

# ASSIGNMENT 1

Group 1

Khyati Parmar  
Tejaswini Patel  
Chinmaya Garg  
Nisarg Khacharia  
Princess Kachhadiya  
Kshitijkumar Patel

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## A1.1 Project's Purpose, Goals and Intended Features

### Purpose

EcoMart aims to create a sustainable and user-friendly online marketplace where individuals can buy and sell used goods. By promoting the reuse of items, EcoMart contributes to reducing waste and encouraging environmentally conscious consumption. The platform will facilitate seamless transactions between buyers and sellers, offering delivery options to enhance user convenience.

### Project Goals

1. **Environmental Impact:** Reduce waste by providing a platform for reusing and recycling goods.
2. **User Convenience:** Create a user-friendly interface for easy buying, selling, and delivering of items.
3. **Community Building:** Foster a community of environmentally conscious consumers and sellers.
4. **Security and Trust:** Ensure a secure platform with reliable user verification and rating systems.
5. **Scalability:** Build a scalable system to accommodate growing user base and inventory.

### Intended Features

1. User Management
2. Home Page
3. User Profile Page
4. Item Filter
5. Wishlist
6. Seller Form
7. Email Notification
8. Item Details
9. Bidding Option
10. Cart
11. Shipping Details Form
12. User Rating

## A1.2 User Personas and Intended Scenarios

### User Personas

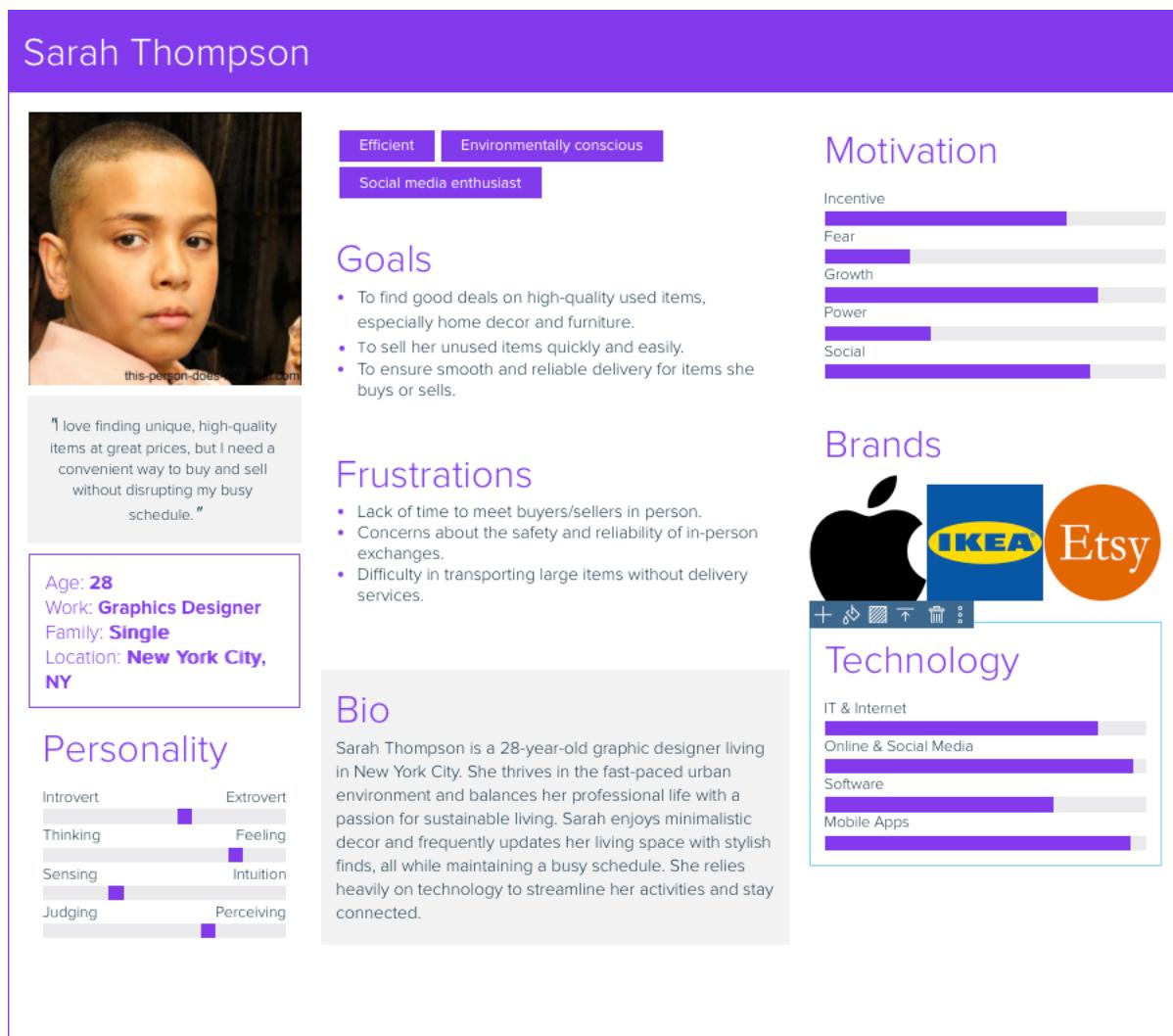


Figure 1: User Persona for Sarah Thompson

# Mark Rodriguez



Practical Business-minded Detail-oriented

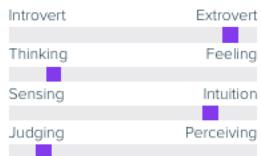
## Goals

- To find affordable used electronics for his business and personal projects.
- To sell refurbished items from his shop to a wider audience.
- To expand his business reach through online sales.

"My business relies on finding good deals and selling quality refurbished electronics. An efficient online platform with reliable delivery is key to my success."

Age: 45  
Work: Small Business Owner (Electronics Repair Shop)  
Family: Married  
Location: Austin, Texas

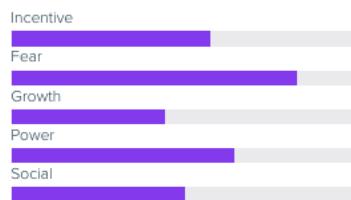
## Personality



## Bio

Mark Rodriguez is a 45-year-old small business owner from Austin, Texas. He runs an electronics repair shop and is always on the lookout for affordable used electronics to refurbish and sell. Mark values practical solutions that help him expand his business reach and improve efficiency. He is dedicated to providing quality products and excellent service to his customers.

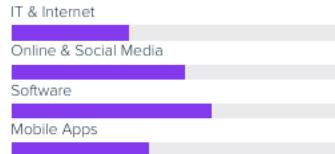
## Motivation



## Brands



## Technology



## Scenarios

### Task 1: User Management

Scenario: Sarah Thompson wants to update her email address and password in her account settings to ensure she receives important notifications and maintains account security.

User persona: Sarah Thompson

Feature: User management

Need: Update account information.

Context: The user needs to ensure their contact information and security credentials are current.

### *Task 2: Home Page*

- **Scenario:** Sarah Thompson visits the EcoMart homepage to explore the latest listings and featured categories to find new furniture and decor items for her apartment.
- **User persona:** Sarah Thompson
- Feature: Home Page
- **Need:** Explore new listings and categories.
- **Context:** The user wants a quick overview of available products and featured deals.

### *Task 3: User Profile Page*

- **Scenario:** Sarah Thompson wants to view her purchase history and manage her listed items for sale, checking which items have received bids or inquiries.
- User persona: Sarah Thompson
- **Feature:** User Profile Page
- **Need:** Manage personal listings and view purchase history.
- **Context:** The user needs a centralized place to monitor their activity on the platform.

### *Task 4. Item Filter*

- **Scenario:** Mark Rodriguez is searching for used laptops and uses the item filter to narrow down his search to items within a specific price range and condition.
- **User Persona:** Mark Rodriguez
- **Feature:** Item Filter
- **Need:** Efficiently find items that meet specific criteria.
- **Context:** The user needs to quickly find items that match his requirements for his business.

### *Task 5. Wishlist*

- **Scenario:** Sarah Thompson finds a few pieces of furniture she likes but wants to save them for later consideration, so she adds them to her wishlist.
- **User Persona:** Sarah Thompson
- Feature: Wishlist
- **Need:** Save items of interest for future reference.
- **Context:** The user saves items to review and purchase later, ensuring they don't miss out on potential deals.

### *Task 6. Seller Form*

- **Scenario:** Mark Rodriguez wants to sell a batch of refurbished smartphones and uses the seller form to list the items on EcoMart.
- **User Persona:** Mark Rodriguez
- **Feature:** Seller Form
- **Need:** List items for sale with detailed information and images.
- **Context:** The user lists items for sale to reach a wider audience and manage his inventory.

#### *Task 7. Email Notification*

- **Scenario:** Sarah Thompson wants to be notified when new furniture items are listed, so she subscribes to email notifications.
- **User Persona:** Sarah Thompson
- **Feature:** Email Notification
- **Need:** Receive updates on new listings and activities related to her interests.
- **Context:** The user stays informed about new items and activities on the platform without having to constantly check the site.

#### *Task 8. Item Details*

- **Scenario:** Mark Rodriguez clicks on a listing for a used camera to view detailed information, including the condition, specifications, and seller ratings.
- **User Persona:** Mark Rodriguez
- **Feature:** Item Details
- **Need:** Obtain comprehensive information about an item before making a purchase decision.
- **Context:** The user needs to ensure the item meets his requirements and assess the credibility of the seller.

#### *Task 9. Bidding Option*

- **Scenario:** Sarah Thompson finds a vintage coffee table with a bidding option and decides to place a bid, hoping to get it at a lower price.
- **User Persona:** Sarah Thompson
- **Feature:** Bidding Option
- **Need:** Participate in auctions to potentially buy items at a lower price.
- **Context:** The user engages in bidding to get the best possible deal on items of interest.

#### *Task 10. Cart*

- **Scenario:** Mark Rodriguez adds several used laptops to his cart as he shops on EcoMart, preparing to check out in one transaction.
- **User Persona:** Mark Rodriguez
- **Feature:** Cart
- **Need:** Collect multiple items for a single purchase transaction.
- **Context:** The user accumulates items to buy them all at once, streamlining the purchasing process.

#### *Task 11. Shipping Details Form*

- **Scenario:** Sarah Thompson completes a purchase and fills out the shipping details form to have her items delivered to her new apartment.
- **User Persona:** Sarah Thompson
- **Feature:** Shipping Details Form
- **Need:** Provide necessary information for item delivery.
- **Context:** The user ensures her purchased items are shipped to the correct address, facilitating smooth delivery.

*Task 12. User Rating*

- **Scenario:** Mark Rodriguez receives a rating from a buyer after selling a refurbished smartphone, which helps build his reputation on EcoMart.
- **User Persona:** Mark Rodriguez
- **Feature:** User Rating
- **Need:** Receive feedback from buyers to build credibility and trust.
- **Context:** The user relies on ratings to enhance his profile and attract more buyers.

## A1.3 Sitemapping

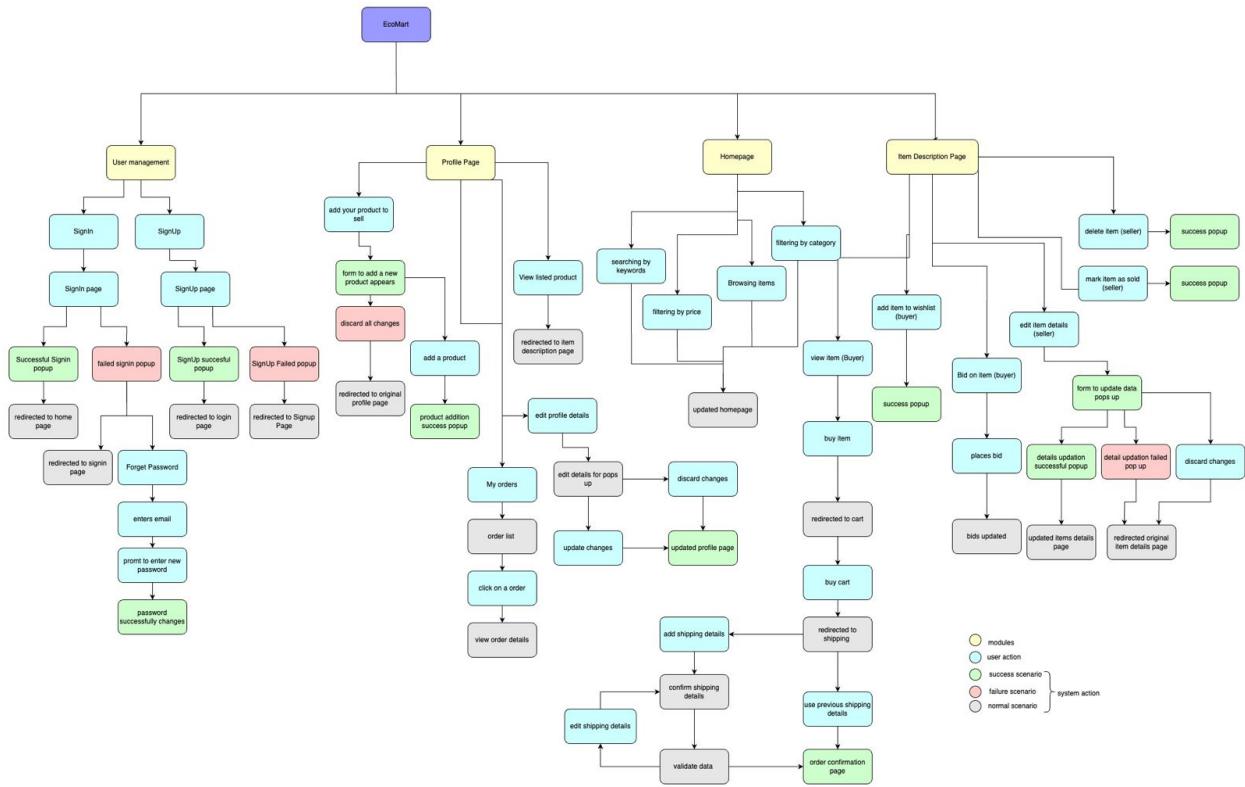


Figure 3: Site Map for Ecomart [7]

## A1.4 Use Cases

### Features Chosen by each member

1. **User Management:** Princess
2. **Home Page:** Kshitijkumar
3. **User Profile Page:** Tejaswiniben
4. **Seller Form:** Nisarg
5. **Item Details:** Khyati
6. **Shipping Details Form:** Chinmaya

### Use Cases For each feature

#### User Management

##### **Task 1: New Customer Signup at Eco-Mart**

Scenario 1: Sarah Thompson, a 28-year-old graphic designer from New York City, is browsing the internet during her lunch break and discovers Eco-Mart. She decides to sign up as a new user because she values convenience and efficiency in her shopping experiences. Sarah needs a convenient and efficient way to create an account on Eco-Mart to buy and sell high-quality used home decor items.

