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Campus Kart: Student to Student Marketplace

Guide - Mr. Neeraj Paliwal (Asst. Prof. IIST Indore)

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Abstract— Campus stores in educational institutions often face problems such as overcrowding, long waiting times, manual inventory handling, delayed order processing, and inefficient payment systems. To overcome these limitations, this paper presents "Campus Kart," a smart online campus shopping and delivery system developed using modern web technologies. The proposed system enables students and faculty members to purchase stationery items, food products, books, and daily essentials through a centralized digital platform. The system integrates online ordering, digital payment processing, inventory management, and order tracking features. Campus Kart improves convenience, reduces manual work, and supports smart-campus infrastructure. The application is designed using Spring-boot, JWT, PostgreSQL, HTML, CSS, and Bootstrap technologies.

I. INTRODUCTION

Digital transformation has significantly improved educational infrastructure and student services. Modern educational institutions are increasingly adopting smart technologies to automate administrative and operational processes.

However, campus shopping systems in many colleges still depend on traditional manual methods. Students often experience long queues, limited store timings, and difficulty accessing products during busy academic schedules. Store administrators face inventory tracking problems, manual billing issues, and inefficient order management.

To solve these issues, the proposed system "Campus Cart" provides a smart online shopping and delivery platform designed specifically for educational campuses. The system allows users to browse products, place orders, make secure online payments, and track deliveries through a web-based application. The main objective of this project is to simplify campus shopping operations while improving efficiency, convenience, and user experience.

II. EXISTING SYSTEM

In the traditional campus shopping system, students physically visit stores to purchase products. Orders are processed manually and inventory updates are handled using conventional methods.

Limitations of Existing System -

- Long queues during peak hours.
- Manual inventory handling.
- No online ordering facility.
- Delayed billing process.
- Limited accessibility.
- No order tracking mechanism.
- Increased manual workload.
- Poor user convenience.

These limitations create the need for a digital and automated campus shopping solution.

III. PROPOSED SYSTEM

The proposed Campus Cart system is a smart web-based shopping platform for educational campuses.

The system provides:

- User registration and login.
- Product catalog management.
- Shopping cart functionality.
- Online payment gateway.
- Order tracking.
- Inventory management.
- Admin dashboard.
- Delivery status notifications.

The application improves campus shopping efficiency and reduces operational complexity.

IV. PROCESS FLOW

Step 1: User Registration Students create accounts using their institutional credentials.

Step 2: Login Authentication Users log into the application securely.

Step 3: Product Browsing Available products are displayed category-wise.

Step 4: Add to Cart Users add products to the shopping cart.

Step 5: Payment Processing The system processes digital payments securely.

Step 6: Order Confirmation Orders are stored in the database and notifications are generated.

Step 7: Delivery Tracking Users track order delivery status in real time.

V. FLOW DESIGN

VI. SYSTEM ARCHITECTURE

The Campus Cart architecture consists of four major layers.

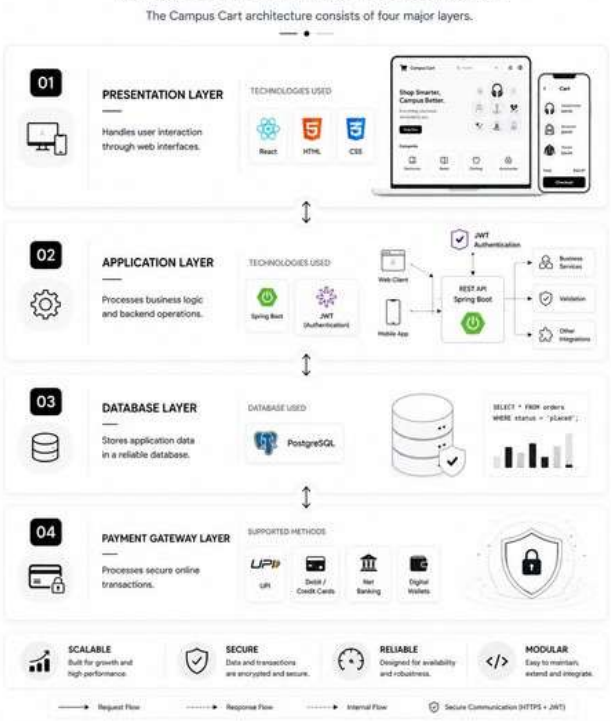
A. Presentation Layer Handles user interaction through web interfaces.
Technologies:
HTML, CSS, Bootstrap, JavaScript, JSP.

B. Application Layer Processes business logic and backend operations.
Technologies:
Java, Servlets, Spring Boot.

C. Database Layer Stores application data.
Database:
MySQL, JDBC Connectivity.

D. Payment Gateway Layer Processes secure online transactions.
Supported Methods:
UPI, Debit/Credit Cards, Net Banking, Digital Wallets etc.

