

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.

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