

**AN IMPROVED ONLINE FOOD ORDERING SYSTEM**

**BY**

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**AWARD OF DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**2022**

## **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.

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**MADU UGOCHUKWU JEFF**

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**Date**

## CERTIFICATION

This Project titled **An Improved Online Food Ordering System** prepared and submitted by **MADU UGOCHUKWU JEFF** in partial fulfilment 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, the creator of heaven and earth, by whose grace I am alive to complete this project. I also dedicate this work to my father, Mr. Madu Celestine and my mother, Mrs. Madu Edith Nneka for their support and prayers.

## **ACKNOWLEDGEMENT**

My sincere gratitude goes to the God who created all things and manifest, loving-kindness when I was in need. I also appreciate the staff of the department of computer science and mathematics and the entire staff and management of Mountain Top University for the enormous impact they have had on my life academically and spiritually from the person of the Chancellor, Dr. D.K Olukoya, the Vice-chancellor Prof. Elijah Ayolabi. I specially recognize my supervisor, Dr. A. A. ONIFADE for believing in me and pushing me to do more. I also recognize Dr. M.O. Adewole, Dr Funmilayo Kasali, Dr C.P. Igiri, Mr. J.A Balogun and a host of other lecturers who have made special contributions to the success of my academic pursuit.

## **ABSTRACT**

The aim of this study was to develop a food ordering system online, for students of Mountain Top University in which they can be able to order food from the cafeteria. The study identified various user and system requirements, specified the system design and implemented the system.

Review of literature was done to understand the current system. Informal interviews were used to identify the system's user and system needs from system users. The system design was specified using UML diagrams, such as use case, sequence and class diagram. The database was implemented using Xampp. The Frontend was done using HTML and CSS. The backend was implemented using PHP.

The results of the system showed the implementation of the system database for storing the information alongside the front-end the website. The results revealed that in the system, the customer was able to place orders, review the orders, replace the order and receive confirmation. The admin sees the order placed in the admin page, the admin is able to update the menu and manage category of food.

The study concluded that using the system within Mountain Top University will help to students in getting their food.

**Keyword:** Food Ordering, Admin Page.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Online food delivery sets up food menu online that allows restaurant to accept, manage and deliver orders placed over the internet. With the recent global pandemic situation of the coronavirus outbreak, it impacted majority of businesses they experienced financial difficulties, the nature of traditional business has been drastically altered most people had to stay at home avoid interacting with other people. Current technology advancement makes it easier for people to order food through food delivery applications restaurants and café around university have applied this application. Nowadays the use of internet is rapid and technologies associated with it several opportunities are coming and have also been made through it the use of internet, it makes electronic payment possible which is used in this system, in reaction to the COVID-19 outbreak, some eateries have had to alter their business strategy (DianaGavilana, Balderas, Susana, & Gema, 2021). food delivery for businesses has shown to be a viable avenue for reaching customers and providing higher-quality services. in these times and play a significant influence in business sustainability. Along with making ordering easier, it offers way to reach to customers that live far from the restaurant this retains customers because some customers might not be able buy from the restaurant because of distance. Most customers prefer online applications since the food-on-click function allows them to have meals delivered straight to their door. Although many people leave positive comments since it is so useful, some individuals are still dissatisfied with the services. This project aims of create an online food delivering system and booking system so that when the

customer comes, they can just pick up their food instead of waiting. This project will make the restaurant more efficient by reducing time consuming, reduce human errors and providing good and quality services to customers.

## **1.2 Statement of the Problem**

With the rise in technology people are seeking for more ways to purchase products with much ease and still maintain cost effectiveness. The current way of getting food in which students having to take long queues, manage to make do with the heat spending long time in the cafeteria to get their food. Without visiting the cafeteria or the food seller, meals can be bought online and paid for.

## **1.3 Aim and Objectives of the Study**

To allow customers to check food availability, pricing, and place orders and also all the restaurant manage the site. It would consist of two components the management end and the client end, the management end will be able to modify information about in the menu list, the pricing, and storing information regarding orders, the consumer end will let the client to browse the food menu and order food. This would help customers reduce the time taking from initially going from their home getting to the restaurant buying their food and going back. The system will provide a user-friendly experience for both consumers and employees this will increase the efficiency, ease of buying food.

## **1.4 Scope and Limitation of the Study**

This system will cover the Food ordering for Students in Mountain Top University.

## **1.4 Significance of the Study**

Many restaurants in the modern period have opted to prioritize quick order preparation and delivery over providing a great eating experience. For a long time, food orders were placed through telephone. this system produced many disadvantages at first the customer

must have a physical copy of the restaurant's menu or will have to ask what is available before making decision to order. Secondly, the orders placed strictly oral communication, which makes receiving fast feedback much more difficult on orders placed. This frequently causes misunderstanding, the current system is also difficult for the restaurant itself, as they must have a staff to handle orders in the phone. In Mountain Top University the current system of order you'll have to go to the cafeteria place your orders and come back later to check if the food ordered is ready, this often led to waiting or coming back to check if the food ordered is ready. The system proposed for use in Mountain Top University cafeteria. This system's primary benefit is that it makes placing orders easier for both student and cafeteria. The current menu with all available options and pricing is displayed to the consumer when they visit the ordering page. when order is clicked, the items is then added to cart so that the customer can review. This instantly show visual confirmation of item selected and ensures that was indeed what was intended.

