

NourishNet: Full Stack Food Marketplace — Project Report

Introduction

NourishNet is a professional full-stack web application designed to facilitate the buying and selling of fresh produce. It supports local farmers while reducing food waste by providing a seamless online marketplace. The platform includes a modern React-based frontend and a robust Spring Boot backend integrated with PostgreSQL.

Features

- User authentication (signup/login)
- Marketplace for browsing fresh produce
- Add to cart and Buy Now functionality
- Cart management (add, remove, clear items)
- Responsive UI built with Tailwind CSS and Framer Motion
- Smooth navigation using React Router
- Clean, modern interface with animations and reusable components

Tech Stack

Frontend:

- React
- Vite
- Tailwind CSS
- Framer Motion
- Lucide React
- React Router

Backend:

- Spring Boot
- Spring Data JPA
- PostgreSQL
- Maven

Project Structure

```
Full_stack_finalProject/
  nourishnetfrontend/ — React + Vite Frontend
    components/ — Reusable UI components
    pages/ — Main application pages
    src/ — Entry files and assets
    package.json — Frontend dependencies
```

```
■ ■■■ ...  
■■■ nourishnetbackend/ — Spring Boot Backend  
■ ■■■ controller/ — REST Controllers  
■ ■■■ model/ — JPA Entities  
■ ■■■ repository/ — Data Repositories  
■ ■■■ service/ — Business Logic  
■ ■■■ application.properties — DB configuration  
■ ■■■ pom.xml — Backend dependencies  
■■■ README.md — Documentation
```

Setup & Installation

Prerequisites:

- Node.js & npm
- Java 21+
- PostgreSQL

Backend Setup:

1. Configure PostgreSQL inside *application.properties*

2. Run backend:

```
cd nourishnetbackend  
.mvnw spring-boot:run
```

Frontend Setup:

1. Install dependencies:

```
cd nourishnetfrontend  
npm install
```

2. Run development server:

```
npm run dev
```

Application available at: <http://localhost:5173>

Usage

- Create an account or log in
- Browse marketplace products
- Add items to cart
- Manage cart items
- Click “Buy Now” to instantly purchase and clear the cart

API Endpoints

Auth:

POST /api/auth/signup — Register a new user

POST /api/auth/login — Login user

Marketplace:

GET /api/food_post — Fetch all products

Cart:

GET /api/cart/{userId} — Get user's cart
POST /api/cart/{userId}/add/{foodpostId} — Add item
DELETE /api/cart/{userId}/remove/{foodpostId} — Remove item
DELETE /api/cart/{userId}/clear — Clear cart

Conclusion

NourishNet provides a complete and scalable solution for connecting consumers with local farmers. Its modern stack, responsive UI, and structured backend architecture make it suitable for real-world deployment and future enhancements such as order tracking, payment integration, and AI-powered recommendations.

License

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