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Automated Canteen Ordering System

Shatakshi Sharma[1], Vidushi Sharma[2], Namrata Pandey[3], Tushar Garg[4]
[1, 2, 3, 4]*Department of Computer Science and Engineering, Krishna Engineering College, Ghaziabad*

Abstract: People nowadays don't have much time to sit in a cafeteria and wait for the server to take their order. Many customers come to the canteen during their lunch break or recess, so they only have a little time to eat before returning to their offices or institutions. As a result, this programme allows users to save time and order meals anytime they want without having to contact the waiter again. Paperwork is included in the manual system in the form of keeping multiple files and manuals. Maintaining vital data in files and manuals is a risky and time-consuming operation. The project exhibits the path from adapting materials to establishing an online environment by including a framework that shows how to use Internet technologies gradually as abilities and confidence improve. This Canteen Automation System allows customers to register online, read and pick food from an e-menu card, and order meals online by simply choosing the food they want using an Android application. The results will display on the screen beside the Chef who will prepare the dish for you when you pick the food from the E-menu card. The system is a hybrid of Android and Web applications.

I. INTRODUCTION

Computers have become an indispensable tool for obtaining practically any kind of data. Life in the twenty-first century is full with technical advancements, and it is very difficult for any company to exist in this modern era without employing technology. The World Wide Web makes a significant contribution to the building of a growing global information storehouse. It might also be used as a way for employees to discuss information inside a company. Many canteens have opted to concentrate on rapid preparation and delivery of orders rather than providing a great eating experience in today's age of fast food and take-out. Until recently, all of these delivery orders were placed with waiters or over the phone, but this system has several drawbacks, including the inconvenience of the customer needing a physical copy of the menu, the lack of visual confirmation that the order was placed correctly, and the requirement for the canteen to have an employee answering the phone and taking orders. We offer a Canteen Automation System, which is an online ordering system that can be used in any meal delivery sector. The key benefit of this technique is that it makes ordering more easier for both the consumer and the canteen. When a consumer hits the ordering page, they are provided with an interactive and up-to-date menu that includes all available choices and dynamically adjusts costs depending on which options are picked. After making a decision, the item is added to the customer's purchase, which they may review at any moment before checking out. This gives you fast visual confirmation of what you choose and assures that the products in your order are exactly what you wanted. This method significantly reduces the workload at the canteen since the whole ordering procedure is automated. When a customer places an order on the website, it is entered into a database and then retrieved in real time by a desktop programme at the cafeteria. All goods in the order are shown in a compact and easy-to-read way inside this application, together with their accompanying choices and delivery data. This enables canteen personnel to swiftly review orders as they come in and supply the appropriate supplies with little delay and confusion.

II. THE OBJECTIVES OF THIS PROJECT IS

1) To quickly place a restaurant order
2) To make it easier for folks with limited time.
3) Cost-cutting
4) Paperwork is reduced
5) Ordering and billing system that is computerized

III. TYPES OF USERS:

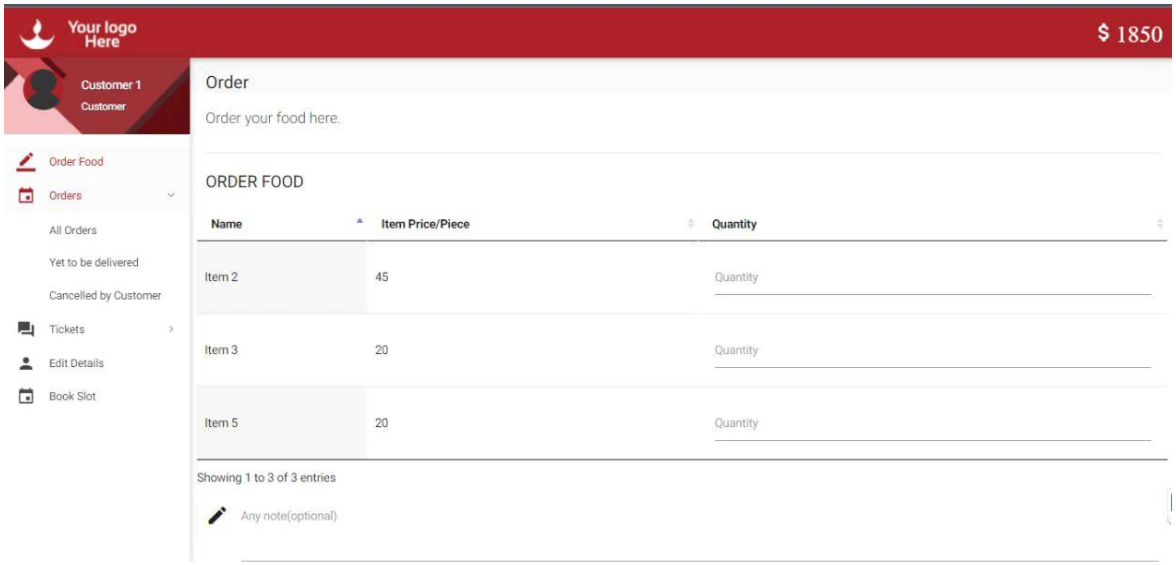
A. Admin Login
1) Take Order □
2) Bill Print □
3) Add/ Remove Food Items □
4) Add Offers
5) Update Inventory □

