

## Taste Hunt-Crave It , Get It

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### Abstract

With the rapid growth of the online food delivery industry, platforms must address not only convenience but also challenges like fraud prevention and food waste management. Traditional food ordering systems lack intelligent mechanisms to detect fake orders or manage surplus inventory efficiently. This project introduces a smart and sustainable food delivery system that integrates advanced fraud detection and real-time inventory optimization. Using pattern analysis and authentication mechanisms, the platform flags suspicious activities to protect customers and restaurant owners. Additionally, it offers data-driven inventory suggestions to reduce food waste. A user-friendly web application is developed where users can securely register, browse local restaurants, place orders, and track deliveries in real time. The system focuses on secure transactions, efficient restaurant operations, and eco-friendly practices, ensuring a trustworthy and sustainable delivery experience.

#### 1.1 Introduction

The online food delivery industry has grown rapidly in recent years, making it easier than ever for people to enjoy their favourite meals from the comfort of their homes. However, this growth also brings new challenges, such as the rise of fraudulent activities and the environmental impact of food waste. This project aims to tackle these issues by developing a user-friendly food delivery website that not only simplifies ordering but also focuses on fraud prevention and sustainable practices. Taste Hunt is a modern web-based food delivery platform designed to connect users with local restaurants while promoting sustainability and reducing food waste where restaurants offer exclusive discounts on surplus or soon-to-expire meals. To ensure a safe experience, advanced fraud detection features will be built in to protect both customers and restaurant owners. Ultimately, this project seeks to create a food delivery service that is secure, efficient, and environmentally responsible for everyone involved.

#### Existing System

Current online food delivery platforms, such as Swiggy, Zomato, and Uber Eats, provide

customers with the ability to browse local restaurants, view menus, place orders, and track deliveries in real-time. These systems offer secure payment processing and generally provide a user-friendly interface. However, they face challenges including the risk of fraud, such as fake orders, as well as inefficiencies in inventory management, leading to food waste. While the system is technically strong, there is room to improve in areas like food waste management, personalized user experiences, and sustainability-focused features, which are becoming increasingly important in today's food delivery landscape.

#### 1.1 Proposed System

Our proposed system enhances the Taste Hunt platform with a strong focus on **AI-driven intelligence** and **sustainability**.

For **fraud detection**, the system will use machine learning to identify suspicious behaviors like fake orders or unusual payment activity, ensuring secure transactions. Personalized recommendations and voice ordering will improve the **user experience**, while GPS-based real-time tracking will add convenience.

For **food waste management**, the platform will use smart algorithms to predict demand and offer dynamic deals on soon-to-expire food items. Smart waste reduction deals based on expiration patterns where restaurants will benefit from **inventory optimization** and detailed **analytics dashboards** to track performance and environmental impact. These features aim to reduce food waste, enhance efficiency, and create a more sustainable delivery ecosystem.

### DESIGN

- Design represents the number of components we are using as a part of the project and the flow of request processing i.e., what components in processing the request and in which order.
- An architecture description is a formal description and representation of a system organized in a way that supports reasoning about the structure of the system

