

# BoilerX

## Project Backlog

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### Problem Statement

Typically for members of the Purdue community, when they want to trade goods and services, they will make a post on social media websites such as Facebook and wait for a response. To handle this mismatch in the Purdue marketplace, we decided to create a web-based application to provide a peer to peer trading place for students and faculty. The user-friendly app will create an easy environment for both buyers and sellers to make trades in Purdue. A search bar will allow buyers to easily search up a specific item that they need. As this is a free market, prices will be kept low as sellers will compete against one another to sell a particular product such as an i-clicker. Once a deal between two parties is reached, they can meet somewhere on campus and make the exchange, effectively saving time and money on delivery costs.

### Background Information

There are plenty of Facebook groups (such as Textbook Exchange) that allow the Purdue community to trade goods and services. However, these groups are often very messy, user-unfriendly and inefficient when it comes to filtering results to the exact item that a user wants. For example, when a buyer wants to find a particular textbook for a class, there is no way of filtering search results that returns the exact item on Facebook. Even if a buyer manages to find a particular good that he or she is looking for, there might still be a mismatch because of the high price, due to the lack of competition. A peer-to-peer trading marketplace app will save time and money for the Purdue community, allowing us to focus on the things that matter.

### Environment

We will use ReactJS for the frontend user interface. We will use a Serverless framework with AWS services such as Lambda, DynamoDB and S3 for our backend databases. We will store users, listed items and other related information on AWS.

## Requirements

### - Functional

Backlog ID	Functional Requirements	Hours	Status
1	As a user, I would like to be able to sign up using my Purdue email	2	Completed in Sprint 1
2	As a user, I would like to be able to verify my email address	4	Completed in Sprint 1
3	As a user, I would like to be able to set a password.	3	Completed in Sprint 1
4	As a user, I would like to be able to change username	2	Completed in Sprint 2
5	As a user, I would like to be able to set a profile picture	2	Completed in Sprint 2
6	As a user, I would like to be able to login to my account with my Purdue email and password	5	Completed in Sprint 1
7	As a user, I would like to be able to logout of my account	3	Completed in Sprint 1
8	As a user, I would like to be able to search for items by keywords	7	Completed in Sprint 2
9	As a user, I would like to be able to see the most popular items on the homepage	5	Completed in Sprint 1

10	As a user, I would like to be able to view my account information, which includes my personal profile and item listings	4	Completed in Sprint 2
11	As a user (seller), I would like to be able to post an item for sale	3	Completed in Sprint 2
12	As a user (seller), I would like to be able to add title and description for the item that I want to sell	2	Completed in Sprint 2
13	As a user (seller), I would like to be able to upload pictures of the item that I want to sell	3	Completed in Sprint 2
14	As a user (seller), I would like to be able to set a price for the item that I want to sell	2	Completed in Sprint 2
15	As a user (seller), I would like to be able to edit my item information after I post them for sale	2	Completed in Sprint 2
16	As a user (buyer), I would like to be able to buy an item by clicking the "buy button" which will send a system email notification to the seller	5	Completed in Sprint 2
17	As a user (seller), I would like to be able to receive a system email stating the buyer's email and the item information once a sale is made	3	Completed in Sprint 2
18	As a user (seller), I would like to be able to take down the listed item after it is sold	5	Completed in Sprint 2
19	As a developer, I would like to inspect my code, unit inspect my code, and inspect the design of my code	100	Completed in Sprint 2
<i>Total Hours:</i>		162	

- Non-functional

Backlog ID	Non-functional Requirements	Hours	Status
20	As a developer, I would like to learn how to use ReactJS	10	Completed in Sprint 1
21	As a developer, I would like to learn how to use serverless framework to configure AWS services	10	Completed in Sprint 1
22	As a developer, I would like to learn to build a custom API hosted on AWS API Gateway	20	Completed in Sprint 1
23	As a developer, I would like to learn how to configure DynamoDB and S3 cloud storage for our web app	10	Completed in Sprint 1
<i>Total Hours:</i>		<i>50</i>	

- Use Cases

Case: Sign up

Action

1. Click sign up button
3. Input Purdue Email, username, password and click confirm
5. Input confirmation number and click next

System Response

2. Open sign up page
4. Create account and send confirmation number to the email
6. Verify confirmation number and display front page.

Case: Set profile picture

Action

1. Go to account page
3. Click change profile picture button
5. Choose picture from the device and click upload

System Response

2. Display account page
4. Display picture uploading page
6. Save the picture to cloud storage and display it

#### Case: Change username

##### Action

1. Go to account page
3. Click edit profile button
5. Input username and click save

##### System Response

2. Display account page
4. Display editing mode
6. Save the username to cloud storage and display it

#### Case: Log in

##### Action

1. Input Purdue email and password
2. Click "login button"

##### System Response

- N/A
3. Display home page

#### Case: Sign out

##### Action

1. Click profile button
3. Click log out

##### System Response

2. Display profile drop-down menu
4. Mark the user as signed out in Database and display home page

#### Case: Search items by keywords

##### Action

1. Go to homepage
3. Type the keywords in the search bar and enter

##### System Response

2. Display homepage
4. Display search results

Case: See popular items on the homepage

Action

1. After logging in, go to homepage

System Response

2. Display the homepage with popular items

Case: View my account information

Action

If not on account page:

1. Click "Profile"
3. Click "Profile & Items"

System Response

2. Display profile drop-down menu
4. Show account information

If on other tabs of account page:

1. Click on "Edit Profile"

2. Display personal information

Case: Post item for sale (set title, description, upload pictures, and set price

Action

1. Click profile button
3. Click "Sell Item"
5. Input title and price of the item and short description
6. Click "upload picture"
8. Choose picture from the device and click upload
9. Click "submit button"

System Response

2. Display profile drop-down menu
4. Display "create listing page"
7. Display picture uploading page
10. Save the item information and item picture to S3.
11. Display new create listing page

Case: Edit posted items

Action

System Response

1. Click profile button
3. Click "Profile & Items"
5. Click "Listed Items" button
7. Click edit button
9. Make corresponding changes
10. Click submit changes button

2. Display profile drop-down menu
4. Display account page
6. Display listed items
8. Display edit item page
11. Save updated information and display updated listed items

Case: Buy an item

Action

1. On the item page, click "buy"

System Response

2. Send email notification of buyer's contact information, selling item information and link to the seller
3. Display email sent respond

Case: Take down sold items

Action

1. Click profile button
3. Click "Profile & Items"
5. Click "Listed Items" button
7. Click edit button
9. Click delete button

System Response

2. Display profile drop-down menu
4. Display account page
6. Display listed items
8. Display edit item page
10. Delete item and display account page.