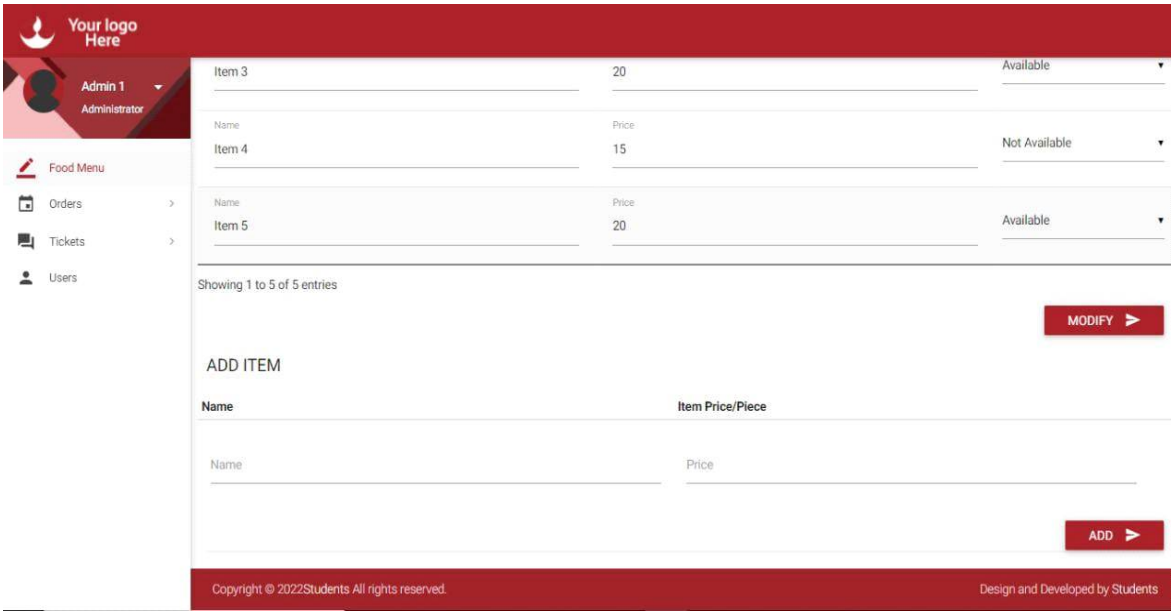
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6) Order Forecasting (Predict Items Most Frequently During Specific Hours) □
7) Sales for each day and month □
8) Sales of individual item for the day □
9) Total Earnings