## System Architecture

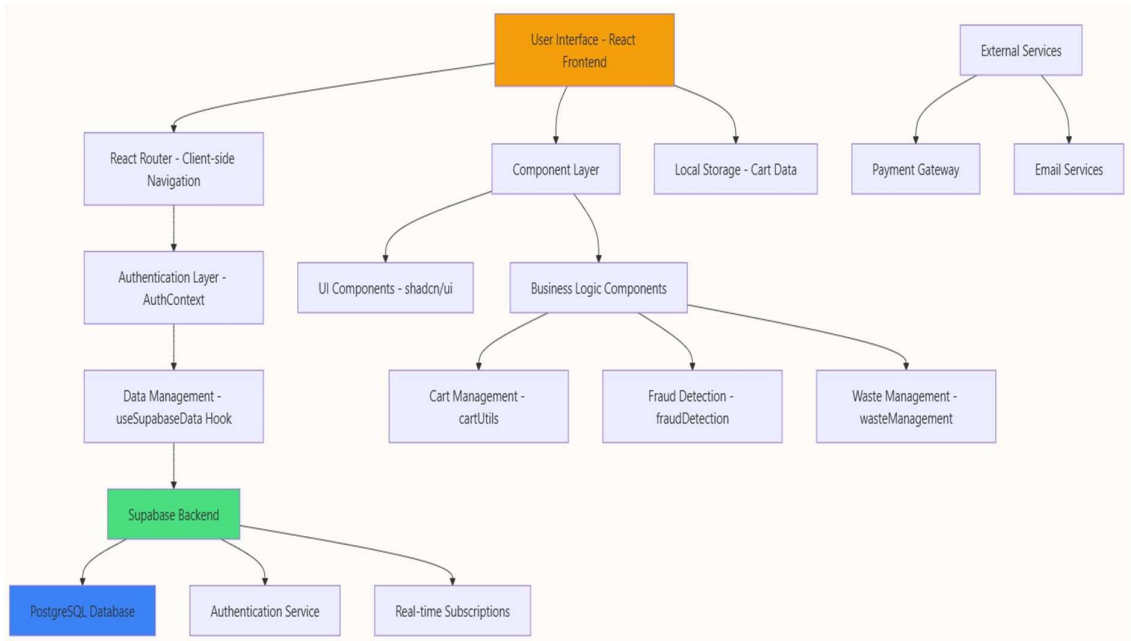
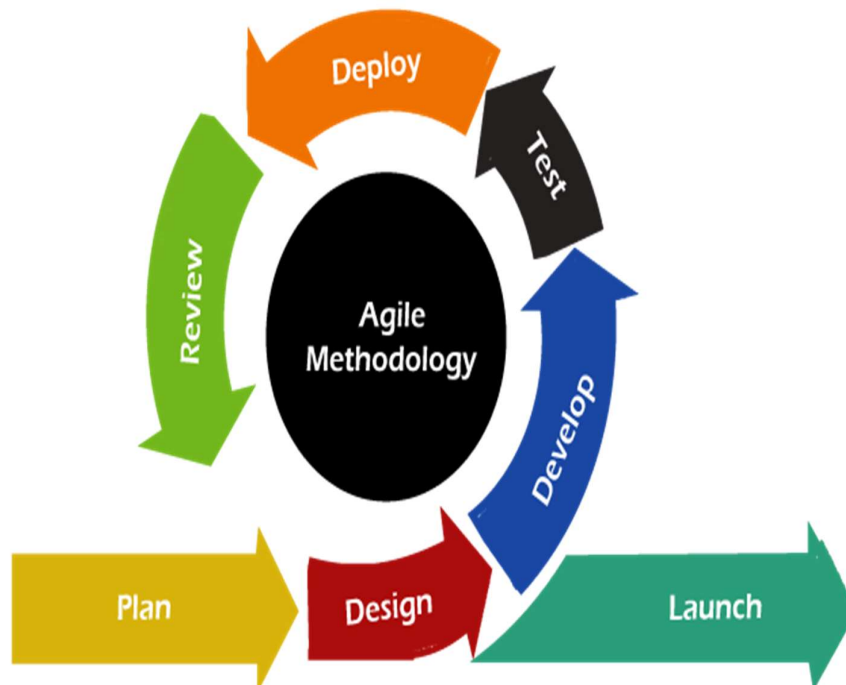


Fig. 3.1 System Architecture



3.2 Software Process Model

## IMPLEMENTATION

### 4.1 Technologies

The proposed system is implemented as a full-stack web application using modern frontend frameworks, backend services, and cloud-based databases to manage food ordering, user authentication, cart operations, and real-time updates. Below is the implementation plan and the technologies used at each stage: Environment Setup Technology Used: HTML, CSS, JavaScript, React. Set up the frontend environment using React and Tailwind CSS for responsive UI, with basic routing and state management. User Authentication Technology Used: Supabase AuthManages login/signup with email/password. Sessions are handled using Supabase's secure auth system and redirects post-login. Restaurant and Menu Browsing Technology Used: Supabase PostgreSQL React Context API and React Query for state management Filtering, Sorting: Custom JavaScript functions Restaurant data is fetched from Supabase (or local JSON), and client-side filters are applied for category, search, and sorting preferences. Cart and Order Management Technology Used: Local Storage (for temporary cart) Supabase PostgreSQL (for persistent orders) Custom JavaScript Functions Cart items are stored locally until checkout. On order placement, data is validated and saved to the database. Fraud Detection Logic

Technologies Used: Custom JavaScript Algorithms Threshold-based Heuristics

Implements simple risk scoring based on quantity and value, requiring OTP verification for suspicious transactions.

### Overview

Software testing is a process, to evaluate the functionality of a software application with an intent to find whether the developed software met the specified requirements or not and to identify the defects to ensure that the product is defect free in order to produce the quality product.

As per the current trend, due to constant change and development in digitization, our lives are improving in all areas. The way we work is also changed. We access our bank online, we do shop online; we order food online and many more. We rely on software's and systems. What if these systems turnout to be defective? We all know that one small bug shows huge impact on business in terms of financial loss and goodwill. To deliver a quality product, we need to have Software Testing in the Software Development Process.

