SMART BITE HUB

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ABSTRACT

The Smart Bite Hub project revolutionizes campus dining with a seamless, tech-driven platform. It allows students and staff to browse menus, place orders, and make secure payments online, reducing wait times and enhancing convenience. The system includes user-friendly interfaces for students, canteen staff, and administrators, enabling efficient order management and real-time inventory tracking. Real-time data analytics help optimize food production, reduce waste, and manage inventory more effectively. This project reflects college's commitment to innovative solutions, improving both the student experience and canteen operations.

Keywords: Smart Bite Hub, Tech-Driven Dining, Account, Seamless Ordering, Real-Time Analytics.

I. INTRODUCTION

Smart Bite Hub offers a personalized experience by allowing users to create and manage their accounts, track orders, manage preferences, and view purchase history. The "Queries" page provides a direct channel for customer feedback and support, ensuring timely resolutions. The "About Us" page details the mission, vision, and technology behind Smart Canteen, highlighting its seamless online ordering, reduced wait times, and increased efficiency. Menu items transition smoothly to a secure payment session with multiple options, enabling faster, cashless transactions. This integration enhances user experience while maintaining security and ease of use.

II. METHODOLOGY

Requirement Analysis: Gather detailed requirements from students, staff, and administrators to understand their needs and preferences for the dining platform.

Design and Development: Create intuitive and user-friendly interfaces, develop the platform using modern web technologies, and integrate real-time data analytics to track customer preferences and optimize food production.

Implementation: Implement features that allow users to browse menus, place orders, and make secure payments online. Develop a system for real-time inventory tracking to reduce waste and manage stock efficiently. Ensure the payment process is simple, secure, and supports multiple payment options.

Feedback and Improvement: Collect feedback from users to identify areas for improvement. Continuously update and enhance the platform based on user feedback and changing needs.

III. MODELING AND ANALYSIS

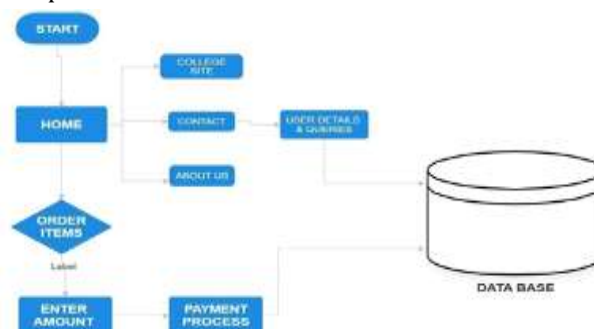Here our complete flow chart of process in Smart Bite Hub.

Figure 1: Flow chart of our process.

IV. RESULTS AND DISCUSSION

The Home page is a basic webpage featuring a Navbar and links to the college website, Contact Us, About Us, and Account pages. It includes order buttons for each item. The Home page connects to the Account page, where users can manage their accounts and track orders. The Contact Us page, renamed as "Queries," offers a direct channel for customer feedback and support. The About Us page provides an overview of Smart Canteen's mission, vision, and technology.

HOME PAGE

Figure 2: Home Page

ACCOUNT PAGE

Figure 3: Account Page

ABOUT US PAGE

Figure 4: About us Page

V. CONCLUSION

Smart Bite is an online platform that streamlines canteen food ordering using HTML, CSS, and JavaScript. It features essential pages like a homepage, account management, contact/queries, and About Us. Integrated with Firebase for secure user authentication and order management, it allows users to browse menus, place orders, and make secure payments efficiently. The user dashboard offers order tracking, history viewing, and personalized recommendations. Smart Bite enhances the traditional canteen experience by reducing wait times, supporting cashless transactions, and improving overall customer satisfaction.

ACKNOWLEDGEMENTS

VI. REFERENCES

[1] Patel, A. and Joshi, S. (2018) 'Smart Canteen Management System Using IoT and RFID', International Journal of Engineering Research &Technology (IJERT), Vol. 7, pp.22–28.

[2] Kumar, R. and Sharma, P. (2019) 'Mobile Application for Canteen Automation with Cashless Payments', Journal of Computer Applications, Vol. 45, pp. 113–119.

[3] Sarkar, S. and Banerjee, P. (2020) 'Smart Ordering System for Canteens Using QR Code Scanning', International Journal of Advanced Research in Computer Science, Vol. 11, pp. 79–85.

[4] Reddy, K. and Verma, D. (2021) 'IoT-Based Canteen Food Ordering and Payment System', IEEE Conference on Internet of Things and Smart Cities, pp. 55–60.

[5] Chaudhary, N. and Deshmukh, S. (2017) 'Automated Canteen System with NFC Payment', International Journal of Scientific Research in Computer Science, Vol.5,pp. 38 44.

[6] Goyal, M. and Singh, A. (2022) 'AI-Powered Smart Canteen for Personalized Food Recommendations', Journal of Artificial Intelligence Research and Development, Vol. 12, pp. 101–108.

[7] Rao, S. and Gupta, T. (2023) 'Cloud-Based Canteen Management System for Real- Time Data Analysis', Proceedings of the International Conference on Cloud Computing and Data Analytics, pp. 312–319.