

# Inventory Management System Architecture

## Subsystem Overview

- Inventory Database
- User Interface
- API Layer
- Authentication & Authorization
- Reporting Module

## Component Diagram

*[Insert Architecture Diagram Here]*

## Architecture Description

The Inventory Management System is structured in a layered architecture. The presentation layer provides user interaction via web or mobile interfaces. The business logic layer handles inventory processes, authentication, and reporting. Data persistence is managed through a secure inventory database.

## Key Components

Component	Description
Inventory Database	Stores product, stock, and transaction data.
User Interface	Facilitates data entry and report viewing by users.
API Layer	Enables integration with external systems and services.
Authentication	Manages user access and security.
Reporting Module	Generates inventory and sales reports.

## Workflow

1. User logs in via the User Interface.
2. Data requests are routed through the API Layer.
3. Business Logic processes the request and updates the Inventory Database as necessary.
4. System responds with updated inventory or generated reports.