Some of the reasons why software testing becomes very significant and integral part in the field of information technology are as follows:

1. Cost effectiveness
2. Customer Satisfaction
3. Security

## TESTING

TC ID	Test Case	Input	Expected Output	Result
4	Add Item to Cart	Menu item with selected quantity	Item added to cart (stored in localStorage/session Storage)	PASS
5	Checkout Process	Cart items and delivery address	Order saved in the backend database	PASS
6	Fraud Detection	High-value order (e.g., > ₹1000)	Risk check; OTP authentication triggered if needed	PASS

#### 4. Product Quality

##### Test Cases

TC ID	Test Case	Input	Expected Output	Result
1	User Registration	Valid email, password, name, phone	User account created and profile stored in database	PASS
2	User Login	Valid credentials	User authenticated, session/token created	PASS
3	Profile Update	Modified name and phone	User profile updated in database	PASS

Table 5.2 Order Management Test Cases,

TC ID	Test Case	Input	Expected Output	Result
7	Sustainability Score Calculation	Menu item and its ingredients	Accurate sustainability score displayed	PASS
8	Waste Reduction Deal Generation	Items nearing expiration	Discounts/offers generated for those items	PASS

Table 5.3 Waste Management Test Cases

TC ID	Test Case	Input	Expected Output	Result
9	Responsive Design	Various screen sizes/devices	Layout adjusts properly, remains visually usable	PASS
10	Navigation Flow	User actions across pages	Smooth transitions and error-free navigation	PASS

Table 5.4 UI/UX Test Case

### Results

#### SCREENSHOTS

```
Microsoft Windows [Version 10.0.22631.5335]
(c) Microsoft Corporation. All rights reserved.

C:\Users\WELCOME>cd Desktop\tastehunt-main\tastehunt-main
C:\Users\WELCOME\Desktop\tastehunt-main\tastehunt-main>npm install
added 409 packages, and audited 410 packages in 1m
73 packages are looking for funding
  run `npm fund` for details
4 moderate severity vulnerabilities
To address all issues, run:
  npm audit fix
Run `npm audit` for details.
C:\Users\WELCOME\Desktop\tastehunt-main\tastehunt-main>npm run dev
> vite_react_shadcn_ts@0.0.0 dev
> vite

VITE v5.4.10 ready in 1312 ms
→ Local:   http://localhost:8080/
→ Network: http://192.168.0.7:8080/
→ press h + enter to show help
```

