

Barter Box

GitHub Link: <https://github.com/Deante12345/Barter-Box.git>



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Product Vision:

FOR (Adults)

WHO (Have something to trade)

(Barter Box) **IS A** (trading app)

THAT (facilitates communication between adults who want to trade things)

UNLIKE (TradeMade)

OUR PRODUCT (we incentivize trading within groups to encourage engagement)

2 Persona:

- Fiona, a 22-year-old college student majoring in Computer Science, is highly motivated by her need to stretch a limited budget. She is really busy with college, so she has no time to have a job to bring in extra money. To save money, she frequently buys groceries in bulk, but often finds herself with more food than she can consume before it expires. This leads to waste, which not only frustrates her but also strains her already tight finances.

Fiona sees the app as a valuable solution to this problem, offering her a way to trade her surplus food for essentials like toiletries, household goods, or snacks. She hopes the app will help her save money by using points to acquire necessities while also allowing her to connect with others facing similar financial challenges. Her primary goal is to reduce waste and better manage her grocery budget, all while building a supportive community of users who understand the challenges of living on a limited income.

- Bertha, a 71-year-old retiree, recently took up beekeeping as a hobby to fill her time after stepping away from her career. While she enjoys caring for her bees, she now has an overabundance of honey that she doesn't know what to do with. Bertha is

not interested in turning her hobby into a small business, nor does she want the hassle of selling through platforms like Facebook Marketplace.

Her main challenge is finding a way to get rid of the extra honey without getting overwhelmed by complicated technology. Since she isn't particularly tech-savvy, Bertha needs something simple, fast, and convenient to use. She sees the app as an ideal solution for trading away her surplus honey, allowing her to gain points that can be exchanged for items she might need, like household goods or treats. By using the app, Bertha hopes to declutter her home while gaining access to a more streamlined way of bartering with others.

- **2 Scenarios:**

- So much Honey!**

- Bertha is a retired beekeeper, after spending most of her life teaching yoga around town. She took up beekeeping as a hobby, as her husband is still working and the sheer amount of free time on her hands was overwhelming her.

So now, she has way more honey than she can eat herself, and she doesn't know what to do with the rest. She gives some to friends and family, but still ends up with jars upon jars of stuff. She would like to potentially open up a small business, but is unsure if there is enough demand to justify that kind of investment. She finds websites such as Facebook Marketplace, Ebay, and Craigslist complicated, frustrating, and simply not suitable for her goal of getting rid of her honey!

That's when a friend recommends BarterBox, an app focused on local trade. It allows her to create an account where she can trade her honey for points that she can then further use to trade for other goods around town. This way, she can gauge the interest in her honey jars, without the hassle of setting up her own website or dealing with the issues that arise from Facebook Marketplace.

- **Frugal Fiona's Excessive Fish**

- Fiona is a student living in the dormitory of her college. She's from out of state, so while most of her friends and family are back home, she's learning for the first time how to take care of herself. The biggest hurdle here has been groceries.

She knows from her mom that shopping in bulk is the best way to save money, but after her first trip to Costco, she's found herself with entirely too much of certain snacks. Namely, Goldfish, her favorite food. While the average bag of Goldfish is

6.6oz, Costco only sells them in 66oz boxes. So now, Fiona's got a lot of fish and does not know what to do with them.

After she gives some away to her roommate and their friends, she still finds herself with more than she can eat before they go stale. However, by using BarterBox, she can set up an account in order to trade away Goldfish for points she can use to get other things she'll need to survive her first year in college.

5 User Stories:

- As a Costco shopper, I often find myself buying more groceries than my family can finish, therefore I want to be able to share them with my community and get something in return.
- As a business owner, I want to be able to stop wasting food at the end of the night and still make a profit.
- As a dad, I often buy a lot of snacks or food that my family doesn't eat, I want my family to stop wasting food and money that we don't have.
- As the head of a food bank, we want to give away all of our food before it goes to waste but can't seem to find enough people to give it out too.
- As a party owner I am often left with a lot of open soda and drinks after a party, I don't think a stranger will trust me to give them left over drinks so I need a way to get rid of them.

