

Marketplace Requirements Specification Document	
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1. Preface

1.1 Readership

This document is intended for all stakeholders, and developers.

It outlines the functional and non-functional requirements for the specialized online marketplace of chocolates sale.

1.2 Version History

- **Version 1.0:** Initial draft including requirements analysis and use case documentation.
- **Version 1.1:** Refinements based on stakeholder feedback.
- **Version 1.2:** Added Git Repository URL

2. Introduction

2.1 Purpose

This document is to establish the requirements for a specialized online marketplace that facilitates the sale of chocolates. The document outlines functional and non-functional requirements, system constraints, and user needs to ensure a structured development process.

2.2 Scope

This marketplace will provide a platform for customers to browse and purchase chocolates, for sellers to list and manage inventory, and for administrators to oversee operations.

The system will ensure security, scalability, and a seamless user experience.

2.3 Business Objectives

- Provide a dedicated platform for selling chocolates.
- Ensure an easy and safe shopping experience.
- Support sellers in efficiently managing their inventory.
- Maintain high system reliability and security standards.

2.4 Stakeholders

- **Customers:** End-users who browse, purchase, and review chocolates.
 - **Sellers:** Vendors who list and manage chocolate products for sale.
 - **Administrators:** Users responsible for platform moderation, security, and compliance.
 - **Developers:** The technical team designing, building, and maintaining the platform.
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3. Glossary

- **Marketplace:** The online platform where buyers and sellers interact.
 - **Product Listing:** The process of adding chocolates for sale.
 - **Cart:** A feature allowing customers to collect items before purchase.
 - **Checkout:** The process of completing a transaction.
 - **GDPR:** General Data Protection Regulation for user data protection.
 - **PCI DSS:** Payment Card Industry Data Security Standard for secure transactions.
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4. User Requirements Definition

4.1 Functional Requirements

1. User Management

- Customers and sellers can register, log in, and manage their profiles.
- Administrators can approve, suspend, or delete user accounts.

2. Product Listings

- Sellers can create, edit, and delete chocolate listings with descriptions and images.
- Customers can browse, search, and filter chocolates.

3. Shopping Cart & Checkout

- Customers can add chocolates to a cart and proceed to checkout.
- Secure payment gateways must be integrated (Visa, Mastercard via Stripe).

4. Order Management

- Sellers can manage received orders and update order status.
- Customers can track their order history and request support.

5. Review & Ratings

- Customers can leave ratings and reviews for purchased chocolates.
- Sellers can respond to customer feedback.

6. Security & Compliance

- Secure authentication using OAuth or multi-factor authentication.
- Compliance with GDPR and PCI DSS for payment security.

4.2 Non-Functional Requirements

- **Scalability:** The system should support an increasing number of users and transactions without performance degradation.
 - **Performance:** Page load times should not exceed 3 seconds.
 - **Security:** Encrypted user data storage and secure authentication mechanisms.
 - **Usability:** The platform should have an intuitive interface for all user types.
 - **Reliability:** System uptime should be at least 99.9%.
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5. System Architecture

5.1 Constraints & Assumptions

- The marketplace will focus exclusively on chocolates, including:
milk, dark, white and gianduia varieties.
- Sellers are responsible for shipping and handling their own chocolates.
- Payment processing will be handled by Stripe (Visa/Mastercard).
- The system will be developed using ASP.NET Core with Blazor for the frontend and MSSQL for the database.

5.2 High-Level Architecture

- **Frontend:** Interactive web apps using Blazor for customer and seller interactions.
 - **Backend:** APIs handling user authentication, product listings, and order management.
 - **Database:** MSSQL for secure storage of user data, chocolate product information, and transactions.
 - **Payment Gateway Integration:** Stripe service for secure payments using Visa and Mastercard.
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6. Use Case Diagram

A graphical representation of key interactions between users, seller, administrator is provided below.

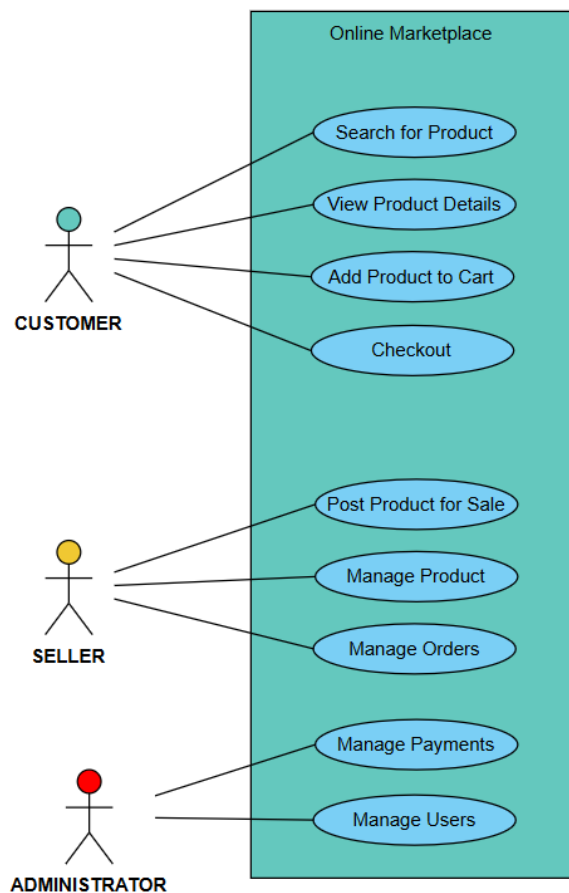


Figure 1: Use Case Diagram for the Online Chocolate Marketplace

7. User Stories

Customers:

- **As a customer,** I want to browse chocolates by category so that I can easily find what I need.
- **As a customer,** I want to securely complete my payment so that I can receive my purchased chocolates.

Sellers:

- **As a seller,** I want to manage my chocolate product listings so that I can keep my inventory updated.
- **As a seller,** I want to track my sales and order history so that I can analyze my business performance.

Administrators:

- **As an admin,** I want to monitor transactions to prevent fraud and ensure compliance.
- **As an admin,** I want to generate reports on marketplace activity to support decision-making.
- **As an admin,** I want to manage the users.

8. Git Repository Setup

- A Git repository has been created for project management and version control.
- URL: <https://github.com/sprynkler/Marketplace>
- The repository will include:
 - Stakeholder interview summaries
 - User stories and use case diagrams
 - Functional and non-functional requirements documentation
- Developers and stakeholders are onboarded with Git workflows.

9. Appendices

- **Appendix A:** Use Case Diagram (See Figure 1)
- **Appendix B:** Glossary of Terms