##### **Use Case 1:**

1. User visits Eco-Mart homepage.
2. User clicks on the "Sign Up" button as the user doesn't have an account.
3. System displays the signup form, requesting user's name, email, password, and phone number.
4. User fills in their details: name, email, password, and phone number.
5. User clicks on the "Create Account" button.
6. System validates the input fields.
  - 6.1 System checks the input data and identifies that the entered email is incorrect.
    - 6.1.1 System prompts the user that the email is incorrect and asks to enter a valid email address.
    - 6.1.2 User enters a valid email address and clicks "Create Account" again.
  - 6.2 System checks if the email is already registered.
    - 6.2.1 System identifies that the email is already registered.
    - 6.2.2 System prompts the user that the email is already in use and offers a "Forgot Password" option.

6.2.3 User enters a different email address and clicks "Create Account" again.

6.3 System validates the password and identifies that it does not meet security requirements.

6.3.1 System prompts the user to choose a stronger password following specified guidelines.

6.3.2 User enters a stronger password and clicks "Create Account" again.

7. System sends a confirmation email to the new email address.
8. User receives the confirmation email and clicks the verification link.
9. System verifies the confirmation link and activates the user's account.
10. System automatically logs the user in.
11. System redirects the user to the Eco-Mart homepage.
12. User starts to look for items on Eco-Mart.

## **Task 2: Existing Customer Login into Eco-Mart**

Scenario 2: Sarah Thompson, a 28-year-old graphic designer from New York City, is redecorating her apartment and seeks high-quality used home decor items. Being environmentally conscious, she prefers shopping at Eco-Mart for sustainable options. As she navigates to the Eco-Mart website, she realizes she needs to log into her account to access her saved preferences and previous transactions for a seamless shopping experience.

### **Use Case 2:**

1. User opens a browser and navigates to the Eco-Mart website.
2. System displays the Eco-Mart login page.
3. User enters their registered email address and password, then presses the enter key.
4. System authenticates the user's login information.
  - 4.1 System displays an "incorrect email/password" message.
  - 4.2 System prompts the user to try again.
    - 4.2.1 User re-enters their email and password, then presses the enter key.
  - 4.3 System prompts the user to reset their password and asks for their registered email address.
    - 4.3.1 User enters the email address and presses the enter key.
    - 4.3.2 System prompts user that password reset instructions sent to provided email address.
    - 4.3.3 User checks the mail and follows instructions to reset password.

4.3.6 System updates the user's password and redirects them to the login page.

5. System displays the user's Eco-Mart account dashboard.
6. User begins browsing Eco-Mart's products and services.

### **Task 3: Existing Customer Forgets Password**

Scenario 3: Sarah Thompson, a 28-year-old graphic designer from New York City, is redecorating her apartment and seeks high-quality used home decor items. Being environmentally conscious, she prefers shopping at Eco-Mart for sustainable options. As she navigates to the Eco-Mart website, she realizes she needs to log into her account to access her saved preferences and previous transactions for a seamless shopping experience.

However, as she tries to log in, Sarah realizes she has forgotten her password. Determined to continue her shopping, she clicks on the "Forgot Password" link, hoping to quickly reset her password and get back to her task.

#### **Use Case 3:**

1. User opens a browser and navigates to the Eco-Mart website.
2. System displays the Eco-Mart login page.
3. User enters their registered email address and password, then presses the enter key.
4. System authenticates the user's login information.
  - 4.1 System displays an "incorrect email/password" message.
  - 4.2 System prompts the user to try again.
5. User clicks on Forgot Password link.
6. System displays forgot password page asking user to enter email and send link button.
7. User enters email address and press "send link" button.
8. System prompts that password reset instructions sent successfully.
9. User checks the mail and follows instructions carefully.
10. User able to login with new password.

## **Home Page**

### **Task 1: Filtering Items by Category**

Scenario

Sarah Thompson, a busy graphic designer in New York City, wants to quickly find stylish used furniture for her new apartment. She is visiting the homepage of the website to filter items by category, specifically looking for home decor and furniture.

**Application:** Used Products Marketplace

**User Persona:** Sarah Thompson

**Goal:** To find stylish used furniture for her new apartment.

**Task:** Filter items by category to find furniture.

### **Use Case: Filtering by Category**

1. User visits the EcoMart homepage. **[user action]**
2. System displays the homepage with various product categories and a search bar. **[system action]**
3. User clicks on the 'Furniture' category link. **[user action]**
4. System filters the displayed items to show only those listed under 'Furniture'. **[system action]**
  - a. System encounters an error while filtering items. **[system action]**
    - i. System displays an error message: "Unable to filter items at this time. Please try again later." **[system action]**
    - ii. User decides to use the search bar to manually search for 'furniture'. **[user action]**
    - iii. User enters 'furniture' into the search bar and clicks the search icon. **[user action]**
    - iv. System displays search results for 'furniture'. **[system action]**
  5. User browses the filtered list of furniture items. **[user action]**
    - a. User browses the search results for furniture items. **[user action]**
  6. System displays detailed listings for furniture, including images, descriptions, and prices. **[system action]**
    - a. System displays detailed listings for furniture, including images, descriptions, and prices. **[system action]**

## **Task 2: Filtering Items by Price Range**

### **Scenario**

Sarah Thompson is also conscious of her budget while shopping for used items. She wants to filter the furniture items by price range to find affordable options that fit within her budget.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To find affordable used furniture that fits her budget.

**Task:** Filter items by price range.

### **Use Case: Filtering by Price Range**

1. User visits the EcoMart homepage. **[user action]**
2. System displays the homepage with various product categories and a search bar. **[system action]**
3. User clicks on the 'Furniture' category link. **[user action]**
4. System filters the displayed items to show only those listed under 'Furniture.' **[system action]**
5. User selects the price filter option and sets a price range (e.g., \$50 - \$200). **[user action]**
6. System filters the furniture items to show only those within the selected price range. **[system action]**
  - a. System encounters an error while filtering items by price. **[system action]**
    - i. System displays an error message: "Unable to filter items by price at this time. Please try again later." **[system action]**
    - ii. User decides to manually sort the displayed furniture items by price. **[user action]**
    - iii. User uses the sorting option to sort furniture items from lowest to highest price. **[user action]**
    - iv. System sorts the furniture items accordingly. **[system action]**
7. User browses the filtered list of affordable furniture items. **[user action]**
  - a. User browses the sorted list of affordable furniture items. **[user action]**
8. System displays detailed listings for furniture within the specified price range, including images, descriptions, and prices. **[system action]**
  - a. System displays detailed listings for furniture, including images, descriptions, and prices. **[system action]**

## **Task 3: Browse Featured Items**

## Scenario

Sarah Thompson visits the EcoMart homepage and wants to browse the featured items to see if there's anything interesting that catches her eye.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To browse the featured items available on EcoMart.

**Task:** Browse featured items.

### Use Case: Browsing Featured Items

1. User visits the EcoMart homepage. [user action]
2. System displays the homepage with a section for featured items. [system action]
3. User scrolls through the featured items section. [user action]
4. System loads additional featured items as the user scrolls. [system action]
  - a. System encounters an error while loading additional featured items. [system action]
  - b. User decides to refresh the homepage. [user action]
  - c. System reloads the homepage with featured items. [system action]
  - d. User scrolls through the featured items section again. [user action]
  - e. System successfully loads additional featured items. [system action]
5. User clicks on an item of interest. [user action]
6. System displays the item details page, including images, description, price, and purchase options. [system action]

### Task 4: Search for Specific Items

## Scenario

Sarah Thompson knows exactly what she wants to buy and decides to use the search bar on the homepage to find it.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To find a specific item using the search function.

**Task :** Search for specific items.

### Use Case: Searching for Specific Items

1. User visits the EcoMart homepage. [user action]
2. System displays the homepage with a search bar at the top. [system action]
3. User enters keywords related to the desired item (e.g., "wooden coffee table") into the search bar. [user action]
4. User clicks the search icon or presses Enter. [user action]

5. System processes the search query and retrieves matching items from the database. [system action]
  - a. System encounters an error while processing the search query. [system action]
    - i. System displays an error message: "Unable to process your search at this time. Please try again later." [system action]
6. System displays search results matching the entered keywords, including images, descriptions, and prices. [system action]
  - a. System displays search results matching the entered keywords, including images, descriptions, and prices. [system action]
7. User browses the search results. [user action]
8. User clicks on an item of interest. [user action]
9. System displays the item details page, including images, description, price, and purchase options. [system action]

## User Profile Page

Task 1: Editing Personal Information

Scenario: Updating Contact Details

Application: E-commerce Platform

Goal: To update personal contact details accurately.

Task: Edit contact details in the "My Profile" section.

1. User visits the "My Profile" page. [user action]
2. System displays the "My Profile" page with current contact details in editable fields. [system action]
3. User updates the contact information in the fields for First Name, Last Name, Email, and Phone Number. [user action]
4. User clicks "Save Changes". [user action]
  - System encounters an error while saving changes. [system action]
  - System displays an error message: "Unable to save changes at this time. Please try again later." [system action]
  - User decides to refresh the page and try editing again. [user action]
  - User refreshes the page and repeats steps 3-4. [user action]
5. System successfully saves the updated contact details. [system action]
6. User sees a confirmation message: "Your contact details have been updated successfully." [system action]

Task 2: Managing Address

Scenario: Editing Address

Application: E-commerce Platform

Goal: To ensure accurate and current address information.

Task: Edit the address in the "My Profile" section.

1. User visits the "My Profile" page. [user action]
2. System displays the "My Profile" page with the current address in editable fields. [system action]
3. User updates the address information in the fields for Street Address, Apt/Suit/Unit, City, State/Province, Postal Code, and Country. [user action]
4. User clicks "Save Changes". [user action]
  - System encounters an error while saving changes. [system action]
  - System displays an error message: "Unable to save changes at this time. Please try again later." [system action]
    - User decides to refresh the page and try editing again. [user action]
    - User refreshes the page and repeats steps 3-4. [user action]
5. System successfully saves the updated address information. [system action]
6. User sees a confirmation message: "Your address details have been updated successfully." [system action]

### Task 3: Viewing and Managing Orders

Scenario: Viewing Order History

Application: E-commerce Platform

Goal: To view and manage past orders efficiently.

Task: Access and manage orders in the "My Profile" section.

1. User visits the "My Profile" page. [user action]
2. System displays the "My Profile" page with options for managing personal information, address, and orders. [system action]
3. User clicks on the "Orders" section. [user action]
4. System displays a list of past orders, each with an order date, order number, product name, total amount, and a "Write Seller Review" button. [system action]
  - System encounters an error while loading orders. [system action]
  - System displays an error message: "Unable to load orders at this time. Please try again later." [system action]
    - User decides to refresh the page and try accessing orders again. [user action]
    - User refreshes the page and repeats steps 3-4. [user action]
5. User clicks the "Write Seller Review" button to leave feedback for the product. [user action]
6. System displays a form for writing the review and submits it successfully. [system action]

## Seller Form

### **Task 1: Filling Out the Seller Form to List a Product**

Scenario - 1:

Mark Rodriguez wants to sell a refurbished smartphone on EcoMart. He needs to fill out the seller form with details about the smartphone to list it for sale.

#### **Use Case - 1:**

1. Mark logs into his EcoMart account.
2. As mark wants to sell a product, he navigates to the "Sell Your Product" button.
3. Upon clicking the button, the system displays the seller form requesting product details.
4. Mark fills in the following details:
  - a. Product name: "*Refurbished Samsung Galaxy S10*"
  - b. Description: "*A fully functional Samsung Galaxy S10 with minor scratches on the screen.*"
  - c. Category: "*Electronics*"
  - d. Condition: "*Refurbished*"
  - e. Price: "*\$300*"
  - f. Mark uploads high-quality images of the smartphone.
5. He clicks the "Submit" button.
6. The system validates the input fields.
  - 6.1 System encounters that, Mark forgets to add the price field.
    - 6.1.1 The system prompts Mark to complete the price field.
    - 6.1.2 Mark enters the price of the product.
- 7 Once all fields are validated, the system confirms the listing.
- 8 Mark receives a confirmation email that his product is now listed on EcoMart.
- 9 The system redirects Mark to his seller dashboard where he can view and manage his listings.