### **1.6 Methodology of the Study**

- I. A survey of literatures and related works will be done in order to identify and understand the existing and manual way of food ordering.
- II. both user and system specifications of the system will be identified by going to cafeteria and doing an informal interview.
- III. The system design will be specified using the Unified Modelling Language (UML) diagrams such as: E-R diagram, Use case diagram, Sequence diagram, and Class diagram as well as system architecture.
- IV. MYSQL & PHP will be used for the backend / relational database of the online food ordering system. The front end will be implemented using HTML, CSS.

## 1.7 Definition of Terms

- a. **Delivery Hours** you set by the cafeteria during which they will accept deliveries.
- b. **Online Food Ordering** are services offered by restaurants in which once the food has been ordered it will be delivered or available for pick-up.
- c. **Cafeteria** a restaurant where customers are served at a counter and bring their food to tables on trays.
- d. **Internet** is a vast system that connects worldwide. People may communicate and exchange information over the internet from any device that is linked to the internet.
- e. **Technology** is knowledge or a set of tools used to solve problems and for accomplishing objectives beneficial to man.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The fast expansion of online meal delivery services has caused massive change in the traditional restaurant business. Some chain restaurants built websites where customers could buy take-out, but these services were confined to the business's own locations. (J, Garzon, Brooker, Sakarkar, & Carranza, 2020). Food delivery will be of great help to students in Mountain Top University to order food quickly.

#### **2.2 History**

During the 1890s Food delivery is known as the "box-bearer" dabbawalla. Chinese food delivery first appeared in the United States in 1922, when the Los Angeles café kin-Chun advertised itself as the only place on the West Coast that prepares and serves authentic Chinese meals. The restaurant used new telephone technology to fulfil orders, and they would fulfil orders as late as 1am. Individuals no longer need to live close to their restaurant of choice, and vehicles makes delivery quite simple. The group expanded to other nations, such as the United States. Meals on Wheels is still active today, providing food to the homebound in communities across the world. Customers were confident that the pizza they ordered will arrive within 30 minutes. The corporation would eventually be sued over this assurance, with plaintiffs claiming that the 30-minute delivery window was so short that it encouraged reckless driving.

In 2000s food delivery gained massive popularity as smartphones became more popular food workers order food with their mobile devices easily without having to go outside and people that decide they want to cook or they are tired with few clicks the food is delivered.

### **2.3 E-commerce**

Online platforms have been a focus today as an instrument to help a several everyday activities such as e-commerce including meal ordering, online banking, social networking and others. Although the circumstances of the pandemic s impacted most companies, studies have revealed there is a rising quantity of E-Commerce expenditure internationally. Although customer trust may impact the overall success of E-Commerce in emerging nations such as Malaysia (Mohamad, F, N, & Bakar, 2017). A huge internet users form the Middle East and North Africa nations report utilizing E-Commerce to acquire things more regularly which they typically would have purchased from a shop since the breakout of the coronavirus in 2020 (Dubai Future Foundation 2020 Life after covid-19, 2020). These pieces of evidence show E-Commerce would have even greater dominance over the market, and more businesses would join digital platforms with the emergence of new business chances and frontiers in the near future. The food ordering application that utilizes E-Commerce is a sort of application which normally enables consumers to make orders on-the-go through the internet, the customers plays a vital part so that a good sales increase may be accomplished (Maind, UmeshKumar, Shraddha, Megha, & B., 2017).

### **2.4 Consumer Preferences and behaviour**

Research on Consumer preference and attitudes towards online food goods (Kim Dang, Xuan Tran, & Tat Nguyen, 2018) analyses how the internet has transformed people’s food-buying behaviour. The research is noteworthy since it reveals the underlying consumers’ Concerns about food safety information, particularly for online food goods. In contrast with other items, customer preference and attitudes regarding purchasing food online differences in the perceived risks and information quality and information quality does not play a major role in influencing their purchase behavior (Li & Bautista, 2019).



## **2.5 Technological Nature**

Mobile ordering applications have produced a big shift in meal delivery and pickup industry (Onyeneho & Hedberg, 2017). Running an online meal ordering system gives flexibility to the firm, which will eventually enhance sales and profitability. The ease speed and comfort, clients opt to buy meals online since it is truly at their fingertips. According to a Harris study, millennials (under the age of 30) are your most important target demographic today more than 97 percent of millennials use their phone for anything.

## **2.6 Impact**

Grubhub, the first online food delivery firm, was formed 2004, their objective was to replace a single webpage for all menus. Postmates and other organizations operate in a somewhat different way than Grubhub these newer firms, formed in 2011 and 2013, respectively, supply restaurant menus as well as out sourcing delivery drivers, akin to Uber or Lyft. These firms adopted very similar expansion tactics, starting in a few places and then extending to others depending on their success (Duch-Brown, Grzybowski, Romahn, & Verbove, 2017). Online meal delivery services routinely promise to enhance restaurant sales; in fact, a study of thousands of restaurateurs revealed that providing online delivery increased sales for 60 percent of restaurant owners. (Collision, 2020). in the pandemic, food delivery demand skyrocketed; an instance, in China, online food delivery and it's service orders climbed by 20 percent as of January 2020 alone. businesses such as Doordash have even begun cutting or removing their fees in response to the spike that is happening in the United States.

