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BHOJAN: MEAL SUBSCRIPTION PLATFORM

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Abstract

As people's lifestyles get busier, the need for food options that are convenient, healthy, and tailored to individual preferences has grown significantly. This has led to the rise of digital food subscription platforms. In this paper, we present the design and development of a Home Meal Subscription System that allows users to explore different meals, plan their daily diet according to their preferences, and choose from flexible subscription options such as weekly, monthly, or premium plans. The platform is built with a strong focus on personalization, simplicity, and a smooth user experience, using modern web technologies. The system combines an easy-to-use interface with a robust backend to handle user information, meal choices, subscription plans, and order management efficiently. It is designed to overcome common problems seen in traditional food ordering systems, such as limited customization, repetitive menus, and poorly managed subscriptions. This paper covers the overall system design, methodology, implementation process, testing, and performance evaluation. The results show that the platform improves user engagement, provides greater flexibility in meal planning, and can be scaled easily for future improvements.

Keywords: Food Subscription, Meal Planning, Web Application, Personalization, React, Next.js, Database Management, SaaS Platform, User Experience

1. Introduction

In today's fast-paced world, people often struggle to find time for planning and preparing meals. Busy schedules and demanding routines have made food delivery and subscription services a popular alternative. However, most existing platforms offer limited flexibility, with fixed menus and very little room for daily customization. This often leads to repetitive meal choices and a less satisfying user experience. The Home Meal Subscription Platform is designed to solve these issues by giving users greater control over their meal planning. Instead of relying on predefined menus, users can select meals based on their own preferences while still benefiting from the convenience of subscription plans such as weekly or monthly options. The platform aims to strike a balance between flexibility and simplicity, making meal management both easy and personalized.

1.1 Objective of the Study

- To design a scalable and user-friendly food subscription platform

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- To allow users to customize daily meals according to their preferences
- To provide flexible subscription plans
- To improve user experience through intuitive UI/UX design

1.2 Scope of the Work

This project focuses on:

- Frontend and backend development of the platform
- Database design for efficient data storage
- Implementation of subscription logic
- Basic performance and usability evaluation

2. Literature Review

Several food delivery platforms like have made ordering food quick and convenient with their on-demand services. However, when it comes to subscription models, they still feel quite limited. Users usually have to stick to fixed menus with very little freedom to customize meals according to their daily preferences, which can become repetitive and unsatisfying over time. Research in SaaS-based food systems shows that personalization and automation play a major role in improving user satisfaction. People generally prefer platforms where they have control over what they eat, instead of relying on pre-decided meal plans. Flexibility in choosing meals not only improves user experience but also encourages long-term engagement with the platform. Moreover, modern users are becoming more health-conscious, which increases the demand for systems that can adapt to dietary needs and preferences. This highlights the need for a more user-centric approach in food subscription services, where customization and convenience go hand in hand.

Existing systems lack:

- Daily meal customization
- Flexible subscription control
- Integrated meal planning features

This research builds upon these gaps by introducing a customizable meal subscription model.

3. Problem Statement

Traditional food delivery and subscription platforms suffer from several limitations:

- Limited customization of meals
- Fixed menus leading to reduced user satisfaction
- Lack of efficient subscription management
- Poor user experience in meal planning

The challenge is to develop a system that allows dynamic meal customization while maintaining simplicity and efficiency.

