Business Requirements Specification (BRS)

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1. Introduction

1.1 Purpose

The purpose of this BRS is to outline the business requirements for the e-commerce application that will be built using React for the front-end and Spring Boot for the back-end. This document will identify the business objectives, stakeholder needs, and the critical factors necessary for the project's success.

1.2 Scope

This e-commerce application will cater to both customers and sellers, facilitating product browsing, purchasing, and management. Additionally, it will include an administrative interface for monitoring and analyzing sales data. The application will integrate with external payment gateways for processing transactions.

1.3 Definitions, Acronyms, and Abbreviations

- React: A JavaScript library for building user interfaces.
- Spring Boot: A Java-based framework used to create stand-alone, production-grade Spring-based applications.
- REST: Representational State Transfer, an architectural style for designing networked applications.
- API: Application Programming Interface, a set of routines, protocols, and tools for building software applications.

1.4 References

- React Documentation: https://reactjs.org/docs/getting-started.html
- Spring Boot Documentation: https://spring.io/projects/spring-boot

1.5 Overview

This document provides an overview of the business requirements necessary for the development of the e-commerce application. It addresses the business objectives, stakeholder profiles, business needs, and associated risks and assumptions.

2. Business Requirements

2.1 Business Objectives

- Enhance Online Shopping Experience: Provide a seamless, user-friendly interface for customers to browse and purchase products.
- Streamline Product Management: Enable sellers to efficiently manage their product listings and categories.
- Improve Sales Analysis: Equip administrators with tools to analyze sales data and make informed business decisions.

- Secure Payment Processing: Integrate with reliable payment gateways to ensure secure transactions.
- Ensure Data Security: Protect user data through encryption and secure access control mechanisms.

2.2 Business Needs

- Customer Satisfaction: Deliver a smooth and efficient shopping experience to increase customer satisfaction and retention.
- Seller Empowerment: Provide robust tools for sellers to manage their products and track sales performance.
- Operational Efficiency: Implement features that streamline the process of order placement, tracking, and management.
- Data-Driven Decisions: Offer detailed analytics and reporting capabilities for administrators to monitor business performance.
- Compliance with Regulations: Ensure the system complies with relevant data protection regulations (e.g., GDPR).

2.3 Stakeholder Profiles

- End Users (Customers):

  Role: Purchase products through the application.

  Needs: Easy navigation, secure payment options, order tracking, and customer support.

- Seller Users:

  Role: Manage product listings and categories.

  Needs: Intuitive product management interface, sales tracking, and customer feedback.

- Admin Users:

  Role: Oversee platform operations, analyze sales data, and manage user accounts.

  Needs: Access to comprehensive analytics, user management tools, and system monitoring capabilities.

2.4 Business Risks

- Security Breaches: Potential risks associated with data theft or unauthorized access.
- System Downtime: Risks of system unavailability affecting user experience and sales.
- Regulatory Compliance: Risks of non-compliance with data protection regulations.
- Third-Party Dependencies: Risks related to the reliability of external payment gateways and other integrated services.

2.5 Business Assumptions and Dependencies

- Modern Web Browsers: Assumes users will access the application through modern web browsers (Chrome, Firefox, Safari, Edge).
- Internet Connectivity: Assumes users have a stable internet connection.
- Third-Party Services: Assumes third-party services like payment gateways are reliable and available.
- Development and Maintenance: Assumes sufficient resources and expertise are available for the development and ongoing maintenance of the application.