Use case diagram document

- **Title: Use Case Diagrams – Shopping App**
- **Version: 1.0**
- **Prepared by: Omkar Naikade.**
- **Date:**

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1. Introduction

This document contains **Use Case Diagrams** for the Shopping App project. It visually represents how **users, admins, and external systems** interact with the application, based on the defined **Functional Requirements Document (FRD)**.

Each diagram explains,

- Clarify **system scope and functionality**
- Support **developer and tester understanding**
- Ensure **accurate requirement validation**

2. Scope

This document outlines the **use case diagrams** for the Shopping App, covering:

- Key **functional interactions** for both **Users** and **Admins**
- Integration points with **external systems** such as the **Payment Gateway** and **Inventory System**
- Use cases aligned with the **Functional Requirements Document (FRD)**

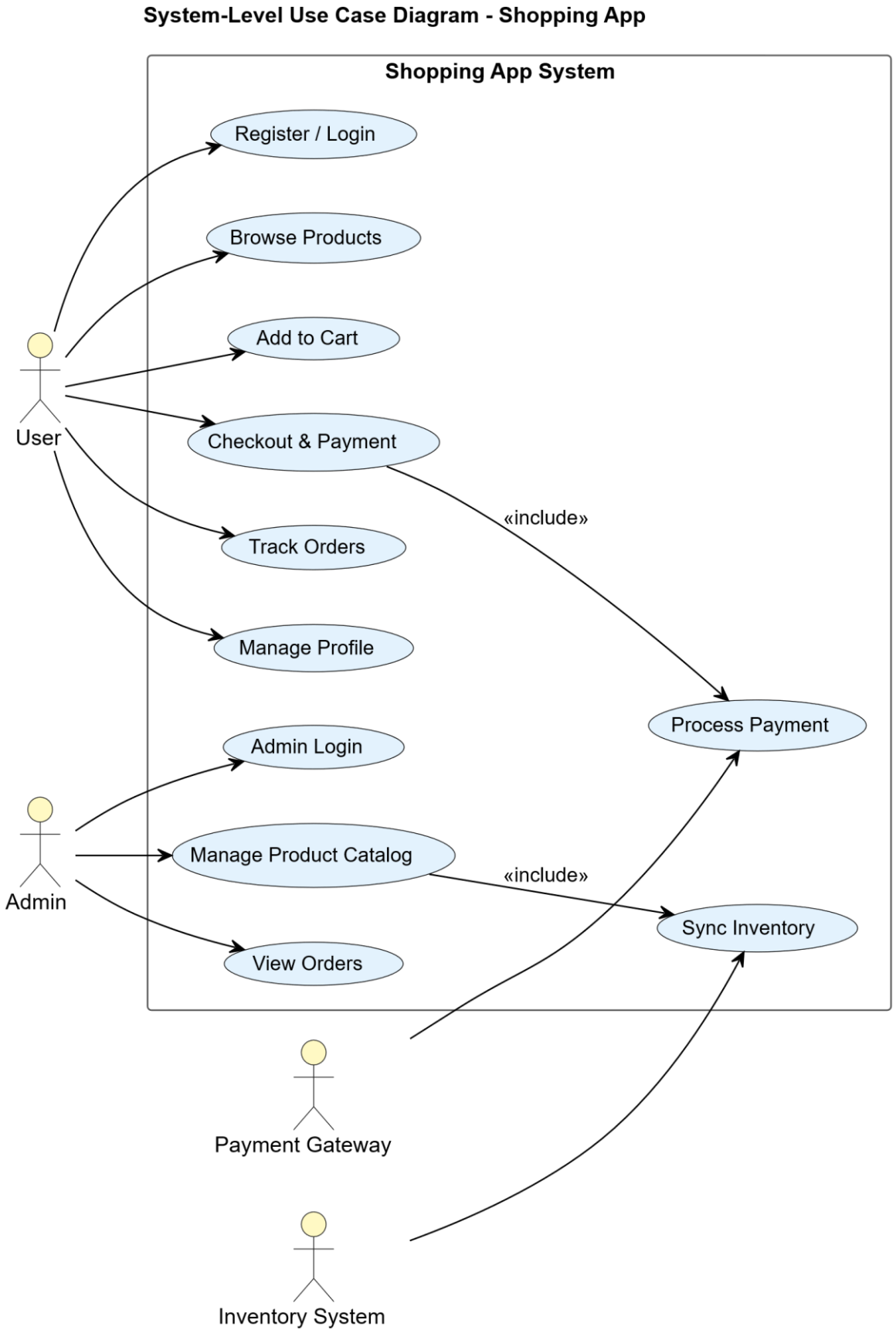
3.actors overview

Actor	Description
User	A customer who browses products, manages their cart, places orders, and tracks them
Admin	An internal system user who manages the product catalogue and oversees customer orders
Payment Gateway	A third-party system responsible for processing secure online transactions
Inventory System	An external system that maintains and syncs product stock and availability