Fig 6.1 Activate Project

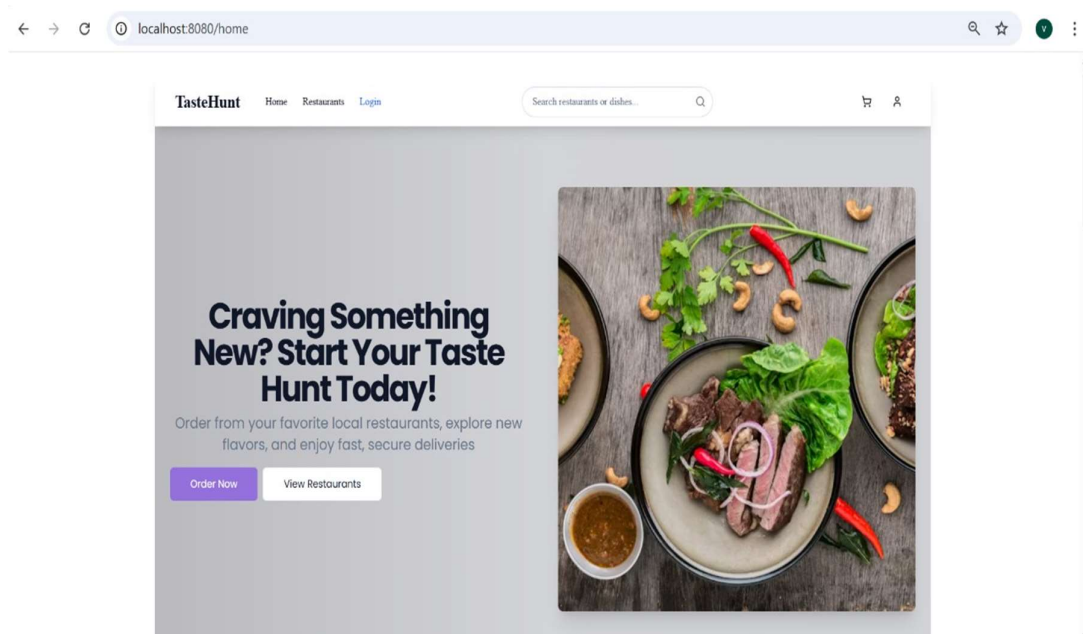


Fig 6.2 Home Page

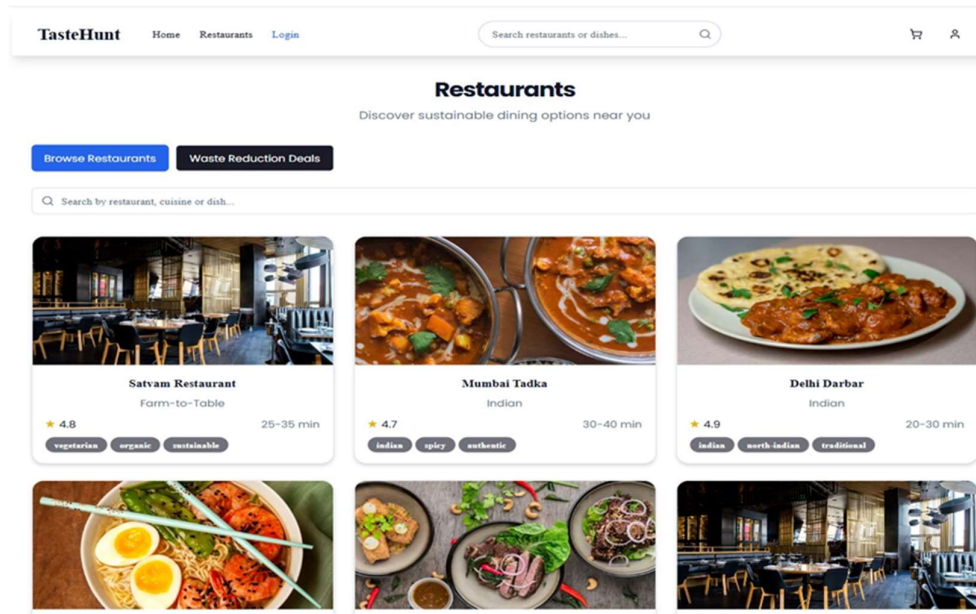
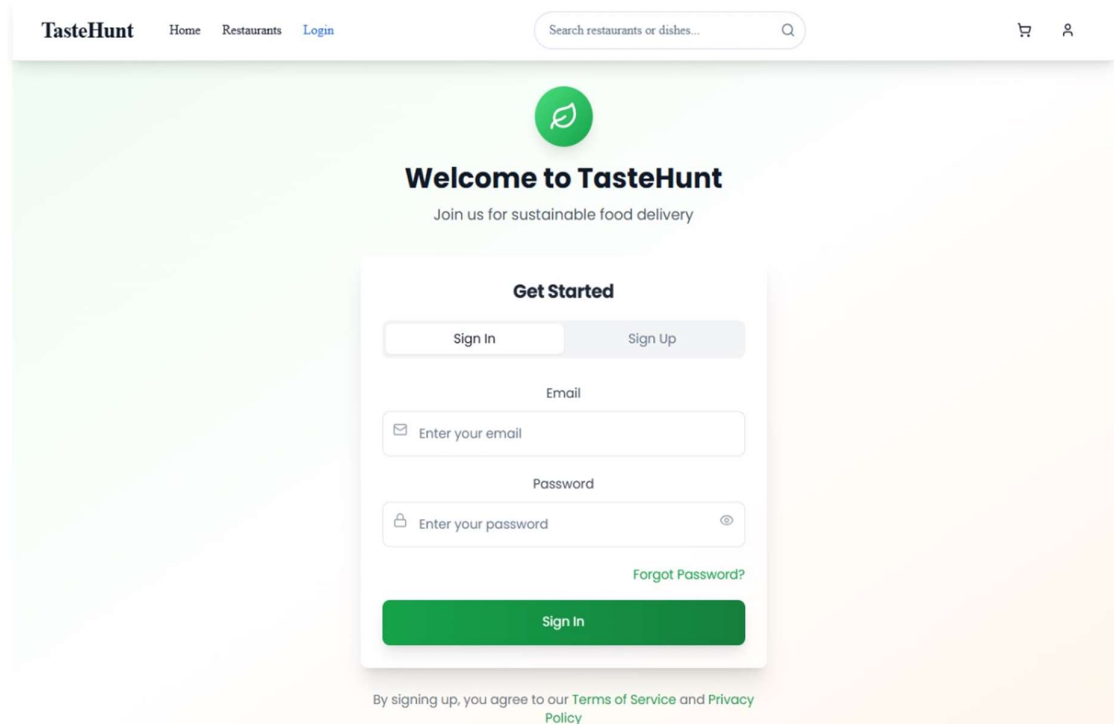


Fig 6.3 Sign-In Page



**Taste Hunt** Home Restaurants Login

Search restaurants or dishes...