## **2.7 Challenges**

- I. Shifting Customer Preferences: Consumer perceptions and behaviors are changing rapidly. To stay up with and maybe even influence such developments, organizations must harness deep consumer insights.

- II. Unstable Market Prices: food cost fluctuates rapidly, several factors impact the costs of food, firms dealing in food delivery sometimes cannot follow or stay up with the market prices and struggle to establish the proper pricing strategy.
- III. Maintaining Food Quality Standards: Due to the rise in demand for food orders, restaurant meal delivery to customer's house while keeping top quality becomes challenging. The disparity between the food that is served in the restaurant and the one being delivered to the door step poses a huge hurdle that meal delivery firms should try hard to solve.
- IV. Managing Customer Expectations Customer satisfaction is of paramount importance. Regardless matter how huge the market acquired may be, it's a fruitless endeavor if the businesses are unable to satisfy customer needs. The customer satisfaction aspect the duty of everyone working in the restaurant not only the delivery partners
- V. Improper Food Handling: Just a few food firms have sufficient systems in place to guarantee that their drivers handle food safely.
- VI. Threat Of Bigger Players: Food delivery firm that is well known takes up a higher market share and leaving little opportunity for others to compete. This offers the main hurdles for smaller and rising in the industry to develop a larger consumer base
- VII. The Logistics Dilemma: The logistical issues encountered by food delivery start-ups are significant. They have to select whether to maintain the delivery radius confined to a few locations or cater to larger location, the scope of obtaining greater orders from a certain area, assigning the proper number of trucks, assuring the food quality.

## 2.7 Related Works

There are various meal delivery firms in Malaysia with many online food delivery services, FoodPanda is one of the firms that was first delivery company in Malaysia. (chai & Yat, 2019) Restaurants also started using different technology-based system to increase the efficiency of the system (Sullivan, 2015). With the help of this technology, hotels and restaurants will be able to expand their online food ordering business, delivery to customers' locations can be done fast and easily with modern technology.

Restaurant personnel then review orders using an easy-to-use desktop application to ensure quick processing and delivery to guests. (T.Deepa & P.Selvanmani, 2018) .According to Sheryl E. and Kims , research shows that the perceived ease and flexibility of online food ordering services were important to consumers.

According to (Das, 2018) their analysis the system is convenient, effective and easy to use, which is expected to improve the entire restaurant business in the coming period. The consumer's perception on meal ordering online differs from person to person, and perception is restricted to some extent by the availability of sufficient connectivity and exposure to online food services (Rathore & Chaudhary, 2018). Even though most of the organizations used to supply meals to the employee daily it is an ineffective solution as the individuals cannot select meals according to their preferences, it consists of many negative consequences as the employees are misguided with unhealthier eating patterns, it is more effective if there is an effective method of ordering meals based on preferences from inside the corporation or from outside restaurants (Manoj, Chamidu, Dinushika, & Eranga, 2019). In this day and age of fast food and takeaway, many businesses have opted to prioritize quick preparation and order delivery above providing a meaningful dining

experience. (Carsten, Alexander, Thomas, & Wrulich, 2015). In (Kirti, Shinde, Ingale, & Solanki, 2015) automated food ordering system which will keep track of customers' orders. They developed a meal ordering system for several types of eateries in which users can make order with only one click. They implemented an android application, the front end was developed using JAVA, at the backed MySQL database was used. In (Chavan, jadhav, Korade, & Teli, 2015) when the customer approach to the restaurant, the saved order can be confirmed by touching the smartphone. The list of selected pre-ordered items will be shown on the screen and when confirmed an order slip shall be printed for further processing. With his system Pre-ordering is made simple and convenient from customers. (Amogh, Vasani, & Shikha, 2017) aims to implement a restaurant ordering system which help each customer to wirelessly order food straight from the e-menu shown on the touch screen on each customer table without disturbing any staff and send the order straight to the cook room, the whole process can also be monitored with user side app, when the order is placed, the data is sent to the server, which will compile the data in order to prioritize the customers and to group the orders before sending the order to the cook. (Mageshwari, Gangabhavani, & M.Anitha, 2017) propose the architecture for utilizing the android application for taking orders from the customers using separate handheld for every table in the restaurant, menu is updated by chefs with the available quantity.

## CHAPTER THREE

### METHODOLOGY OF THE STUDY

#### 3.1 Method of identification of User and System Requirements

Informal interviews and evaluation of existing methods was conducted in order to identify how students purchase food what location do they prefer their order to be delivered to, the user and system requirement of the software were identified during this project.

