

# Detailed team project proposal

## Project Summary

Project Name	Short Description	Team Enthusiasm Rank *1-10	Team Confidence - YES we can do this in time! *1-10	Product Owner. *Who will own this for the team?
TBD	A website where user can sell, rent, buy, and search for textbooks	10	10	Initial: Product owner: Allan Scrum Master: Ahhyun  Process of switching roles: Allan ← Ahhyun ← Tim ← Clarke ← Allan . . .  Dev roles: Frontend: Ahhyun & Tim Backend: Allan, Tim & Clarke Database: Allan & Tim Docker/NGINX: Allan (if needed)

## Projects Details:

### Name

What is the name of the project you want to develop?

1. TextStack
2. TextbookExchange → TexEx
3. CircularText → CircTex

### Description

What is the project you want to develop? (Description in less than 250 words)

An e-commerce platform where college students can buy, sell, rent, and search textbooks. Students will register using .edu emails, which would associate them with a particular college space (initially, there'll only be one: NYU). Students may only operate within one space (i.e one college), while transactions between students happen outside of the platform.

What is/are the problem/s you want to solve?

College students generally find purchasing new textbooks a poor investment because of high prices and the low likelihood of being used after a course ends. Moreover, many have no personal incomes and undertake debt to attend college. As a result, most students will either download free, online copies or buy/rent textbooks from others. The latter often takes place on social media sites, like Facebook groups, but they're not well suited for the job. Such groups don't allow for easy searching, comparison, and classification of textbooks for buyers/renters to make an informed decision.

## User Personas and Major Features

Who are the users you are targeting? (Identify a few user personas . Hint: There is usually more than one "type" of users.)

The target users are college students, who can be broken down into two (non-exclusive) groups:

- 1) Buyers: They're students who either can't find a free, online copy or prefer physical over digital textbooks. Moreover, they find textbook prices exorbitant and/or prefer not holding an inventory of textbooks over their time in college.
- 2) Sellers: These are students with many motivations for selling or renting textbooks. They may want to offload their inventory, not necessarily at a profit (selling). Also, they may want to instead rent their textbooks each term with the hope of recouping their investment overtime or just because they see value in the textbook.

It's also important to note that these users (unlike that of most ecommerce sites) are located near each other and so are not total strangers. This has implications for transactions and communications between students.

### User persona #1: Buyer

Who are you?

I'm a college student whose only main source of income is my parents. They're not rich, so I'm on a budget.

What's your main goal?

I don't want to splurge on textbooks for my courses, so I need to find free digital copies or get them from those who've taken the courses. I prefer hard to soft copies, so the latter may be best. For some of these courses, I want to keep the textbook for future reference; others, I don't want to keep at all.

What's your main barrier to achieving this goal?

It's hard to acquire second hand textbooks. The ones in the college bookstore are expensive. Facebook groups aren't user-friendly because it's not easy to compare one textbook with another in terms of price, condition, edition, etc.

## **User persona #2: Seller**

### Who are you?

I'm a college student and I have textbooks that I no longer need. I don't come from a rich family, so it'll be nice to recoup a bit of my investment in these books.

### What's your main goal?

I want to offload my books and make some money, although I know it won't cover the amount I bought these books for. The main goal is offloading.

### What's your main barrier to achieving this goal?

It's hard to sell in-person because I don't know who needs it. It's easier on Facebook groups, but after a week or so my post gets pushed down by newer postings of books or other items to sell. This is especially bothersome because my textbooks are in good condition with relatively low prices.

## **User persona #3: Renter**

### Who are you?

I'm a college student from a middle class family. I have textbooks that I think are pretty useful for future reference, but don't need them for this semester.

### What's your main goal?

It'll be nice to make some money off these by renting them out to students. Hopefully, renting them out over a period of time will cover/exceed the initial investment. Furthermore, I would like to rent them out to those who wouldn't damage it upon return at the end of the semester.

### What's your main barrier to achieving this goal?

Hard to find people who need textbooks in person. Posts on Facebook groups get pushed down by newer ones. Also, it's hard to verify who'll return my textbook on time and in the condition I lent it.

What are the major features you are targeting?

- Sign up & login: Register with .edu email addresses with verification links being sent to their emails.
- Set up profiles: Displays name, profile photo, seller/buyer rating, college year, textbooks that they're selling/renting, textbooks that they're looking for, transaction history
- Search textbooks: Quickly search textbooks by name or course. There needs to be robust classification of textbooks by, for example, course name or ID, textbook name, edition, ISBN number, etc. Needs to be able filter search results by attributes.

