A photograph showing a person's hands reaching towards a black trash bin filled with various discarded bottles. One hand holds a clear plastic bottle with a blue cap, and the other hand holds a dark brown glass bottle. The background is blurred, suggesting an outdoor setting.

SQUANDER

CAPSTONE PROJECT
- FALL 2022
PROF HENRY WONG

Aakansha Agarwala
Austin Blaise
Nicholas Wong
Rajat Nagarkar
Suryadeep Nallana

AGENDA



Team Members



Project Overview



Personas



Technologies



Design Architecture



Sprint Overview



Product Backlog



Sprint Backlog



Retrospective



Future Sprint



Project Demo



Conclusion

TEAM MEMBERS ROLES & RESPONSIBILITIES



Aakansha Agarwala: Project Manager/Scrum Master

- 1. Led team meetings and kept the team on task
- 2. Maintains the project's GitHub repository and Wiki
- 3. Documented test cases and co-authored technical paper



Nicholas Wong: Machine Learning Engineer

- 1. Design Computer Vision Model Architecture
- 2. Train and Evaluate Model Performance
- 3. Gather representative image data for training



Austin Blaise: Cloud Engineer

- 1. Contribute to the architecture of the project
- 2. Creates Infrastructure as code
- 3. Integrated features and services



Rajat Nagarkar: iOS Developer

- 1. Design and Development of Application.
- 2. Integrating ML model to provide specified results.
- 3. Testing the app to provide a better user experience.



Suryadeep Nallana: FullStack Developer/Quality Analyst

- 1. Contribution to design and development of the app layout
- 2. Authored technical document of the project
- 3. Working towards making our app user-friendly

PROJECT OVERVIEW



PROBLEM STATEMENT

As the population is increasing the amount of waste produced is also increasing.

The world produces 2.01 billion tons of urban solid waste yearly, with the United States being the highest producer of waste.

Most of the waste produced remains unprocessed due to a lack of recycling knowledge.

Squander app overcomes this problem by providing a way for waste recycling through a machine learning platform.



PROJECT DESCRIPTION

Squander app provides a complete solution to organize and plan the disposal of waste. It uses a machine learning algorithm to detect recyclable waste from images and provide proper disposal.

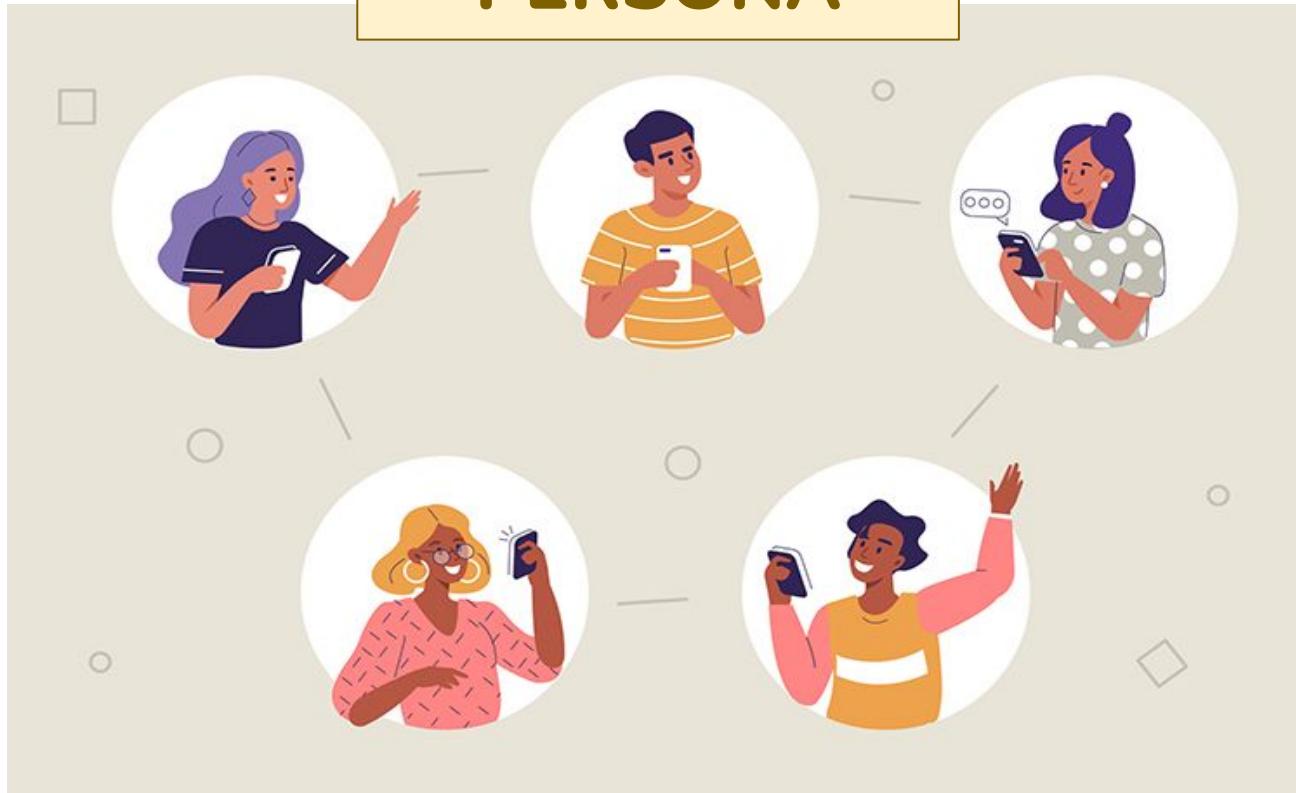
Squander app is an Image-based Waste detection mobile application.

The app works with an image submission by the user and a trained machine learning-based model runs on the image which gives results and information about that image.

As Squander is an image-based application, it's an easy tool to detect waste by underlying simple steps in the application.

And the application also has a feature that provides the nearest recycling location with an option to schedule a pick of your waste by the recycling factory

PERSONA



Jill, the party host

Background Profile:

Jill, a 32-year-old. He is an event organizer of a well-reputed company in the city. He has organized many big parties and is always busy with his job. He takes all the responsibility and his duties also include providing a good food service. He gets many clients, particularly for the food he provides. His organization is popular among the people Jill does many parties and he collected more food waste by the end of the party. Jill would like to know the waste identified from the image uploaded so that he can confirm the photo he uploaded was processable.

How can Squander help?

Jill being responsible for organizing the party. He wants to recycle all the waste by segregating in rightful manner and help the surrounding environment. He can use an application. Squander which provides his needs by showing the results of nearest recycling company location for all the food waste from his parties that happen wherever in the city. Squander makes an efficient and easiest way in someone's life like Jill's



Simon, the mechanic

Background Profile:

Simon is a mechanic for ten years. His age is of 35 years. His job is to inspect and repair vehicles, machinery, and light trucks. And he is known for his good service providing for his customers. He works in an indoor garage. Simon's culminated with metallic waste from his work and he wants to find a recycling location to recycle it and make some money from scrap

How can Squander help?

Simon can use the Squander application that helps him to find the nearest recycling company location for the waste to recycle from the comfort of his garage. This would allow him to find and provide easy access directly to the recycling company. He doesn't have to worry about the waste and where to recycle it. Through Squander it makes his life easier.



David, the retiree

Background Profile:

David was a sale executive in a marketing firm. He retired from the job recently. He was successful and has been an inspiration for others in the company. After his retirement, David brought up the interest he had for quite some time to renovate his house. He wants to give a personal touch to the house and lead the rest of his life happily in his way. Now he is spending all his time taking care of the process under his supervision and making a beautiful house for himself

How can Squander help?

Squander can be helpful for David, as he is looking after the construction works for his house. The waste can generate a lot, with all the accumulated waste, he can recognize the waste under categories within the app and send it to his nearest garbage station. That's make David being responsible for his waste and keeping the environment at a better position.



MINIMAL VIABLE PRODUCT

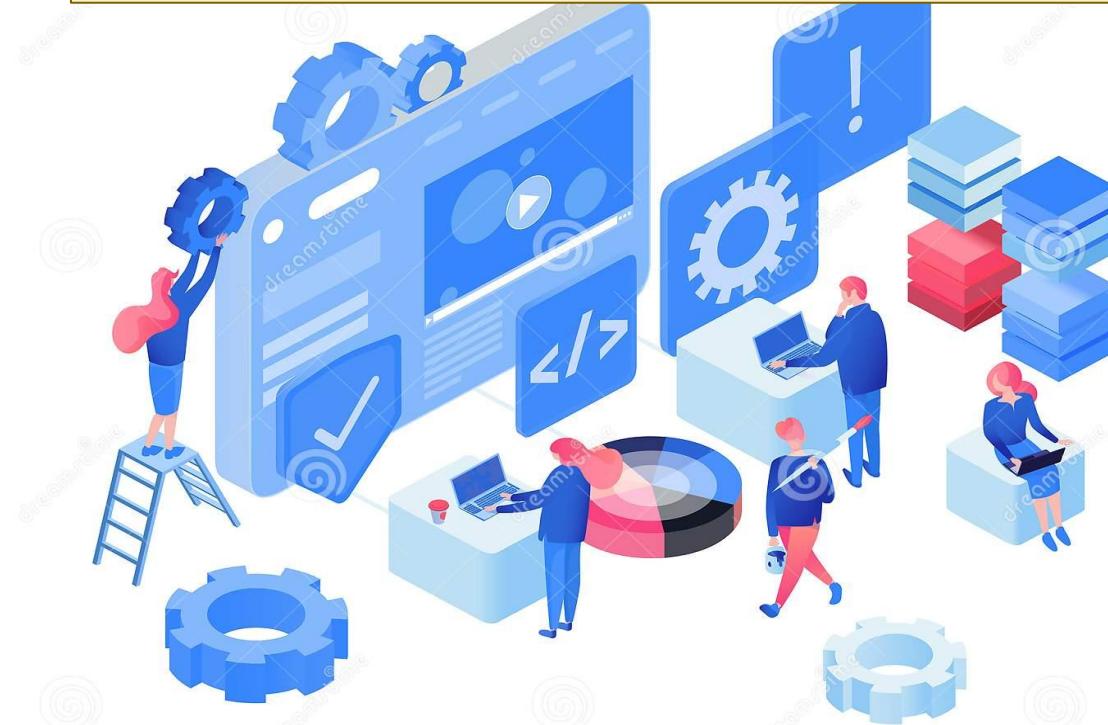


MINIMAL VIABLE PRODUCT (MVP)