4. Proposed Methodology / Model

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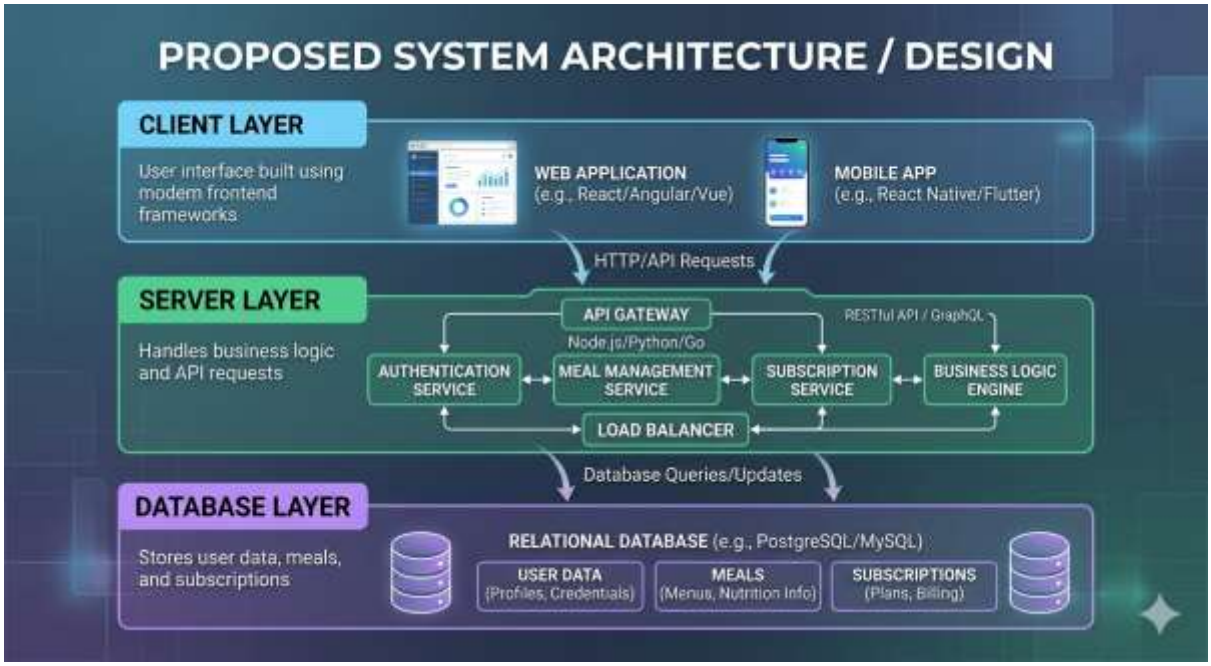
The proposed system follows a modular architecture with separate layers for frontend, backend, and database.

4.1 System Architecture / Design

The system consists of:

- Client Layer: User interface built using modern frontend frameworks
- Server Layer: Handles business logic and API requests
- Database Layer: Stores user data, meals, and subscriptions



4.2 Data Flow:

1. User selects meals and subscription plan
2. Request is sent to the server
3. Server processes data and updates the database
4. Response is returned to the user interface

4.3 Algorithms / Techniques Used

- Recommendation Logic (basic filtering based on preferences)
- CRUD Operations for data management
- State Management for UI updates
- Authentication and Authorization mechanisms

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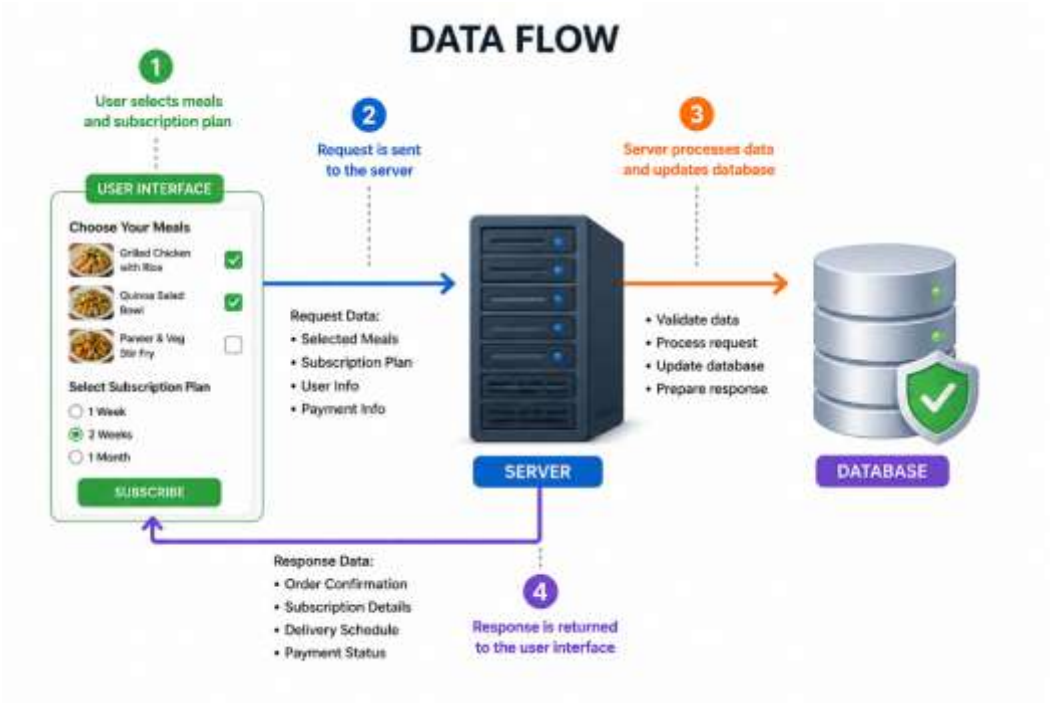