**Welcome to Taste Hunt**  
Join us for sustainable food delivery

**Get Started**

Sign In Sign Up

Email

Enter your email

Password

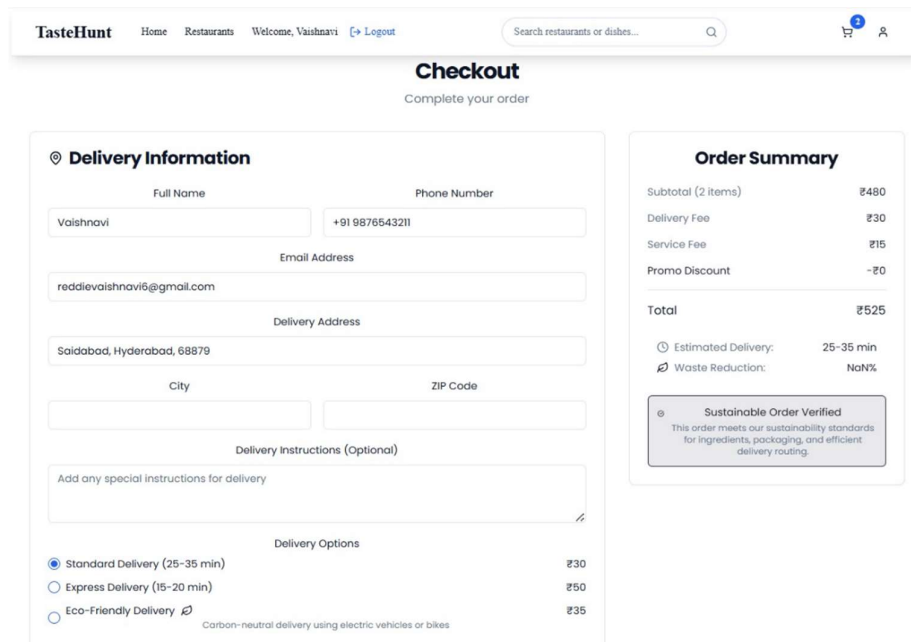
Enter your password

Forgot Password?

Sign In

By signing up, you agree to our [Terms of Service](#) and [Privacy Policy](#)

Fig 6.4 Sign-Up Page



**Taste Hunt** Home Restaurants Welcome, Vaishnavi Logout

Search restaurants or dishes...

**Checkout**  
Complete your order

**Delivery Information**

Full Name Phone Number

Vaishnavi +91 9876543211

Email Address

reddievaishnavi6@gmail.com

Delivery Address

Saidabad, Hyderabad, 68879

City ZIP Code


Delivery Instructions (Optional)

Add any special instructions for delivery

**Delivery Options**

☒ Standard Delivery (25-35 min) ₹30

☐ Express Delivery (15-20 min) ₹50

☐ Eco-Friendly Delivery  ₹35  
Carbon-neutral delivery using electric vehicles or bikes

