

Software Requirements Specification

Mini Fashion E-commerce Desktop Application

1. Introduction

1.1 Purpose

This SRS specifies the requirements of a Mini Fashion E-commerce Desktop App for Windows, covering **buyers**, **sellers**, and **admins**. It defines clear, testable features for product browsing, order management, seller operations, and administrative oversight.

1.2 Scope

The application is a desktop app for Windows 10/11 and will use a local relational database (SQLite) and modular backend APIs.

User Role	Key Capabilities
Buyers	Browse products, add to cart, checkout, track orders.
Sellers	Register, upload/manage products, monitor sales.
Admins	Approve/reject seller accounts, monitor reports.

Note on Payments: Payment is integrated via a **simulated API (sandbox)** in the first version.

1.3 Definitions

- **Buyer:** End-user purchasing fashion items.
- **Seller:** Registered user listing products.
- **Admin:** Oversees users, approvals, transactions.
- **Cart:** Temporary buyer storage of items for checkout.
- **Order:** Confirmed purchase request stored in DB.

2. Functional Requirements

2.1 Buyer Functions

ID	Requirement
FR-B1	Browse products by category or keyword.
FR-B2	Add products with selected quantity to cart.
FR-B3	Remove/edit items (quantity) in cart.
FR-B4	Checkout (payment simulated via API).
FR-B5	Track order status (Pending, Shipped, Delivered, Cancelled).

2.2 Seller Functions

ID	Requirement
FR-S1	Register/login as seller.
FR-S2	Upload products (name, description, price, stock, image).
FR-S3	Manage inventory (update stock, remove product).
FR-S4	View sales reports (orders per product, revenue).

2.3 Admin Functions

ID	Requirement
FR-A1	Approve/reject seller registration requests.
FR-A2	Monitor transactions (all orders) and reports.
FR-A3	Suspend seller/buyer accounts if fraudulent activity is detected.

3. Non-Functional Requirements

- **Usability:** Simple GUI for desktop (Windows).
 - **Performance:** Product catalog loads under 2 sec with 500+ items.
 - **Security:** Passwords hashed in DB, seller accounts approvals required.
 - **Compatibility:** Windows 10/11 desktop app.
 - **Reliability:** Must handle at least 50 concurrent operations (e.g., search, add to cart) without crashing.
 - **Maintainability:** Modular API design.
-

