Food Delivery Application – Project Report

1. Introduction

The Food Delivery Application is a web-based application developed to provide users with an easy and efficient way to order food from multiple restaurants online. The system allows users to register, log in, browse restaurants, view menus, add items to a cart, and place orders. This project demonstrates the practical use of full-stack web development concepts using Node.js, Express, EJS, and SQLite.

2. Problem Statement

Traditional food ordering methods are often time-consuming and inefficient, requiring manual interaction with restaurants. There is a need for a centralized digital platform that allows users to conveniently browse food options, manage orders, and place requests online. This project aims to solve this problem by providing a simple and secure food delivery system.

3. Objectives

- To develop a user-friendly food ordering platform
- To implement secure user authentication
- To allow users to browse restaurants and menus
- To enable cart management and order placement
- To store and manage data efficiently using a database

4. Technology Stack

Frontend: HTML, CSS, EJS
Backend: Node.js, Express.js
Database: SQLite
Authentication: bcrypt, express-session

5. System Architecture

The application follows a client-server architecture. The frontend is rendered using EJS templates, while the backend handles routing, authentication, session management, and database operations. SQLite is used for storing user data, restaurant information, menus, and orders.

6. Modules Description

User Module: Handles user registration, login, and session management.

Restaurant Module: Displays the list of available restaurants and their details.

Menu Module: Shows menu items for each restaurant with prices.

Cart Module: Allows users to add food items to the cart and view the total cost.

Order Module: Enables users to place orders and view their order history.

7. Database Design

The database consists of the following tables:
- Users
- Restaurants
- Menu Items
- Orders
- Order Items

These tables are related using primary and foreign keys to maintain data integrity.

8. Features Implemented

- User registration and login
- Secure password encryption
- Restaurant and menu browsing
- Cart management
- Order placement
- Order history viewing

9. Conclusion

The Food Delivery Application successfully provides a complete online food ordering solution. The project demonstrates the integration of frontend and backend technologies along with database management. It serves as a strong foundation for further enhancements such as online payments, admin dashboards, and real-time order tracking.

10. Future Enhancements

- Online payment integration
- Admin panel for restaurants
- Order tracking system
- Mobile-friendly responsive design