4.Notations Convertinos

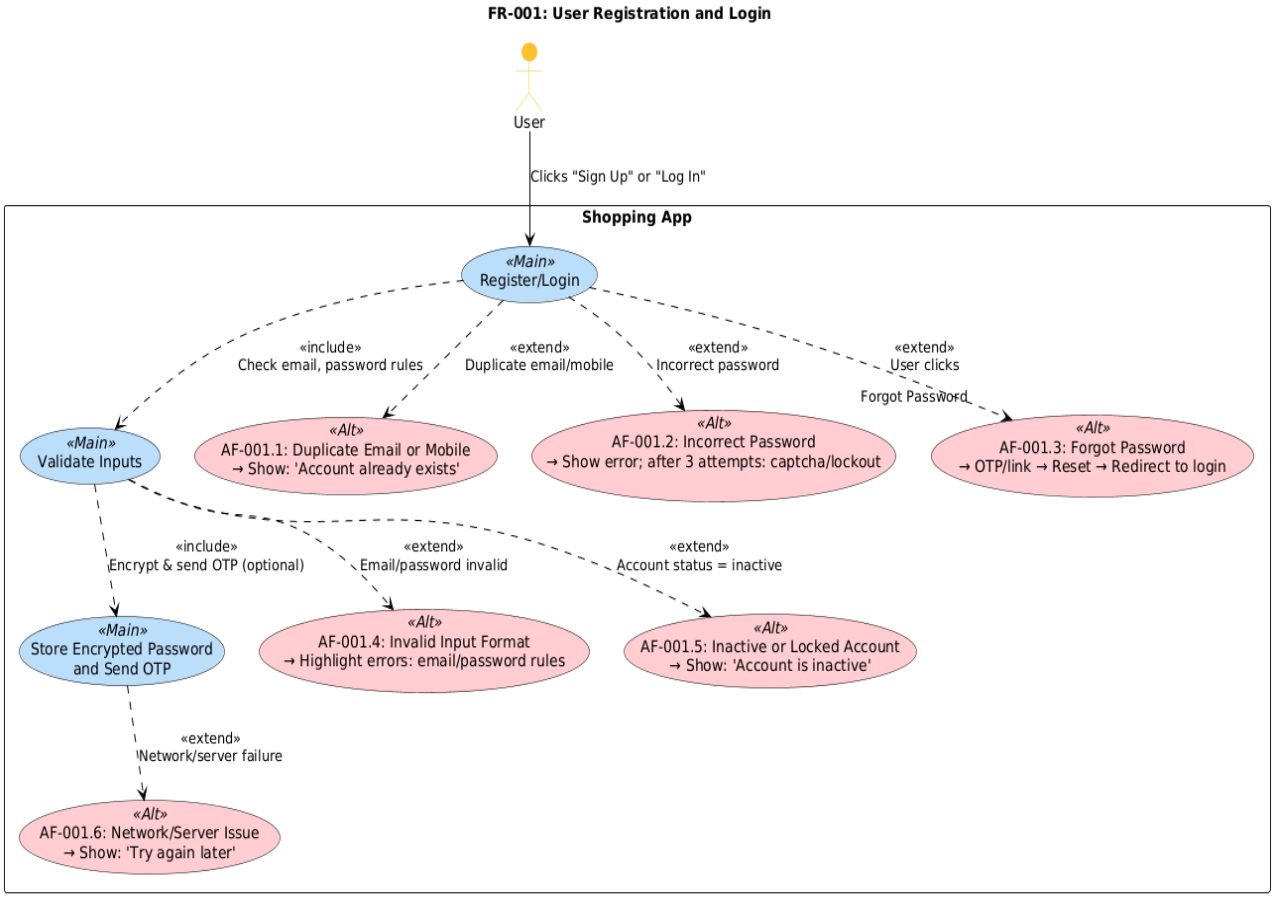
Symbol / Notation	Description
Use Case (Ellipse)	Represents a system function or action performed by or for an actor
Actor (Stick Figure)	A user or external system that interacts with the system
Solid Arrow	Indicates a direct interaction or communication between actor and use case
Dotted Arrow with <<include>>	Indicates a mandatory sub-process included in a primary use case
Dotted Arrow with <<extend>>	Indicates an optional or conditional process that may occur based on a trigger
System Boundary (Rectangle)	Represents the scope of the system and contains all relevant use cases
Note Box	Provides additional information such as inputs, outputs, and error messages

