

# ReuseU: Milestone 1

## 1. Product description with User Roles

### Product description:

Each year, students discard tons of usable items they no longer need and cannot otherwise get rid of. The same students also buy countless items to make their daily college lives more comfortable. Such practices of massive consumption and discarding are detrimental to both the planet and students' wallets. Introducing ReuseU, a web-based platform that lets students on college campuses reduce their spending and environmental impact by creating a small-scale, highly local online marketplace where they can trade personal belongings with other students on their campus. Instead of relying on poorly timed yard-sales, ReuseU would allow both sellers and buyers to use the platform at a time that works for them, 24/7, all year long.

ReuseU is like the for-sale section of Craigslist, but on a much more highly local and community-based scale, populated by students and for students. It has the advantage of college-email verified users that makes the seller-buyer relationships more transparent and reliable. There is no need to travel for hours to a neighboring city to make a purchase, as everything being sold is within the vicinity of the campus. Since the items sold on ReuseU come from college students themselves, they are much more likely to find a new use among other students than most items available at other online marketplaces or local garage sales.

### Other products that inspired and informed ReuseU:

1. [Craigslist](#) – the well-known, crowd sourced, US-based advertisement website with the for-sale section where users can sell and buy their (usually used) items. Doesn't have the most appealing user-interface but has the fundamental features that ReuseU can adopt in its own UI.
2. [Facebook Marketplace](#) - Meta-based platform similar to Craigslist's for-sale section.
3. [Mercari](#) - a marketplace website and app created by the Japanese e-commerce company of the same name, launched in 2013. The website has a more appealing design compared to FB Marketplace or Craigslist. A visually appealing UI is something ReuseU will strive for.
4. [OLX.uz](#) - A marketplace website and app akin to Mercari but based in Uzbekistan. The website features intuitive and helpful separation of products into categories – another feature ReuseU plans to adopt.

Unlike ReuseU, each product above has a massive scale, with at least a country-wide operational marketplace. ReuseU intends to take a different direction, creating unlinked instances of its own website, each specific to a unique college or university.

#### *User Roles:*

1. **Merchant:** This role represents the student who wishes to list their personal items that they no longer need on ReuseU for another student to purchase/inherit.
2. **Consumer:** This role represents the other side of ReuseU, which is the student purchasing/inheriting item(s) from the Merchant (another student) to use for themselves.

## 2. User Personas and User Stories (Functional Requirements)

#### User Personas:

1. **Lucy (she/her) (Merchant || Casual User) (Senior On The Rush)**, a fourth-year student living off-campus and graduating in two weeks. Lucy is busy finishing up her degree and has many exams to prepare for. Lucy has accumulated a lot of belongings over her four years at college and she cannot take most of them with her after graduation. Lucy cares more about selling her items quickly than about selling them at the highest price possible. Lucy has a poor eyesight and relies strongly on her glasses and contact lenses.
  - a. As Lucy, I need to be able to easily add many products to sell so that I can quickly get rid of my countless belongings.
  - b. As Lucy, I need to adjust the size of the webpage so that I can see all the elements of it clearly.
  - c. As Lucy, I need to remove items I already sold so I don't get unnecessary requests from people who want to buy something I already sold.
  - d. As Lucy, I need to let others suggest a price for items I'm selling so I can sell my items quickly without pondering how much each thing reasonably costs.
2. **Jack (he/him) (Consumer || Broke First Year)**, a first-year student living far away from college and in need of furnishing his dorm room in matter of days before class starts. He is fine with cheap and used stuffs from upperclassmen to save money. He cares about utility and durability.
  - a. As Jack, I need to be able to locate cheap deals so that I can save some dime
  - b. As Jack, I need to be able to verify that my sellers are legitimate so that I can have a piece of mind knowing they're not fake
  - c. As Jack, I need to read more about the product I'm thinking of buying so that I can determine if it's a fit for me

