Food Delivery Service with Personalization

SYSTEM STUDY

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RMCA B

MINI PROJECT: Food Delivery Service with Personalization Requirement Analysis

1. Project Overview:

The "Food Delivery Service" project aims to provide a comprehensive web application for seamless food ordering and delivery. This platform serves three primary user roles: Admin, Normal Users (Customers), and Restaurants (Vendors). The system is built using React and Node.

2. To what extent is the system proposed for?

The Food Delivery Service project aims to provide a comprehensive solution for food enthusiasts and businesses. It covers various aspects such as order management, customization, convenience, and personalized options for users, as well as tools for restaurants and administrators. The system offers a cohesive and interactive experience.

3. Specify the Viewers/Public which are to be involved in the System:

The Food Delivery Service will involve the following categories of viewers and users:

- Registered Normal Users (Customers)
- Registered Restaurants (Vendors)
- Administrators/Content Managers

4. List the Modules included in your System:

The Food Delivery Service will consist of the following modules:

- General Pages
- User Functionality
  - Registration and Login
  - Profile Management
  - Payment Processing
  - Order Placement and Management
  - Menu Customization
  - Calorie-based Diet Subscription (Optional)
  - Favourites & History (Optional)
  - Scheduled Orders (Optional)
  - Loyalty Program (Optional)
  - Filtering (Optional)
- Restaurant Functionality
  - Restaurant Registration and Login
  - Menu Management
  - Availability Management

- Order History
- Specials & Offers (Optional)
- Order Preparations (Optional)
- Bulk Order Handling (Optional)

- Admin Functionality
  - User Management
  - Restaurant Verification
  - Dashboard Analytics (Optional)
  - Customer Support Chat (Optional)
  - Advanced Reporting (Optional)

5. Identify the users in your project:

Users in the Food Delivery Service project include:

- Registered Normal Users (Customers)
- Registered Restaurants (Vendors)
- Administrators/Content Managers

6. Who owns the system:

The ownership of the Food Delivery Service system can be attributed to the organization or individual that develops, maintains, and operates the platform. This entity is responsible for its design, development, deployment, updates, security, and overall management.

7. System is related to which firm/industry/organization:

The Food Delivery Service is related to the food delivery industry, catering to customers and restaurants. It aims to provide a convenient and personalized food ordering and delivery experience.

8. Details of the person you have contacted for data collection:

Contact Person for Data Collection:

- Name: Thankappan Anikkadu
- Role: Restaurant Owner
- Restaurant Name: "kailas Hotel"
- Location: Vagamon, pin: 685503
- Experience: He has been running her restaurant successfully for the past Ten years. He is familiar with the challenges and opportunities in the food industry.

Approached him for data collection because of his valuable insights as a restaurant owner and potential user of the Food Delivery Service platform. Hisr experience and feedback provide essential input for the project's development and improvement.

9. Questionnaire to collect details about the project (minimum 10 questions):

1. What inspired you to create the Food Delivery Service project?

- We were inspired by the need for convenient and personalized food delivery in urban areas.

2. Can you explain the key features of the platform?

- It offers personalization, advanced search, scheduled orders, a loyalty program, and restaurant management.

3. How do you ensure data security and privacy?

- We implement robust security measures to protect user data and payment information.

4. What technologies are used for the frontend and backend?

- We utilize React for the frontend and Node.js for the backend.

5. How do users benefit compared to traditional food delivery?

- Users can personalize orders, schedule deliveries, and enjoy a loyalty program for rewards.

6. Describe the user registration and login process.

- Users register with their details and log in using a username and password.

7. How do restaurants benefit from using this platform?

- Restaurants can efficiently manage menus, orders, and promotions.

8. Are there plans for future features?

- Yes, we plan to enhance customer support and expand features based on user feedback.

9. How are payments handled securely?

- We ensure secure transactions through encrypted payment gateways and data protection measures.

Feasibility Study: Food Delivery Service with Personalization

Technical Feasibility:

1. **Technology Stack Evaluation**: Evaluate the chosen technology stack, including React and Node, to determine if they are suitable for building a robust and scalable food delivery platform. Ensure that these technologies can handle real-time updates, user interactions, and third-party integrations.
2. **Integration Challenges**: Assess the technical feasibility of integrating with various payment gateways, restaurant systems, and third-party services for real-time chat and analytics. Ensure that APIs and integration points are readily available and can be implemented effectively.
3. **Scalability**: Analyse the scalability of the platform to accommodate a growing user base, increased restaurant listings, and a high volume of concurrent orders. Ensure that the system architecture can handle peak demand during busy hours.

Operational Feasibility:

1. **User Onboarding and Management**: Determine the operational procedures for user registration and management. Ensure that the admin panel allows for efficient user account management, including user data security.
2. **Restaurant Verification Process**: Establish an operational workflow for restaurant verification by the admin team. Ensure that this process can efficiently validate the authenticity of restaurant details and maintain a trustworthy platform.
3. **Order Management**: Define operational processes for handling orders, including order placement, payment processing, and communication with restaurants. Ensure that orders are accurately processed and delivered within the specified timeframes.
4. **Menu Management**: Develop procedures for restaurants to manage their menus, add new dishes, update prices, and remove unavailable items. Ensure that menu changes are reflected accurately on the platform.
5. **Customer Support**: Implement operational procedures for customer support, including real-time chat support for addressing user inquiries and concerns promptly.

Economic Feasibility:

1. **Cost Estimation**: Calculate the total costs associated with developing, hosting, and maintaining the platform. Consider expenses for technology infrastructure, development teams, customer support, and marketing.
2. **Revenue Generation**: Explore revenue streams, including commissions from restaurant partners, subscription fees for premium features (e.g., scheduled orders and loyalty programs), and potential advertising partnerships.
3. **Return on Investment (ROI)**: Assess the expected ROI by analyzing the projected revenue against the estimated costs. Determine a timeframe for achieving profitability and sustainability.
4. **Market Analysis**: Conduct a market analysis to understand the competitive landscape and demand for personalized food delivery services. Identify target demographics and potential growth opportunities.
5. **Loyalty Program Impact**: Evaluate the potential impact of the loyalty program on user engagement and brand loyalty. Estimate the costs of implementing the program and the expected increase in repeat orders.
6. **Calorie-based Diet Subscription**: Analyze the market demand for calorie-based diet subscriptions and estimate the potential revenue from this feature. Consider the costs associated with menu planning and delivery.