5.System-Level Use Case Diagram

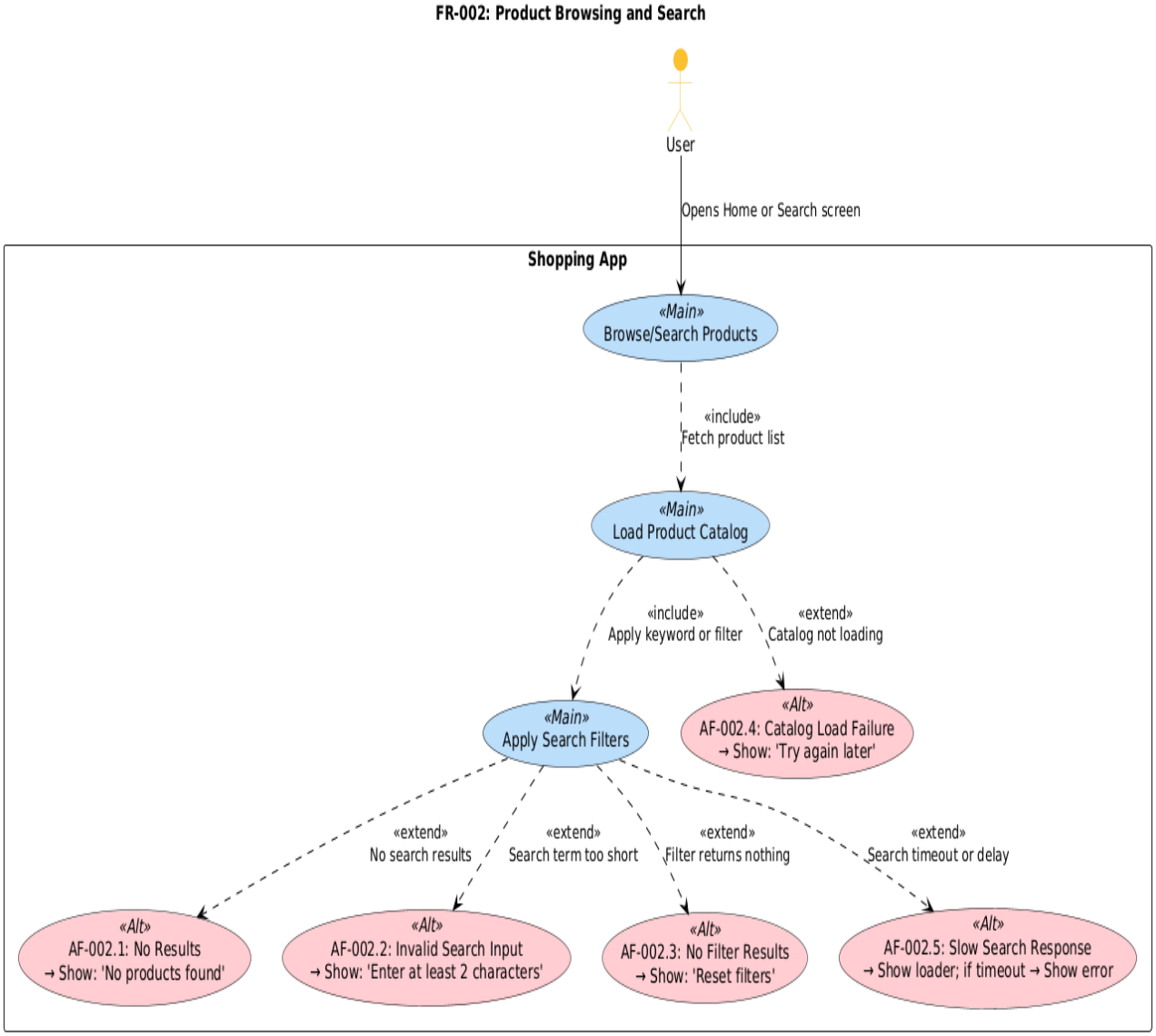


6.Use case diagrams

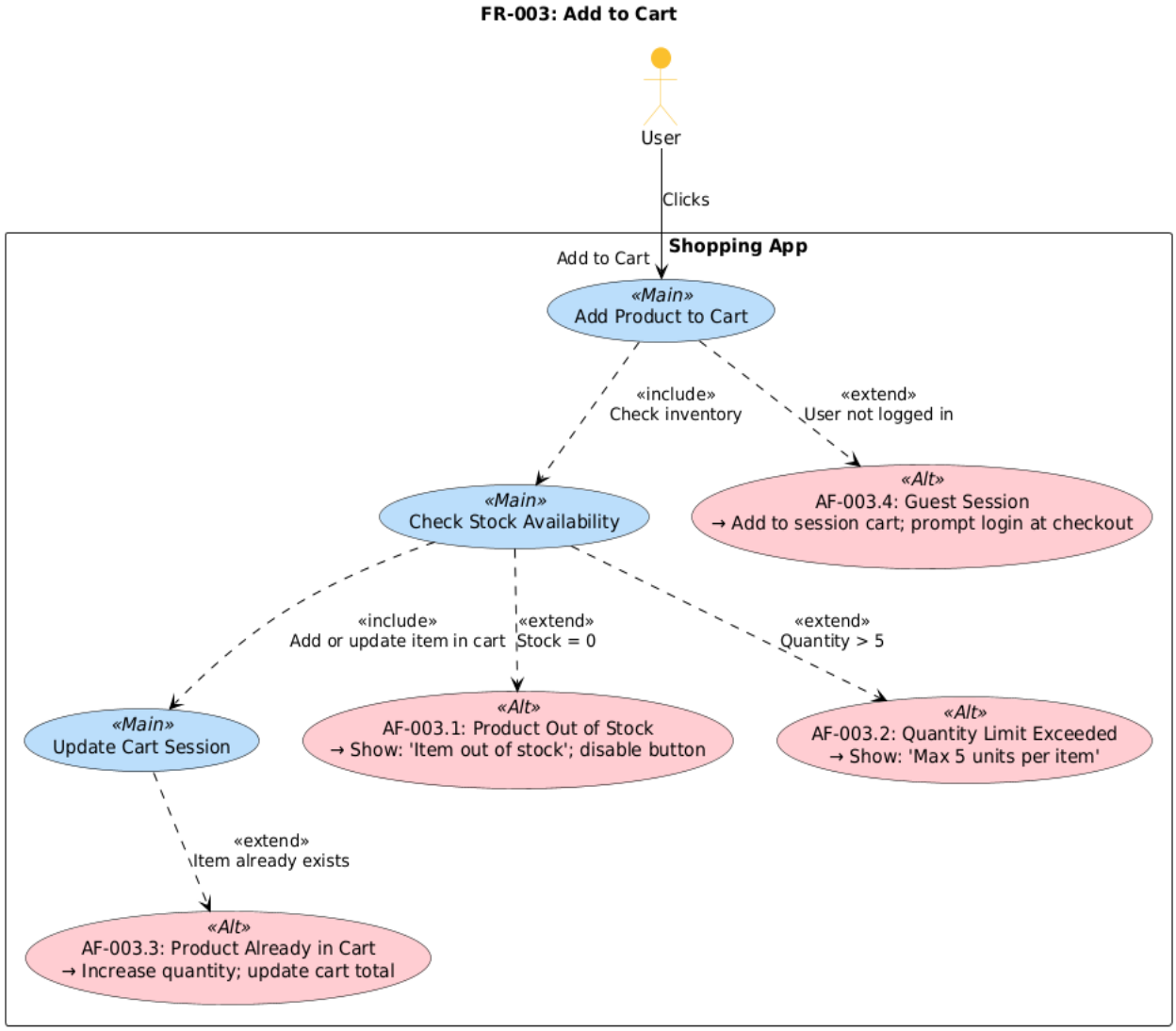
FR-001: User Registration and Login



