

“Cafeteria Management System”

Submitted in partial fulfillment of the requirements for the degree of
Bachelor of Science in Computer Science and Engineering
by

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DECLARATION OF AUTHORSHIP

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We hereby declare that the project entitled “Cafeteria Management System” submitted for the completion of **CSE 200: Software Development II** course in the Department of Computer Science and Engineering of Bangladesh University of Business and Technology (BUBT), is our original work, and it does not infringe upon the intellectual property rights of any other person or entity, it contains no materials previously published or written by any other person except where due reference is made in this project.

This declaration signifies that our project “Cafeteria Management System” is an original work and that we take responsibility for its authenticity and originality.

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“Task successful” makes everyone happy. But the happiness will be gold without glitter if we didn’t state the persons who have supported us to make it a success. Success will be crowned to people who made it a reality but the people whose constant guidance and encouragement made it possible will be crowned first on the eve of success. This acknowledgment transcends the reality of formality when we would like to express deep gratitude and respect to all those people behind the screen who guided, inspired, and helped us for the completion of our project work. We consider ourselves lucky enough to get such a good project. This project would add an asset to our academic profile.

We express our gratitude for the help to our supervisor ***Ms. Nourin Khandaker***, lecturer, Dept. of CSE (BUBT), for her constant supervision, guidance, and co-operation throughout the project and for giving constant motivation and valuable help through the project work. We also would like to thank our honorable chairman ***Md Saifur Rahman***, for giving us support and permitting us to use the computer lab whenever we needed. We extend our sincere gratitude to our parents who have encouraged us with their blessings to do this project successfully. Finally, we would like to thank all our friends, all the teaching and non-teaching staff members of the CSE Department, for all the timely help, ideas, and encouragement that helped throughout the completion of the project.

ABSTRACT

In the bustling world of cafeterias and restaurants, efficiency and organization are paramount. Our innovative Cafeteria Management System is designed to seamlessly manage your food ordering process, ensuring a smooth and streamlined operation from management, menu creation, ordering to bill generation.

Unleash the Power of Automated Order Management

Imagine a place where order processing is effortless and error-free. Our system empowers you to create a comprehensive menu, generate orders with a click, and produce detailed bill slips, all while maintaining accurate records of sales and individual orders.

Enhanced User Experience for Optimal Efficiency

Our user-friendly interface, accessible on Windows operating system-based desktop computers, provides a seamless experience for management. Whether you're creating menus, processing orders, or managing sales data, our intuitive system makes it easy to navigate and optimize your operations.

Embrace the Future of Cafeteria Management

With our Cafeteria Management System, you can bid farewell to time-consuming manual processes and embrace the power of automation. Our system will revolutionize your cafeteria operations, allowing you to focus on delivering exceptional customer service and culinary delights.

Keywords

POS: Point of Sales. Where an end user takes the order from customer.

KOT: Kitchen Ordering Ticket. Generates order request from POS section to Kitchen.

UAT: User Acceptance Testing. Incorporated user feedback to refine and enhance the user experience.

CERTIFICATE

This is to certify that the entitled **Cafeteria Management System**, submitted by **Umair Hossain** (Student ID: 2122510313), **Umara Binte Masud** (Student ID: 21225103222), **Md Shimul Islam** (Student ID: 21225103272), **Tasnia Tahsin Fateha** (Student ID: 21225103296) and **Md. Shahbaz Sheikh** (Student ID: 21225103545), are undergraduate students of the Bangladesh University of Business and Technology (BUBT), Computer Science and Engineering department under the supervision of Ms. Nourin Khandaker has been examined. Upon recommendation by the examination committee, we hereby accord our approval of it as the presented work and submitted report fulfill the requirements for its acceptance in partial fulfillment for the degree of Bachelor of Science in Computer Science and Engineering.

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CONTENTS

	Declaration	i
	Acknowledgement	ii
	Abstract	iii
	Certificate	iv
Chapter 1:	INTRODUCTION	1-2
	1.1 Introduction.....	1
	1.2 Motivation	1
	1.3 Current Systems.....	1
	1.4 Problem with the Current Systems.....	1
	1.5 Proposed System.....	1
	1.6 Project Overview.....	2
	1.7 Project Scope.....	2
Chapter 2:	LITERATURE REVIEW	3-5
	2.1 Technological components.....	3
	2.1.1 C# Program.....	3
	2.1.2 SQL.....	4
	2.2 Methodology.....	5
Chapter 3:	REQUIREMENT ANALYSIS	6
	3.1 Requirement Analysis.....	6
	3.2 Hardware Requirement Analysis.....	6
	3.3 Software Requirement Analysis.....	6
Chapter 4:	SYSTEM ANALYSIS AND DESIGN	7-9
	4.1 System Design.....	7
	4.1.1 System Module.....	8
	4.2 Database Design.....	9
	4.2.1 Database Module.....	9
Chapter 5:	IMPLEMENTATION AND TESTING	10-11
	5.1 Introduction.....	10
	5.2 Content.....	10
Chapter 6:	USER MANUAL	12-22
	6.1 Introduction	12
	6.2 Login Page	12
	6.3 Admin Page	13
	6.4 Home Page	14
	6.5 Dashboard Page	14
	6.6 Category Page	15
	6.7 Products Page	15
	6.8 Tables Page	16
	6.9 Staff Page	17
	6.10 POS (Point of Sale)	17
	6.11 Reports Page	22

Chapter 7:	CONCLUSION AND FURTHER WORK	23-24
	7.1 Conclusion	23
	7.2 Future plan.....	23
	REFERENCES	24

CHAPTER 1

INTRODUCTION

1.1 Introduction

Enter the "Cafeteria Management System" – your ticket to simplicity and efficiency in the world of cafeteria management operations. “Cafeteria Management System” provides a user-friendly interface for quick and efficient menu customization, allowing you to showcase items by categories, and more. Simplified financial transactions with our secure billing system and generate detailed receipts effortlessly.

Tailor “Cafeteria Management System” to suit the unique needs of your institution. Customize menu planning, pricing, and other operational parameters effortlessly to ensure the program aligns perfectly with your cafeteria's requirements.

1.2 Project Motivation

The majority of ordering and billing processes in our campus cafeteria are done manually. Freshmen and recently enrolled students are unaware of the food items offered due to poor management. Rush hour can sometimes make situations worst by causing delays and collapse in the ordering and payment processes. Because of the rapid advancements in technology, operations such as these must develop management software to improve the customer comfort and efficiency.

1.3 Current System

The current state of restaurant and cafeteria management systems reflects a dynamic and technologically advanced landscape. With a focus on enhancing customer experience, improving operational efficiency, and adapting to emerging trends, these systems are pivotal for the success of modern food service establishments. As the industry continues to evolve, it's likely that we'll see even more innovations that further streamline operations and elevate the dining experience for both businesses and customers alike.

1.4 Problem with the Current Systems

The majority of the present management system is expensive, and like in our nation, their interface is hard for ordinary people to understand and use. Many cafeteria/restaurants’ owners desire specialized software that meets their needs, but they don't find it or find it expensive. Some software is feature-bare and outdated due to lack of maintenance for a long time.

1.5 Proposed System

By addressing current issues, improving functionality, and implementing cutting-edge technology, we attempted to develop a more effective and user-friendly system that will offer better service within an affordable price range. Enhance reporting features to offer in-depth analyses of consumer preferences, financial trends, and cafeteria performance. As a result, there will be greater performance, scalability, and compliance with modern software and hardware standards.

1.6 Objectives of the project

Objective 1: Streamlined User Interface for Enhanced User Experience

Goal: Develop a simple and intuitive interface to ensure ease of use for both restaurant staff and customers.

Key Features:

- User-friendly design with intuitive navigation.
- Clear and concise menu layouts for efficient order placement.

Objective 2: Efficient Ordering System for Faster Service

Goal: Implement a robust ordering system to optimize the speed and accuracy of order processing.

Key Features:

- Quick order placement through a streamlined process.
- Customization options for customer preferences.
- Integration with kitchen display systems for real-time order communication.

Objective 3: Advanced Bill Management for Accuracy and Transparency

Goal: Enhance the bill management system to improve accuracy in transactions and provide transparency to both customers and staff.

Key Features:

- Automatic item categorization for organized billing.
- Detailed bill breakdown.
- Real-time updates on order status and bill calculations.

Objective 4: Performance Optimization for Scalability

Goal: Ensure the software can handle increasing data and user loads without compromising performance.

Key Features:

- Efficient database architecture for quick data retrieval.
- Regular performance assessments and optimizations.

Objective 5: Affordable Price Range for Accessibility

Goal: Provide a cost-effective solution to make the software accessible to a wide range of businesses, including small and medium-sized enterprises.

