Status Report 2

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April 7, 2024

1 Introduction

1.1 Highlights

What was the plan for this iteration?

There are two sprints for this iteration.

Fourth sprint - Brave Sardine 🗡️🐟(Mar.27 ~ Apr.02)

- Consulted T&I for email authentication
- Updated the Navbar to support Login and Sign-up functionality
- Added flagged word filter for Post and Offer
- Added *Jest* for Unit and Regression testing
- Added error state handling for the Post-form
- Implemented Post-Filtering/Searching functionality on the Market Page
- Implemented real-time refreshes and updates on the Market Page
- Implemented *OAuth Google* Login for Davidson emails

Fifth sprint - Trusting Hamster ❤️🐹(Apr.03 ~ Apr.09)

- Added server action for Offer-form and Offer submission
- Implemented accept/reject Offer functionality
- Implemented view Offer functionality
- Created a Tracking page for current Post and Offers
- Created UI for individual Offers on the Tracking Page
- Created UI for popup windows for viewing Post details
- Created UI for popup windows for viewing Offer details
- Customer review conducted for feedback collection (Apr.05)

Highlight what the team accomplished.

- User login is restricted to current Davidson emails
- Trade browsing/Filtering functionality
- Real-time refreshes on Market Page
- View offer and post details functionality
- Accept/Decline offer functionality
- Feedback from primary users

1.2 Changes

Summarize any major changes since the Status Report 1.

To enhance the security of our application, we implemented OAuth authentication for Davidson emails. So we changed the schema for our user collection in the database accordingly.

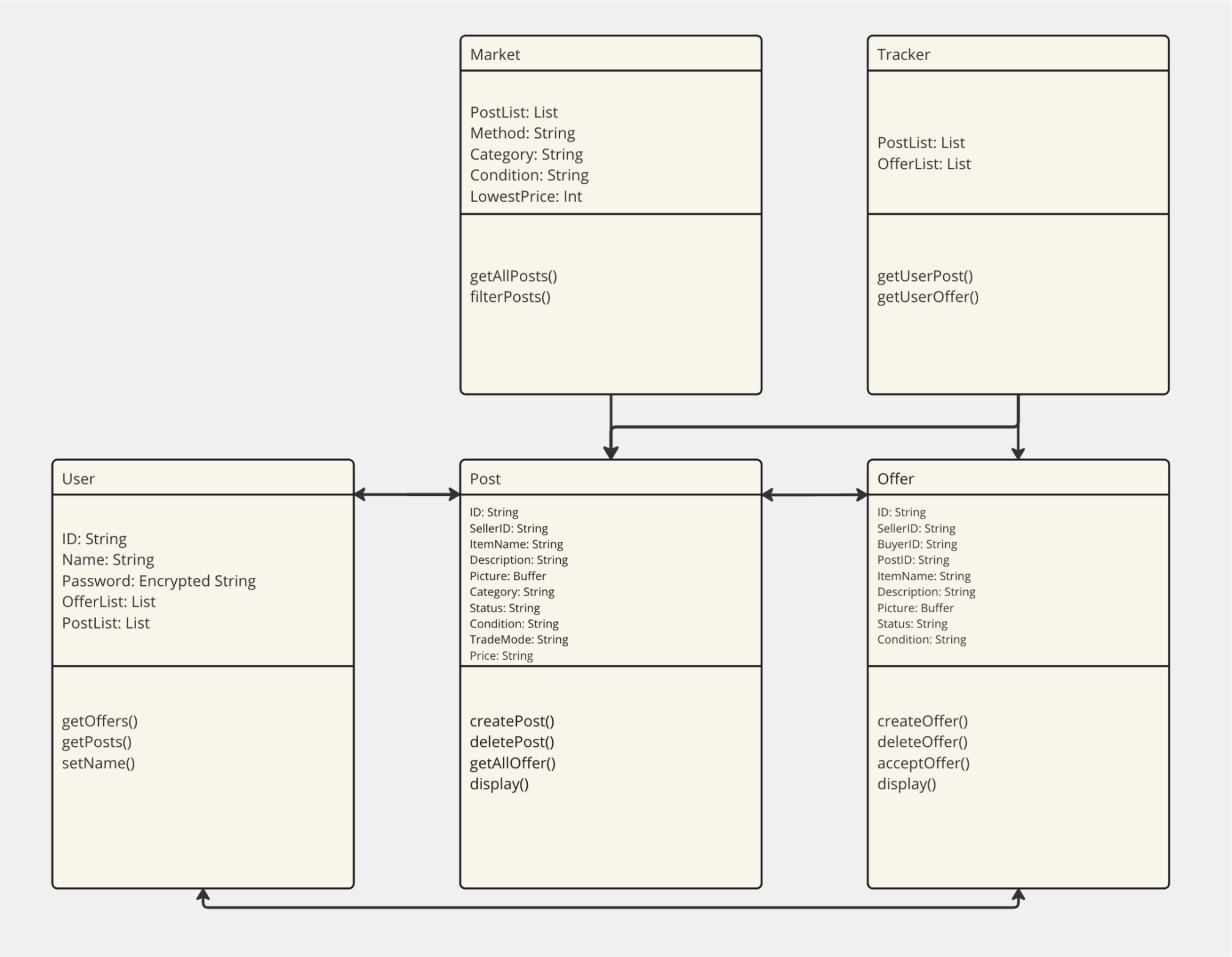
Include each change's date, motivation, description, and implications.