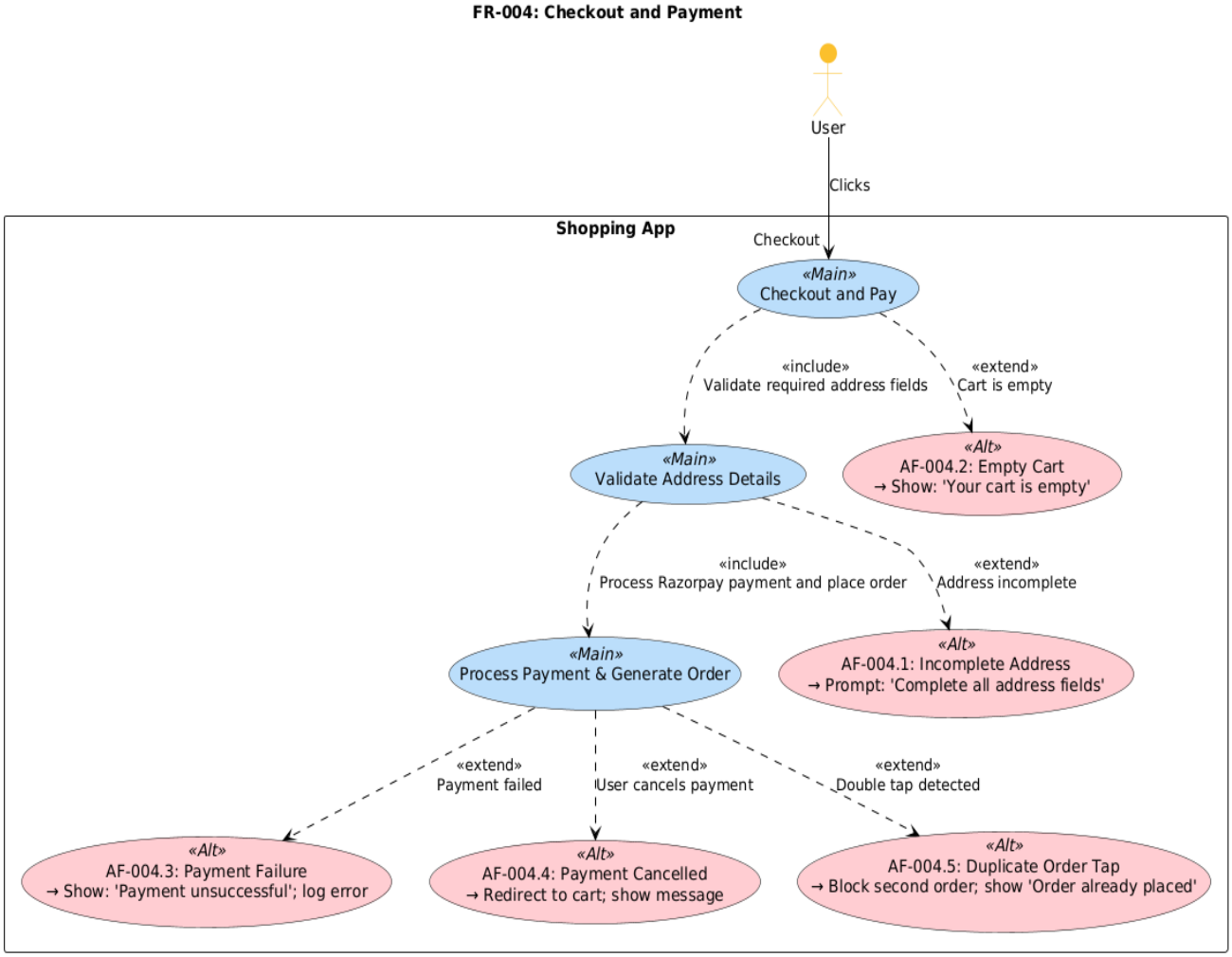
FR-002: Product Browsing and Search



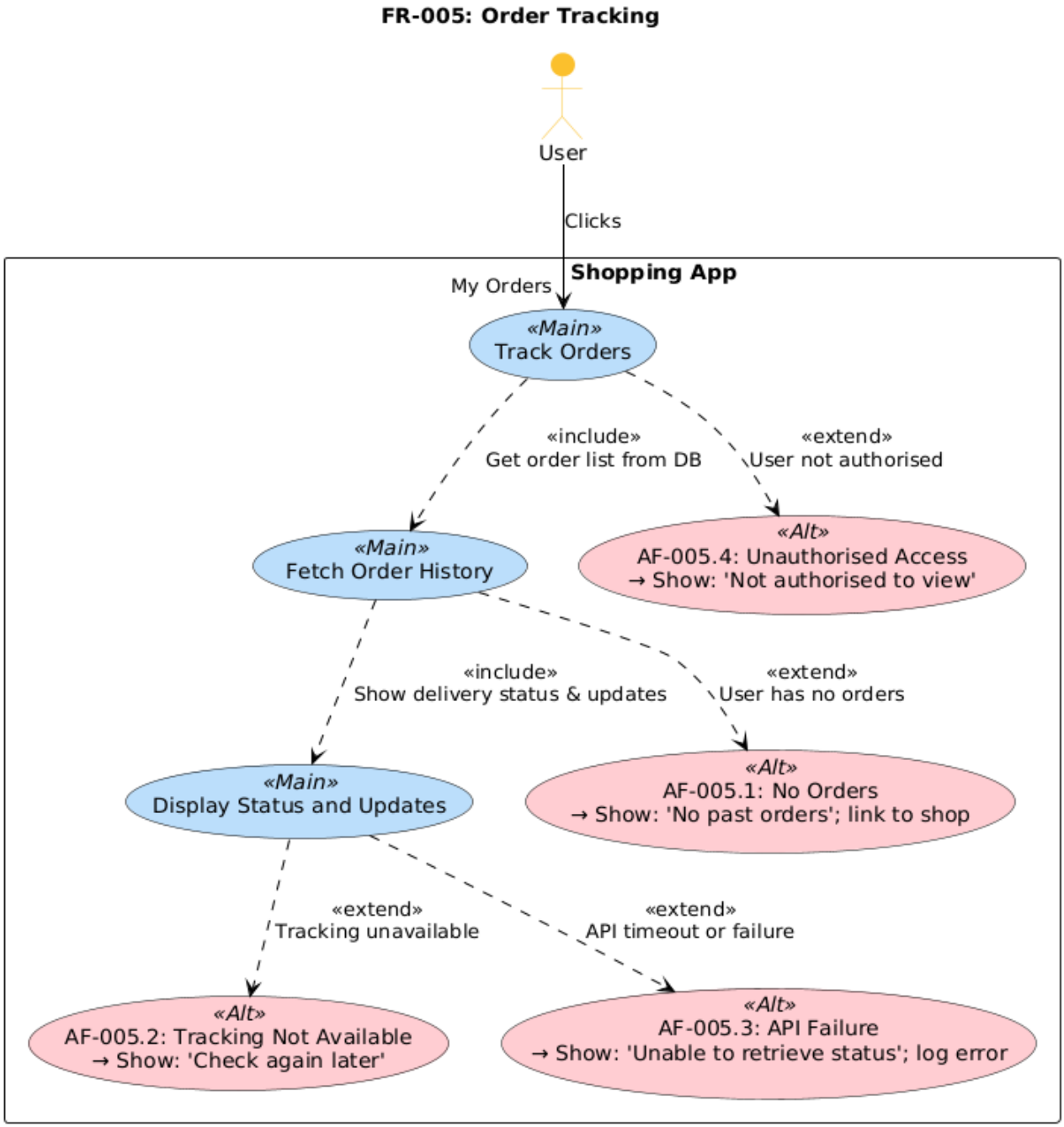
FR-003: Add to Cart.



