Restaurant Menu & Order Management System

1. Project Overview

This report documents the development of a full-stack Restaurant Menu & Order Management System built using the MERN stack (MongoDB, Express.js, React.js, Node.js). It includes the following major features:

- Dynamic restaurant menu with images, names, categories, and prices.

- Customer ordering system with cart and checkout functionality.

- Real-time order display in the admin dashboard.

- Admin panel for managing menu items and customer orders.

- Analytics dashboard for insights on orders and revenue trends.

Technologies used:

- Frontend: React.js with Tailwind CSS

- Backend: Node.js + Express

- Database: MongoDB

- Charts: Chart.js

2. Features & Modules

2. Key Functional Modules

- Customer Menu Page

  - Users can browse dishes categorized (e.g., North Indian, South Indian).

  - Option to add dishes to the cart and place orders.

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- Order System

  - Cart persists user selections and allows for item quantity updates.

  - Orders are submitted to the backend with relevant metadata.

- Admin Dashboard

  - View all incoming orders in real-time.

  - Manage and update menu items (CRUD operations).

- Analytics Dashboard

  - Uses Chart.js to display total sales and daily order counts.

  - Helps restaurant staff track performance trends.

- Deployment

  - Backend hosted on Render.

  - Frontend can be deployed to Vercel or Netlify.

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3. Customer Menu Page

🍽 Menu

Aloo Paratha	Biryani	Butter Chicken
North Indian	Non-Veg	Non-Veg
₹50	₹220	₹280
vegetarian	spicy	spicy
Chicken 65	**Chole Bhature**	**Dhokla**
Non-Veg	North Indian	Gujarati
₹180	₹100	₹60
spicy	vegetarian	vegetarian
Fish Curry	**Gulab Jamun**	**Hyderabadi Biryani**
Non-Veg	Dessert	Non-Veg
₹260	₹50	₹300
spicy	vegetarian	spicy
Idli Sambhar	**Kadai Paneer**	**Kheer**
South Indian	Veg	Dessert
₹80	₹240	₹60
vegan	vegetarian	vegetarian
Malai Kofta	**Masala Dosa**	**Mysore Masala Dosa**
Veg	South Indian	South Indian
₹270	₹120	₹140
vegetarian	vegan	vegan
Paneer Butter Masala	**Pani Puri**	**Pav Bhaji**
Veg	Snacks	Snacks
₹250	₹30	₹90
vegetarian	vegan	vegetarian

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4. Admin Order Manager

Restaurant System

Menu Manager   Order Manager

Customer Orders

Order #1
Status: Placed
- Aloo Paratha × 1
- Chicken 65 × 1

Order #2
Status: Placed
- Biryani × 2
- Chole Bhature × 1

Order #3
Status: Placed
- Aloo Paratha × 1
- Chicken 65 × 1

Order #4
Status: Placed
- Biryani × 1
- Chole Bhature × 1
- Gulab Jamun × 1

Order #5
Status: Placed
- Biryani × 1

Menu Manager   Order Manager

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5. Orders Display View

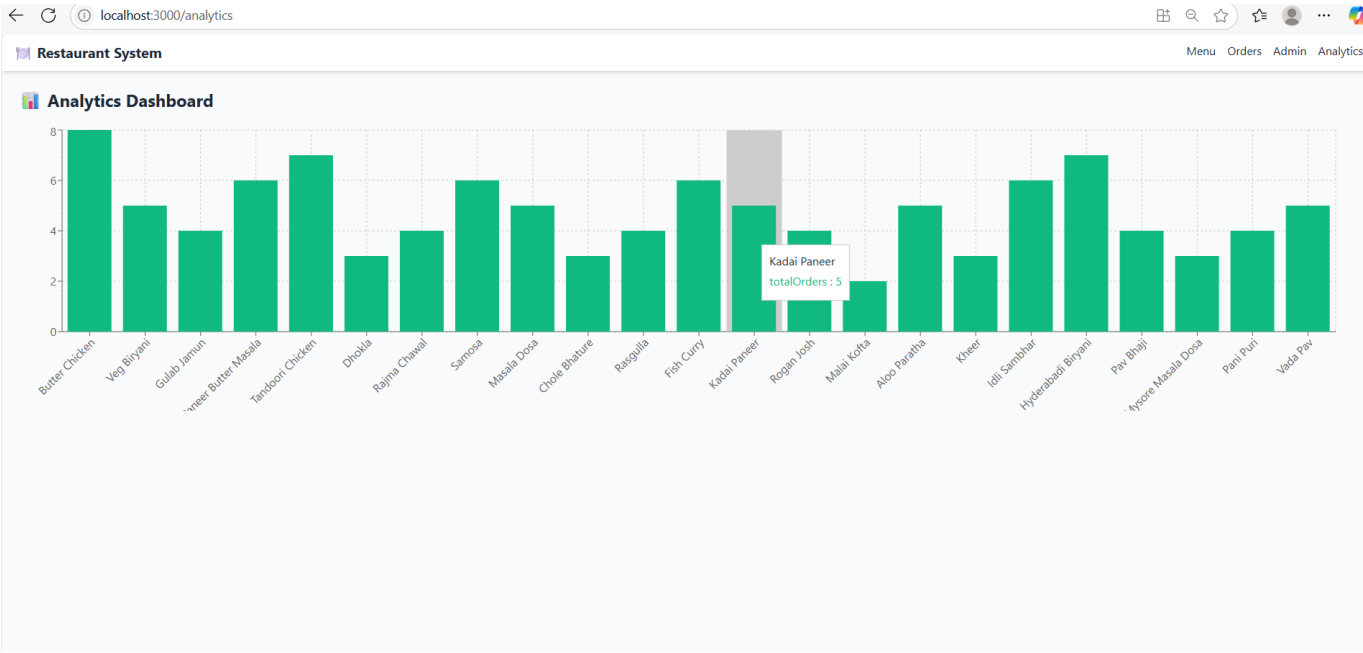|		
Paneer Butter Masala Veg ₹250 vegetarian Add to Cart	**Pani Puri** Snacks ₹30 vegan Add to Cart	**Pav Bhaji** Snacks ₹90 vegetarian Add to Cart
Rajma Chawal North Indian ₹130 vegetarian Add to Cart	**Rasgulla** Dessert ₹50 vegetarian Add to Cart	**Rogan Josh** Non-Veg ₹320 spicy Add to Cart
Samosa Snacks ₹20 vegan Add to Cart	**Tandoori Chicken** Non-Veg ₹300 spicy Add to Cart	**Vada Pav** Snacks ₹25 vegan Add to Cart
Veg Biryani Veg ₹180 vegetarian Add to Cart		

📋 **Your Cart**

- 1x Aloo Paratha
- 1x Chicken 65

Place Order

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6. Analytics Dashboard with Chart.js

7. Conclusion

7. Conclusion

The Restaurant Menu & Order Management System provides a complete solution for food businesses to manage their menus, take customer orders, and track performance in real-time. The system is scalable and can be extended further to include features like online payments, delivery tracking, and customer feedback.

Thank you.