- d. As Jack, I need to be able to sort by price so that I can get the cheapest item.
- 3. **Arsene (any) (Consumer & Merchant || The Scalper)** buys items at cheap prices, then resells them at exorbitant prices. Wants to game the system to make profits and afford anything they want.
  - a. As Arsene, I need to be able to resell items so that I can heavily inflate prices and turn a massive profit!
  - b. As Arsene, I need to be able to negotiate prices so that I can get ahold of items to sell without losing too much of my own money.
  - c. As Arsene, I need to be able to post my own pictures when putting the items for sale so that I can make my items seem more worthwhile than they are and make buyers willing to pay more.
  - d. As Arsene, I need to be able to look up items so that I can buy what makes sense to buy and eventually resell.
- 4. **Dexter (he/him) (Consumer || Casual User)** is a second year sneakerhead who periodically checks used marketplaces to see if he can find a good deal on a new pair of shoes.
  - a. As Dexter I need to be able to see the condition of potential shoes I will be buying, so that I can buy clean/new shoes that can look good on my shelf
  - b. As Dexter I need an easy way to see all listings that are shoes, so that I don't waste my time looking at things I don't care about
  - c. As Dexter I need a way to remember listings that I am considering buying, so that when I return to the website on a later date when I get paid...I can find the item I wanted to buy earlier if it's still available
  - d. As Dexter I need to see if people I purchased from in the past have other shoes available.
- 5. **Chamomile (xi, xir) (Consumer || Hardcore User)**, a 35 year old freshman returning to college after a long break, worked in underground eastern european crypto development for 12 years before realizing xir passion was in philosophy. Only uses Linux Kernel.
  - a. As Chamomile, I need to be able to navigate the website with just my 40% keyboard so that my setup fits in my desk corner.
  - b. As Chamomile, I need to be able to send messages to up to 40 people so that my discord group that got banned for insider trading can communicate freely.
  - c. As Chamomile, I need to be able to access the website with minimal wifi connection so that the wifi cafes I go to are sufficient.
  - d. As Chamomile, I need native access from linux so that I can use the website on my computer.
- 6. **Chara (she/her) (Merchant || hoarder)** gets very attached to her items (stolen or not) and only feels comfortable giving them away to people that they know will take care of them.

- a. As Chara, I need to find someone to appreciate the things I have stolen from the school throughout the years so that I can finally let go of my treasures.
- b. As Chara, I need to find a consumer I trust (people my age) so that I will be comfortable with them using the items I give away.
- c. As Chara, I need to give away my items on a secure site so that I won't get in trouble, because I don't want Campo to know that I stole stuff.
- d. As Chara, I need to list my items on a site that ensures that Grinnellians are the only people who can inherit them, so that I can meet up with them in person for my exchanges easily.

### 3. Non-functional Requirements

Describe at least three non-functional requirements, e.g., related to scalability, usability, security and privacy, etc.

1. Users must have a .edu email address for security.
2. Additionally, each university's email network should have a separate webpage/database accessible only by users of that university. That is, an account with the email that ends in @grinnell.edu will have access to Grinnell's ReuseU webpage but not to Cornell's webpage.
3. User emails should not be visible to others. People should not be able to browse other's emails. Usernames will be used.

### 4. External Requirements

ReuseU is intended to be used as a website. As such, we will naturally set up a public URL for users to access it, along with providing instructions for others to set up another instance of the website on a local server. Much of our error-handling will revolve around security of the website – which should be easy enough to remedy via requiring a Grinnell email. We believe that there are enough components to this project that we will be able to divide the work fairly among the six of us, with each of us having a reasonable amount to work on.

The complete source code for ReuseU, including both client and server components, will be made available. We will provide detailed build instructions, enabling others to compile the application from source. Furthermore, the project will be thoroughly documented to facilitate understanding of the system architecture, code structure, allowing new developers to contribute to and enhance the project.

### 5. Scope and Feature List

#### Major Features

1. Unique Databases for each university .edu address

2. Page with available products at your university
3. Login implementation, unique users/grouped to universities.
4. Separate buying and selling interfaces

### Stretch Goals

1. Rating system for sellers/buyers
2. Report system for experiences

### Out of Scope

1. Support for outside electronic/digital payment (PayPal, Klarna, Apple Pay, etc.)
2. Offline support

## 6. Citations

*Formally cite your sources using both in-text citations and a reference section at the end of your living document. You may use [ACM Reference Format](#), MLA, APA, or another formal academic citation style of your choice.*

Craigslist, 1995, [www.desmoines.craigslist.org/](http://www.desmoines.craigslist.org/).

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