### **Task 2: Editing a Product Listing**

Scenario - 2:

Mark Rodriguez realizes he needs to update the price and description of the refurbished smartphone he listed on EcoMart. He decides to edit the product details using the seller form.

#### **Use Case 2:**

1. Mark logs into his EcoMart account.
2. He navigates to the "My Listings" section.
3. The system displays a list of his current product listings. If he hasn't posted any products, the page will show message "*No Products to Sell*".
4. Mark selects the desired listing that he wants to edit.

5. The system displays the seller form with the current details of the product.
6. Mark updates the desired details as follow:
  - a. Description: "*A fully functional Samsung Galaxy S10 with minor scratches on the screen. Comes with a charger.*" (**Added charger**)
  - b. Price: "\$280" (**Changed**)
  - c. He clicks the "Update" button.
7. The system validates the input fields.
  - 7.1 System encounters that, Mark forgets to add the price field.
    - 7.1.1 The system prompts Mark to complete the price field.
    - 7.1.2 Mark enters the price of the product.
8. Once all fields are validated, the system confirms the updated listing.
9. Mark receives a confirmation email that his product details have been updated.
10. The system redirects Mark to his seller dashboard where he can view the updated listing.

## Item Details Page

### Task 1: Buy a Product

#### Scenario:

Mark Rodriguez decides to purchase the vintage laptop he added to his wishlist earlier. He wants to buy it immediately to ensure it doesn't get sold to someone else.

#### Task Flow:

1. **User Action:** Mark clicks on the 'Buy' button on the item description page.
2. **System Response:** The system redirects Mark to the cart page where he can review the item.
3. **System Response:** The system allows Mark to proceed with the checkout process.

#### Use Case:

#### Normal Flow:

1. **User Action:** Mark clicks the 'Buy' button.
2. **System Action:** The system redirects Mark to the cart page with the selected item.
3. **System Action:** Mark reviews the item and proceeds to checkout.
4. **System Action:** The system processes the payment and confirms the purchase.

#### Alternate Flow:

1. **User Action:** Mark clicks the 'Buy' button.
2. **System Action:** error popup occurs.
3. **System Action:** redirected to updated product details page.

### Task 2: Add a Product to Wishlist

#### Scenario:

Mark Rodriguez, a small business owner, is browsing the marketplace to find affordable used electronics. He comes across a vintage laptop that catches his eye and wants to add it to his wishlist for future reference.

#### **Task Flow:**

1. **User Action:** Mark clicks on the 'Add to Wishlist' button on the item description page.
2. **System Response:** The system adds the item to Mark's wishlist.
3. **System Response:** A popup message appears saying "Item added to wishlist successfully."

#### **Use Case:**

##### **Normal Flow:**

1. **User Action:** Mark clicks the 'Add to Wishlist' button.
2. **System Action:** The system adds the item to Mark's wishlist.
3. **System Action:** The system displays a confirmation popup "Item added to wishlist successfully."

##### **Alternate Flow:**

1. **User Action:** Mark clicks the 'Add to Wishlist' button.
2. **System Action:** error occurred (item deleted by seller)
3. **System Action:** prompts the error and redirects to previous page

## **Task 3: Seller Editing Description**

#### **Tasks:**

4. Navigate to item listing.
5. Edit item description.
6. Save changes.

#### **Scenario:**

Mark Rodriguez, after posting an item for sale, realizes he left out important details. He needs to edit the item description to provide complete information.

#### **Use Case:**

##### **Main Success Scenario:**

1. Seller navigates to their item listing.
2. System displays the current item description page.
3. Seller clicks the edit button.
4. Seller updates the description.
5. System saves the changes and reflects them on the item description page.

##### **Alternate Flow:**

- If the seller tries to save incomplete information, the system prompts them to complete all required fields.

## **Task 4: Buyer bids on an Item (Applicable if Bidding Option is enabled)**

**Tasks:**

1. View item with bidding option.
2. Place a bid.
3. Monitor the bidding status.

**Scenario:**

Mark Rodriguez finds an item with a bidding option. He wants to place a bid to potentially purchase the item at a good price.

**Use Case:****Main Success Scenario:**

1. Buyer views an item with a bidding option.
2. System displays the starting bid, bidding increments, and auction end time.
3. Buyer places a bid within the allowed increments.
4. System validates the bid and updates the current bid amount.
5. System notifies the seller and outbid buyers.
6. Buyer continues bidding or waits for the auction to end.

**Task 5: Seller Wants to Delete an Item****Scenario:**

Mark Rodriguez, the owner of an electronics repair shop, realizes that one of the vintage laptops he listed for sale is no longer available. He needs to delete the item from his listings to avoid confusion among potential buyers.

**Task Flow:**

1. User Action: Mark navigates to the seller's item description page.
2. User Action: Mark clicks on the 'Delete Item' button.
3. System Response: The system prompts Mark to confirm the deletion.
4. User Action: Mark confirms the deletion.
5. System Response: The system deletes the item from the listings.
6. System Response: A confirmation message appears stating "Item deleted successfully."

**Use Case:****Normal Flow:**

1. User Action: Mark clicks the 'Delete Item' button.
2. System Action: The system prompts Mark to confirm the deletion.
3. User Action: Mark confirms the deletion.
4. System Action: The system deletes the item from the listings.
5. System Action: The system displays a confirmation message "Item deleted successfully."

**Alternate Flow:**

1. User Action: Mark clicks the 'Delete Item' button.
2. System Action: The system detects an issue (e.g., network error).
3. System Action: The system displays an error message "Failed to delete item. Please try again."

4. User Action: Mark tries to delete the item again.

### **Task 6: Seller Wants to Mark an Item as Sold**

#### **Scenario:**

Mark Rodriguez successfully sells a vintage laptop through another channel. He wants to mark the item as sold on his online listings to inform potential buyers that it is no longer available.

#### **Task Flow:**

1. User Action: Mark navigates to the seller's item description page.
2. User Action: Mark clicks on the 'Mark Item as Sold' button.
3. System Response: The system prompts Mark to confirm this action.
4. User Action: Mark confirms the action.
5. System Response: The system updates the item status to 'Sold'.
6. System Response: A confirmation message appears stating "Item marked as sold successfully."

#### **Use Case:**

#### **Normal Flow:**

1. User Action: Mark clicks the 'Mark Item as Sold' button.
2. System Action: The system prompts Mark to confirm the action.
3. User Action: Mark confirms the action.
4. System Action: The system updates the item status to 'Sold'.
5. System Action: The system displays a confirmation message "Item marked as sold successfully."

#### **Alternate Flow:**

1. User Action: Mark clicks the 'Mark Item as Sold' button.
2. System Action: The system detects an issue (e.g., network error).
3. System Action: The system displays an error message "Failed to mark item as sold. Please try again."
4. User Action: Mark tries to mark the item as sold again.

## **Shipping Details Form**

### **Task 1: Entering Shipping Information**

#### **Scenario**

Sarah Thompson, a busy graphic designer in New York City, needs to quickly and accurately input her shipping details when purchasing items from an e-commerce platform. She is visiting the checkout page to enter her contact and shipping details.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To enter her shipping details efficiently and accurately.

**Task:** Enter and validate shipping details.

### **Use Case: Entering Shipping Information**

1. **User navigates to the checkout page.** [user action]
  - **System displays the checkout page with a form to enter shipping details.** [system action]
2. **User enters their full name in the shipping details form.** [user action]
  - **System validates the full name field.** [system action]
  - **System displays an error message below the full name input field if validation fails.** [system action]
3. **User enters their street address.** [user action]
  - **System validates the street address field.** [system action]
  - **System displays an error message below the street address input field if validation fails.** [system action]
4. **User enters their apartment/suite/unit (optional).** [user action]
  - **System validates the apartment/suite/unit field.** [system action]
  - **System displays an error message below the apartment/suite/unit input field if validation fails.** [system action]
5. **User enters their city.** [user action]
  - **System validates the city field.** [system action]
  - **System displays an error message below the city input field if validation fails.** [system action]
6. **User selects their state/province/region from a dropdown.** [user action]
  - **System validates the state/province/region selection.** [system action]
  - **System displays an error message below the dropdown if validation fails.** [system action]
7. **User enters their postal/ZIP code.** [user action]
  - **System validates the postal/ZIP code field.** [system action]
  - **System displays an error message below the postal/ZIP code input field if validation fails.** [system action]
8. **User selects their country from a dropdown.** [user action]

- **System validates the country selection.** [system action]
  - **System displays an error message below the dropdown if validation fails.** [system action]
9. **User enters their phone number.** [user action]
- **System validates the phone number field.** [system action]
  - **System displays an error message below the phone number input field if validation fails.** [system action]
10. **User submits the form.** [user action]
- **System performs server-side validation on the submitted data.** [system action]
  - **System provides suggestions or corrections if the address validation fails.** [system action]
  - **User corrects any errors and resubmits the form.** [user action]
11. **System stores the validated shipping information.** [system action]
12. **User proceeds to the next step.** [user action]
- **System displays the next step in the checkout process.** [system action]

## **Task 2: Address Validation**

### **Scenario**

Sarah Thompson, after entering her shipping details, needs to ensure that the address is valid. The system must validate the address to avoid any delivery issues.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To validate her shipping address to ensure successful delivery.

**Task:** Validate the entered shipping address.

### **Use Case: Address Validation**

1. **User submits the shipping details form.** [user action]
  - **System performs client-side validation on the entered data.** [system action]
2. **Client-side validation checks:**
  - **System checks for required fields, postal/ZIP code format, and phone number format.** [system action]

- **System displays error messages below respective input fields if validation fails.** [system action]
3. **User corrects any errors and resubmits the form.** [user action]
- **System sends the data to the server for server-side validation.** [system action]
4. **Server-side validation:**
- **System uses a third-party API to validate the address.** [system action]
  - **If the address is invalid, the system provides suggestions or corrections.** [system action]
5. **User reviews and accepts suggestions (if any).** [user action]
- **System updates the form with corrected address (if applicable).** [system action]
6. **User resubmits the corrected form (if applicable).** [user action]
- **System stores the validated address information.** [system action]
7. **System confirms successful validation and displays the next step in the checkout process.** [system action]

### **Task 3: Is Billing Address Same as Shipping Address Validation**

Scenario

Sarah Thompson needs to decide if her billing address is the same as her shipping address during the checkout process. If not, she will need to enter her billing address separately.

**Application:** EcoMart

**User Persona:** Sarah Thompson

**Goal:** To confirm if the billing address is the same as the shipping address or to enter a separate billing address.

**Task:** Validate if the billing address is the same as the shipping address or enter a separate billing address.

### **Use Case: Is Billing Address Same as Shipping Address Validation**

1. **User completes the shipping address form.** [user action]
  - **System displays a checkbox asking if the billing address is the same as the shipping address.** [system action]
2. **User selects the checkbox if the billing address is the same.** [user action]

- **System auto-fills the billing address with the shipping address and hides the billing address section.** [system action]
- 3. **If the user does not select the checkbox, the system displays the billing address form.** [system action]
- 4. **User enters billing address details.** [user action]
  - **System validates each field in the billing address form similar to the shipping address form.** [system action]
  - **System displays error messages below respective input fields if validation fails.** [system action]
- 5. **User corrects any errors and resubmits the billing address form.** [user action]
  - **System performs server-side validation on the submitted billing address data.** [system action]
  - **System provides suggestions or corrections if the address validation fails.** [system action]
  - **User reviews and accepts suggestions (if any).** [user action]
  - **User resubmits the corrected billing address form (if applicable).** [user action]
- 6. **System stores the validated billing address information.** [system action]
- 7. **System confirms successful validation and displays the payment page.** [system action]
- 8. **User proceeds to the payment page.** [user action]
  - **System displays the payment options.** [system action]

