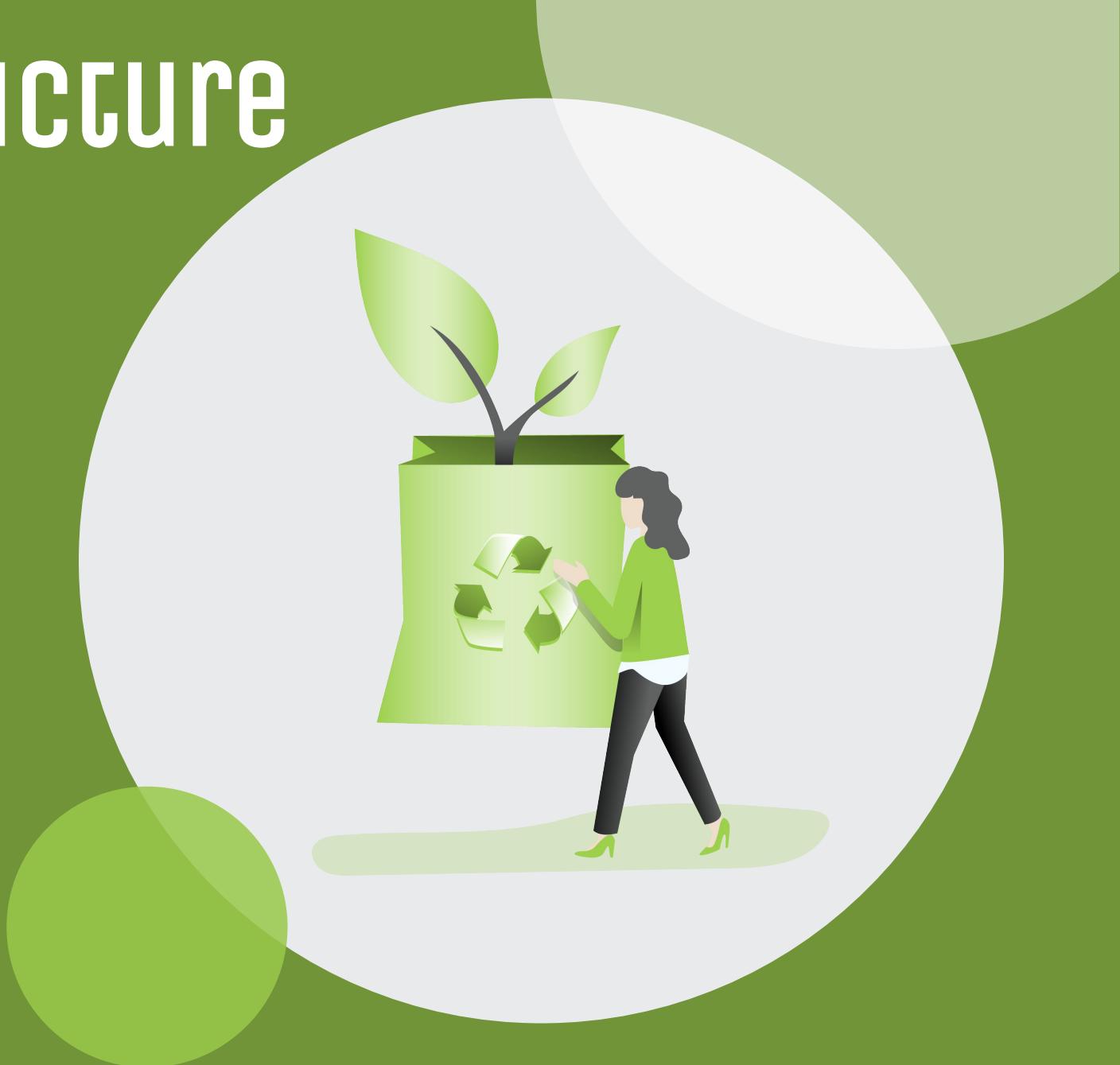
WHAT IS ECOMON?

- Collect Playing Cards
 - Types: Plastic, Recycling, Plant
 - Recycle their wrappers
- Card battles occur at “recycling gyms”
 - Bins are pinpointed on the map
 - Scan QR to access bin battles
- Battle for team: Reduce, Reuse, Recycle against Team Fossil Fuels



Presentation Structure

1. How we Collaborated
2. Process and Features
3. General Challenges
4. Results and Impact
5. Demonstration
6. Questions





HOW WE COLLABORATED

GROUP MEETINGS



- In person group meetings at least every 2 days
- Teams/Whatsapp call standups most days to evaluate work
- Meeting document consistently updated with tasks achieved and to do.

