

**DESIGN AND IMPLEMENTATION OF AN ONLINE FOOD ORDERING
SYSTEM IN CAFETERIA**

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**A PROJECT SUBMITTED IN THE DEPARTMENT OF COMPUTER SCIENCE
AND MATHEMATICS, COLLEGE OF BASIC AND APPLIED SCIENCES.**

MOUTAIN TOP UNIVERSITY,

IBAFO OGUN STATE,

NIGERIA

2021

DECLARATION

I hereby declare that this project has been written by me and is a record of my own research work. It has not been presented in any previous application for a higher degree of this or any other University. All citations and sources of information are clearly acknowledged by means of reference.

BESTMAN ADEGOKE KINGSLEY

Date

CERTIFICATION

This is to certify that the content of this project entitled ‘**Design and Implementation of an Online Food Ordering System in Cafeteria**’ was prepared and submitted by **BESTMAN ADEGOKE KINGSLEY** in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN COMPUTER SCIENCE**. The original research work was carried out by him under by supervision and is hereby accepted.

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DEDICATION

This project is dedicated to God, Almighty.

ACKNOWLEDGEMENTS

I am forever grateful to my parents, Mr. and Mrs. Bestman, for the love and support shown to me throughout my stay at Mountain Top University.

I would also like to extend my appreciation to my supervisor Professor I. O. Akinyemi, for his advice, contributions and suggestions to ensure the completion of this project. I count it a special privilege to have him supervise my project.

To all my wonderful lecturers, members of staff in the Department of Computer Science and the college at large, you all have been the best during my four years in this institution, May God continually bless you in all your endeavors.

Special thanks to Dr M.O Adewole. I am grateful for your corrections and, expertise shared to ensure this project is completed. I love you. God bless you.

Above all, I want to express my sincere gratitude to Almighty God, the giver of life and my source of help, for everything.

ABSTRACT

This project will provide an online food ordering system for Mountain Top University's cafeteria. There are five cafeteria vendors in Mountain Top University, which service a population of approximately 2566 people.

This increases strain on cafeteria vendors, requiring consumers to wait an extended period of time when ordering food. The suggested system is an online food ordering system that would enable students and staff to place orders.

Staff at Mountain Top University can place food orders online. Additionally, the system would be beneficial by helping cafeteria vendors enhance their services by preparing reports to their manager for evaluations.

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INTRODUCTION

1.1 Background of Study

Today, using the internet to communicate and perform tasks is quite popular because Today, using the internet to communicate and perform tasks is quite popular because it makes daily operations a whole lot simpler. As a result, individuals always strive to use the most straightforward option, i.e., a way for them to finish their responsibilities without wasting too much time or energy.

As a result, the system plans to develop a web application to handle a frequent problems while also making daily life easier. Food, housing, and clothes are the three most fundamental human needs in the world. Each of them has a substantial international market. As a result, the online food ordering system is solely intended to meet the one need: food. There is a range of food options accessible, including restaurants, shops, and various additional food sources. On the other side, people nowadays are far too obsessed with their work. They don't have much time to waste on trivial matters. People strive to minimize time wasted as a result of their hectic lifestyles. People, for example, do not like to waste time waiting in long lines to order food or in line to pay their bills. The system offers a solution for reducing time waste.

1.2 Statement of Problem

This project's problem statements are as follows:

- a. Customers take their time ordering meals in the cafeteria resulting in huge lines or queues.

- b.** Customers frequently make meal selections while standing at the counter, resulting in the addition and deletion of items from the order list, which consumes time.

We can state that the problem of long queues was caused mostly by the long time it took each client to order, as well as by an unanticipated meal selection that involved adding and removing food from the list of orders, which also took time.

1.3 Aims and Objective

The aim of this research is to create an online food ordering application in which clients may check the availability of goods and place orders to have them delivered to their door.

The following are the objectives that would be achieved with this aim:

- a.** To reduce the amount of time customers spend waiting in lines when ordering food.
- b.** To ensure that customers are satisfied.
- c.** To provide an application that allows cafeteria owners to grow their company by uploading menus for free, resulting in greater customer retention and acquisition rates.

1.4 Scope and Limitations of Study

The online food ordering system will be a web-based application that will have HTML, CSS, JAVASCRIPT and PHP major programming languages. Its main goal is to simplify and improve the customer and restaurant ordering process, decrease human data entering, and ensure that data accuracy and security are guaranteed during the order placement

process. In addition, customers can see product menus and receive a visual assurance that the order has been placed appropriately. The following are the system limitations;

- a. Users would need internet connection to be able to use the system.
- b. The system's setback is that target clients are adults with access to computer systems or mobile telephones. At the same time, kids may have to go to the restaurant physically to purchase food or order with the assistance of an adult.
- c. The system will only be convenient to people with a small geographical region, basically just around the cafeteria, i.e., it can only help a small area.
- d. Due to the time and financial constraints, the software that is developed covers only the aspect of food ordering.

1.5 Research Methodology

The following strategies will be used to achieve the study's aforementioned aims.

- a. A review of the literature will be conducted in order to identify and comprehend the existing system.
- b. System users will be interviewed informally to determine the system's user and system needs.
- c. A unified modelling language (UML) diagram will be used to specify the system design: use case, sequence diagram, and class diagram.

1.6 Significance of Study

Given the rapid growth of computer technology in virtually all domains of operation, as well as its use in knowledge management, it has become critical to investigate the

production of online ordering systems for businesses to meet consumer needs. As a result, the food ordering and distribution system will assist consumers and management in achieving the following goals:

- a. In their business, they should publicize the foods that are available.
- b. Minimize the existing system's workload.
- c. Cut back on data processing time.
- d. Create an online portal for fast food ordering and delivery.
- e. Maintain a clear record of all sales and deliveries.
- f. The web application will be user friendly.

1.7 Definition of Terms And Abbreviation

FOOD: is any nutritive substance that humans or animals eat or drink, or that plants absorb in order to preserve life and growth.

MENU: is a list of food and beverages offered to customers and the prices in a restaurant.

ONLINE FOOD ORDERING: Online shopping services include websites with interactive menus that enable customers to place their orders with local restaurants and food collectives.

CREDIT CARD: A credit card is a payment card that allows users to pay for products and services at a merchant based on the cardholder's guarantee to the card issuer to pay for the amounts plus any other agreed costs.

ORDERING SYSTEM: Inventory management's "mechanical" component is ordering systems. They're the programs that take our forecasts, actual orders, safety stock, and order quantities and turn them into purchase orders or production orders.

WEB-BASED: connected to or involving the use of the Internet.

CUSTOMER: a person who purchases goods or services from a store or business

CAFETERIA: a place where people pay to sit and eat meals cooked and served on the premises.

TECHNOLOGY: the application of scientific knowledge to real-world problems, particularly in industry.

HTML: HyperText Markup Language

SQL: Structured Query Language

MYSQL: MYSQL is software that delivers SQL.

SHAWARMA: Shawarma is a Levantine Arab meat recipe that involves spit-grilling lamb, chicken, turkey, beef, veal, or mixed meats for up to a day.

BEEF: Meat from bovines, particularly cattle, is referred to as beef in the culinary world. Beef can be produced by cows, bulls, heifers, and steers. Steaks, roasts, and short ribs can all be made from beef muscle meat.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter gives brief explanation on topics researched and studies that are relevant to this project. It's a hybrid of a literature search and a literature review. Among the discuss topics are Information system, E-commerce and related works. Besides that, this chapter also makes a study on exiting ordering system.

2.2 INFORMATION SYSTEM

The term "information system" refers to a collection of technologies used in the gathering, processing, storage, and broadcast of data. (Techopedia, 2020). A formal, socio - technological organizational system that collects, processes, stores, and distributes data is referred to as an information system (IS). From a sociotechnical approach, information systems are made up of four elements: task, people, structure (or roles), and technology. Information systems are defined as a group of components that work together to receive, store, and process data, with the data being utilized to deliver information, add to knowledge, and produce digital products that help people make better decisions. The academic study of systems with an emphasis on information and its applications networks of hardware and software that people and organisations use to acquire, filter, process, produce, and distribute data is known as information systems.(Wikipedia, 2021)

In business environments, people develop and use information systems, which are made up of hardware, software, and telecommunications networks, to gather, create, and distribute critical data. In an organization, information systems are interconnected components that work together to collect, analyze, store, and disseminate data to support decision making, coordination, control, analysis, and visualization (Bourgeois, 2014).

2.2.1 Types of Information System

- a. Operational Management:** Contains a transaction processing system, an office automation system, and a knowledge management system. These systems handle structured data and are utilised by workers and employees to simplify everyday operations.
- b. Tactical Management:** Business unit managers use it to handle semi-structured data, and it includes management information systems.
- c. Strategic Management:** This is used by executives and manages unstructured data. It also contains a decision support system and executive help.

The six major types of information systems corresponding to each organizational level (the four levels depicted in figure above) are:

- a. Transaction Processing Systems (TPS):** A transaction processing system ensures that all of the contractual, transactional, and customer relationship data is stored in a safe location and accessible to everyone who needs it. It serves the operational level of an organization.

- b. Knowledge Work Systems (KWS):** Knowledge management system stores and extracts information to help users develop their knowledge and maximize collaboration efforts to fulfill tasks.
- c. Office Automation Systems (OAS):** An office automation system is a network of diverse tools, technology, and people required to accomplish clerical and administrative duties. It utilized to service the knowledge level of an organization.
- d. Decision-support systems (DSS):** A decision support system processes data to assist in management decision-making. It maintains and accumulates the information essential for management to take the proper decisions at the correct time.
- e. Management information systems (MIS):** management information system employs a TPS's diversified transaction data to aid middle management in planning and decision-making.
- f. Executive support systems (ESS):** Executive support systems are similar to a DSS but are primarily utilized by executive leaders and owners to maximize decision-making. It serves the strategic level of an organization.