VI. SYSTEM ARCHITECTURE



VII. MODULES OF THE SYSTEM

A. User Module Features:

- *Registration*
- *Login*
- *Product*
- *Search*
- *Add to Cart*
- *Order Placement*
- *Order Tracking*

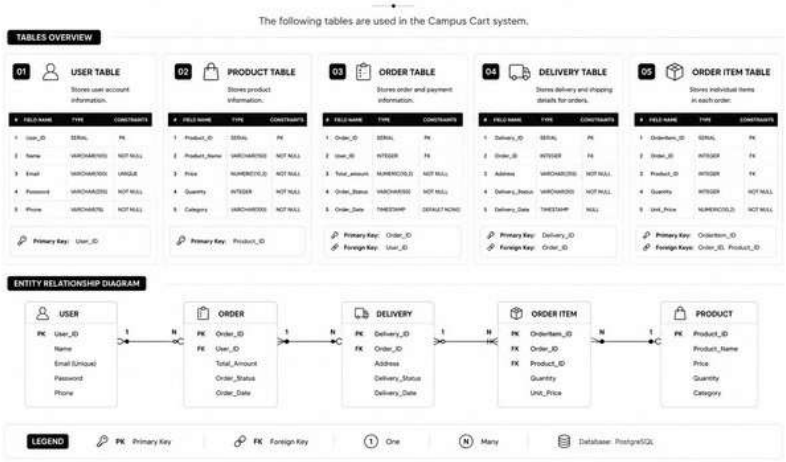
B. Admin Module Features:

- *Product Management*
- *Inventory Management*
- *Order Processing*
- *User Management*
- *Report Generation*

C. Delivery Module Features:

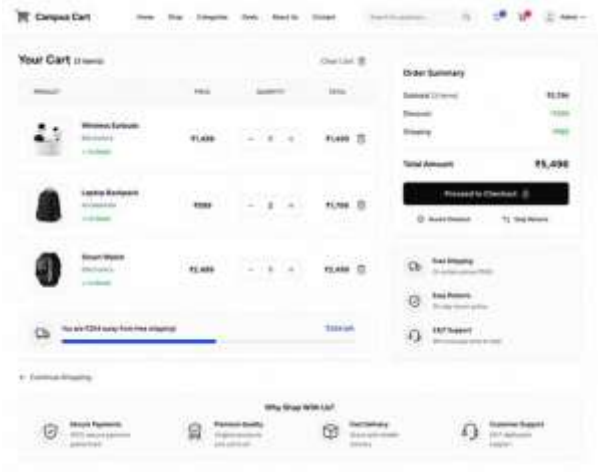
- *Delivery Assignment*
- *Status Updates*
- *Order Completion Tracking*

VIII. DATABASE DESIGN



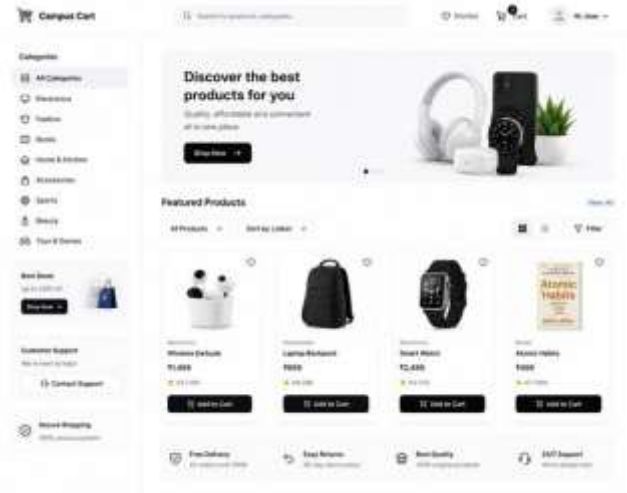
TECHNOLOGIES USED

*First of all the student have to log-in/register as buyer or seller.

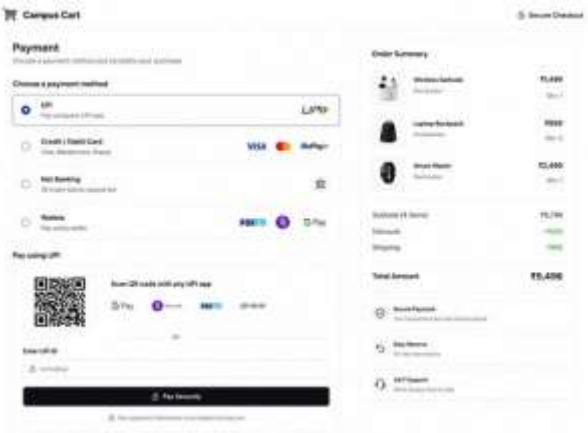


*As a buyer, user can view their cart and listed items.

*As the student logs in, the homepage gets displayed displaying the rules.



*User can view different categories of the prroducts.



*For the payment, users can select the payment method on their own.

IX. CONCLUSION

Campus Cart is an efficient and scalable smart-campus shopping solution developed to simplify campus purchasing activities. The integration of modern web technologies, secure payment systems, and automated inventory management significantly improves operational efficiency and user convenience. The system reduces manual work, enhances accessibility, and supports digital transformation within educational institutions. Campus Cart can play an important role in building smart and connected campus environments.

X. REFERENCES

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