Date: April.02, 2024
Motivation: Simplify the login process and enhance security by leveraging Davidson email authentication through Google.
Description: The schema for the user collection in the database was updated to eliminate passwords. Instead of using traditional email and password authentication, users now authenticate their Davidson email address through Google authentication.
Implications:

1. Enhanced security: By removing the need for users to create and manage passwords, the reliance on potentially weak or compromised passwords is eliminated.
2. Access control: Restricting access to users with Davidson email addresses adds an additional layer of security and ensures that only Davidson College community members can access the application.

2 UML: Class Diagram

Draw a class diagram that only includes the important classes your group mainly worked on during this iteration. Identify a single owner on the team for each class, even if multiple team members contribute.

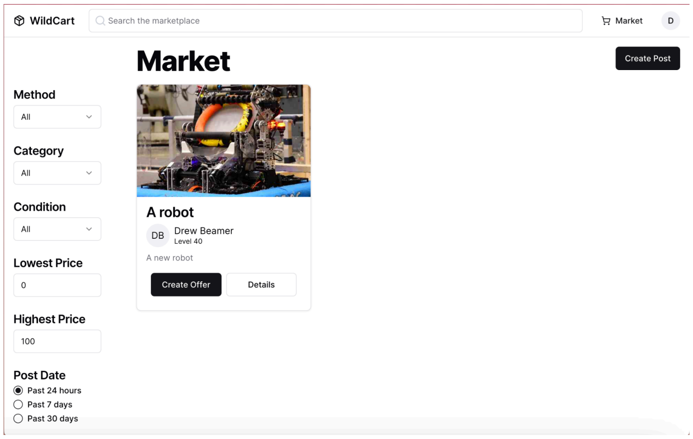


Toffy owns User class

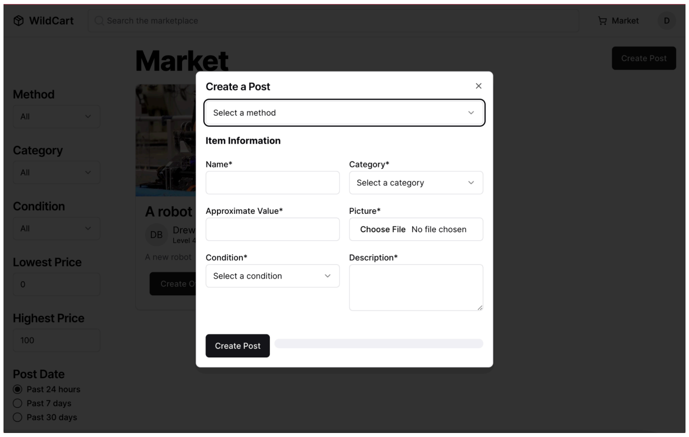
Drew owns Offer and Tracker class
Allen owns Post class
Jerry owns Market class