Features:

- Scheduling the pick up of recycling waste by the factory
- Creation of a User Profile for each user who uses the application
- Showing the History of a pickup that is scheduled by a user
- Showing the recycling statistics for each user

TECHNOLOGIES

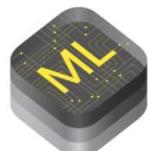


TECHNOLOGIES USED

FRONT-END



Swift



CoreML

iOS Development Toolkit

BACK-END



python

Backend



Keras

Machine Learning API



TensorFlow

Machine Learning Library

CLOUD



AWS



Firebase

Firebase

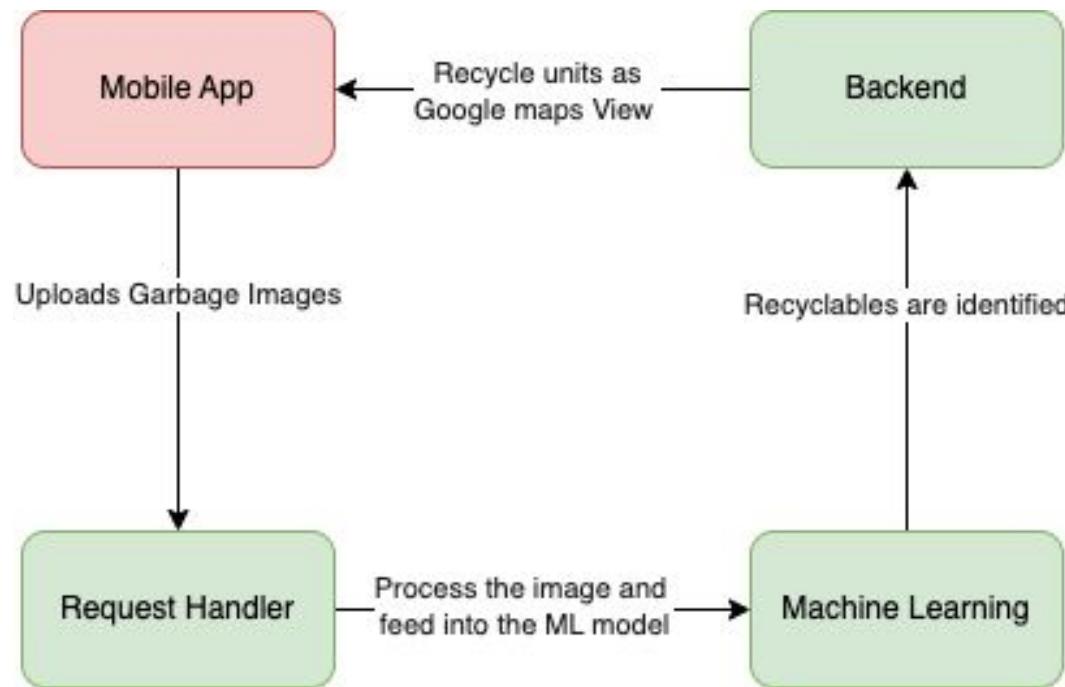


MapKit API

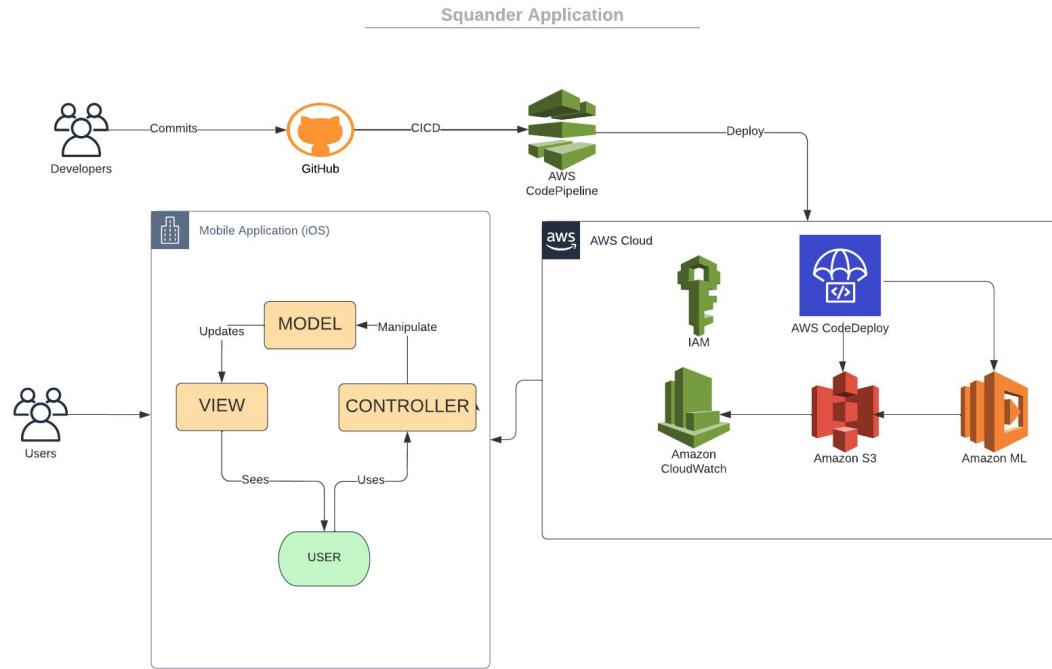
ARCHITECTURE DESIGN



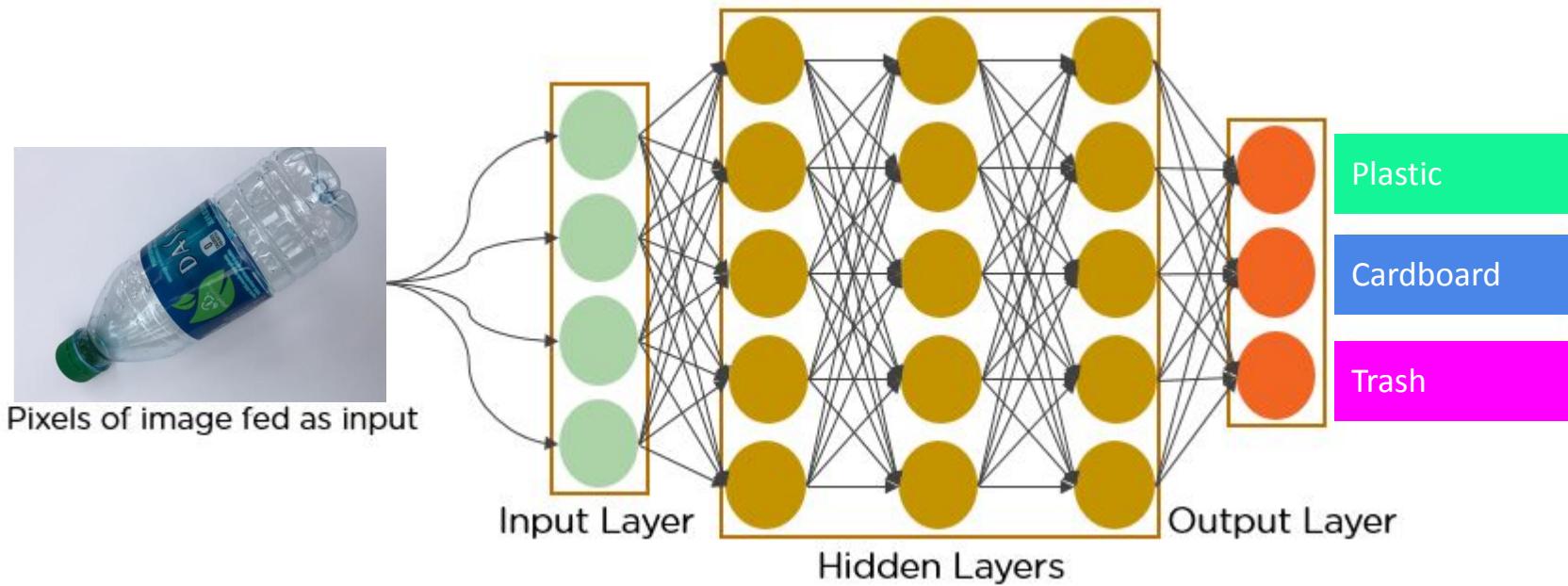
CONCEPTUAL DIAGRAM



SQUANDER ARCHITECTURE



MACHINE LEARNING ALGORITHM



MODEL CLASSIFICATION

