



ONLINE FOOD ORDERING SYSTEM - HACKATHON SUBMISSION

Use Case Title:

Online Food Ordering System

Student Name:

N.Yadavakrishnan

Register Number:

C2S27531

Institution:

Theni kammavar sangam college of arts and science

Department:

Bachelor of computer application

Date of Submission:

19.03.2025



1.Problem Statement

Restaurants require an efficient system to manage online food orders, track inventory, and handle customer transactions. The challenge is to design a relational database that supports an online food ordering platform, ensuring seamless order management, real-time inventory tracking, and accurate sales reporting.

1. Proposed Solution

The proposed solution is to develop an **Online Food Ordering System Database** that allows restaurants to:

- Manage a menu, including food items, categories, and prices.
- Handle customer orders, including order status, payment details, and delivery tracking.
- Track inventory to update ingredient stock when orders are placed.
- Generate reports for sales, top-selling items, and customer order history.

3. Technologies & Tools Considered

- Database: MySQL / Oracle Database
- SQL for query execution and data retrieval
- Stored Procedures for calculating order amounts with taxes and discounts
- ERD for database relationship visualization

4. Database Schema & Data Flow

The system will have the following tables:

- **Customers:** Customer ID (Primary Key), Name, Email, Phone, Address
- **Menu:** Item ID (Primary Key), Name, Category, Price
- **Orders:** Order ID (Primary Key), Customer ID (Foreign Key), Order Status, Order Date, Payment ID (Foreign Key)
- **Order Details:** Detail ID (Primary Key), Order ID (Foreign Key), Item ID (Foreign Key), Quantity, Subtotal
- **Payments:** Payment ID (Primary Key), Order ID (Foreign Key), Payment Method, Total Amount, Status
- **Inventory:** Item ID (Primary Key), Ingredient Name, Quantity Available

Data Flow:

1. Customers browse the menu and place an order.
2. The order details are recorded and linked to the respective restaurant.
3. Payment is processed, and order status is updated accordingly.
4. Inventory is automatically adjusted based on ordered items.



5.Sales reports and top-selling items are generated for analysis.

6.Feasibility & Challenges

Feasibility:

- Practical as online food ordering is a booming industry.
- Can be easily integrated with existing restaurant management systems.

Challenges:

- Managing concurrent user requests efficiently.
- Ensuring data consistency and security in online transactions.
- Handling real-time inventory updates to prevent order issues.

6. Expected Outcome & Impact

The **Online Food Ordering System** will:

- Improve restaurant order management and efficiency.
- Enhance customer convenience with easy ordering and payment.
- Provide accurate sales analysis and reporting for business growth.
- Ensure better inventory tracking to reduce food waste.

7. Future Enhancements

- AI-based food recommendations for personalized customer experience.
- Mobile app integration for a seamless ordering experience.
- Loyalty programs and discount coupons for frequent customers.
- Voice-based ordering system for smart assistants.

GitHug Link : <https://github.com/YADAV0309/Hackathon-Online-Food-Ordering.git>