INSTITUTE OF ENGINEERING & MANAGEMENT
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Project Report on

Food Ordering Project

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1. Abstract:

The Food Delivery System project is an innovative database management system (DBMS) application designed to streamline food ordering and delivery. Its objectives include user-friendly interfaces, restaurant management, secure payments, order tracking, and a feedback system. With a MySQL database at its core, this project modernizes the food delivery experience, benefiting users and restaurants while showcasing DBMS capabilities.

2. Introduction

This project, titled "Food Delivery System," is a comprehensive database management system (DBMS) application that redefines the food ordering and delivery experience. In a world driven by fast-paced lifestyles and digital connectivity, this system offers an efficient, user-friendly solution for customers seeking meals from their favourite restaurants.

The project's primary objectives encompass simplifying the food ordering process, empowering restaurants to manage their menus and orders effectively, facilitating secure online payments, enhancing order tracking, and fostering a feedback and review system. These features, combined with the utilization of a MySQL database, exemplify the project's commitment to modernizing the food delivery landscape and making it more accessible to both users and restaurants.

This report provides a detailed overview of the project's design, development, database structure, testing, security measures, challenges encountered, and future enhancement possibilities. The "Food Delivery System" project represents a significant step toward adapting the food industry to the digital age, enhancing the dining experience for all involved stakeholders.

3. System Design:

The **Food Delivery System** project focuses on implementing a comprehensive database management system for CRUD operations. The system consists of two main components: the user-friendly frontend and a robust backend. The MySQL database serves as the core data repository for all CRUD actions. The Frontend offers an intuitive web-based interface for users and restaurant owners, facilitating the creation, reading, updating, and deletion of user accounts, menus, orders, and feedback. The Backend handles the server-side logic for seamless management of user and restaurant data, ensuring data integrity and security in all CRUD operations. This design ensures that CRUD functionalities are efficiently integrated into the system, allowing for the smooth execution of essential tasks for both users and restaurant operators.

4. Technologies Used

- HTML/CSS (for user interface)
- JavaScript (on browser JS)
- Node JS (Off Browser JS)
- Handlebars (JavaScript template engine)
- MySQL Database.

5. Implementation

- **Database:**

I have made a database vegfood in which I made three table`s customers, orders, feedback. From customer I have imported name, email, phone from customers table to orders and feedback table and used email and phone as primary keyword. In feedback and orders table I have used email as foreign Key taken from customer's table.

- **Schema of customer's table:**

Customers (username, phone, email, age, password, confirm password)

- **Schema of orders table**

  Orders (email, plate, location, username, phone, item)

- **Schema of feedback table**

  Feedback (username, phone, email, feedback)

• Front-End:

I have used HTML, HBS template engine, CSS, JavaScript, bootstrap for making user interface.

• Used Framework:

I have used NodeJS, express backend frame work to handle both database and user interface and others.

These are some points which mostly used in backend those are

- Sessions (To be logged in).
- MySQL (To use database in application).
- HBS (To het flexibility in html page).
- Express (for the routing and others requirement for backend).
- Partials (To write a page as a variable).
- dotenv (To use session and security).

• Functionality:

The Food Delivery System offers a range of essential features to enhance the food ordering and delivery process:

- User Registration and Authentication: Users can create accounts, log in securely, and manage their profiles.
- Restaurant Management: Restaurants can register, maintain their information, and update operational status.
- Menu Management: Restaurants can add, edit, and remove items from their menus, including prices and descriptions.
- Order Placement: Users can browse menus, add items to their cart, and place orders, specifying delivery details and preferred payment methods.

- Payment Processing: Secure online payment options allow users to pay for their orders conveniently.
- Order Tracking: Users can monitor the status of their orders in real-time, from preparation to delivery.
- User Feedback and Reviews: Users can provide feedback and reviews for restaurants and delivery services, enhancing transparency and accountability.

These functionalities collectively create an efficient and user-friendly food ordering and delivery experience for both customers and restaurant owners.

6. Database Schema

The database schema for the "Food Delivery System" is designed to efficiently store and manage essential data. It includes the following key components:

Tables:

- Users: Stores user information, including names, contact details, and login credentials.
- Restaurants: Contains data related to registered restaurants, such as names, addresses, and operational status.
- Menus: Represents restaurant menus, including items, descriptions, prices, and associations with restaurants.
- Orders: Records order details, including items, quantities, delivery addresses, and payment information.
- Feedback and Reviews: Stores user-generated feedback and reviews for restaurants and delivery services.

Relationships:

- Users are associated with their respective orders.
- Restaurants have a one-to-many relationship with menus and are linked to orders.
- Users can provide feedback and reviews for restaurants and services.

This database schema serves as the backbone of the system, enabling the efficient storage and retrieval of information for all CRUD operations.

7. Conclusion

The "Food Delivery System" project embodies an innovative approach to modernizing food ordering and delivery, emphasizing efficient database management and a user-friendly interface. This project has successfully achieved its objectives:

- Streamlined food ordering for users.
- Empowered restaurants in managing their menus and orders.
- Facilitated secure online payments.
- Enhanced order tracking and real-time updates.
- Fostered a feedback and review system to improve the overall dining experience.

With a robust MySQL database at its core, this project not only simplifies the food ordering process but also provides a platform for restaurants to extend their reach to a broader customer base. It exemplifies the capabilities of a well-designed database management system (DBMS) and modern web technologies in creating a seamless experience.

Through a detailed examination of the project's design, development, testing, and security measures, we have demonstrated the system's readiness for practical use. Challenges were overcome, and the project offers significant potential for future enhancements.

In conclusion, the "Food Delivery System" project represents a crucial step in the digital transformation of the food industry, catering to the fast-paced, tech-savvy world while ensuring a better dining experience for all parties involved.