## A1.5 User Experience and Task Flow

### Task Flow Diagrams

#### User Management

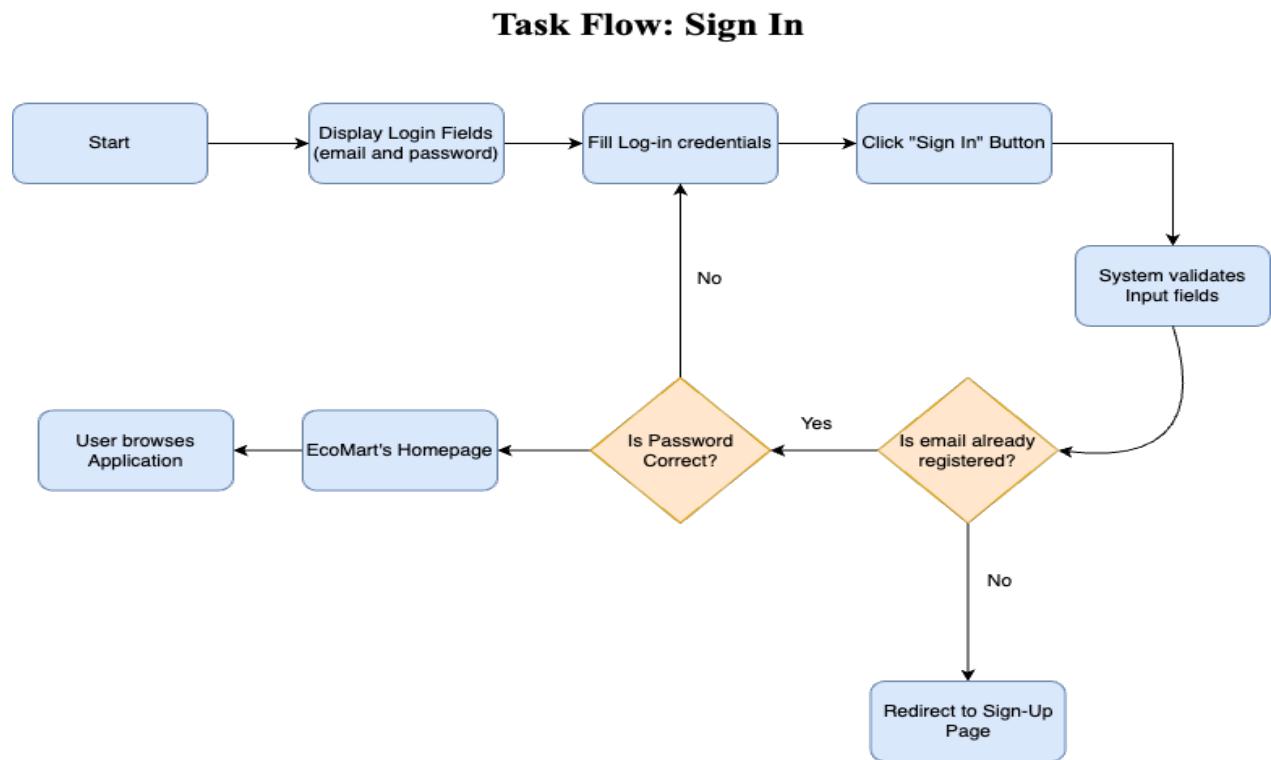


Figure 4: Task Flow for Signin

## Task Flow: Sign Up

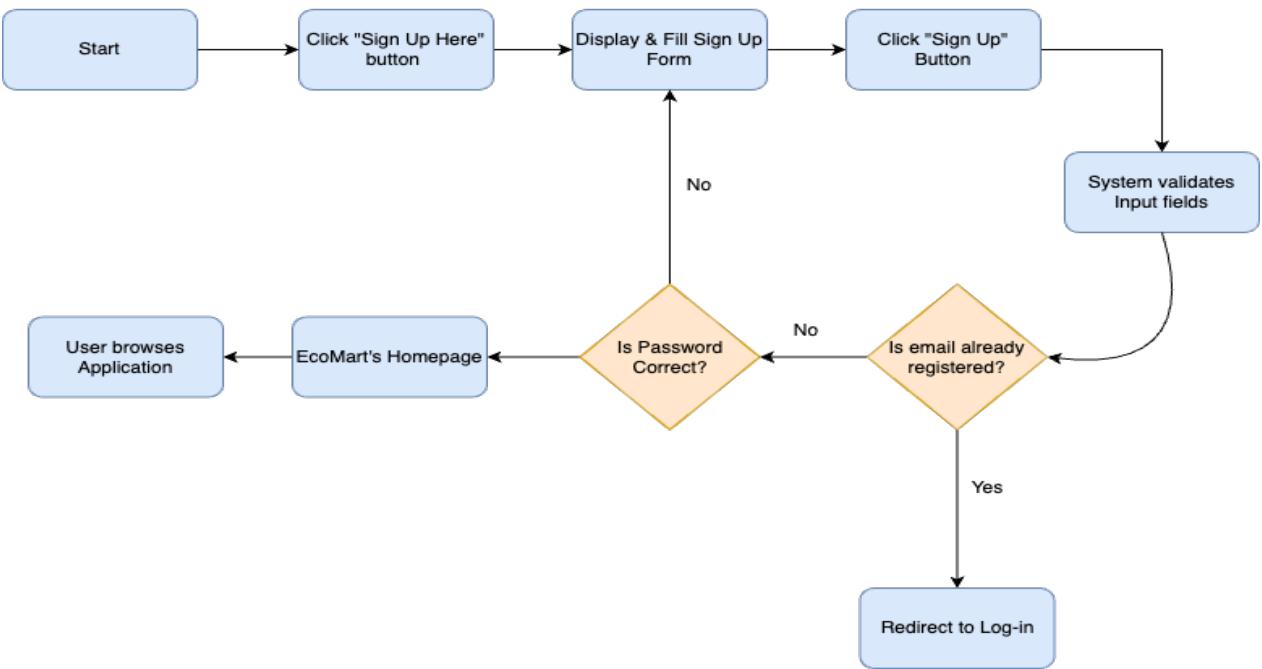


Figure 5: Task Flow for Sign Up

## Task Flow: Forgot Password

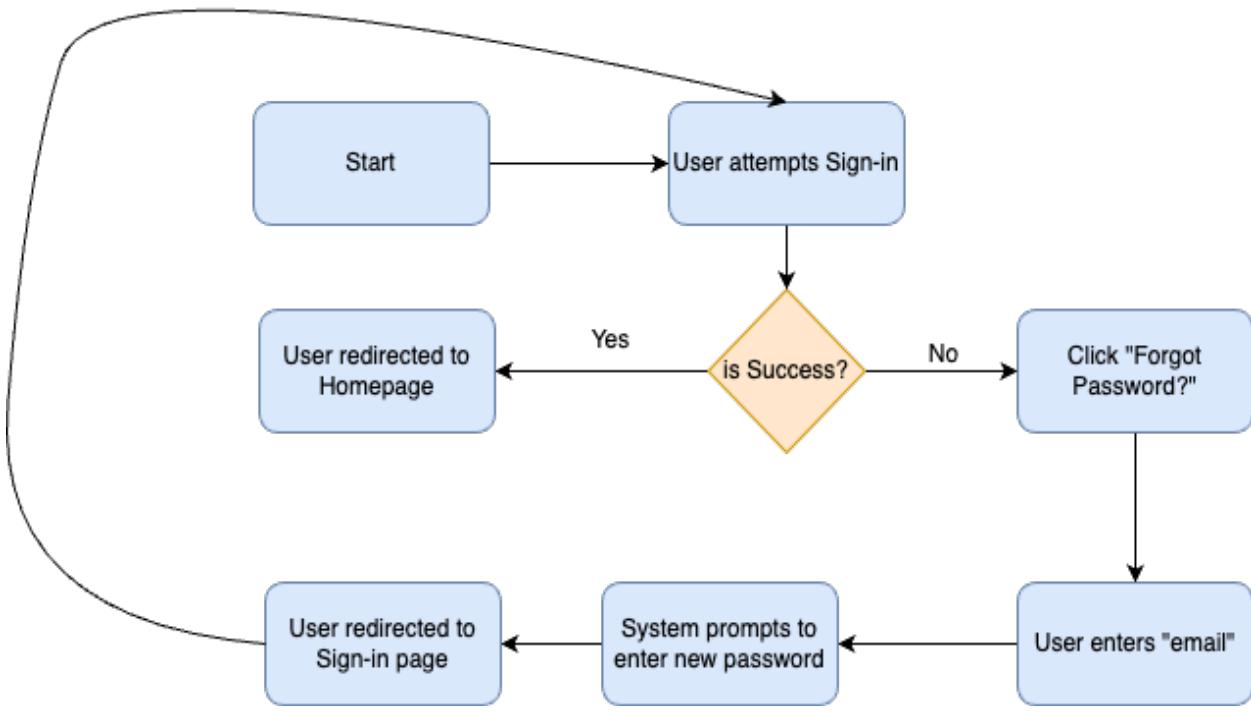


Figure 6: Taskflow for Forgot Password

## Home Page

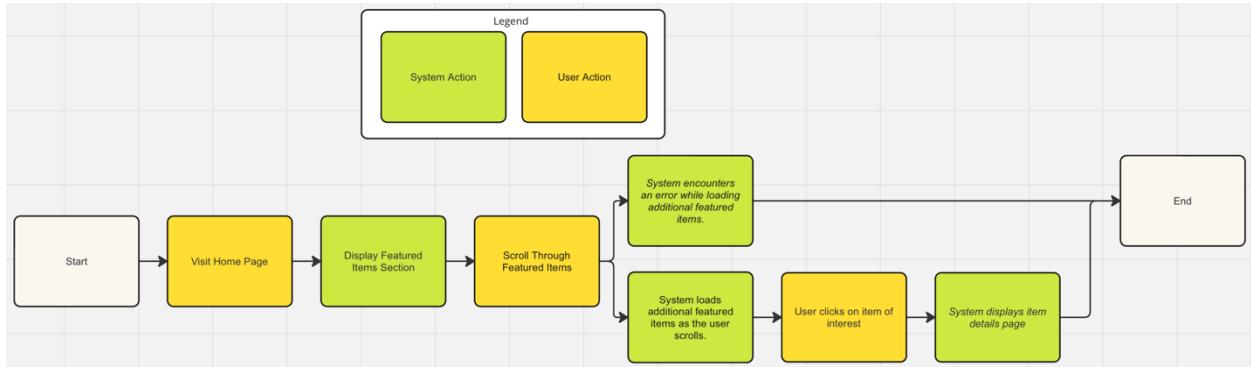


Figure 7: Taskflow for Browse Featured Items

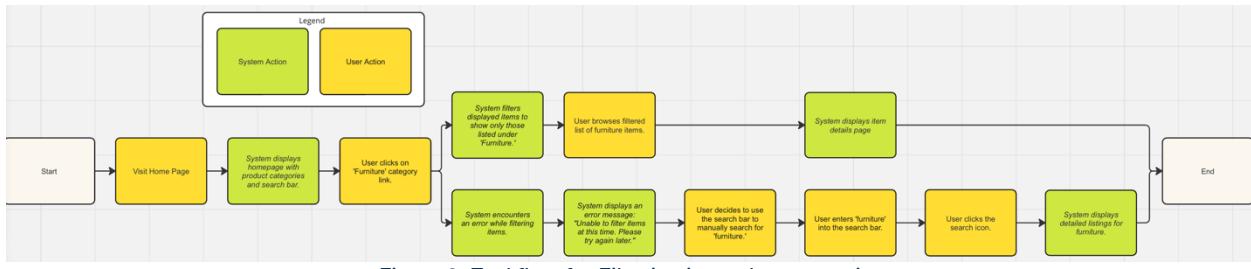


Figure 8: Taskflow for Filtering items by categories

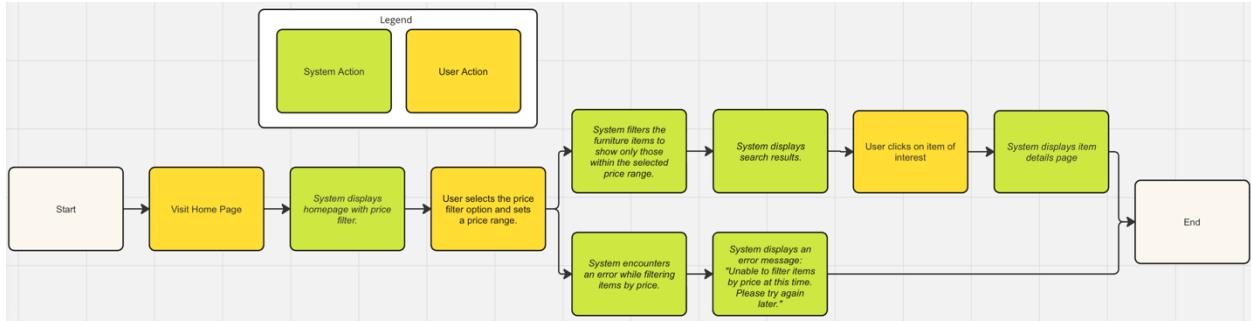


Figure 9: Task flow diagram for filtering Items by Price.