1.7 Project Scope

The lack of computer literacy among the people who would use this system is one of the project's problematic factors. Most personnel in this industry, or those who could be end consumers, are only familiar with manual operation. Therefore, end users need to be knowledgeable with computers and the workings of the system in order for it to be installed and run properly. Once more, since the software we're developing is organization-based, adjustments will be required on a regular basis or for individual organization requirements.

CHAPTER 2

LITERATURE REVIEW

2.1 Technological Components

In the Cafeteria Management project, C# programming language was employed to develop a user-friendly system for efficiently managing cafeteria operations. Central to this system is the integration of an SQL database, providing a robust and efficient solution for data storage and management.

2.1.1 C# Program

C# (C-Sharp) stands out as a robust programming language, particularly well-suited for the intricacies of management projects.

1. Object-Oriented

C# has object-oriented principles, providing a structured and modular approach to managing data and functionalities within a project. Its support for encapsulation, inheritance, and polymorphism contributes to code organization and maintainability.

2. Syntax Simplicity and Readability

The syntax of C# is designed for clarity and brevity. This simplicity reduces the cognitive load on developers, facilitating faster comprehension and minimizing the likelihood of errors.

3. Integration with Microsoft Technologies

C# seamlessly integrates with the Microsoft technology stack, including the .NET framework and Visual Studio IDE. This integration offers a comprehensive set of tools and libraries, streamlining development and ensuring compatibility with other Microsoft-centric solutions.

4. Type Safety and Strong Typing

In management projects where data integrity is crucial, this feature is invaluable.

5. Extensive Standard Library

The standard library in C# is expansive, providing a wealth of pre-built classes and methods. This rich set of tools simplifies the implementation of common functionalities in management systems, allowing developers to focus on project-specific requirements.

6. Active Developer Community

C# benefits from a vibrant and engaged developer community. This community-driven support ensures a plethora of resources, tutorials, and solutions, fostering a collaborative environment that aids developers in overcoming challenges encountered during project development.

In summary, C# combines the technical strengths of a robust object-oriented language with seamless integration into Microsoft technologies, making it an optimal choice for building scalable, maintainable, and technically proficient management systems.

2.1.2 SQL

SQL, which stands for Structured Query Language, is like the wizard of database management, making it a must-have for managing projects smoothly.

1. Data Organization with Relational Structure

SQL revolves around the relational database model, offering an organized and efficient way to manage data. This structure is particularly beneficial for management projects where relationships between different sets of data are pivotal for decision-making.

2. Querying

SQL excels in querying data, providing a robust set of commands to retrieve, filter, and manipulate information. Its declarative nature allows developers to focus on specifying the desired outcome, letting the database engine handle the optimization and execution details.

3. Scalability and Flexibility

SQL databases are known for their scalability, accommodating the growth of data and user load. Additionally, SQL's flexibility allows developers to adapt the database structure as project requirements evolve, providing a scalable foundation for management systems.

4. Data Security Measures

For management projects dealing with sensitive information, SQL offers robust security features. Access controls, encryption, and authentication mechanisms ensure that only authorized personnel can access and modify data, safeguarding against unauthorized breaches.

In summary, SQL's data-centric approach, coupled with its advanced querying capabilities and data management features, makes it an indispensable tool for building technically sound and reliable management systems. Its role in ensuring data integrity, scalability, and security aligns seamlessly with the complex requirements of modern management projects.

2.2 Methodology

Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment. Initially, the project scope is defined and the appropriate methods for completing the project are determined. Following this step, the durations for the various tasks necessary to complete the work are listed and grouped into a work breakdown structure. The logical dependencies between tasks are defined using an activity network diagram that enables the identification of the critical path.

We have used the Iterative and Incremental Development model (IID) for our project development. This development approach is also referred to as the Iterative Waterfall Development approach. Iterative and Incremental Development is a software development process developed in response to the more traditional waterfall model.

This model is designed to take care of such a big project. The large and model is well known for its repeated testing process. Hence, we choose the waterfall model for developing our software.

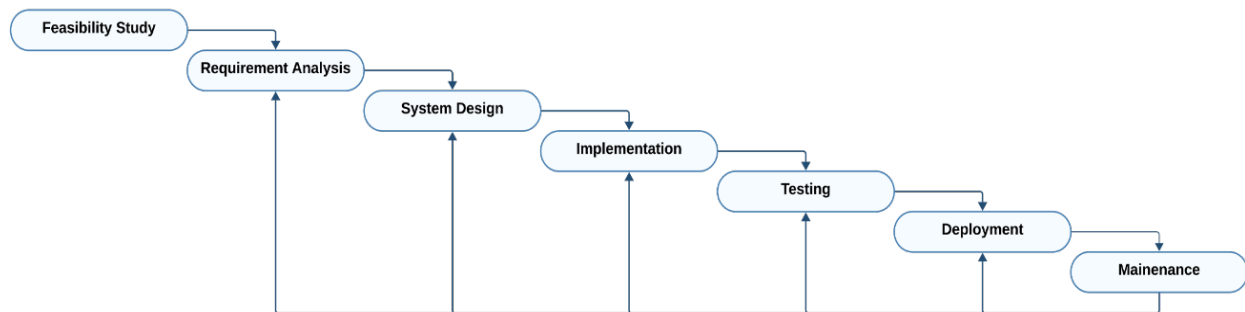


Figure 01: Iterative Waterfall Development Model

CHAPTER 3

REQUIREMENT ANALYSIS

3.1 Requirement Analysis

The primary focus was on simplicity and key features. The project should offer an easy-to-use interface, allowing staff and users to effortlessly navigate. C# will handle tasks like managing menus, processing orders, and implementing user authentication, while SQL will be instrumental in securely storing data, such as user details, menu items, and transactions. Basic reporting and transaction management functionalities should be included for administrative insights. The goal is to create a streamlined system that ensures simplicity, security, and scalability as the cafeteria management needs evolve.

3.2 Hardware Requirement Analysis

The following sub-sections discuss the various aspects of hardware requirements.

- **Processor:** ARM64 or x64 processor; Quad-core or better recommended.
- **RAM:** Minimum of 4 GB of RAM; 8 GB or more recommended.
- **Storage:** Minimum 20 GB up to 100 GB of available space, depending on features.
- **Monitor:** EGA / SVGA (display), 800 × 600 24 bits True Color.
- **Keyboard:** Microsoft Compatible Keyboard.
- **Mouse:** Microsoft Compatible Mouse.

3.3 Software Requirement Analysis

The following sub-sections discuss the various aspects of software requirements.

- **Operating System:** Windows 7, Windows 8, Windows 10, Windows 11.
- **User Interface Design:** Visual Studio 2019, ASP.NET, GUNA UI 2 Module.
- **Language:** C# Programming.
- **Database:** MySQL, Apache through XAMPP, Microsoft SQL Server.