GITHUB

The screenshot shows a GitHub repository page for a public project named 'software-project'. The repository has 2 branches and 0 tags. The main branch contains several commits from 'Theocat321' related to CI/CD and file structure. The 'About' section indicates no description, website, or topics provided. The 'Code' tab is selected. The 'README' section is currently empty, with a button to 'Add a README'.

Group-Software-Engineering-Yr2 / software-project

Type to search

Code Issues Pull requests Actions Projects Security Insights Settings

software-project Public

Edit Pins Watch Fork Star

main 2 Branches 0 Tags Go to file Add file Code About

No description, website, or topics provided.

Activity Custom properties 0 stars 0 watching 0 forks Report repository

Releases No releases published Create a new release

Packages No packages published Publish your first package

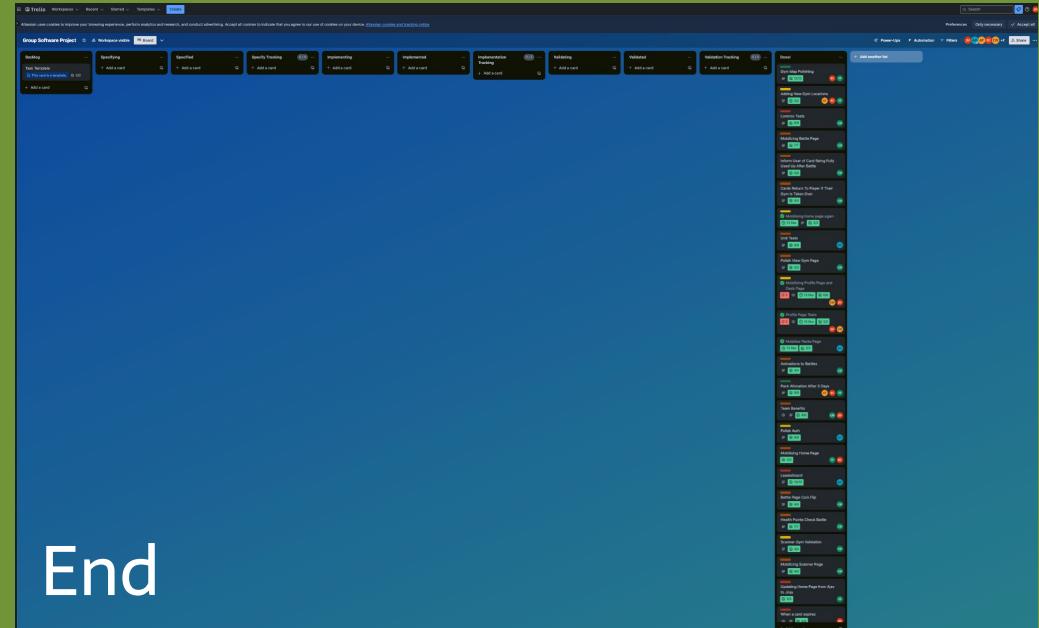
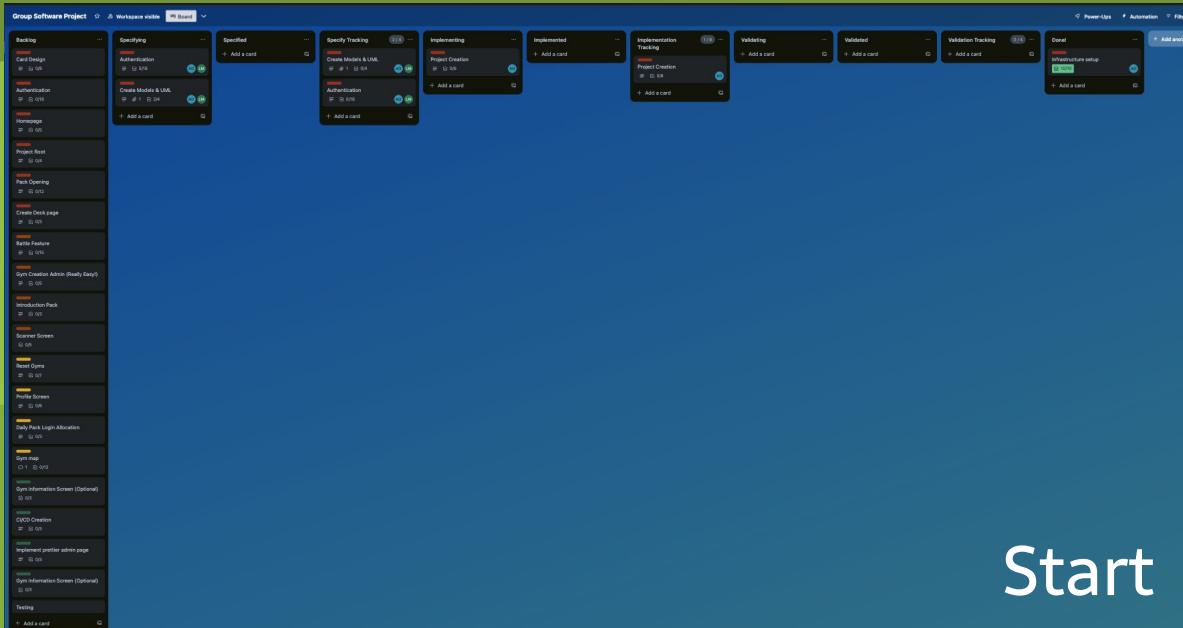
Contributors 7