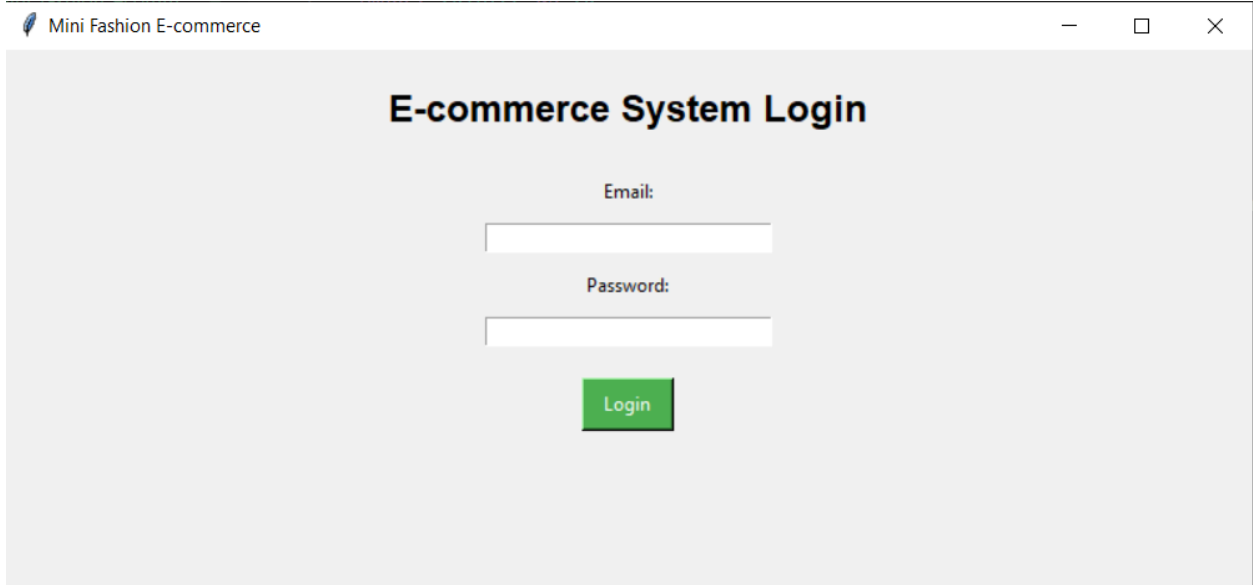
4. Use Cases

UC-01: Add Product

- **Actors:** Seller
- **Precondition:** Seller logged in and approved by Admin.
- **Main Flow:**
 1. Seller opens “Add Product” form.
 2. Enters product details (name, description, category, price, stock).
 3. Uploads product image.
 4. Clicks “Add Product”.
 5. System validates inputs.
 6. Product saved to DB and visible in buyer catalog.
- **Alternative Flow:**
 - 2a. Missing required fields → error: “Name, price, stock required.”
 - 3a. Invalid image format → error: “Only PNG/JPG allowed.”
 - 3b. Maximum size reached → error: “Image size must be less than 5MB.”
- **Postcondition:** Product is added and listed for buyers.

UC-02: Checkout

- **Actors:** Buyer
- **Precondition:** Buyer logged in, cart not empty.
- **Main Flow:**
 1. Buyer opens cart.
 2. Reviews items, selects checkout.
 3. Buyer enters payment details.
 4. Payment API returns confirmation.
 5. Order stored in DB with “Pending” status.
- **Alternative Flow:**
 - 4a. Payment fails → error: “Transaction declined.”
- **Postcondition:** Order created and visible in Order History.



Mini Fashion E-commerce

E-commerce System Login

Email:

Password:

