

The background is a complex, abstract geometric pattern composed of numerous triangles of various sizes and colors. The colors include shades of yellow, orange, red, pink, purple, blue, and green, all set against a light gray background. The triangles are arranged in a way that creates a sense of depth and movement.

# SECOND HAND MARKET PLACE

Group #26

Sahana, Lakshita, Joe, Christopher



# User Persona 1: Person Trying to Sell Items



## Gladys

### Demographics:

- Age: 72
- Location: Suburban town, lives near her family
- Role: Retired schoolteacher, grandmother, occasional community volunteer

### Goals & Aspirations:

- Make some extra income to treat her grandchildren and fund hobbies (like knitting and gardening)
- Pass on items she's loved to people who will use them
- Use technology without feeling overwhelmed

### Pain Points / Needs:

- Overly complicated resale platforms with too many features
- Fear of scams, unreliable buyers, and unsafe meetups
- Needs clear steps and easy navigation

### Usage Context:

- Uses the marketplace app mostly at home on her iPad or iPhone
- She uploads items while going through her garage or closet
- Prefers secure, cashless payments and safe pickup options
- Looks for a simple, trustworthy platform that feels community-based rather than transactional

# Scenario 1: Gladys Sells a Rocking Chair

**Gladys, a 72-year-old retired schoolteacher, has been cleaning out her garage and finds an old rocking chair that she no longer needs. She decides to list it on the second-hand marketplace app.**

1. Gladys opens the marketplace app on her iPad/iPhone and logs in using her credentials (username and password)
2. From the home screen, she taps the large “Sell Item” button, clearly displayed at the top
3. The app guides her step-by-step with clear buttons and simple text.
  - It first asks her to take a photo of the rocking chair.
  - Gladys snaps two pictures of the chair with her iPad camera.
4. She enters a short title and description: *“Rocking Chair - Vintage wooden rocking chair, gently used, still sturdy.”*
5. She sets the price to \$40 using a simple number keyboard.
6. The app offers her two options: safe pickup at a designated community hub or doorstep delivery through a partnered courier. Gladys chooses safe pickup.
7. She reviews the listing, confirms, and taps “Publish.”
8. Within a day, Gladys receives a notification that her chair has been purchased. The payment is automatically processed through the app’s secure, cashless system.
9. At the arranged time, Gladys brings the chair to the pickup hub, drops it off, and gets a confirmation message.
10. She receives her \$40 directly into her linked bank account.



# User Persona 2: Person who is trying to buy second-hand items



**Name:** Carl Marques

**Age:** 27

**Occupation:** Project Manager

**Background:** Carl recently received a promotion to project manager. Along with the promotion he has decided to move to a bigger apartment. Flush with cash, Carl's on the lookout for a good deal.

**Needs:** able to see items on sale in his area, be able to sort by price, wants to see many photos so he can make an informed purchasing decision, quick and easy payment processing.

## **Scenario 2: Carl buys a stylish, mid-century modern lamp**

1. Carl logs into the second-hand marketplace with his username and password
2. He performs a text search for "Mid-century modern lamp"
3. On the results page, he selects sort by price low to high.
4. He looks at the first result, but decides against buying it. The lamp looks too worn in the photos for his taste.
5. He looks at the second result and decides to click buy
6. He reviews his shipping and billing details, saved from a previous purchase.
7. He is satisfied and clicks confirm.
8. He receives a confirmation email with the purchase details.





# User Persona 3: Reseller

**Name:** Karen

**Age:** 45

**Occupation:** Full-Time Reseller

**About/Goals:**

- Full-time reseller who goes to stores like target, goodwill, etc
- She resell items she finds for cheap at a higher price on marketplaces

**Needs:**

- A way to sell items in a low hassle way
- Quick and efficient purchases

**Pain Points:**

- Finds it hard to find people to buy her items
- Buyers take too long to respond
- Takes too much time to talk to buyers

# Scenario 3: Karen lists her reseller items on the marketplace

- Karen makes an account using a username and password
- She goes and takes pictures of all of her items
- For the first item it asks her to upload or take a picture of the item
- She sets the price for the item at 55\$
- Then she names the item and also gives it a description
- She adds this item to the marketplace
- She puts all of her items on the marketplace
- All of her items show up when you click on her profile
- All current requests to buy her items are listed



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# □ User Persona 4: Person wanting to declutter and give away items

## About

- Has started a new job as a travel nurse
- New job requires her to travel around and move roughly every 3 months
- Needs to live with a few essential items at all times in order to support her active traveling lifestyle
- since she has a lot of items currently, she is hoping to give away some of her items on a marketplace in order to cut down on the amount of possessions she has.

