**Project 4 : Organic Farms**

Overview:

The Organic Farms System serves as a comprehensive solution for buying organic fruits, vegetables and pulses on order or weekly/monthly subscription basis. It connects various farms partners with customers and allows quick delivery of the products. This project integrates front-end development with HTML5, CSS3, JavaScript, and Angular, and back-end development using Java Core, RESTful APIs, microservices, and incorporates modern design patterns, as learned in the previous training programs.

**Sprint 1: Spring Boot - Backend Setup**

**Task 1:** Set up a Spring Boot project for the Organic Farms.  
**Task 2:** Configure Spring Data JPA for managing farming partners and customers with MySQL as the database.  
**Task 3:** Implement RESTful endpoints for CRUD operations on fruits, vegetables and pulses of various types, with different order options.

**Task 4:** use JWT for authorization for various roles.

**Task 5:** Include payment gateway interface.

**Sprint 2: Angular - Frontend Development**

**Task 1:** Initialize an Angular project for the Organic Farms interface.  
**Task 2:** Develop components for displaying fruits/veggies/pulses, adding/editing fruits/veggies/pulses, and marking products as available/not available.  
**Task 3:** Integrate Angular services to consume the Spring Boot RESTful APIs.

**Sprint 3: Advanced Features and User Interaction**

Task 1: Add real-time availability checks and dynamic features.

Task 2: Create components for reviews and ratings.

Task 3: Develop a user dashboard to manage orders.

Task 4: Enhance the UI with CSS3 transitions and animations.

Task 5: Include data validation for user sign up and sign in.

**Sprint 4: Microservices and System Integration**

Task 1: Design a microservices architecture for the platform.

Task 2: Include discovery server and API Gateway.

Task 3: Containerize the services using Docker.

Task 4: Set up inter-microservice communication.

Task 5: Implement monitoring and logging for microservices.

**Sprint 5: Testing, Deployment, and Documentation**

Task 1: Conduct thorough testing with Mocha, Chai, and Jest.

Task 2: Deploy the app on Kubernetes on cloud environment.

Task 3: Optimize the application for performance.

Task 4: Create comprehensive documentation.