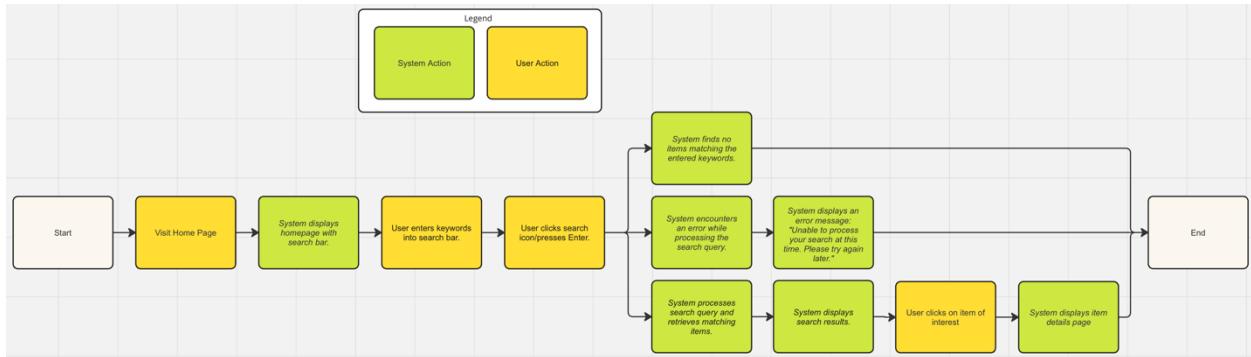


Figure 10: Task flow diagram for searching item

## User Profile Page

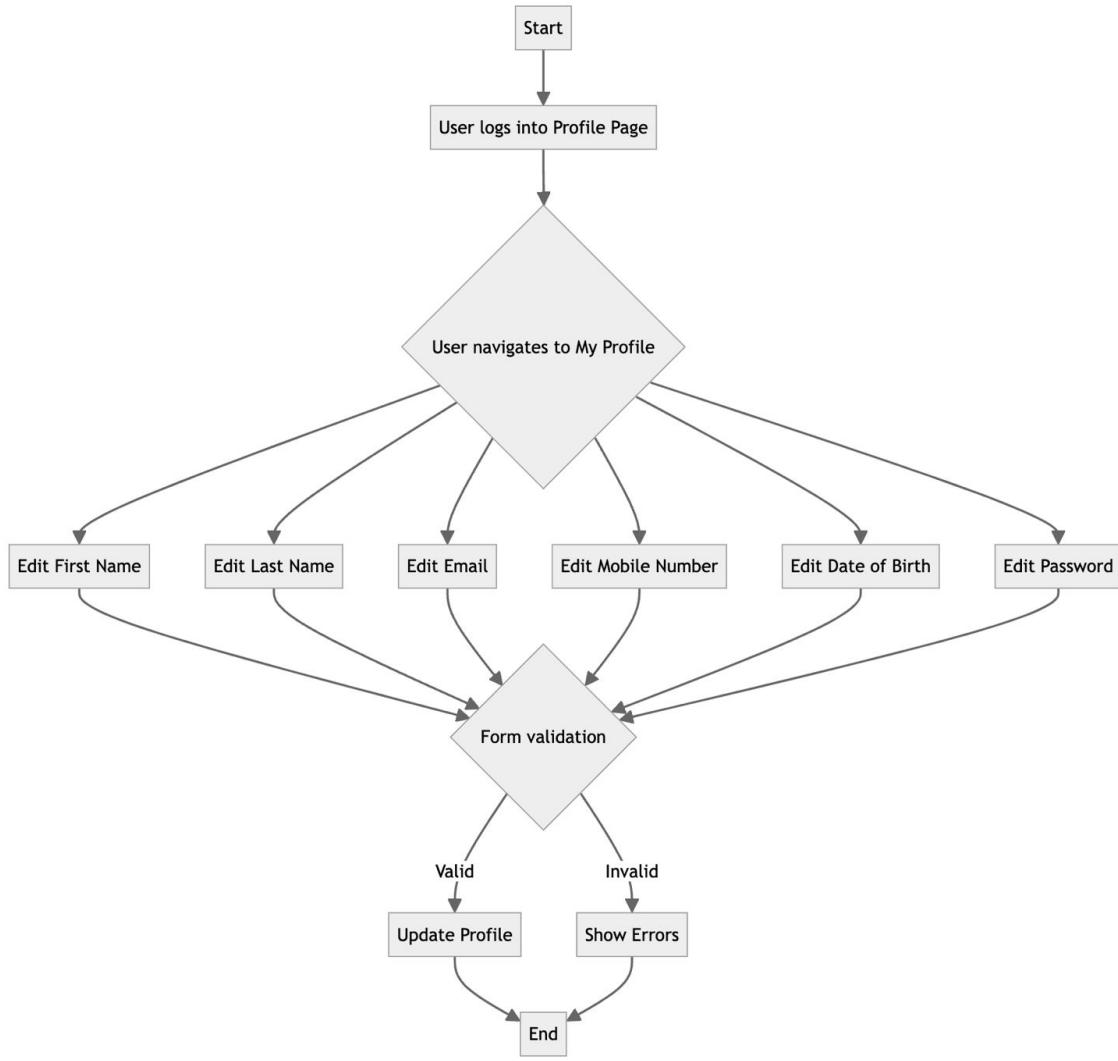


Figure 11: Taskflow diagram of my profile page

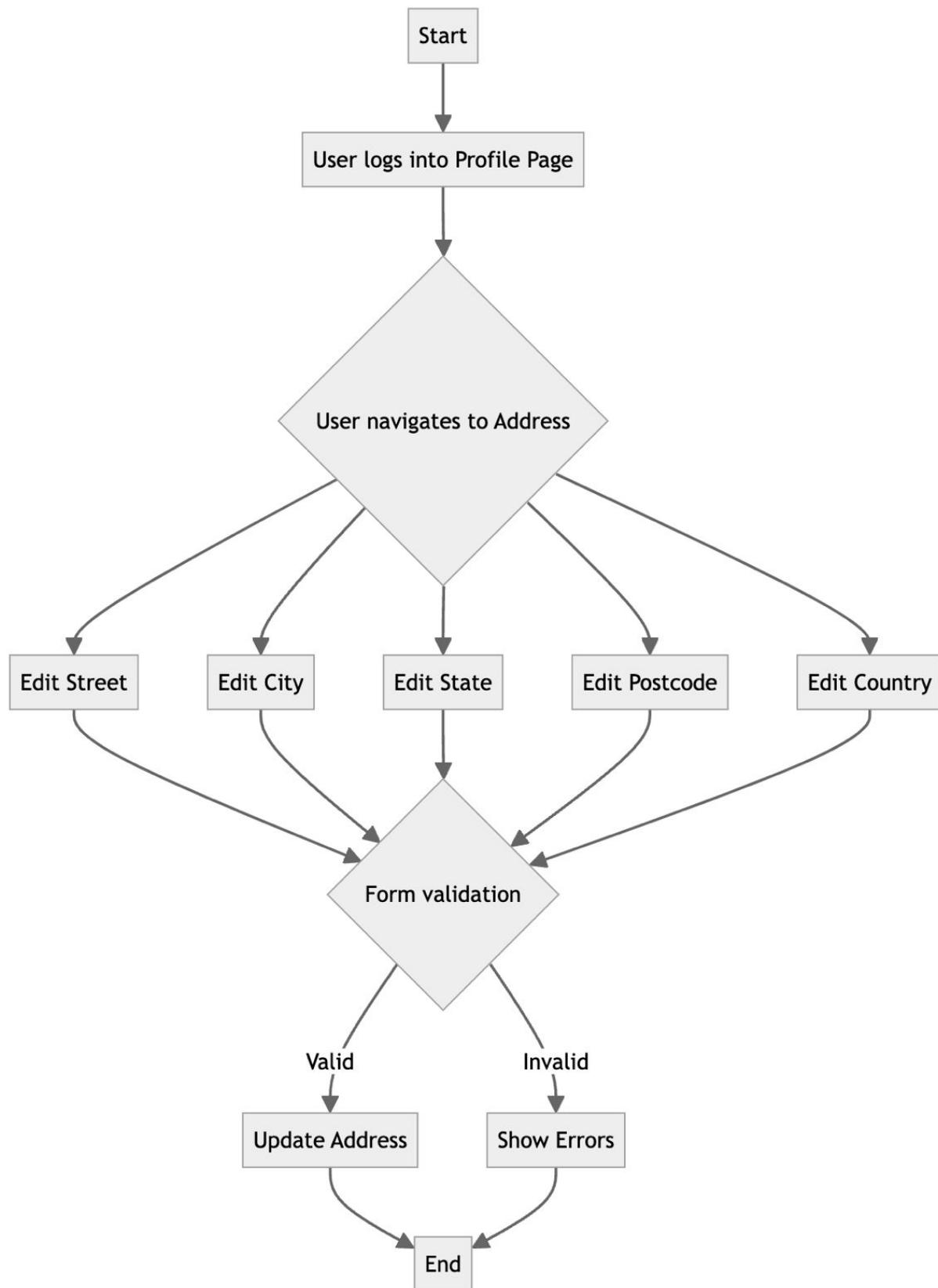


Figure 12: Task flow diagram for Address Page

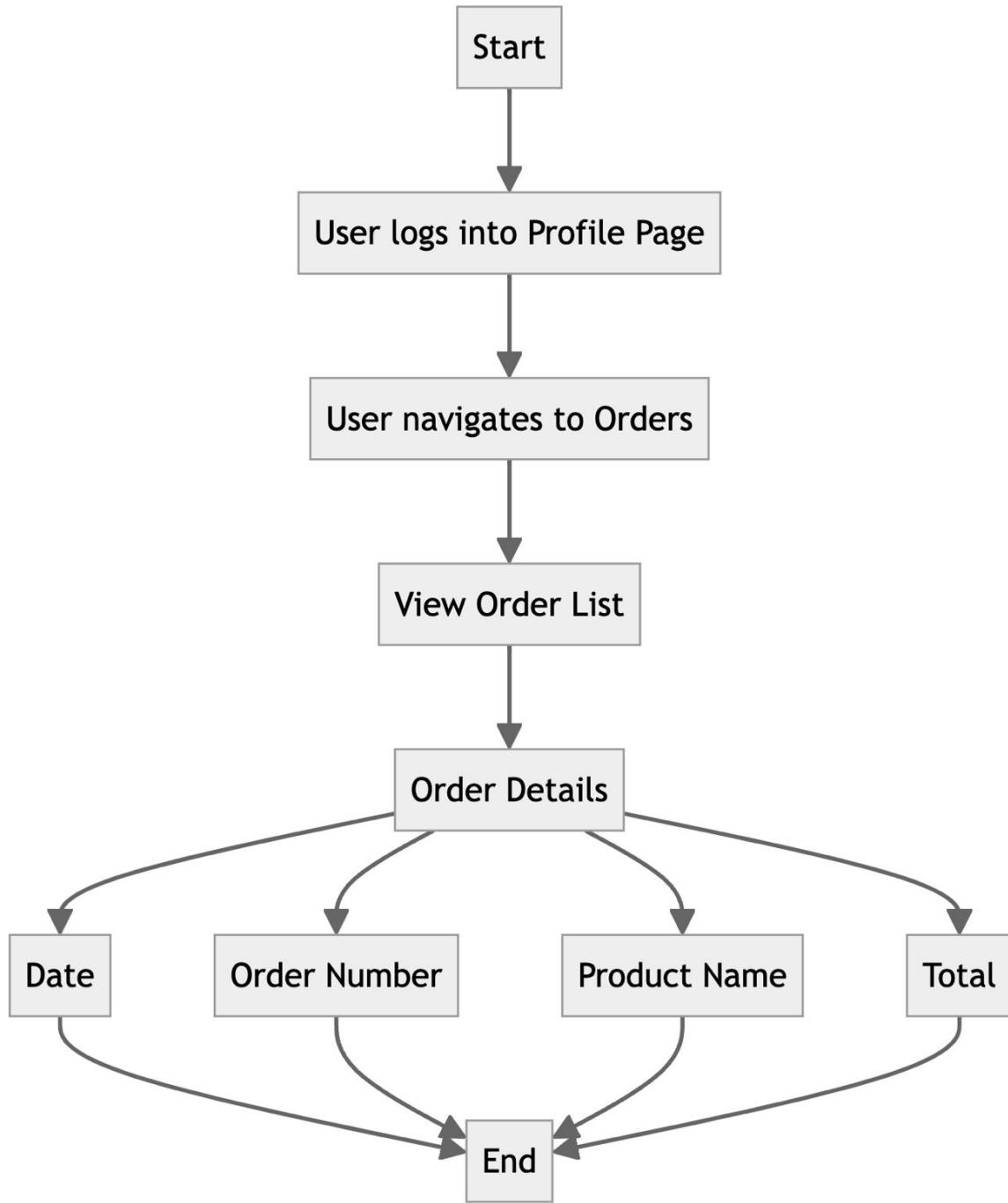


Figure 13: Taskflow diagram of Orders Page

## Seller Form

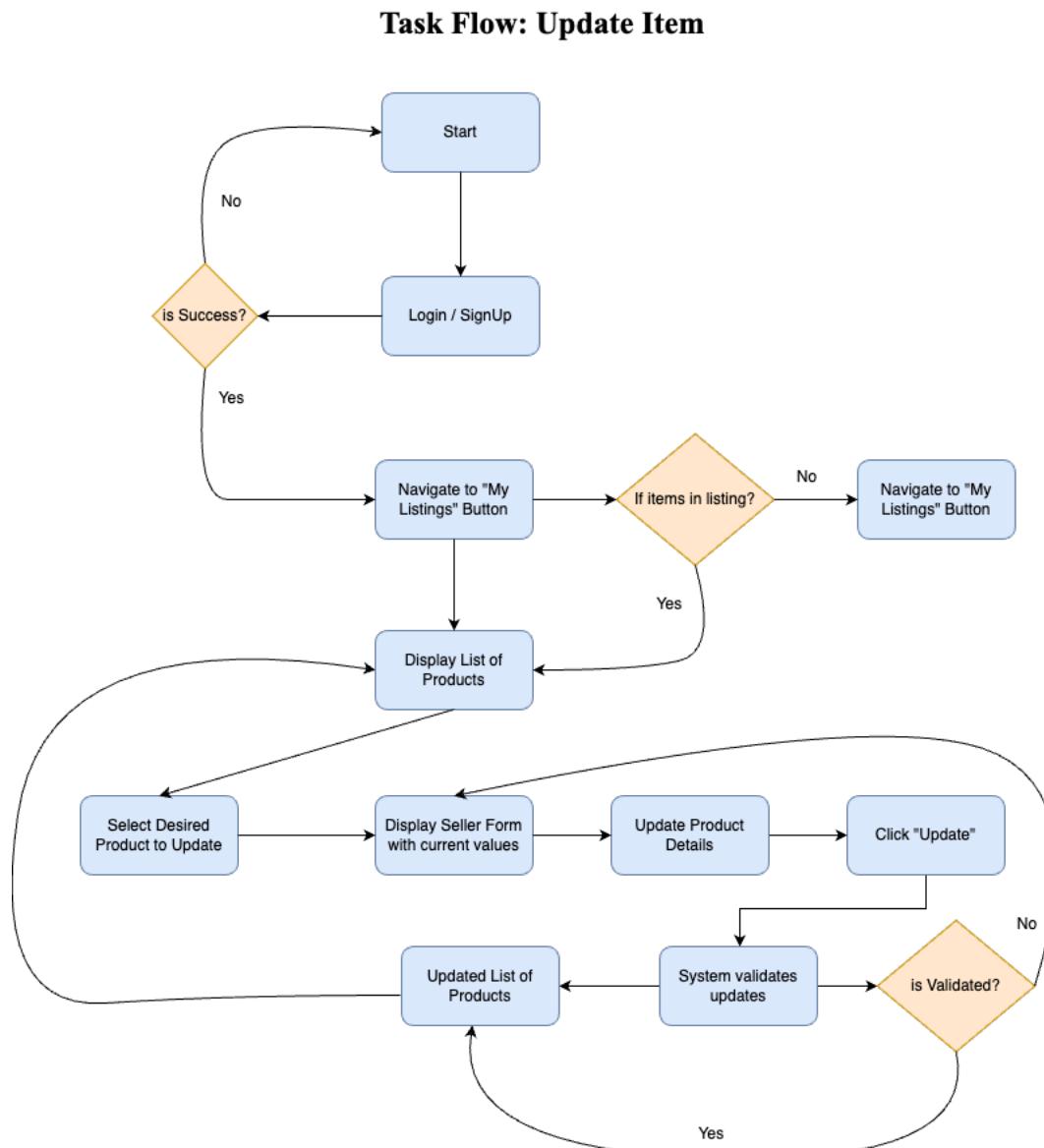


Figure 14: Task flow diagram for updating item.