2.3 ELECTRONIC COMMERCE

Electronic Commerce also known as E-commerce is about placing business on the Internet, allowing visitors to browse website, and go through a virtual catalogue of company's products/ services online. E-Commerce is doing business using electronic media. It involves employing easy, fast and low-cost electronic communications to transact, without face-to-face meeting between the two sides of the transaction. Now, it is mostly done through Internet and Electronic Data interchange (EDI). This covers a wide

range of activities, from employing electronic mail (Email) and EFTPOS, through to internet based sales and transactions and web based marketing. It is the new way of doing business, which will supplant many existing approaches. (BLOOMENTHAL, 2021).

E-commerce, according to Garret (1996), is the trade of products and services through the internet or through computer networks.

E-commerce allows firms to cut costs while simultaneously extending their markets. Personnel, storage, and printing and distribution of mail-order catalogues are not required. Because of their global internet sales, merchants can provide their products or services all over the world and are not bound by a company's physical location.

2.4 EXISTING FOOD ORDERING SYSTEM

There are a lot of current ordering systems that use web-based apps, such as:

2.4.1 Personal Digital Assistant Based System (PDA)

With this technology, clients are offered with tiny and portable digital personal assistants with their orders. They are subsequently shipped to the kitchen for preparation. The server must collect the PDAs once the customers have ordered so that they are available to other customers. The PDA-based system is better than the manual ordering procedure and lowers the possibility that food and restaurant workers would get orders erroneous. However, there are significant limits to this approach.

- a. Expenditure expenditures have escalated because many PDAs will be supplied to clients, particularly during peak hours (Tanpure, Shidankar, & Joshi, 2013).

- b.** Customers cannot place orders before they arrive at the restaurant; they must be physically present because PDAs are only available there. 2011 (Samsudin, Khalid, Kohar, Senin, and Nor).
- c.** Because the PDAs only display text, customers are unable to see the meal before placing an order (Samsudin, Khalid, Kohar, Senin, & Nor , 2011).
- d.** The PDA-based system is also unclean because consumers must share their PDAs, making it easy for infections to spread. (Tanpure, Shidankar, & Joshi, 2013).

2.4.2 Electronic Menu Card System

An electronic menu card for restaurants has been developed and published in the International Journal of Advanced Engineering Technologies. It is made up of a touch screen sensor, voice recognition software, and other recognition and LCD components (SHALINI & SUKUMAR, 2014). Additionally, there will be screens on the tables that will display the menu and allow customers to place orders. Speech commands can also be used to place orders on the touchscreen.

2.4.3 QOrder Ordering System

Qorder is a portable Android application which runs on any Android device. It was developed by the QUORION data system. Waiters use a hand-held device with QOrder installed on it to accept customers' orders, which are then forwarded to the kitchen for processing. The waiter processes the customer's payment on the hand-held device and prints the receipt on the belt printer (How it works, 2017). WIFI is frequently used by the programme to communicate with other points, such as the kitchen. Customers cannot

order from the convenience of their homes or workplaces, which is a restriction of this method.

2.4.4 Online Ordering System

An online ordering system is a straightforward and quick way for customers to purchase things online without having to physically visit the organisation. The internet is used to power this system. The internet connects the organisation or firm on the one hand with the customer on the other.

Customers of a restaurant can use this technology to order food online using web browsers on their phone or PC. This technique eliminates the usual manner of queuing to acquire meals from a cafeteria, as well as the requirement that people be physically present in the cafeteria before they may order their food. As the number of internet users grew, so did the popularity of this approach.

2.5 RELATED WORKS

(Gan 2002) suggested that an online order system be developed to enable clients to submit purchases anytime. The technology helps to manage client demand and promote advertising. It enables kitchen employees to monitor ordering information, handle quick raw materials and search for client delivery and information on profiles. This technology helps to eliminate wait problems during peak hours, accelerates the preparation of food and improves client volumes. This can boost the market share of fast-food restaurants/cafeteria and improve the investor's return on investment.

(Purname & Wibowo, 2007) has developed a PDA restaurant ordering utility system. The system orders the food, delivers it to the kitchen, receives notifications from the kitchen

and examines specifics of the order status. The concept also involves management of the ordering of food, where the system can send menus, record payments and report using computers.

(Heng, 2008) indicated that automated dining was utilised in Kitchen Mogu Mogu, a fast-food restaurant in Singapore. The customers place an order via the touchscreen and pay by cash or wireless card. The consumer then collects his order from the counter. The experience of ordering food is just like buying from a vending machine. The method decreases the waiter's wrong order.

(Varsha, Priya, Snehal and Priyanka 2015) developed an online, customised meal ordering system with a web-based app and a mobile application for the automation of food ordering by wireless and smartphone technologies. This technique reduces imperfection in the conventional system by lowering the restaurant's effort, gaining customer feedback and giving the restaurant with a way to review its service.

(Adithya, Abhishek and Salma 2017), developed an online food ordering system by using Java (front end), MySQL (backend) and Android Studio(emulator) to develop a mobile application that is reliable, convenient and accurate in taking huge amount of orders at a time and automatically produces the bill.

CHAPTER 3

METHODOLOGY AND SYSTEM ANALYSIS

3.1 INTRODUCTION

This section discuss the methodology used in building the system, the tools and techniques, requirement analysis, the proposed model of the system, the architecture diagram, data design. This chapter also talks about the system design, the use case diagram, activity diagrams, data flow diagram, entity-relationship diagram and control diagram of the system the cafeteria would use.

3.2 METHODOLOGY

Agile methodology has been chosen as the software process model. The agile approach is a hybrid of incremental and iterative process models that emphasize process adaptability and customer satisfaction through the delivery of actionable software solutions in a timely manner. The Agile technique divides the product into smaller incremental builds. Iterative builds are used in this case.

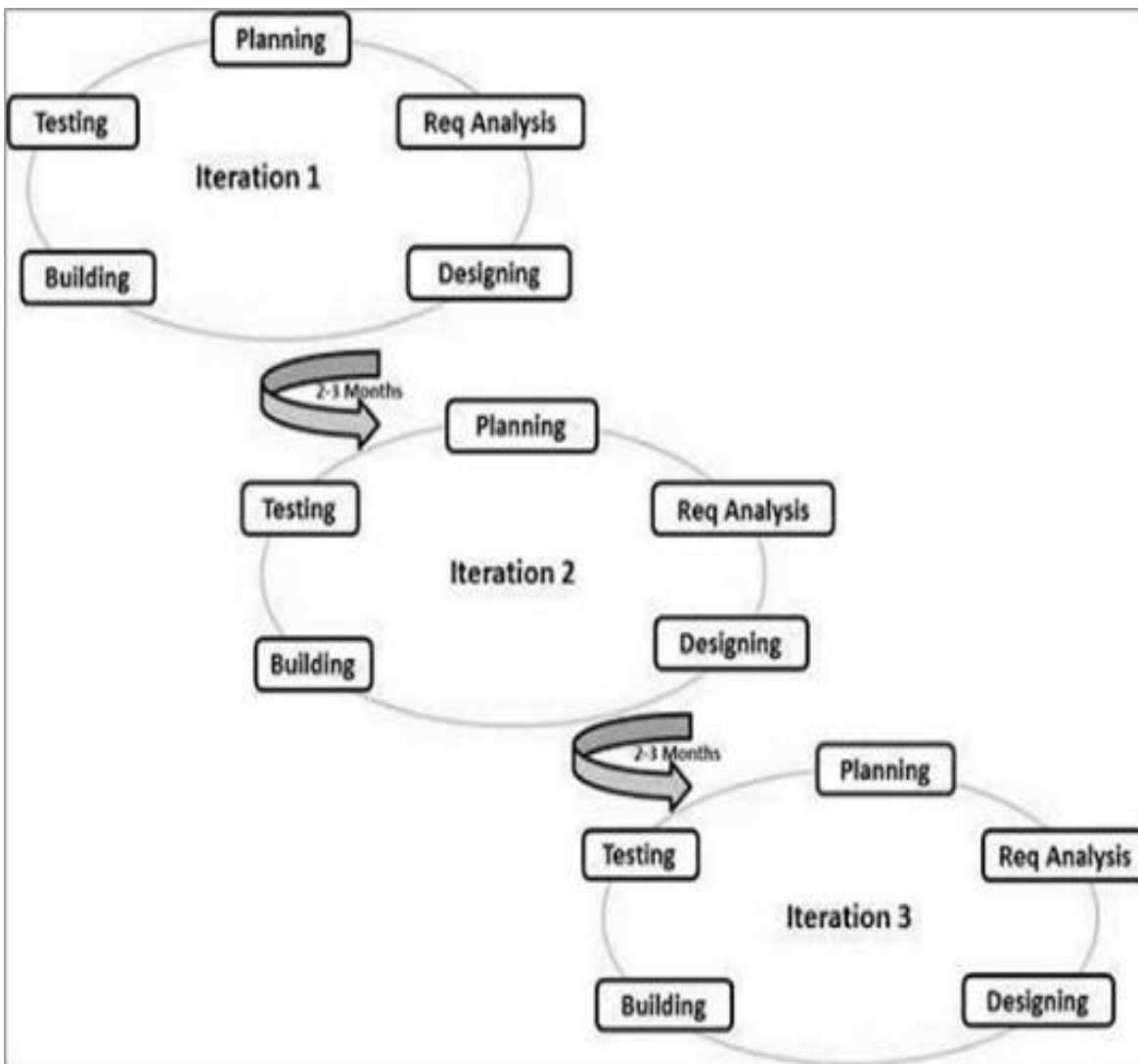


Figure 3.1 : Agile Model

a. Incremental software development: In incremental development, you design the complete product first. You only omit details that may be safely decided later. Then you cut it into parts and create each one independently. When you complete a chunk, also known as a module, you integrate it with previously finished sections so that they function as a whole.

b. Iterative software development: Iterative development is a lot like inventing: discovering what and how you need as you go. You begin with a rough concept of what you want the product to achieve and design and develop it through a process of successive approximation.

