Inventory Management System Requirements

This document outlines the requirements for an Inventory Management System to efficiently manage inventory, products, suppliers, and warehouses.

Functional Requirements

1. **Inventory Management**: The system should allow users to manage inventory, including adding, updating, and removing products.

2. **Product Management**: Users should be able to add, update, and remove products. Products should have attributes such as ID, name, description, price, and quantity available.

3. **Supplier Management**: The system should enable users to manage suppliers, including adding and removing suppliers. Suppliers should have attributes such as ID, name, and contact information.

4. **Warehouse Management**: Users should be able to manage warehouses, including adding and removing warehouses. Warehouses should have attributes such as ID and location.

5. **Relationships**: The system should establish relationships between inventory, products, suppliers, and warehouses. For example, a product can be contained in the inventory, supplied by a supplier, and stored in a warehouse.

Non-Functional Requirements

1. **Performance**: The system should be responsive and capable of handling a large number of products, suppliers, and warehouses without significant performance degradation.

2. **Security**: The system should implement proper authentication and authorization mechanisms to ensure that only authorized users can access and modify data.

3. **Scalability**: The system should be designed to scale horizontally or vertically to accommodate increasing data volumes and user loads.

4. **Reliability**: The system should be reliable, with minimal downtime and data integrity guarantees.

5. **Usability**: The system should have a user-friendly interface with intuitive navigation and efficient workflows.