CHAPTER 4

SYSTEM ANALYSIS AND DESIGN

4.1 System Design

Project: Cafeteria Management System System Design

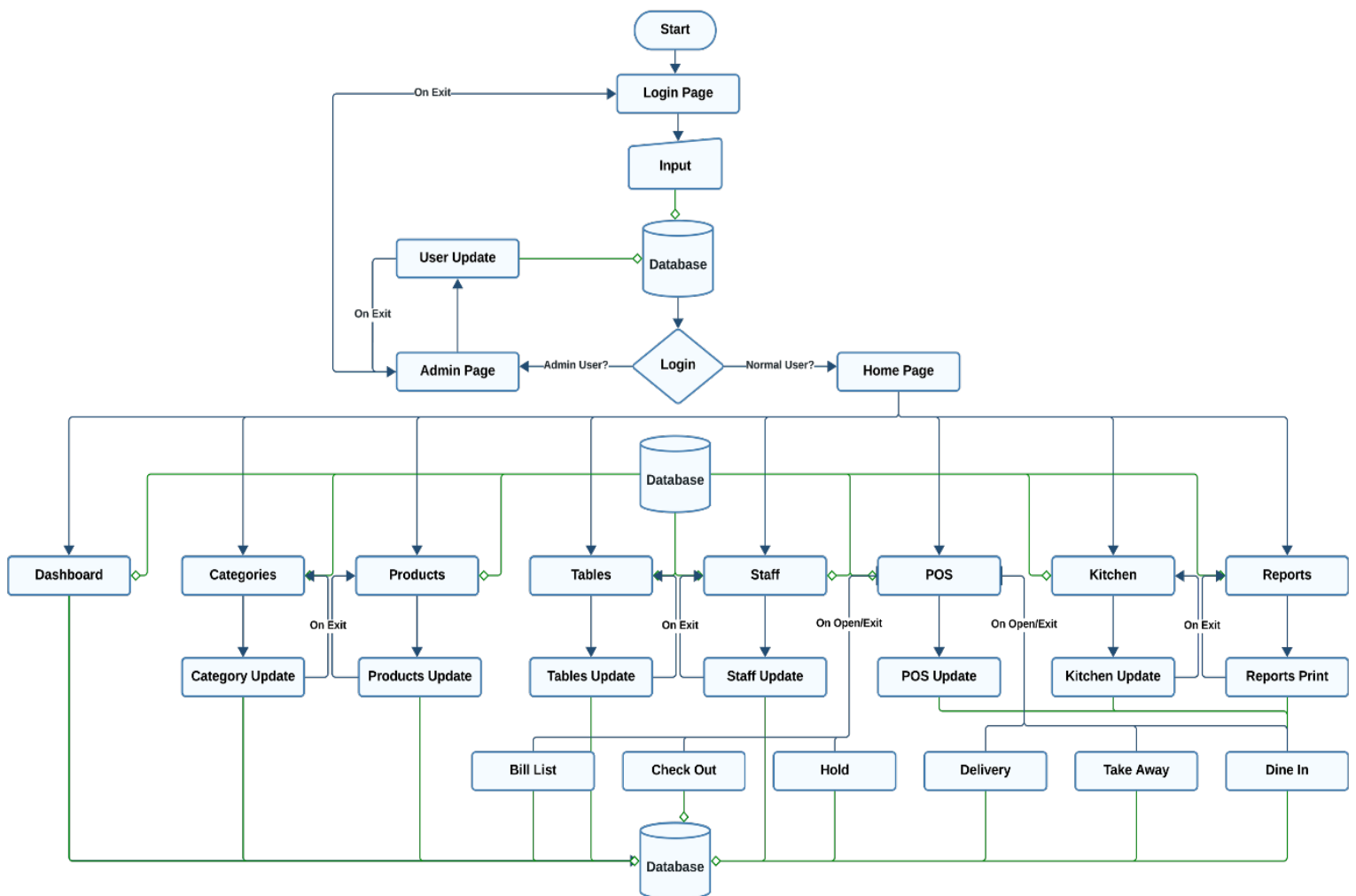


Figure 02: System Flowchart

- Indicating Panel/Page Opening and Closing Direction.
- Operations on Database. (Insert/Delete/Update/Retrieval)

4.1.1 System Module

Login System (Multiple User)

- Admin User
- Normal User

Admin Panel

Add User: Admin can add new user (Manager) to the database. Which will create a new user ID for the user and using that Id they can access their own account.

Update/Delete User: Admin can update or delete user account.

Normal User (Management) Panel

Upon successful login with the user ID and Password the person in management will see the home screen. On the left user will see Dashboard, Categories, Products, Tables, Staff, POS, Kitchen and Reports button.

Dashboard Panel

The dashboard will show the overall update in one place like current time, the number of orders completed successfully, orders on hold, pending orders, staff and sales data.

Category Panel

User can add, update, search or delete product category.

Products Panel

User can add, update, search or delete products.

Tables Panel

User can add, update, search or delete table details.

Staff Panel

User can add, update, search or delete staff information.

POS (Point of Sales) Panel

This is the central hub of this software, – taking orders from customers and generating bills.

Initially the screen will show all the items during placing order it can be sorted category wise. Initially, the screen displays all available items, neatly organized by categories for ease of selection during the ordering process. Once items are chosen, users are presented with three delivery options: Delivery, Take Away, and Dine In, offering flexibility to cater to customer preferences.

The final step involves pressing the KOT (Kitchen Order Ticket) button, which promptly dispatches the order details to the kitchen for preparation. After the kitchen completes the order, it appears in the bill list section with a "completed" status.

Users can then edit the order if necessary and proceed to checkout. A successful checkout updates the order status to "paid" in the bill list, signaling that the transaction is complete. Users also have the option to print the bill for record-keeping.

Additionally, two handy features, "New" and "Hold," are situated in the left upper corner. The "New" option resets the Point of Sale (POS) screen to its initial state, ensuring a fresh start. During peak hours, the "Hold" feature allows users to temporarily set orders aside to prevent potential mismanagement. These enhance user experience and order processing in various scenarios.

4.2 Database Design

Effective database design is a cornerstone of successful management software. A thoughtfully designed database ensures that data is structured logically, making it easy to store, retrieve, and manage. This organized approach enhances the software's performance, enabling quick access to crucial information.

Project: Cafeteria Management System Database Design

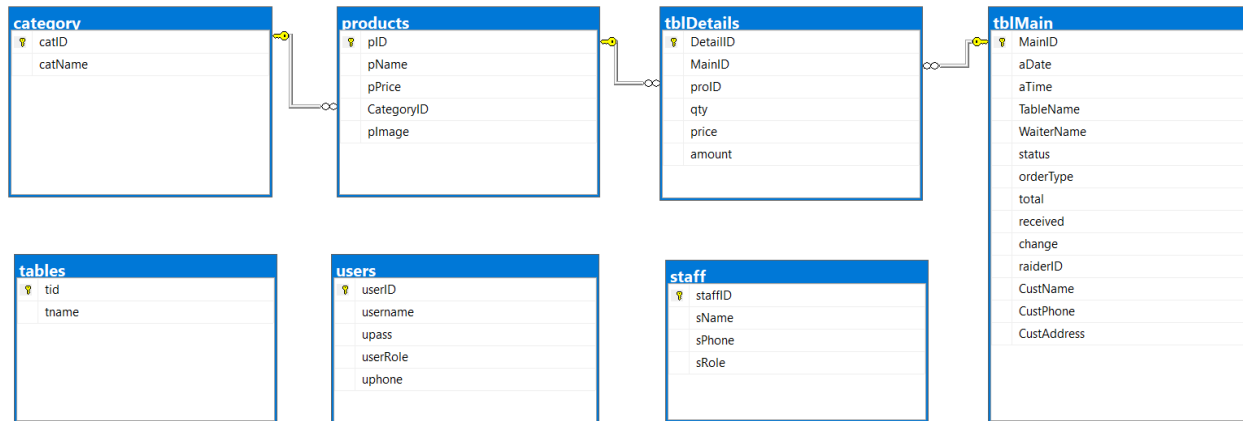


Figure 03: System Database Schema

4.2.1 Database Module

Table User

This table stores the user details which are used during login, user add, update and delete operation.

Table Staff

This table stores the staff details which are used during staff add, update and delete operation.

Table Tables

This table stores the tables information.

Table Category

This table stores the products category information.

Table Products

This table stores the individual products information.

The Ordering Operation

In the process of our order creation, three main tables play a crucial role: tblMain, tblDetails, and products. These tables collaboratively contribute to the creation of orders in the Point of Sale (POS) system. When an order is placed, tblMain generates a unique MainID for each order instance. Simultaneously, for every item within an order, tblDetails produces multiple DetailID, each associated with an individual proID (product ID). Through a strategic relational design, we establish links between these tables. By performing joins, we seamlessly combine information across these tables, providing a comprehensive view of each organized order. The resulting dataset includes essential details such as order date and time, order type, pricing, item specifics, status etc.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Introduction

The project, named "Cafeteria Management System," underwent a thorough examination and analysis to meticulously craft and implement the code. Throughout the project duration, every existing requirement and potential scenario was conscientiously considered and addressed. The implementation phase was guided by a comprehensive understanding of the system's intricacies, ensuring that the final product aligns seamlessly with the identified needs and possibilities.

5.2 Content

Cafeteria Management Software - Testing Report

Project Overview

The Cafeteria Management Software, designed to streamline cafeteria operations, underwent comprehensive testing to ensure reliability, functionality, and user satisfaction. The testing process aimed to identify and address potential issues, ensuring a seamless and efficient experience both cafeteria staff and users.

Testing Phases

1) Requirements Analysis

- Verified that software functionalities aligned with specified requirements.
- Ensured a clear understanding of user expectations for order placement, processing, and management.

2) Test Design

- Created detailed test cases covering all aspects of the software, from menu management to order processing.
- Translated functional requirements into specific scenarios for thorough examination.

3) Test Execution

- Executed test cases to validate software functionalities.
- Logged and documented outcomes, including identified defects and areas of improvement.

4) Defect Reporting

- Documented and communicated identified defects with detailed information.
- Collaborated with developers to address and rectify reported issues.

5) Regression Testing

- Repeated test scenarios to ensure that new changes did not adversely impact existing functionalities.
- Verified system stability and confirmed that modifications were successfully integrated.

6) User Acceptance Testing (UAT)

- Facilitated UAT with end-users to assess software usability and satisfaction.
- Incorporated user feedback to refine and enhance the user experience.