You start by designing, constructing, and testing the tiniest version of what you're after. When you're satisfied with a product, you show it around and get comments from everyone who has an interest in it. That's one approximation. And one iteration.

If your work is well accepted, you maintain it and improve on it in the following version. If your creation is rejected, you discard it and return to the drawing board.

The following are the benefits of Agile methodology:

- a.** Focus on the users
- b.** Customer satisfaction
- c.** Better control
- d.** Reduce risks
- e.** Allows changes
- f.** Early and predictable delivery

- g. Focus on business value

3.3 TOOLS AND TECHNIQUES

In this project, the following tools are going to be made use of to build the online food ordering system:

3.3.1 Programming Language

- a. PHP
- b. SQL
- c. HTML, CSS AND JAVASCRIPT

3.3.2 Software

- a. XAMMP
- b. Visual Studio Code

3.3.3 Hardware

- a. HP Laptop

3.4 REQUIREMENT SPECIFICATION

3.4.1 Functional Requirement Specification

The following are the functional requirement for students and staffs:

- a. The user should be able to register for an account
- b. The user should be able to Log in
- c. The user should be able to view the menu available in the cafeteria
- d. The user should be able to add food to the cart
- e. The user should be able to remove food from the cart
- f. The user should be able to confirm their order

- g.** The user should be able checkout
- h.** The user should be able to select from the available payment methods

The following are the functional requirements for the system administrator and manager

Administrator / Employee:

- a.** Should be able to add to log in to the system
- b.** Should be able add or delete food items from the menu
- c.** Should be able to confirm customer order
- d.** Should be able to add, delete, update description of food items
- e.** Should be able to add/update the prices of food
- f.** Should be able to remove processed orders from the list of orders
- g.** Should be able to display orders

3.4.2 Non Functional Requirement Specification

- a.** The password of the users will not be displayed in text but in special characters
- b.** The system will work on any device
- c.** The system will have images for all food items
- d.** The system will be user friendly

3.5 SYSTEM DESIGN

The creative process of changing a problem into a solution and describing the answer is referred to as design (Pfleeger, 2001). It is also the most critical function during the software development process. Without system design, firms will struggle to create acceptable software that meets user needs.

3.5.1 Application Architecture

Application architecture is a diagrammatic structure of an application which gives developers a visualization of what the application will look like. The figure below shows the application architecture of online food ordering system.

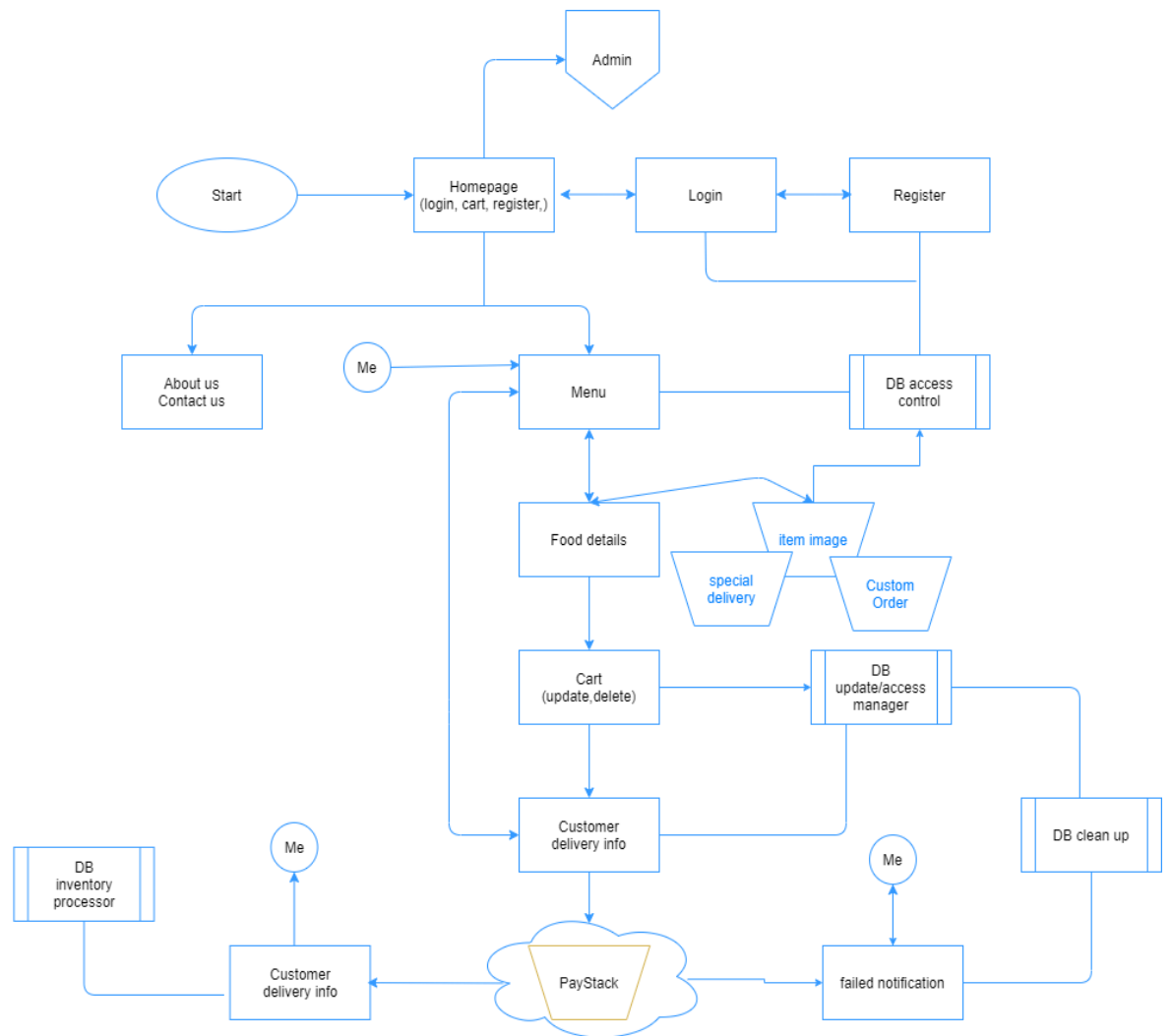


Figure 3.2: The architecture for Online Food Ordering system

3.5.2 Use Case Diagram

A use case diagram is used to describe the actions that occur between the users and the system.

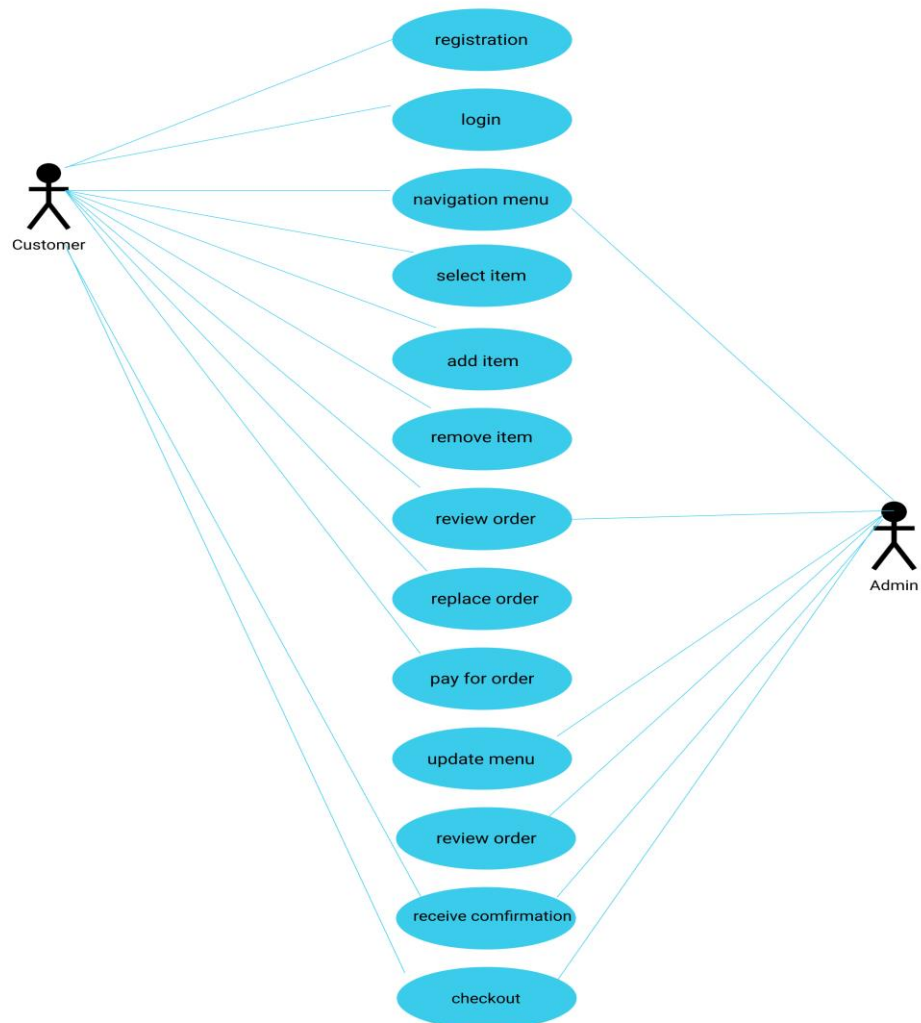


Figure 3.3: UML Use Case Diagram of the system

3.5.3 Activity Diagram

According to (Tanwir, adman, Dragos & ivan 2019), An activity diagram is use to elaborate and give more in-depth visualization to the use cases. The diagram below shows the process signing up and logging in.

