

CANTEEN MANAGEMENT SYSTEM

**A PROJECT REPORT
for
Mini Project (KCA353)
Session (2023-24)**

Submitted by

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**Submitted in partial fulfilment of the
Requirements for the Degree of**

MASTER OF COMPUTER APPLICATION

**Under the Supervision of
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Submitted to

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(MARCH 2024)

CERTIFICATE

Certified that **Gaurav Prajapati (2200290140061)**, **Anmol Dubey (2200290140032)** have carried out the project work having “**Canteen Management System**” (**Mini Project KCA353**) for **Master of Computer Application** from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date: **Gaurav Prajapati (2200290140061)**
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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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ABSTRACT

The **Canteen Management System (CMS)** is a web-based application designed to streamline and optimize the operations of a canteen facility. This system employs a robust technology stack, primarily utilizing PHP for server-side scripting, HTML for content structure, and CSS for styling, to create an efficient and user-friendly interface.

User Authentication and Authorization The system offers secure login and registration functionalities for both administrators and end users, ensuring data privacy and access control.

Menu Management Administrators can easily update and manage the canteen menu, including adding, editing, or removing items, along with their corresponding prices and availability status.

Ordering System Users can browse the menu, select items, and place orders based on their preferences. The system calculates the total cost and provides a seamless checkout process.

Feedback and Rating System: Users can provide feedback and ratings for the items they have ordered, enabling the canteen management to gather valuable insights and improve service quality.

Inventory Management The system keeps track of the available stock for each menu item. It provides alerts for low-stock items and updates inventory levels after each order.

Reporting and Analytics Administrators have access to comprehensive reports, including sales summaries, popular items, and user feedback, to make data-driven decisions for canteen operations

ACKNOWLEDGEMENTS

Success in life is never attained single-handedly. My deepest gratitude goes to my project supervisor, **Mr. Rabi N Panda** for her guidance, help, and encouragement throughout my project work. Their enlightening ideas, comments, and suggestions.

Words are not enough to express my gratitude to **Dr. Arun Kumar Tripathi**, Professor and Head, Department of Computer Applications, for his insightful comments and administrative help on various occasions.

Fortunately, I have many understanding friends, who have helped me a lot on many critical conditions.

Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me with moral support and other kind of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happiness.

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CHAPTER 1

INTRODUCTION

1.1 Background

In the rapidly evolving scenario of organizational structures and daily operations, efficient management of canteen has become imperative. Traditional methods of canteen management often lead to inefficiencies, delays and inaccuracies. In response to these challenges, Canteen Management System (CMS) has been developed as a comprehensive solution to streamline and enhance the entire canteen management process.

1.2 Project Overview

Canteen management system is a web-based application designed to modernize the way canteens operate within an organization. Leveraging the power of PHP, HTML and CSS, this system provides a user-friendly and dynamic platform for administrators, canteen staff and end-users. By integrating automation, the CMS aims to optimize daily operations, improve accuracy, and enhance the overall canteen experience.

1.3 Objective

The primary objectives of canteen management system include:

Efficiency: Streamlining order placement, payment and inventory management processes for canteen administrators.

User Convenience: Providing end users with a smooth and intuitive interface to browse menus, place orders.

1.4 Key Features

Canteen management systems include a number of features, including:

Order Placement: Intuitive interface for users to place orders with specified preferences.

Inventory Tracking: Real-time monitoring to prevent shortages and optimize stock levels.

1.5 Scope of the project

The scope of canteen management system extends to the following:

Canteen Administration: Tools for administrators to manage menus, track inventory, and generate reports.

User Interface: A responsive and user-friendly interface for both administrators and end users.

Scalability: The system is designed to adapt and scale as per the evolving needs of the organization.

This chapter sets the stage for a detailed exploration of the canteen management system. The subsequent chapters will highlight the technical aspects, functionalities and implementation details, providing a comprehensive understanding of this innovative solution

CHAPTER 2

PROBLEM IDENTIFICATION & FEASIBILITY STUDY

2.1 Problem Identification

The inception of the Canteen Management System (CMS) project stems from the recognition of persistent challenges in traditional manual canteen management methods. Manual systems often lead to inefficiencies, inaccuracies in inventory tracking, delayed order processing, and a lack of transparency in financial transactions. These challenges not only impact the overall operational efficiency of canteens but also contribute to a diminished user experience.

2.2 Feasibility Study

Before embarking on the development of the CMS, a comprehensive feasibility study was conducted to assess the viability and practicality of the proposed system. This study encompasses technical, operational, and economic feasibility aspects.

2.2.1 Technical Feasibility

The technical feasibility analysis ensured that the proposed CMS could be developed using the selected technologies—PHP, HTML, and CSS. It assessed the availability of required software and hardware resources, the compatibility of the system with existing infrastructure, and the technical expertise needed for successful implementation.

2.2.2 Operational Feasibility

Operational feasibility examined the extent to which the CMS aligns with the existing operations of the canteen. This involved assessing the ease of integration into daily routines, the adaptability of canteen staff to the new system, and the overall impact on operational processes.

2.2.3 Economic Feasibility

Economic feasibility analyzed the cost-effectiveness of implementing the CMS. This included estimating development costs, ongoing maintenance expenses, and potential savings or revenue generated through improved efficiency and user satisfaction. A cost-benefit analysis was crucial in determining the financial viability of the project.

In conclusion, the problem identification phase highlighted the inadequacies of current canteen management systems, setting the stage for a targeted solution. The feasibility study, in turn, ensured that the envisioned CMS is not only a theoretically sound concept but also a practical and economically viable endeavor.

CHAPTER 3

REQUIREMENT ANALYSIS

3.1 Introduction

Requirement analysis serves as a pivotal phase in the development lifecycle of the Canteen Management System (CMS). This chapter aims to meticulously gather, document, and analyze the functional and non-functional requirements that will shape the design and implementation of the CMS.

3.2 Functional Requirements

3.2.1 User Module

The User Module is fundamental to the CMS, encompassing functionalities such as user registration, login, and profile management. End-users should be able to view menus, place orders, and track their order history seamlessly.

3.2.2 Administrator Module

The Administrator Module empowers canteen administrators with tools for menu management, order processing, and inventory tracking. It should provide a user-friendly dashboard for real-time monitoring and reporting.

3.2.3 Menu Management

The CMS must allow administrators to dynamically update and manage daily menus, including the addition, modification, and removal of food items. This should be reflected instantly on the user interface.

3.2.4 Order Processing

Efficient order processing is a critical requirement. Users should be able to add items to their cart, specify preferences, and proceed with a seamless checkout process. Administrators must have tools to manage and process orders promptly.

3.3 Non-Functional Requirements

3.3.1 Performance

The CMS should be responsive, ensuring swift menu browsing, order placement, and transaction processing. Response times should be optimized to enhance user satisfaction.