Login

Fig. 1: Login Page

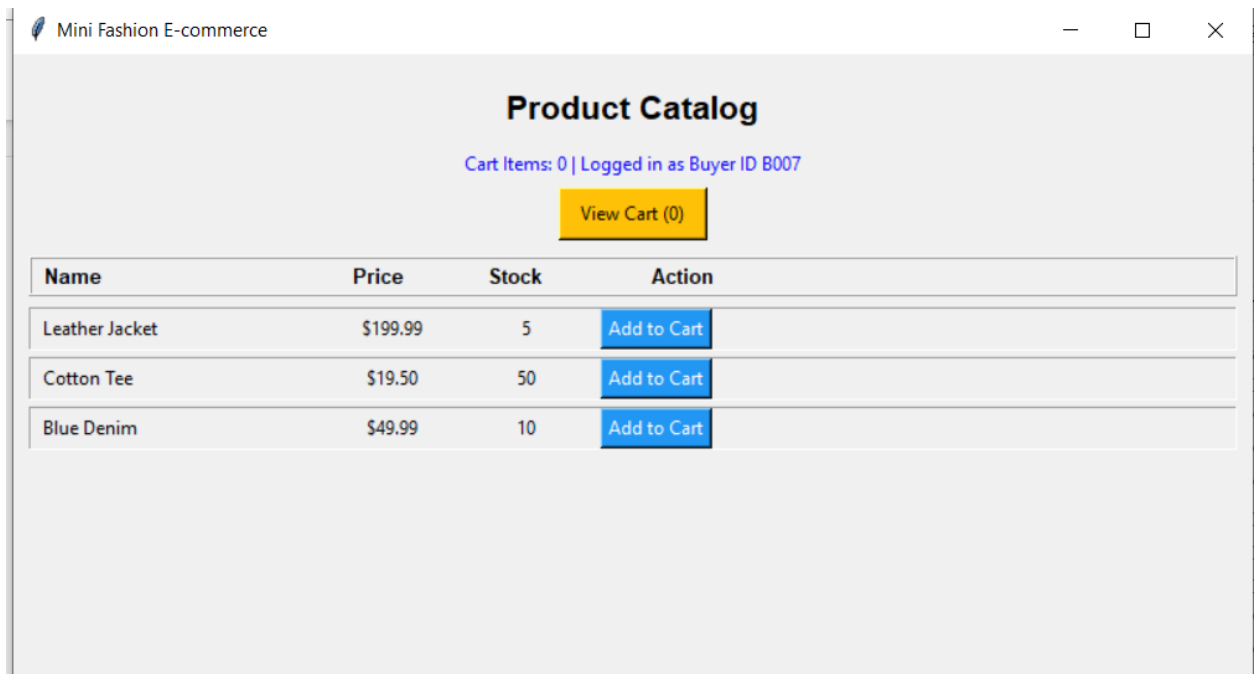


Fig. 2: Buyer Product Catalog Page

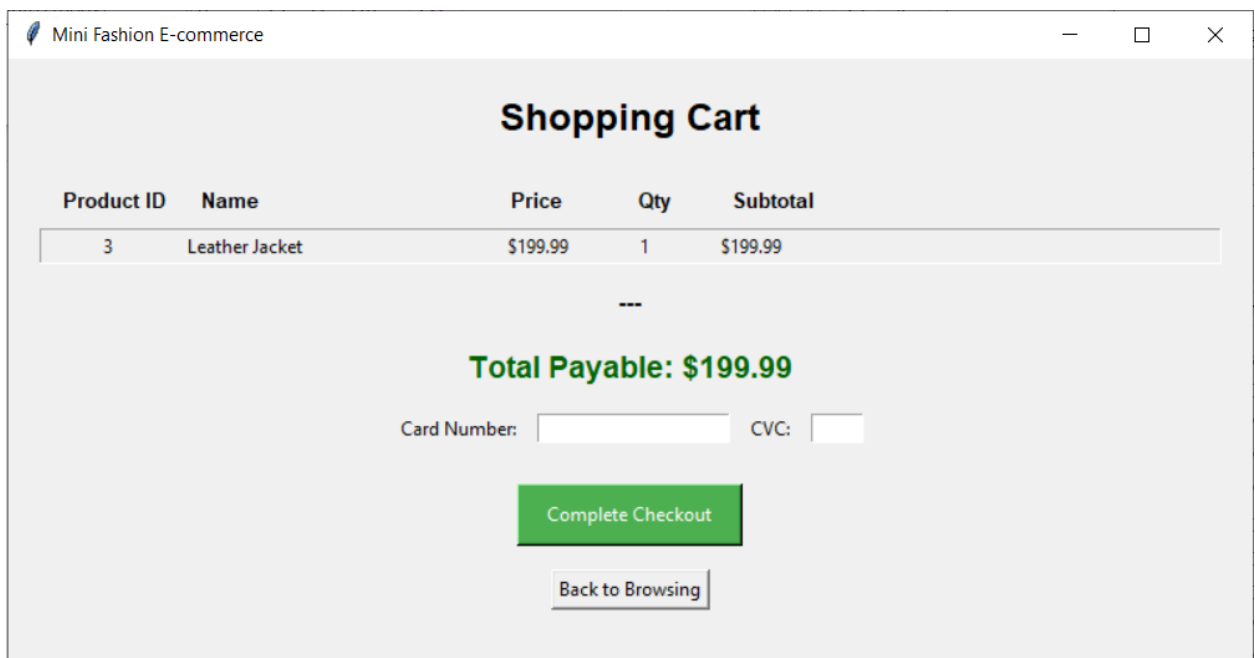


Fig. 3: Buyer Checkout Page

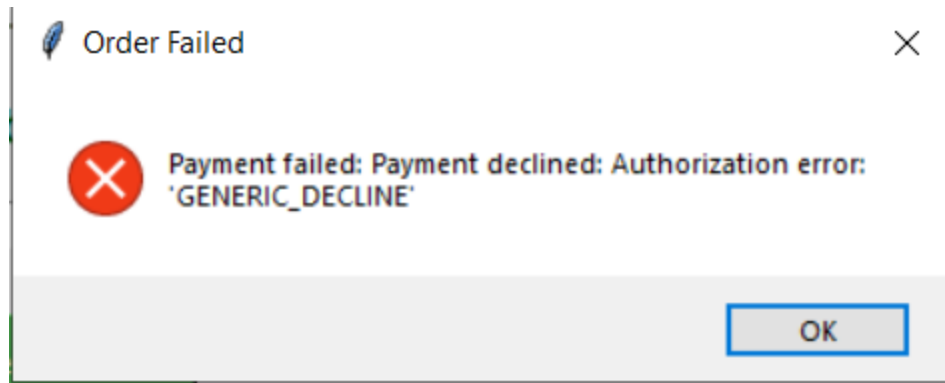


Fig. 4: Payment Failure Error Message