Add a README

- Separate branches for each feature
- Pull requests required at least 3 approvals
- CI/CD testing implemented

Kanban Methodology

- Kanban methodology utilising a Trello board
- Card limiter through tracking columns
- Card tiered from 1-4 with colour coding



Backlog

- Card Design (0/8)
- Authentication (0/18)
- Homepage (0/5)
- Project Root (0/4)
- Pack Opening (0/12)
- Create Deck page (0/3)
- Battle Feature (0/15)
- Gym Creation Admin (Really Easy!) (0/5)
- Introduction Pack (0/3)
- Scanner Screen (0/5)
- Reset Gyms (0/7)
- Profile Screen (0/8)
- Daily Pack Login Allocation (0/3)
- Gym map (1/13)
- Gym Information Screen (Optional) (0/3)
- CI/CD Creation (0/3)
- Implement prettier admin page (0/3)
- Gym Information Screen (Optional) (0/3)
- Testing

Specifying

- Authentication (0/18)
- Create Models & UML (0/24)

Specified

- Specify Tracking (2/4)
 - Create Models & UML (0/4)
 - Project Creation (0/6)
- Implementing (0/6)
 - Project Creation (0/6)

Implementing

- Implemented (1/6)
 - Project Creation (0/6)
- Implementation Tracking (0/4)
 - Infrastructure setup (10/10)

Implemented

- Implementation Tracking (1/6)
 - Project Creation (0/6)

Implementation Tracking

- Validating (0/4)
 - + Add a card
- Validated (0/4)
 - + Add a card

Validating

- Validated (0/4)
 - + Add a card

Validation Tracking

- Done (0/4)
 - + Add a card

Done

- Infrastructure setup (10/10)

