

# Django Recipe App – Portfolio Case Study

A full-stack recipe management platform built with Django.

## Project Overview

 **Live Demo:** <https://django-recipe-app-6t2d.onrender.com/>

## Tech Stack:

-  Python
-  Django
-  HTML, CSS, JavaScript
-  REST API
-  PostgreSQL
-  GitHub Actions (CI/CD)
-  Render (Deployment)

The Django Recipe App is a full-stack web application that allows users to securely create, manage, and organize their personal recipes. It demonstrates my ability to build a complete application from backend logic to frontend UI and deployment.

## Problem Statement

Many people store recipes across notebooks, screenshots, and random notes. This makes it difficult to organize and retrieve them.

The goal was to build a **centralized, secure, and user-friendly** platform where users can:

-  Save recipes
-  Edit or delete them
-  Search quickly
-  Keep their data private
-  Access from any device

 **My Role**

I worked as the **Full-Stack Developer**, responsible for:

-  Designing database models
-  Implementing authentication
-  Building CRUD functionality
-  Creating responsive UI with HTML/CSS
-  Testing and debugging
-  Deploying using Render + GitHub Actions

 **Key Features** **User Authentication**

- Secure login & registration
- Password hashing
- User-specific recipe storage

 **Recipe Management (CRUD)**

- Add, edit, delete recipes
- View detailed recipe pages
- Organized recipe dashboard

 **Search Functionality**

- Search recipes by name
- Fast and intuitive filtering

 **Responsive UI**

- Built with custom HTML & CSS
- Clean, minimal, mobile-friendly design

## Admin Panel

- Manage users
- Manage recipes
- View database entries

## Technical Implementation

### Backend (Django)

- Django MVC architecture
- Models for recipes & user relationships
- Views for CRUD operations
- REST API endpoints for recipe data
- Form validation & error handling

### Frontend

- HTML templates with Django Template Language
- Custom CSS styling
- JavaScript for interactivity

### Database

- PostgreSQL
- Relational structure with foreign keys
- Secure user-recipe mapping

### CI/CD & Deployment

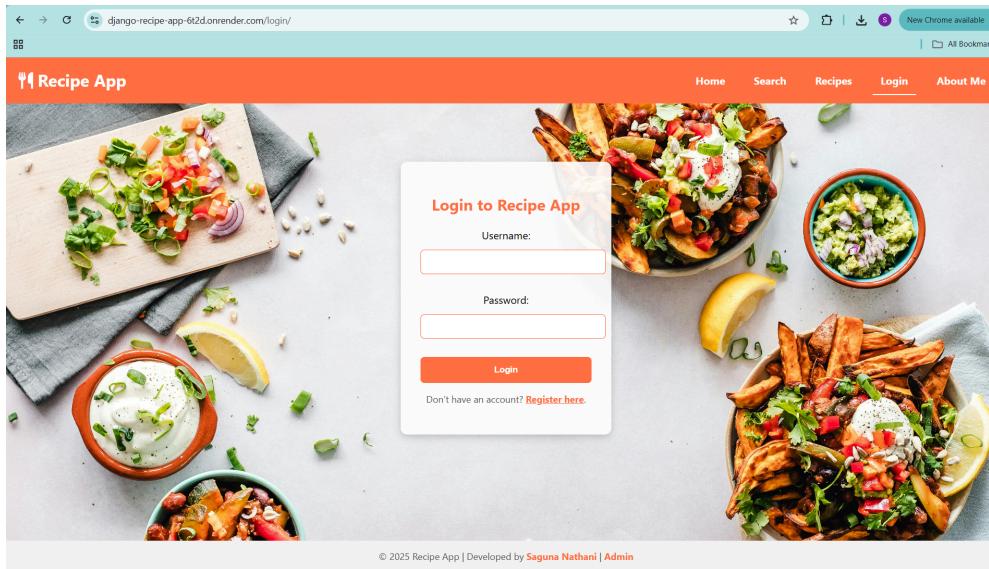
- GitHub Actions for automated testing & deployment
- Render for hosting
- Environment variables for security
- WhiteNoise for static file handling

