

FoodMitra - Connecting Home Cooks and Food Lovers

Jyothi C¹ and Dr. T Vasudev²
Postgraduate Students, Department of MCA¹
Professor, Department of MCA²
Maharaja Institute of Technology, Mysore

Abstract: *In today's fast-paced world, students, bachelors, and working professionals living away from home struggle to find affordable, healthy, and homemade food on a daily basis. Restaurant food is expensive, unhealthy, and lacks the personal touch of home-cooked meals. On the other hand, many talented home cooks such as housewives and retired individuals prepare fresh food every day but have no platform to reach customers or earn income from their cooking skills..*

Keywords: *fast-paced world*

1. INTRODUCTION

1. Problem Statement:-

In today's fast-paced world, students, bachelors, and working professionals living away from home struggle to find affordable, healthy, and homemade food on a daily basis. Restaurant food is expensive, unhealthy, and lacks the personal touch of home-cooked meals. On the other hand, many talented home cooks such as housewives and retired individuals prepare fresh food every day but have no platform to reach customers or earn income from their cooking skills.

Most existing food delivery platforms like Zomato and Swiggy focus only on restaurants and hotels. They do not provide any opportunity for home cooks to register, post their daily menu, and accept orders from nearby customers. As a result, a large section of skilled home cooks remain unrecognized and earning no income, while a large number of people continue to eat unhealthy and expensive food daily.

To overcome these problems, this project proposes a web-based Home Cooked Food Sharing Network that connects home cooks with nearby customers. The platform allows cooks to post their daily menu with photos and prices, and allows customers to browse, order, and track homemade food from trusted home cooks in their area.

2. Objective:-

- To develop a web-based platform that connects home cooks with nearby customers.
- To provide secure user registration and login functionality for cooks, customers, and admin.
- To allow home cooks to post their daily menu with food photos, price, and available quantity.
- To allow customers to browse nearby cooks, filter by cuisine and diet preference, and place orders.
- To implement an order tracking system that shows real-time order status from accepted to delivered.
- To allow customers to rate and review home cooks after receiving their order.
- To provide an admin panel for verifying cook registrations, managing complaints, and viewing platform analytics.
- To display cook earnings and order history using charts and a visual dashboard.



3. Scope of the Project:-

The system is designed to provide a digital platform for home cooks to earn income and for customers to access healthy homemade food.

- It focuses on three types of registered users — Home Cooks, Customers, and Admin — each with their own dashboard and features.
- The system allows home cooks to post their daily menu and manage incoming orders through a dedicated cook dashboard.
- Customers can browse nearby cooks, filter food by cuisine type and diet preference, place orders, and track order status in real time.
- The admin can verify and approve home cook registrations, handle complaints, and monitor platform activity through an analytics dashboard.
- The project includes location-based filtering to show only cooks within a nearby area, order management, review and rating system, and PDF receipt generation.
- The scope is limited to a web-based application built using Python and Django with SQLite as the development database.

4. Methodology:-

The proposed system is developed using a structured approach that includes data collection, system development, result generation, and testing to ensure smooth and efficient functioning of the platform.

1. Data Collection

Collect user details during registration such as name, email, phone, password, and role.

Collect cook profile details such as bio, speciality, and cooking experience.

Store daily menu details posted by cooks including food name, photo, price, quantity, and cuisine type.

2. Data Preprocessing

Validate all user inputs during registration and login.

Process and store uploaded food photos using Django media upload.

Organize order data with proper status tracking from pending to delivered.

3. System Development

Develop the backend using Python and Django framework.

Create separate modules for user accounts, menu management, order placement, and reviews.

Connect Django with SQLite database for development and PostgreSQL for production.

Implement logic for order tracking, location-based filtering, and earnings calculation.

4. System Design

Design responsive web pages using HTML, CSS, JavaScript, and Bootstrap.

Create separate dashboards for cook, customer, and admin users.