**Order Summary**

Subtotal (2 items) ₹480

Delivery Fee ₹30

Service Fee ₹15

Promo Discount -₹0

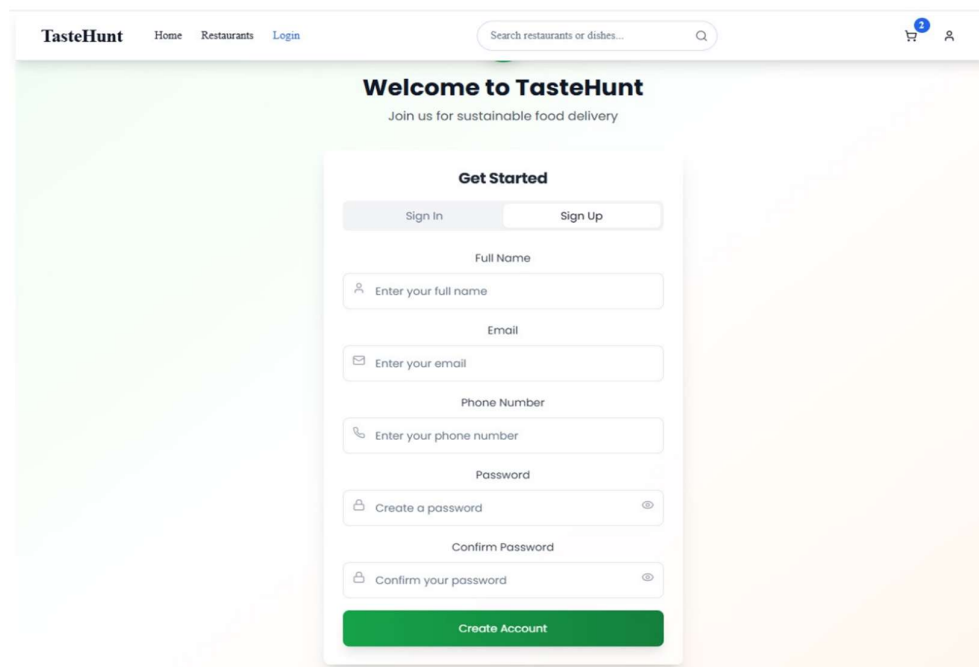
**Total** ₹525

Estimated Delivery: 25-35 min

Waste Reduction: NaN%

**Sustainable Order Verified**  
This order meets our sustainability standards for ingredients, packaging, and efficient delivery routing.

Fig 6.5 Restaurants Browser



**TasteHunt** Home Restaurants Login Search restaurants or dishes...

**Welcome to TasteHunt**  
Join us for sustainable food delivery

**Get Started**

Sign In Sign Up

Full Name  
Enter your full name

Email  
Enter your email

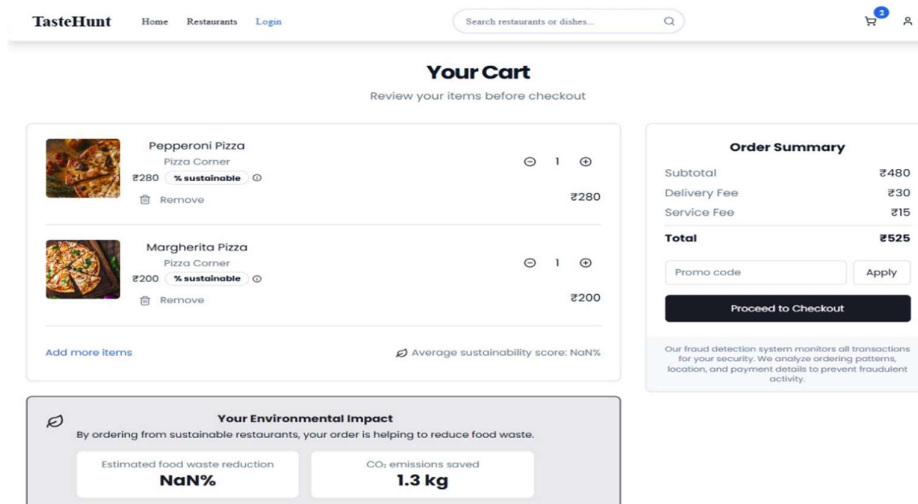
Phone Number  
Enter your phone number

Password  
Create a password

Confirm Password  
Confirm your password



Create Account

Fig 6.6 Cart



**TasteHunt** Home Restaurants Login Search restaurants or dishes...

**Your Cart**  
Review your items before checkout

 <b>Pepperoni Pizza</b> Pizza Corner ₹280 % sustainable Remove	1	₹280
 <b>Margherita Pizza</b> Pizza Corner ₹200 % sustainable Remove	1	₹200

Add more items Average sustainability score: NaN%

**Order Summary**

Subtotal	₹480
Delivery Fee	₹30
Service Fee	₹15
<b>Total</b>	<b>₹525</b>

Promo code Apply

**Proceed to Checkout**

Our fraud detection system monitors all transactions for your security. We analyze ordering patterns, location, and payment details to prevent fraudulent activity.

**Your Environmental Impact**  
By ordering from sustainable restaurants, your order is helping to reduce food waste.

Estimated food waste reduction <b>NaN%</b>	CO <sub>2</sub> emissions saved <b>1.3 kg</b>
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Fig 6.7 Checkout

Payment Method

Credit Card

PayPal

Card Number

1234 5678 9012 3456

Expiry Date

MM/YY

CVV

123

Name on Card

Place Order

TasteHunt

Home Restaurants Welcome, Vaishnavi [Logout](#)

Search restaurants or dishes...

0

Verify Your Order

Enter the 6-digit code sent to your phone

Verify Order

Cancel Order 

26s

Didn't receive the code? Check your SMS or contact support

TasteHunt

Sustainable food delivery with fraud detection and waste management.

