**Project Document: Inventory Management System**

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**1. Introduction**

1.1. Purpose of the Document

- This document outlines the design and implementation of an Inventory Management System using Core Java, Oracle SQL database, JUnit, Jenkins, and Docker.

1.2. Project Overview

- The project aims to create a robust inventory management system to track products, manage stock, and handle orders in a user-friendly interface.

1.3. Scope

- The system will include user authentication, product management, stock tracking, order processing, and reporting features.

**2. System Requirements**

2.1. Functional Requirements

- User authentication and role-based access control.

- Product creation, update, and deletion.

- Stock tracking with notifications for low stock.

- Order placement, processing, and history tracking.

- Reporting for sales, stock levels, and order history.

**3. Architecture**

3.1. Functional Requirements

- User Management Module

- Product Management Module

- Stock Tracking Module

- Order Processing Module

- Reporting Module

**3.2. Class Diagram**

- Create a class diagram representing the major classes and their relationships in the system.

3.3. Sequence Diagrams

- Create sequence diagrams for key interactions, such as placing an order or updating stock.

**5. Technologies Used**

- Core Java for application logic.

- Oracle SQL database for data storage.

- JUnit for unit testing.

- Jenkins for continuous integration.

- Docker for containerization.

**6. Conclusion**

- Summarize the achievements and lessons learned during the development of the Inventory Management System.

**7. References**

- List resources, tutorials, and documentation used during the project development.

Please note that this outline provides a framework for your project. You will need to flesh out each section with detailed descriptions, code samples, and implementation specifics. The project is quite extensive, so I recommend breaking it down into smaller tasks and working on them incrementally.