

Requirements Elicitation Document

Project Name: Nile Mart

Domain: Student-Focused E-Commerce Marketplace

1. Introduction

Nile Mart is a multi-vendor e-commerce platform built specifically for students. It solves the problem of unsafe, disorganized, and unreliable buying and selling within schools and universities, where students currently depend on WhatsApp groups, Instagram posts, or word-of-mouth.

These methods lead to scams and fake listings, lost messages, no secure payment method, no order tracking, and poor organization. Nile Mart provides a centralized, secure, and premium marketplace where students can trade confidently.

2. Goals & Objectives

- Provide a trusted platform for student-to-student commerce
- Replace scattered social-media trading with a structured system
- Enable fast and safe payments using an internal wallet
- Improve communication between buyers and sellers
- Offer administrators control over content, users, and safety
- Deliver a premium, modern user experience

3. Stakeholders & Users

Buyers: Browse products, manage cart, pay via wallet, chat with sellers

Sellers: List products, manage inventory, track orders, respond to buyers

Admins: Moderate content, manage users, handle reports, ensure safety

4. Functional Requirements

4.1 Authentication & User Management

Users must sign up and log in using NextAuth. Profiles include personal info, order history, and wallet balance. Users can update their profiles.

4.2 Marketplace Features

Buyers can browse, search, view product pages, and manage a cart. Sellers can create, edit, and delete listings and manage orders. The cart persists across sessions.

4.3 Financial System (Wallet)

Each user has a digital wallet. The system prevents overdrafts and performs atomic transfers between buyers and sellers while creating order records.

4.4 Communication System

Buyers and sellers can chat in real time using Pusher for instant updates and notifications.

4.5 Administration & Moderation

Admins can view users and products, remove inappropriate listings, suspend users, and handle reports. Users can flag scams and abuse.

5. Non-Functional Requirements

Design: Premium UI inspired by Apple, Stripe, Tesla with clean typography.

Performance: Mobile-first, fast loading using Next.js SSR/ISR.

Security: MongoDB with Mongoose, secure authentication, atomic wallet logic.

6. Technical Stack

Frontend: Next.js 16 (React 19)

Styling: Vanilla CSS

Database: MongoDB (Mongoose)

Authentication: NextAuth.js

Real-Time: Pusher

Icons: Remix Icon

7. Summary

Nile Mart transforms informal student trading into a professional digital marketplace by solving trust, safety, and organization in student commerce.