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## Screenshots

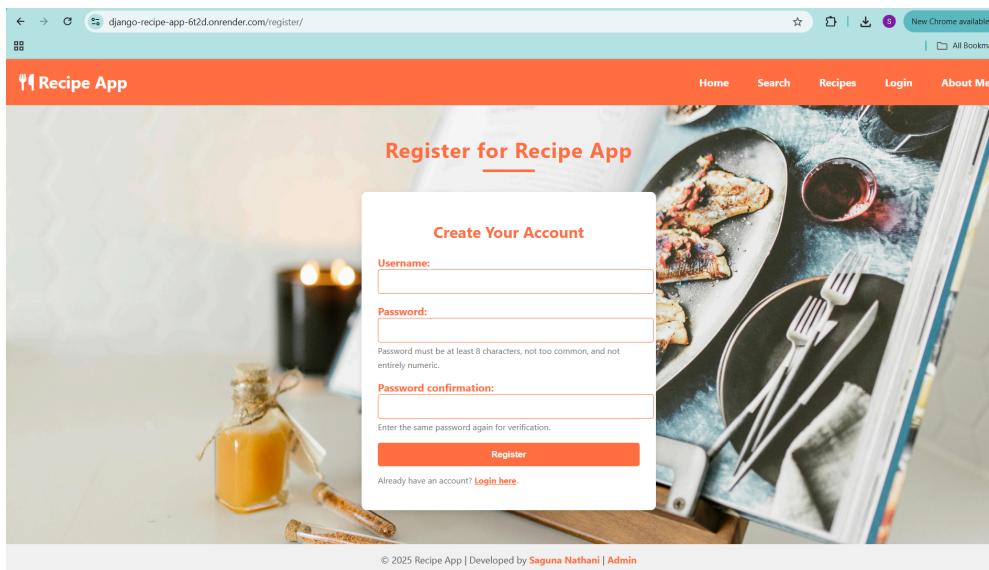
### 🔒 Login View

A clean login page allowing users to securely access their recipe dashboard.



### 📝 Register View

Simple registration form for new users.



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## Admin Panel

Django admin interface for managing users and recipes.

The screenshot shows the Django Admin interface at [django-recipe-app-6t2d.onrender.com/admin/](https://django-recipe-app-6t2d.onrender.com/admin/). The left sidebar contains links for Groups, Users, Ingredients, and Recipes. The main area displays a list of recent actions:

- Untitled Recipe Recipe
- Rajma Masala Recipe
- Rajma Masala Recipe
- Vegetable Lasagna Recipe
- Paner Tikka Recipe
- Stuffed Bell Peppers Recipe
- Vegetable Soup Recipe
- Aloo Gobi Recipe
- Vegetable Biryani Recipe
- Chana Masala Recipe

## Home View

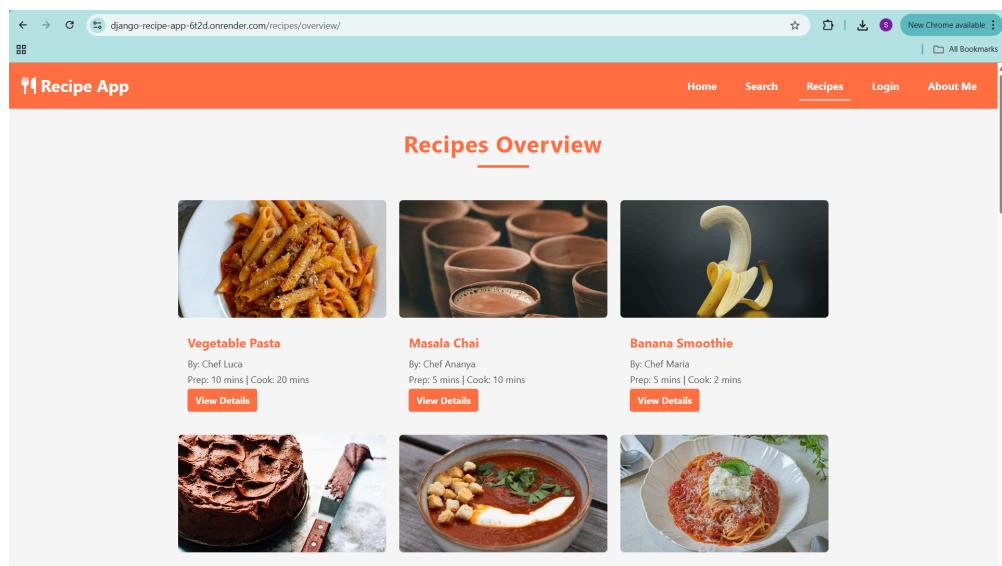
Landing page after login with navigation options.

The screenshot shows the Recipe App home page at [django-recipe-app-6t2d.onrender.com](https://django-recipe-app-6t2d.onrender.com). The top navigation bar includes Home, Search, Recipes, Login, and About Me. A central banner reads "Welcome to Our Recipes Home" and "Discover, create, and share your favorite recipes with ease and joy!". Below the banner is a "View All Recipes" button. The background features a vibrant image of various chopped vegetables like tomatoes, bell peppers, and leafy greens.

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## Recipe Overview (All Recipes)

Displays all recipes created by the logged-in user.