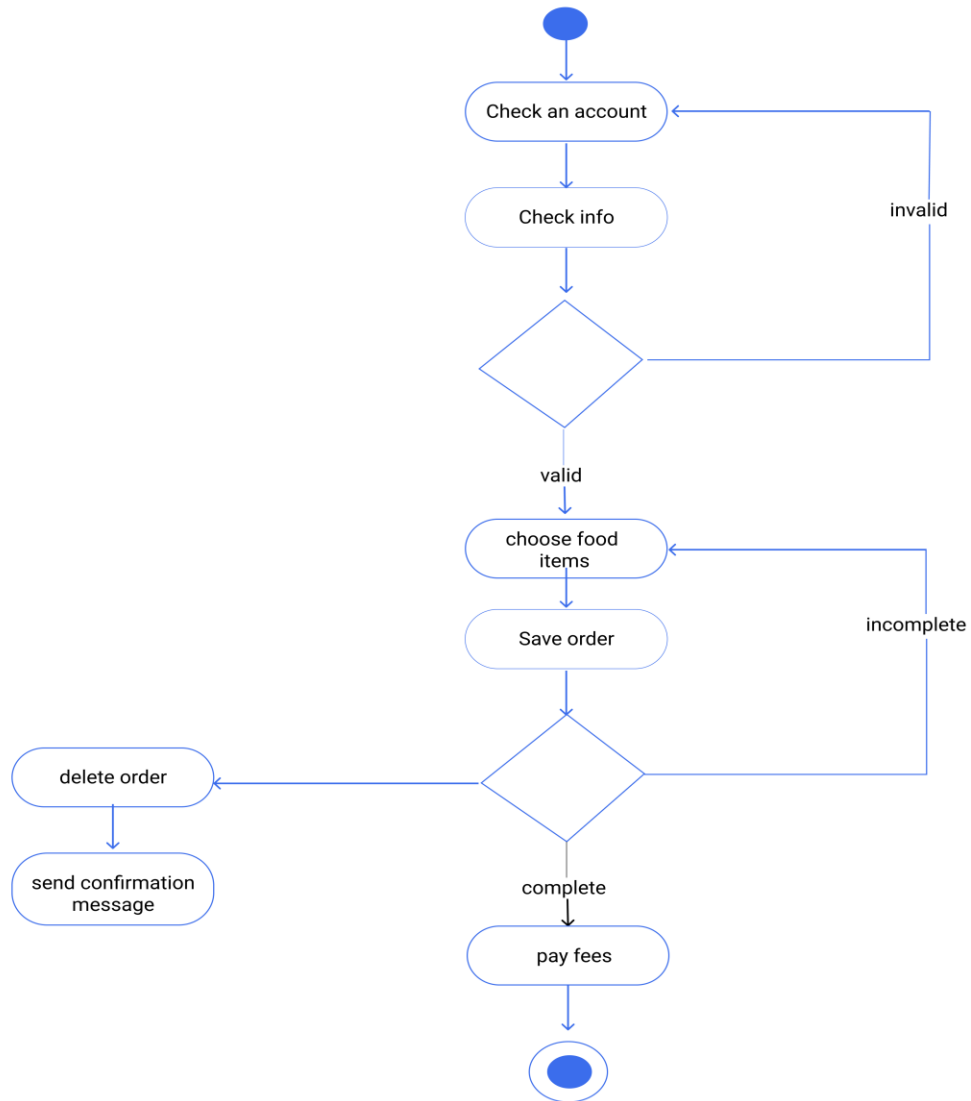


Figure 3.4: Activity diagram

3.5.4 Dataflow Diagram

It is used to represent the function or process that captures, manipulates, stores, and distributes data between the system and its environment, as well as among system components. (Kendall and Kendall 1999)

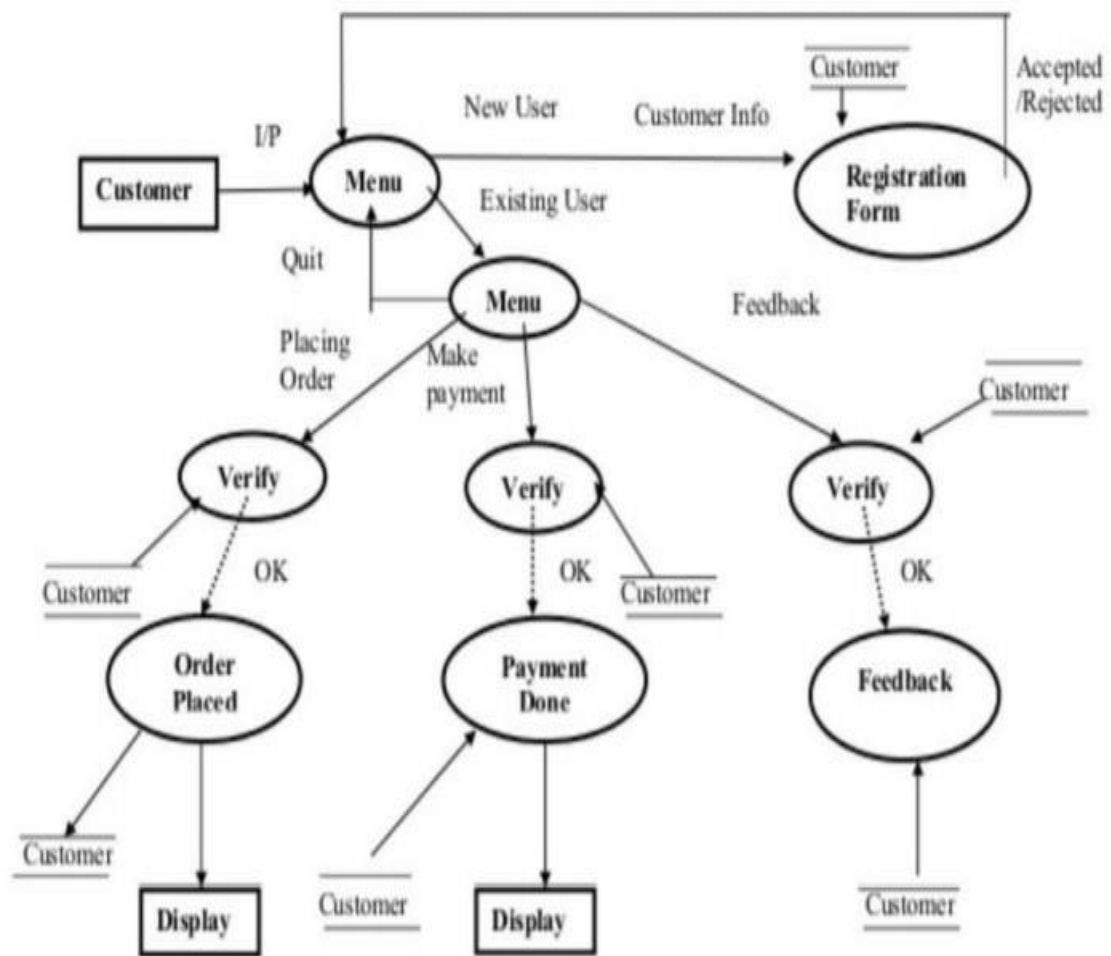


Figure 3.5: Dataflow Diagram

3.5.6 Control Flow Diagram

A control flow diagram helps us to illustrate the detail process. It shows where control starts and ends also where it may branch off in another direction, given certain situations.