Assignment 2

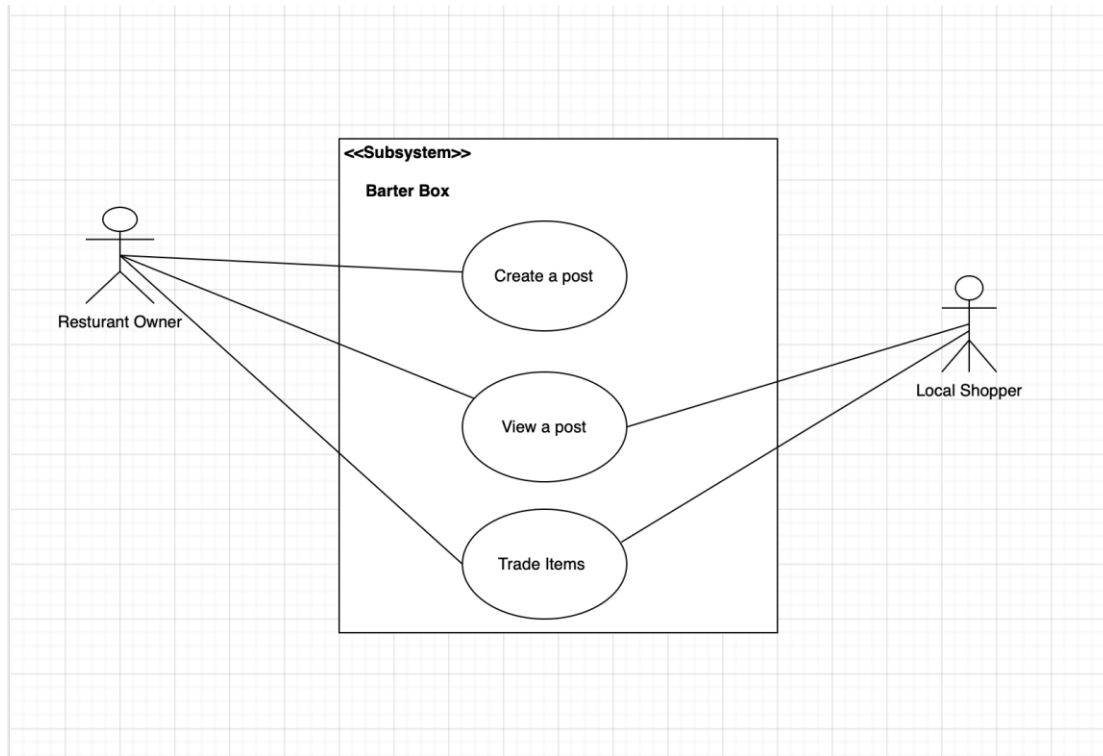
At least five functional requirements

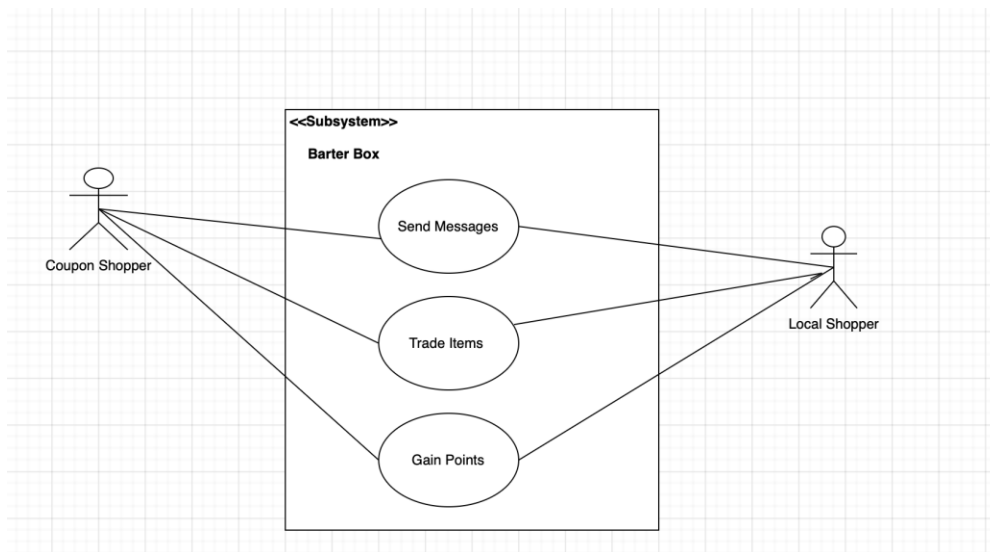
- A new user should be able to create an account using an email and password.
- A user view other people account
- The app must be able confirm when the user has successfully completed a transaction.
- A user must be able to post pictures to the timeline of what they are trying to trade.
- The app must be able to provide the amount of points a person has gained or lost if the transaction is successful.