Implementing

- + Add a card

Implemented

- + Add a card

Implementation Tracking

- + Add a card

Validating

- + Add a card

Validated

- + Add a card

Validation Tracking

- + Add a card

Done

- + Add a card

Tracking cards for correct Kanban methodology

Sprint 1: Start

Tracking cards for correct Kanban methodology

Sprint 1: Start

Group Software Project Workspace visible Board View site information

Power-Ups Automation Filters

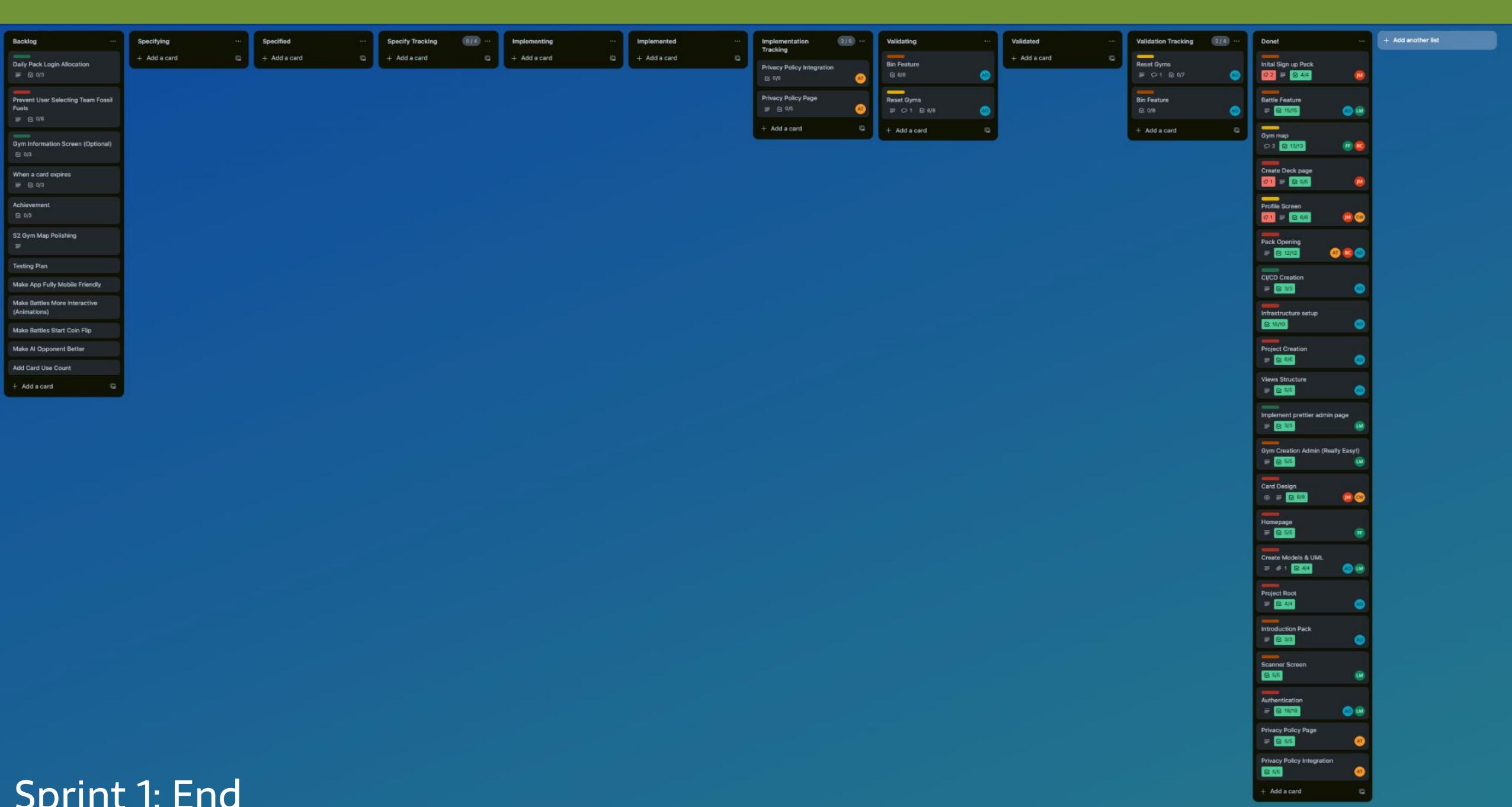
Share

The board consists of 11 columns representing different stages of the software development process:

- Backlog:** Contains cards for "Battle Feature", "Introduction Pack", "Reset Gyms", "Daily Pack Login Allocation", "Gym Information Screen (Optional)", "Reset Gyms", "Bin Feature", "When a card expires", "Achievement", and "Testing".
- Specifying:** Contains cards for "Create Deck page" and "Scanner Screen".
- Specified:** Contains cards for "CI|CD Creation", "Scanner Screen", and "Pack Opening".
- Specify Tracking:** Contains cards for "Scanner Screen", "Create Deck page", and "Pack Opening".
- Implementing:** Contains cards for "Profile Screen", "Gym map", and "Homepage".
- Implemented:** Contains cards for "Profile Screen" and "Gym map".
- Implementation Tracking:** Contains cards for "Gym Creation Admin (Really Easy!)", "Gym map", "Homepage", and "Profile Screen".
- Validating:** Contains cards for "Homepage" and "Implement prettier admin page".
- Validated:** Contains cards for "Homepage".
- Validation Tracking:** Contains cards for "Implement prettier admin page", "Homepage", and "Views Structure".
- Done!** Contains cards for "Infrastructure setup", "Project Creation", "Views Structure", "Gym Creation Admin (Really Easy!) (JM)", "Card Design", "Create Models & UML", "Project Root", and "Authentication".

Each card displays its title, current status, and progress bar. Some cards include user initials (e.g., JM, AD, AT, BC, CW) and a "Add a card" button.

Sprint 1: Middle



Sprint 1: End

Group Software Project Workspace visible

Backlog ...

Task Template This card is a template. 0/3

Daily Pack Login Allocation 0/3

Gym Information Screen (Optional) 0/3

When a card expires 0/3

Gym Map Polishing 0/6

Testing Plan

Make App Fully Mobile Friendly

Make Battles More Interactive (Animations)

Make Battles Start Coin Flip

Make AI Opponent Better

Adding New Gym Locations 0/3 FF

Mobilising Home Page 0/3 R

Updating Home Page from Ajax to Jinja 0/3 FF

+ Add a card

Specifying ...

Leaderboard 0/3 AC

Use Count 0/3

Profile Page Polishing 0/6 CW JM

+ Add a card

Specified ...

+ Add a card

Specify Tracking 3/4 ...

Profile Page Polishing 0/6 CW JM

User Count 0/3

Leaderboard 0/3

+ Add a card

Implementing ...

Achievement 0/6 CW JM

User Count 0/8

+ Add a card

Implemented ...

+ Add a card

Implementation Tracking 1/5 ...

Achievement 0/6 CW JM

+ Add a card

Validating ...

+ Add a card

Validated ...

+ Add a card

Validation Tracking 0/4 ...

+ Add a card

Done! ...