## Task Flow: Seller Form

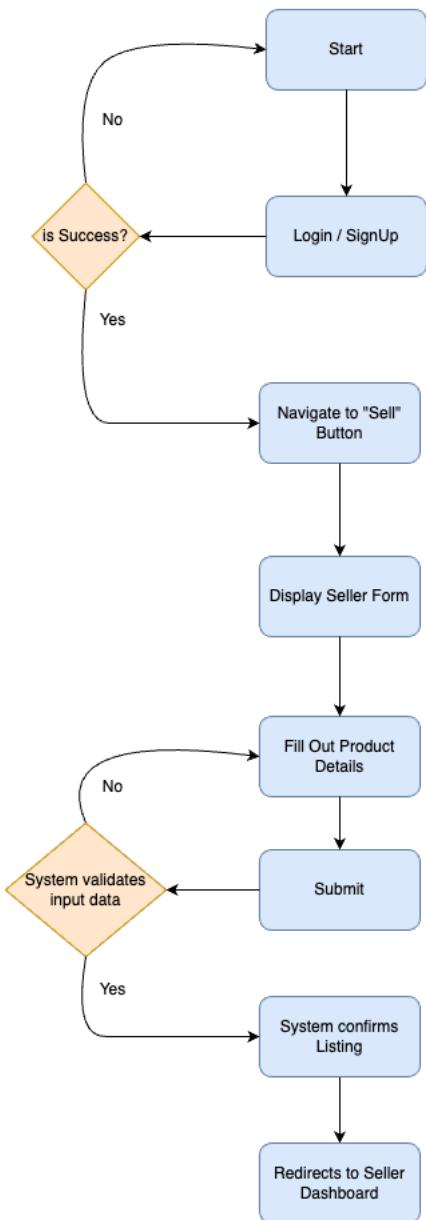


Figure 15: Taskflow diagram for seller page

## Item Details

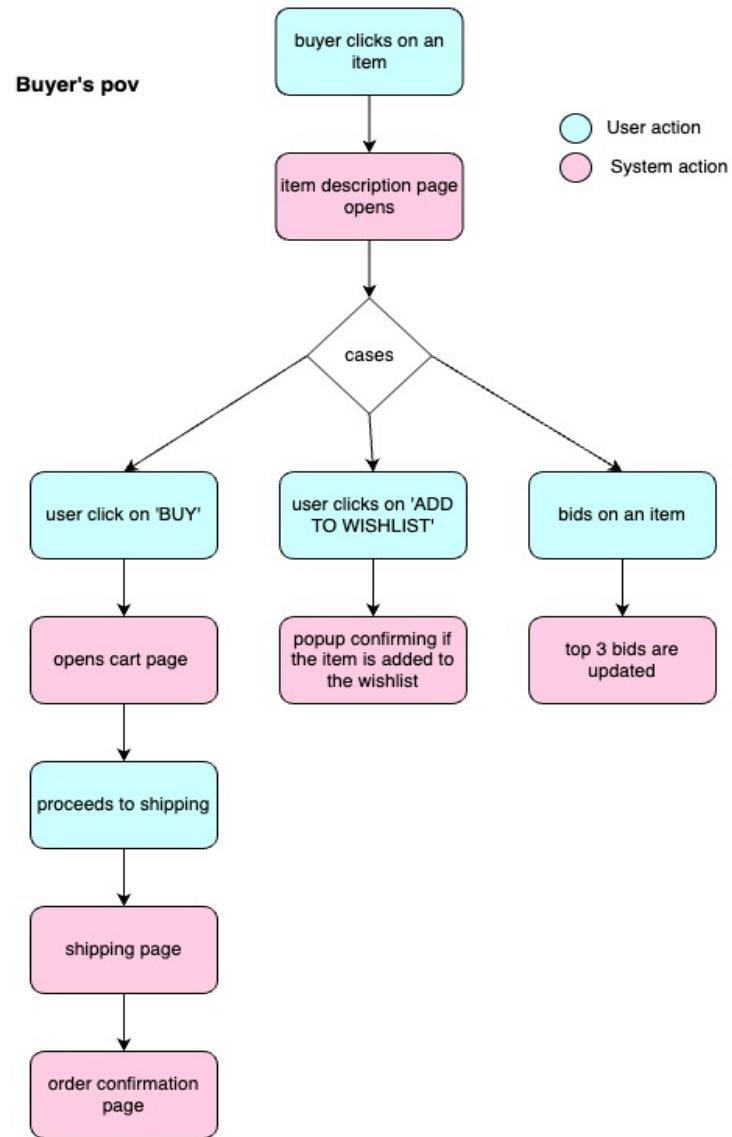


Figure 16: Task flow diagram for buyer POV of items details page

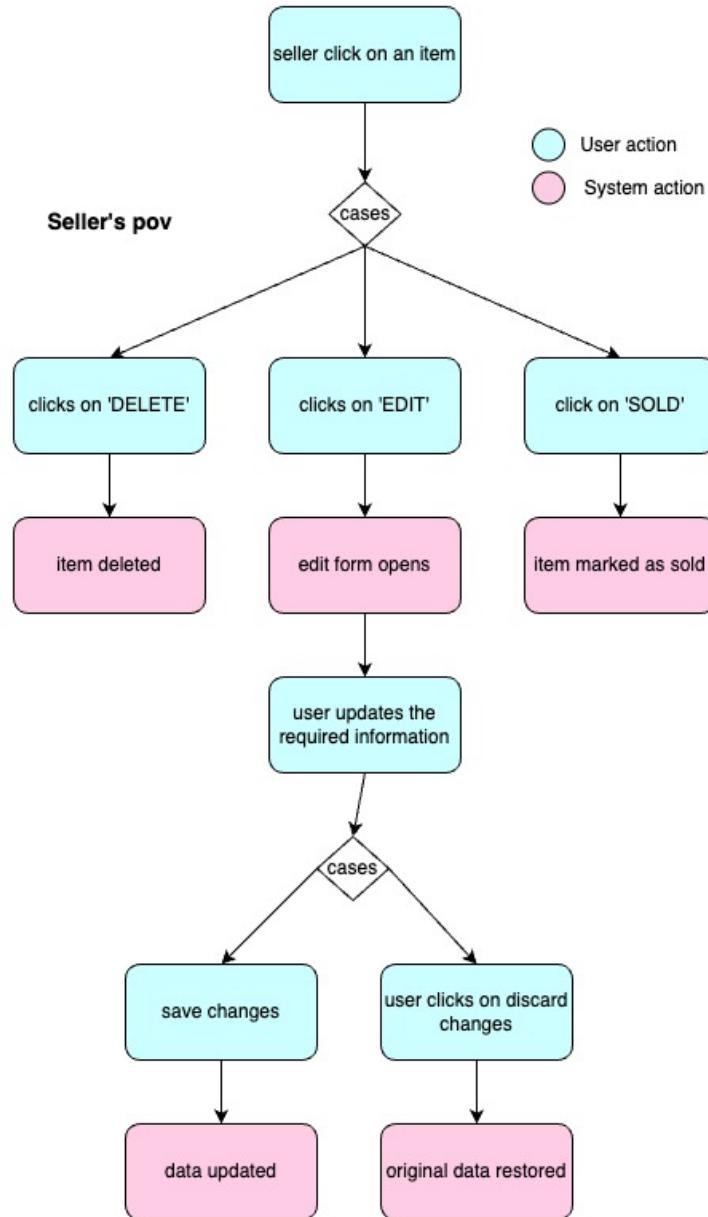


Figure 17: Task flow diagram for sellers POV for item details page

## Shipping Details Form

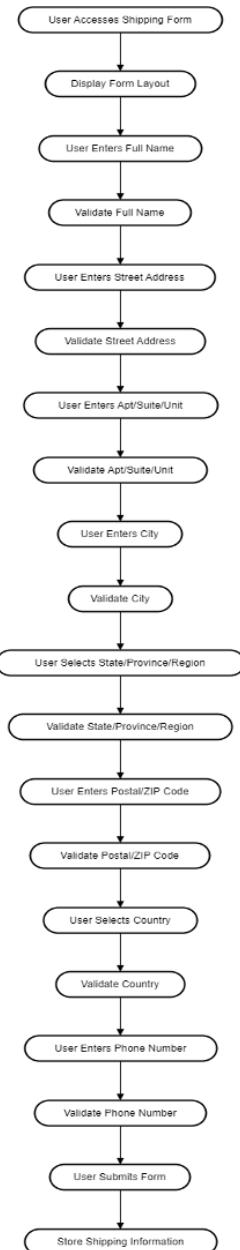


Figure 18: Task flow diagram to render shipping information

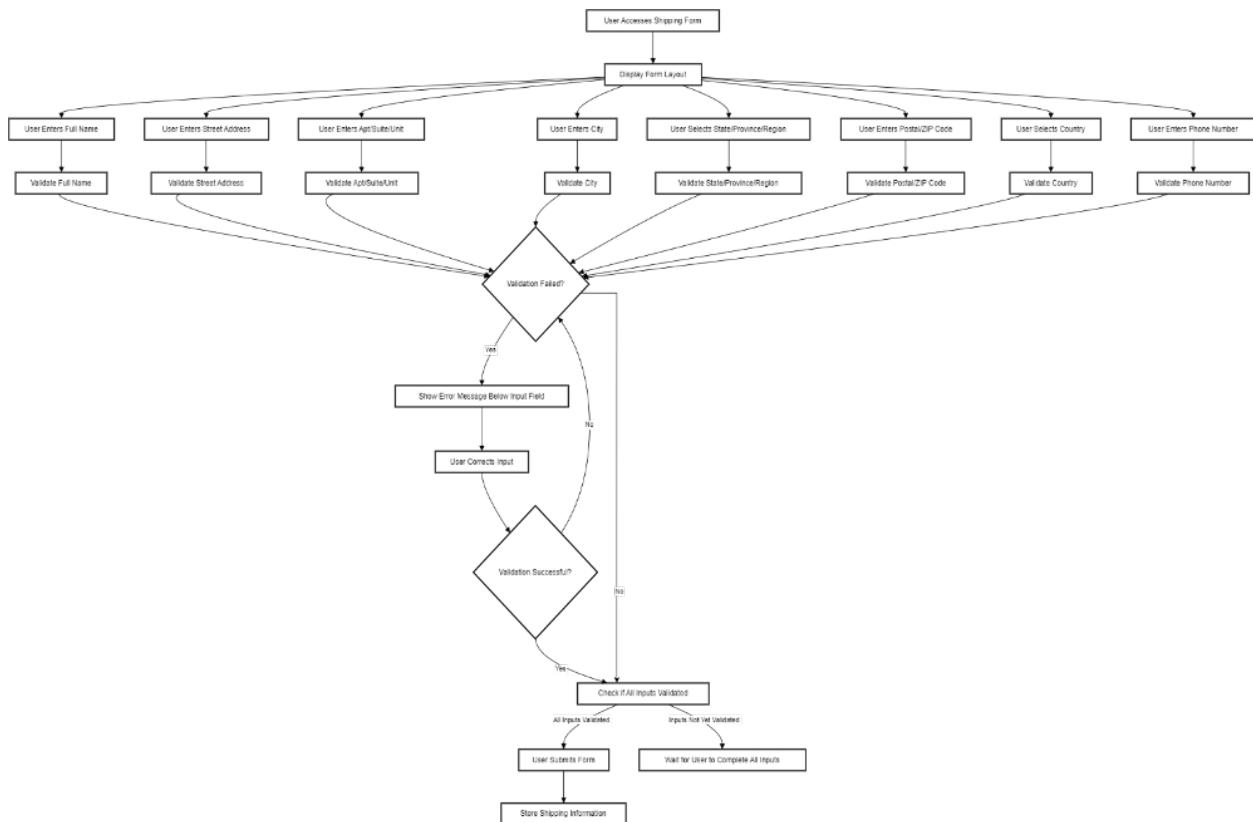


Figure 19: Task flow diagram of shipping form validation

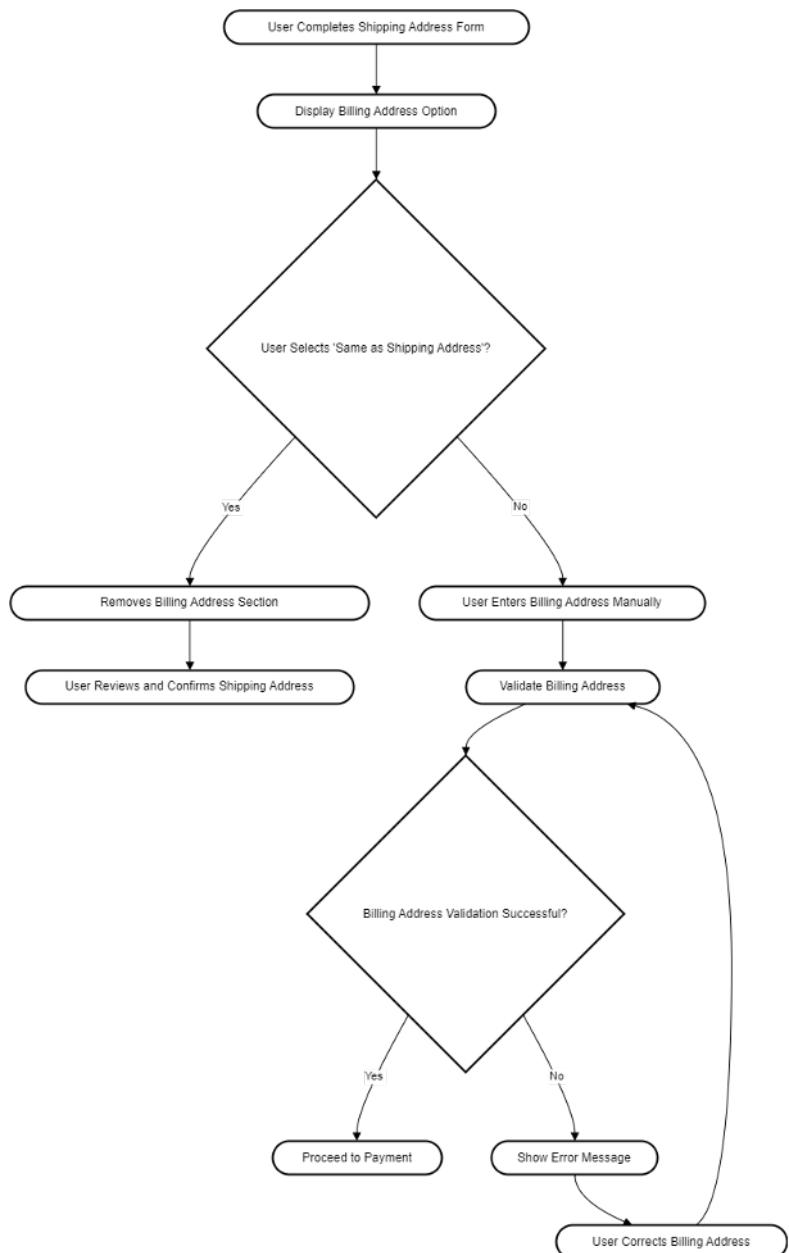


Figure 20: Task flow diagram if billing address same as shipping address.

## Low Fidelity Prototypes

### User Management

A low-fidelity wireframe of a login interface. The main title "Eco-Mart Login" is centered at the top. Below it are two input fields: "Username" and "Password", each with its respective label above it. A large, rounded rectangular button labeled "LOGIN" is positioned centrally below the input fields. At the bottom of the form, there are two small links: "New to Eco-Mart? Click Here" and "Forgot Password? Click Here".

Figure 21: Lo-Fi for Login page

A lo-fi wireframe for a sign-up form titled "Eco-Mart SignUp". The form includes fields for First Name, Last Name, Email ID, Password, and Confirm Password, each with a corresponding input box. A large "SIGN UP" button is centered below the input fields.

Eco-Mart SignUp

First Name

Last Name

Email ID

Password

Confirm Password

SIGN UP

Figure 22: Lo-fi for signup

A lo-fi wireframe for a forgot password form titled "Forgot Password?". It features a single input field for "Enter Email" and a "Send Link" button.

Forgot Password?