Drew Beamer 3 Current Status

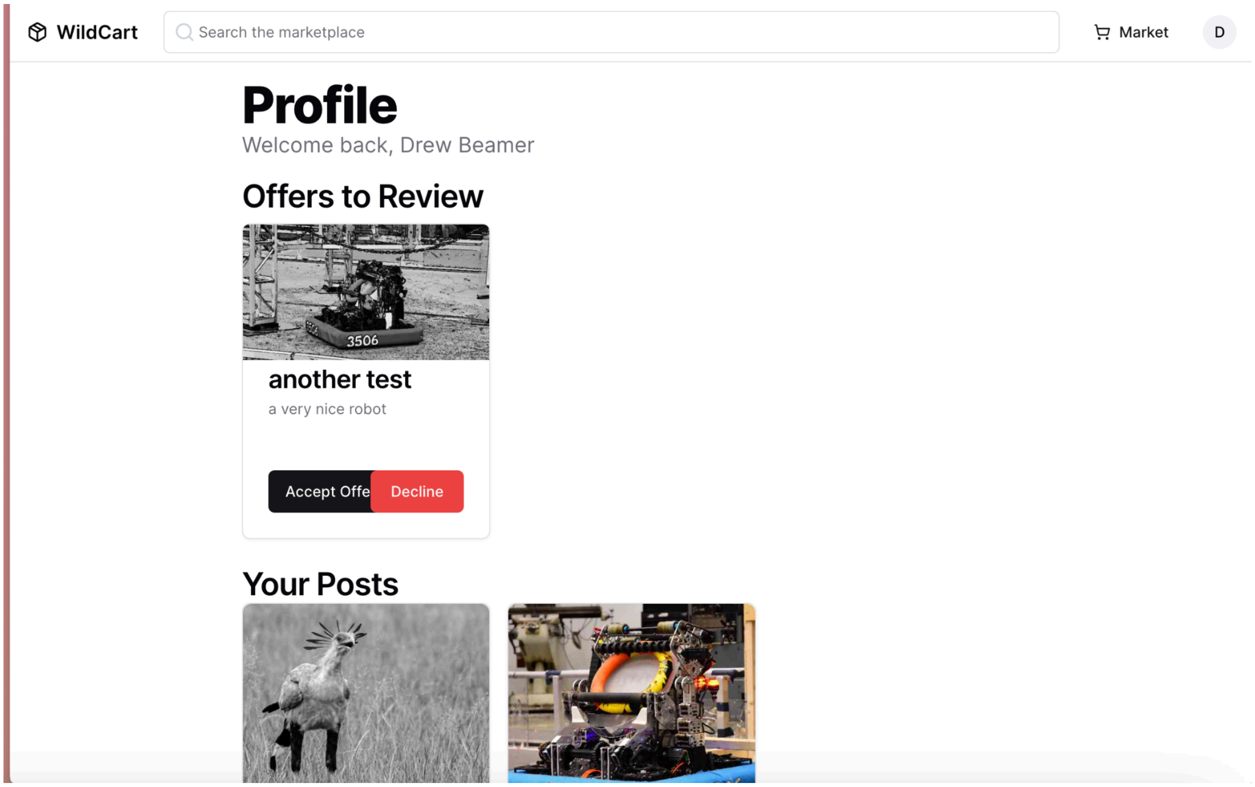
Add screenshots of the parts that are working. Map the screenshots to the class diagram. In other words, which class does the feature you show in the screenshot belong to? Multiple classes may belong to a single feature. Clearly describe what those are.



Maps to the market, post, user, and offer classes. Here, we see the market interface, containing filters. We also see the post, and information about it. We also see the ability to create an offer. Lastly, we can see information about the user, along with information about the user currently logged in.



