

DataGuard: BACE-Enhanced Cloud Solution for Sensitive Personal Data Storage and Sharing

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Abstract: The "Smart Canteen Management System" project focuses on creating an efficient and user-friendly platform to streamline the operations of canteen services. The system leverages PHP for backend functionality, MySQL for database management, and HTML, CSS, and JavaScript for front-end design and interactivity. It enables customers to place orders online, view menus, and manage transactions seamlessly. For the canteen administrators, it provides tools for menu updates, order tracking, and sales analytics. By integrating web technologies, this project aims to reduce waiting times, minimize human errors, and enhance the overall dining experience.

I. INTRODUCTION

Canteens are often plagued by inefficiencies like long queues, manual order taking, and mismanagement of inventory. A "Smart Canteen Management System" is proposed to address these issues by automating order processing, providing digital menus, and maintaining real-time inventory tracking. The system ensures a smooth interaction between customers and the canteen staff, improving customer satisfaction and operational efficiency.

II. SOFTWARE ANALYSIS

. Hardware Requirements

- Processors: Intel® Core™ i5 processor
- RAM:From 4GB to 16GB of DRAM
- Disk space: 320 GB
- Operating systems: Windows® 10

. Software Requirements

- Server Side : PHP 8.0
- Client Side : Macromedia Dreamviewer 2i
- Back end : MySQL 8
- Server : Wampserver 2i
- OS :Windows 10 64-bit

PROJECT DESCRIPTION (PYTHON 3.7.4)

- In the rapidly evolving landscape of modern-day institutions and workplaces, the Smart Canteen System emerges as an innovative and transformative solution designed to revolutionize the conventional dining experience. Recognizing the inherent challenges posed by traditional manual and queue-based canteen models, this project envisions a comprehensive overhaul that seamlessly integrates cutting-edge technologies, user-centric features, and advanced planning capabilities. At its essence, the system aims to not only streamline the entire order processing journey for users but also redefine the administrative landscape for canteen administrators.
- As an ambitious and holistic undertaking, the Smart Canteen System represents not merely a technological upgrade but a reimagining of the entire canteen environment. It aligns with contemporary expectations, fostering a user-centric, efficient, and technologically enriched experience within the broader context of academic and workplace settings. This project is not just about managing orders; it's about transforming the very fabric of canteen operations to meet the demands of a dynamic and fast-paced world.

FRONT END: PHP 8.0

Ensures better performance and security with features like JIT compilation and improved error handling.

BACK END: MYSQL

MySQL tutorial provides basic and advanced concepts of MySQL. Our MySQL tutorial is designed for beginners and professionals. MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database.

III. EXISTING SYSTEM

Manual Food Ordering: Orders are placed directly at the counter, requiring physical presence and leading to long queues.

Cash-Based Transactions: Payments are typically made in cash, which is time-consuming and inconvenient for users.

Limited Menu Visibility: Customers need to visit the counter to view the menu, causing delays in decision-making.

No Real-Time Tracking: Once an order is placed, customers have no way to track its status or estimated completion time.

Operational Inefficiency: Staff struggle to manage peak-hour demands, leading to delays and errors in order fulfillment.

PROPOSED SYSTEM

Digital Food Ordering Platform: Introduces a mobile and web-based system for seamless food ordering and payment.

Real-Time Menu Updates: Displays the menu with availability status, helping users make informed decisions.

Order Tracking System: Allows users to track the status of their orders and estimated preparation time.

Cashless Transactions: Facilitates secure online payment options, reducing dependency on cash.

Scheduled Ordering: Enables users to pre-order food for specific times, optimizing service during peak hours

IV. MODULES

Admin Modules:

Digital Food Ordering Platform: Introduces a mobile and web-based system for seamless food ordering and payment.

Real-Time Menu Updates: Displays the menu with availability status, helping users make informed decisions.

Order Tracking System: Allows users to track the status of their orders and estimated preparation time.

Cashless Transactions: Facilitates secure online payment options, reducing dependency on cash

Scheduled Ordering: Enables users to pre-order food for specific times, optimizing service during peak hour.

Notification

- In this module the beneficiary will be notified about the death of the person.
- Through the notification module the beneficiary will get the cloud access http link and their account credentials with decryption key.
- The testator asset information will be shared to the relatives' mobiles and email.

Data Sharing

In this module the shard data access credentials are enabled. Specify the Address, User Name, and Password.

- **Address:** Specifies the address of the Web Application server to use for the shared data service.
- **User name:** Specifies the user name to use for authentication.
- **Password:** Specifies the password to use for authentication.
- **Actions on Shared Data:** Specifies actions on shared data.
- **Timeout:** Specifies the maximum number of seconds to wait for actions on shared.