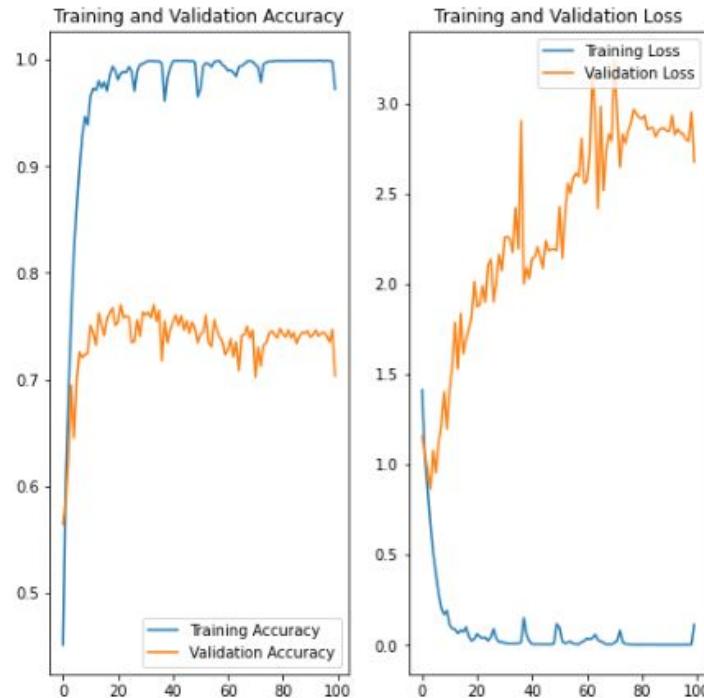
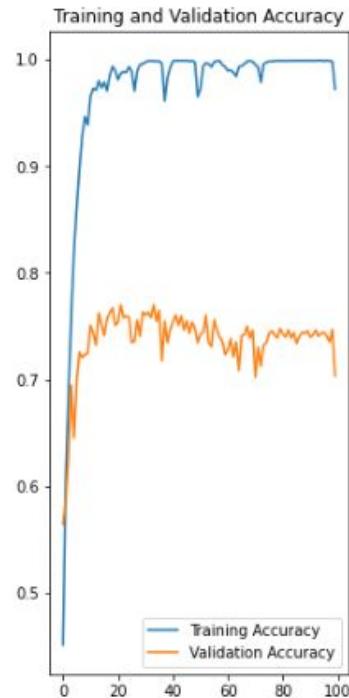
The model is able to classify trash into the following categories:

- Cardboard
- Glass
- Metal
- Paper
- Plastic
- Miscellaneous Trash



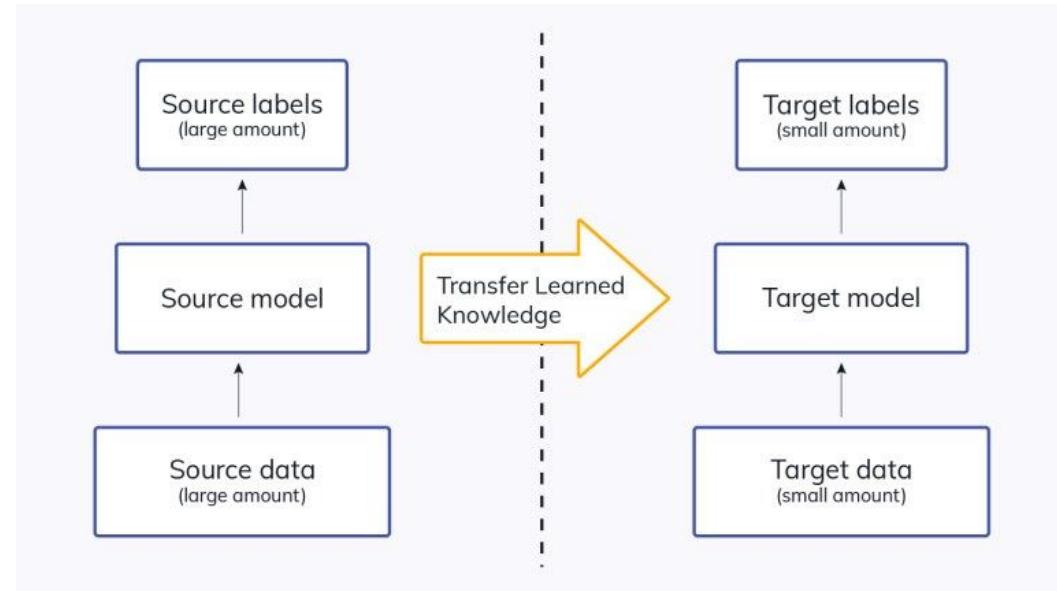
MODEL EVALUATION

This image most likely belongs to glass with a 100.00 percent confidence.

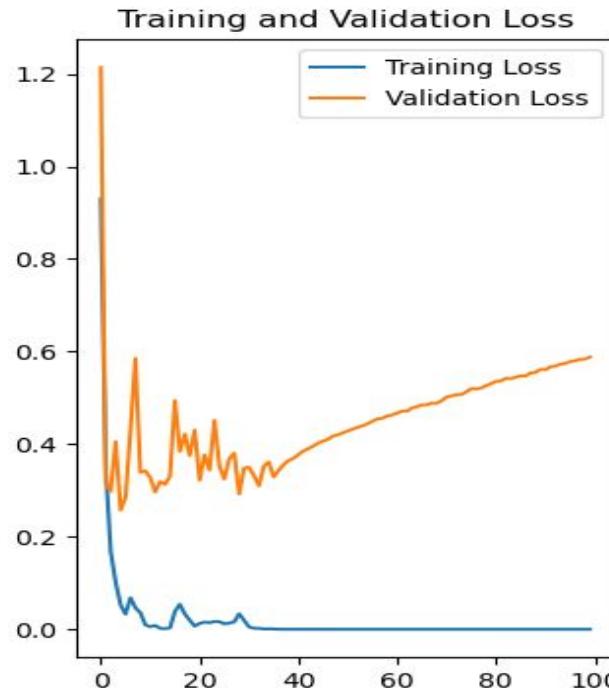
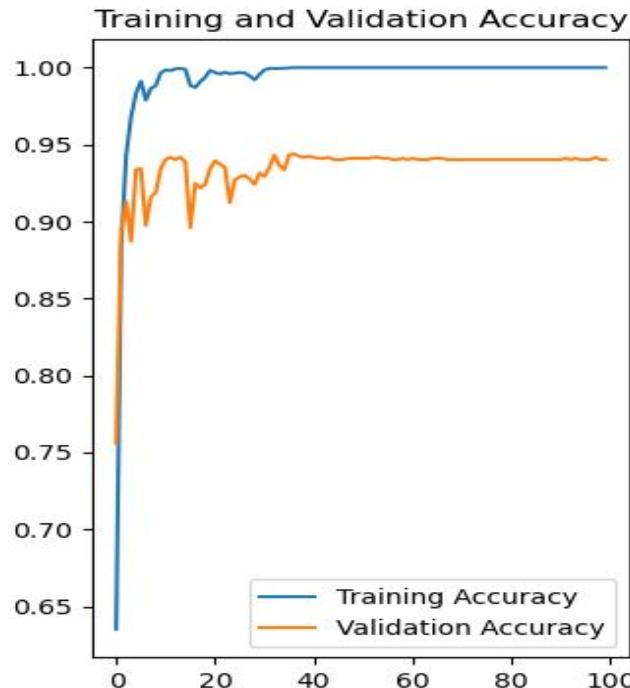


TRANSFER LEARNING

- To alleviate the need for more images due to lack of public resources
- Leverage a pre - trained model with a large amount of training data.
- Fine tune the existing model.



TRANSFER LEARNING RESULTS



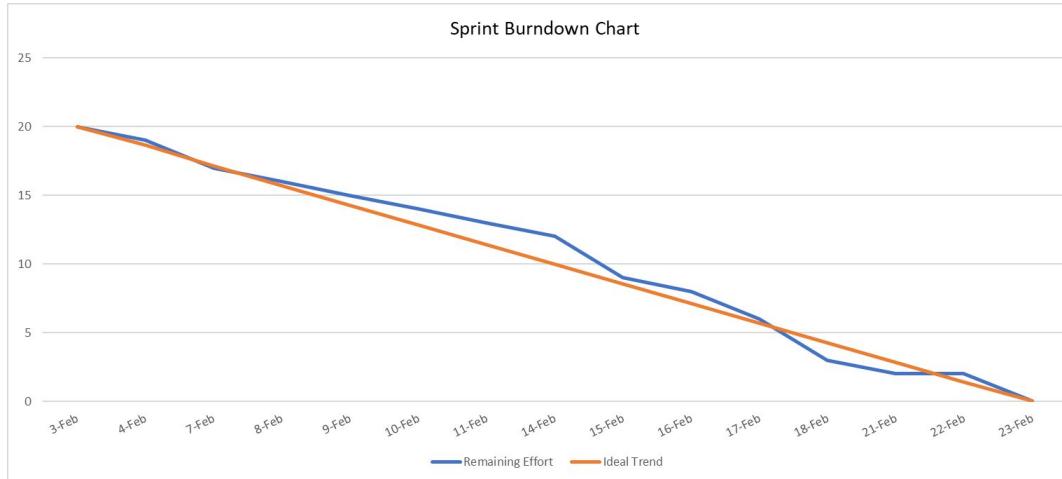
SPRINT OVERVIEW



SPRINT I RECAP

SPRINT 1(02/03 - 02/23)