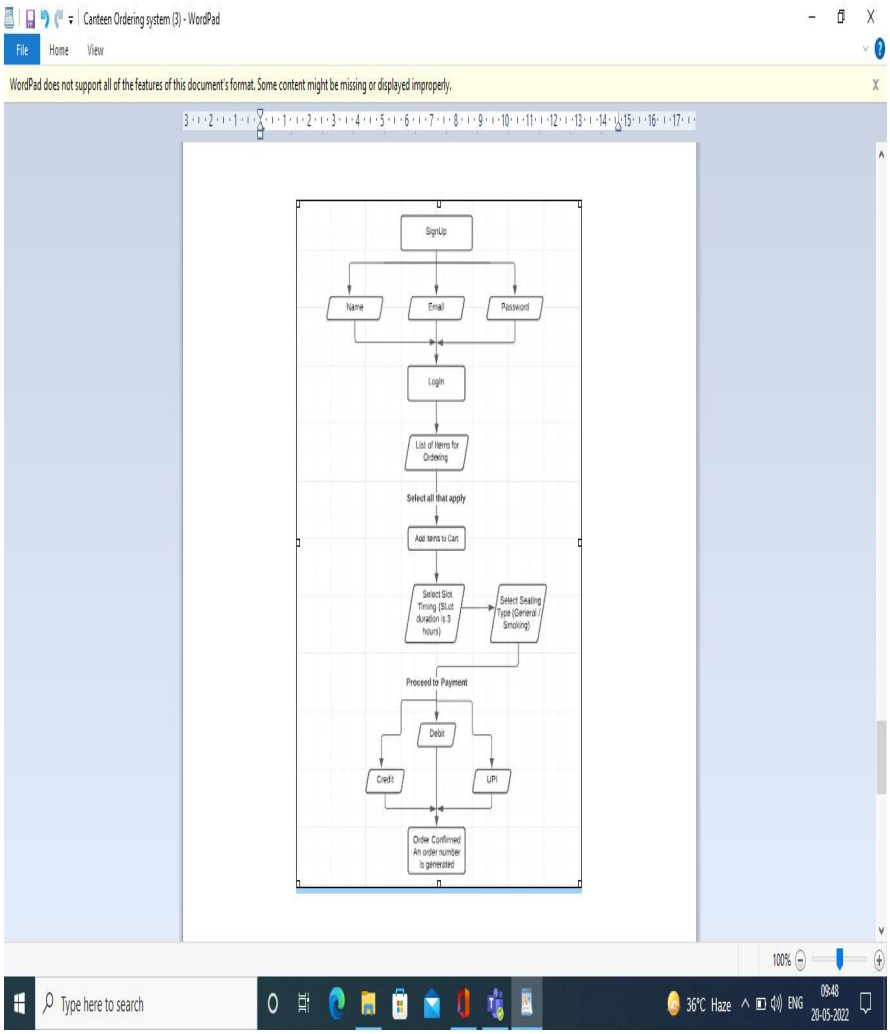
B. Staff Login
1) Order placed by Customer
2) Offer
3) Order Forecasting

C. User Login
1) Menu Items
2) Place an Order
3) Combo Box Selection
4) Bill Payment





D. Diagram



IV. HARDWARE REQUIREMENT

1) Computer with an i3 processor or above
2) 1 GB RAM memory
3) Hard Drive: 50 GB
4) Internet Connection

V. SOFTWARE REQUIREMENT

1) Windows 7 or higher
2) Visual Studio 2010
3) SQL Server 2008

VI. ADVANTAGES

1) Fully automated online meal ordering in a canteen.
2) Food ordering pages that appear and feel identical to the restaurant's current website.
3) A Special Combo Box including numerous meal items may be ordered.
4) Food ordering pages are housed on a secure and dedicated server, ensuring that clients are not routed to rivals' websites.
5) Created using the most up-to-date website development standards to ensure low server loads and lightning-fast loading and processing.

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6) Admin Panel with a simple user interface for creating and configuring menu groups, menu items, and so on. VII. The ability to apply modifications to distinct menu items is built-in.
7) Ability to construct modifier groups, individual modifier items, and group modifier items
8) Each Canteen has its own administrative panel and login.
9) Order summary includes options to search orders, change order status, print orders, and more.

VII. DISADVANTAGES

1) An active internet connection is required.
2) A website login is required.

VIII. APPLICATIONS

This system can also be used in Restaurants, Cafeteria, Etc.

IX. FEATURES

1) *Demand Balancing:* Because the system will only be accessible to administrators, the amount of load placed on the server will be restricted to the duration of admin access.
2) *Easy Accessibility:* Records and other information may be quickly retrieved and stored.
3) *User-Friendly:* The web application will be very user-friendly for all users.
4) *Efficient and Dependable:* Keeping everything safeguarded and database on the server, which will be available according to user requirements without any maintenance costs, will be far more efficient than keeping all client data on spreadsheets or in physical record books.
5) *Simple to Maintain:* The Canteen Automation System is designed to be simple to maintain. As a result, maintenance is also simple.