FR-004: Checkout and Payment.

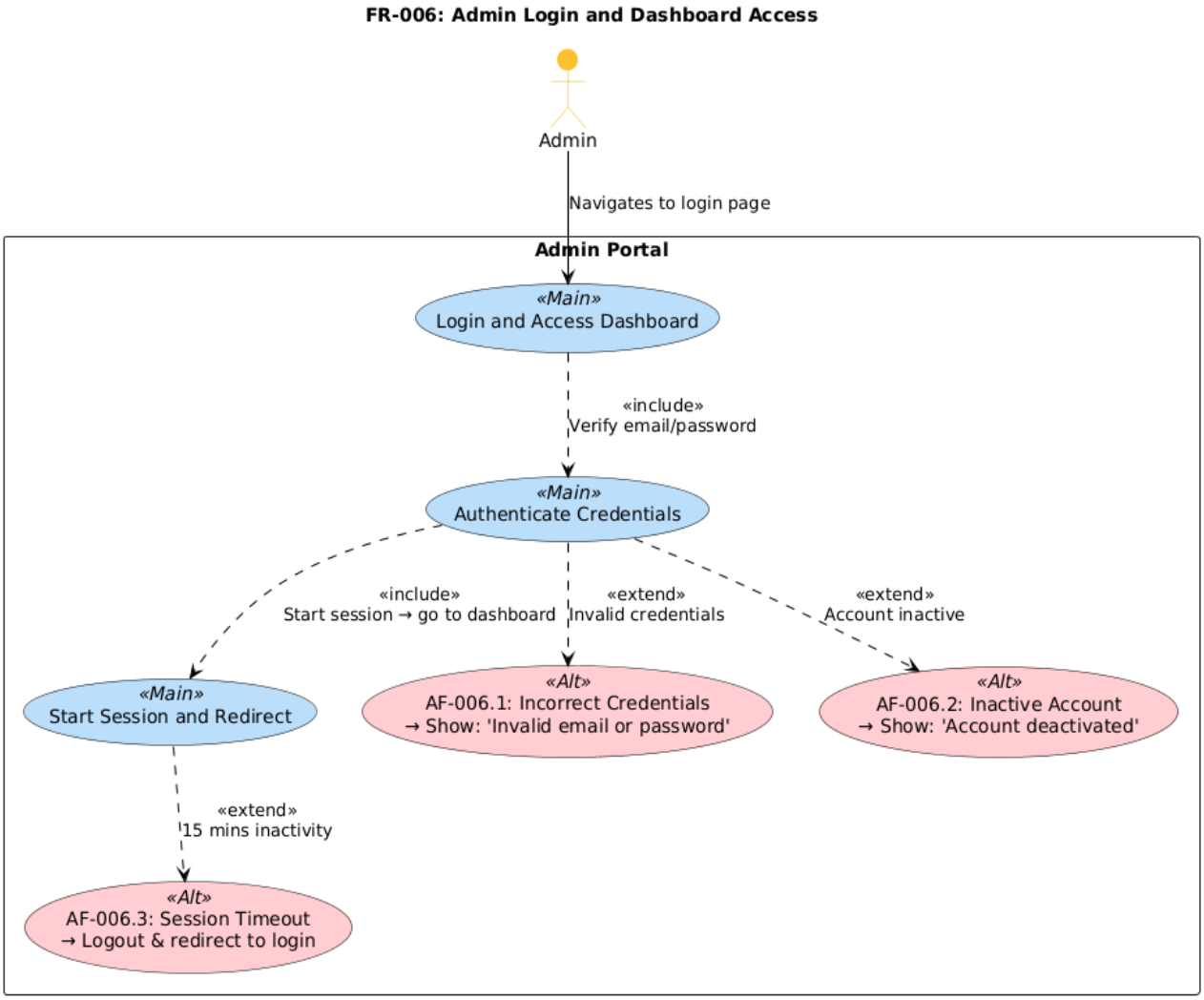


FR-005: Order Tracking

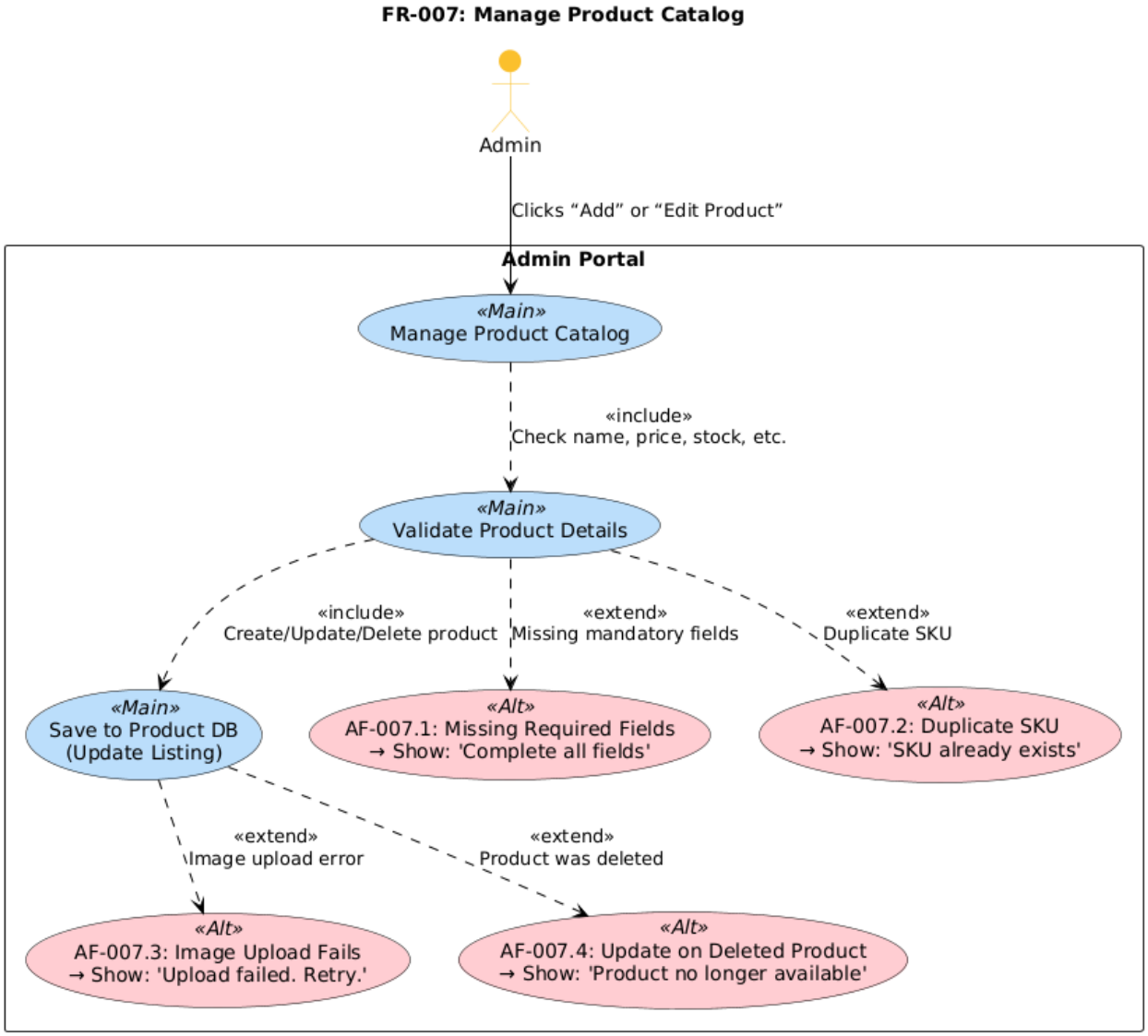


