



# "SmartServe: A Full-Stack Food Delivery Solution"

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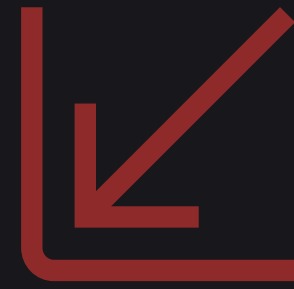
**Project Overview: The Full-Stack Food Delivery Application** is designed to provide a convenient platform for users to order food from local restaurants. It connects customers, restaurant owners, and administrators to streamline the ordering and delivery process.

**Target Audience:** 1) Customers: Individuals seeking a quick and easy way to order food.  
2) Restaurant Owners: Business owners looking to expand their customer base and improve order management.

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# CHALLENGES



## RESTAURANT STAFFS

**Order Management:** Difficulty in processing orders quickly, especially during peak hours, which can lead to errors and delays.

**Customer Engagement:** Limited tools for interacting with customers and receiving feedback, making it hard to improve service.

**Inventory Tracking:** Difficulty in keeping track of available menu items, leading to potential overselling or wastage.



## CUSTOMER

**Limited Options:** Customers often have to search through multiple platforms or websites to find local dining options.

**Inefficient Ordering Process:** Long wait times for phone orders and difficulty in communicating specific requirements (e.g., dietary restrictions).

**Lack of Real-Time Updates:** Customers are often left in the dark about their order status, leading to frustration and uncertainty.

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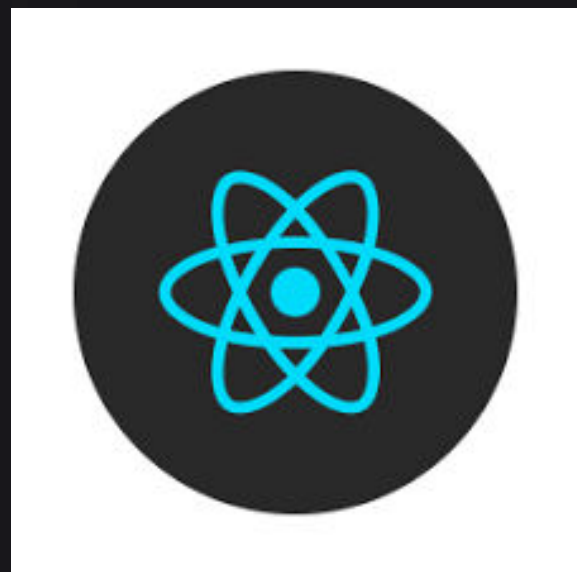
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# TECH STACK

## FRONTEND

Frontend: React.js

- 1) Dynamic UI: Creates interactive and responsive user interfaces for seamless browsing and ordering.
- 2) Component-Based Architecture: Promotes code reusability and easier management.
- 3) State Management: Efficiently updates the UI using hooks like `useState`, `useEffect`, `useContext`.



## BACKEND

Backend: Express.js & Node.js

- 1) Express.js: A lightweight framework for building robust APIs, enabling quick development of server-side logic. Supports middleware for managing requests, handling sessions, and enhancing security.
- 2) Node.js: An asynchronous and event-driven environment that efficiently handles multiple connections. Uses JavaScript on both client and server sides, streamlining development and reducing context switching.
- 3) Authentication & JWT: Implements user authentication for secure access to the application. Utilizes JSON Web Tokens (JWT) for stateless session management, allowing secure communication between client and server while maintaining user identity.

# TECH STACK

## DATABASE

Database: MongoDB Atlas Cloud-Based NoSQL Database: Scalable and adaptable to changing data needs. Automated Backups: Ensures data reliability and easy recovery. Flexible Data Modeling: Handles diverse data types like user profiles and orders.



## PAYMENT INTEGRATION

Payment Integration:

- 1.Stripe Secure Transactions: PCI-compliant encryption for sensitive payment information.
- 3.Multiple Payment Options: Supports various methods for customer convenience.
- 3.Easy Integration: Smooth checkout experience with real-time payment confirmation.



# key features

## AUTHENTICATION

"Users can register for a new account or log in with their email and password if they already have an account."

Sign Up

×

your name

your email

password

Login

☐ By continuing i agree to the terms of use and privacy policy

Already have an Account?[Login here](#)

Login

×

your email

password

Login

☐ By continuing i agree to the terms of use and privacy policy

Create a new Account?[Click here](#)

a screenshot of the login and register component from our food delivery website



**Secure Login:** Users create accounts, securely login, and access personalized features.  
**JWT-Based Authentication:** JSON Web Tokens are used for stateless session management, ensuring safe and efficient user sessions.

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[Sign in](#)

Order Your Favourite Food Here!!

select from a variety of delicacies and get your food delivered at doorstep.Happy Eating!!

"In the Explore Menu section, users can browse items organized by category."

screenshot of home page

Easy Browsing:  
Users can explore various restaurants and food items.

### Explore our Menu

Choose from a diverse menu featuring delectable dishes !!!