Develop a visual earnings dashboard for cooks using Chart.js.

Ensure proper integration between the frontend and Django backend.

5. Process Flow

Cook registers and waits for admin verification.

Admin approves the cook registration.

Cook posts today's menu with photo, price, and available quantity.

Customer registers and browses nearby cooks and their menus.

Customer places an order and makes payment.

Cook receives the order, accepts it, and prepares the food.

Cook marks the order as ready for pickup or delivery.

Customer receives the food and rates the cook.



Results and earnings are displayed on respective dashboards.

6. Result Generation

Display list of nearby cooks and their daily menus to customers.

Show real-time order status to both cook and customer.

Display cook earnings with weekly and monthly charts.

Generate PDF receipt automatically after order delivery.

Show top rated cooks on the homepage for better visibility.

7. Testing and Validation

Test all modules including registration, menu posting, order placement, and tracking.

Verify the accuracy of location-based filtering and order status updates.

Check database connectivity and data storage accuracy.

Fix errors and improve system performance for reliable usage.

5. Hardware and Software Requirements:-

Hardware Requirements

Processor: Intel i3 or higher for smooth execution

RAM: Minimum 4 GB (8 GB recommended for better performance)

Hard Disk: 500 GB or above to store project files, media uploads, and database

System Type: Laptop or Desktop

Input Devices: Keyboard and Mouse

Software Requirements

Operating System: Windows / Linux / macOS

Programming Language: Python

Frontend Technologies: HTML, CSS, JavaScript, Bootstrap

Backend Framework: Django

Database: MySQL

Tools / IDE: Visual Studio Code

Web Browser: Google Chrome or any modern browser

Libraries

Django — for backend development and system logic

Pillow — for handling food photo uploads

Django ORM — for database operations and management

ReportLab — for generating PDF receipts after order delivery

Django Channels — for real-time order notifications

Chart.js — for data visualization and earnings dashboard charts

Leaflet.js — for map-based location filtering of nearby cooks

6. Applications and Future Scope:-

Applications of the Project:

Helps home cooks such as housewives and retired individuals earn income from their cooking skills.

Provides students and working professionals with access to affordable and healthy homemade food.

Useful for tiffin service providers who want to manage orders digitally.

Reduces food waste by allowing cooks to post only the quantity they have prepared.

Promotes the culture of homemade food and supports small-scale home-based businesses.

Can be used as a hyperlocal food platform in residential areas, hostels, and office zones.



Future Scope of the Project:

The system can be integrated with payment gateways like Razorpay or Paytm for online payments.

A mobile application version can be developed for easier access on smartphones.

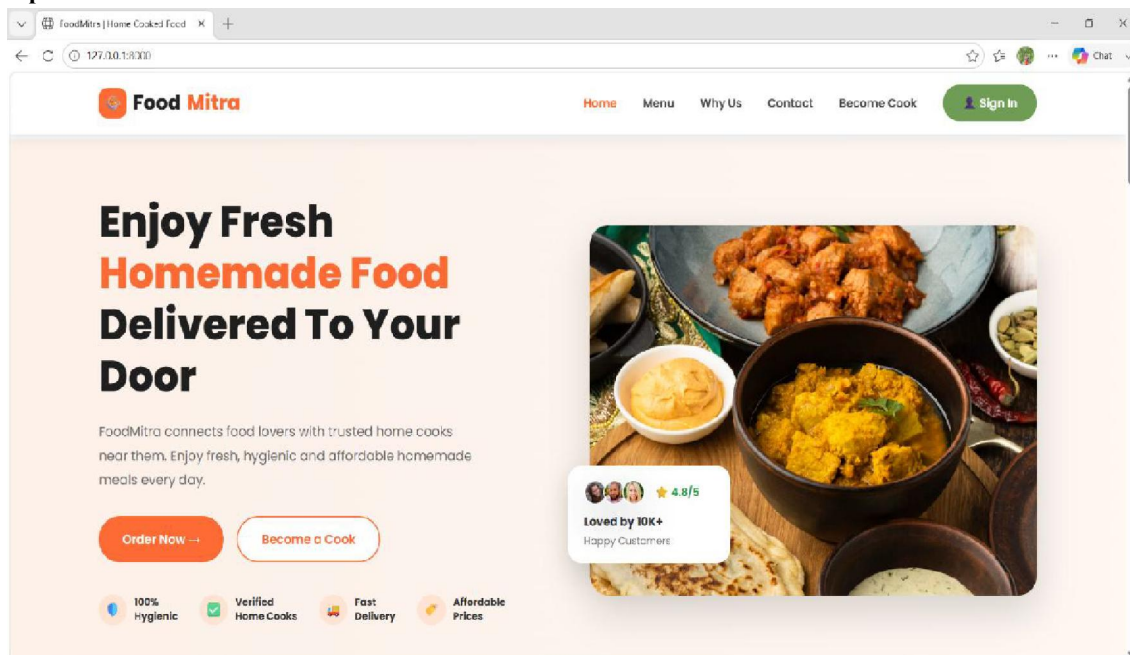
Advanced AI-based recommendation system can be added to suggest menus based on customer preferences.