Admin login and dashboard access

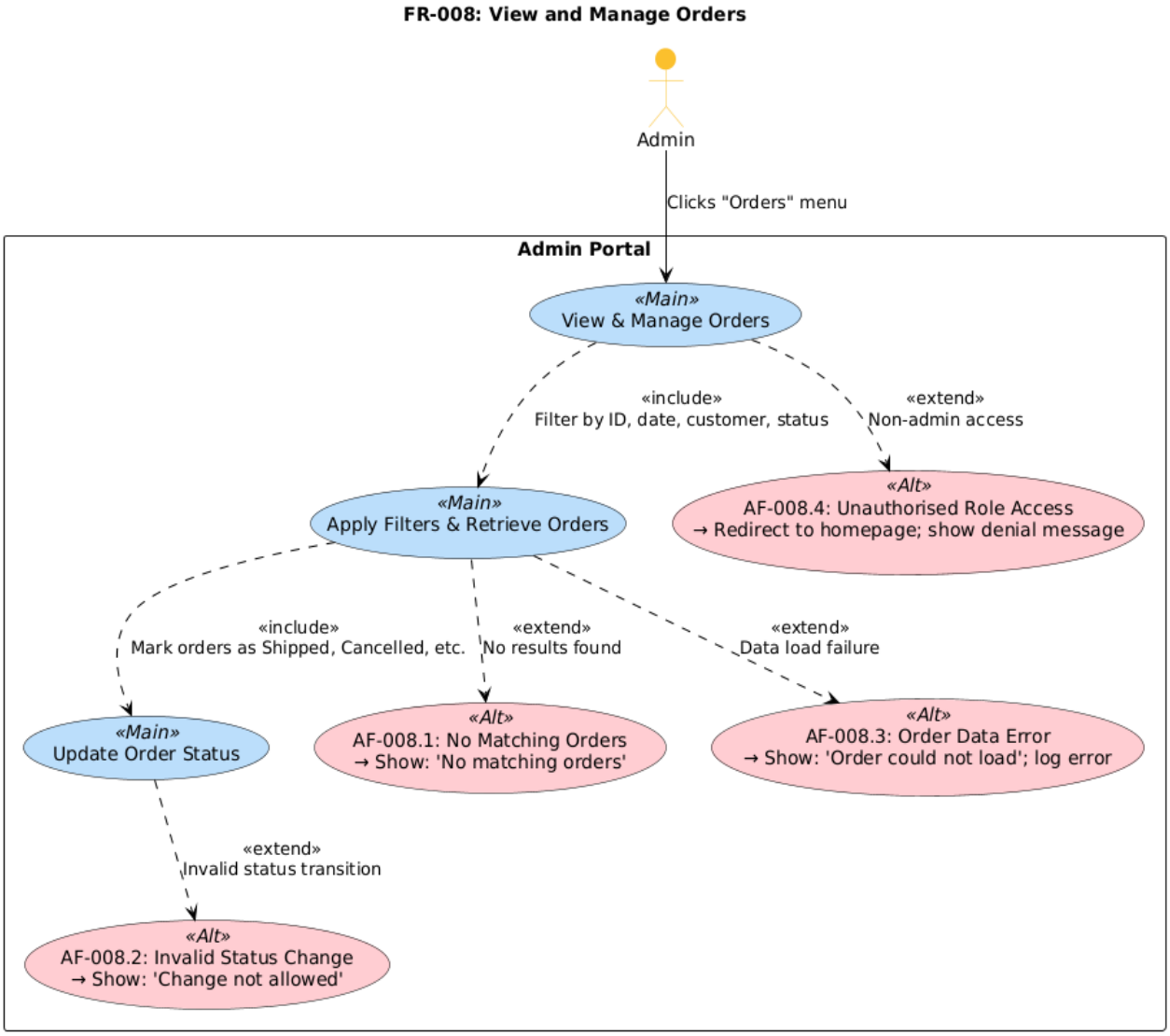
FR-006: Admin Login and Dashboard Access