Enter Email

Send Link

Figure 23: Lo-fi for Forgot password

## Home Page

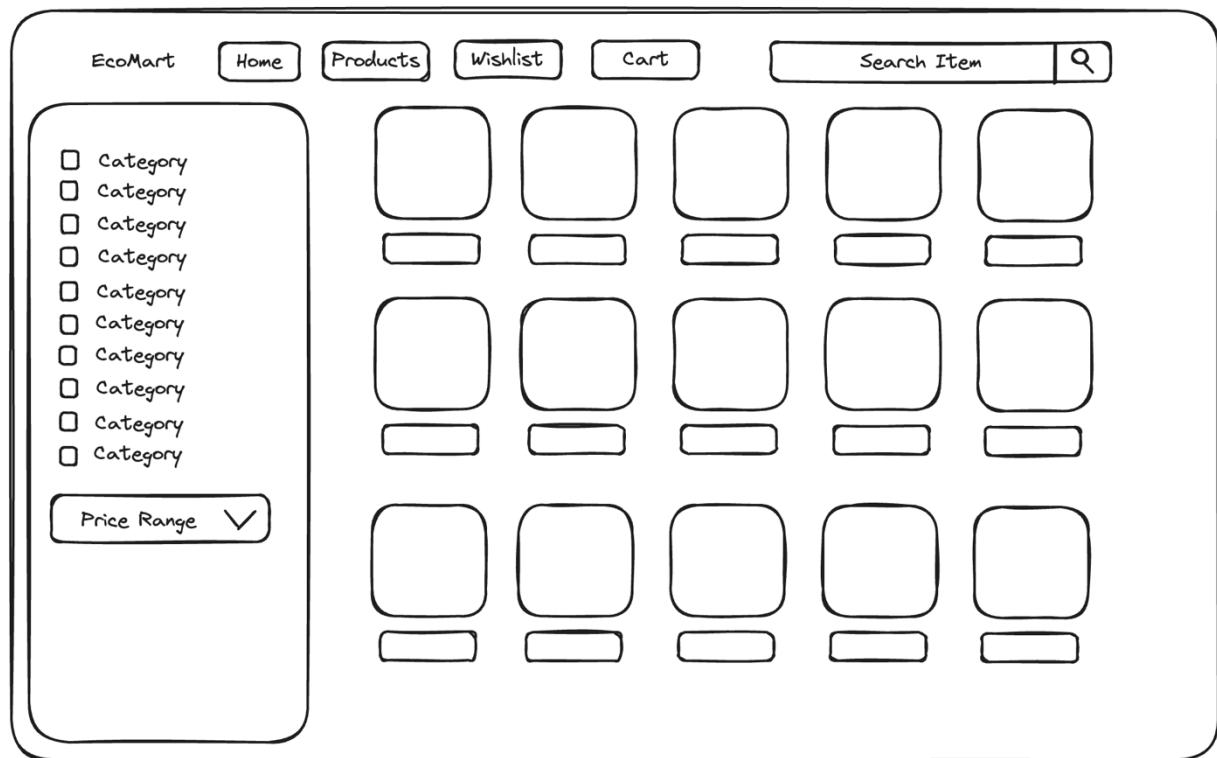


Figure 24: Lo-fi for HomePage

## User Profile Page

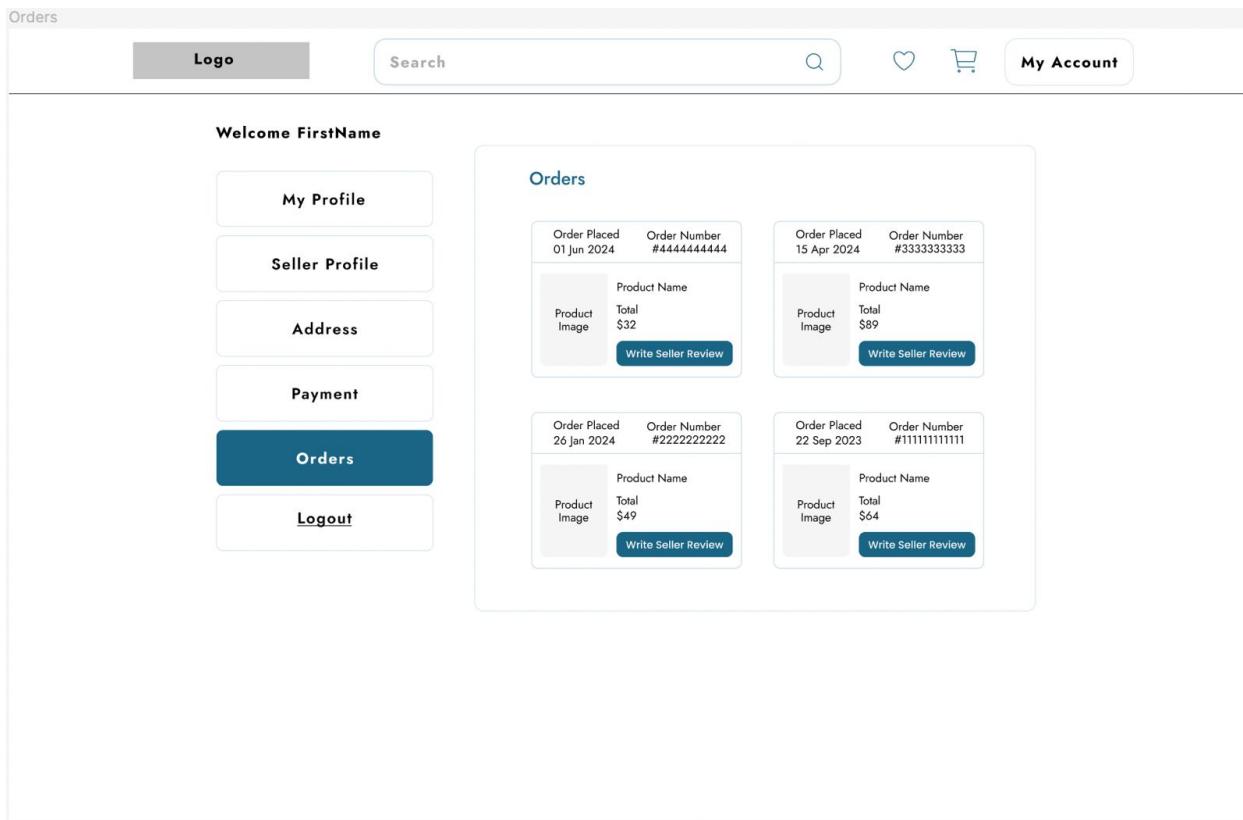


Figure 25:Lo-fi of Orders page

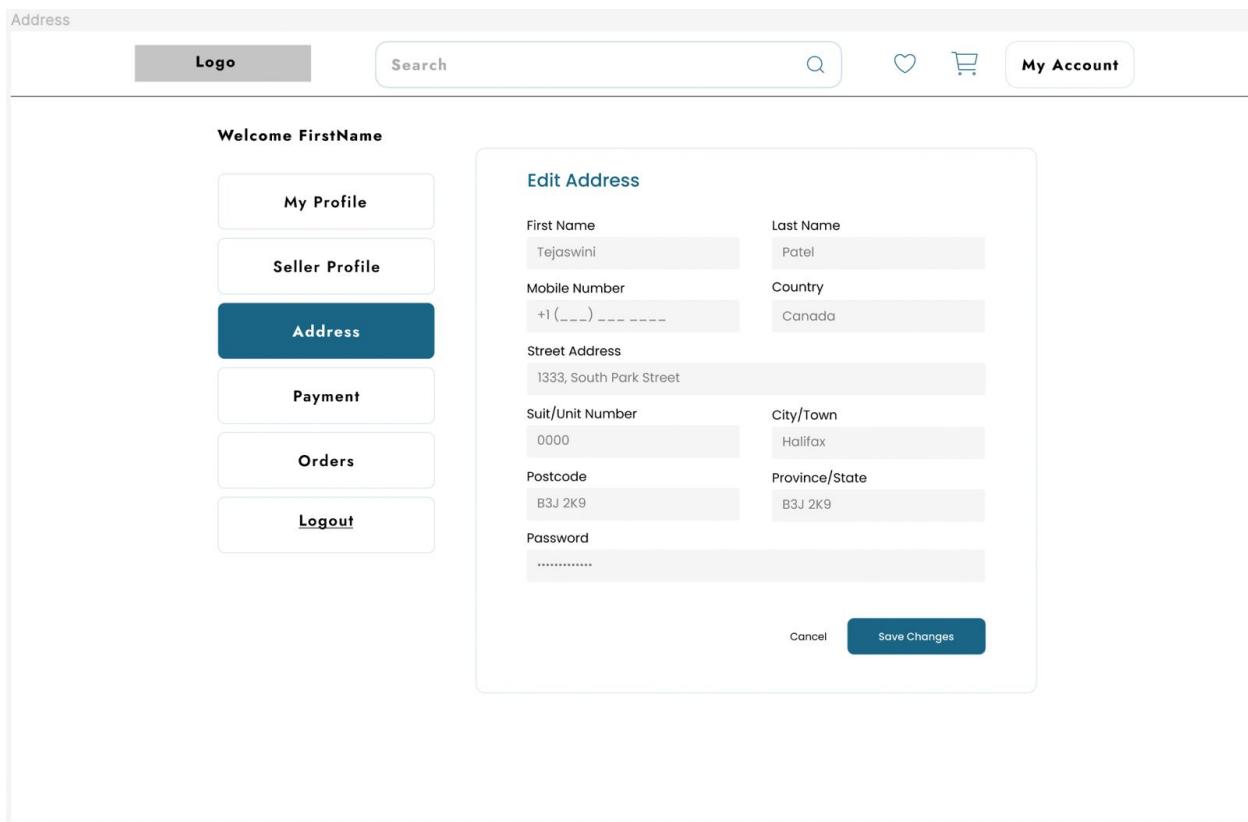


Figure 26: Lo-fi for address page

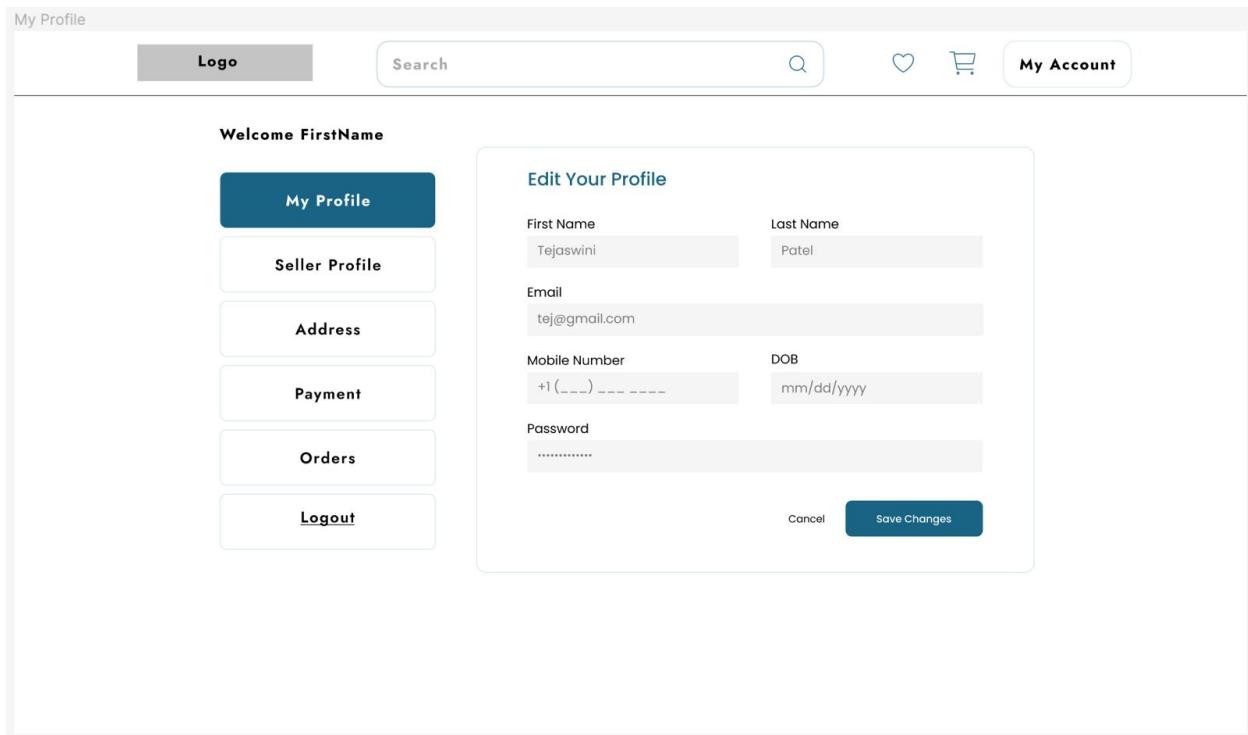
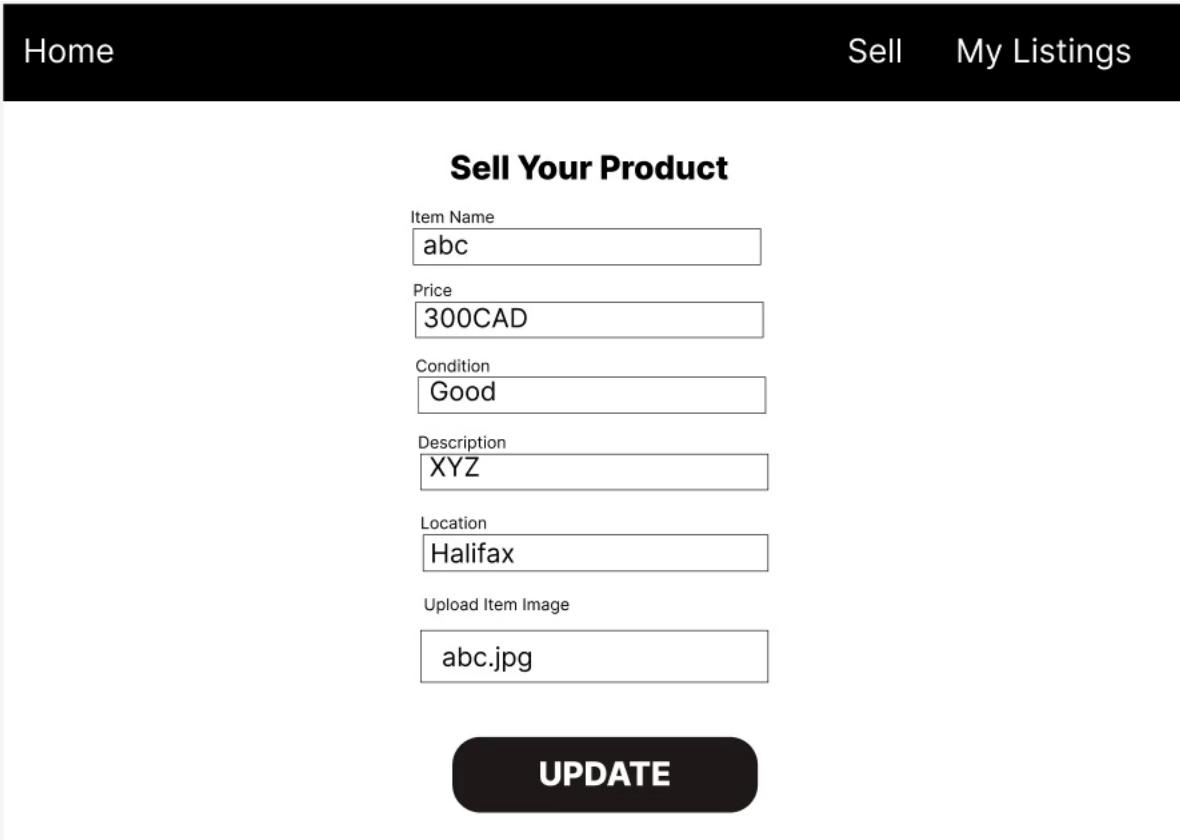


Figure 27: Lo-fi for My profile page

## Seller Form



A lo-fi wireframe mockup of a seller form page. At the top, there is a navigation bar with 'Home' on the left and 'Sell My Listings' on the right. Below the navigation bar is a section titled 'Sell Your Product'. This section contains several input fields: 'Item Name' with value 'abc', 'Price' with value '300CAD', 'Condition' with value 'Good', 'Description' with value 'XYZ', and 'Location' with value 'Halifax'. There is also a field labeled 'Upload Item Image' containing the value 'abc.jpg'. At the bottom of the form is a large, rounded rectangular button with the word 'UPDATE' in white capital letters.

Home      Sell My Listings

