GIU Food-Truck Reservation System

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1. Introduction

The Food-Truck Reservation System is a web-based platform that helps students and staff in the GIU to pre-order meals from campus food trucks, schedule pickup times, and receive order notifications.

1.1 Purpose

To address the issue of lengthy wait times for food and beverage items during busy times in between tutorials and lectures, the GIU Food-truck System allows members of the GIU community to reserve menu items from specific food-trucks on campus for pick-up within a specified time window. Customers of food trucks can browse menus, place orders, and manage their orders with ease through this system, which also offers food service providers a scalable, user-friendly, and effective solution.

1.2 Scope

Students and employees may order food, explore menus, and receive notifications when their orders are ready via the system. Vendors could modify item availability and manage orders. However, there will be no external authentication, nor payment integration available. The application will be web-based and accessible via browsers.

2. Product Vision and Scope

By reducing lines and enhancing vendor-customer contact, the project aims to provide more effective experience. Aimed at GIU campus users, the system will initially support order management and tracking, with the possibility of future growth.

3. System Architecture

The system consists of three layers:

• Frontend: HTML, CSS, JavaScript, and JQuery (for the user interface.)

• Backend: Node.js (RESTful API) (to process business logic and database operations.)

• Database: PostgreSQL (for managing user, vendor, and order data.)

4. Functional Requirements

• Users can register or log in.

• Users can browse menus and add items to their cart.

• Orders can be placed and scheduled for pickup.

• Vendors can view and update order statuses.

• Admins can manage vendors and monitor system activity.

• System sends pickup notifications to users when the orders are ready.

5. Non-Functional Requirements

• Performance: System should load pages within 3 seconds.

• Scalability: Able to accommodate at least 500 users at once.

• Security: HTTPS and input validation.

• Usability: Simple, intuitive UI.

• Reliability: Daily backups and fault-tolerant deployment.

6. Constraints

• Access restricted to GIU campus network users.

• No payment gateway integration in current version.

7. Future Scope

Future updates could include analytics dashboards for tracking vendor performance, payment integration, and mobile app support.