**Product Backlog**

**(Project Name: Pixell )**

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**Problem Statement**

Students always want to save their money by finding ways to get used items and by trying to sell the items they no longer need. There are websites like Craigslist that allow people to post or look for items they want to buy or sell. However, due to the fact that everybody can use those websites, frauds inevitably exist and items may need to be shipped across the country, taking weeks for them to arrive. For some people who urgently need the item, even couple days may be too long to wait.

**Background Information**

There are a lot of need for used items in a university campus. Students want to sell items they no longer need and also look for used item with good price. Our app targets on Purdue students. If time allows, it can be extended to other university campus.

There are Facebook groups that sell used items, amazon, ebay, craigslist, and etc.

However, trading used items is not a main focus on those platform. What’s more, none of them provide native experience for college students, who have both demand for used items and concern for trade safety. For amazon, ebay, and Craigslist, it takes a long period of time for items to be delivered due to the fact that items are stored everywhere. With our app Pixell, it is possible that items can be in your hand at the same day you purchased it since you will only have transactions with students in your campus, and you can discuss with the seller further in details. In addition, by limiting users to college students with .edu email address, we have an easy way to verify user identification and deal with any fraud.

**Requirements**

**Functional Requirements**

**Login / Register**

1. As a user, I would like to register an account.
2. As a Purdue student, I want to use my college email to sign up.
3. As a user, I would like to edit my personal information.
4. As a user, I would like to reset my password if I forget it.
5. As a user, I would like to change my password.
6. As a user, I would like to specify my campus when creating an account.
7. As a developer, I would like to limit the registration with college email only in order to avoid frauds.
8. As a user, I would like to be able to upload my own avatar.
9. As a developer, I would like to expand the platform to universities other than just PUWL.

**Browsing**

1. As a buyer, I want to choose to only see seller's’ post.
2. As a seller, I want to choose to only see buyers’ post.
3. As a seller, I want to see what is the most needed items from buyers.
4. As a buyer, I want to know how old the item is.
5. As a user, I want to know how many people have viewed the posts.
6. As a user, I want to see my own posts on my profile view.
7. As a user, I want to see other users’ posts on their profile views.
8. As a user, I want to see other users’ rating on their profile views.
9. As a user, I want to see other users’ rating on the posts they made.
10. As a user, I want to see other users’ profile by tapping their avatars.
11. As a user, I want to know how many users are viewing the same item as I am.

**Posts**

1. As a seller, I would like to make a post to sell my item.
2. As a buyer, I would like to post my request to look for sellers selling certain items.
3. As a seller, I want to post the description of my used items.
4. As a seller, I want to post the picture of my used items.
5. As a seller, I want to post the price of my used items.
6. As a user, I want to tag items on the market.
7. As a seller, I would like to specify the condition of the item I am selling. i.e Like new, Very good, Good, Acceptable, Broken
8. As a buyer, I would like to click into the post to see the details of the item.

**Search**

1. As a buyer, I would like to search items by price range.
2. As a buyer, I would like to search items by categories.
3. As a buyer, I would like to save items to wish list, so that I can check them later.
4. As a buyer, I would like to search items by conditions.

**Sort**

1. As a buyer, I would like to have a search function.
2. As a buyer, I would like to search items by price.
3. As a buyer, I would like to search items by categories.
4. As a buyer, I would like to search items by posting time.
5. As a buyer, I would like to search items by seller’s rate.
6. As a buyer, I want to check statistic data of the item I interested in.

**Chat**

1. As a user, I would like to have notification when start chatting.
2. As a user, I would like to chat with seller or buyer privately.
3. As a user, I would like to let buyer and seller know what item we are talking about when we start the chatting.
4. As a seller, I would like to tap a button to confirm that the transaction is completed.
5. As a seller, I would like to send pictures to the buyer who is chatting with me.
6. As a seller, I would like to send texts to the buyer who is chatting with me.
7. As a seller, I would like to send voice message to the buyer who is chatting with me.
8. As a user, I would like to be able to leave messages to the one we are chatting with.
9. As a buyer, I would like to chat directly with the seller if he/she is online about the item.
10. As a user, I would like see if another user is online.
11. As a user, I would like to have the chatting history stored.

**Behavior Control**

1. As a buyer, I would like to report bad seller / buyer.
2. As a user, I would like to block user sending spams.
3. As a developer, I would like to disable fraud account.
4. As a user, I would like to sent a report when there is an invalid post.

**After Transaction**

1. As a buyer, I would like to have my order list.
2. As a seller, I want to see the rating and comment of buyers.
3. As a seller, I would like to rate the buyer after transaction.
4. As a buyer, I want to see the rating and comment of sellers.
5. As a buyer, I would like to rate the seller after transaction.
6. As a seller, I want buyers know when the item is available for sell.
7. As a developer, I would like to receive user feedback.

**Non-functional Requirements**

**Security**

1. As a user, I would not like to share my personal information to public.
2. As a developer, I will not provide online payment system to protect user personal information, user have to finish the transaction face to face.
3. As a developer, I want users provide access to chat history when they report for spam.

**Appearance (UI / UX)**

1. The UI must be simple and elegant, so that users can quickly figure out how to use the app.
2. Add some features to serve disabled user. i.e. user can modify the font, user can use multi-finger position function to use the app.

**Performance**

1. As developer, we expect our program runs fast and have a good stability.
2. The app must be able to run on a Android device.
3. The response time should be fast, so the user doesn’t need to wait too long.
4. We should make sure the program will crash as less as possible.
5. The system must handle 200 users at a time (if time allows).