Project Summary

Campus Closet is a web application that addresses the financial challenges faced by college students by providing them with a donation service that is provided from community members directly to students in need. The primary stakeholders are college students requiring professional or casual clothing and community donors with lightly used quality clothes to spare.

Our application allows students to browse and claim clothing donations posted by donors, with filters for item type, size, and gender fit. Students can communicate with donors through an in-app chat feature to arrange pickups or drop-offs at convenient times selected through a time-slot booking system. Donors can create listings with photos and item details, track the status of their donations, and coordinate meetups facilitated by location. Overall, this application streamlines the donation process, strengthening campus community ties, and promotes sustainability through clothing reuse.

Sprint Summaries

Sprint 1

Sprint 1 Summary

The first sprint served to produce a working MVP of the product in the Ruby on Rails environment. The initial UI mockups were drafted and approved by our point-of-contact, Steve Asher, from our client, TeamUp. The database schema was also designed with a thorough process of revisions to uphold normalization standards. The business problems of interest were establishing the inventory system and creating a filtering system for the listings. We created a basic layout for the site, functionality for creating a listing, a filtering function for the website, and CRUD functionality for listings. We completed 8 points.

Sprint 1 Roles
Product Owner: James Nolan
Scrum Master: Nitin Pendekanti

Developers
Hunter Pearson
Ethan Langford
Jack Sanchez
Rishabh Prasad
Preston Bied

Sprint 1 Stories

Upload Clothing: Upload images to S3 and be able to save a listing to the database

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Create Seed Data: Seed initial listings to be able to do CRUD
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Ethan Langford

Update and Delete Items: Update information of listings and delete listings
- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Jack Sanchez

Display Clothing: Display clothing listings on the homepage from seed data and when user updates
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Preston Bied

Filter Clothing: Filter listings based on sex, size, and color
- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Rishabh Prasad

Sprint 1 Contribution

Name	**Number of Stories**	**Total Points**
Nitin Pendekanti	0 (Scrum Master)	0 (Scrum Master)
James Nolan	0 (Product Owner)	0 (Product Owner)
Hunter Pearson	1	2
Rishabh Prasad	1	1
Ethan Langford	1	2
Jack Sanchez	1	1
Preston Bied	1	2

Sprint 2

Sprint 2 Summary

Sprint two was all about users. This involved creating accounts as a donor and recipients and being able to add profile information such as name, email, and address. Additionally, using OAuth we are doing authentication via google. Additionally, recipients and donors have their own profile pages. This includes the ability to view and edit their account information and to be able to view their requests and posts. This means that every item a donor donates is in their profile page and every item a requestor requests is in their respective profile page. We completed 6 points.

Sprint 2 Roles
Product Owner: Hunter Pearson
Scrum Master: Ethan Langford

Developers:
Nitin Pendekanti
Jack Sanchez
James Nolan
Rishabh Prasad

Sprint 2 Stories

Account Creation: Allow users to login with OAuth and on their first login, be taken to an account creation page to fill in account details.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Student Account Verification: Determine if a user is logging in with a TAMU email account and assign them the student role.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti, James Nolan

Profile Page for Students: Allows students to view and edit their account information and view their orders

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** James Nolan

Dashboard & Profile for Donors: Allows donors to view and edit their account information and view their orders

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson, Jack Sanchez

Sprint 2 Contribution

Name	**Number of Stories**	**Total Points**
Nitin Pendekanti	0.5	0.5
James Nolan	1.5	2.5
Hunter Pearson	1.5 (PO)	2 (PO)
Rishabh Prasad	0	0
Ethan Langford	0 (Scrum Master)	0 (Scrum Master)
Jack Sanchez	0	0
Preston Bied	0	0

Sprint 3

Sprint 3 Summary

Sprint 3, spanning from February 9th to February 23rd, 2024, focused on implementing the request system with a primary emphasis on user interface design and data persistence. Key achievements included creating UI features for submitting clothing requests, managing pickup/drop-off times, and implementing a chat feature for real-time communication between donors and recipients. Additionally, efforts were made to enhance database functionality, such as assigning items to donors during creation and refining user categorization between students and donors.

Sprint 3 Roles
Product Owner: Ethan Langford
Scrum Master: Rishabh Prasad

Developers:
Nitin Pendekanti
Jack Sanchez

James Nolan
Hunter Pearson

Sprint 3 Stories

Submit Clothing Request and Notify Donor - Created recipient-facing UI for selecting time slots to pick up an item, which triggers an email notification system to inform the donor.

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** James Nolan, Rishabh Prasad

Pick up/Drop Off Times - Create donor-facing UI to declare available times across all items, which are reflected in the database.

- **Points:** 3
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti

Implement chat feature - Create chat window to display real time messages between donors and recipients.