- Post textbooks: Upload photos, price, condition, course ID, and description of textbooks. Sellers will need to indicate whether they're selling or renting or both. If renting, they'll need to determine the time frame.
- Indicate interest in a textbook: Buyers/renters can express that they're interested in a textbook. There must be some process that handles this by, for example, notifying the seller where if the seller is agreeable to it, they're redirected to a direct message.
- Communication: Basic private messaging. Seller and buyers cannot DM unless buyer has expressed interest.
- Transaction: We expect exchange of textbook and money to happen outside of the platform, as this avoids complicated issues around logistics and payments. After a transaction completes, buyers and sellers may rate each other. This is to incentivize good behavior; for example, ensuring the renter doesn't return the textbook in a worse condition or else the seller may rate them poorly.

## **MVP(Minimum Viable Product)**

Which features are a must to have? (If you don't have these you do not have a project, not really)

- Sign up & login: Register and login with NYU email
- Set up profiles: Full names, college year, textbooks that they're selling/renting
- Search textbooks: Quickly search textbooks by name or course. There needs to be robust classification of textbooks by, for example, course name or ID, textbook name, edition, ISBN number, etc.
- Post textbooks: Upload photos, price, condition, course ID, and description of textbooks. Sellers will need to indicate whether they're selling or renting or both. If renting, they'll need to determine the time frame.
- Indicate interest in a textbook: Buyers/renters can express that they're interested in a textbook. There must be some process that handles this by, for example, notifying the seller where if the seller is agreeable to it, they're redirected to a direct message.
- Communication: Basic private messaging. Seller and buyers cannot DM unless buyer has expressed interest.
- Transaction: Exchanges of books and money happen outside. When this happens, the seller must indicate the transaction has taken place so that the book is taken out of

circulation. The exact will differ depending on whether its sold (taken out forever) or rented (taken temporarily but still seen)

## MLP (Minimum Loveable Product)

Which features are a really nice to have to the users would fall in love with the product (Nice-To-Haves Features)

- Sign-up verification: Register with verification links being sent to their emails.
- Textbook history in profiles: Display seller/buyer ratings, textbooks that they're selling renting; transaction history
- Search result filters: Can filter search results by attributes.
- Save-for-later: Save particular textbook postings in a basket for future reference
- Rating: Rate a seller/buys after an in-person transaction is completed

Not MVP, not MLP but still would be cool to develop these features

- Interoperability between college spaces: Allow students from one college space to interact with those from other college spaces
- Transaction: Enable payments through the website; handle logistics (perhaps using other students to transfer textbooks)
- Create requests: If a certain textbook doesn't exist, the user can create a public request for it, so that potential sellers know what's required.

## Call Out CRUD Features

How is this project interactive for the user personas?

### ADMIN

Create:

- Create new college spaces
- Add new admins
- Create classifications for textbooks (normally done by user)

Read:

- See all registered users
- See all transactions
- See list of courses and textbooks
- See any reported issues

Update:

- Update info pertaining to college spaces
- Deny the creation of a new course or textbook item
- Resolve issues
- Change classification for textbooks/courses

Delete:

- Delete or remove users or college spaces
- Delete certain categories, postings, courses, etc

## **BUYER**

Create:

- Make a request for a textbook
- Create saved items of textbooks for future reference

Read:

- Search textbooks and filter results
- Read your transaction history

Update:

- Update saved items
- Change profile information

Delete:

- Cancel a request for a textbook
- Remove saved items list
- Close account

## **SELLER/RENTER**

Create:

- Add new textbook listing for an existing course or textbook item
- Create a new course or textbook item
- Specify information or attributes of the textbook

Read:

- View textbook listings that are the same or from the same course
- Read your transaction history

Update:

- Update details of textbook posting
- Update details of the course for which the textbook is being listed under
- Change profile information

Delete:

- Remove a textbook listing
- Close account

## Similar Already Existing

What similar applications exist on the market? (at least 3 with links and descriptions).

If this work is truly unique and no one has even done anything even remotely similar please explain your search procedure and how you came to this conclusion

- Textbook exchange network (ten): A student-run website that supports student-to-student textbook exchanges (currently out of service)
- Ebay/Amazon: Ecommerce websites where users can search/sell/buy used books
- Facebook Groups/Marketplace: Social networking platform where users can search posts in group/marketplace for necessary exchange/transaction