The methodology covers the techniques, tools and strategies utilized to accomplish the particular aims of the food ordering system The system was designed using the following approach: defining requirements, analyzing requirements, designing the system, implementing, testing, and validating. The following procedure illustrates the phases involved

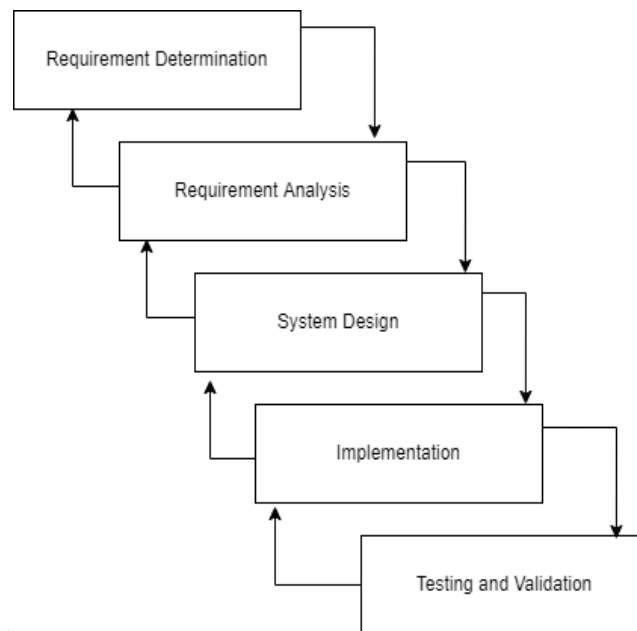


Figure 3.1 Diagram showing the system methodology

### **3.2 Research**

Research on current manual way of getting food in Mountain Top University Cafeteria was conducted, which include, how they operate to determine the requirement of the system.

**This method has the following advantages:**

- i. It resulted in wide range of opinions, in manual way of ordering food which allowed the researcher to better understand the present manual system.

### **3.3 Methodology**

The waterfall model is a sequential model that divides software development into multiple stages, each of which is intended to complete specific activities throughout the system development life cycle phase. Winston Royce invented it in 1970, and it was the first SDLC approach used for software development. The Waterfall model depicts the software development process as a consecutive linear flow. The waterfall approach emphasizes a coordinated progression between designated stages. Each phase has a set of activities and deliverables that must be completed before the next phase can begin. Using the waterfall approach, the project is divided into sequential stages, each of which is completed in order with no overlap. A substantial amount of written documentation is also used to maintain tight control throughout the project's lifespan (use-case specification, requirement specification and design specification).

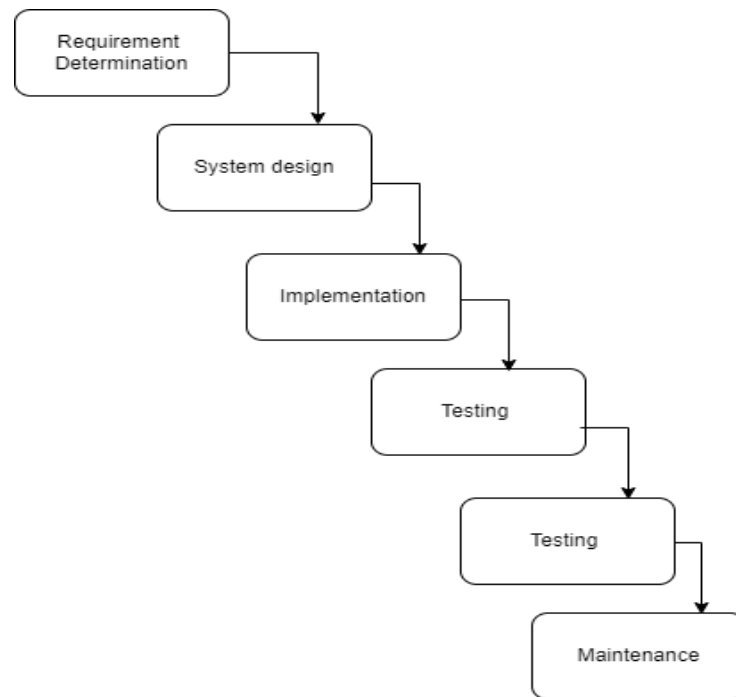
#### **Reasons for selecting Waterfall**

- i. It is easy to understand: Each stage in the model is well defined and it has clear and well-known milestones, it focuses most on a clear, defined set of actions which allow me to understand what to do each stage and therefore have enough time to prepare for it.

**ii.** High integrity and completeness of project: Since the Waterfall model is so thorough, chances are that the finished product will be significantly more formed and complete than those produced by other project management techniques. This is because an entire stage of the process is devoted to finding errors and flaws in the newly developed system. As a result, when products are finally introduced after going through the waterfall process, they frequently undergo lengthy debugging.

**iii.** Determine the end goal early: The requirements and goals are established and confirmed at an early stage of the software development life cycle (SDLC) when Waterfall is used. For this food delivery system development project, which is thought of as a small project with clear goals, this step increased my awareness of the overall goal from the start. In contrast to Scrum, which divides projects into discrete sprints, Waterfall always places a focus on the end goal. The waterfall will make it impossible to stray from the original goal.