- **Points:** 3
- **Implementation Status:** Complete
- **Done By:** Jack Sanchez

Assign item to donor in creation - Add donor ID to item database and assign donor to item when creating.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Separate student from donor dashboard - Created donor field in user database to change display conditions and reflect new donor field in database.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Sprint 3 Contribution

Name	**Number of Stories**	**Total Points**
Nitin Pendekanti	1	3
James Nolan	0.5	1.5
Hunter Pearson	2	2

Rishabh Prasad	0.5 (Scrum Master)	.5 (Scrum Master)
Ethan Langford	0 (PO)	0 (PO)
Jack Sanchez	1	3
Preston Bied	0	0

Sprint 4

Sprint 4 Summary
14 Points

Sprint 4 had various functions towards the final product. The first of these was regarding donations. For the donations, we implemented the ability to “complete” the donation process and view a map showing the location of the donor and recipient. “Completing” the donation process asserts that the donation process is complete and the recipient has picked up the items.

Additionally for the requests, recipients can leave reviews of donors in an anonymous manner. The rest of the features were scattered. One of them was regarding the chatroom feature where rather than being “global”, or any two parties, it is between the donor and requestor. Another feature added specific filters for items such as new pant sizes and new type-specific pages. Finally, styling changes which were emphasized on the landing page have been created.

Sprint 4 Roles
Product Owner: Rishabh Prasad
Scrum Master: James Nolan

Developers:
Ethan Langford
Hunter Pearson
Nitin Pendekanti
Jack Sanchez

Sprint 4 Stories:

Item Donation Completion - Completion of item donation process. There is now a button to notify the system that the request has been dropped off that deletes the request and moves it to pickups.

- **Points:** 1
- **Implementation Status:** Complete

- **Done By:** James Nolan

Map for Requestor Location - Item now has associated map that shows donors rough location.
- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti

Rating and Review of Donors - Created an anonymous review system so students can leave a review of the donor.
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Redesign landing page to have user clothing type - Created buttons on the landing page for users to select what type of clothing they would like to see.
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson, Rishabh Prasad

Set up location - Map visible on item request.
- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti

Design & Implement Styles - Some styling has been added to the webpage.
- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Ethan Langford

Listing Chatroom Features - The chat rooms are now contained inside a request and are not global. Thus you can chat directly between donor and receiver.
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Jack Sanchez

Add specific filters for clothing types - Database now indexes sizes by types to be displayed on type-specific item pages. Currently, the size filters differ across types; for example, pants are based on waist and height (30x30), while shirts have simple S-M-L sizes. Introduced new type-specific pages
- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Rishabh Prasad

Sprint 4 Contribution

Name	Number of Stories	Total Points
Nitin Pendekanti	2	2
James Nolan	1 (Scrum Master)	1 (Scrum Master)
Hunter Pearson	1.5	3
Rishabh Prasad	1.5 (PO)	3 (PO)
Ethan Langford	1	1
Jack Sanchez	1	2
Preston Bied	0	0

Sprint 5

Sprint 5 Summary

The main goal for the fifth sprint was to polish all styling and feature behavior, including nuanced errors and UI flow. Key objectives included improving the flow of the website like filtering, styling, navigation, and ease of use as well as adding any final features such as an administrator page needed to ensure the website is production ready for clients to use. We completed 12 story points.

Sprint 5 Roles
Product Owner: Jack Sanchez
Scrum Master: Hunter Pearson

Developers:
Nitin Pendekanti
Ethan Langford
James Nolan
Hunter Pearson

Sprint 5 Stories

Update the donor and student view pages - changed the donor and student views to improve the look and feel and added time slots to the requests and displayed them there.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Allow users to view donor pages to see reviews and items uploaded - Created a feature for users to view donor pages, added donor link to items, and displayed average rating for the donor.

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Update item and time slots creation pages - changed the look of the item and time slots creation pages

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Additional Chat Styling - added the item to the chat page and changed the styling for the chat page.

Additional Styling - improved the overall site by updating styling.

- **Points:** 0
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Timeslot interval adjustment - updated the time slot interval by locking it at 30 minutes, instead of the user inputting an end time.

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti, Hunter Pearson

Allow creation of new sizes and types - updated sizes creation and edit page to allow for an associated type to be selected

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Redesign landing page and type-specific item pages - Updated the look of the home and by_type pages. Revamped the filter to be dropdown menus instead of radio buttons.

- **Points:** 1
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Map for requestor location - fixed a bug with the map where you can open and close map for each individual map

- **Points:** 0
- **Implementation Status:** Complete
- **Done By:** Nitin Pendekanti

Admin User - Created an admin user who can access all pages, and restricted access from some pages for normal users

- **Points:** 2
- **Implementation Status:** Complete
- **Done By:** James Nolan

Add seed data - created more types, sizes, and colors in the seed data and added more items on the home page.