Maps to the post and user class. Here we can see a form that allows a user to create a post, collecting information about it. In the background, the current user is also used to track which user makes the post



Profile

Welcome back, Drew Beamer

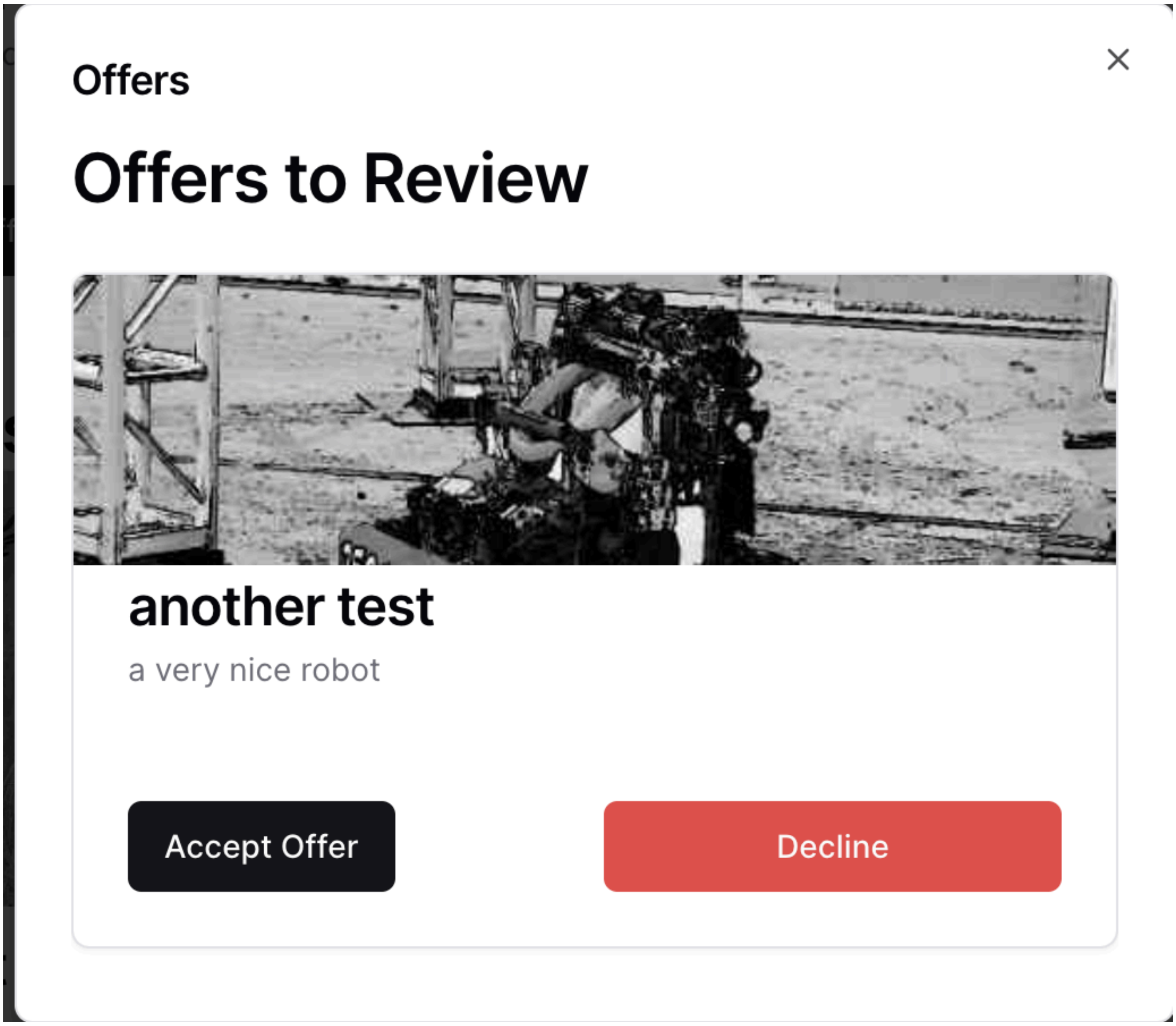
Offers to Review

another test

a very nice robot

Your Posts

The profile feature uses the tracking, offer, user, and post classes. The tracking class uses the latter three to fetch the list of offers and posts. The offer class is used in the accept/decline functionality as well.


