

# MyUniMarket

## Team 24 - Product Backlog

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### Problem Statement

College books and similar supplies are mostly very expensive. For this reason, students often try to seek out used supplies to purchase for a cheaper price. As of today there are limited markets for these types of products which specifically cater to university students. MyUniMarket will solve this problem by providing a well-built, easy-to-use, and appealing platform for reselling college supplies to Purdue students.

### Background Information

#### Audience

For nearly a decade, online shopping services have dominated the shopping industry. There are many different products offered by all types of sellers to target consumers. Currently, there is no dedicated online platform for college students to purchase and sell used college supplies from their peers at a discounted price. MyUniMarket is the solution for this problem.

#### Similar Platforms

There are no platforms that directly relate to MyUniMarket. However, large companies such as Facebook (Facebook Marketplace), Amazon, CampusBooks, and AbeBooks have some form of market for used college supplies within their generalized retail platform.

#### Limitations

While there are existing platforms that incorporate used college supply retail within their service, none of them specifically cater to this market. Amazon, for example, sells used supplies but is not built for that sole purpose. Additionally, they are unrestrictive and allow anyone to sell these types of products. Facebook Marketplace does not provide users with many options for refined searches to get exactly what they are looking for.

MyUniMarket will be localized to students of Purdue University, which creates a secure, closed market that has the capability to have anything a college student might need.

## Functional Requirements

1. As a user, I would like to be able to register for a MyUniMarket account with a purdue.edu email.
2. As a user, I would like to be able to login to my MyUniMarket account.
3. As a user, I would like to be able to sign out of my MyUniMarket account.
4. As a user, I would like to be able to edit my account information.
5. As a user, I would like to be able to recover my password in the event it is lost.
6. As a user, I would like to be able to easily navigate the website.
7. As a user, I would like to be able to delete my account.
8. As a user, I would like to be able to view other users' profiles.
9. As a user, I would like to be able to utilize the MyUniMarket website across all types of devices.
10. As a user, I would like to avoid seeing inappropriate words/phrases on the marketplace.
11. As a seller, I would like to be able to list items for sale.
12. As a seller, I would like to be able to provide the quality of my item for sale.
13. As a seller, I would like to be able to set an asking price of my item for sale.
14. As a seller, I would like to be able to write a description about my item for sale.
15. As a seller, I would like to be able to edit my listings after they are posted.
16. As a seller, I would like to be able to take down my listings.
17. As a seller, I would like to be able to categorize my item for sale.
18. As a seller, I would like to be able to communicate with a potential buyer via private email.
19. As a seller, I would like to be able to display my location on my posts.
20. As a seller, I would like to be able to remove my items after completing a transaction.
21. As a seller, I would like to see how many people have viewed my listings. **(If time allows)**
22. As a buyer, I would like to be able to view listings for items.
23. As a buyer, I would like to be able to rate the seller by quality of the item and transaction.
24. As a buyer, I would like to be able to view seller ratings.
25. As a buyer, I would like to be able to search for items using keywords.
26. As a buyer, I would like to be able to sort items by category.
27. As a buyer, I would like to filter items by parameters such as price.
28. As a buyer, I would like to be able to communicate with a seller via private email.
29. As a buyer, I would like to know the location of seller in order to find the most optimal listing.
30. As a buyer, I would like to be able to bookmark a listing. **(If time allows)**
31. As a buyer, I would like to be notified if one of my bookmarked posts has been sold. **(If time allows)**
32. As a buyer, I would like to be able to see how many people have viewed a listing. **(If time allows)**

## **Non-Functional Requirements**

### **Architecture and Performance**

We plan on having a peak of 100 simultaneous requests per hour on the average day. Before each semester starts, we are predicting an influx of traffic on MyUniMarket and plan on having over 500 simultaneous requests, our server specifications should be more than enough to handle this rush. We plan to develop our backend API in object-oriented and open source PHP and MySQL using a modular approach to independently test each component. Using the Bootstrap open-source framework to combine HTML, CSS, and Javascript we will have seamless frontend for a crisp and clean web application.

### **Security**

Security is crucial for any web application, MyUniMarket will have security features to prevent against popular attacks like MySQL Injection and Distributed Denial of Service. Moreover, the passwords will be stored as hashes in the MySQL Database. All requests to the Database will be authenticated by sessions, allowing only authorised users to view or modify their listings.

### **Usability**

The primary focus of our agenda is to ensure an effective and efficient user experience. This includes a simplistic layout with a minimalistic design to guarantee an expedited selling and buying process. Unlike Facebook's marketplace, MyUniMarket focuses solely on selling used school products in a local domain. Having effective searching and sorting functions allows users to narrow down their results as much as they please. Using Bootstrap, we plan on allowing users to employ MyUniMarket across all browsers and devices. With all these objectives in mind, the user will be able to enjoy the difficult process of buying and selling used items.

### **Hosting & Deployment**

One of the most integral parts involves the deployment of the build. After sufficient testing of our product, we are planning on using Heroku for the deployment of our web application as they have a simple cloud platform for development teams. Our frontend will involve HTML5, CSS3, and Javascript in unison to create the best user experience possible along with backend in PHP and MySQL to provide a high-uptime guarantee.