- **Points:** 0
- **Implementation Status:** Complete
- **Done By:** Hunter Pearson

Sprint 5 Contribution

Name	Number of Stories	Total Points
Nitin Pendekanti	1.5	2
James Nolan	1	2
Hunter Pearson	5.5 (3 chores) (Scrum Master)	8 (Scrum Master)
Rishabh Prasad	0	0
Ethan Langford	0	0
Jack Sanchez	0 (PO)	0 (PO)
Preston Bied	0	0

Total Contribution

Name	**Number of Stories**	**Total Points**
Nitin Pendekanti	5	7.5
James Nolan	4	7

Hunter Pearson	11.5	17
Rishabh Prasad	3	4.5
Ethan Langford	2	3
Jack Sanchez	3.5	6
Preston Bied	1	1

Customer Meeting Dates

Customer Meeting 1 (1/4/2024) - Discussed expectations and goals for this project

Customer Meeting 2 (1/7/2024) - Demoed our database setup and initial mockups for the web application

Customer Meeting 3 (1/16/2024) - Demoed the basic layout of our website, functionality for creating a listing, the basic filtering functionality, and CRUD functionality for listings

Customer Meeting 4 (2/2/2024) - Demonstrated account creation functionality and student verification for TAMU email accounts

Customer Meeting 5 (2/8/2024) - Displayed profile page for students and dashboard & profile for donors

Customer Meeting 5 (2/29/2024) - Demonstrated the ability for users to submit clothing requests and subsequently notifying the donor.

Customer Meeting 6 (3/7/2024) - Displayed pickup/drop off times options. Showed the beginnings of the chat feature.

Customer Meeting 7 (3/21/2024) - Showed the completed item donation process with a button to notify the system that the request has been dropped off. Also created an anonymous review system so students can leave reviews for donors

Customer Meeting 8 (3/28/2024) - Displayed items having an associated map that shows the donors approximate location. Redesigned landing page to allow users to select specific clothing types and added specific filtering for those types.

Customer Meeting 8 (4/11/2024) - Displayed updated donor and student view pages, users being able to view reviews, users being able to update available time slots and additional chat stylings.

Customer Meeting 9 (4/18/2024) - Showed an adjustment made to timeslots, allowed creations of new sizes and types, redesigned landing page, map for requestor location, and created an admin user who can access all pages and restricted access form some pages for normal users.

BDD/TDD

During sprint 1, we did not follow BDD/TDD as we should've and our product suffered because of that. At the end of the sprint, we tried to add tests for everything and had to redo a lot of things. Starting in sprint 2, before we did any coding for sprint 2, we went back and added tests for everything that was done in sprint 1. Then after the coverage was at 100%, the developers took the scenarios the product owner had written and followed BDD/TDD. For sprints 3, 4, and 5, the developers were tasked with writing their own scenarios and adding additional tests as needed.

Overall, the process of BDD/TDD was extremely beneficial, and it helped speed up the time it took to introduce new features to the website. It was helpful to know exactly what was expected for the feature to look like and the intended functionality. However, one problem that came up was needing to add additional testing after the development because our TDD was not thorough enough.

Configuration Management & Heroku Issues

Configuration Management

In github, we created a new branch for every feature. In these branches, developers would push their code and our automated github actions tested the branches with cucumber and rspec tests. Additionally, each branch required approval from the sprint's respective product owner. This meant that the product owner would do their own internal testing before approving a pull request. Then, any merge conflicts would be addressed, and the branch would be merged.

We had a total of *34 branches* and *5 releases.*

Heroku Issues

There were generally no issues deploying to Heroku, as Heroku would automatically deploy whenever there was a push to main. However, one issue that we ran into was with the database. Our migration files are messed up, so, if we ever reset the database, there would be an issue in trying to migrate the database. This could be solved by manually migrating the

Tools and Gems Used

Throughout this project, various different tools were used, including Github and Git, SimpleCov, Selenium Web driver, omniauth, redis, and bootstrap. Github and Git are used as our project's version control system to allow multiple users to work within the repository as well as manage version history as necessary. SimpleCov is used to measure the test coverage from Rspec and cucumber. Together, SimpleCov gives an idea of what percentage of the code is covered, which allows developers to ensure stories are fully complete. Selenium web driver is used to run javascript correctly in the cucumber tests. Omniauth is being used to communicate with the Google OAuth sign in API. This allows the app to avoid managing passwords in a database to minimize security risks. Redis is being used in the chat feature to send and cache the messages. Bootstrap is being used for ease of styling. Bootstrap is a CSS framework to improve styling features. This allows us to overcome some of the difficulties of doing every piece of styling manually.

Repository Contents and Deployment Scripts

The repository consists of the application as well as documentation from each of our sprints plannings and retrospectives. There are also GitHub actions that are used to ensure the code is well tested, to make sure there are no rubocop errors, and to run the rubycritic. To deploy the code, there is a pdf that explains step by step on what is required. The way that we had deployed the application throughout our development process was done automatically through Heroku on a push to main. However, it would require one member to manually perform the migrations.

Relevant Links

- Pivotal - Project Management
  - https://www.pivotaltracker.com/n/projects/2687723
- Github - Code Repository
  - https://github.com/teamup-apps-for-good/campus-closet
- Heroku - Deployed Application
  - https://bespoke-campus-closet-3461b1a0aab9.herokuapp.com/
- Project Presentation
  - Final Presentation
- Project Demo Video
  - https://youtu.be/I6e9MqpRwwQ