3.3.2 Security

Data security is paramount. User authentication, secure transmission of sensitive information, and access controls must be implemented to safeguard user data and financial transactions.

3.3.3 Scalability

The system should be designed to accommodate an increasing number of users and transactions. Scalability is crucial for the CMS to evolve with the growing needs of the organization.

3.3.4 Usability

A user-friendly interface is essential for both administrators and end-users. The CMS should be intuitive, requiring minimal training for users to navigate menus, place orders, and manage accounts.

CHAPTER 4

PROJECT PLANNING AND SCHEDULING

4.1 Pert Chart:

A PERT chart is a project management tools used to schedule, organize, and coordinate tasks within a project. PERT stands for Program Evaluation Review Technique. A PERT chart presents a graphic illustration of a project as network diagram consisting of numbered nodes (either circles or rectangles) representing events, or milestones in the project linked by labelled vectors (directional lines) representing tasks in the project.

The direction of the arrows on the lines indicates the sequence of tasks.

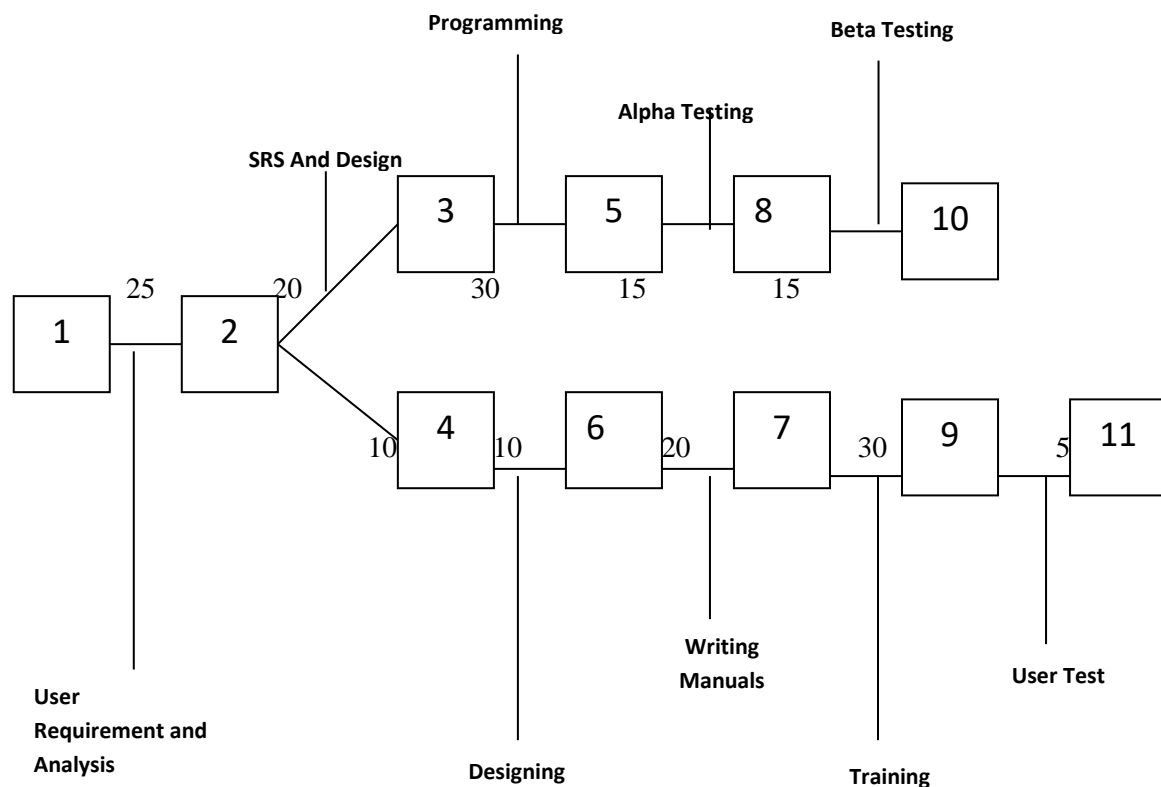


Fig 4.1 Pert Chart

CHAPTER 5

HARDWARE & SOFTWARE SPECIFICATION

5.1 Hardware Specification

The Canteen Management System (CMS) will be developed and deployed on a hardware infrastructure that ensures optimal performance and reliability. The recommended hardware specifications are as follows:

Server:

Processor: Intel Core i5 or equivalent

RAM: 8 GB or higher

Storage: 256 GB SSD or higher

Database Server:

Processor: Intel Core i5 or equivalent

RAM: 8 GB or higher

Storage: 256 GB SSD or higher

Network Interface: Gigabit Ethernet

Client Machines:

Processor: Intel Core i3 or equivalent

RAM: 4 GB or higher

Storage: 128 GB SSD or higher

Network Interface: 100 Mbps Ethernet or Wi-Fi

5.2 Software Specification

The CMS will be developed using a combination of server-side and client-side technologies. The development and deployment environment will be facilitated by

XAMPP, which provides a comprehensive stack for web application development. The software specifications include:

Server-Side Technologies:

Operating System: Windows Server 2016 or later

Web Server: Apache 2.4

Database Management System: MySQL 5.7 or later

Server-Side Scripting Language: PHP 7.4 or later

Client-Side Technologies:

Web Browser: Latest versions of Chrome, Firefox, Safari, or Edge

Client-Side Scripting: JavaScript, jQuery

Development Tools:

XAMPP: Version 8.0.9 or later for local development and testing

Integrated Development Environment (IDE): Visual Studio Code or any preferred PHP IDE

Version Control:

Git: Version control for collaborative development

Security:

SSL/TLS: Ensure secure data transmission over the network

Firewall: Implement firewall rules to restrict unauthorized access

Anti-malware Software: Regularly updated anti-malware software on server and client machines

CHAPTER 6

CHOICE OF TOOLS & TECHNOLOGY

6.1 PHP

PHP (Hypertext Preprocessor) is a widely-used server-side scripting language that is designed for web development. It is embedded within HTML code and executed on the server, producing dynamic content that is then sent to the client's web browser. PHP is renowned for its simplicity, versatility, and ease of integration with various databases, making it a cornerstone technology in modern web development.

Modern PHP embraces Object-Oriented Programming principles, allowing developers to organize code in a more modular and reusable manner. OOP in PHP involves the use of classes and objects, promoting better code organization, encapsulation, and the creation of scalable applications.

PHP has a vibrant ecosystem of frameworks that facilitate rapid and efficient web development. Frameworks like Laravel, Symfony, and CodeIgniter provide standardized architectures, pre-built modules, and tools that enhance developer productivity. These frameworks adhere to best practices, such as MVC (Model-View-Controller), promoting clean and maintainable code.

6.2 MySQL

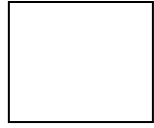
MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open-source web application software stack (and other 'AMP' stacks). LAMP is an acronym for "Linux, Apache, MySQL, and Perl/PHP/Python." Free-software-open-source projects that require a full-featured database management system often use MySQL.