At least five non-functional requirements

- The platform will allow users to redeem points as a form of currency for transactions and the current point balance, points earned after a transaction, and transaction summary will be displayed and provided to the user after each transaction. The current point balance will also be displayed on the user's home page.
- The system will allow users to create an account easily using no more than 4 steps, requiring only essential information such as email, name, phone number and password.
- User personal information will stay confidential, by using strong encryption methods such as AES.
- The app must load in less than 5 seconds and the point transaction should be processed in less than 5 seconds as well.
- The app must comply with food safety regulations to ensure no one will get sick and to avoid food borne illness, by enforcing users to upload a picture/description of the food label including allergens and having a tab providing educational resources on food safety and recent food recall alerts.

At least two use case diagrams





Market analysis:

Target audience:

BarterBox targets families, college students, environmental activists and restaurant owners who want to reduce food waste and save money.

Families: Families who buy a lot of groceries and most of them end up going bad or they do not like a new product they bought.

Environmental activists: Food waste accelerates CO2 emissions, leading to global warming. These activists are actively looking for ways to be more environmentally friendly so BarterBox will be a great choice for them, helping them reduce food waste.

Restaurant owners: Business owners must deal with a lot of food being thrown away at the end of the night, and they cannot give it to homeless people out of fear of getting sued. BarterBox will allow them to not waste food and still make some profit.

College students: College students are often on tight budgets and sometimes buy products in bulk. BarterBox will allow them to trade some surplus food for other food they don't have and snacks.

The app's core value proposition focuses on minimizing food waste and helping users save money. It is specifically designed for individuals who are frequently frustrated by the common issue of purchasing groceries that spoil before they can be fully used, resulting in both wasted food and wasted money.

Existing apps solving the same values:

Leftover Swap app: The app aimed to reduce food waste by having users share uneaten meals with other people. However, due to health concerns about sanitation and legality, especially around selling leftover food without permits, the app faced challenges in reaching the market successfully in some areas. While this app had a good idea, it lacked adhering to food regulations and focused on sharing opened food that might have been contaminated by others.

BuyNothing app: This app focuses on trading goods with community members. Items that users no longer require are posted, and they can be claimed by other community members for free. This app does not really focus on trading food, it focuses more on trading objects, unlike our app BarterBox.

Listia: Listia is a website not an app. Listia users trade items which they do not need anymore and receive points in return. It works on a point-based system rather than actual money in which users earn points by doing various tasks on the platform or by giving away items. On this website people do not trade food, it is more focused on trading items such as clothing, electronics, toys, etc. The point-based system is similar to BarterBox's.

TradeMade: TradeMade is an app that allows users to trade items as well as services in return for something else. Its mission is for users to save money, encourage being environmentally friendly by reducing carbon footprints, and encouraging people to get to know others in their community. It is similar to BarterBox but it does not include trading food.

Commercialization plan:**Revenue**

App cost to users: The app will be free to download and completely free to use. Users will not need to pay for any subscriptions.

AD revenue: Displaying banner ads from various companies to generate revenue, as well as having users watch a 30 second ad for 20 points.

Marketing

Referral Program: Users will be able to earn 100 points(currency) if they refer a friend and that friend will have at least one trade associated with their account.

Advertising: Run ads of BarterBox on apps such as YouTube, Instagram and TikTok.