# Inventory Service

This project is a standalone Inventory Service for an e-commerce platform, built with Spring Boot (Java), React, and MySQL. It provides RESTful APIs for inventory management and a modern frontend dashboard.

## Features

* Inventory CRUD (Create, Read, Update, Delete)
* Stock management
* OpenAPI (Swagger) documentation
* Dockerized for easy local development

## Tech Stack

* Backend: Spring Boot
* Frontend: React
* Database: MySQL
* DevOps: Docker, Docker Compose

## Getting Started

### Prerequisites

* Docker & Docker Compose
* Java 17 (for manual backend build)
* Node.js (for manual frontend build)

### Local Development (Recommended)

1. Clone the repository:

* git clone <repo-url>  
  cd inventory-service

1. Start all services:

* cd infra  
  docker-compose up --build

1. Access the services:
   * Backend API: http://localhost:8080/api/v1/inventory
   * Swagger UI: http://localhost:8080/swagger-ui.html
   * Frontend: http://localhost:3000

### Manual Development

* **Backend:**
  + cd backend
  + ./mvnw spring-boot:run
* **Frontend:**
  + cd frontend
  + npm install && npm start
* **MySQL:**
  + Use your local MySQL instance with the credentials in backend/src/application.properties

## Database Schema

The service will auto-create the inventory\_items table: - id (PK) - name - sku - quantity - location - updated\_at

## API Documentation

* Swagger UI: <http://localhost:8080/swagger-ui.html>

## License

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