



NUML

National University of Modern Languages

SCD LAB

Assaignment #01

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Requirement Specification Document

Project Title: ShopNest (E-Commerce Mobile Application)

Version: 1.0

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ShopNest is an e-commerce mobile application that allows users to browse products, add them to the cart, and place orders easily. This SRS document outlines the functional and non-functional requirements, system features, and constraints for the application.

1. Introduction

1.1 Purpose:

This document outlines the functional and non-functional requirements for ShopNest, an e-commerce mobile app designed for seamless product browsing, cart management, and order placement.

1.2 Scope

Target Users:

Customers, Admins

Platform:

Android (SDK 21+)

Key Features:

- User registration/login
- Product search & filtering
- Cart & checkout system
- Admin product management

1.3 Definitions

Term	Definition
User	Customer using the app
Admin	Backend product manager
SDK 21+	Android 5.0 and above

2. Functional Requirements

2.1 User Registration & Login

- Users can sign up via email/phone.
- Login via credentials or Google/Facebook.

2.2 View Product Categories

- Display categories (e.g., Electronics, Fashion).
- Sub-category navigation.

2.3 Search & Filter Products

- Search by name/brand.
- Filter by price, ratings, etc.

2.4 View Product Details

- Images, price, description, reviews.
- “Add to Cart” button.

2.5 Add/Remove Items from Cart

- Adjust quantities.
- Real-time cart total.

2.6 Checkout & Place Orders

- Multiple payment options (COD, Card).
- Order confirmation screen.

2.7 View Order History

- List of past orders with status (Delivered/Pending).

2.8 Admin Product Management

- Add/edit/delete products
- Update stock & prices.