## Phases of waterfall



*Figure 3.2 Phases of Waterfall model*

There are several phases in the waterfall model which includes requirement analysis, system design, implementation, testing, deployment and maintenance.

- i. **Requirement gathering and analysis:** The customer is contacted for all software-related requirements, which are subsequently analyzed. The analysis section's goal is to get rid of any incompleteness and inconsistencies.
- ii. **Requirement specification:** The studied requirements are described in a (SRS) document that is software requirement specification.
- iii. **System Design:** Software requirement specification (SRS) documents contain a description of the studied requirements. Between the development team and the clients, the SRS document serves as a contract. By reviewing the SRS



document, any future disputes between consumers and developers may be settled.

iv. **Implementation**

During implementation stage, the project team builds the actual product. The bulk of the code for the software is developed at this stage.

They refer to the design documents and verify that their solution follows the design. They also undertake numerous additional things like a senior developer checking the other developers code for any errors whilst other developers perform static analysis of the code.

v. **Testing**

In testing phase several testing techniques in testing phase, several testing techniques are used to examine the functionality and behavior of the system

### **3.4 Requirement Specifications**

#### **3.4.1 Functional Requirement Specification**

Website will be provided the following functionality:

- I. Create an account.
- II. Manage their account.
- III. Log into the system.
- IV. Select an item from the menu.
- V. Navigate the cafeteria online menu.
- VI. Customize options from the selected item.
- VII. Review their current order.

- VIII. Remove an item from their current order.
- IX. Provide delivery and payment options.
- X. Place an order.
- XI. Receive confirmation on placed.
- XII. Add update, delete option from a given category.
- XIII. Set price for a given food item
- XIV. change price for a given food item.
- XV. change other information description, photo for a given food item.

### **Order Retrieval System**

This component capability is intended for usage solely by restaurant personnel and performs the following functions:

- i. It retrieves new order from the database.
- ii. It displays the orders in a way that is easily readable, graphical.
- iii. It marks an order as having been processed and remove it from the list of active orders.
- iv. Add new, update, delete food item from the menu

### **3.4.3 Non-Functional Requirement Specification**

- i. **Performance:** It works very well with short response time, high throughput and high availability.
- ii. **Usability:** The system should support ease of use it shouldn't be complex to understand and use. The user interface should be user friendly.

- iii. **Robustness:** It represents the system shall validate data entry and prompt the user when user entered invalid data. Then the new system that we develop validates the data entry
- iv. **Efficiency:** Efficiency requirements represent the system's ability to produce outputs with minimal wastes. Duplicate processes that are held in the existing system are eliminated and increase the throughput of the system. The system is very fast so that it reduces wastes of the resources and time
- v. **Security:** The system provides or contains user name and password for each users based on their privilege. This performs the following activity:

### 3.4 Tools and Techniques

- a. **CSS:** Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML.
- b. **HTML:** HTML is an acronym for Hypertext Markup Language, is a markup language for the web that defines the structure of web pages. It is one of the most basic building blocks of every website
- c. **PHP:** PHP is an acronym for Hypertext pre-processor is a server scripting language, PHP is a widely-used, open-source scripting language. PHP scripts are executed on the server and a powerful tool for making dynamic and interactive Web pages.
- d. **Atom:** Atom is a free and open-source text and source code editor for macOS, Linux, and Microsoft Windows with support for plug-ins written in JavaScript, and

embedded Git Control. Developed by GitHub, Atom is a desktop application built using web technologies.

- e. **WampServer:** WampServer is a Web development platform on Windows that allows you to create dynamic Web applications with Apache2, PHP, MySQL and MariaDB. WampServer automatically installs everything you need to intuitively develop Web applications. You will be able to tune your server without even touching its setting files. Best of all, WampServer is available for free (under GPML license) in both 32- and 64-bit versions. WampServer is not compatible with Windows XP, SP3, or Windows Server 2003.
- f. **Draw.io:** diagrams.net is a free and open-source cross-platform graph drawing software developed in HTML5 and JavaScript. Its interface can be used to create diagrams such as flowcharts, wireframes, UML diagrams, organizational charts, and network diagrams.
- g. **MYSQL:** MySQL is a database management system. To add, access, and process data stored in a computer database, you need a database management system such as MySQL server.
- h. **Lucid charts:** Lucid chart is a web-based diagramming application that allows users to visually collaborate on drawing, revising and sharing charts and diagrams, and improve processes, systems, and organizational structures.

### 3.5 System Design

This system is designed with HTML for the written text and other and also CSS which is used design the page/background and for the database am using using PHP and my SQL for it. Which will be storing the user login and the admin login and for this which will also be put in the design process.