Salad



Rolls



Deserts



Sandwich



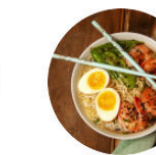
Cake



Pure Veg

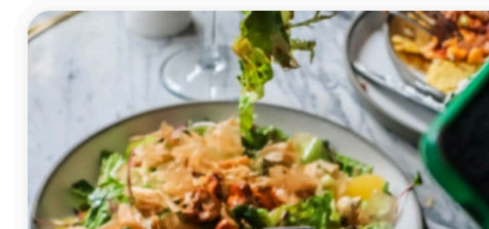


Pasta






Noodles

### Top Dishes near you



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Items	Title	Price	Quantity	Total	Remove
	strawberry yogurt	₹20	1	₹20	x
	icecream	₹60	1	₹60	x
	icecream	₹30	2	₹60	x

## Cart Totals

Subtotal ₹140

Delivery Fee ₹50

Total ₹190

PROCEED TO CHECKOUT

If you have a promo code, Enter it here

Submit

the customer can also click in this cross icon to remove any item from the cart and it will be updated automatically in the database and the total amount will also be updated

"The application includes a dynamic cart feature, allowing users to add any quantity of items. In the backend, this is managed by `cartController.js`, which contains functions for adding items to the cart (`addToCart`), removing items (`removeFromCart`), and viewing cart contents (`viewCart`). These functionalities are routed through `cartRoute.js`, which defines API endpoints for handling cart operations. When users view their cart, they see a breakdown of the subtotal for selected items along with delivery charges, all calculated in real-time."


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# ADMIN PANEL

The Admin panel has three parts  
-1) add items 2) list items 3) view orders



ADMIN PANEL

+

Add Items


✓

List Items

✓

Orders

Upload image



Upload


Product name

Type here

Product description

Write content here

add items



ADMIN PANEL

+

Add Items






✓

List Items

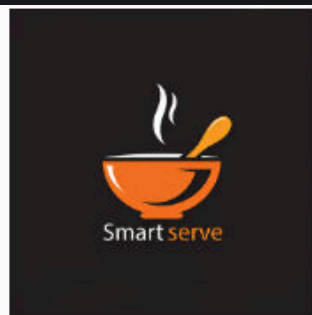
✓

Orders

All Foods List

Image	Name	Category
	veg salad	Salad
	clover salad	Salad
	chicken salad	Salad
	lasagna rolls	Salad
	peri peri rolls	Salad

list items



## ADMIN PANEL

+ Add Items

✓ List Items

✓ Orders

### Order Page



greek salad x 2, veg salad x 1, clover salad x 1, strawberry yogurt x 1, icecream x 2, noodles x 1

Items : 6

sanjeet tiwari

aaaaa,  
Asansol, west bengal, india, 713304

7001133901



greek salad x 1, veg salad x 1, chicken rolls x 2, strawberry yogurt x 2, icecream x 1

Items : 5

## view orders

the view orders page displays the orders of all the customers and the admin has the option to change the order status. The order status can be food processing, out for delivery and delivered. As soon as the admin changes the order status, it will be updated in their orders page in the frontend.

- In the add items page the admin can upload any image, the product description, name and price. The detail of the product will be then displayed in the list items pages and also in the menu of the home page.
- the list items page displays all the details of all the food items the shop is currently selling. At any time the admin can remove any item from the list by clicking on the cross.

# STRIPE PAYMENT INTEGRATION

Stripe payment integration in this project creates a secure checkout session for online payments. When a user places an order, a `placeOrder` function saves it to the database, clears their cart, and prepares line items (including a delivery charge) for Stripe. A session URL is generated to redirect users to Stripe for payment. If payment succeeds, the order is confirmed; if not, it's canceled. The `placeOrderCod` function handles cash on delivery orders without Stripe while finalizes payment status in the database, ensuring each order's integrity..

The screenshot displays a checkout interface. On the left, a shopping cart summary shows items: strawberry yogurt (₹20.00), icecream (₹60.00), and a delivery charge (₹50.00), totaling ₹190.00. On the right, the 'Pay with card' form includes fields for Email, Card information (number, expiry, CVC), Cardholder name, and Country or region (India). A checkbox for saving information is present, and a 'Pay' button is at the bottom.

Item	Quantity	Price
strawberry yogurt	Qty 1	₹20.00
icecream	Qty 1	₹60.00
icecream	Qty 2	₹30.00 each
Delivery Charge	Qty 1	₹50.00
<b>Total</b>		<b>₹190.00</b>

**Pay with card**

Email

Card information

1234 1234 1234 1234

MM / YY

CVC

Cardholder name

Full name on card

Country or region

India

☐ Securely save my information for 1-click checkout  
Pay faster on this site and everywhere Link is accepted.

Pay

A screenshot of the Stripe  
checkout page

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# CONCLUSION

In conclusion, the food delivery application effectively integrates modern web technologies to deliver a seamless user experience. Utilizing the MERN stack, the project successfully facilitates user authentication, order management, and real-time updates. The incorporation of Stripe for secure payment processing enhances trust and reliability, making transactions straightforward for users.

With an intuitive admin panel, restaurant owners can efficiently manage orders and user interactions. Future enhancements, such as AI-driven recommendations and GPS tracking, will further improve the platform's functionality and user engagement. This project not only addresses the current demands of online food delivery but also sets a strong foundation for scalability and innovation in the food tech industry.

