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# Project Title

Phase 2: Project Execution and Demonstration

## 1. Project Title:

Stocky – Multi-Store Inventory and Business Management System

## 2. Objective Recap:

Stocky is a full-stack web application designed to help business owners efficiently manage inventory and operations across multiple store locations. Built with Java, Spring Boot, and Angular, it follows clean architecture principles to ensure maintainability, scalability, and ease of use. This phase involves the development, integration, and testing of all system components including frontend, backend, and database connectivity.

## 3. Technologies Used:

Frontend: Angular, TypeScript, Tailwind CSS  
Backend: Java, Spring Boot  
Database: PostgreSQL  
Build Tools: Maven

## 4. Full Code Implementation:

Step 1: Backend Development (Spring Boot)  
- Created entity classes for Users, Products, Categories, Inventory, etc.  
- Developed REST controllers, services, and repositories.  
- Implemented role-based authentication and authorization.

Step 2: Frontend Development (Angular)  
- Developed components for dashboard, product listing, company settings, etc.  
- Integrated services to communicate with backend APIs.  
- Implemented state management and responsive layouts.

Step 3: Database Integration  
- Designed schema in PostgreSQL.  
- Connected using Spring Data JPA.  
- Added migration scripts for schema setup.

Step 4: Testing and Validation  
- Conducted unit testing of backend APIs.  
- Verified frontend components with mock data.  
- Performed integration testing for major user workflows.

Step 5: Deployment  
- Configured local development profile.  
- Started backend using `mvn spring-boot:run` and frontend via Angular CLI.  
- Verified complete system at http://localhost:8080 and frontend interface.

## 5. Output Screenshots:

Include screenshots for:  
- Login Screen  
- Setup Company  
- Manage Products  
- Add Products  
- Sales Point  
- Add Expenses

## 6. Conclusion:

Stocky is successfully implemented as per plan and objectives. It streamlines business operations, enhances visibility across multiple stores, and offers a user-friendly interface. With a solid foundation, the system is ready for deployment and further feature expansion.

## 7. References:

- Spring Boot Documentation  
- Angular Documentation  
- PostgreSQL Docs  
- Tailwind CSS Docs  
- Maven Build Tools Reference