6.3 Data Flow Diagram

The data flow diagram shows the flow of data within any system. It is an important tool for designing phase of software engineering. Larry Constantine first developed it. It represents graphical view of flow of data. It's also known as BUBBLE CHART. The purpose of DFD is major transformation that will become in system design symbols used in DFD: -

In the DFD, four symbols are used and they are as follows.

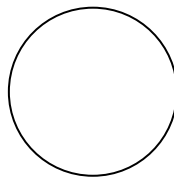
1. A square defines a source (originator) or destination of system data.



2. An arrow identifies data flow-data in motion. It is a pipeline through which information flows.



3. A circle or a “bubble” (Some people use an oval bubble) represents a process that transfers incoming data flows into outgoing data flows.

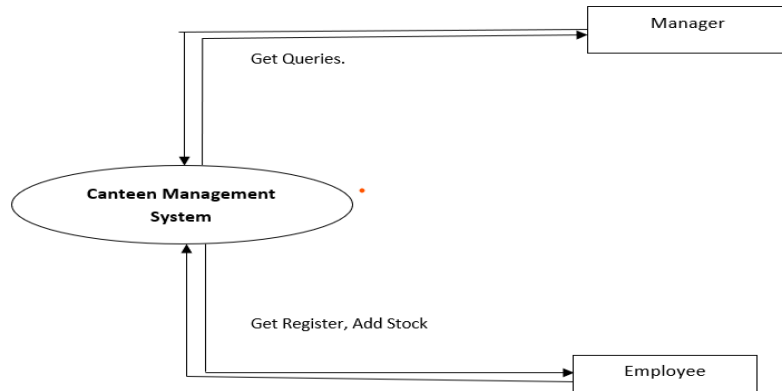


4. An open rectangle is a data store-data at rest, or a temporary repository of data.



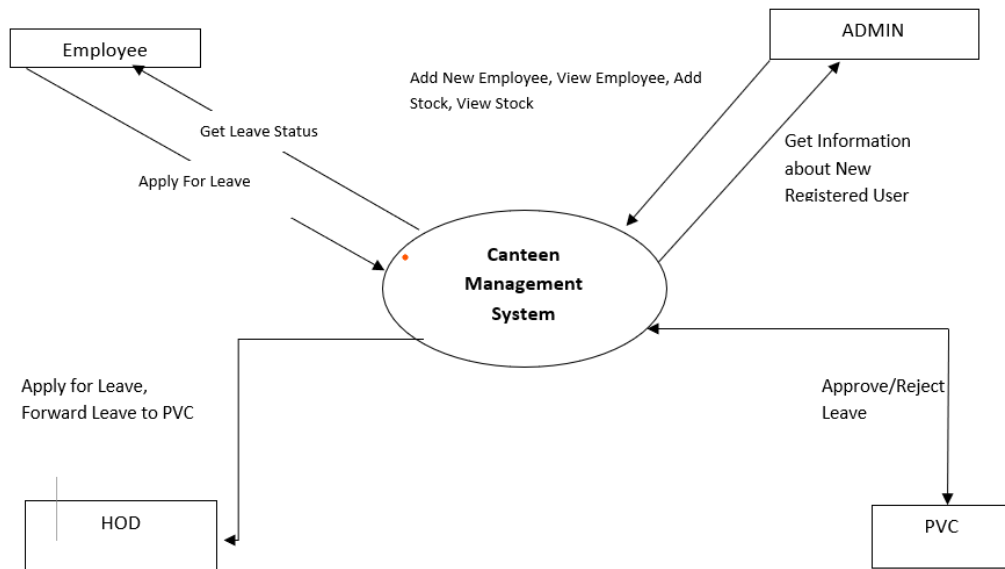
6.4 Context Level Diagram

This level shows the overall context of the system and its operating environment and shows the whole system as just one process. Canteen Management System is shown as one process in the context diagram; which is also known as zero level DFD, shown below. The context diagram plays an important role in understanding the system and determining the boundaries. The main process can be broken into sub-processes and system can be studied with more detail; this is where 1st level DFD comes into play.



0 Level DFD

Fig 6.1 0-Level DFD



1st Level DFD

Fig 6.2 1st Level DFD

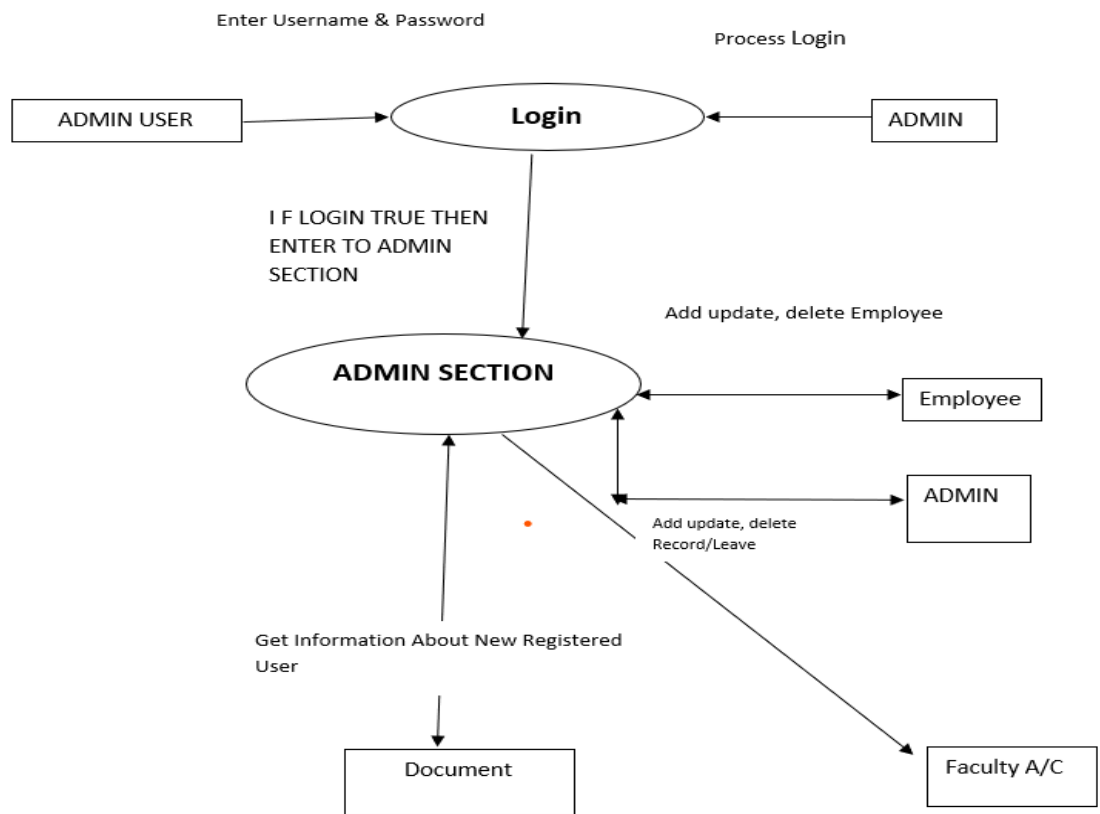


Fig 6.3 2nd Level DFD

CHAPTER 7

ER-DIAGRAM

7.1 Entity-relationship model: -

The entity-relationship model or entity-relationship diagram (ERD) is a data model or diagram for high-level descriptions of conceptual data model, and it provides a graphical notation for representing such data models in the form of entity-relationship diagrams.