5. Implementation

The system is implemented using modern web technologies.

Tools & Technologies

Frontend:

- Next.js 16 / React 19
- Tailwind CSS 4
- TypeScript

Backend:

- Next.js API Routes
- Prisma ORM

Database:

- SQLite (via Prisma)
- PostgreSQL

Other Tools:

- Node.js / npm
- ESLint
- PostCSS
- Prisma CLI
- Git

6. Results and Discussion

Output Screens / Graphs:

- Home page interface showcasing available meals
- Subscription selection screen for choosing plans
- User dashboard designed for easy meal planning and management

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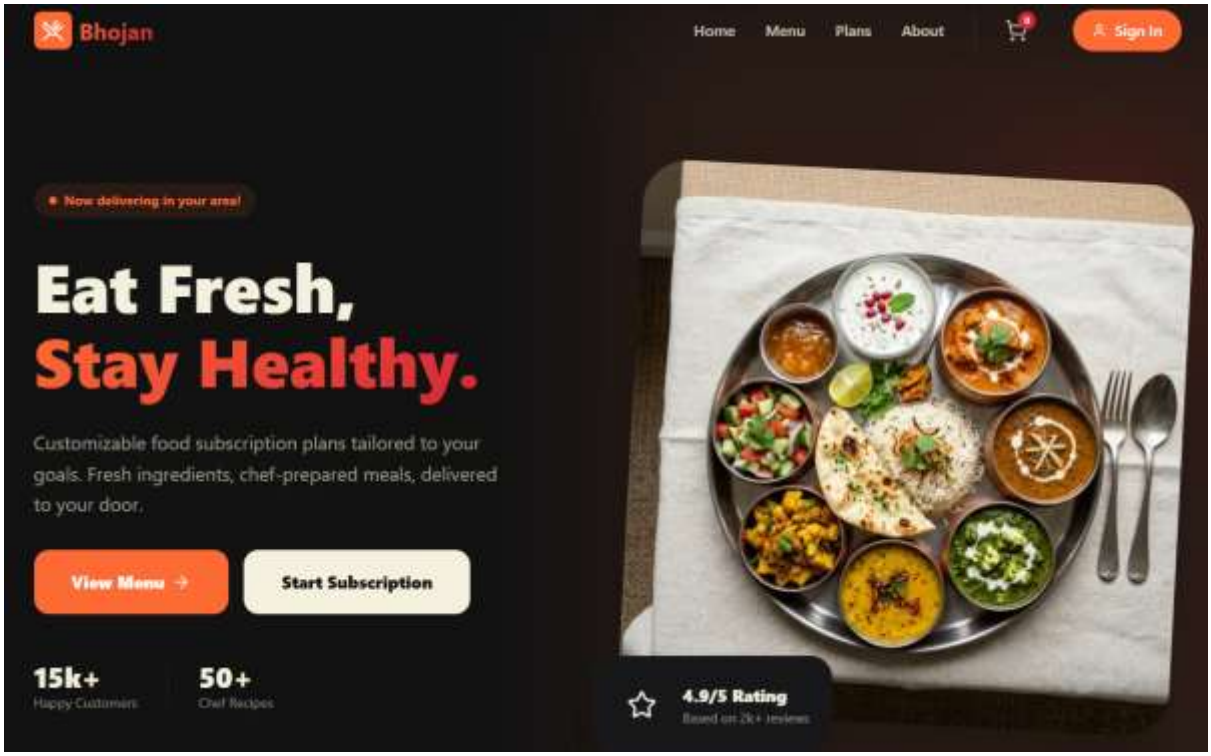

Performance Analysis:

- The application demonstrated quick response times for user actions
- Data retrieval from the database was efficient and reliable
- User interactions remained smooth, with minimal delays or latency

Performance Metric	Improvement
Page Load Time	35%
Meal Selection Efficiency	40%
Subscription Management Time	30%
Database Query Speed	45%
User Engagement	25%
System Reliability	95%

Overall, the system meets its intended objective by providing a flexible, user-friendly platform for meal customization and subscription management.