#### 3.5.1 Sequential Diagram

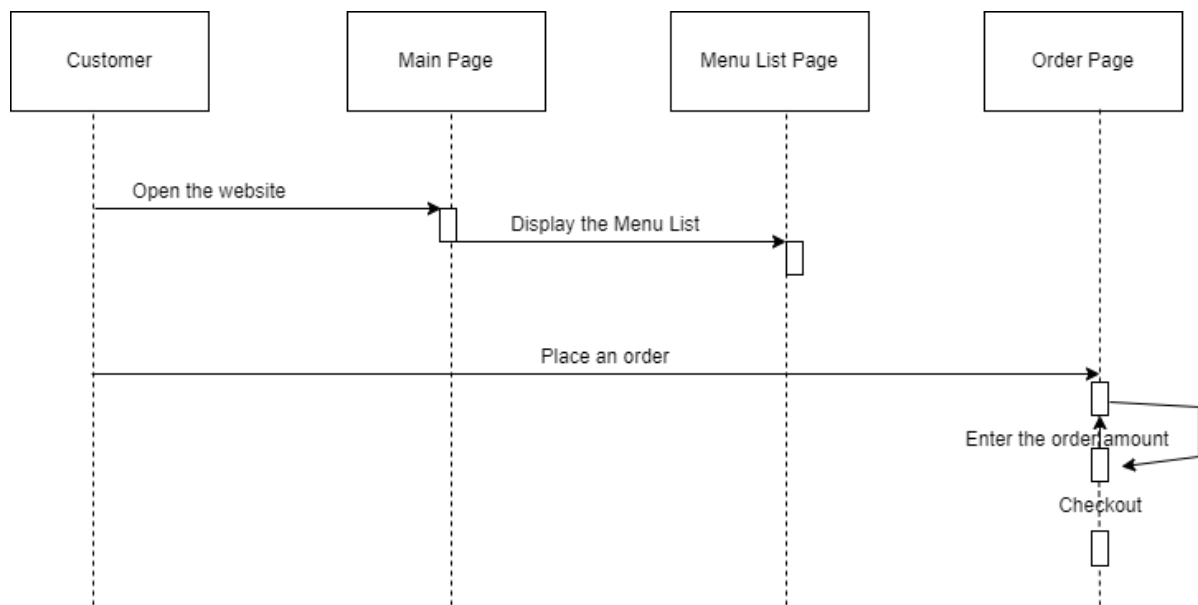
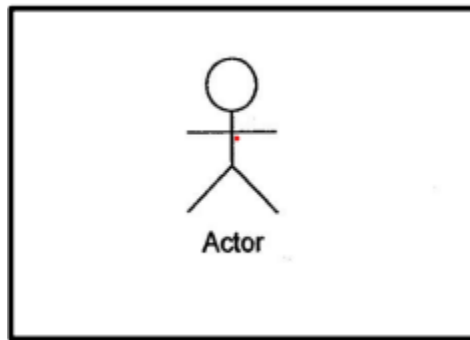


Figure3.3 Sequential Diagram

#### 3.5.2 Use Case Diagram

In software and systems engineering, a use case is a list of actions or event steps, typically defining the interactions between a role and a system, to achieve a goal.

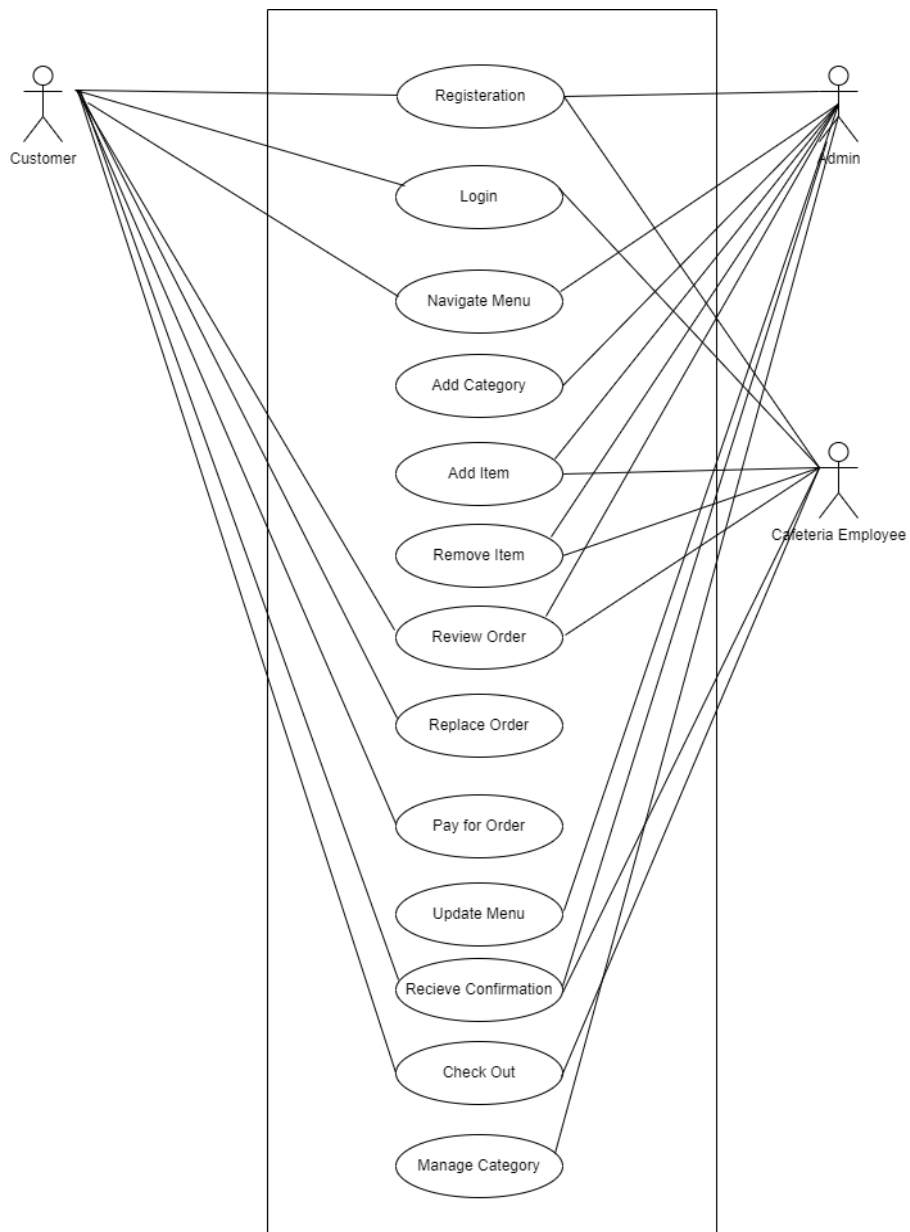
**Actor:** An actor in the Unified Modelling Language (UML) specifies a role played by a user or any other system that interacts with the subject