Reset Gyms 0/8 AD

Bin Feature 6/8 AD

Prevent User Selecting Team Fossil Fuels 6/8

Initial Sign up Pack 2/2 JM 4/4

Battle Feature 15/15 AD LM

Gym map 2 13/13 FF BC

Create Deck page 0/1 JM 5/5

Profile Screen 0/1 JM 6/6 CW

Pack Opening 12/12 AT BC

CI/CD Creation 3/7 AD

Infrastructure setup 10/10 AD

Project Creation 6/6 AD

Views Structure 5/5 AD

Implement prettier admin page 3/5 LM

Gym Creation Admin (Really Easy!) 6/5 LM

Card Design 8/8 JM CP

Homepage 5/5 EF

Create Models & UML 1 4/4 AD LM

Project Root 4/4 AD

Introduction Pack

Sprint 2: Beginning

Trello Workspaces Recent Starred Templates Create

Group Software Project Workspace visible Board

The board consists of 11 columns representing different stages of the software development process:

- Backlog:** Contains cards for "Task Template", "MOSCOW", "Lorenzo Tests", "Inform User of Card Being Fully Used Up After Battle", "Battle Page Second Move Power Up Feature", and "Testing Plan".
- Specifying:** Contains cards for "Gym Map Polishing" and "Unit Tests".
- Specified:** Contains cards for "Unit Tests" and "Gym Map Polishing".
- Specify Tracking:** Shows progress for "Unit Tests" (2/4) and "Gym Map Polishing" (2/4).
- Implementing:** Contains cards for "Unit Tests", "Gym Map Polishing", "Adding New Gym Locations", "Mobilizing Battle Page", "Cards Return To Player If Their Gym Is Taken Over", "Mobilizing Battle Page", "Polish View Gym Page", and "Adding New Gym Locations".
- Implemented:** Shows progress for "Unit Tests" (4/5) and "Gym Map Polishing" (4/5).
- Implementation Tracking:** Shows progress for "Cards Return To Player If Their Gym Is Taken Over" (4/5), "Mobilizing Battle Page" (4/6), "Polish View Gym Page" (4/5), and "Adding New Gym Locations" (4/5).
- Validating:** Contains cards for "Cards Return To Player If Their Gym Is Taken Over", "Mobilizing Battle Page", "Polish View Gym Page", and "Adding New Gym Locations".
- Validated:** Shows progress for "Cards Return To Player If Their Gym Is Taken Over" (4/4), "Mobilizing Battle Page" (4/6), "Polish View Gym Page" (4/5), and "Adding New Gym Locations" (4/5).
- Validation Tracking:** Shows progress for "Cards Return To Player If Their Gym Is Taken Over" (4/4), "Mobilizing Battle Page" (4/6), "Polish View Gym Page" (4/5), and "Adding New Gym Locations" (4/5).
- Done!** Contains cards for "Mobilising home page again", "Mobilising Profile Page and Deck Page", "Profile Page Tests", "Mobilise Packs Page", "Animations to Battles", "Pack Allocation After 3 Days", "Team Benefits", "Polish Auth", "Mobilising Home Page", "Leaderboard", "Battle Page Coin Flip", "Health Points Check Battle", "Scanner Gym Validation", "Mobilizing Scanner Page", "Updating Home Page from Ajax to Jinja", "When a card expires", "Achievement", "Profile Page Polishing", "Reset Gyms", and "New Features".

Sprint 2: Middle

Sprint 2: End

Trello Workspaces Recent Starred Templates Create

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Group Software Project Workspace visible Board

Backlog Task Template + Add a card Specifying + Add a card Specified + Add a card Specifying Tracking + Add a card Implementing + Add a card Implemented + Add a card Implementation Tracking + Add a card Validating + Add a card Validated + Add a card Validation Tracking + Add a card Done + Add a card

Done!

Gym Map Polishing 12/12 BC FF

Adding New Gym Locations 3/3 AT BC FF

Lorenzo Tests 6/6 LM

Mobilizing Battle Page 7/7 LM

Inform User of Card Being Fully Used Up After Battle 6/6 LM

Cards Return To Player If Their Gym Is Taken Over 6/6 LM

Mobilizing home page again 13 Mar 3/3 LM

Unit Tests 8/8 AD

Polish View Gym Page 3/3 LM

Mobilizing Profile Page and Deck Page 13 Mar 6/6 LM

Profile Page Tests 2/2 13 Mar 4/4 LM

Mobilise Packs Page 13 Mar 3/3 LM

Animations to Battles 6/6 LM

Pack Allocation After 3 Days 6/6 LM

Team Benefits 6/6 LM

Polish Auth 6/6 LM

Mobilizing Home Page 6/6 LM

Leaderboard 6/6 LM

Battle Page Coin Rip 6/6 LM

Health Points Check Battle 6/6 LM

Scanner Gym Validation 6/6 LM

Mobilizing Scanner Page 6/6 LM

Updating Home Page from Ajax to Jinja 6/6 LM

When a card expires 6/6 LM

Done!