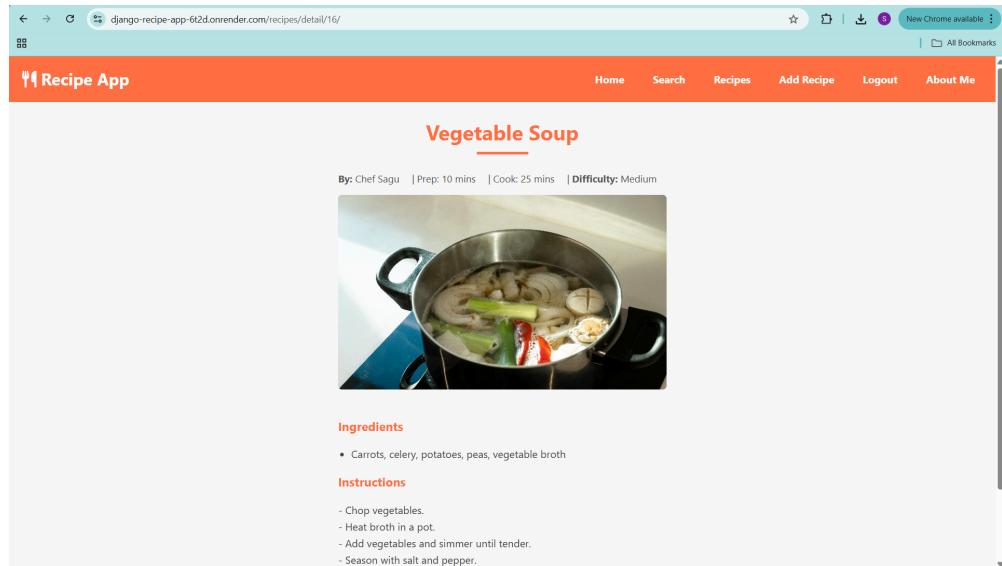


The screenshot shows a web browser window for a Django-based recipe application. The URL is `django-recipe-app-6t2d.onrender.com/recipes/overview/`. The page has a red header bar with the title "Recipe App". Below the header, the title "Recipes Overview" is centered above a grid of six recipe cards. Each card contains a thumbnail image, the recipe name, the chef's name, preparation and cooking times, and a "View Details" button.

Image	Recipe Name	Chef	Prep Time	Cook Time	Action
	Vegetable Pasta	Chef Luca	10 mins	20 mins	<a href="#">View Details</a>
	Masala Chai	Chef Ananya	5 mins	10 mins	<a href="#">View Details</a>
	Banana Smoothie	Chef Maria	5 mins	2 mins	<a href="#">View Details</a>
	Chocolate Cake				
	Spicy Tomato Soup				
	Pasta with Basil				

## Recipe Details View

Shows full recipe details including ingredients and instructions.



The screenshot shows a web browser window for the same Django-based recipe application. The URL is `django-recipe-app-6t2d.onrender.com/recipes/detail/16/`. The page has a red header bar with the title "Recipe App". Below the header, the title "Vegetable Soup" is centered above the recipe details. The details include the chef's name, preparation and cooking times, a difficulty level, and a large thumbnail image of the soup being cooked. Below the image, sections for "Ingredients" and "Instructions" are listed.

By: Chef Sagu | Prep: 10 mins | Cook: 25 mins | Difficulty: Medium

**Ingredients**

- Carrots, celery, potatoes, peas, vegetable broth

**Instructions**

- Chop vegetables.
- Heat broth in a pot.
- Add vegetables and simmer until tender.
- Season with salt and pepper.

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## + Add Recipe View

Form for adding new recipes with validation.

**Add a New Recipe**

**Title** Untitled Recipe    **Author Name** Unknown

**Description**

**Prep Time (mins)** 0    **Cook Time (mins)** 0    **Serves** 1

**Ingredients** No Ingredients listed    **Instructions** No instructions yet

## 🔍 Search View

Search bar to filter recipes by name.