*Figure 3.3 Diagram of Actor*

### **3.5.3 Use Case Diagram**

A use case diagram at its simplest is a representation of a user's interaction with the system and depicting the specifications of a use case. A use case diagram shows the system and the various ways that they interact with the system.



*Figure 3 4 Use-Case Diagram for Online Food Ordering System*

### 3.5.4 Activity Diagram

An activity diagram shows a flow of control in a system similar to a flowchart or a data flow diagram.

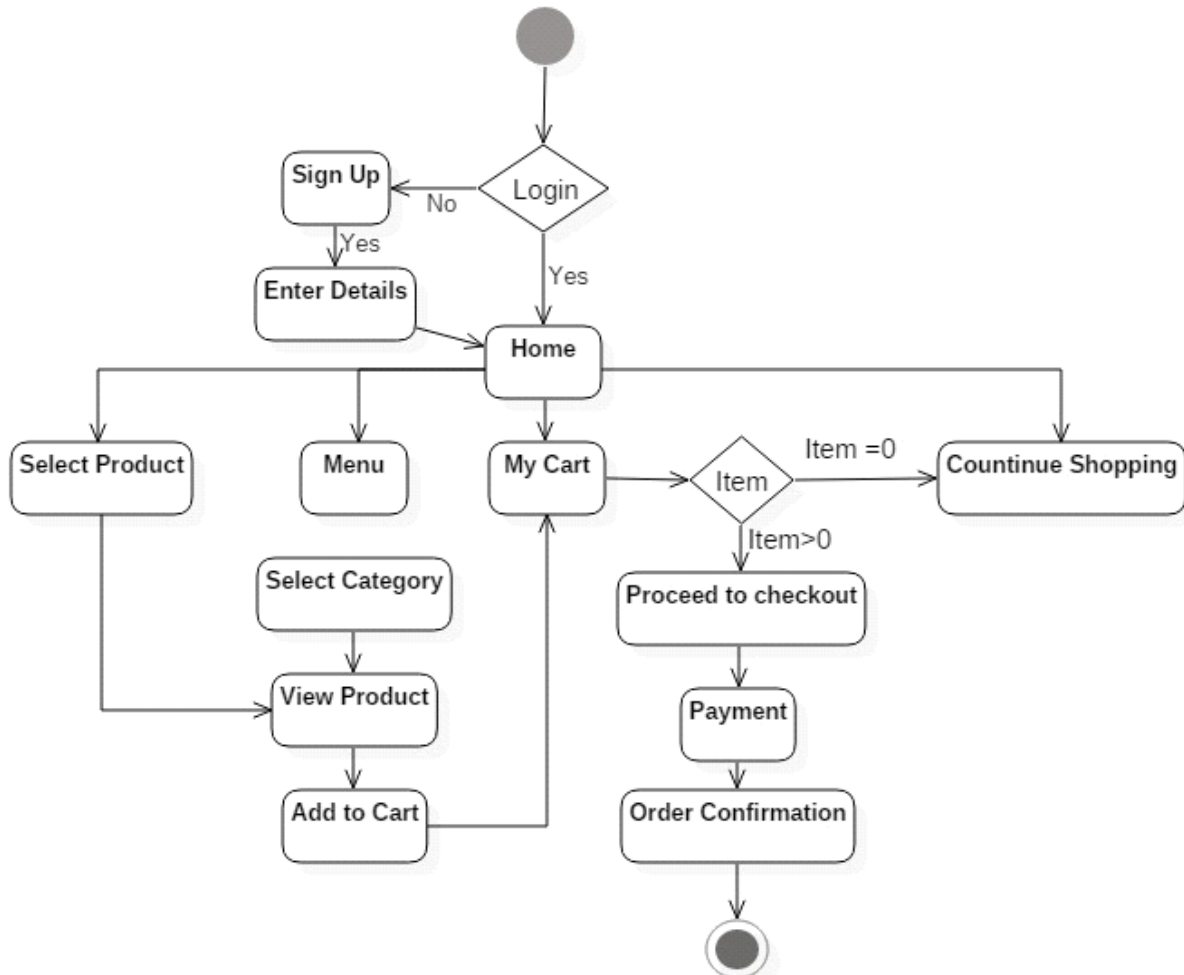


Figure 3 5Activity Diagram for Online food ordering system

### 3.5.5 Dataflow Diagram

In Online Food Ordering System Data flow diagram shows the overall flow of data inside the system, its focus is in the movement of data that enters and exits the system. The processes and transformations of data for Online Food Ordering System is specified in DFD Levels 0, 1 and 2