3. Non-Functional Requirements

3.1 Performance

- 3s max load time
- 1.5s API response

3.2 Usability

- Material Design 3
- 5-tap checkout

3.3 Reliability

- Auto-save cart
- Crash recovery

3.4 Compatibility

- Android 5.0+
- 4.7"-10" screens

3.5 Security

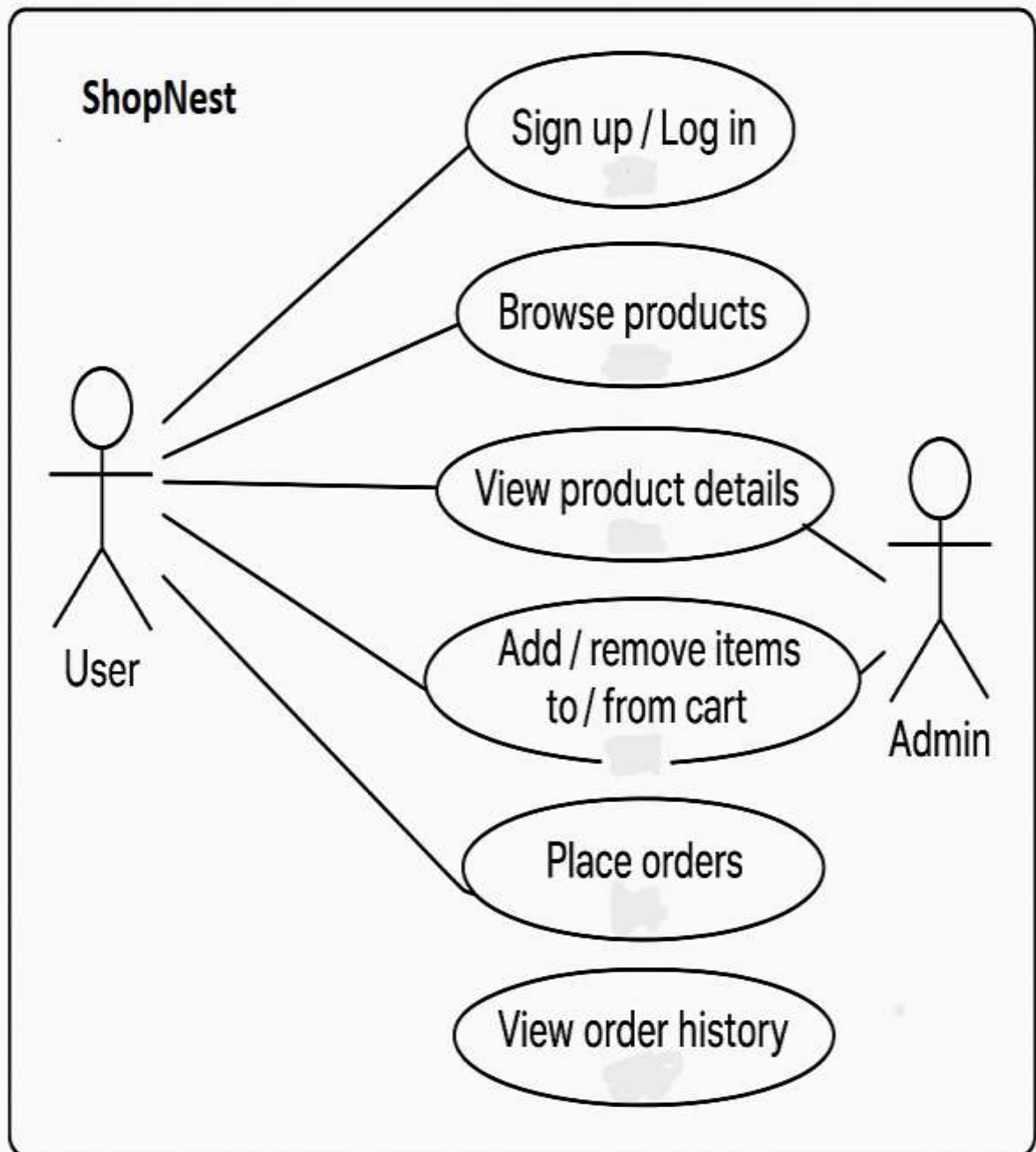
- SSL/TLS encryption
- 2FA for admin

3.6 Maintainability

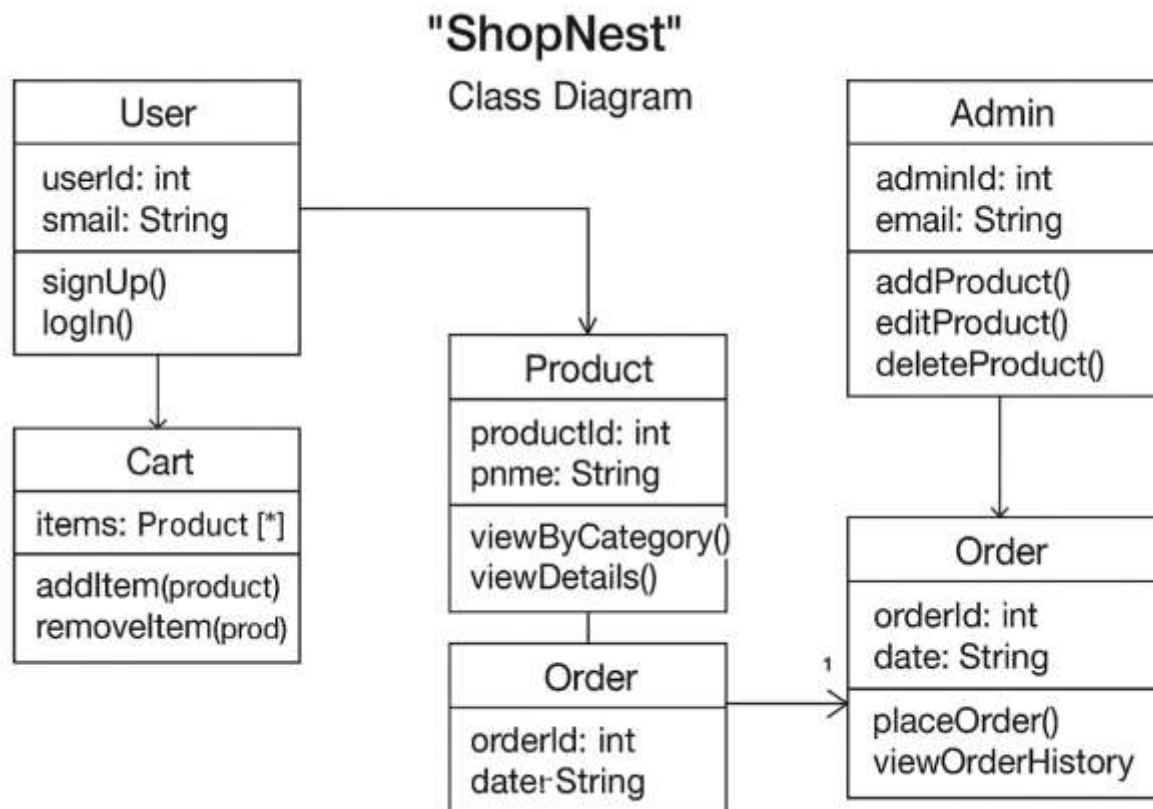
- Code documentation
- MVVM architecture