Real-time delivery tracking using GPS can be integrated for doorstep deliveries.

A subscription-based tiffin service model can be added for regular customers.

Multi-language support can be added to reach a wider audience across different regions of India.

8.Snapshot's:-



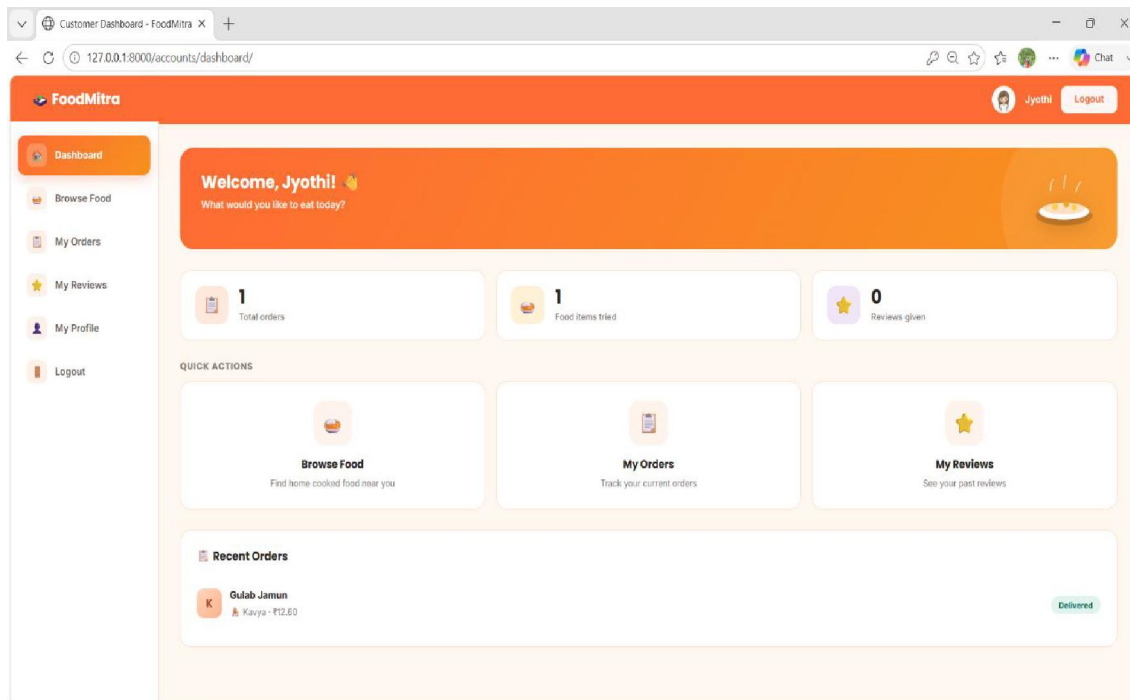
Home page



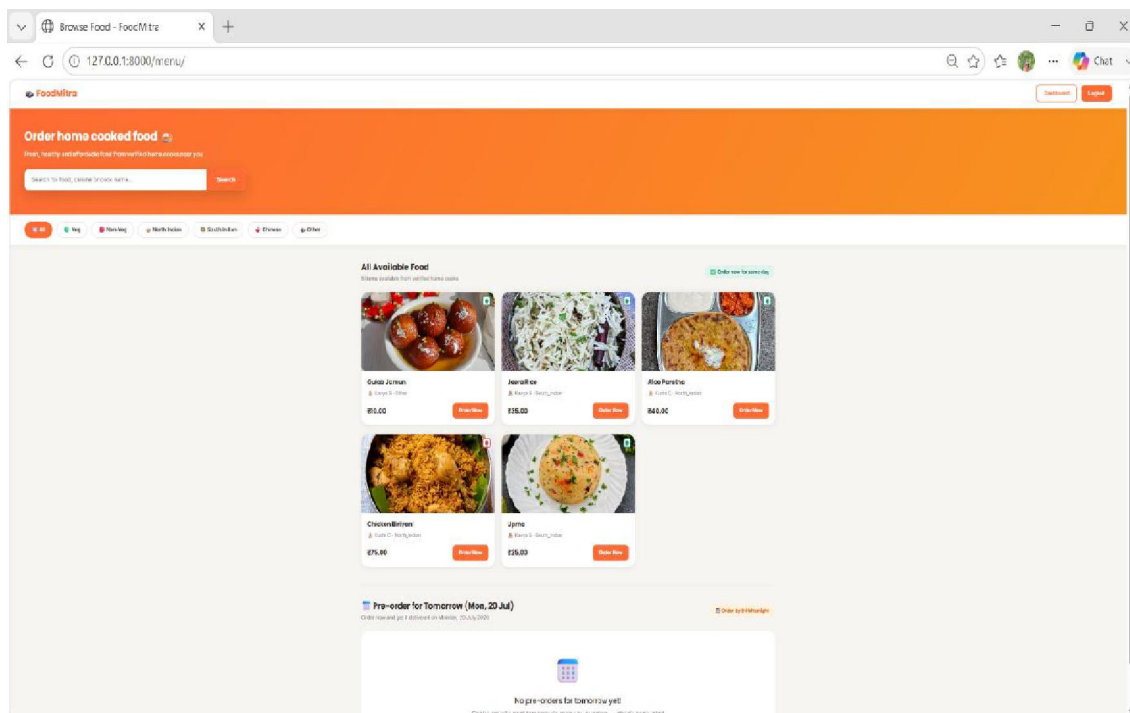
Register Page

Login Page



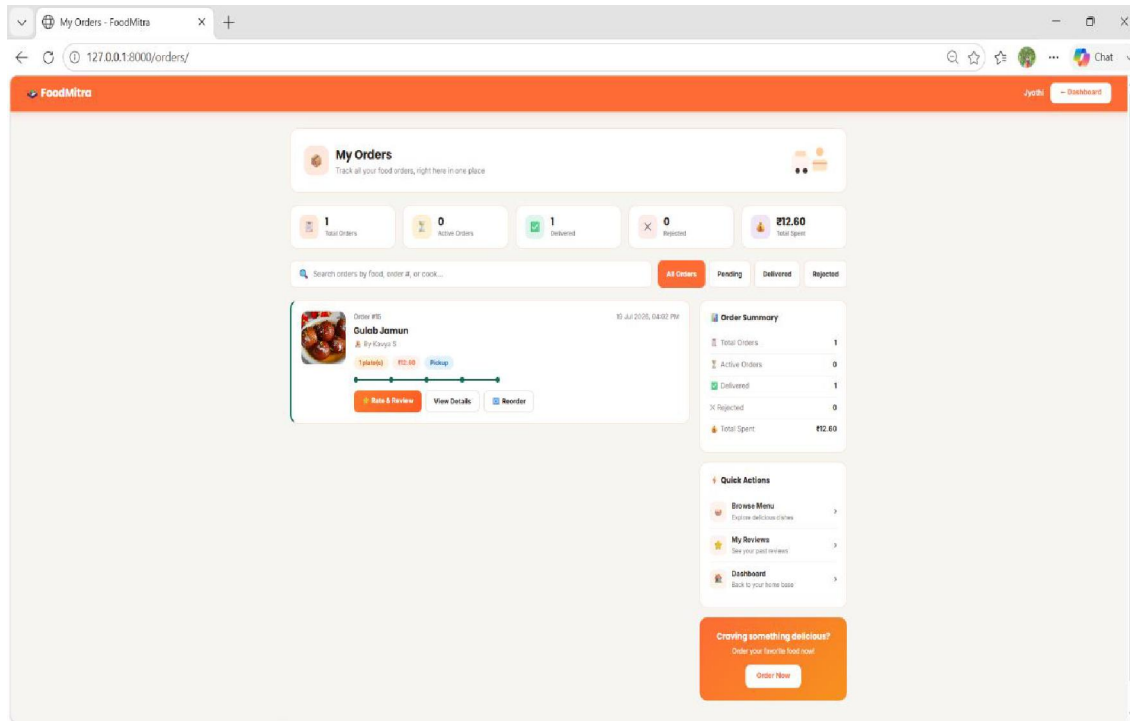


User dashboard



Menu page





Order's page

II. CONCLUSION

The Home Cooked Food Sharing Network is designed to bridge the gap between talented home cooks and people who crave affordable, healthy, and homemade food. The system simplifies the process of connecting cooks and customers through a structured digital platform that handles menu posting, order placement, real-time tracking, and review management. By using technologies like HTML, CSS, JavaScript, Bootstrap, Python, Django, and