Key Findings

- Order placement and processing functionalities performed as expected, providing a smooth user experience.
- Identified and addressed minor defects related to menu item display and order status updates.
- User feedback from UAT contributed to improvements in the interface for enhanced user satisfaction.

Conclusion

The Cafeteria Management Software has undergone rigorous testing, resulting in a robust and user-friendly system. Identified issues have been addressed, and user feedback has been instrumental in refining the software. The testing process has validated the software's reliability, ensuring its readiness for deployment.

Recommendations

- Continuous monitoring and testing in live environments to address any unforeseen issues.
- Regular software updates based on user feedback and evolving requirements.
- Consideration of additional features to further enhance user experience and system efficiency.

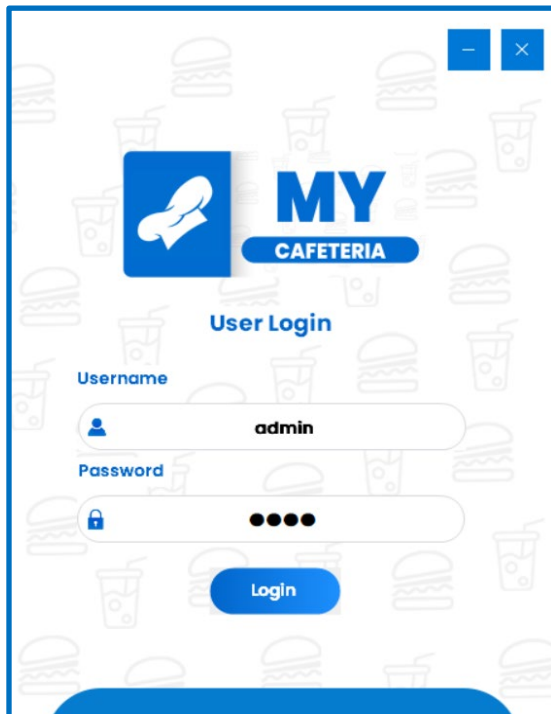
CHAPTER 6

USER MANUAL

6.1 Introduction

Welcome to the Cafeteria Management System user manual! We're excited to guide you through this user-friendly tool designed to streamline and enhance your cafeteria management experience. Whether you're a seasoned user or a newcomer, this manual will provide clear and simple instructions to help you make the most out of our system. Let's dive in and make cafeteria management a breeze!

6.2 Login Page



Upon launching the software, you'll encounter the login page, your gateway to the Cafeteria Management System. Here, both administrators and regular users can log in seamlessly. Admins will be directed to the admin panel, empowering them with advanced functionalities like user add, delete or update, while regular users will find themselves at the software's home panel, simplifying their navigation and use of the system.

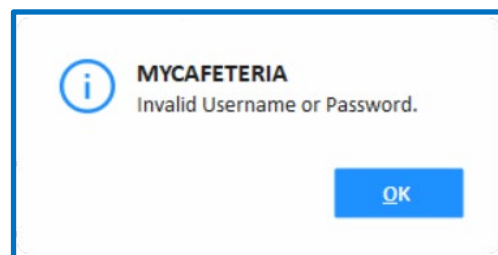
Default Admin Login Information

Username: Admin

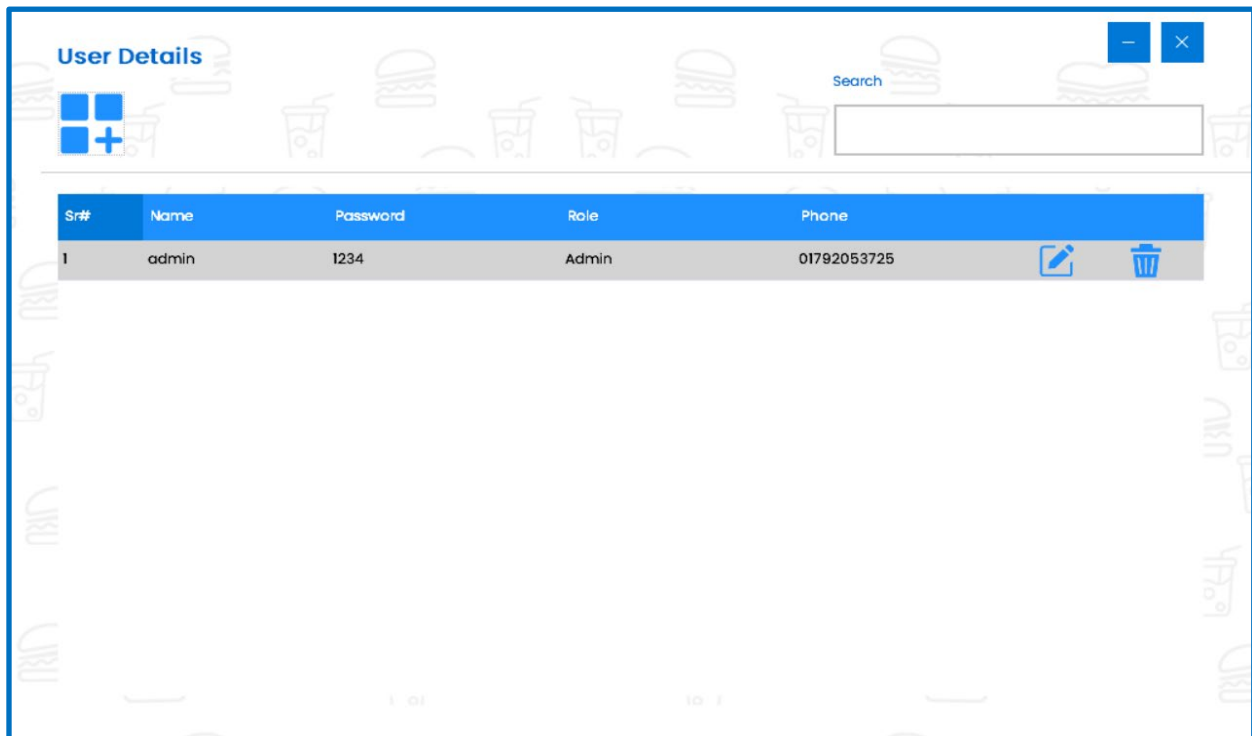
Password: 1234

N.B: Please change the password after login.

If you encounter this message during a login attempt, it indicates that either your username or password might be incorrect. Please take a moment to carefully review the information you've entered and make sure it aligns with your credentials.



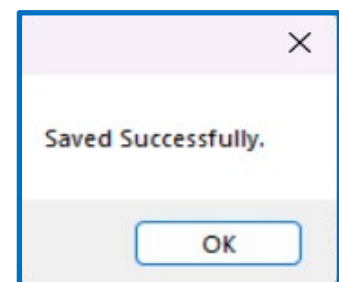
6.3 Admin Page



In this admin panel admin will be able to modify user information like add new user or change delete existing user.

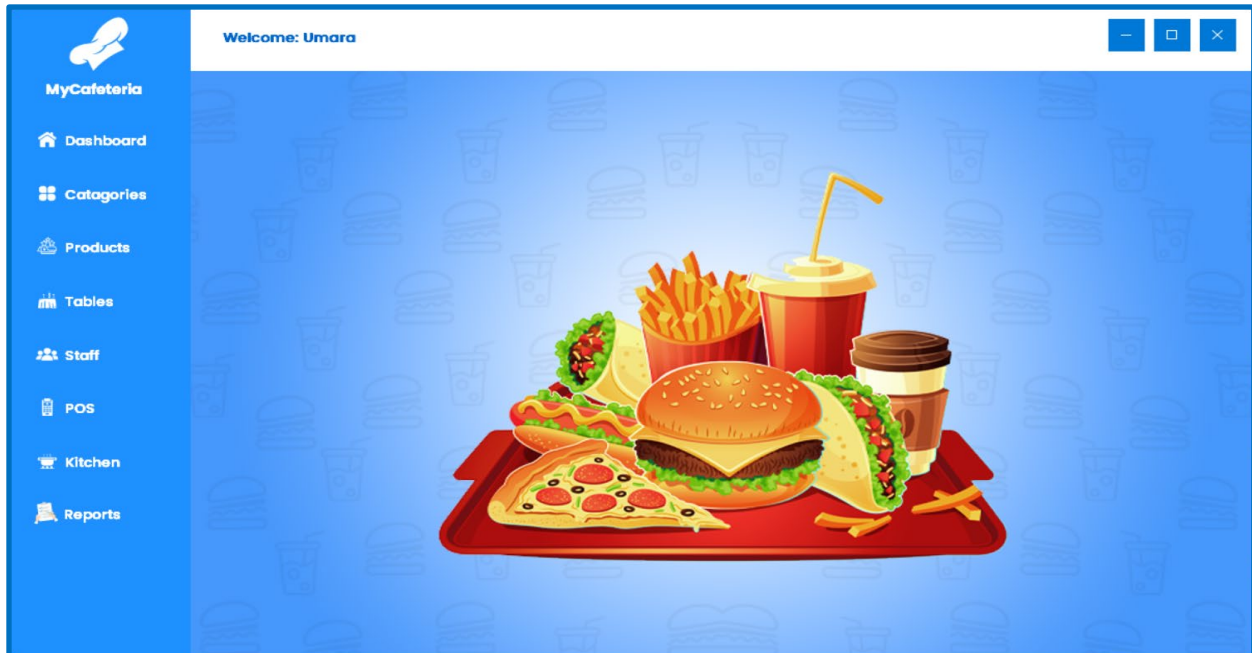
The screenshot shows a form titled "User Details" with a blue header. It contains four input fields: Name (with the value "Umair"), Password (with the value "1234"), Role (a dropdown menu currently showing "Developer"), and Phone (with the value "01608585835"). At the bottom, there are two buttons: "SAVE" and "CLOSE".