Polish Auth 8/8 AD

Gym map 13/13 FF BC

Create Deck page 1/1 5/5 JM

Profile Screen 2/1 6/6 JM CW

Pack Opening 12/12 AT BC AD

CI/CD Creation 3/3 AO

Infrastructure setup 10/10 AO

Project Creation 6/6 AO

Views Structure 5/5 AO

Implement prettier admin page 3/3 LM

Gym Creation Admin (Really Easy) 5/5 LM

Card Design 8/8 JM CW

Homepage 5/5 FF

Create Models & UML 1/4 AD LM

Project Root 4/4 AO

Introduction Pack 3/3 AO

Scanner Screen 5/5 LM

Authentication 18/18 AD LM

Privacy Policy Page 5/5 AT

Privacy Policy Integration 5/5 AT

+ Add a card

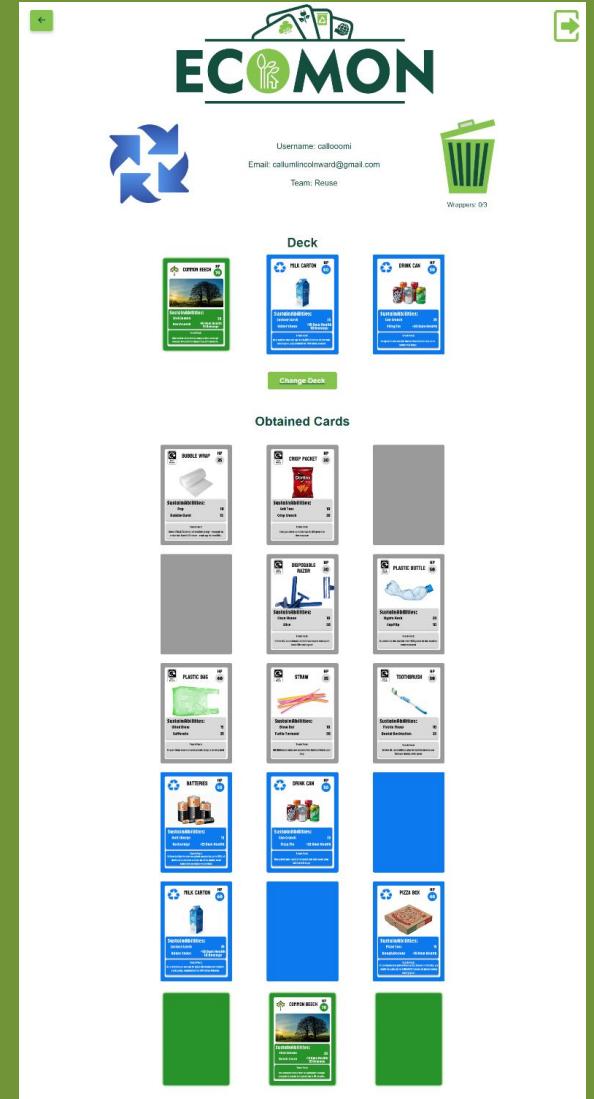
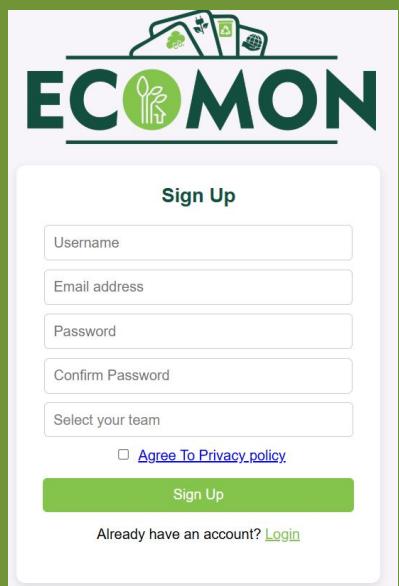
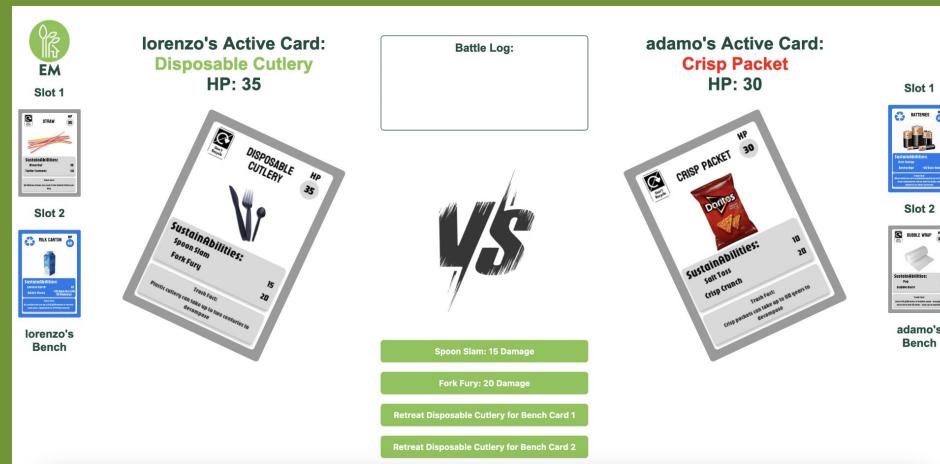
The Trello board displays a clear workflow from backlog to validation, with a significant portion of the work moved to the 'Done!' column. The sidebar provides a comprehensive overview of the project's scope, including authentication, privacy policies, and various UI/UX components.