Offers

Offers to Review

another test

a very nice robot

Offers to review uses the tracking, post, and offer classes, all three of which are used in a similar manner as the former description. However, this displays the offers associated with a single post

Drew Beamer 4 Project Management

Continue to maintain the Change Log. Add any new changes to the project, tracking the date and description of each change. Use the table below:

Date	**Change Made**
2024-02-29	Initialize *Next.js* Application (Drew)
2024-03-12	Add and configure *shadcn* UI (Drew)

2024-03-18	Add database schema with *Mongoose* (Jerry)
2024-03-18	Add dev environment setup instructions (Drew)
2024-03-18	Create PostCard template component (Drew)
2024-03-19	Add Navbar for Desktop and Mobile (Allen)
2024-03-19	Add create Post server action and data validation (Jerry)
2024-03-19	Add create Post form UI and link to server action (Drew)
2024-03-21	Add *NextAuth.js* authentication (Toffy / Drew)
2024-03-26	Add ability to log in and out to navbar (Allen)
2024-03-27	Create flagged word filter (Jerry)
2024-03-31	Form Close on Submit and Better Error Handling (Drew)
2024-03-31	Add Jest for Unit Testing (Drew)
2024-04-01	Create marketpage UI including filter (Jerry)
2024-04-02	Add Google OAuth (Toffy/Drew)
2024-04-02	UI for Make Offer Form (Allen)
2024-04-04	Update schema to work with Google OAuth, add ability to accept offers (Drew)
2024-04-04	UI for Market Popup (Allen)

2024-04-04	Create UI for view offer in Market (Jerry)

5 Review and Retrospective

What went well?

- Good collaboration, and communication
- A clear understanding of the current situation and plans for the future.
- Better finish rate for daily standup
- Very few blocker, although the work has become more difficult compared to last time, everyone is more willing to confront and solve the problems.
- New features are out including google authentication, creating offer, market filtering and order tracking

What didn't go well?

- Not enough clarity on tickets before starting the sprint: we need to better define acceptance criteria
- Incorrect estimation of work load

For the goals that were not met, what were the issues?

- We have met most of our goals so far, however, some tickets have bled over into the following sprints largely due to inaccurate pointing/assessment of the learning curve

How do you plan to overcome the issues?

- **Enhancing Ticket Clarity**: To ensure that there's enough clarity on tickets before commencing the sprint, we can introduce a pre-sprint planning session. In this session, all team members can discuss each ticket in depth and collectively establish clear acceptance criteria. This collaborative approach will help in aligning everyone's understanding and expectations regarding the work involved.
- **Improving Estimation Accuracy**: To address the issue of incorrect workload estimation, we can adopt a more iterative estimation process. This could involve revisiting our estimates midway through the sprint to adjust our expectations based on the progress and challenges encountered. Furthermore, incorporating a buffer for unforeseen complexities can help in creating more realistic timelines.

What do you plan to do differently in the next iteration?

- **Refine the Estimation Process**: We can experiment with different estimation techniques, such as planning poker or t-shirt sizing, to enhance the accuracy of our workload predictions. Engaging the entire team in the estimation process can leverage diverse perspectives and lead to more accurate assessments.
- **Continuous Learning and Adaptation**: Emphasizing a culture of continuous improvement, where every team member is encouraged to share insights and learnings

from the sprint, can foster a proactive approach to addressing challenges. Encouraging team members to share strategies that worked for them can help in collectively enhancing our problem-solving capabilities.

6 Team Management

What were the team roles for this iteration?

We have maintained the roles we started with, where Toffy is our Product Manager, Drew is the Scrum Master, and Allen and Jerry are developers

What did each team member contribute?

- Toffy worked on the authentication part and also contributed some design work on Figma. She also connect to our potential users to gather user feedback.
- Drew worked on the post, accepting pages and also authentication. He also helped team members with the backend server and ui design. He worked on the test cases also.
- Jerry worked on the filter and backend server reactions. He designed the view page in frontend and also set up a bad language filter.
- Allen worked on the frontend, finishing functions on navbar login/out and also finished the offer page and beautified the ui design with Jerry and drew.