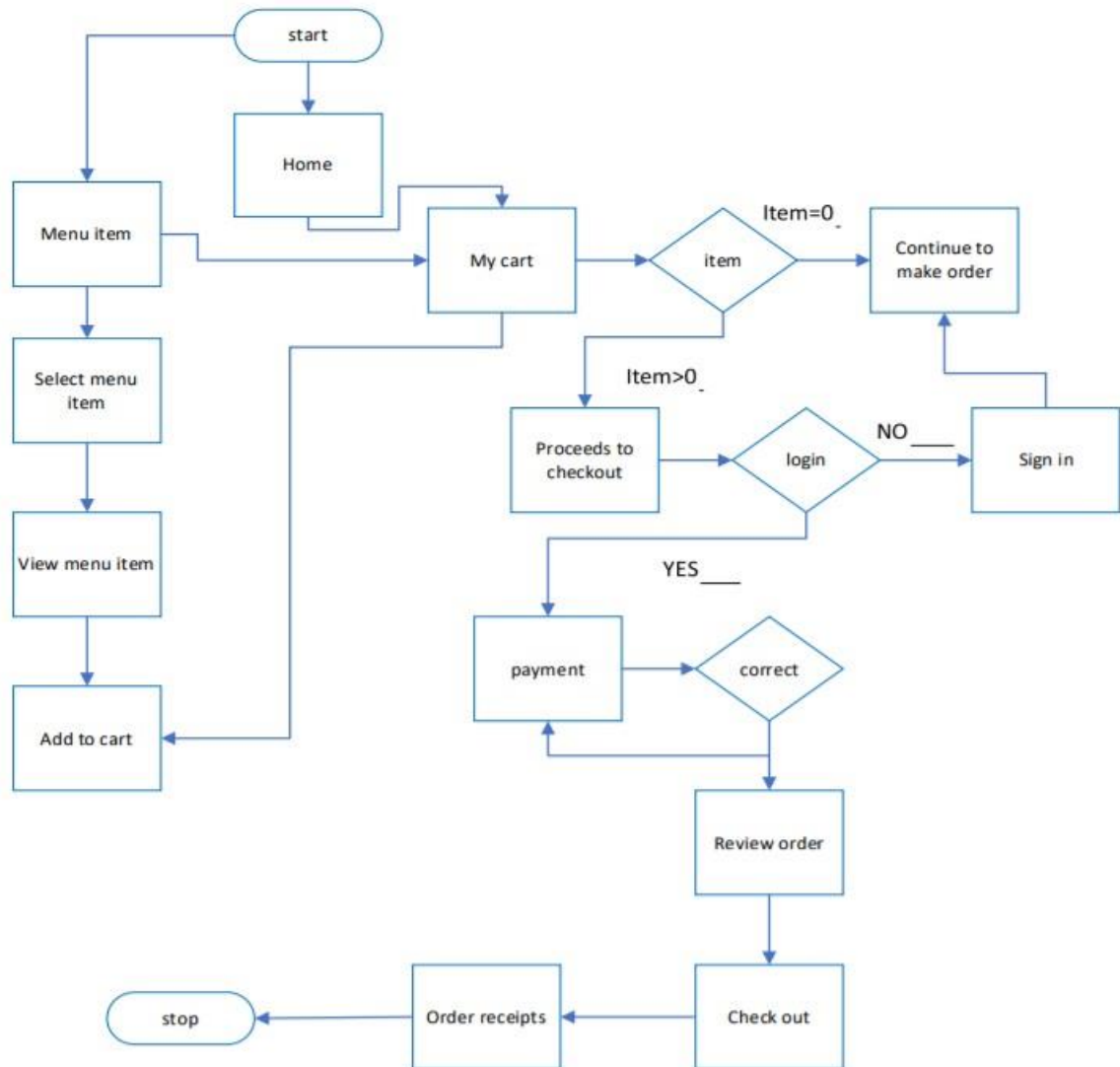


Figure 3.6: Control diagram of online food ordering system

3.5.7 Entity Relationship Diagram

An entity relationship diagram is used to depict the structural design of a database. The tables that will be implemented in the database for system functionality are depicted in the image below.

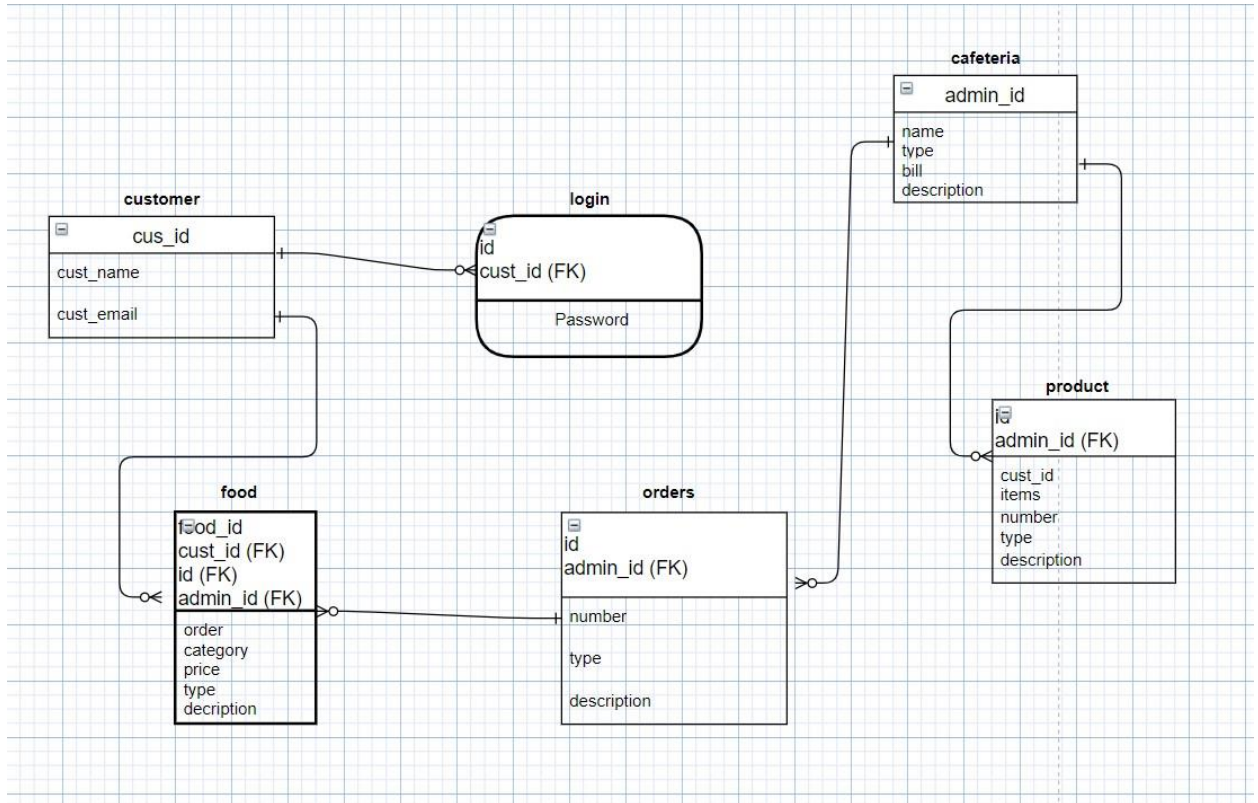


Figure 3.7: Entity Relationship Diagram

CHAPTER 4

IMPLEMENTATION AND SYSTEM DESIGN

4.1 INTRODUCTION

This chapter will introduce the actual user interface, the process of development of the main features.

4.2 DEVELOPMENT PLATFORM CONFIGURATION

The configuration of a development platform has an effect on the development of a system. The development environment must be properly configured in order to build a high-quality, error-prone system. The platform is made up of both software and hardware. Platform configuration entails configuring the necessary software and hardware.

4.2.1 Hardware Requirement

The hardware used to develop the system is listed below;

- a. Intel core i3 processor
- b. 8GB Ram
- c. 1Tb Hard drive

4.3 SOFTWARE COMPONENTS

4.3.1 The Front End: Front end development is the front facing part of the web which can be viewed on web browsers. The technique of generating HTML, CSS, and JavaScript for a website or Web application such that a user can view and interact with

them directly is known as front end development. The front end technologies used for this application include:

- a.** HTML: Html stands for Hyper Text Markup Language, it is the standard markup language for documents designed to display in the web browser. HTML is usually used alongside other technologies such as Cascading Style Sheet (CSS) and scripting Language such as JavaScript. HTML is a semantic markup language that specifies the structure of a web page. HTML consists of elements which are called HTML tags which are the building blocks of HTML pages. Tags such as `<input/>` and `` directly introduce one page contents into the page.

HTML creates structured documents by denoting structural semantics for text such as paragraphs, headings, links and other items making it a markup language, rather than a programming language

- b.** CSS: Cascading Style Sheets (CSS) is a style sheet language used to describe the appearance and formatting of a markup-language-written document. Although the language is most commonly used to update the style of HTML and XHTML web pages and user interfaces, although it may be applied to any type of XML document, including plain XML, SVG, and XUL. CSS, in addition to HTML and JavaScript, is a foundational technology used by the majority of websites to build aesthetically appealing webpages, user interfaces for online apps, and user interfaces for many mobile applications. (Wikipedia). This separation can increase content accessibility, give greater flexibility and control in the definition of presentation characters, allow many web pages to share formatting by

providing the appropriate CSS in a separate.CSS file, and minimise structural content complexity and repetition.

- c. JavaScript: JavaScript is a high level, dynamic, untyped, and interpreted programming language. The ECMAScript language specification has standardised it. It is one of the three main technologies of World Wide Web content generation, alongside HTML and CSS; the majority of websites use it, and it is supported by all current web browsers without the need for plug-ins. JavaScript is a multi-paradigm language that supports object-oriented, imperative, and functional programming approaches. It is prototype-based and has first-class functions. It provides an API for working with text, arrays, dates, and regular expressions, but it lacks any I/O capabilities, such as networking, storage, or graphics, relying on the host environment for these. (Wikipedia)

4.3.2 The Back End: The back end is the server code that handles client requests and contains the logic to provide the relevant data back to the client. The database, which will persistently store all of the data for the application, is also part of the back end. This application's back-end code includes the following:

- a. PHP: PHP also known as Hypertext Preprocessor is a server side scripting language that is embedded in HTML. It is used to handle dynamic content, session tracking, databases, and even to create full e-commerce sites. PHP scripts can only be run on servers that have PHP installed. The computer accessing the PHP script requires a web browser only. The difference between PHP and client language like HTML is, PHP codes runs on a server while HTML codes are render on a web browser.

- b. MYSQL:** MySQL is a relational database management system (RDBMS) based on structured query language that is free and open source (SQL). It is a component of the widely used LAMP platform, which consists of Linux, Apache, My SQL, and PHP. My SQL database is currently accessible on the most popular operating systems. It is compatible with BSD Unix, Linux, Windows, and Mac OS. My SQL is used by Wikipedia and YouTube. Every day, these sites handle millions of searches. My SQL comes in two varieties: My SQL server system and My SQL embedded system.