Quick Links

Home Restaurants My Account

About Us

Our Mission Sustainability Waste Reduction

Support

Contact Us FAQs Privacy Policy

Fig 6.8 OTP Verification

834

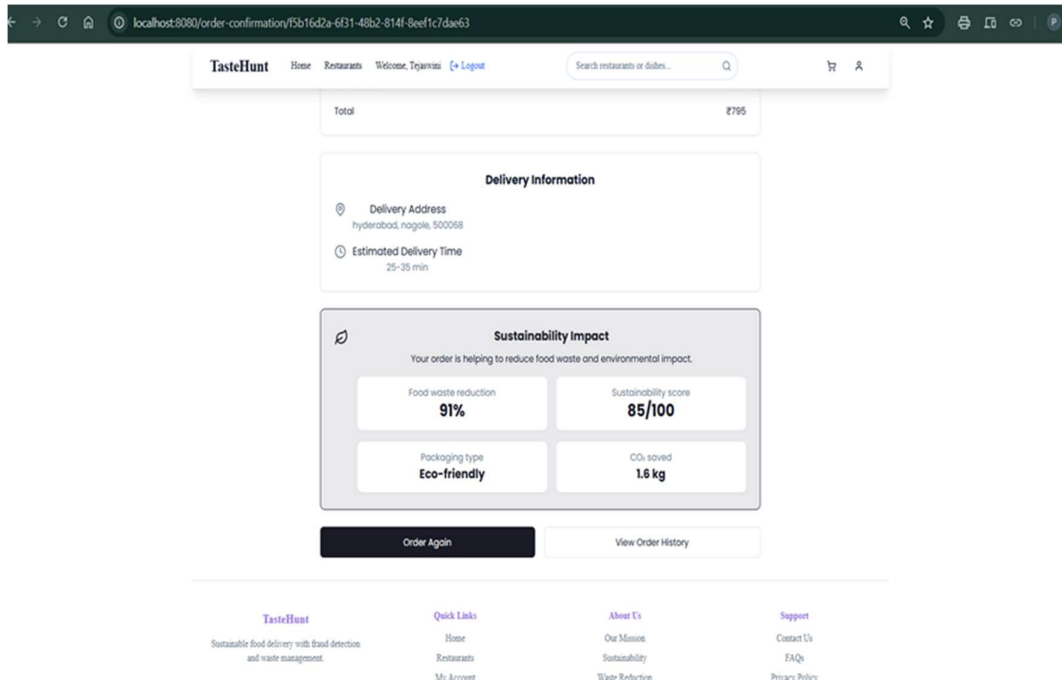


Fig 6.9 Payment

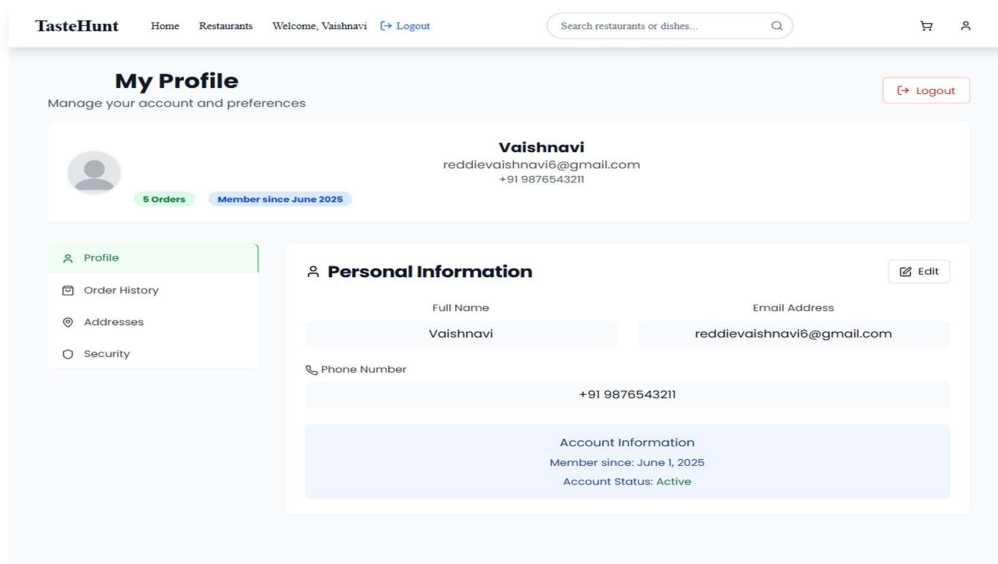


Fig 6.10 Sustainability Report

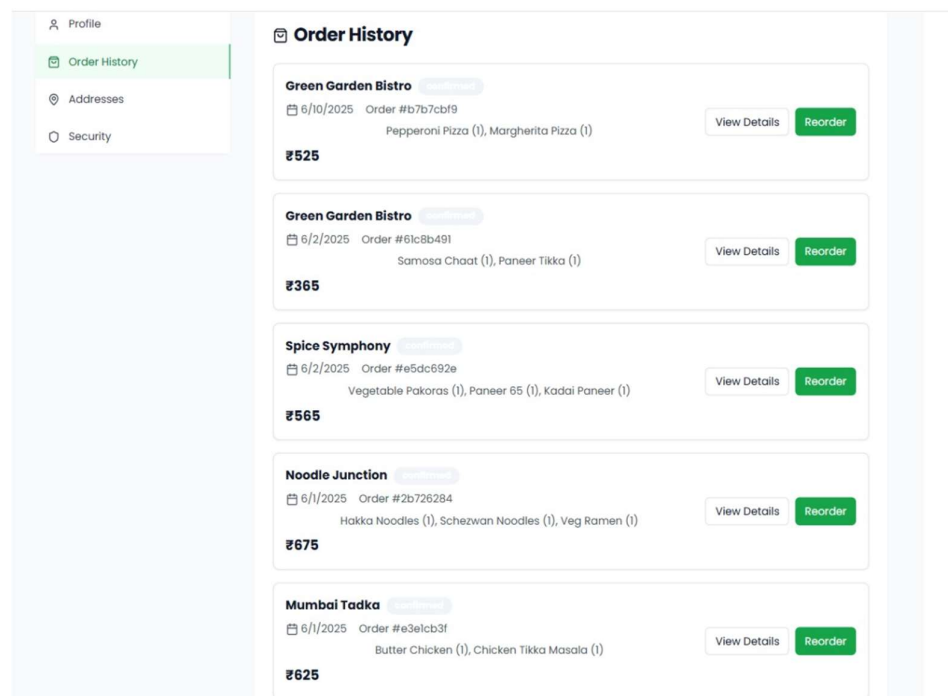


Fig 6.11 Alert Notification

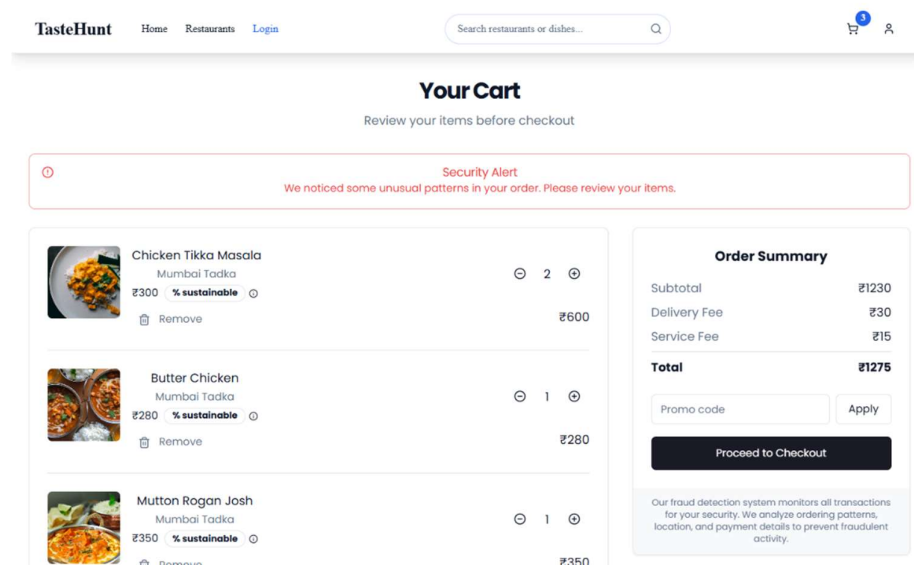


Fig 6.12 Profile

## Conclusion And Future Scope

### 7.1 Conclusion

*In conclusion, our project is all about making online food delivery better for everyone. By focusing on fraud detection, we'll ensure that customers and restaurant owners feel safe with every order. At the same time, with smart tools for managing food waste, we'll help restaurants reduce excess and waste, supporting more sustainable practices. The goal is to create a platform that's not just secure and easy to use but also responsible for giving customers a great experience while helping the environment and improving restaurant operations.*

### 7.2 Future Scope

#### 1. AI and Machine Learning Enhancements

- Implement machine learning models for better demand prediction
- Advanced recommendation systems based on user preferences
- Predictive analytics for inventory optimization
- Natural language processing for customer support chatbots

#### 2. Mobile Application Development

- Native mobile apps for iOS and Android
- Push notification system for order updates
- GPS-based real-time delivery tracking
- Offline capability for browsing menus

#### 3. Advanced Sustainability Features

- Carbon footprint calculator for each order
- Integration with local farms for fresh ingredients
- Packaging waste reduction initiatives

## REFERENCES

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