**Sell Your Product**

Item Name

Price

Condition

Description

Location

Upload Item Image

**UPDATE**

Figure 28: Lo-fi for Seller Edit Form Page

Home

Sell My Listings

## Sell Your Product

Item Name

Price

Condition

Description

Location

Upload Item Image

**SUBMIT**

Figure 29: Lo-fi for adding a new item

## Item Details

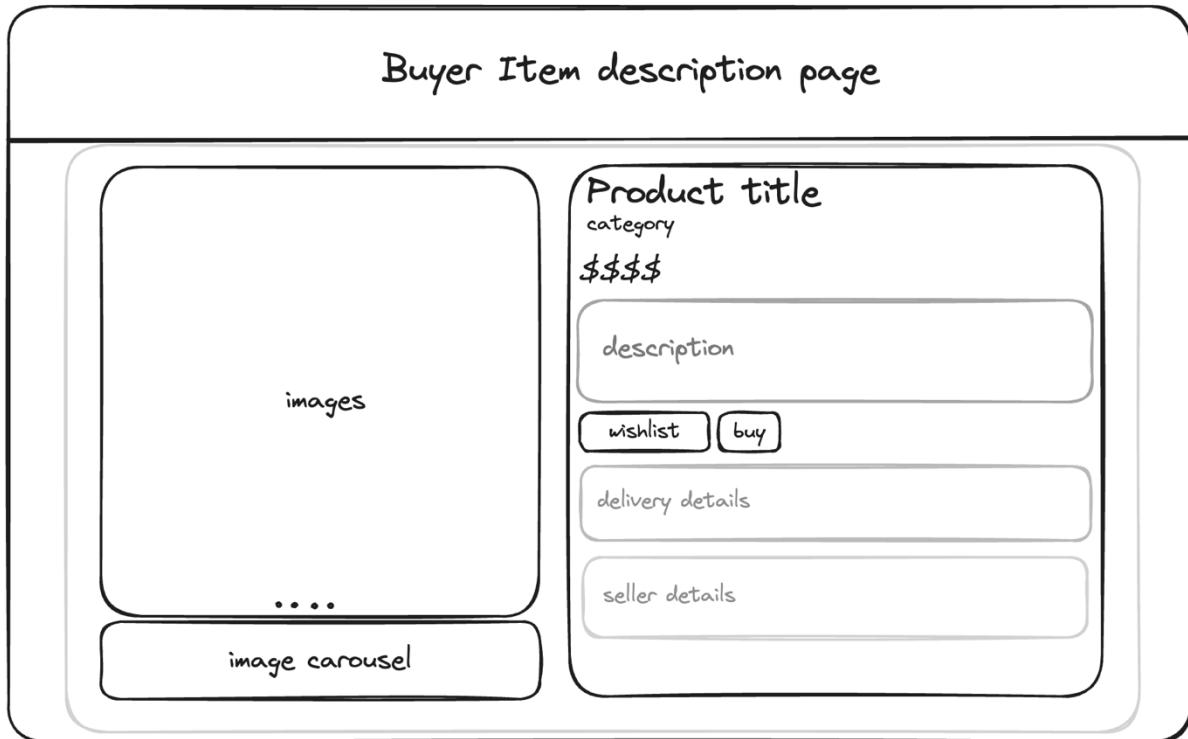


Figure 30: Lo-fi for Buyer Item Description page

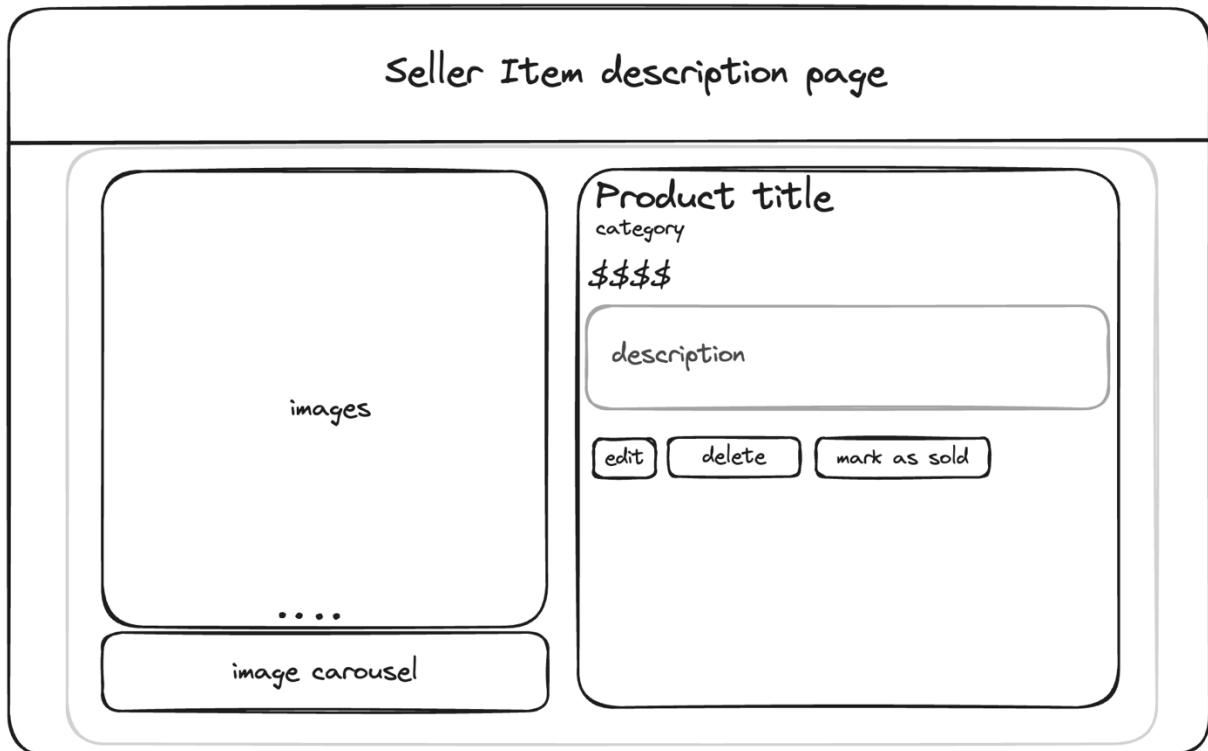


Figure 31: Lo-fi for Seller Item Description page

## Shipping Details Form

EcoMart      Secure Checkout      

---

Contact Details		Order Summary	
First Name	Last Name	Pure set	\$65.00
Email		Subtotal \$160.00	
Phone Number		Sales tax (6.5%)	\$4.23
+ 1		Shipping Fee	FREE
		Total due	\$164.23

Contact Details

First Name  Last Name

Email

Phone Number  + 1

Shipping Details

Street Address

Apt / Suit / Unit

City  State / Province

Postal Code  Country

My shipping and Billing address are the same

Figure 32: Lo-fi for Shipping details form page

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