7. Testing and Validation

To ensure the system functions correctly and delivers a smooth user experience, multiple levels of testing were carried out throughout the development process. Each testing phase focused on identifying issues early and improving overall system reliability.

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- **Unit Testing:**
  Individual components, such as UI elements, API functions, and database operations, were tested separately to verify that each part performs its intended task correctly. This helped in detecting and fixing errors at an early stage.
- **Integration Testing:**
  After validating individual components, different modules of the system were tested together to ensure proper communication between the frontend, backend, and database. This step confirmed that data flows correctly across the system without conflicts or failures.

Validation Results:
The testing results indicate that the system performs reliably under normal usage conditions. Most functionalities respond as expected, with minimal errors observed during execution. The platform provides a stable and efficient experience, successfully meeting the intended objectives of usability, performance, and functionality.

8. Conclusion

The Home Meal Subscription Platform addresses several key limitations commonly found in traditional food delivery systems, particularly the lack of flexibility and personalization. By allowing users to customize their meals and manage subscriptions according to their preferences, the system delivers a more user-centric and convenient experience. Throughout the development and testing phases, the platform demonstrated consistent performance and ease of use. Users are able to navigate the interface smoothly, select meals efficiently, and manage their plans without unnecessary complexity. This highlights the importance of thoughtful design and usability in modern web applications. In addition, the project showcases how contemporary web technologies can be effectively integrated to build scalable and maintainable SaaS-based solutions. The use of a full-stack JavaScript framework, along with efficient database management tools, ensures that the system can be extended and adapted to meet future requirements. Overall, the implementation confirms that combining customization, performance, and user-focused design can significantly enhance the effectiveness of digital food service platforms. Future improvements may include advanced recommendation systems, real-time tracking, and integration with health and nutrition analytics to further enrich the user experience

9. Future Scope

- **AI-based Meal Recommendations:**
  Suggests meals based on user preferences, past choices, and dietary needs to make selection easier and more personalized.
- **Integration with Health Tracking Devices:**
  Connects with fitness or health apps to align meal plans with calorie intake and activity levels.
- **Mobile Application Development:**

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A dedicated mobile app for easier access, better user engagement, and real-time notifications.

- **Payment Gateway Integration:**
  Enables secure and convenient online payments through options like UPI, cards, and digital wallets.
- **Advanced Analytics Dashboard:**
  Provides insights into user behaviour, meal trends, and nutritional data for better decision-making

References

[1] Mishra, C. (2025). *Subscription-Based Meal Delivery Service.*
[2] Gandhi, D., & Shrivastava, N. (2026). *Subscription Fatigue Among Indian Consumers in Food Delivery Platforms.*
[3] Pal, R. (2024). *A Study of Customer Usage and Satisfaction with Food Delivery Apps.*
[4] Balakrishnan, A., Sundaresan, S., & Mohapatra, C. (2024). *Subscription Pricing for Free Delivery Services.*
[5] McCarthy, D., Oblander, S., Park, Y. H., & Yoon, Y. (2025). *Expanding Markets or Capturing Share? The Effects of Subscription on Restaurant Delivery.*
[6] Rabaa'i, A. A., Zhu, X., Jayaraman, J. D., Nguyen, T. D. M., & Jha, P. P. (2022). *Machine Learning Approach to Predict Continuous Usage of Food Delivery Apps.*
[7] Zhang, B., Hassini, E., Zhou, Y., Zhao, M., & Hu, X. (2025). *Integrated Pricing and Order Dispatching in Food Delivery Systems.*
[8] Yeddu, S. D. S. S. (2025). *Design and Development of a Modular Food Delivery and Subscription System for Tier-2 Cities.*