If the modification is performed successfully then a pop-up message will encounter displaying "Saved Successfully".



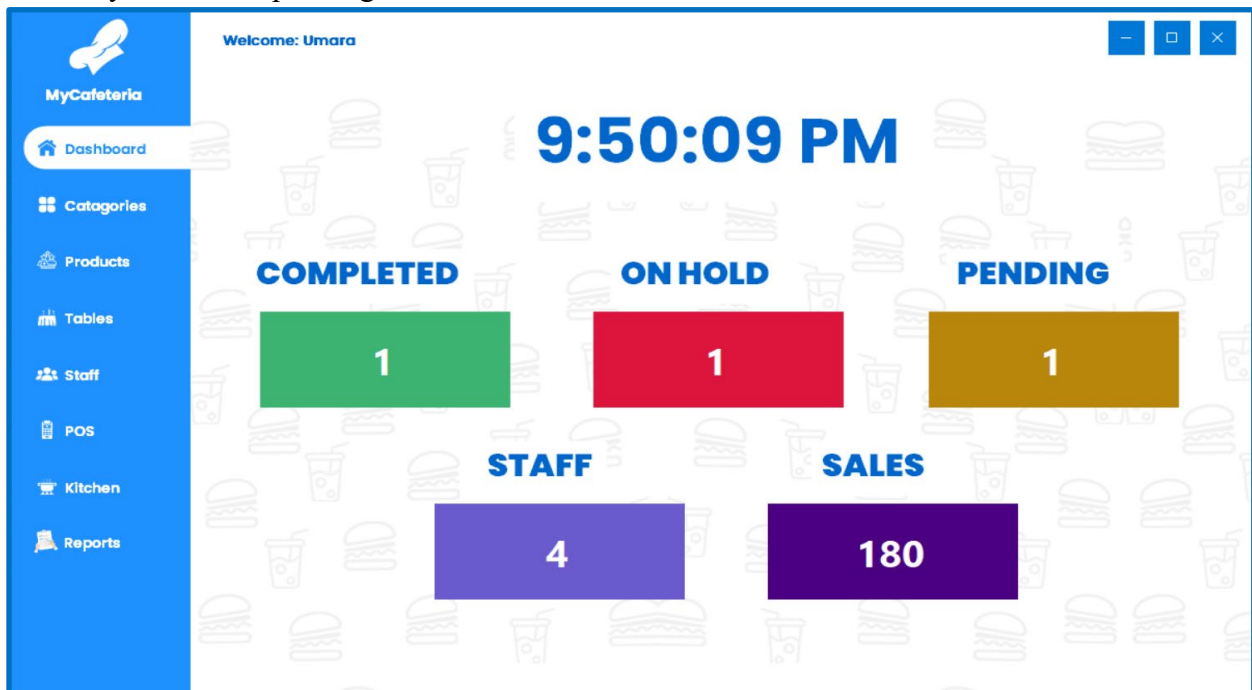
6.4 Home Page

Upon successful login, you will be directed to the home page, offering a central hub for your Cafeteria Management System. On the left side, you'll find a set of streamlined options for easy navigation: Dashboard, Categories, Products, Tables, Staff, POS, Kitchen, Reports.



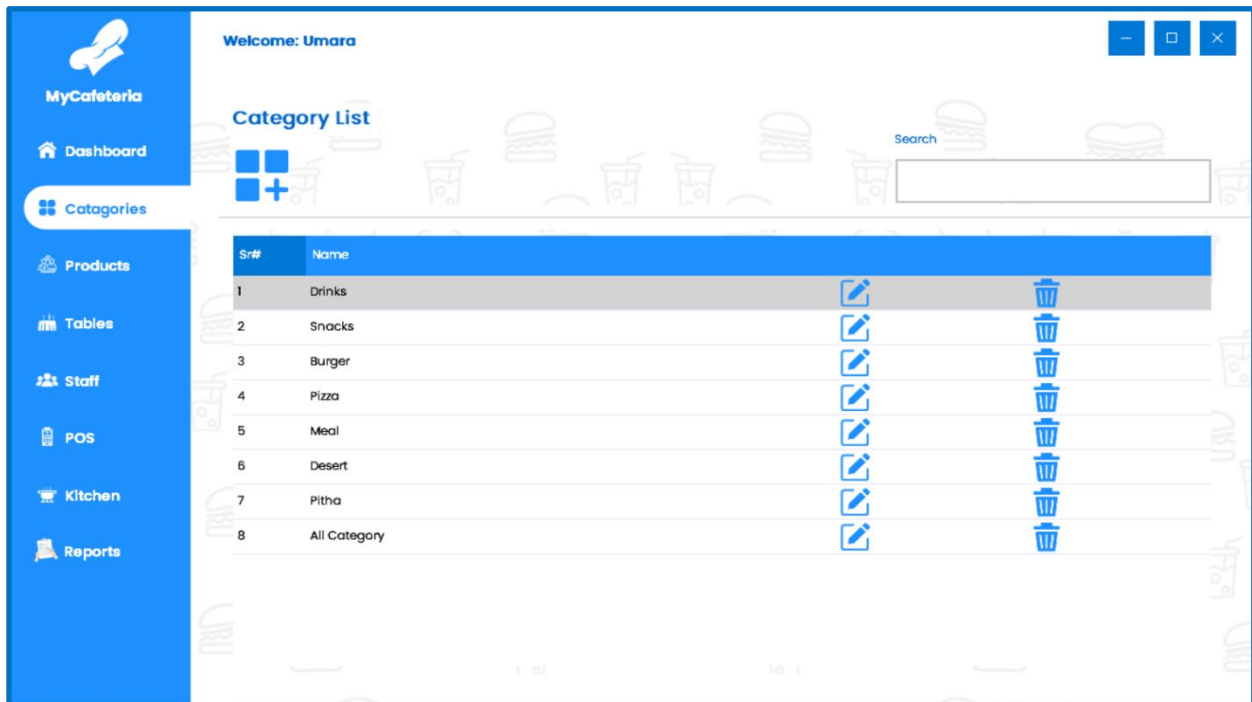
6.5 Dashboard

Here the overall updates can be seen including the total completed orders, the number of orders currently on hold or pending, the count of staff members, total sales, and the current time.