process
+
features

SPRINT 1 FEATURES

- User Authentication
- Home and Profile Page
- Location based Gyms
- QR Code Scanner
- Ecomon Battles
- Packs



SPRINT 2 FEATURES

- Improved Battles
- Degrading Cards + Team Benefits
- Achievements + Leaderboard
- Further Testing
- Mobilisation
- Deployment

ECOMON

Player Leaderboard

Username	Team	Owning Gyms ↓	Battles Won	Bins Emptied	Packs Opened	Card Types Owned	Collection Total
callooomi	Recycle	1	58	66	26	1 7 4	12
Jake	Reduce	1	43	50	45	4 18 8	30
adamo	Recycle	0	1	1	1	4 10 6	20
lorenzo	Recycle	0	0	0	0	1 7 4	12
skibidisigma33	Reuse	0	0	0	2	1 3 1	5



SPRING 2 GDPR COMPLIANCE

● GDPR Compliance

- Right to Rectification (Article 16)
- Right to Erasure (Article 17)
- Security and Accountability (Articles 5, 32, and 33)
- Transparency and Information (Articles 12–14)
- Lawfulness, Fairness, and Transparency (Article 5)



Username: Jake

Email: jakemcallister42@gmail.com

Sign Up

Username

Email address

Password

Confirm Password

Select your team

I agree to the [privacy policy](#).

Sign Up

Already have an account? [Login](#)



General challenges

DEALING WITH CHALLENGES

Sprint One Challenges

Finding available group times

Constant merging conflicts

Familiarity with Django Framework

Lack of thorough testing

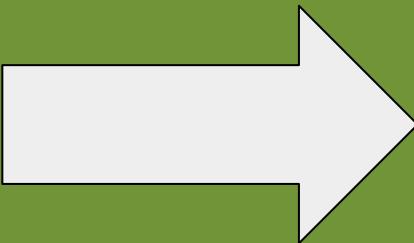
Sprint Two Solutions

Improved communication on Whatsapp

Tighter internal deadlines

Gained Django confidence by using each other and documentation

Wide mix of automatic and manual tests



A stylized illustration in the background features large, overlapping light green circles. Inside one of these circles, a man with a beard and dark hair, wearing a green t-shirt and dark pants, is kneeling and watering two large, leafy green plants with a green watering can. The plants have broad, wavy leaves.

RESULTS

+

IMPACT

SUSTAINABILITY

Biodiversity

41 Establish net positive plan for Woodland, Wetland and Campus wide biodiversity

Waste & Recycling

31 95% reduction in single use plastic packaging

32 85% recycling or all waste

33 Campus wide waste recycle / recycling programme

Directly from the University of Exeter's Environment and Climate Emergency Policy Statement

- Focus on targets surrounding plastic reduction
- Increase in recycling and reuse
- Informing about the biodiversity around Exeter

EMBEDDED SUSTAINABILITY

- Cards have a lifetime (decomposition)
 - Plastic the longest, plant the shortest
- Trash facts incorporated in cards

Trash Fact:

Fewer than one in seven plastic bags are recycled

Trash Fact:

Recycling one tonne of cardboard saves 7,000 tonnes of water and around 210 litres of oil.