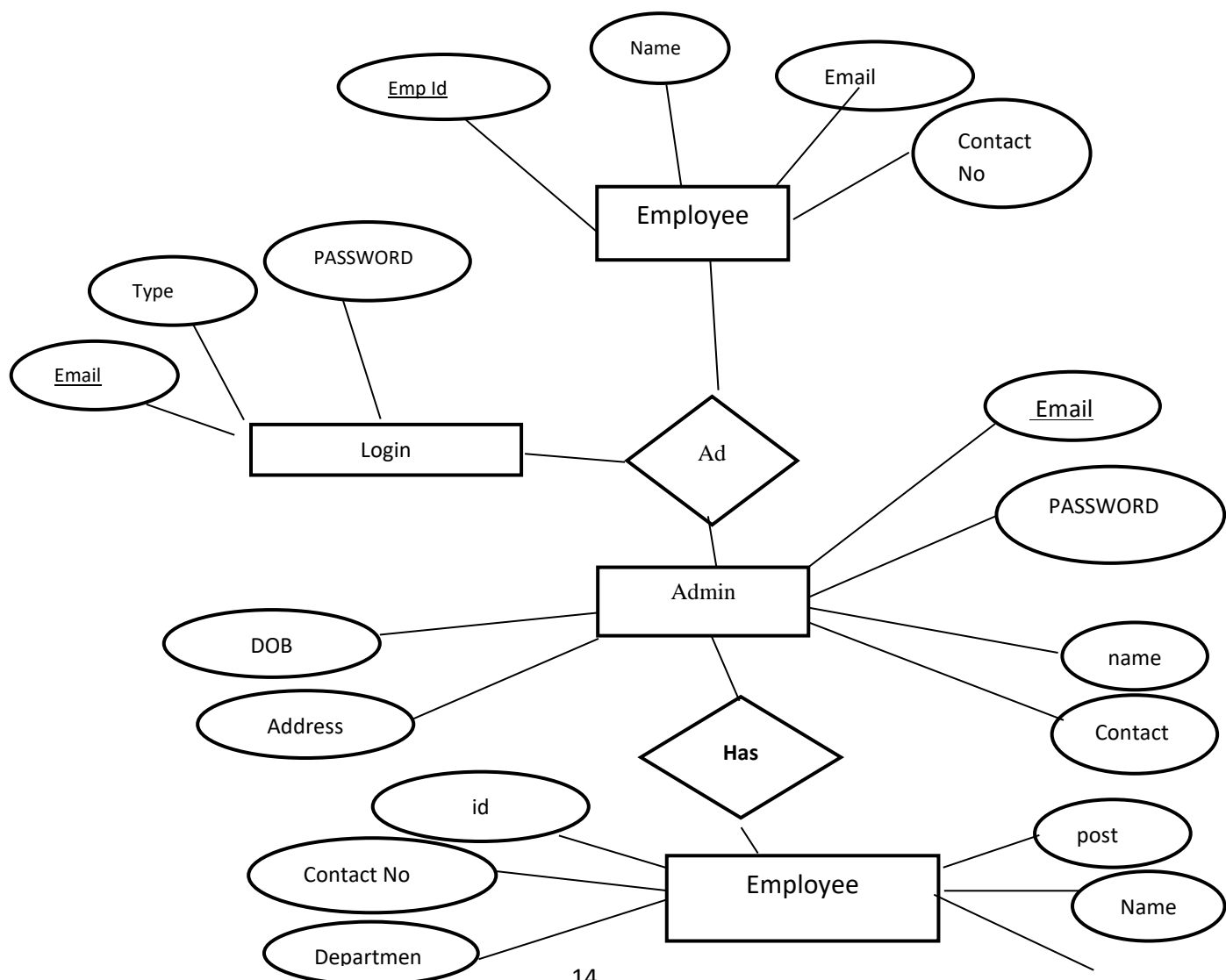


Fig 7.1 Er Diagram

7.2 Class Diagram: -

Authentication:

- Classification: Weak Class
- Description: Represents user authentication details, including username and password. This class is responsible for user login functionality.

User:

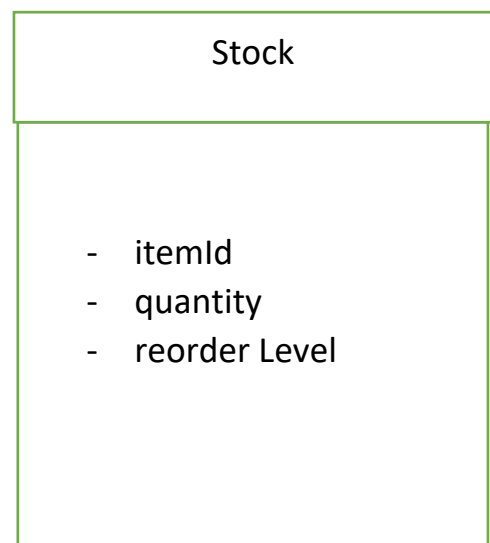
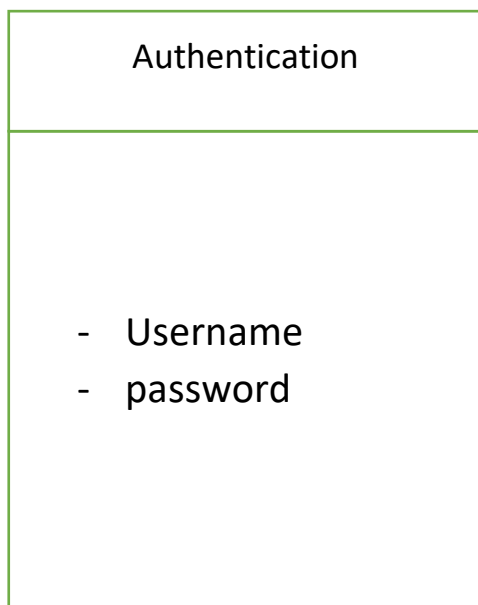
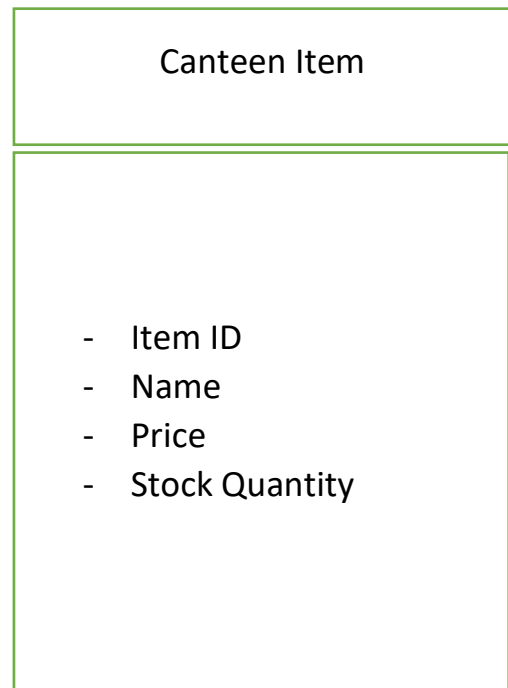
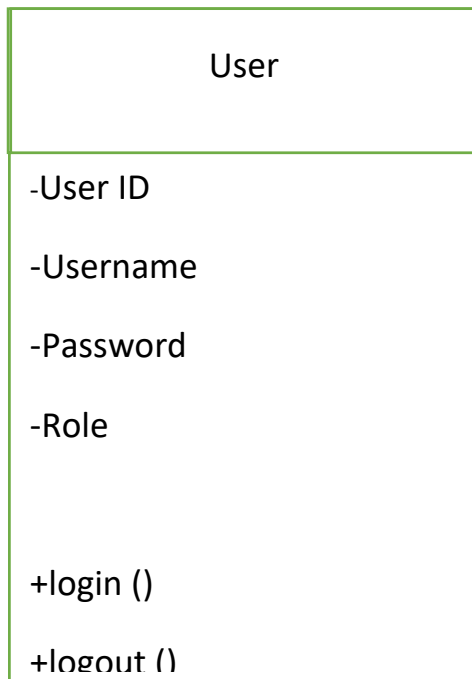
- Classification: Strong Class
- Description: Represents the users of the system, including administrators and employees.

Canteen Item:

- Classification: Strong Class
- Description: Represents the items available in the canteen, including details such as item ID, name, price, and stock quantity.

Stock:

- Classification: Strong Class
- Description: Represents the stock of items in the canteen, including details such as item ID, quantity, and reorder level.



CHAPTER 8

DATABASE

8.1 Admin

Email	Name	Mobile	Address	Dob	Password
gaurav@kiet.edu	Gaurav	2147483647	Lucknow	2023-10-03	1234

Table 8.1 Admin

In the context of a database table, the attributes "email," "name," "mobile," "Address," "Dob" (Date of Birth), and "password" represent the columns that store specific information related to individuals, likely users of a system.

Email:

This attribute stores the email address of an individual. It is a unique identifier and is commonly used for user authentication and communication.

Name:

The "name" attribute typically stores the full name of an individual. It might be divided into first name, middle name, and last name for more detailed records.

Mobile:

This attribute stores the mobile or phone number of an individual. It is valuable for communication purposes and might be used for sending notifications or alerts.

Address:

The "Address" attribute stores the physical address or location details of an individual. It could include components such as street address, city, state, and postal code.

Dob (Date of Birth):

The "Dob" attribute stores the date of birth of an individual. It is commonly used to determine the age of the person and might be used for age-specific functionalities or personalization.

Password:

The "password" attribute stores a securely hashed or encrypted version of the user's password. It is a critical attribute for user authentication, ensuring secure access to the system.

8.2 Employee

I d	Name	Mobile	Email	addres s	Do b	Pinco de	passw ord
1	Akarsh Vishwakarma	2147483 647	akarsh.2224mca1164@kiet.edu	Varanasi	2024-01-02	201206	9026
2	Gaurav Prajapati	2147483 647	j@gmail.com	Lucknow, Banaras	2023-10-31	230402	1234677
3	Gaurav Prajapati	2147483 647	s2@gmail.com	Pratapgarh	2024-01-01	230434	1234

Table 8.2 Employee

In a database table with attributes such as "Id," "Name," "Mobile," "Email," "Address," "Dob" (Date of Birth), "Pincode," and "Password," each attribute serves a specific role in capturing and organizing information about individuals.

Id:

The "Id" attribute is typically a unique identifier assigned to each individual in the database. It serves as a primary key, ensuring that each record can be uniquely identified and referenced.

Name:

The "Name" attribute stores the full name of an individual. It is a fundamental piece of personal information and is often used for identification and communication purposes.

Mobile:

The "Mobile" attribute stores the mobile or phone number of an individual. This information is crucial for contact and communication, facilitating outreach or notifications.

Email:

The "Email" attribute stores the email address of an individual. It serves as a unique identifier for user accounts and is commonly used for communication and login credentials.

Address:

The "Address" attribute captures the physical address or location details of an individual. It might include components such as street address, city, and state, providing a comprehensive overview of an individual's residence.

Dob (Date of Birth):

The "Dob" attribute records the date of birth of an individual. This information is valuable for age-related functionalities, personalized services, and can contribute to demographic analysis.

Pincode:

The "Pincode" attribute stores the postal code associated with an individual's address. It helps in geographically categorizing and organizing individuals based on their location.

Password:

The "Password" attribute stores a securely hashed or encrypted version of the user's password. It is a critical attribute for user authentication, ensuring the security of user accounts by protecting access to sensitive information.

8.3 Stock

Id	Pname	Description	Sname	doM	doE	Quantity	contact
1	Coke	soft Drink	Ram	2023-10-03	2023-10-27	150	2147483647
2	Parle G	Biscuit	Hritik	2023-09-25	2023-10-28	50	2147483647

3	Biscuit	This is the type of Biscuit	Harry	2024-01-01	2024-01-19	51	2147483647
4	Juice	Beverage	Hritik	2024-01-29	2024-02-11	30.5	2147483647
5	Parle G	This is the type of Biscuit	Harry	2024-01-01	2024-02-02	115	2147483647

Table 8.3 Stock

In a database table with attributes such as “Id,” “Pname” (Product Name), “Description,” “Sname” (Supplier Name), “doM” (Date of Manufacture), “doE” (Date of Expiry), “Quantity,” and “Contact,” each attribute plays a specific role in organizing information related to products and suppliers.

Id:

The “Id” attribute typically serves as a unique identifier for each record in the database table. It is a primary key that ensures each entry can be uniquely identified and referenced.

Pname (Product Name):

The “Pname” attribute stores the name of the product. It is a fundamental piece of information that identifies the specific product in the inventory.

Description:

The “Description” attribute provides additional details or a brief description of the product. This field allows for a more comprehensive understanding of the product’s characteristics or features.