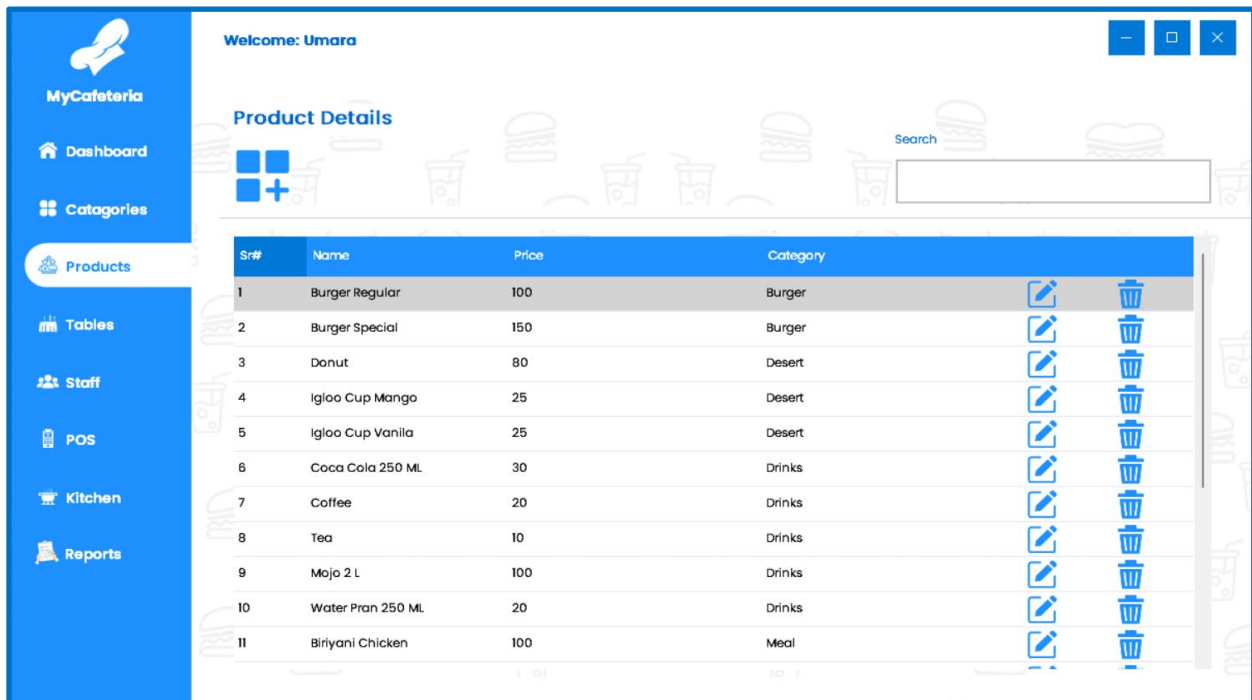
6.6 Category

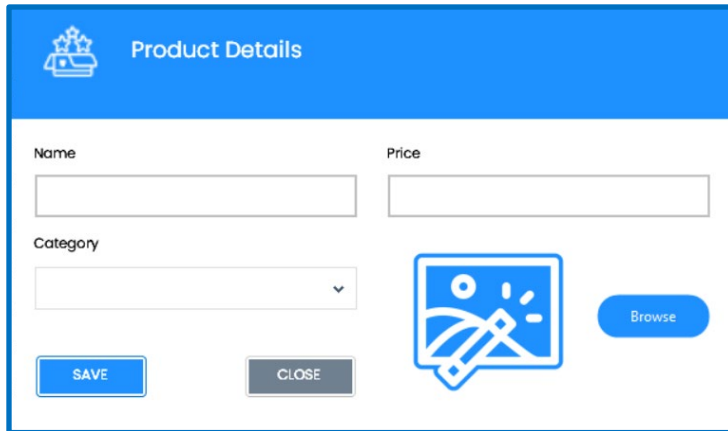
Here the user can add product category according their choice.



6.7 Products

Here users have the capability to add products category wise. This feature allows for organized management, enabling users to easily group and input products according to specific categories.






Product Details

Name

Price

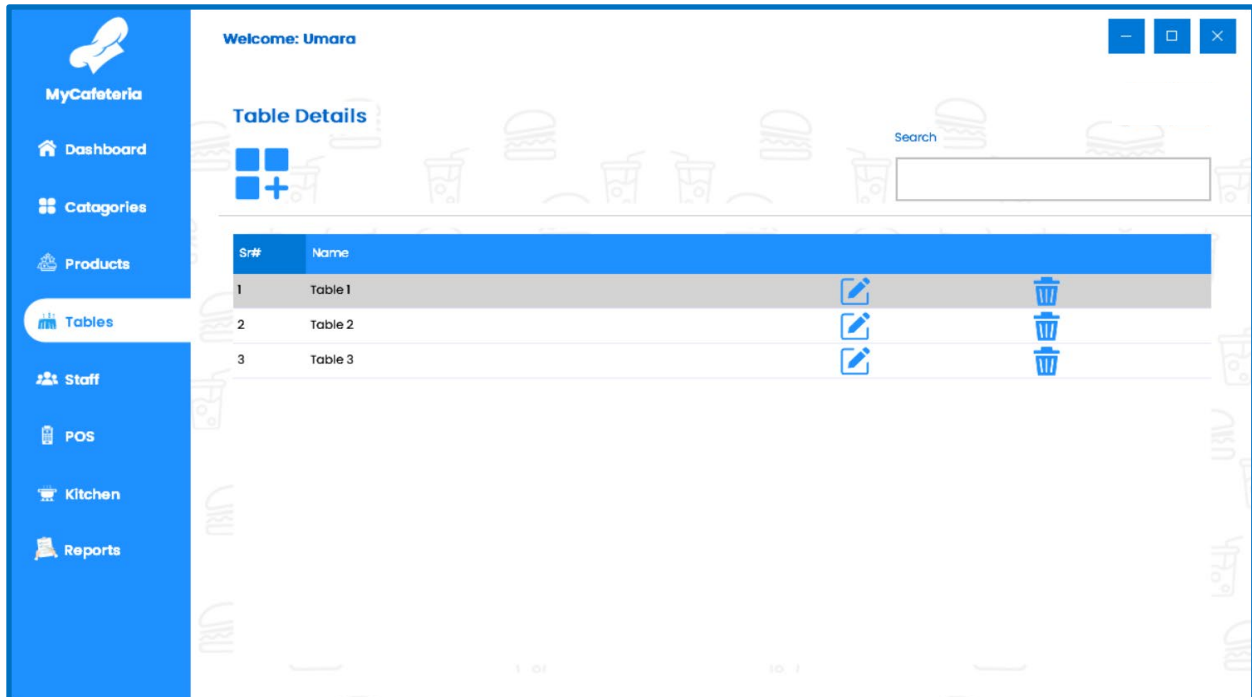
Category



After clicking the product add button this window will encounter the user can input all the essential information like Name, Price, Category and Price.

6.8 Tables

User can store the table information here.



Welcome: Umara

Table Details







Sr#	Name		
1	Table 1		
2	Table 2		
3	Table 3		



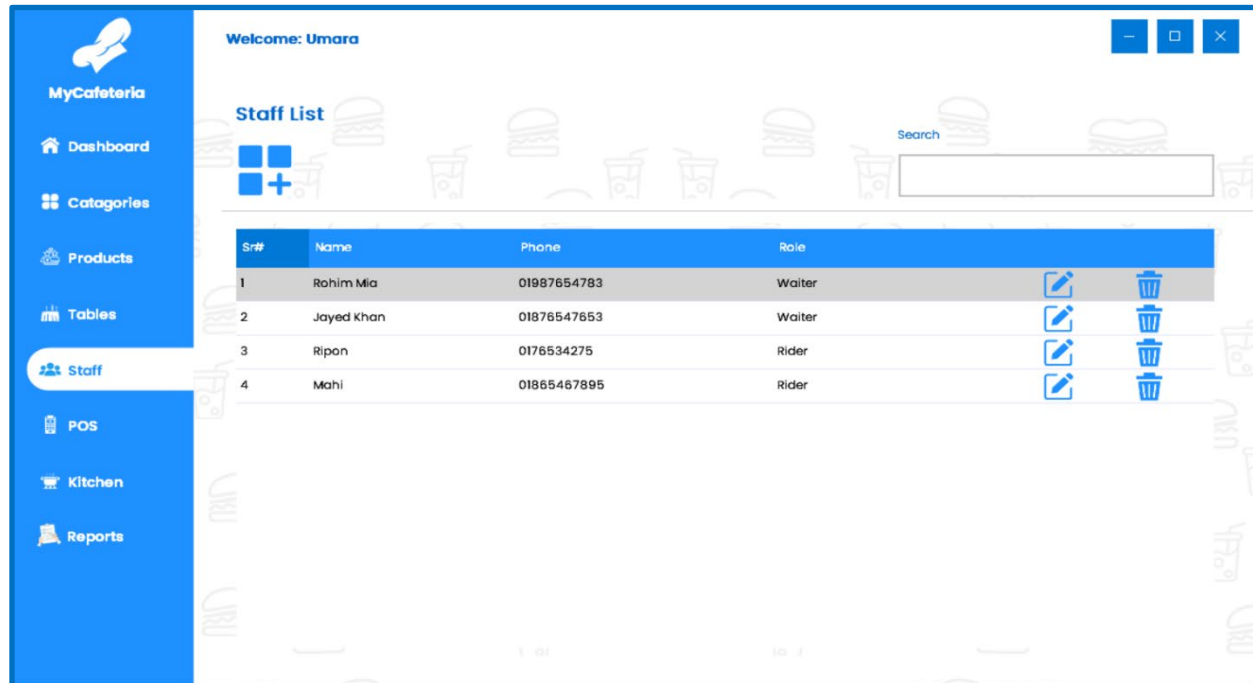
Table Details

Name

After clicking the table add button this window will encounter the user can input table details and hit save to store the data.