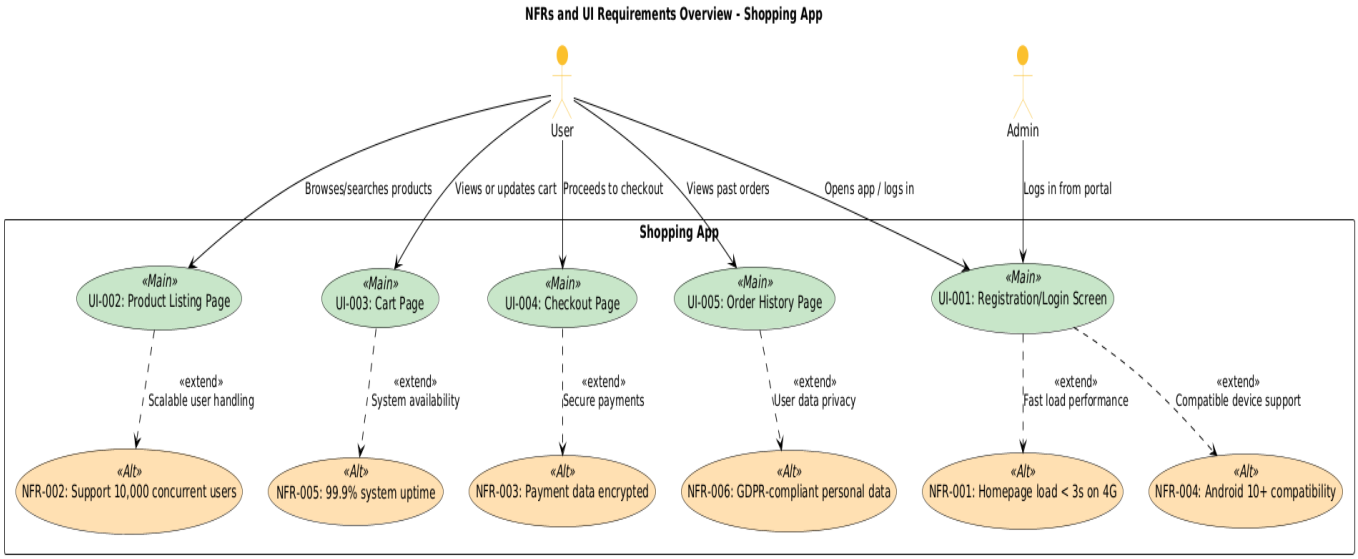
FR-007: Manage Product Catalog



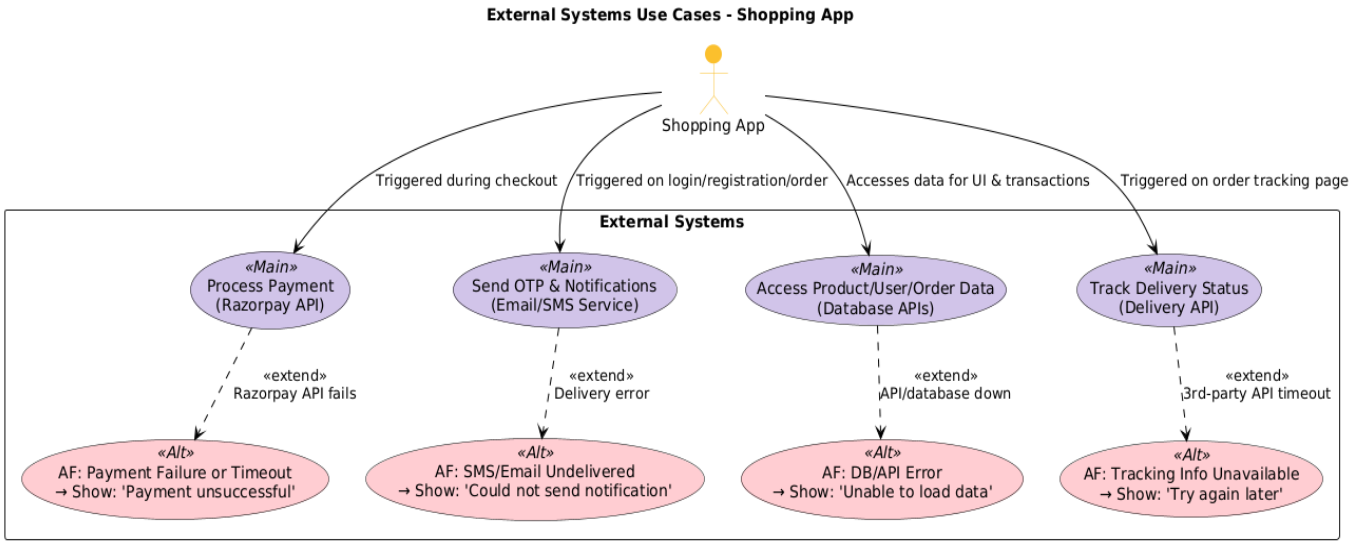
FR-008: View and Manage Orders.