Sname (Supplier Name):

The “Sname” attribute stores the name of the supplier providing the product. This information is crucial for tracking and managing the source of each product in the inventory.

doM (Date of Manufacture):

The “doM” attribute records the date when the product was manufactured. This information is essential for quality control, ensuring that products are used within their recommended timeframe.

doE (Date of Expiry):

The “doE” attribute represents the date when the product expires or becomes no longer suitable for use. This is particularly important for managing perishable goods and ensuring product safety.

Quantity:

The “Quantity” attribute indicates the quantity or amount of the product available in the inventory. It provides a real-time snapshot of the stock level for each product.

Contact:

The “Contact” attribute likely stores contact information related to the product, such as the contact details of the supplier. This facilitates communication and coordination with the supplier.

8.4 Supplier

Id	Supplier name	Mobile no	Address	Resident address
1	Ram	2147483647	Lucknow	Ramnagar
2	Hritik	2147483647	Murad Nagar	Murad Nagar
3	Harry	2147483647	Ghaziabad	Delhi

Table 8.4 Supplier

In a database table with attributes such as "Id," "Supplier name," "Mobile no," "Address," and "Resident address," each attribute serves a specific role in organizing information related to suppliers. This table is designed to capture essential details about each supplier, facilitating effective supplier management within the system.

Id:

The "Id" attribute typically functions as a unique identifier for each supplier entry in the database. It serves as a primary key, ensuring that each supplier record can be uniquely identified and referenced.

Supplier name:

The "Supplier name" attribute stores the name of the supplier or the supplier company. It is a fundamental piece of information for identifying and categorizing different suppliers.

Mobile no:

The "Mobile no" attribute captures the contact number of the supplier. This information is crucial for communication purposes, allowing for easy and direct contact with the supplier when necessary.

Address:

The "Address" attribute records the official address of the supplier. This could include details such as street address, city, and postal code, providing a comprehensive location reference.

Resident address:

The "Resident address" attribute, if included, may store the personal or residential address of the supplier. This information might be relevant for suppliers who operate individually or as smaller entities.

CHAPTER 9

FORM DESIGN

9.1 Login

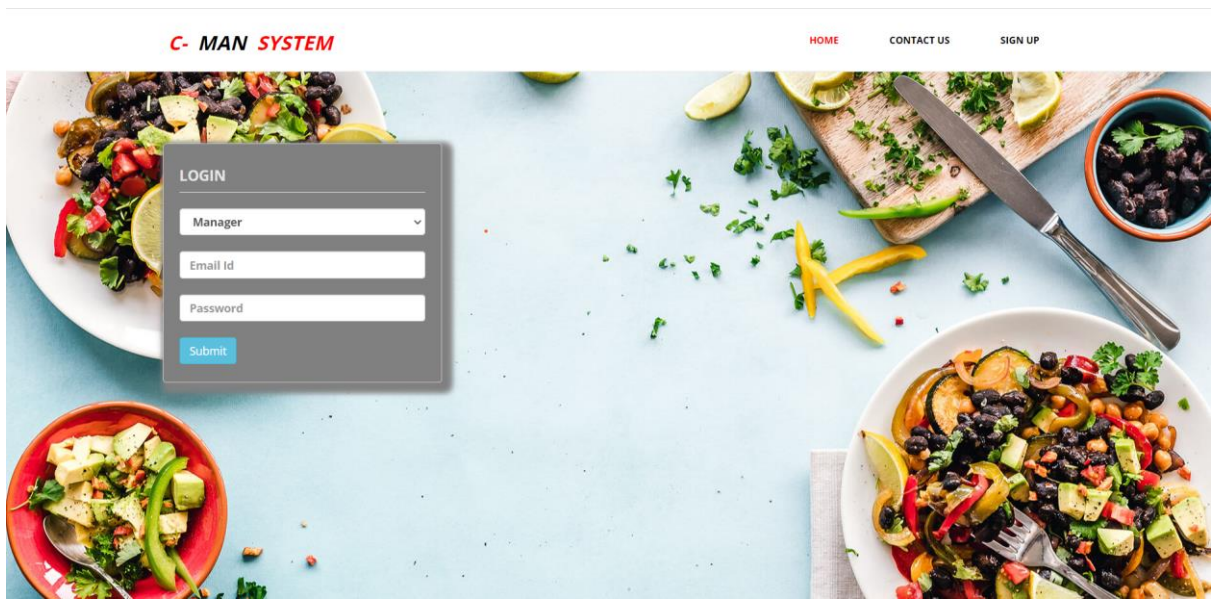


Fig. 9.1 Login

The login module in the Canteen Management System (CMS) is a pivotal component responsible for securely authenticating users and regulating access to the system. This module verifies user identity by validating entered credentials, typically consisting of a username and password. Following successful authentication, the module assigns a role to each user, determining whether they are an administrator or an employee. Session management is initiated to maintain user states throughout their interactions within the CMS.

Security measures, including password hashing and salting, are implemented to safeguard user credentials. The login module may also include features such as an account lockout mechanism to counter multiple failed login attempts, logging and auditing for monitoring user activities, and password recovery options for forgotten passwords.

Overall, the login module is of paramount importance as it serves as the initial checkpoint, ensuring that only authorized users gain access to the CMS while upholding security and user-friendly practices.