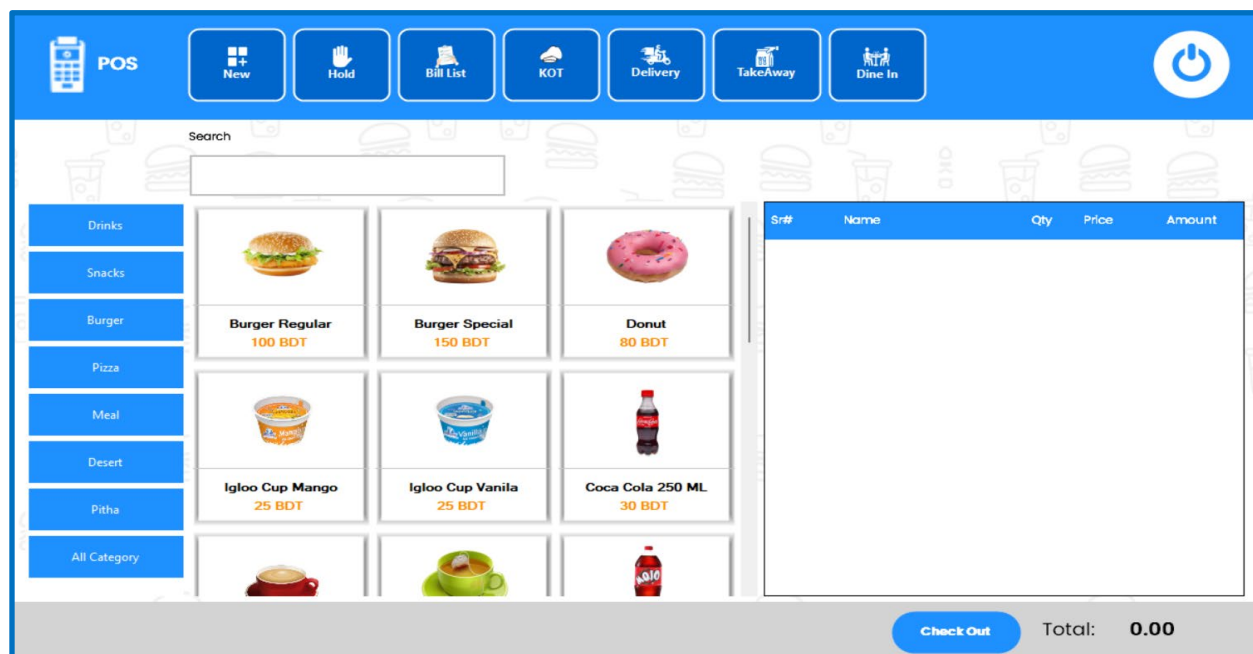
6.9 Staff

Information about the cafeteria staff is displayed here. User can modify staff information.



6.10 POS (Point of Sale)

This page serves as the epicenter of activity, handling the majority of tasks within the Cafeteria Management System. Here, all aspects of orders, including food item names and prices, customization preferences from customers, delivery options, and payment details are seamlessly managed.



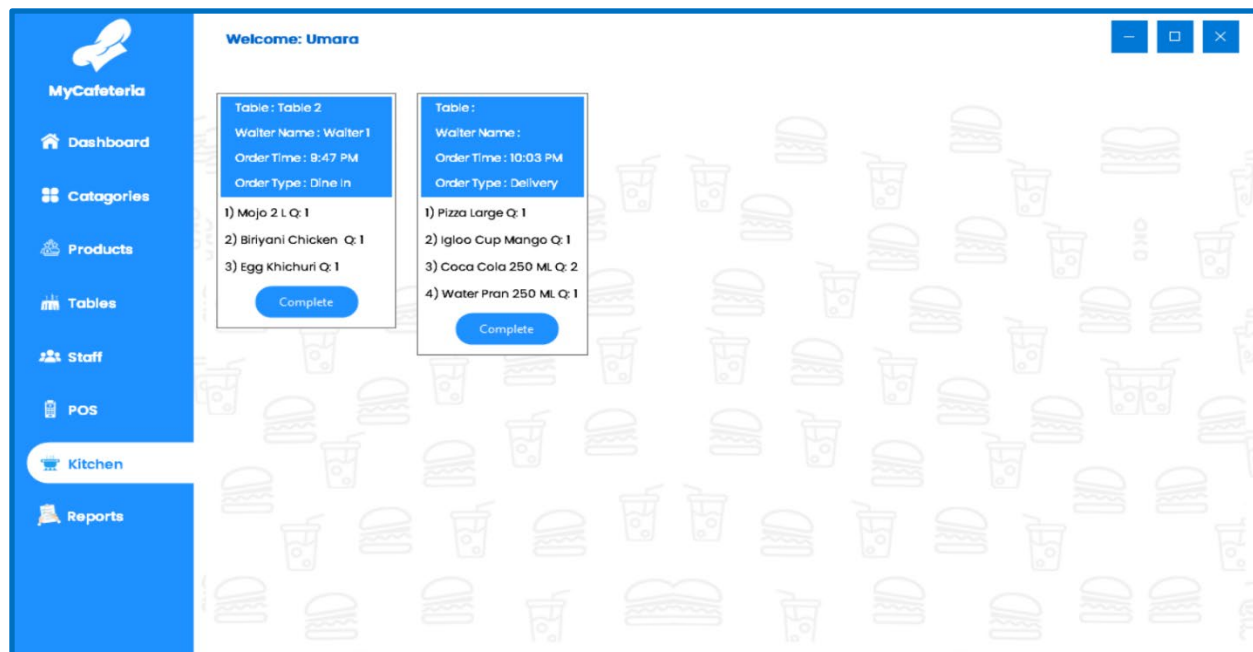
When a customer initiates an order, the management user can efficiently select and customize it by tapping on the product image. The intuitive interface allows for multiple taps to add corresponding quantities, providing a quick and user-friendly method for order customization.

Sr#	Name	Qty	Price	Amount
1	Pizza Large	1	150	150
2	Igloo Cup Mango	1	25	25
3	Coca Cola 250 ML	2	30	60
4	Water Pran 250 ML	1	20	20

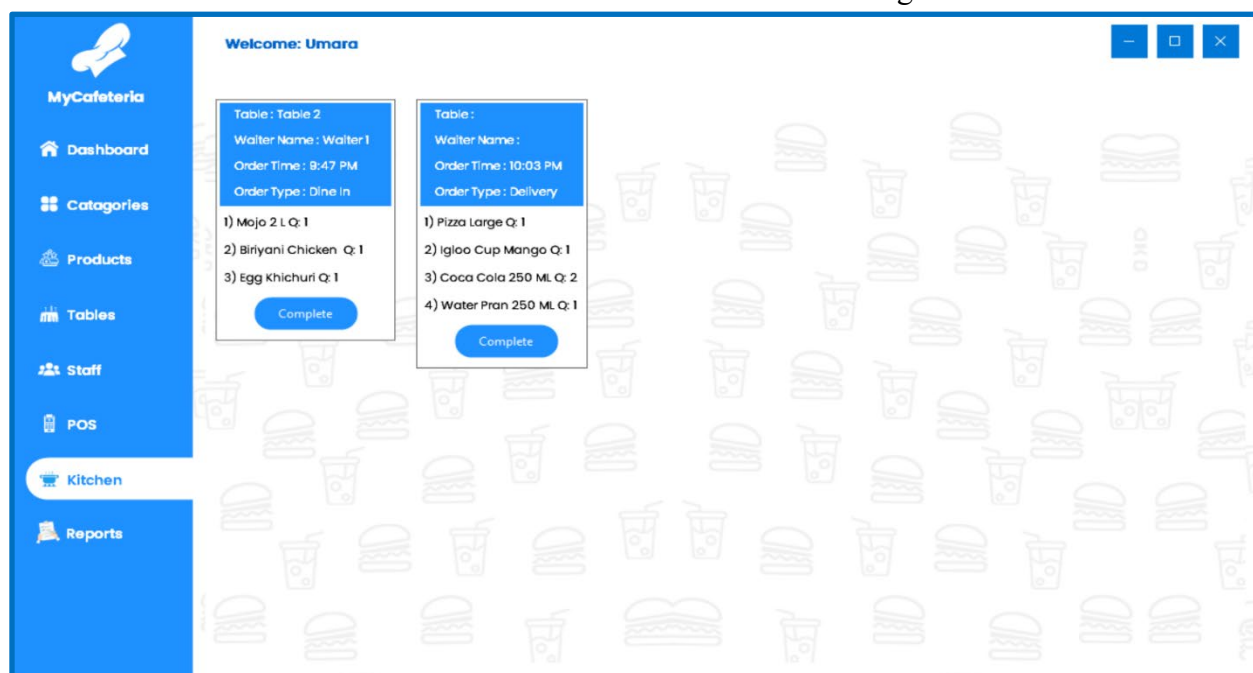
Now user need to select the delivery type by the customer preference.

After filling the information, the delivery option will be show as selected. The other delivery options work in this same process.