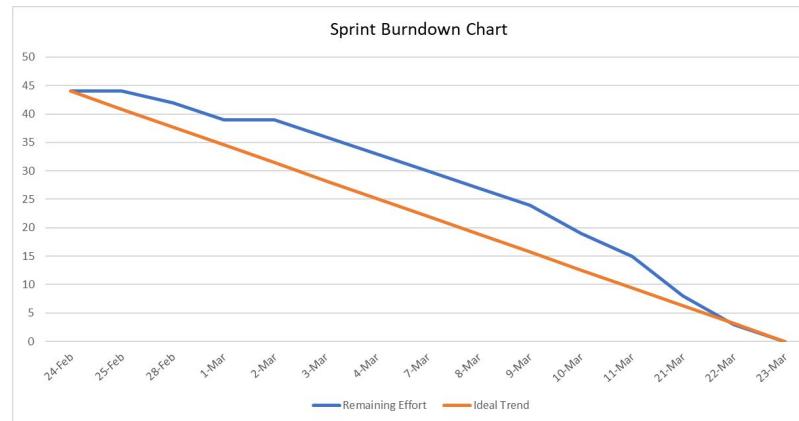
KEY	SUMMARY	PRIORITY	STATUS
SQD-1	Create Deliverable 1 Presentation	High	DONE
SQD-2	Discuss Project Idea and Brainstorming	High	DONE
SQD-3	Create Team Roles	Medium	DONE
SQD-4	Establish Weekly Meetings	Medium	DONE
SQD-5	Setup GitHub WikiPage and Jira	Medium	DONE
SQD-6	Create a significant business application idea	Medium	DONE



SPRINT II RECAP

SPRINT 2(02/24 - 03/23)

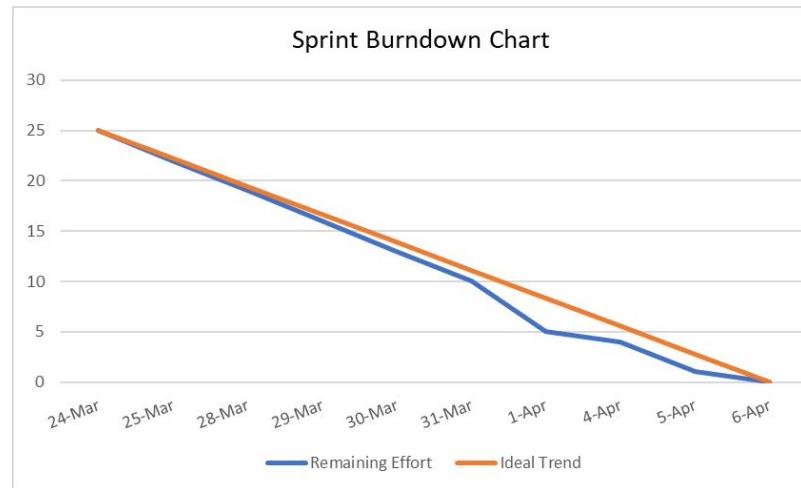
KEY	SUMMARY	PRIORITY	STATUS
SQD-7	Create Deliverable 2 Presentation/Video	High	DONE
SQD-8	Complete User Stories	High	DONE
SQD-9	Complete Test Cases	Medium	DONE
SQD-10	Complete Acceptance Criteria	Medium	DONE
SQD-11	Research framework for project	Low	DONE
SQD-12	Research data model for project	Low	DONE
SQD-13	Develop Machine Learning Algorithm	High	DONE
SQD-14	Create mock-up designs	Medium	DONE
SQD-15	Test Validate Model	High	DONE
SQD-16	Design User Interface	Medium	DONE
SQD-17	Train Model	High	DONE



SPRINT III RECAP

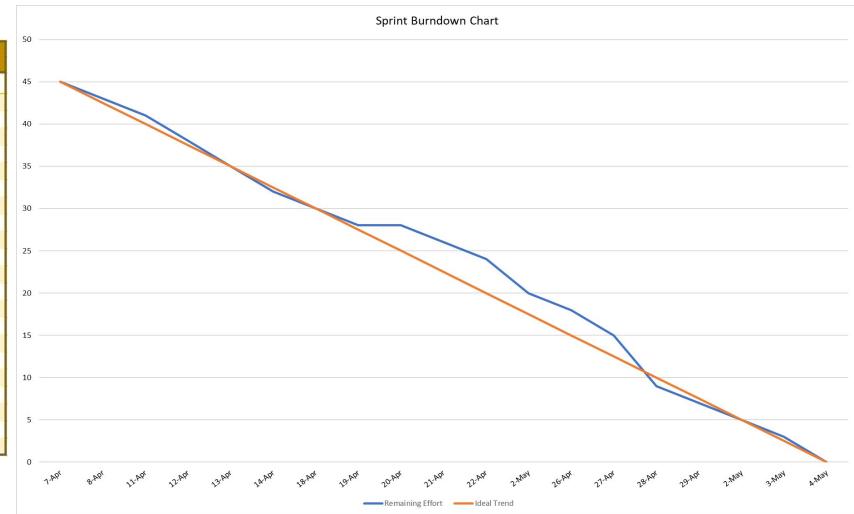
SPRINT 3(03/24 - 04/06)

KEY	SUMMARY	PRIORITY	STATUS
SQD-18	Create IEEE style Technical Paper	High	DONE
SQD-19	Complete other research paper analysis	Medium	DONE
SQD-20	Complete formatting of the Technical Paper	Medium	DONE
SQD-21	Brainstorm ideas for Technical Paper	Medium	DONE
SQD-22	As a user, I want to capture an image of garbage created by household waste so that Squander App can tell me which items, can be recycled	High	DONE
SQD-23	As a homeowner, Mark wants to upload the garbage image so that he can find recycling locations for construction leftover	High	DONE



SPRINT IV RECAP

SPRINT 4(04/07 - 05/04)			
KEY	SUMMARY	PRIORITY	STATUS
SQD-37	As a party host, Jill wants to know the stats of the application and the amount of waste that is generated.	Medium	DONE
SQD-46	As a mechanic, Simon wants the information about the list of waste items that can be recycled.	Medium	DONE
SQD-52	As a homeowner, Mark wants to upload the garbage image to check how many items can be picked up.	Medium	DONE
SQD-53	Create Deliverable 4 Presentation	Medium	DONE
SQD-54	Create a video showing our MVP Demo	Medium	DONE
SQD-55	Develop Home Screen	High	DONE
SQD-56	Develop Result Screen	High	DONE
SQD-57	Develop Processing Screen	Medium	DONE
SQD-58	Develop Capture Screen	High	DONE
SQD-59	Develop Stats Screen	High	DONE
SQD-60	Test Home Screen	Medium	DONE
SQD-61	Test Result Screen	Low	DONE
SQD-62	API Gateway for model communication	Medium	DONE
SQD-63	Test Processing Screen	Low	DONE
SQD-64	Test Capture Screen	Medium	DONE
SQD-65	Test Stats Screen	Medium	DONE
SQD-66	Create a User Manual	High	DONE
SQD-67	Create a Installation Manual	Medium	DONE
SQD-68	Update Github Page	Medium	DONE
SQD-69	Create Deliverable 4 Pre-Recorded Video and Edit	Low	DONE
SQD-70	Deploy the model and the UI together	High	DONE



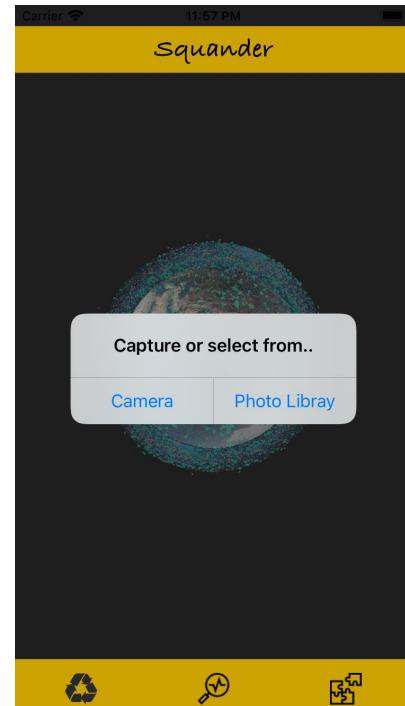
SPRINT IV RECAP (Continued)



Launch
Screen



Home Screen

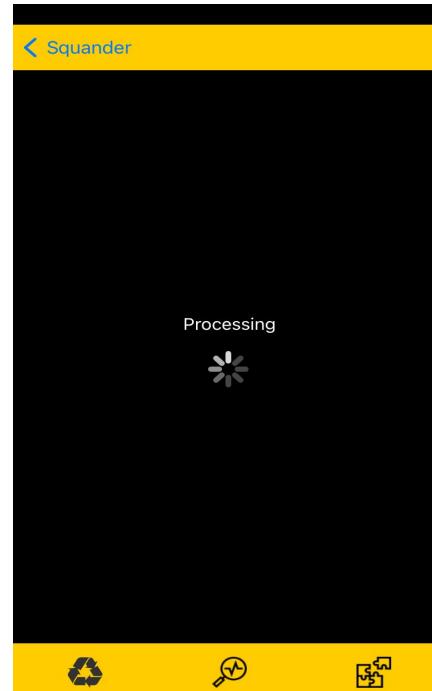


Capture and Select
Screen

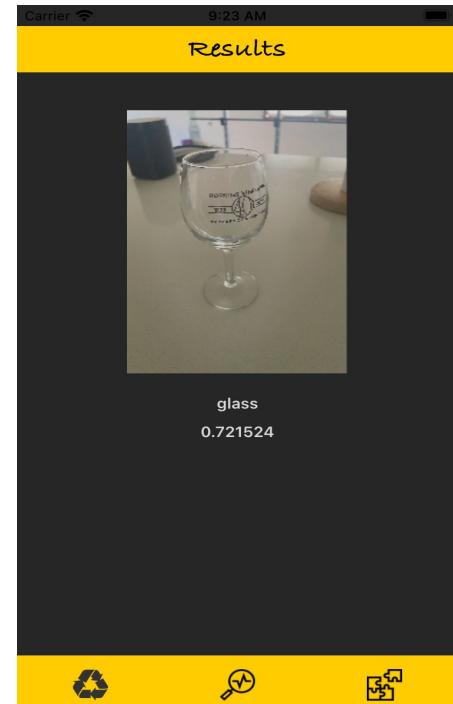
SPRINT IV RECAP (Continued)