**Search Your Perfect Recipes**

**Recipe Name:** pasta    **Ingredients:** e.g., Milk, Tomatoes, Garlic, Sugar

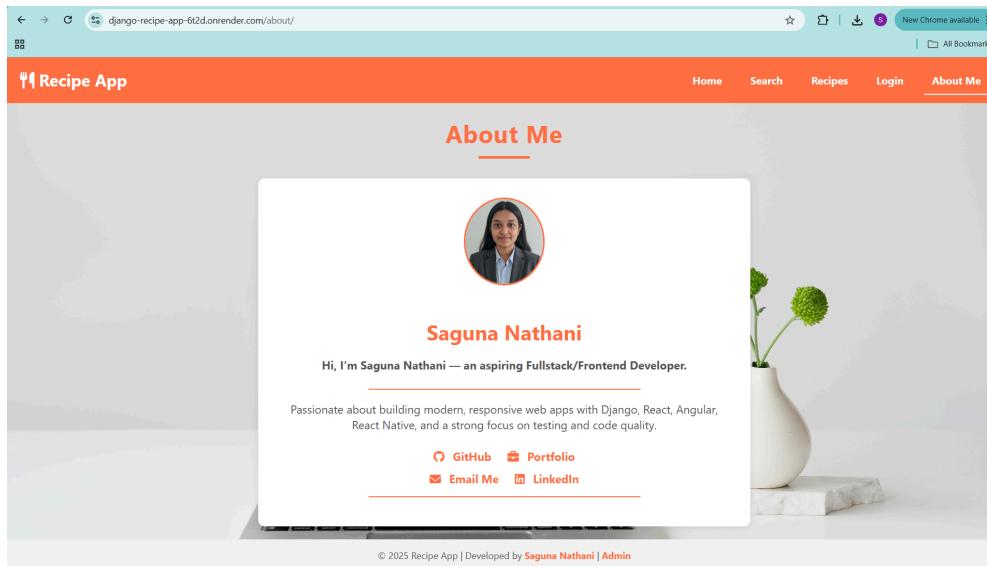
**Max Cooking Time (minutes):** Maximum minutes    **Show all recipes**

**Search & Analyze**

**Search Results**

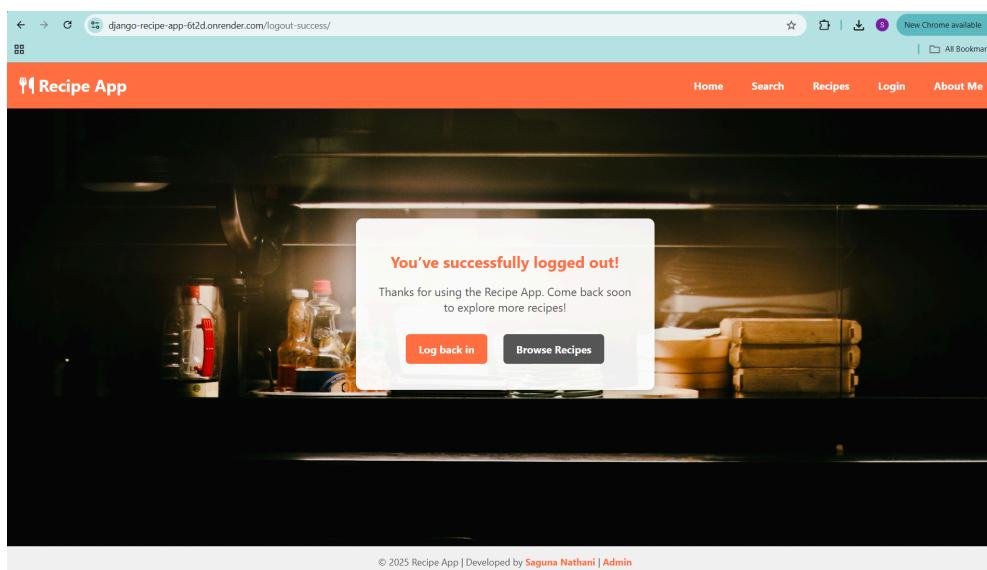
## About View

Displays information about the application, including its purpose, features, and how users can benefit from using the Recipe App.



## Logout View

Logs the user out and redirects to the login page.



## Challenges & Solutions

### ♦ Challenge: User-specific data isolation

**Solution:** Used Django's foreign key relationships and filtered queries by `request.user`.

### ♦ Challenge: Deployment static files issue

**Solution:** Configured WhiteNoise and updated production settings.

### ♦ Challenge: Clean UI without Bootstrap

**Solution:** Designed custom CSS components and layout structure.

## Outcome

The final application is:

- ✓ Fully functional
- ✓ Secure
- ✓ Responsive
- ✓ Easy to use
- ✓ Deployed with CI/CD

It demonstrates my ability to build a complete full-stack application independently.

## What I Learned

- Django ORM & model relationships
- REST API integration
- Deployment workflow with Render
- CI/CD automation using GitHub Actions
- Writing clean, maintainable code
- Improving UI/UX with custom CSS

## Future Enhancements

- Recipe categories & tags
- Image upload for recipes
- Public recipe sharing
- API endpoints for mobile apps

## Project Links

Live App: <https://django-recipe-app-6t2d.onrender.com/>

GitHub Repository: <https://github.com/sagunanathani/django-recipe-app>

## Wrapping Up

Thank you for taking the time to explore my Django Recipe App project. This application reflects my passion for building clean, functional, and user-focused web experiences using modern full-stack technologies. I look forward to creating more projects that combine thoughtful design, strong backend architecture, and smooth user interactions.