4.4 DATABASE IMPLEMENTATION

The online food ordering system would need a database to store all the order details, customer details and employee details to be able to work effectively. MySQL would be used to implement the database. MySQL was used because installation and setup is a simple task, it is open source and also inexpensive to maintain. MySQL Workbench would be used as the graphical user interface to make developing the database simple. The diagram below shows the database implementation for online food ordering system.

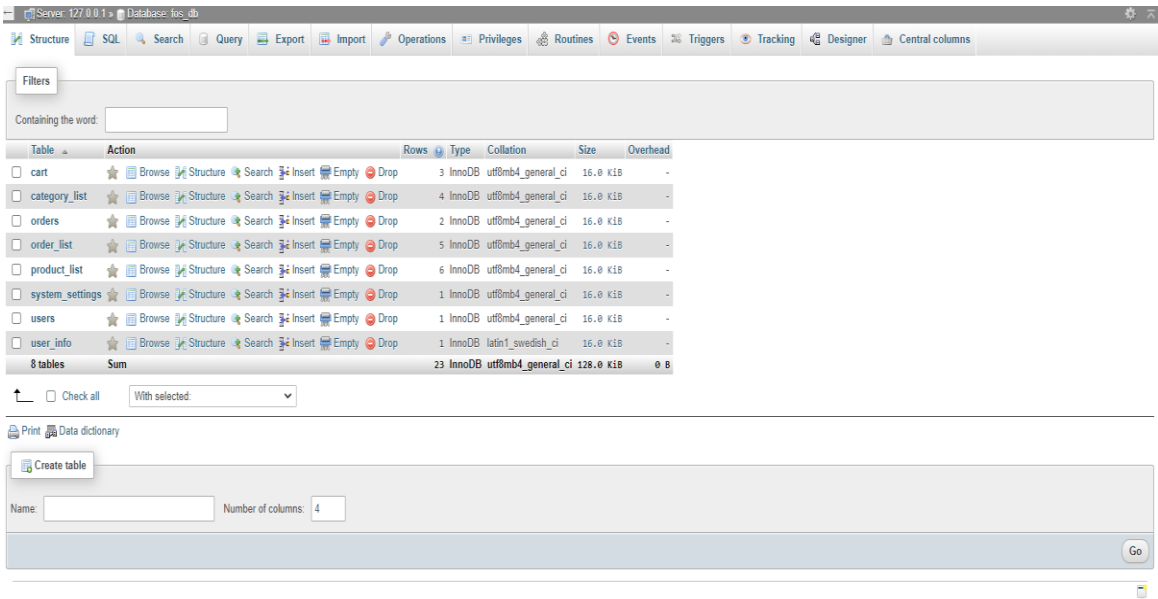


Figure 4.1: MySQL database implementation

4.5 RESULT OF THE FRONTEND IMPLEMENTATION

4.5.1 The User Interface Design

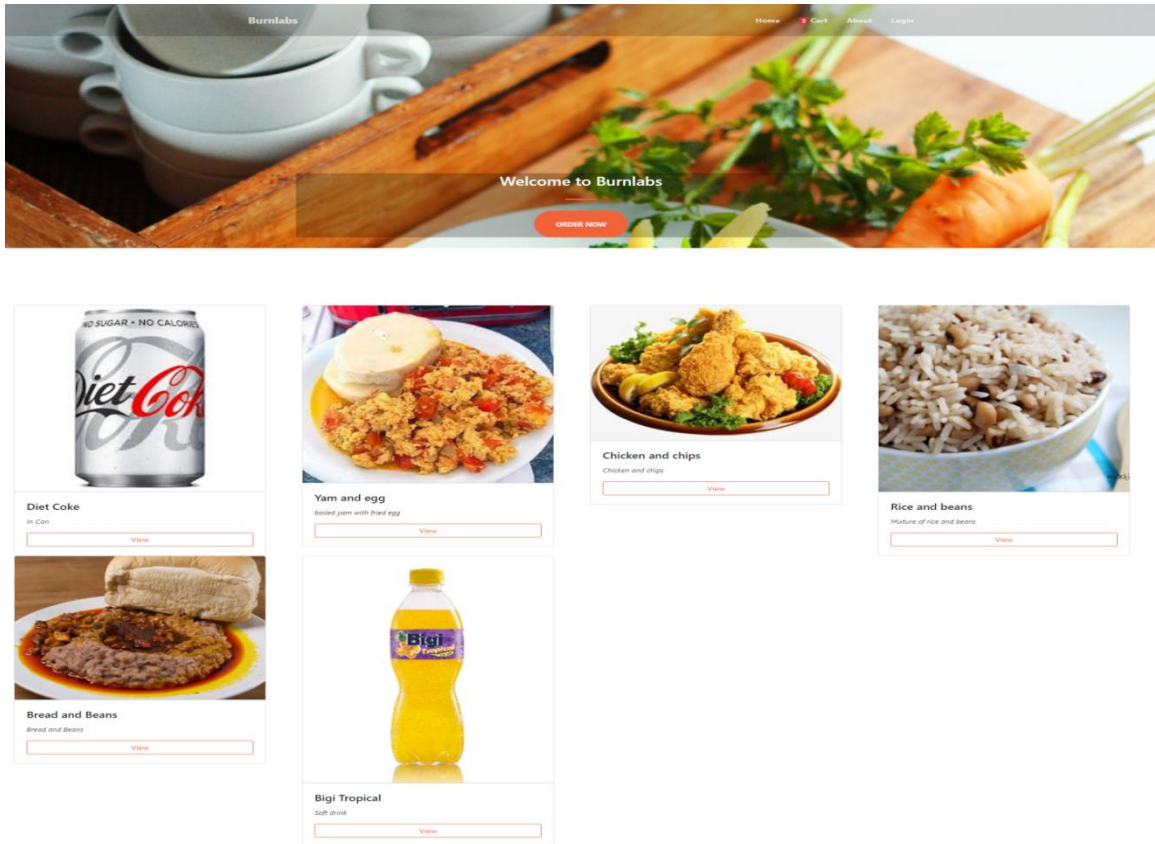


Figure 4.2.: Homepage

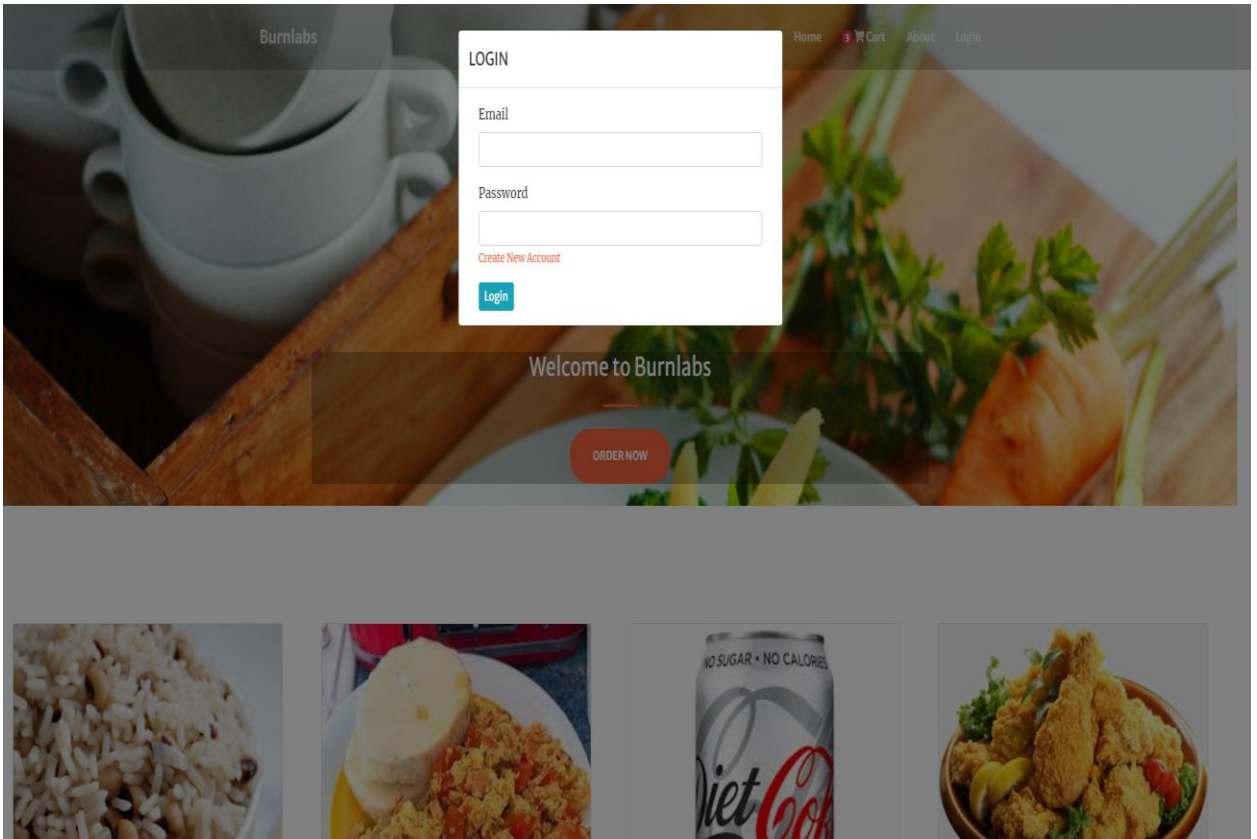


Figure 4.3: Login Page

Sign up

Firstname

Lastname

Email Address

Password

REGISTER

[Already have an account? Log in](#)