Gallery Screen



Processing
Screen

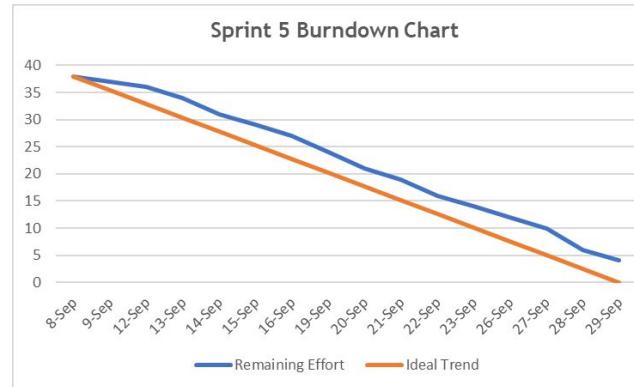


Results Screen

SPRINT V RECAP

SPRINT 5 (09/08 - 09/28)

KEY	SUMMARY	PRIORITY	STATUS
SQD 52	As a mechanic, Simon wants the Squander Service to be available throughout USA	High	DONE
SQD 53	As a retiree, Davin wants to have the Squander app team contact information	Medium	DONE
SQD 56	Design the Navigation bar	High	DONE
SQD 57	Update GitHub and Wiki Page	Medium	DONE
SQD 58	Update Technical Paper	Medium	DONE
SQD 59	Create Deliverable 5 Presenatation	Medium	DONE
SQD 60	Create Deliverable 5 Pre-Recorded Video and Edit	Low	DONE
SQD 61	Improving the model accuracy	Medium	In-Progress
SQD 62	Working on Deploying and building the AWS Resource for the	Medium	In-Progress
SQD 63	Test Cases for Navigation Bar	Low	DONE



SPRINT V RECAP (Continued)



Home Screen Info button added at the navigation bar



About Screen showing info about the app and recycling guide

What Sqander Does

Sqander is waste detection and recycling application. It provides a way for proper disposal of recyclable waste and make our planet more greener.

How to Use

Click on Earth image to capture photo of recyclable items and once it recognizes, you can choose to recycle at specific location nearby to your area.

Look for

📍 Nearby Recycling Location

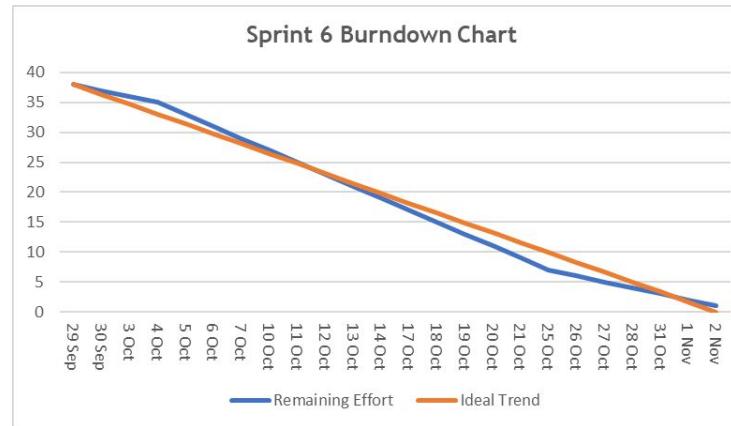
▢ Crubside Programs

✉️ Contact Team

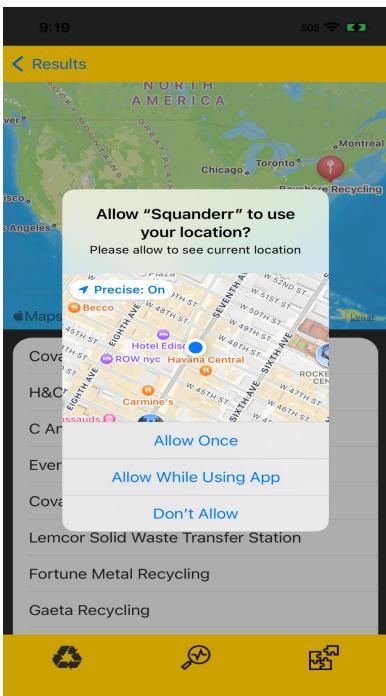
SPRINT VI RECAP

SPRINT 6 (09/29 - 11/2)

KEY	SUMMARY	PRIORITY	STATUS
SQD 61	Improving the model accuracy	Medium	DONE
SQD 64	As a retiree, David wants to Automatically load locations so that he can have a better user experience and easy to use application.	High	DONE
SQD 67	An as engineer, John wants to view multiple recycling locations so that he can choose to navigate to one most accessible	High	DONE
SQD 74	As a mechanic, Simon wants to support a map view so that he can plan his route more intuitively	High	DONE
SQD 85	Update GitHub and Wiki Page	Medium	DONE
SQD 86	Update Technical Paper	Medium	DONE
SQD 87	Create Deliverable 6 Presentation	Medium	DONE
SQD 88	Create Deliverable 6 Pre-Recorded Video and Edit	Low	DONE
SQD 89	Update Installation Manual and User Manual	Low	DONE
SQD 91	Test Cases for Sprint 6	Low	DONE
SQD 65	As a homeowner, Mark wants to view details of the recycling location so that he can have a conversation with the company with any queries and know all the details of the working hour	High	In - Progress



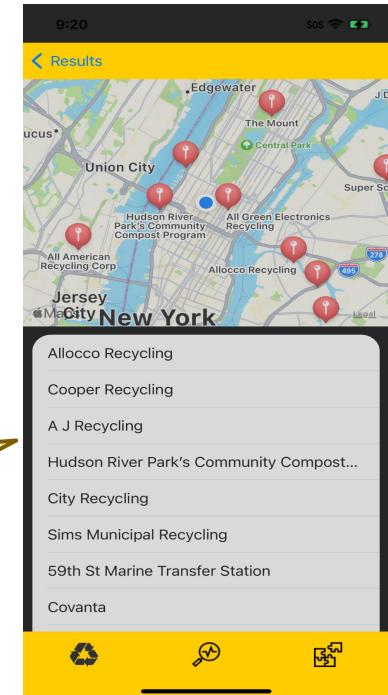
SPRINT VI RECAP (Continued)



Recycling location screen
(Permission to Access User Location)

Recycling location screen..

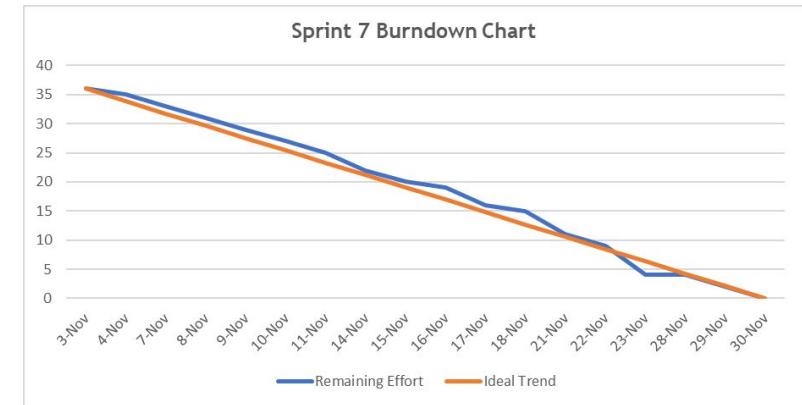
1. Showing current Location.
2. Nearby recycling location.
3. And list of recycling Company.



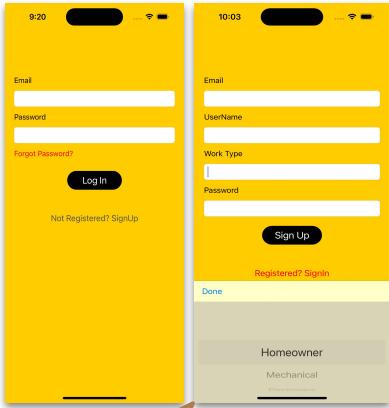
SPRINT VII RECAP

SPRINT 7 (11/3 - 11/30)

KEY	SUMMARY	PRIORITY	STATUS
SQD 65	As a homeowner, Mark wants to view details of the recycling location so that he can have a conversation with the company with any queries and know all the details of the working hour	High	DONE
SQD 68	Work on UI/UX and add more feature on Navigation Bar	Medium	DONE
SQD 72	As a homeowner, Mark wants to know about the Frequently Ask Question screen so that he can get answers to some of the commonly ask question.	High	DONE
SQD 74	As a mechanic, Simon wants to create his own account(User Profile) on Squander so that he can save his personal information like address, phone number, etc into the app for later use.	High	DONE
SQD 75	Redesign the UI/UX	Medium	DONE
SQD 99	Update GitHub and Wiki Page and Technical Paper	Low	DONE
SQD 100	Create Deliverable 7 Presentation	Medium	DONE
SQD 101	Create Deliverable 7 Pre-Recorded Video and Edit	Medium	DONE
SQD 102	Update Installation Manual and User Manual	Low	DONE
SQD 103	Test Cases for Sprint 7	Medium	DONE

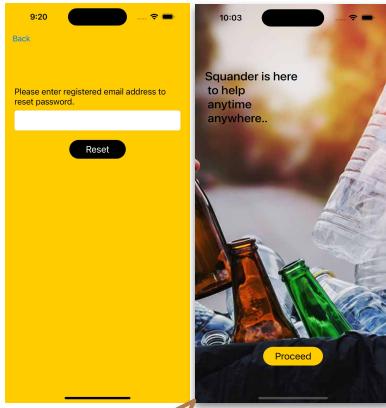


SPRINT VII RECAP (Continued)



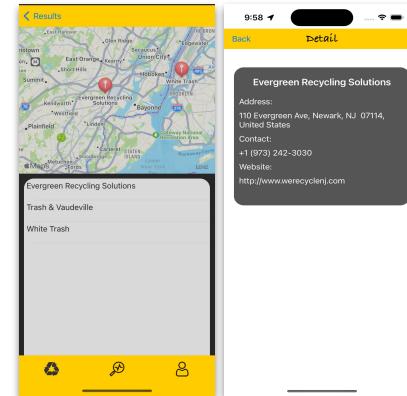
Login and Signup:-

1. For registered user it allows to login with username and password.
2. If it is new user it allows to register via signUp with email, username, worktype, password.