9.2 Admin

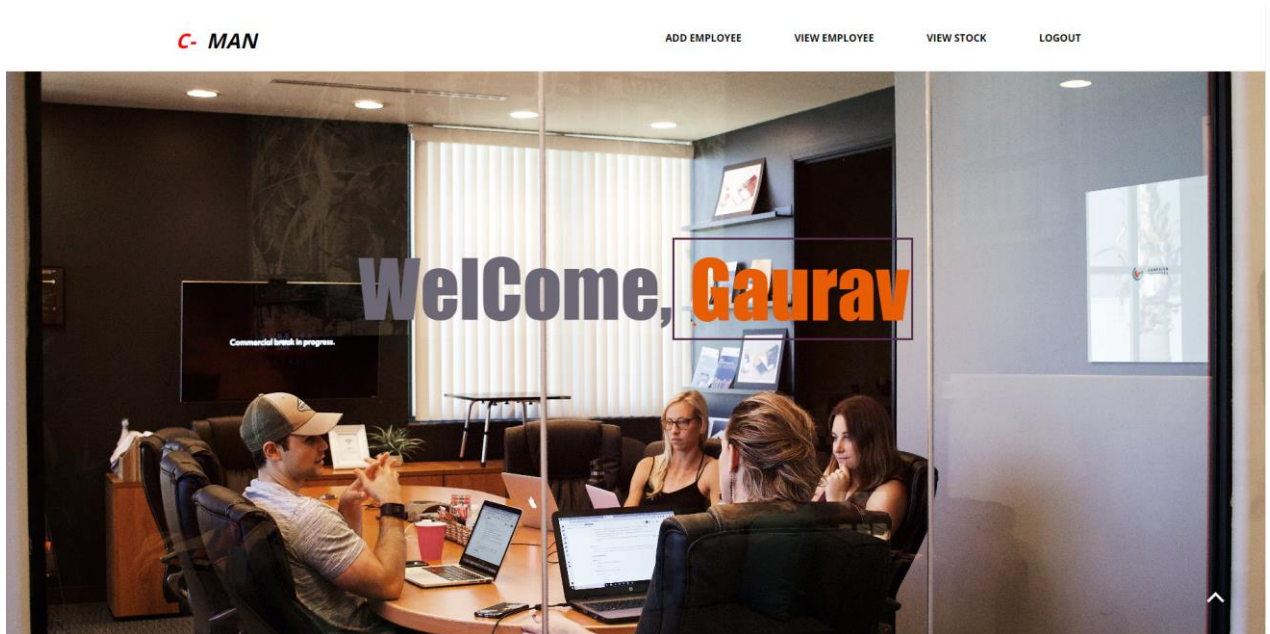


Fig. 9.2 Admin

The admin page in the CMS is a central hub designed for administrators to efficiently manage and oversee various aspects of the canteen operations. It provides a comprehensive interface equipped with functionalities that empower administrators to maintain inventory, process orders, manage menus, and perform essential administrative tasks.

9.3 Employee

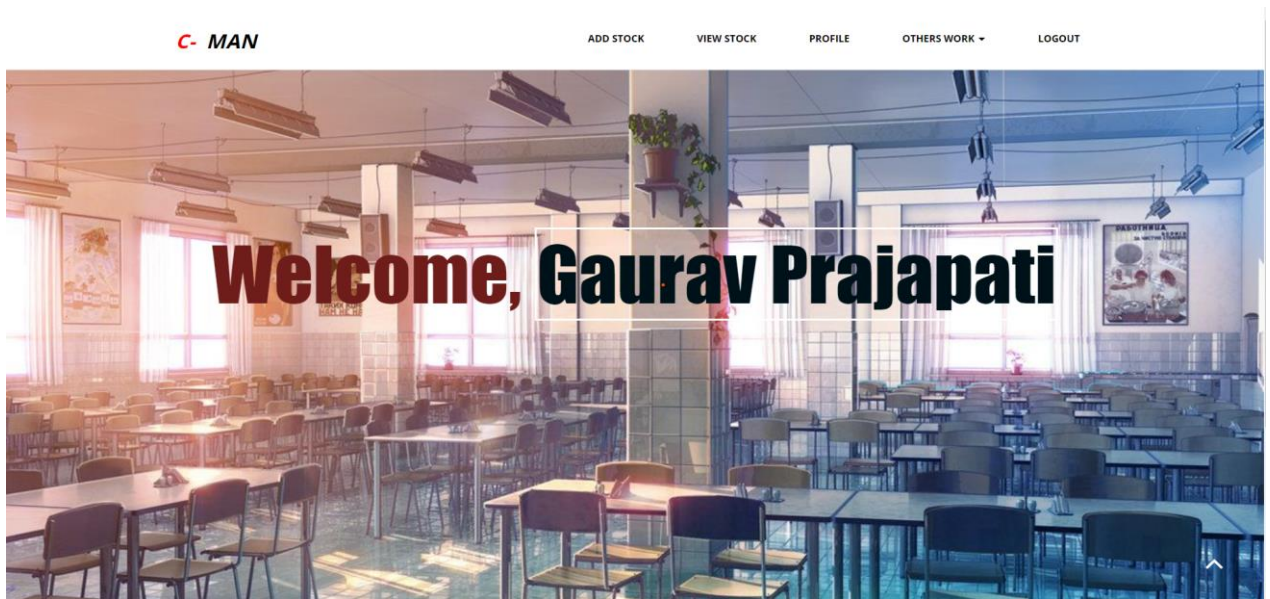


Fig 9.3 Employee

The employee module in the Canteen Management System (CMS) is an integral component designed to facilitate and streamline the tasks and responsibilities of canteen staff. Tailored to meet the needs of employees involved in daily operations, this module provides a user-friendly interface with functionalities that enhance efficiency and contribute to the smooth functioning of the canteen.

One of the primary functions of the employee module is order processing. Employees can view incoming orders, confirm them, update order statuses, and mark orders as fulfilled. This functionality ensures that the canteen staff can efficiently manage the preparation and delivery of food items.


9.3.1 Profile Updation

C- MAN ADD STOCK VIEW STOCK OTHERS WORK ▾ **PROFILE** LOGOUT

UPDATE DETAILS

Name	<input type="text" value="Gaurav Prajapati"/>
Email	<input type="text" value="s2@gmail.com"/>
Dob	<input type="text" value="2024-01-01"/>
Address	<input type="text" value="Pratapgarh"/>
Password	<input type="password" value="****"/>
PinCode	<input type="text" value="230434"/>
Contact No.	<input type="text" value="2147483647"/>