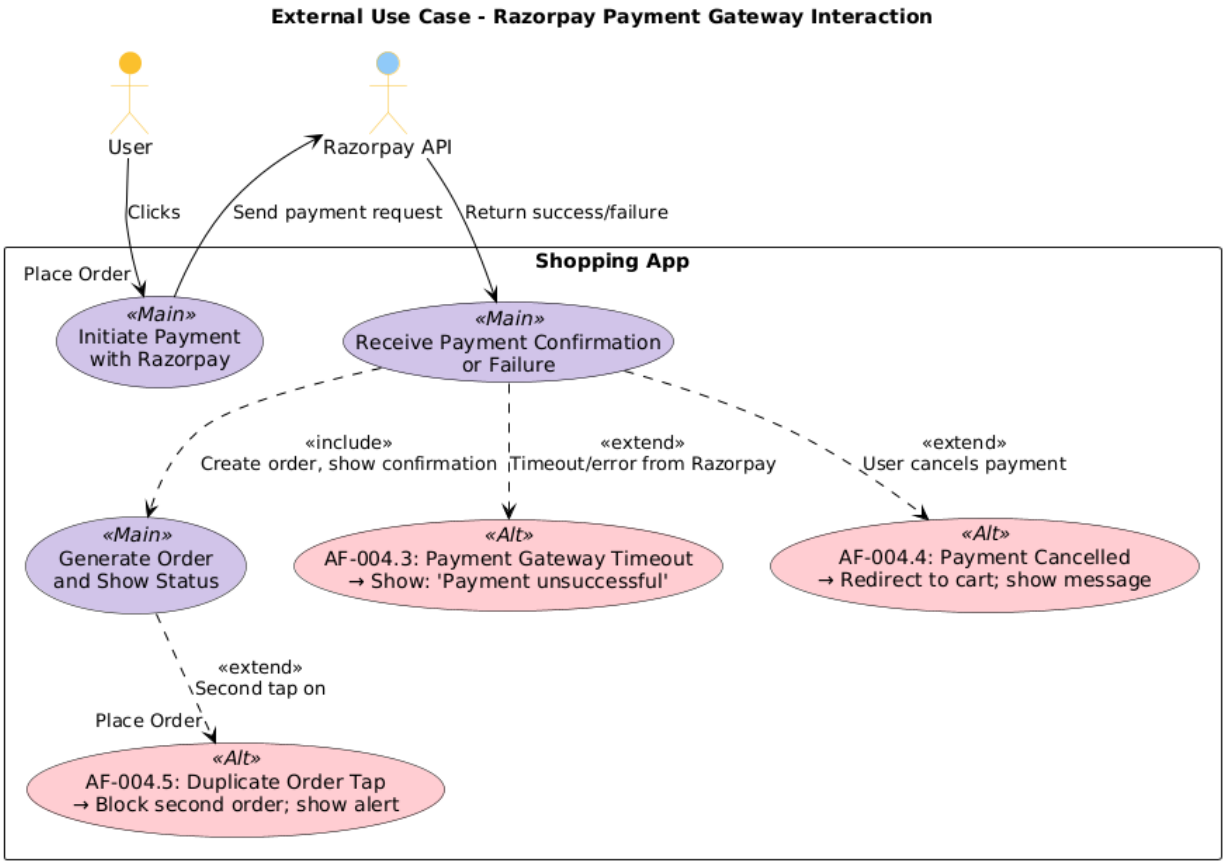
Non-functional Requirement Used Case



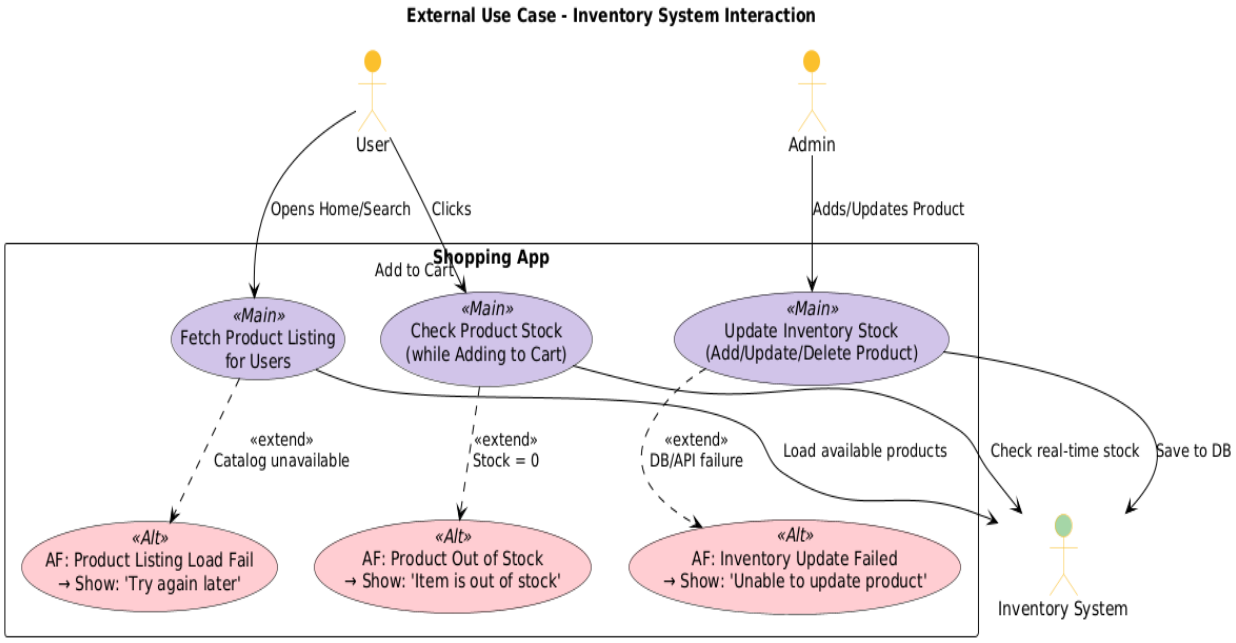
External System Use Case Diagram



Payment Gateway Interaction



Inventory System Interaction



Conclusion.

This document presents detailed use case diagrams for all core functional requirements of the Shopping App. Each diagram illustrates the primary user and system interactions, main flows, alternate scenarios, and external system dependencies. These visual models serve as a clear reference for developers, testers, and stakeholders, ensuring a shared understanding of system behaviour before implementation begins.