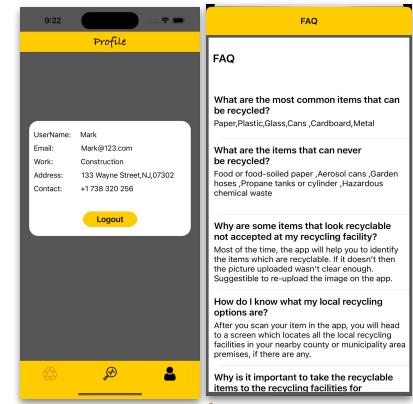
Reset Password and Splash Screen:-

1. If user wants to reset his password he can type email address so that password reset link is sent.
2. When a new user opens app for the first time user is navigated to splash Screen. Once Proceed is clicked user is navigated to login screen.



Detail Screen:-

1. On the recycling Location Screen user gets list of recycling locations for particular item.
2. If user clicks on any location then he is navigated to detail screen which shows name, address, contact and website of recycling company.



Profile and FAQ:-

1. On the profile screen user can see name,email,work address and contact.
2. FAQ screen shows list of frequently asked questions about how to use app.

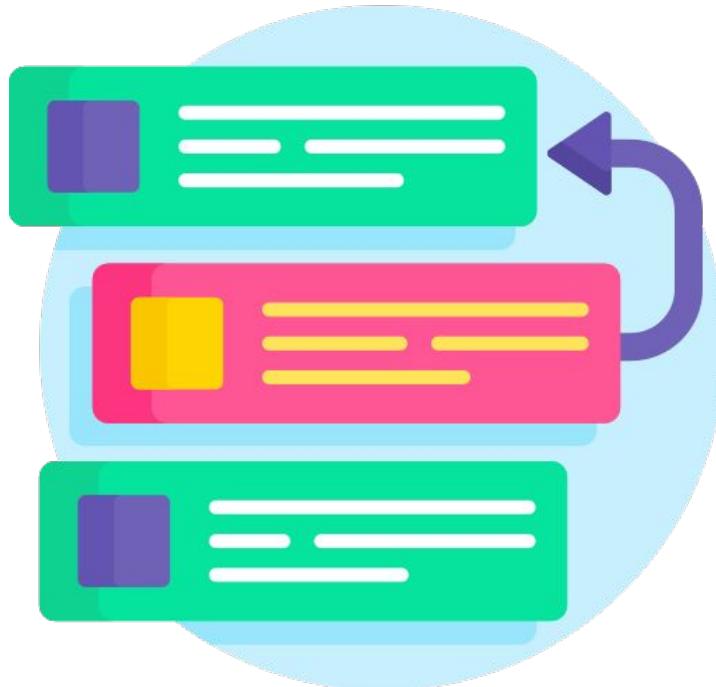
SPRINT VII vs SPRINT VIII

SPRINT VII	SPRINT VIII
User Profiling	Request to recycling company
UI/UX	Statistics of Recycling
Multiple entity recognition	User Feedback
FAQ Screen	Integrated ML Model to Application

IMPROVEMENT FROM PROF FEEDBACK

- Update the architecture diagram, but including a Conceptual Diagram
 - Included the Conceptual Diagram (Slide No: 16)
- In Burndown Chart, the ideal trend should be smooth
 - Updated the Burndown Chart making the ideal trend smooth (Slide No:47)
- Average velocity should be calculated on completed column and not on ratio column considering all sprint
 - Updated the Average Velocity(Slide No:48)

BACKLOG



PRODUCT BACKLOG

KEY	SUMMARY	PRIORITY	SPRINT	STATUS
SQD 62	Working on Deploying and building the AWS Resource for Squander	Medium	Sprint 8	DONE
SQD 73	As an engineer, John wants to schedule the pickup with the company so that he can be assured that his trash will be picked up.	High	Sprint 8	DONE
SQD 76	As a retiree, David wants to know his recycling statistics so that he can understand his activities with the app	High	Sprint 8	DONE
SQD 81	As a retiree, David wants to view team information so that he could provide extended feedbacks.	Medium	Sprint 8	DONE
SQD 65	As a homeowner, Mark wants to view details of the recycling location so that he can have a conversation with the company with any queries and know all the details of the working hour	High	Sprint 6, Sprint 7	DONE
SQD 72	As a homeowner, Mark wants to know about the Frequently Ask Question screen so that he can get answers to some of the commonly ask question.	High	Sprint 7	DONE
SQD 74	As a mechanic, Simon wants to create his own account(User Profile) on Squander so that he can save his personal information like address, phone number, etc into the app for later use	High	Sprint 7	DONE
SQD 64	As a retiree, David wants to Automatically load locations so that he can have a better user experience and easy to use application.	High	Sprint 6	DONE
SQD 67	As an engineer, John wants to view multiple recycling locations so that he can choose to navigate to one most accessible	High	Sprint 6	DONE
SQD 71	As a mechanic, Simon wants to support a map view so that he can plan his route more intuitively	Medium	Sprint 6	DONE

PRODUCT BACKLOG (Continued)

KEY	SUMMARY	PRIORITY	SPRINT	STATUS
SQD 52	As a mechanic, Simon wants the Squander Service to be available throughout USA	High	Sprint 5	DONE
SQD 53	As a retiree, David wants to have the Squander app team contact information	Medium	Sprint 5	DONE
SQD 37	As a party host, Jill wants to know the stats of the application and the amount of waste that is generated	Medium	Sprint 4	DONE
SQD 46	As a mechanic, Simon wants the information about the list of waste items that can be recycled	High	Sprint 4	DONE
SQD 47	As a homeowner, Mark wants to upload the garbage image to check how many items can be picked up	High	Sprint 4	DONE
SQD 22	As a mechanic, Simon wants to capture an image of the garbage created by household waste so that Squander App can tell me which items can be recycled	Medium	Sprint 3	DONE
SQD 65	As a homeowner, Mark wants to upload the garbage image so that he can find recycling locations for construction leftover	High	Sprint 3	DONE

SPRINT BACKLOG

SPRINT 8 (12/1 - 12/20)

KEY	SUMMARY	PRIORITY	STATUS
SQD 73	As an engineer, John wants to schedule the pickup with the company so that he can be assured that his trash will be picked up.	High	DONE
SQD 76	As a retiree, David wants to know his recycling statistics so that he can understand his activities with the app	High	DONE
SQD 81	As a retiree, David wants to view team information so that he could provide extended feedbacks.	Medium	DONE
SQD 62	Working on Deploying and building the AWS Resource for Squander	Low	DONE
SQD 124	Integrated the ML Model to the Squander Application	High	DONE
SQD 125	Update GitHub and Wiki Page and Technical Paper	Medium	DONE
SQD 126	Create Deliverable 8 Presentation	Medium	DONE
SQD 127	Create Deliverable 8 Pre-Recorded Video and Edit	Medium	DONE
SQD 128	Update Installation Manual and User Manual	Low	DONE
SQD 129	Test Cases for Sprint 8	Medium	DONE

USER STORIES & ACCEPTANCE CRITERIA

ID	AS A	I WANT TO	SO THAT	ACCEPTANCE CRITERIA
SQD 73	John, engineer	Request for a pickup	He could get his trashed picked up	Given: John chooses to schedule a pickup , When: request a recycling pickup, Then: get a promise on his trash pickup scheduled.
SQD 76	David, retire	View statistics of recycling	He can understand his activities with the app	Given: David like to know his usage statistics When: opening the stats page Then: able to view a representation of his activities.
SQD 81	David, retire	View team information	He could provide extended feedbacks	Given: David visits the team information When: he clicks on the contact team, Then: able to view enough details to provide feedbacks in app.