SQLite, the platform ensures smooth functioning, efficient data handling, and a user-friendly experience for all three types of users — Home Cook, Customer, and Admin. The system helps home cooks earn income, helps customers eat healthy food, and promotes the culture of homemade cooking in a digital way. Overall, the project is practical, scalable, and has strong potential for future enhancements including mobile application development, AI-based recommendations, and GPS-based delivery tracking.

REFERENCES

- [1] Sharma, R., and Verma, S. (2021). Web-based food ordering and delivery systems using Django framework. *International Journal of Computer Applications*, 174(2), 12–18.
- [2] Kumar, A., and Singh, D. (2020). Design and development of a hyperlocal food sharing platform using web technologies. *Journal of Information Systems and Technology*, 8(3), 40–47.
- [3] Patel, M., and Shah, K. (2022). Location-based service applications for food delivery systems. *International Journal of Data Engineering*, 6(2), 25–33.
- [4] Reddy, S. K., and Rao, P. (2023). A web-based marketplace platform for home-based food businesses. *Journal of Web Engineering and Applications*, 10(2), 18–26.
- [5] Singh, V., and Mehta, R. (2022). Real-time order tracking and notification systems in web applications. *International Journal of Software Engineering*, 9(3), 55–62.



- [6] Zhang, Y., and Liu, H. (2021). Web application frameworks for scalable and efficient system development. Journal of Computer Science and Technology, 36(2), 115–123.
- [7] Django Software Foundation. <https://docs.djangoproject.com/>
- [8] Bootstrap Documentation. <https://getbootstrap.com/docs/>
- [9] Chart.js Documentation. <https://www.chartjs.org/docs/>
- [10] Leaflet.js Documentation. <https://leafletjs.com>