4. System Features

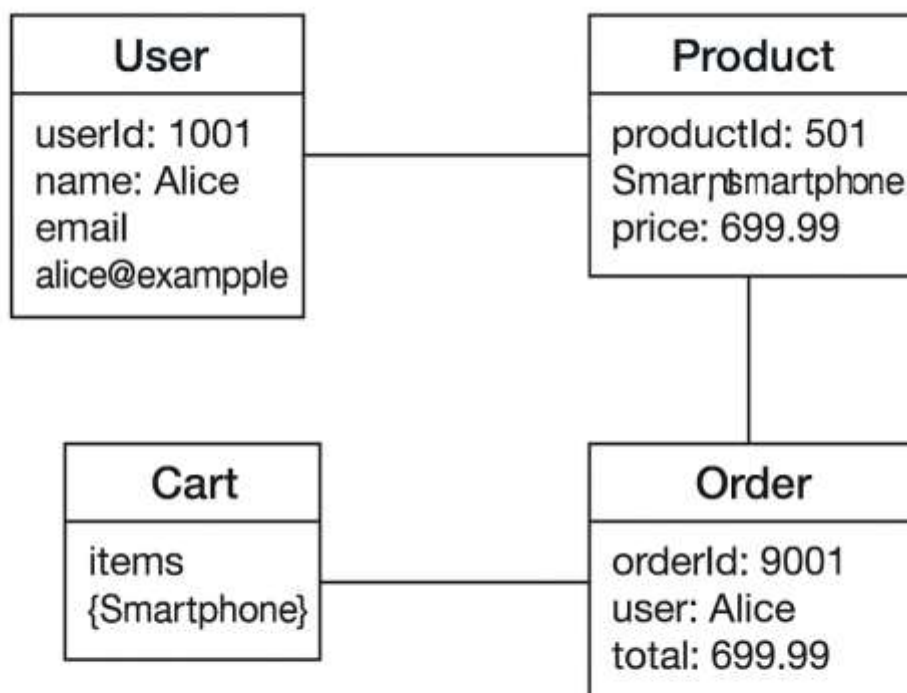
4.1 Use-Case Diagram



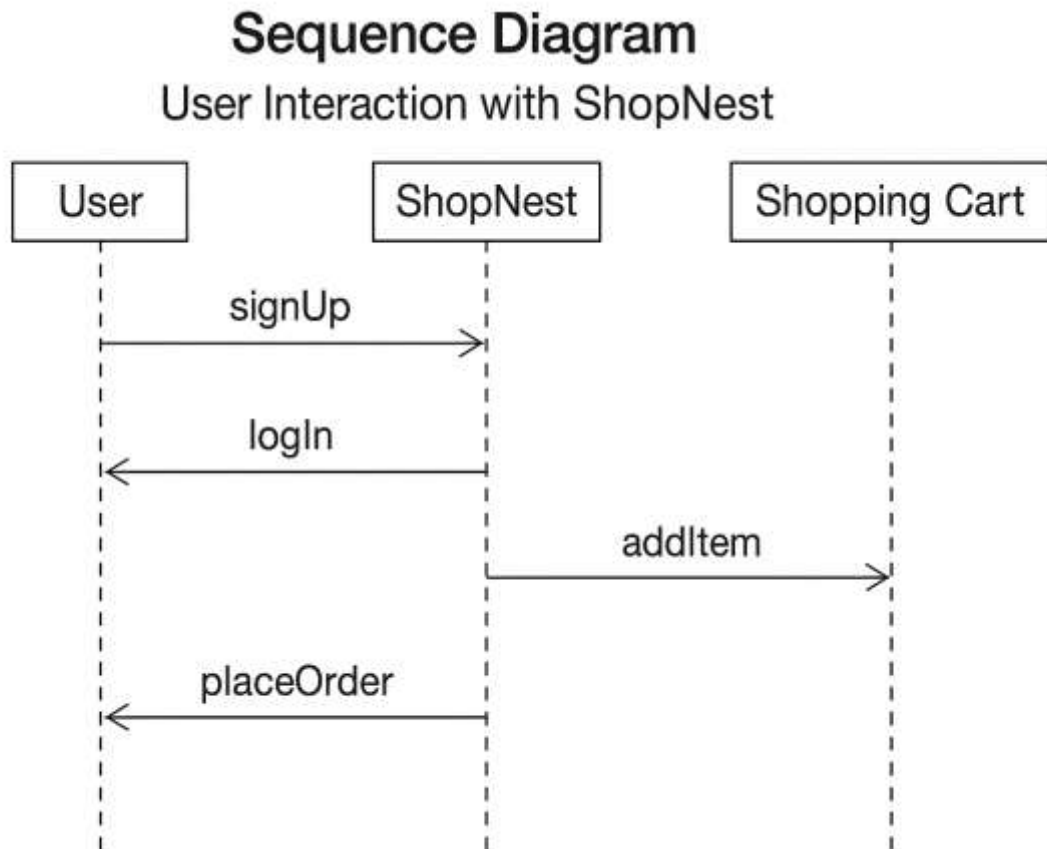
4.2 Class Diagram



4.3 Object Diagram



4.4 Sequence Diagram



4.5 Communication Diagram