TEST CASES



TEST CASES

Test Case Name	User Story	Test Case ID	Test Action	Expected Results	Test Result	Pass/Fail
User Feedback	SQD-81	SQD-130	Locate the Contact Team Icon on the Nav Bar	User should be able to locate the Contact Team icon on the Nav Bar	User is able to locate the Contact Team icon on the Nav Bar	PASS
		SQD-131	Click on the Contact Team icon	User should be able to see the Contact Team icon on the Nav Bar and it should be clickable	Once the user click on the Contact Team icon and its is clickable and taking to a new screen	PASS
		SQD-132	Locate Contact team email	User should be able to see the Squander Contact Team email address	One the user is on the Contact Team screen, they are able to see the email address	PASS
		SQD-133	Locate Contact Team Phone Number	User should be able to see the Squander Contact Team phone number	One the user is on the Contact Team screen, they are able to see the phone number	PASS
		SQD-134	Locate Feedback Request Button	User should be able to see the User Feedback Request Button	Once the user is on the Contact Team Screen, they are able to see the Feedback request button which is clickable	PASS
Recycling Statistics	SQD-76	SQD-135	Locate the Stats icon on the Nav Bar	User should be able to locate the Stats icon on the Nav Bar	User is able to locate the Stats icon on the Nav Bar	PASS
		SQD-136	Stats of recycle item visible	User should be able to see the Stats of all the item they have recycled	Once the user is on the Stats Screen they are able to see their Stats of recycled items	PASS
		SQD-137	Detailed view of Stats with company name, date & item	User should be able to see the details of the recycling company they have used to recycle a item along with date	Once the user is on the Stats Screen, they are able to see the recycling company name along with the particular items they have recycled along with the date they have done.	PASS

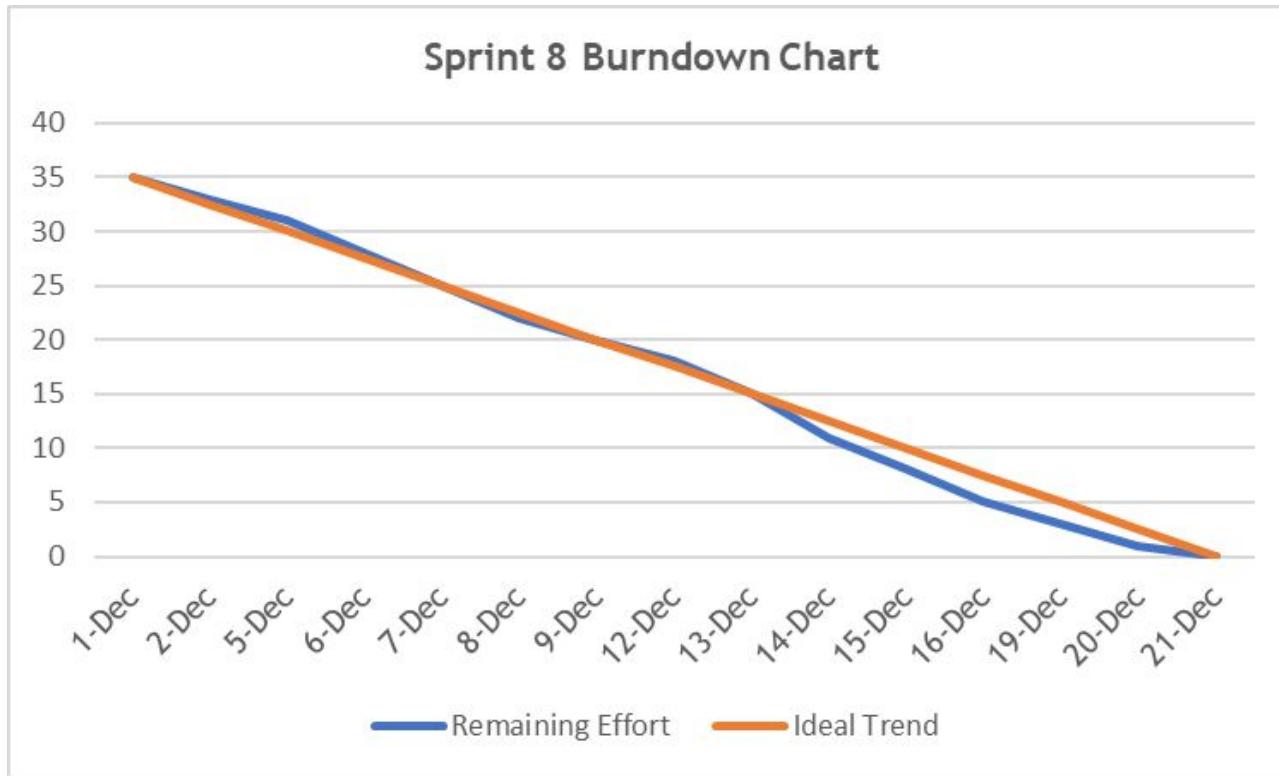
TEST CASES (Continued)

Test Case Name	User Story	Test Case ID	Test Action	Expected Results	Test Result	Pass/Fail
Request Pickup Scheduling	SQD-73	SQD-138	Locate the Recycling Company Detail Button	User should be able to see the Recycling company Detail Button and it is clickable.	Once the user is on the Recycling company list along with the Detail Button which is clickable	PASS
		SQD-139	View the Recycling Company Details	User should be able to view the details of the recycling company	Once the user is on the recycling page and it click on a company it will pop the details of the company.	PASS
		SQD-140	Locate the Contact Button	User should be able to see the Contact Button and its should be clickable	One the user is on the Detail Screen,they can see a contact button and it is clickable	PASS
		SQD-141	Locate company address, phone no, & website	User should be able to view the recycling company address, phone number & website	Once the user is on the Detail Screen, they are able to view the recycling company address, phone no & website	PASS
		SQD-142	Click on the Contact Button	User should be able to click on the Contact Button and a new Request screen should pop up	Once the user click on the Contact Button a new Request Screen open up	PASS
		SQD-143	Locate the Request Screen	User should be able to see the Request screen with the waste image	One the user clicks on Contact Button a Request screen is visible with waste image	PASS
		SQD-144	View Description Text Box	User should be able to view the Description text where we can enter our details upto 1000 characters	Once the user is on the Request Screen, a Description Text Box is visible and where we can enter upto 1000 characters.	PASS
		SQD-145	Locate Request Button	User should be able to view the Request Button	Once the user is on the request screen, a request button is visible	PASS
		SQD146	View Request Alert	Once the user click on the request button, a request should be sent to the company and an alert should be shown	Once the user click on the request button, a request is sent to recycling company and an alert is shown to user stating the same.	PASS

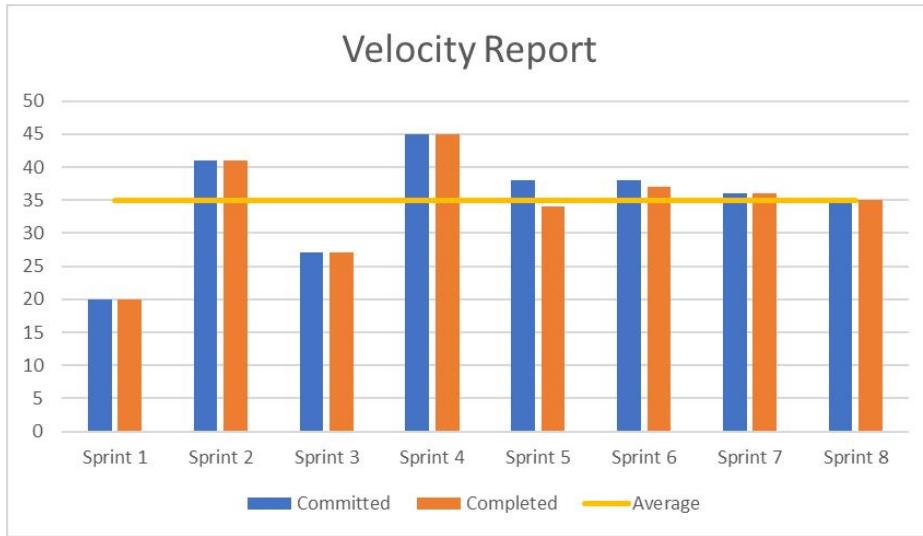
STORIES COMPLETED

ID	AS A	I WANT TO	SO THAT	ACCEPTANCE CRITERIA
SQD 73	John, engineer	Request for a pickup	He could get his trashed picked up	Given: John chooses to schedule a pickup , When: request a recycling pickup, Then: get a promise on his trash pickup scheduled.
SQD 76	David, retire	View statistics of recycling	He can understand his activities with the app	Given: David like to know his usage statistics When: opening the stats page Then: able to view a representation of his activities.
SQD 81	David, retire	View team information	He could provide extended feedbacks	Given: David visits the team information When: he clicks on the contact team, Then: able to view enough details to provide feedbacks in app.