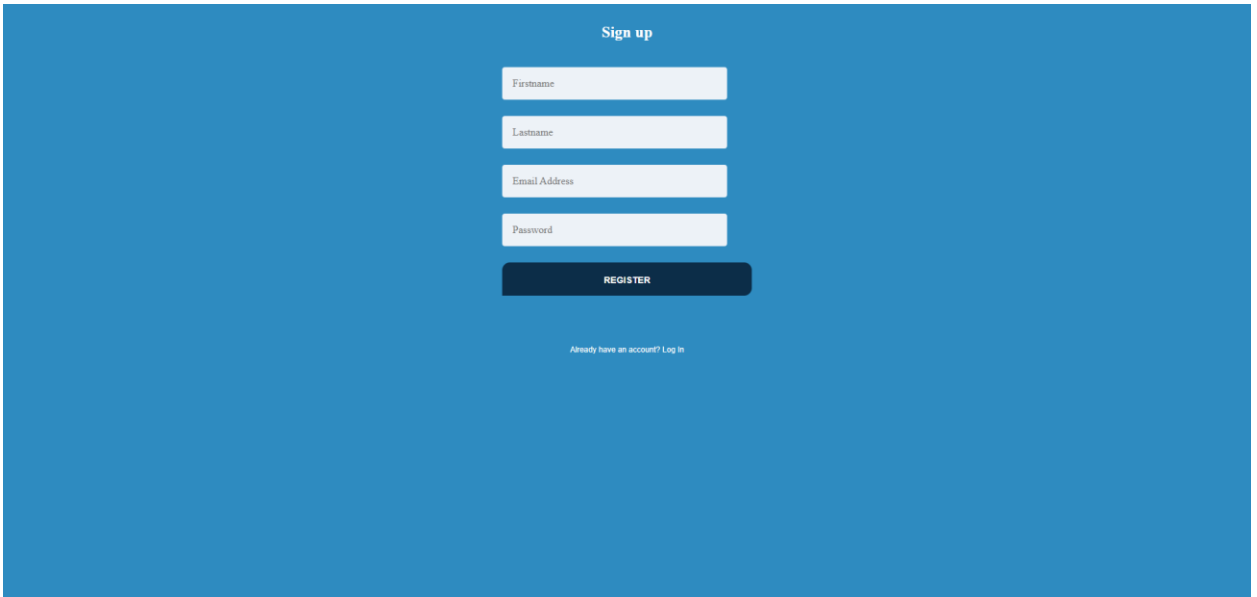


Figure 4.4: Register page

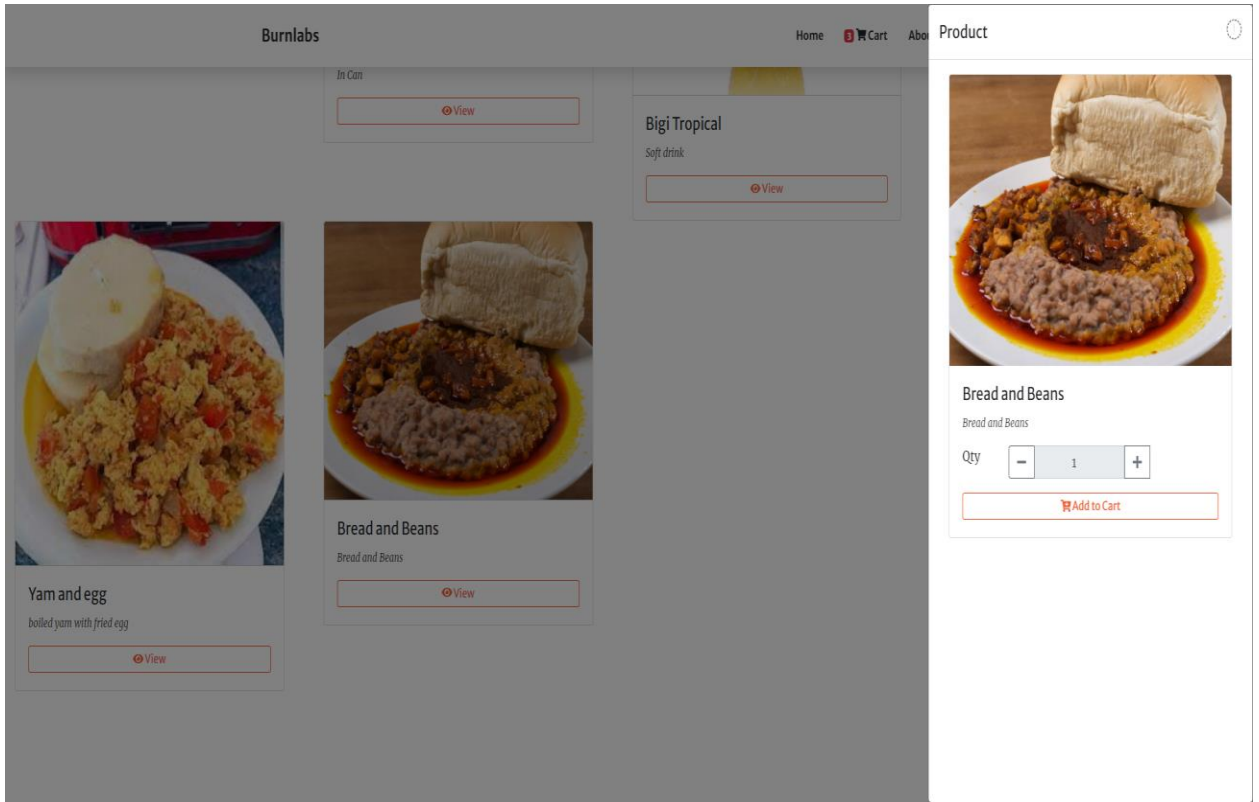


Figure 4.5 Product view page






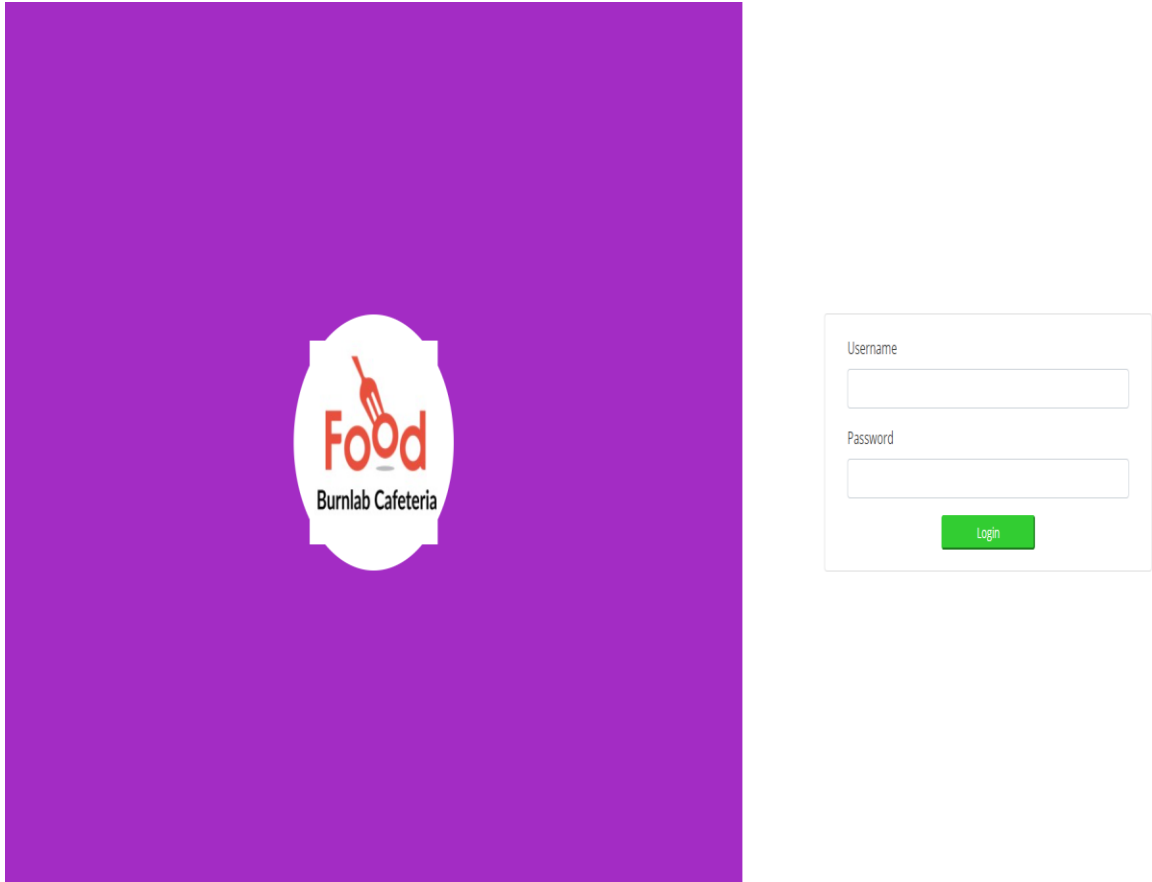
	Chicken and chips Desc: Chicken and chips Unit Price: 250.00 QTY: <input type="text" value="1"/>	250.00
	Bread and Beans Desc: Bread and Beans Unit Price: 500.00 QTY: <input type="text" value="1"/>	500.00
	Bread and Beans Desc: Bread and Beans Unit Price: 500.00 QTY: <input type="text" value="1"/>	500.00

Figure 4.6: Cart list

4.5.2 Administrator User Interface:



The image displays the administrator login page for Burnlab Cafeteria. The page features a solid purple background. In the center, there is a white circular logo with a red fork icon above the word "Food" in red, and "Burnlab Cafeteria" in black below it. To the right of the logo is a white login form with a thin border. The form contains two input fields: "Username" and "Password", each with a corresponding text label above it. Below the "Password" field is a green "Login" button.