Decomposed Battle Cards



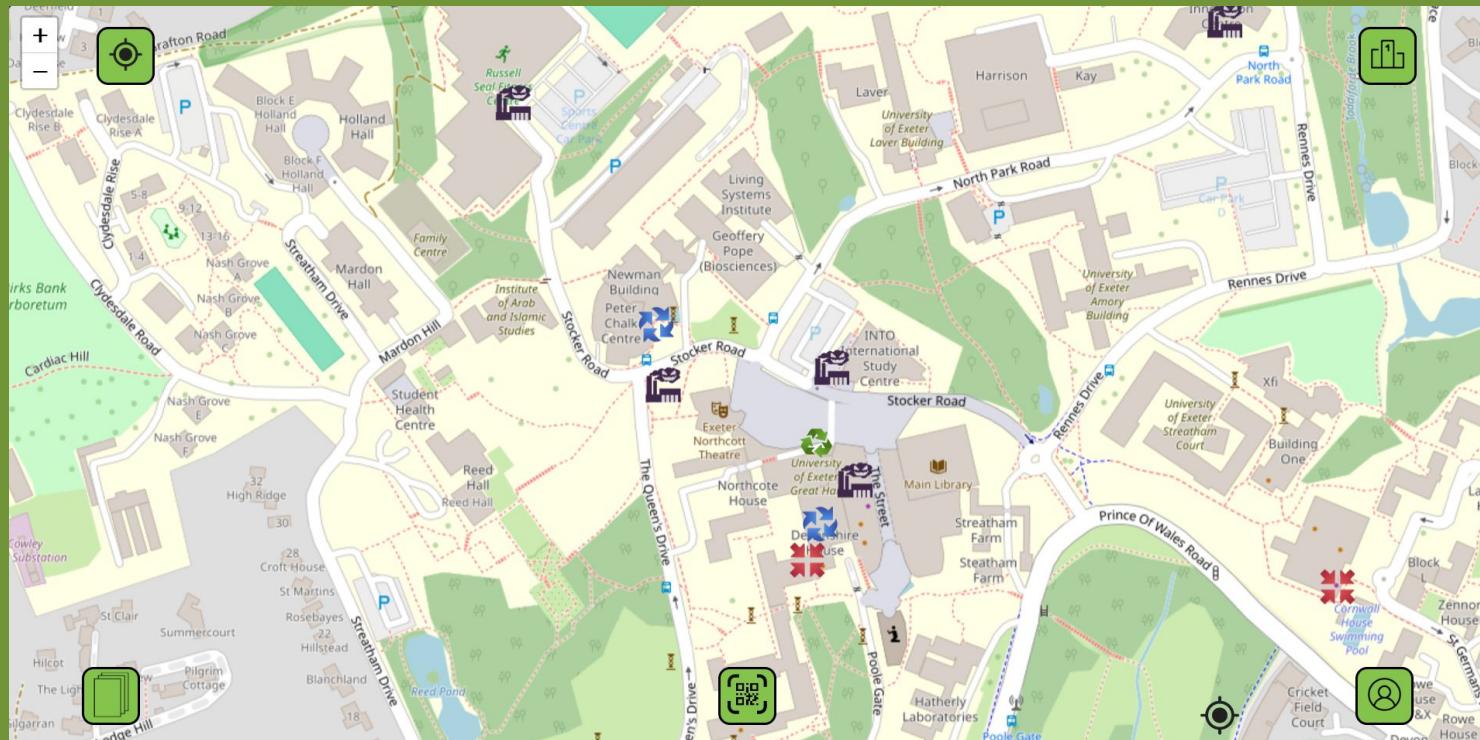
Continue

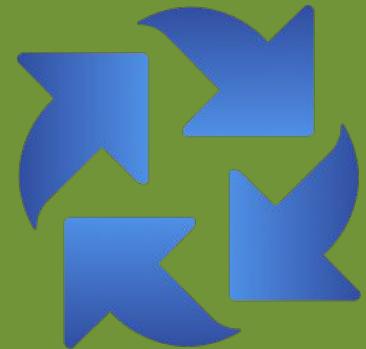
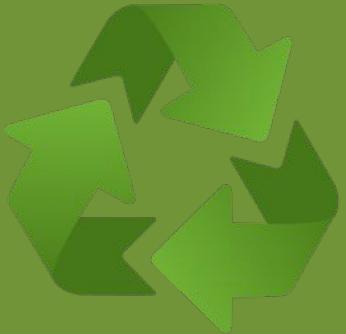
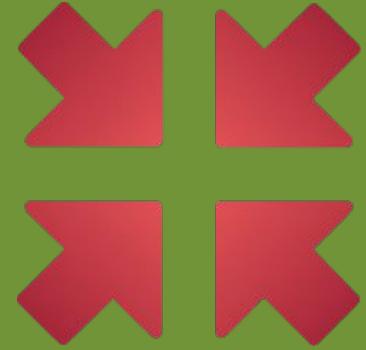


Wrappers: 1/3

- Opened packs create empty pack wrappers
- Wrappers need to be recycled before opening new packs

- Location association for bins (battle-gyms) across campus





- Team Benefits

- Reduce: lose less health in battles
- Reuse: card count is increased
- Recycle: recycling cards are damage boosted



Username: Jake

Email: jakemcallister42@gmail.com

Team: Reduce

Team Power: Take 5 less damage a turn

demonstration



THank
YOU!