BURNDOWN CHART



TEAM VELOCITY



Average Velocity

$$= (20 + 41 + 27 + 45 + 34 + 37 + 36 + 35)/8 \\ = 35$$

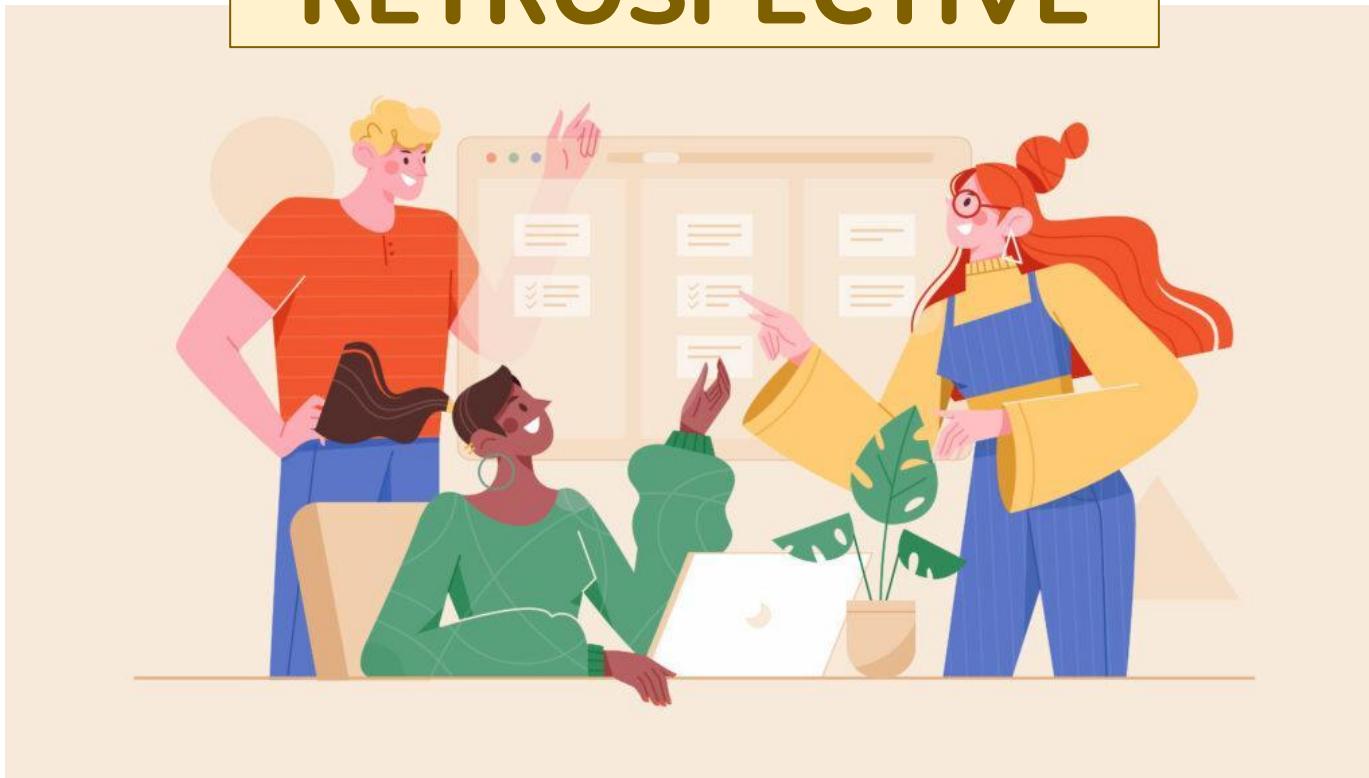
COMMITTED/COMPLETED RATIO

SPRINT	Committed	Completed	Ratio (%)
Sprint 1	20	20	100
Sprint 2	41	41	100
Sprint 3	27	27	100
Sprint 4	45	45	100
Sprint 5	38	34	89.47
Sprint 6	38	37	97.37
Sprint 7	36	36	100
Sprint 8	35	35	100

Average Committed Completed Ratio = 99%

Current Committed Completed Ratio (Sprint 8) = 100%

RETROSPECTIVE



RETROSPECTIVE

01

What went well

- Team involvement.
- Kept proper track of tasks for each team member.

02

What needs improvement

- Implementing daily scrum principles
- Allocate some time for knowledge sharing.

03

Future Actions

- Implementing daily scrum principles.
- Interactive activities to improve team engagement.

FUTURE SPRINT



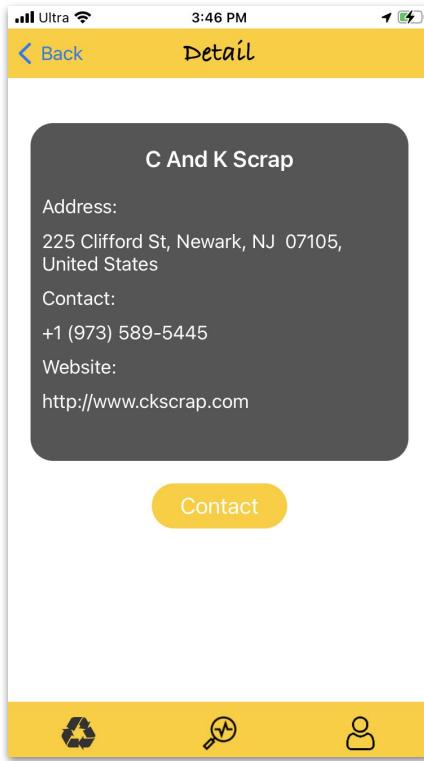
FUTURE SPRINT

- Implement more classes for recognition
- Create and register domain name for application
- Implement load balancer and network routing in AWS
- Develop compatibility across different platforms

PROJECT DEMO

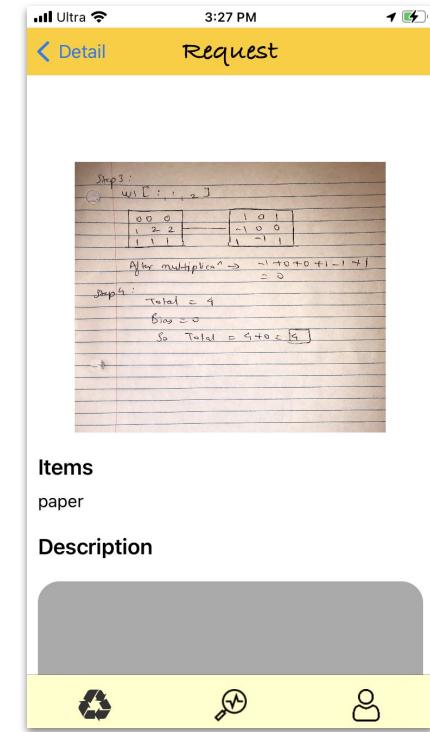


APP SCREENSHOTS

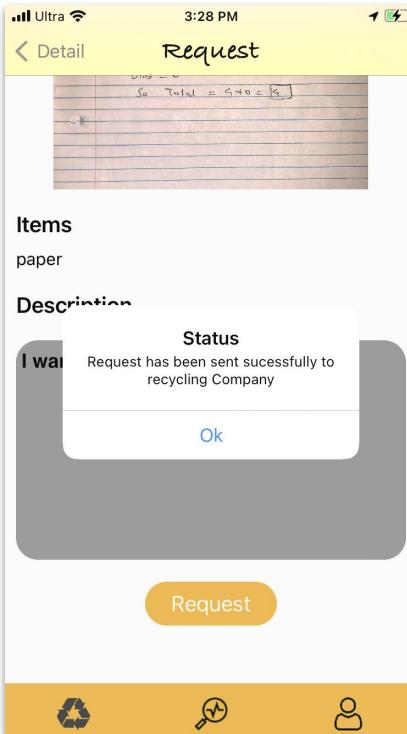


Detail Screen and Request to Recycling.

- After selection of recycle location detail Screen is displayed which shows details of recycling location such as address, contact, website address.
- On the right is request to recycling location screen which is displayed when user clicks contact button.



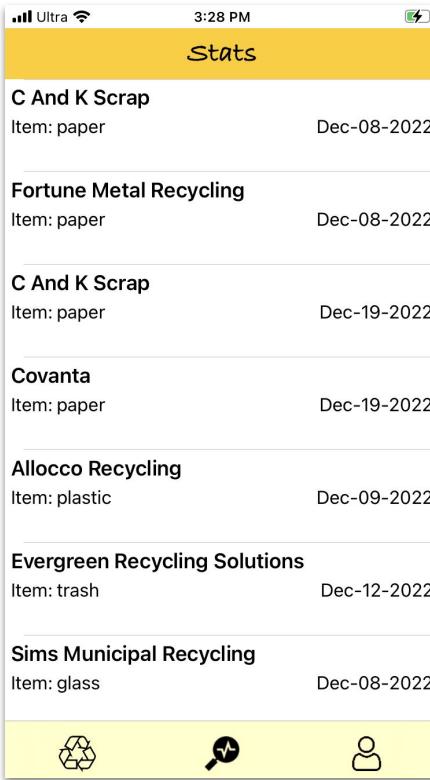
APP SCREENSHOTS (Continued)



Request to recycling alert.

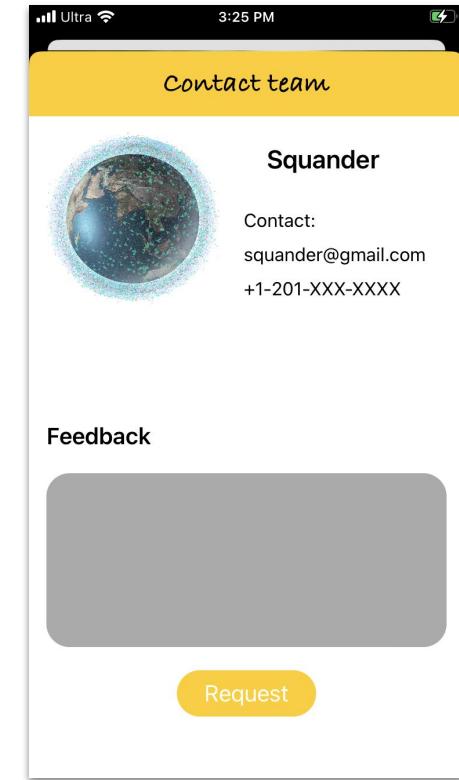
- In this screen image of item to be recycled, its name is displayed and description about items is entered so that request is setup.
- Once request button is clicked user request is sent to recycling location showing alert.

APP SCREENSHOTS (Continued)



Stats Screen and Contact team

- Once the request is sent, the recycling location process this request and statistics are displayed on stats screen showing list of all the items a particular user has recycled.
- On the right is contact team screen where user can contact squander team and provide feedback about the app and its recycling process.



API



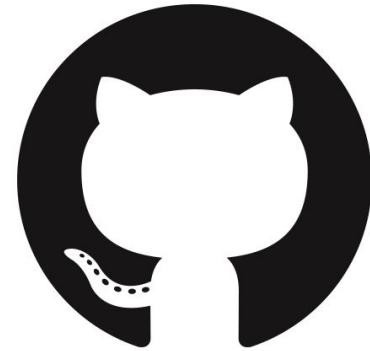
MapKit API



Core Location API

GITHUB LINK

GitHub:
<https://github.com/anku518/Squander/wiki>



THANK YOU!!!