SUBMIT ↗

 Have a question or need help?
+0123 456 70 80


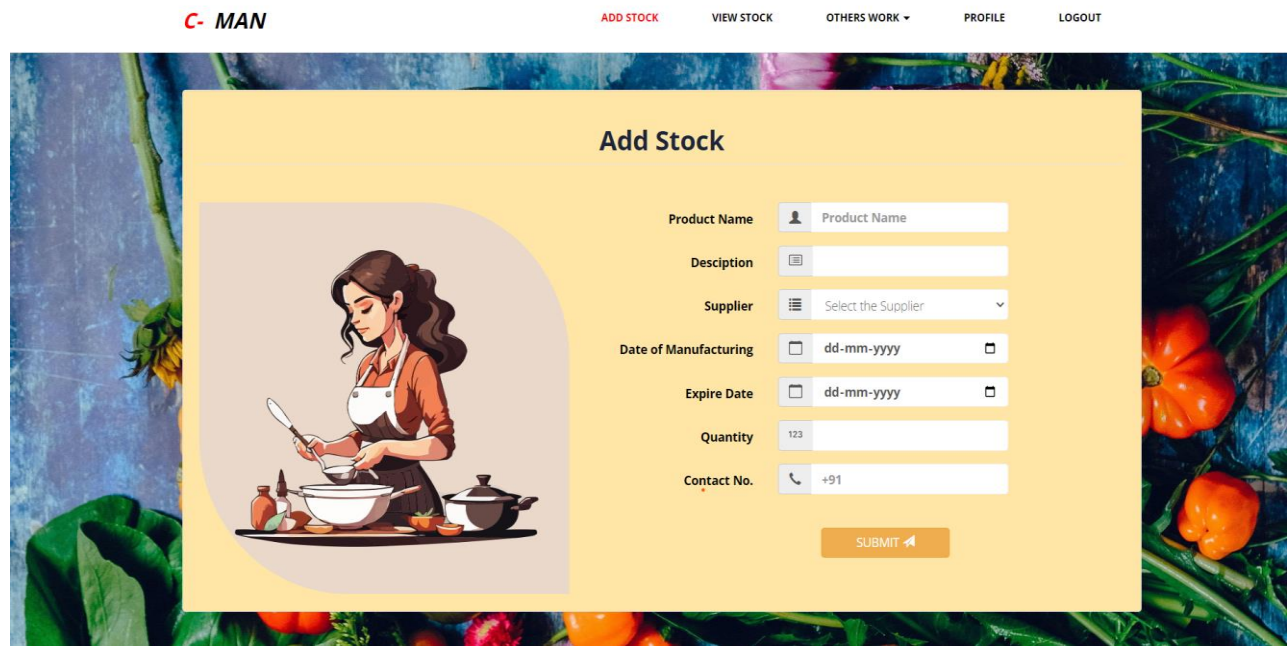


Fig 9.4 Profile Updation

Profile updation in the employee module of the Canteen Management System (CMS) is a pivotal feature that empowers staff members to maintain accurate and current personal information within the system. This functionality is accessible through the employee module, where users can seamlessly navigate to the "Profile" section. Here, employees have the ability to edit various aspects of their profiles, including personal details such as names, contact information, and emergency contacts. The system also facilitates password updates, enhancing security through periodic changes and adherence to password complexity standards. For canteens with multiple shifts, employees can manage their shift preferences and availability, allowing for a flexible scheduling approach. Additionally, staff members may specify their communication preferences, determining how they receive notifications from the CMS, whether through email, in-app messages, or SMS alerts. The profile updation process includes a confirmation and review

step, ensuring that employees can verify the accuracy of the modifications made before finalizing the changes. An essential aspect of this feature is the creation of an audit trail, capturing the date, time, and specific changes made by the employee.

9.3.2 Add Stock



The screenshot shows the 'Add Stock' interface of the C-MAN system. At the top, there is a navigation bar with the 'C-MAN' logo and links for 'ADD STOCK', 'VIEW STOCK', 'OTHERS WORK', 'PROFILE', and 'LOGOUT'. The main form is titled 'Add Stock' and features a background illustration of a woman in a kitchen. The form contains the following fields: 'Product Name' (text input), 'Description' (text input), 'Supplier' (dropdown menu with 'Select the Supplier'), 'Date of Manufacturing' (calendar icon and 'dd-mm-yyyy' text input), 'Expire Date' (calendar icon and 'dd-mm-yyyy' text input), 'Quantity' (text input with '123' pre-filled), and 'Contact No.' (text input with '+91' pre-filled). A 'SUBMIT' button is located at the bottom right of the form.

Fig 9.5 Add Stock

The "Add Stock" feature in the Canteen Management System (CMS) is a crucial component that empowers administrators to efficiently manage the inventory of items available in the canteen. This functionality is designed to streamline the process of incorporating new stock items into the system.

Administrators can access the "Add Stock" section, where they are prompted to input essential details such as the item name, quantity, price, and any additional information relevant to the new stock. This feature ensures the accuracy and completeness of inventory records, allowing administrators to keep the system up-to-date with the latest stock additions.

The "Add Stock" feature is instrumental in enhancing the overall functionality of the CMS, providing administrators with a straightforward and effective means of managing the canteen's inventory with precision and ease.

9.3.3 Add Supplier

The screenshot displays the 'Add Supplier' form within the C-MAN system. The form is a light gray box with a rounded top-left corner, set against a background of fresh vegetables. On the left side of the form is a circular placeholder image of a cartoon character holding a tablet. To the right of this image are four input fields, each preceded by a label and an icon: 'Supplier Name' with a person icon, 'Mobile No.' with a phone icon, 'Shop Address' with a house icon, and 'Resident Address' with a house icon. Below these fields is an orange 'Submit' button. The top of the form has the title 'Add Supplier'. The background image shows a variety of vegetables including green leafy herbs, a red bell pepper, a green cabbage, orange carrots, and a large purple and white radicchio. The top navigation bar is dark gray with the 'C-MAN' logo in red and white, and links for 'ADD STOCK', 'VIEW STOCK', 'OTHERS WORK', 'PROFILE', and 'LOGOUT'. The bottom footer is dark gray with social media icons for Facebook, Twitter, Google+, LinkedIn, and YouTube, and a copyright notice '© All Rights Reserved.'.

Fig 9.6 Add Supplier

The inclusion of a "Supplier Form" in the Canteen Management System (CMS) is a strategic feature designed to systematically record and manage essential information about suppliers. This form typically includes fields such as the supplier's name, mobile number, and address. Administrators can utilize this form to input and update supplier details, ensuring that the system maintains an accurate and up-to-date repository of supplier information. The supplier form provides a centralized location for crucial supplier data, facilitating efficient communication and coordination with external partners.

CHAPTER 10

TESTING

10.1 Introduction

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionalities of components, sub-assemblies, and/or a finished product it is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of tests. Each test type addresses a specific testing requirement.

10.2 Types of Testing

10.2.1 Unit Testing

Unit testing focuses verification effort on the smallest unit of software design, the module. The unit testing, we have is white box oriented and some modules the steps are conducted in parallel.

10.2.2 Integration Testing

Testing is done for each module. After testing all the modules, the modules are integrated and testing of the final system is done with the test data, specially designed to show that the system will operate successfully in all its aspects conditions. Thus, the system testing is a confirmation that all is correct and an opportunity to show the user that the system works.

The purpose of integration testing is to verify functional, performance and reliability requirements placed on major design items. These "design items", i.e. assemblages (or groups of units), are exercised through their interfaces using black box testing, success and error cases being simulated via appropriate parameter and data inputs. Simulated usage of shared data areas and inter-process communication is tested and individual subsystems are exercised through their input interface.

10.2.3 System Testing

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example

of system testing is the configuration-oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

FUTURE SCOPE AND FURTHER ENHANCEMENT OF THE PROJECT

- Further enhancements to this project will be to Message Alert on Stock availability is less.
- Another enhancement would be allowed for Customer also.
- Implement an online ordering system where customers can place orders through a website or mobile app. Integrate secure payment gateways to facilitate online payments.
- Add a feature for customers to provide feedback and ratings for the food and service. Use this feedback to improve the quality of service and address any issues.
- Implement advanced analytics and reporting features to track sales trends, popular menu items, peak hours, and other key metrics. Use this data to make informed business decisions and optimize operations.

CONCLUSION & REFERNCES

We have successfully designed a project on Web Based Canteen Management. This project is designed in PHP (Hypertext Preprocessor) which runs on XAMP Web Server.

Keeping in view these facts we will develop successfully. Developing the project will help us some experience on website development.

References

Coding phase: -

1. PHP (Complete Reference)

Referenced Sites:

- www.w3school.com
- www.php.net