ARCHITECTURE DIAGRAM

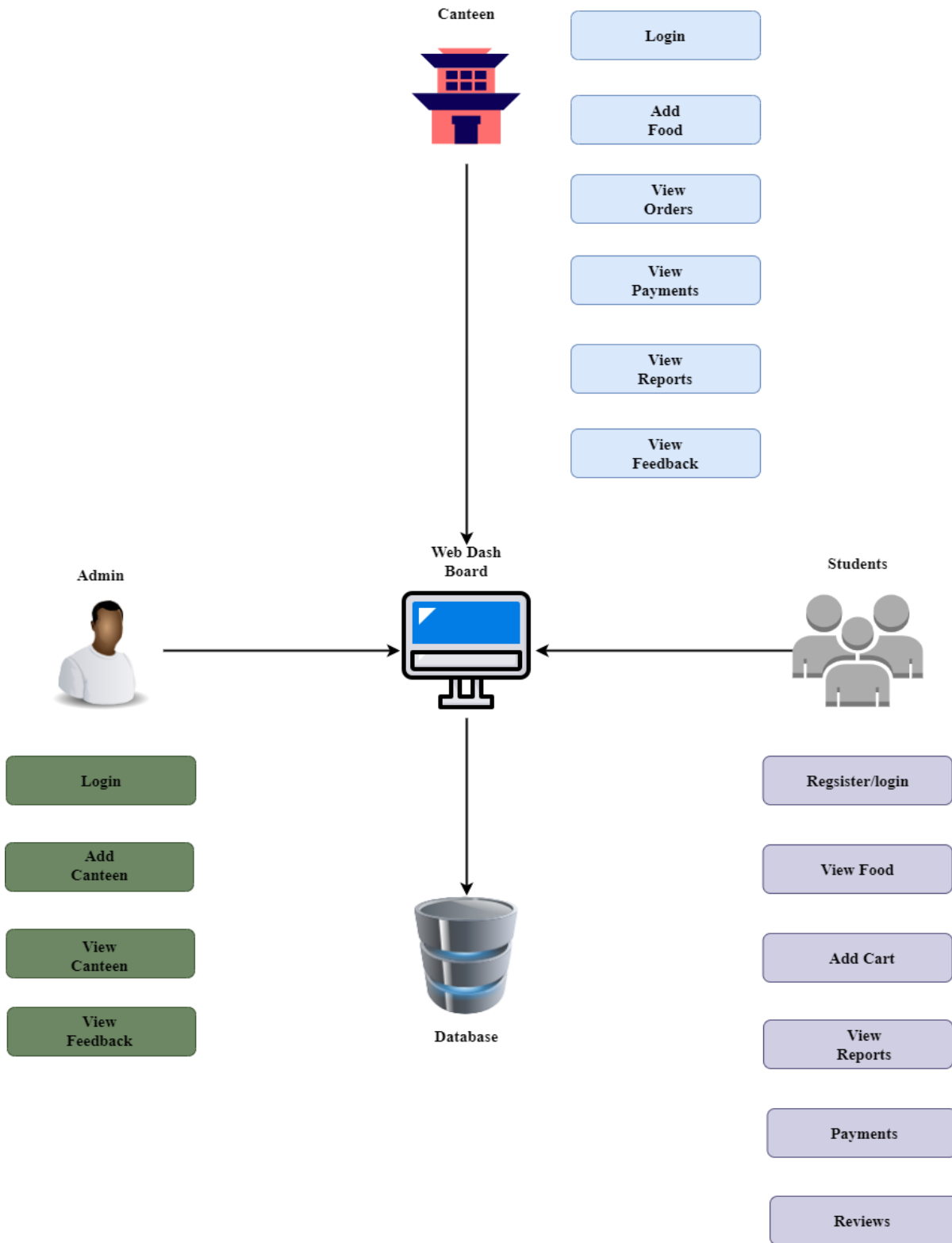


Fig.1. System Architecture

VI. CONCLUSION

In conclusion, the Smart Canteen System stands as a testament to the transformative power of technology in reshaping conventional dining experiences within academic and workplace environments. The successful implementation of advanced planning features, efficient queue management, and automated order processing has not only alleviated longstanding challenges but has ushered in a new era of user-centric and technologically enriched canteen operations. The positive feedback from users, coupled with tangible improvements in operational efficiency, highlights the system's immediate impact. As we navigate the dynamic landscape of modern institutions, the Smart Canteen System exemplifies the potential of innovative solutions to enhance user satisfaction, streamline administrative tasks, and set new standards for canteen environments in the digital age. This project serves as a blueprint for future endeavors seeking to harmonize technology, efficiency, and user experience in diverse communal settings.

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