Figure 4.7: Admin Log in page

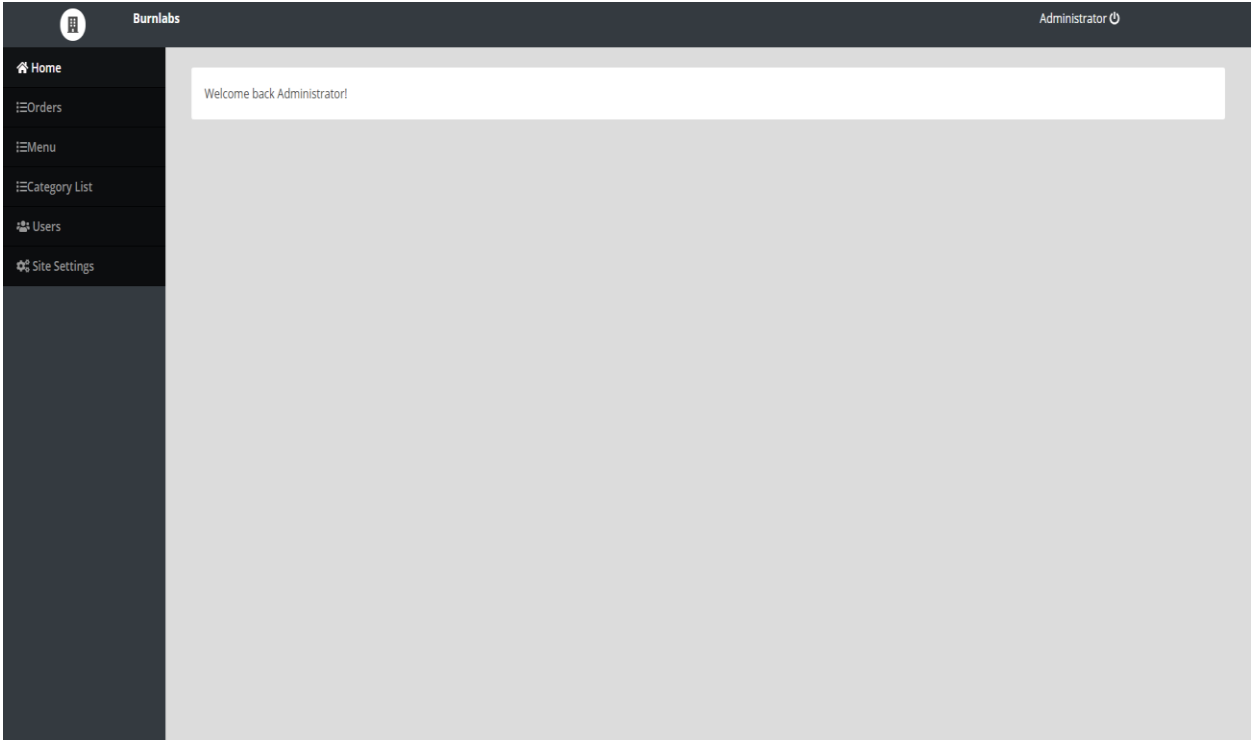


Figure 4.8: Admin Dashboard

The screenshot shows the 'Burnlabs' administrative interface. At the top, there is a dark header with the 'Burnlabs' logo on the left and 'Administrator' with a user icon on the right. A dark sidebar on the left contains navigation links: Home, Orders (highlighted), Menu, Category List, Users, and Site Settings. The main content area displays a table with two rows of order data. Each row includes an order number, customer name, address, email, mobile number, status (Confirmed), and a 'View Order' button.

#	Name	Address	Email	Mobile	Status	
1	James Smith	adasdasd asdadasd	jsmith@sample.com	4756463215	Confirmed	View Order
2	James Smith	adasdasd asdadasd	jsmith@sample.com	4756463215	Confirmed	View Order

Figure 4.9: Orders page

Burnlabs Administrator

- Home
- Orders
- Menu**
- Category List
- Users
- Site Settings

Menu Form

Menu Name:

Menu Description:

Available

Category:

Price:

Image: No file chosen







#	Img	Room	Action
1		Name : Diet Coke Description : <i>In Can</i> Price : \$20.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
2		Name : Chicken and chips Description : <i>Chicken and chips</i> Price : \$250.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
3		Name : Bigi Tropical Description : <i>Soft drink</i> Price : \$150.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
4		Name : Bread and Beans Description : <i>Bread and Beans</i> Price : \$500.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
5		Name : Rice and beans Description : <i>Mixture of Rice and beans</i> Price : \$300.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
6		Name : Yam and egg Description : <i>ballad yam with fried egg</i> Price : \$500.00	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Figure 4.10: Add/update/delete menu page

The screenshot displays a web application interface for 'Burnlabs'. The top navigation bar shows the user is logged in as 'Administrator'. A dark sidebar on the left contains navigation links: Home, Orders, Menu, Category List (highlighted), Users, and Site Settings. The main content area is divided into two sections. On the left is a 'Category Form' with a text input field labeled 'Category' and 'Save' and 'Cancel' buttons. On the right is a table with the following data:

#	Name	Action
1	Beverages	Edit Delete
2	Best Sellers	Edit Delete
3	Meals	Edit Delete
4	Snacks	Edit Delete

Figure 4.11: Category List

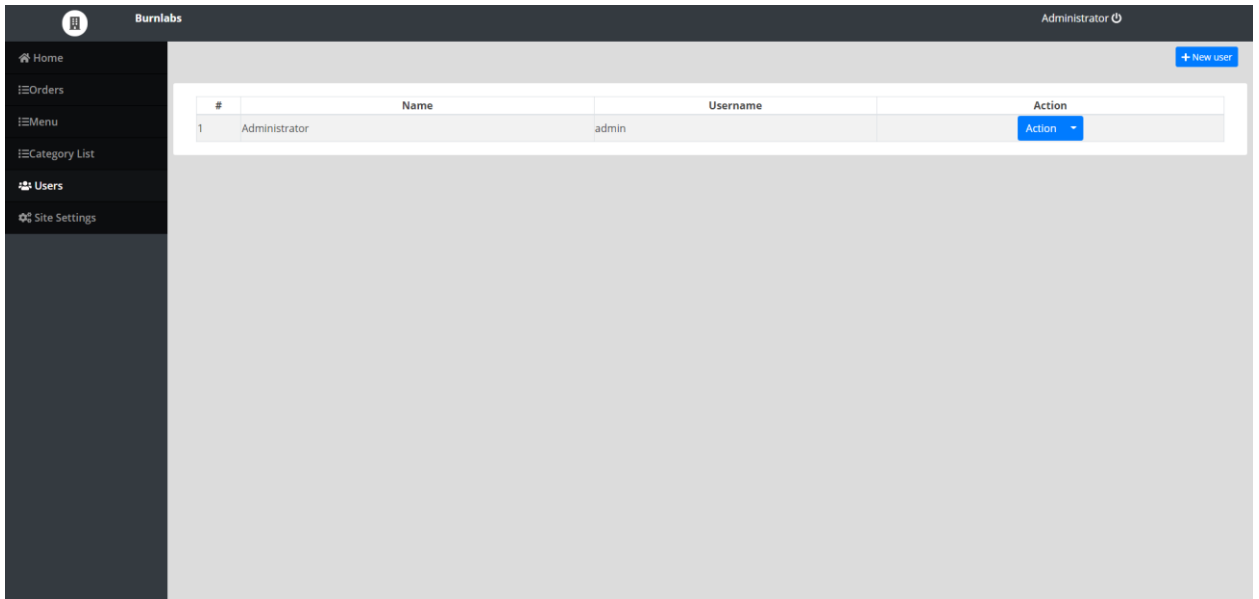


Figure 4.12: Manage users page

CHAPTER 5

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 INTRODUCTION

The purpose of this chapter is to describe the objective evaluation of the project, the limitations and obstacles faced during its development, potential future plans to improve the project, and recommendations for future online food ordering system initiatives.

5.2 IMPACT OF PROJECT ON THE MOUNTAIN TOP COMMUNITY AND CAFETERIAS

The online food ordering system introduces a new method of distribution for the cafeterias: online retailing. Online retailing can help cafeterias in a variety of ways. The online food ordering system will allow the cafeterias to reach many more students and staff, particularly those who live off-campus. They would no longer be deterred from ordering food because of the long distance.

It would also assist cafeterias in keeping track of product information through customer interests or choices, as well as reviews left by customers. The system's reports would also assist cafeteria vendors in better managing their inventory. For example, if the cafeteria vendors discover which foods are the most popular based on the reports, they may decide to increase production of those foods.

5.3 FUTURE ENHANCEMENT

The following are the possible improvement to the online food ordering system.

- a. Payment options: such as paypal, flutterwave
- b. Delivery options
- c. Process order as guest
- d. Set up an SMS notification system to alert consumers when their food is ready. When there is no internet connection, use Firebase Cloud Messaging instead.

5.4 LIMITATIONS

- a. Insufficiency of time.
- b. No stable internet connection

5.5 CONCLUSION

Online food ordering system can make it easier to order for food instead of waiting in line for the order to be taken by the waiter. The online food ordering system allows customers register online, read the e-menu card, and select food from the e-menu card to order meal online using the application. The chef will be able to see the results on the screen and begin processing the order once the customer has selected the needed food item. This application eliminates the need for a waiter or decreases the waiter's duty. The benefit is that in a full cafeteria, there is a potential that the servers may be overwhelmed with orders and unable to serve them.

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