Now the only step left is to press the KOT button and the order request will be sent to kitchen and a popup message will appear showing Saved Successfully.



Upon navigating to the kitchen window, you'll find a detailed overview of the order requests, including pertinent details. Once the kitchen staff completes the order, confirmation is achieved with a simple press of the "Complete" button. This systematic approach ensures a smooth flow of information and efficient coordination between the kitchen and management.



After the order completed by kitchen staff in the Bill List section of POS window, we will see it with a Complete status.

Now to complete the payment we will need to select the edit button and the order details will be again shown in POS window.



Sr#	Name	Qty	Price	Amount
1	Pizza Large	1	150	150
2	Igloo Cup Mango	1	25	25
3	Coca Cola 250 ML	2	30	60
4	Water Pran 250 ML	1	20	20







For payment the user will now press the Check Out button and a payment window will appear.

In the total Bill Amount box total bill is displayed, user will input the received amount in the box and change amount will appear (if any).

Now after pressing the save button bill will be updated automatically and a pop-up message will appear. We can also check it in the Bill List window where the bill status will be shown as Paid.

If the user wants, they can also print the receipt by pressing the print button.


Bill List							
Sr#	Receipt NO	Table	Order Type	Status	Total		
1	49		Delivery	Paid	255		
2	48		Delivery	Hold	170		
3	46		Take Away	Paid	180		



1 / 1

SAP CRYSTAL REPORTS

Main Report

**My Cafeteria**

Receipt No
49

Location: Rupnagar, Mirpur 2, Dhaka 1216 Mobile: 01792053725

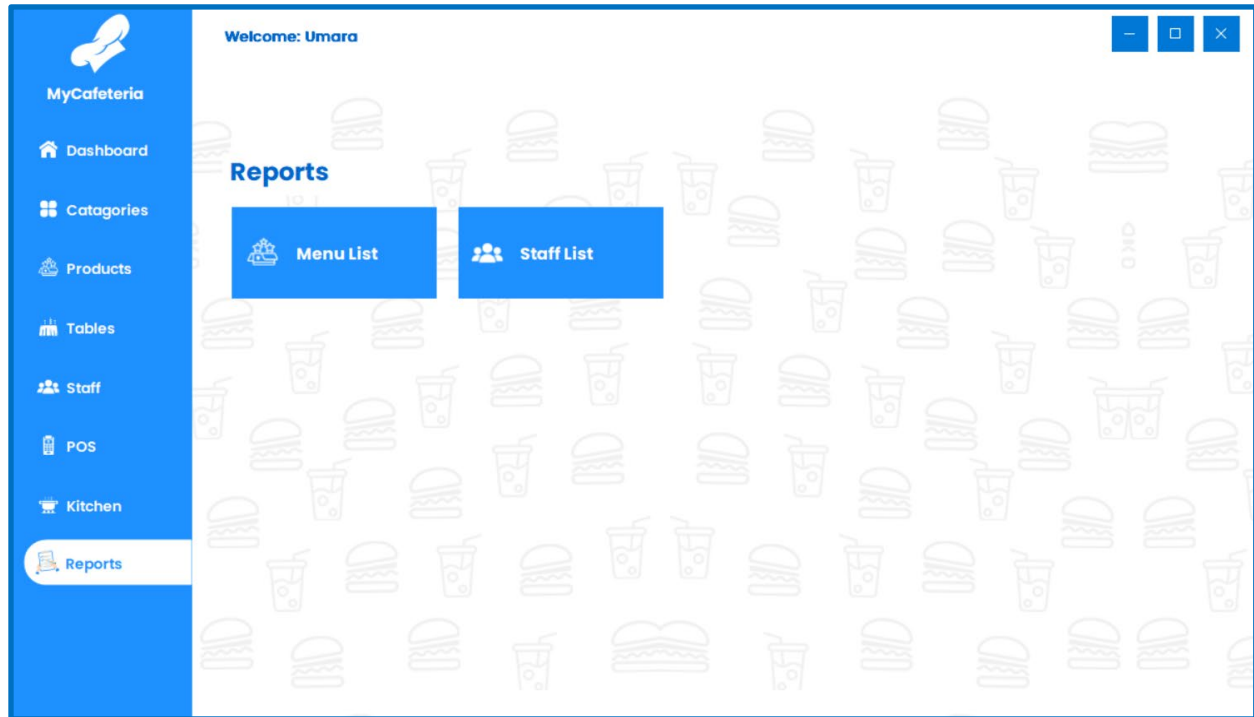
Order Date: 2023-11-09
Order Time: 10:03 PM
Order Type: Delivery
Customer Name: Tomal Gomes
Customer Number: 01876754632
Customer Address: Mirpur 10, Benaroshi Polli
Table :
Waiter Name:
Rider ID: 5

Product Name	Qty	Price	Amount
Pizza Large	1	150	150
Igloo Cup Mango	1	25	25
Coca Cola 250 ML	2	30	60
Water Pran 250 ML	1	20	20
	5		
		Total:	255
		Cash Received:	300
		Change:	45


Current Page No.: 1 Total Page No.: 1 Zoom Factor: 100%

6.11 Reports

This section enable user to print some basic reports like menu details or staff list.



Sample of Receipt

**My Cafeteria**

Receipt No
49

Location: Rupnagar, Mirpur 2, Dhaka 1216 Mobile: 01792053725

Order Date:
Order Time:
Order Type:
Customer Name:
Customer Number:
Customer Address:
Table :
Waiter Name:
Rider ID:

2023-11-09
10:03 PM
Delivery
Tomal Gomes
01876754632
Mirpur 10,Benaroshi Polli

5

<u>Product Name</u>	<u>Qty</u>	<u>Price</u>	<u>Amount</u>
Pizza Large	1	150	150
Igloo Cup Mango	1	25	25
Coca Cola 250 ML	2	30	60
Water Pran 250 ML	1	20	20
	5		

Total: 255

Cash Received: 300

Change: 45

Thank You For Vsiting Us

CHAPTER 7

CONCLUSION AND FUTURE PLAN

7.1 Conclusion

In conclusion, the Cafeteria Management Software stands as a robust solution designed to streamline and elevate cafeteria operations. Through a meticulous testing process, the software has demonstrated reliability, efficiency, and a user-friendly interface. Key functionalities, including order placement and processing, have performed as expected, providing a seamless experience for both cafeteria staff and users. Looking ahead, it is recommended to maintain a vigilant approach through continuous monitoring in live environments, ensuring any unforeseen issues are promptly addressed. Regular updates based on user feedback and evolving requirements will contribute to the software's ongoing success. Consideration of additional features in the future may further enhance the overall user experience and system efficiency.

The Cafeteria Management Software, with its solid foundation and user-centric design, is well-positioned to contribute to the efficient and effective management of cafeteria operations. It reflects a commitment to excellence and adaptability in meeting the dynamic needs of users and stakeholders.

7.2 Future Plan

As we look ahead, the future plan for the Cafeteria Management Software envisions continuous improvement and adaptation to evolving needs. The software's success relies on staying responsive to user feedback, technological advancements, and industry trends. Here's a strategic roadmap for the software's ongoing development:

1) Feature Enhancements

Objective: Continuously enrich the software with new features to enhance functionality.

Plan: Regularly gather user feedback and prioritize feature requests for implementation.

Timeline: Quarterly feature updates based on user needs and emerging trends.

2) Mobile Accessibility

Objective: Enable users to access the Cafeteria Management System via mobile devices.

Plan: Develop a mobile-friendly version or dedicated app for convenient on-the-go access.

Timeline: Initiate mobile development within the next six months.

3) Integration with Payment Systems

Objective: Facilitate seamless payment transactions within the software.

Plan: Explore integration with popular payment gateways or digital wallet systems.

Timeline: Research and initiate integration within the next eight months.

4) Cloud Migration

Objective: Transition the software to a cloud-based infrastructure for scalability and accessibility.

Plan: Collaborate with cloud service providers to facilitate a smooth migration.

Timeline: Begin the migration process within the next year.

5) User Training and Support

Objective: Ensure users are well-equipped to maximize the software's potential.

Plan: Develop comprehensive training materials and offer ongoing support channels.

Timeline: Establish a robust training program within the next three months.

6) Collaboration with Cafeteria Stakeholders

Objective: Foster collaborative partnerships with cafeteria staff and management.

Plan: Conduct regular feedback sessions, engage in open communication, and tailor software updates to meet specific needs.

Timeline: Implement a structured feedback and collaboration framework within the next six months.

This future plan outlines a strategic and phased approach for the continuous improvement and advancement of the Cafeteria Management Software. By staying agile, responsive, and forward-thinking, the software will remain at the forefront of efficient cafeteria management, contributing to enhanced user satisfaction and operational excellence.

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