What were the challenges regarding team management, e.g., regular meeting, etc.?

Our team management has been effective, largely due to our well-established cooperation system. The improvements in our daily standups and consistent daily contributions are indicative of our growing synergy. However, we encountered some time management challenges, particularly with the uneven workload distribution across specific tickets, which led to some members being overburdened.

What are the plans to overcome the challenges?

- **Enhanced Time Management**: Implement a more granular approach to time management, particularly for tickets identified as high workload. This might include breaking down large tasks into smaller, more manageable units, allowing for more precise estimation and distribution of work.
- **Regular Check-Ins**: Introduce mid-sprint check-ins in addition to daily standups to monitor progress and workload. These check-ins can provide an opportunity to adjust task assignments and address any emerging issues that could impact our timeline or work quality.
- **Skill Development**: Encourage cross-training or skill-sharing sessions within the team. This can help reduce bottlenecks where specific knowledge or skills are concentrated in one or two team members, promoting a more flexible and resilient team structure.

If you were the third party who knows very well about your team, what suggestions would you give to your team?

- **Celebrate Achievements**: Acknowledge and celebrate the team's successes, both big and small. This can boost morale and foster a sense of collective achievement and motivation within the team.

7 Goal for the Next Iteration

Write the next iteration’s product log.

1. **Delete Post**:
    a. Description: Implement functionality for users to delete their own trading posts.
    b. User Story: As a user, I want to be able to delete my trading posts so that I can remove outdated or irrelevant listings from the platform.
2. **Save Post:**
    a. Description: Implement functionality for users to save trading posts for later viewing or reference.
    b. User Story: As a user, I want to be able to save interesting trading posts so that I can revisit them later or keep track of items I'm interested in without having to search for them again.
3. **Level Points Mechanism**:
    a. Description: Develop a points-based leveling system to incentivize user engagement and activity.
    b. User Story: As a user, I want to earn points for my trading activity on the platform, such as posting items, making offers, and completing trades, so that I can level up and unlock additional benefits or features.
4. **Home Page UI**:
    a. Description: Redesign the home page interface to improve visual appeal and user engagement.
    b. User Story: As a user, I want the home page to be visually appealing and informative, with easy access to important features and announcements, to enhance my overall experience on the platform.
5. **Unit and Regression Test**:
    a. Description: Execute unit and regression tests to ensure software quality and reliability.
    b. User Story: As a developer, I want to create and run unit and regression tests to identify and fix any bugs or issues in the platform's codebase, ensuring a stable and reliable user experience.

Write the next iteration’s sprint log.

1. **Delete Post**
    a. Update the backend database and create a related UI for users to delete their own trading posts.
    b. Test delete post feature to ensure proper functionality and data integrity.
2. **Save Post**
    a. Develop frontend UI elements, such as a "Save" button and a “Saved” tab, to allow users to save trading posts.
    b. Implement backend logic to handle saving and retrieving saved posts, including data storage and retrieval.

    c. Integrate frontend UI with backend functionality to enable users to save and view saved posts.
    d. Test save post feature to ensure proper functionality and data integrity.
3. **Level Points Mechanism**:
    a. Design and implement a points-based leveling system, defining the criteria for earning and leveling up.
    b. Develop backend logic to track user activity and update point levels accordingly.
    c. Integrate point tracking and leveling system with user profiles.
4. **Home Page UI**:
    a. Redesign the home page interface based on updated design mockups or user feedback.
    b. Implement new UI elements and layout enhancements to improve visual appeal and usability.
    c. Conduct usability testing and gather feedback on the redesigned home page to iterate and refine as needed.

Other than the issues discussed in Section 5, i.e. Review and Retrospective, what potential challenges do you see in the next iteration?

- We are going to migrate our database to Mongodb Atlas. There may be some challenges with the connection to the cloud database. We need to learn and write new connection scripts.

Briefly explain how your team would overcome each challenge.

- We are going to actively do research on it if Mongo’s document isn’t clear, and we will keep contact and do pair programming.