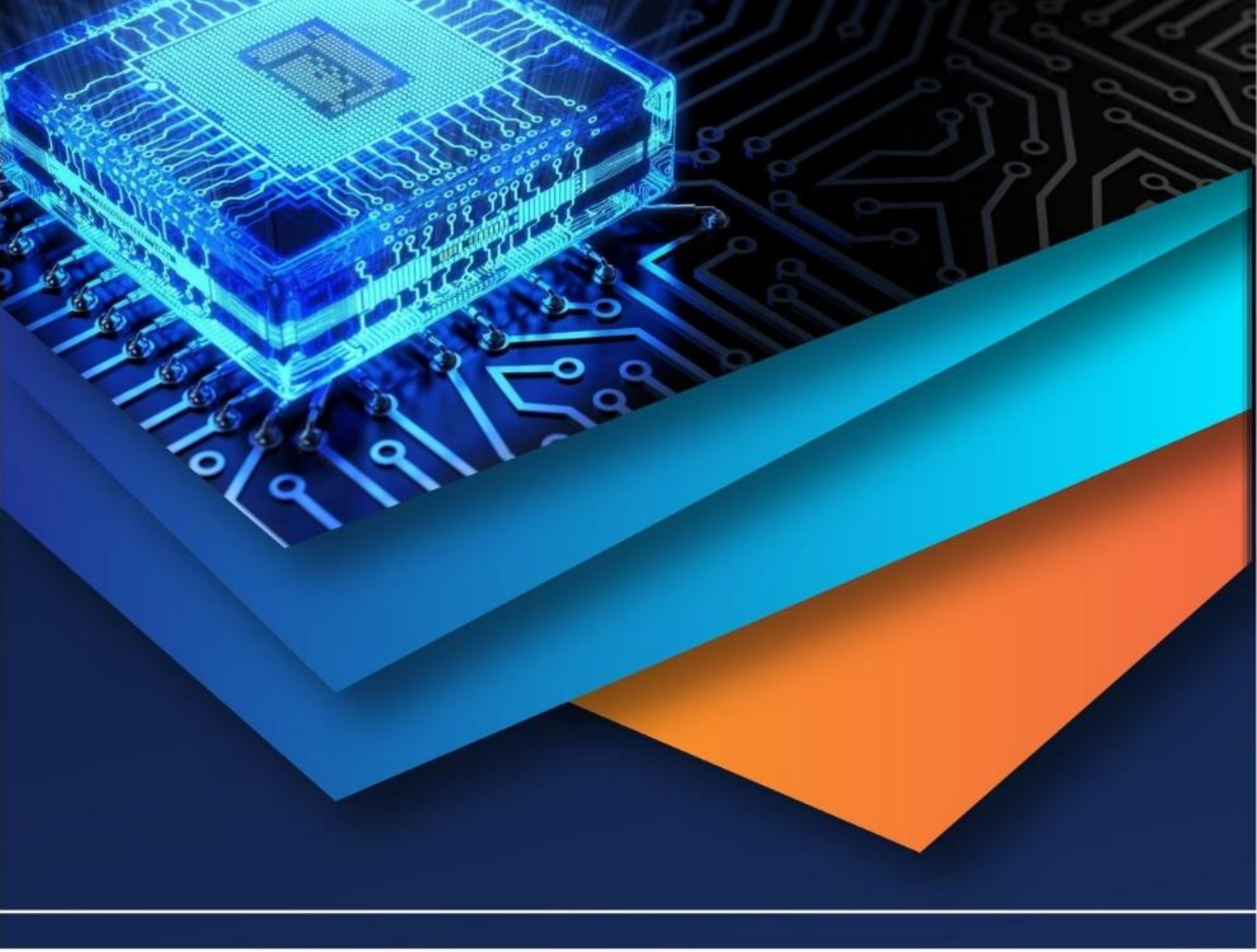
X. CONCLUSION

The Canteen Automation system went through many stages of development. The method is top-down, with the focus on what comes first, followed by how, and then on to higher degrees of detail. The first step began with a thorough examination of the issues and opportunities of ordering in Foods. Many issues were uncovered throughout this investigation that hampered the efficacy of the previous manual method. These issues, information requirements, and actions were recorded and utilised as the foundation for system design, which came after the first phase. The design phase was largely focused with defining the system components in a way that best matched the organization's business requirements. During this phase, known software engineering principles and practises were strictly followed. A computer application was then created and tested in the Visual Studio.Net environment to implement this idea. Many of the difficulties uncovered during the systems analysis should be eliminated if this software product is implemented properly.

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