## Goals/Core Needs

- To sell her items quick and efficiently
- To have a lot of potential buyers look at her items

## Frustrations

- Needs to get all her items sold by the time her job starts
- Needs customers who are serious and willing to take her items

## Lifestyle/Behavior

- Tech-savvy, uses mobile apps and social media often to connect and sell
- Prefers minimalist living to reduce moving stress
- Relies on quick, reliable transportation and delivery options



**Name:** Anna  
**Age:** 26  
**Occupation:**  
Travel Nurse

# Scenario 4: Anna lists 2 items on the marketplace

- Anna, 26, is a travel nurse preparing to move to Denver for her next assignment in three weeks
- She realizes she needs to downsize and decides to use a second-hand marketplace app
- Opens the app and lists her couch and treadmill that she cannot take with her
- Uses the app's quick listing feature: takes photos, auto-generates titles, and gets price suggestions
- Receives multiple buyer messages within hours.
- Uses the app's scheduling tool to coordinate pick-ups
- Accepts secure in-app payments to avoid no-shows and unreliable buyers.
- Over the next few days, sells her couch and treadmill smoothly
- Feels relieved not having to transport unnecessary belongings
- Uses extra cash to cover moving expenses and the cost for her new place in Denver
- Gains confidence that she can repeat this process every time she relocates

# Features

## User Login

**Input:** Login credentials.

**Activation:** Clicking the "Login" button.

**Action:** Authenticates the user's credentials.

**Output:** The user is signed in and sees their dashboard.

## Create Item Listing

**Input:** Item details (name, photo, price, etc.).

**Activation:** Submitting the "New Item" form.

**Action:** Validates and saves the new item to the marketplace.

**Output:** A confirmation message is shown and the item is live.

# Features

## Price Suggestion

**Input:** The item's name and category.

**Activation:** Clicking a "Suggest Price" button.

**Action:** Compares the item to similar sold listings.

**Output:** Displays a suggested price range to the seller.

## Search and Filter Items

**Input:** User's search terms and selected filters.

**Activation:** Submitting a search or applying a filter.

**Action:** Finds all items that match the criteria.

**Output:** A list of matching items is displayed.

# Features

## Secure Checkout Process

**Input:** The buyer's payment information.

**Activation:** Clicking the "Buy Now" button on an item.

**Action:** Processes the payment and marks the item as sold.

**Output:** A confirmation page is shown and a receipt is emailed.

## User Profile Management

**Input:** New or updated user information.

**Activation:** Clicking "Save Changes" on the profile page.

**Action:** Saves the new details to the user's account.

**Output:** The user's profile is updated instantly.

# Features

## Pickup Scheduling

**Input:** Available pickup times from buyer and seller.

**Activation:** Clicking "Schedule Pickup" after a purchase.

**Action:** Records the mutually agreed-upon time.

**Output:** A confirmation is sent to both users.

## Report and Dispute Resolution

**Input:** Details of a user report or transaction issue.

**Activation:** Clicking "Report User" or "Open Dispute".

**Action:** Creates a support ticket for admin review.

**Output:** The user receives a confirmation number for their case.

# User Stories

- As a seller, I need to be able to take and upload pictures of my second-hand item
- As a seller, I need to be able to choose a convenient place for my buyer to pick up my item
- As a seller, I need to be able to choose a price for my second-hand item
- As a travel nurse, I need to quickly and efficiently sell my items before I start my job
- As a travel nurse, I want to make sure that my buyers are serious about my items and do not back out last minute
- As a travel nurse, I want my items to have large exposure so I can quickly seal the deal
- As a buyer, I need a search that returns relevant items
- As a buyer, I need the page to remember my billing details for easy checkout
- As a buyer, I need to sort results by price
- As a reseller, I want to receive an automatic price suggestions based on similar items so I can price for maximum profit
- As a reseller, I want users to be able to see all my items for sale
- As a reseller, I want a lot of competing offers so I can get the most value for my items

# Requirements

## Functional Requirements

- Users must log in to access the app.
- Sellers can post items with a description, price, and photos.
- Buyers can browse all listings and submit a request form (with reason/budget) to show interest.
- Sellers can view all requests for their items and must approve one buyer to finalize the sale.
- The system must track and display request statuses (pending, approved, denied).
- A basic messaging or confirmation system must be available for sellers and approved buyers.

## Non-Functional Requirements

- Security: All user input must be validated on the server.
- Performance: Main pages must load in under 3 seconds.
- Usability: The interface must be intuitive for new users.

## Technical Requirements

- Tech Stack: Use a 3-tier architecture: React (frontend), Python Flask (backend), and SQLite (database).
- Deployment: Deploy the frontend and backend in separate Docker containers.
- Version Control: Use a private Git repository on git.uconn.edu.
- CI/CD: Use GitHub Actions to run automated unit tests on every merge to develop or main