#### Dataflow Diagram Levels

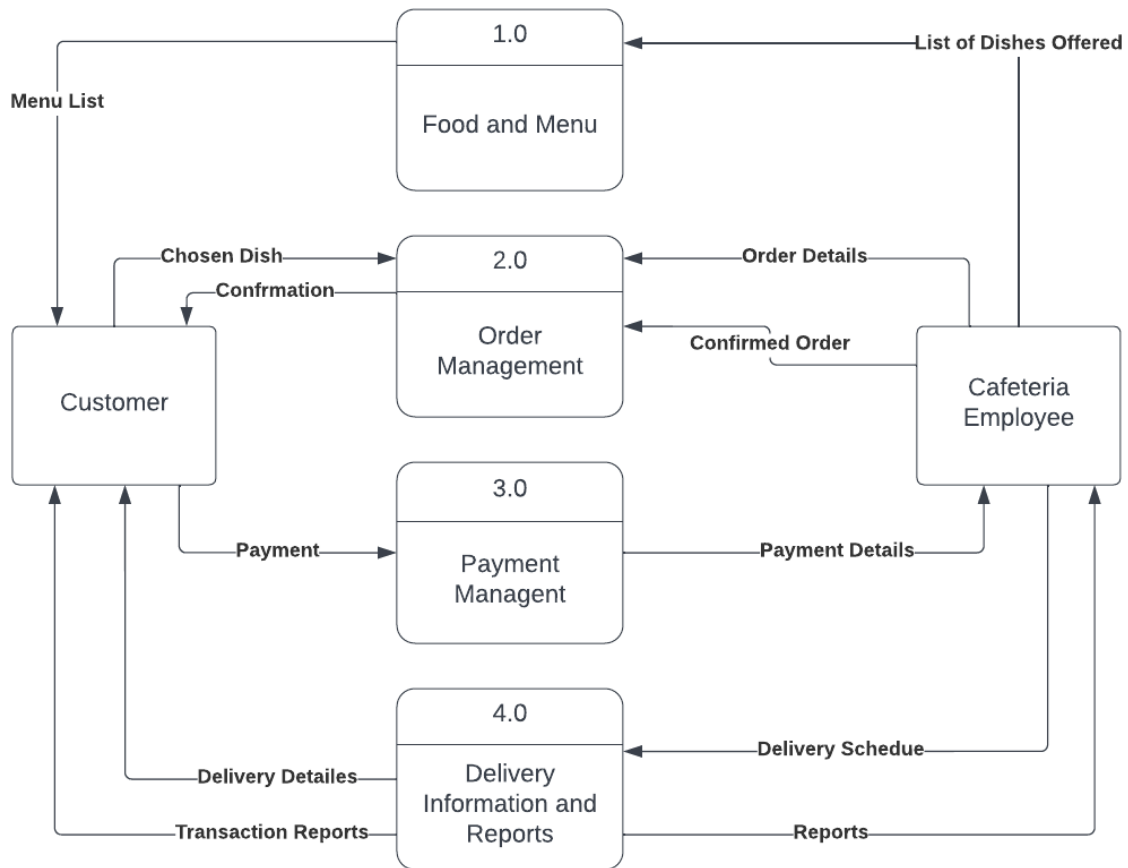
Data Flow Diagram Level 0: it shows the overall structure of the system as a single bubble. It also comes with incoming/outgoing indicators or arrow showing input and output data.





*Figure 3.6 Data Flow Diagram Level 0*

**Data Flow Diagram Level 1:** These processes require information such as details of dish, customer records, orders, menu and the reports overall from which it is served as the basis for which the Restaurant manage all orders and deliveries.



*Figure 3.7 Data Flow Diagram Level 1*

### 3.5.6 Entity Relation Diagram

An Entity Relationship (ER) Diagram is a sort of flowchart that shows how "entities" in a system, such as people, things, or concepts, interact with one another. ER Diagrams are most commonly used in the disciplines of software engineering, corporate information systems, education, and research to build or troubleshoot relational databases.

tbl-order	
id	int(10) unsigned
food	varchar(150)
price	decimal(10,2)
qty	int(11)
total	decimal(10,2)
order_date	datetime
status	varchar(50)
customer_name	varchar(150)
customer_contact	varchar(20)
customer_email	varchar(150)
customer_address	varchar(255)

tbl-food	
id	int(10) unsigned
title	varchar(150)
description	text
price	decimal(10,2)
image_name	varchar(255)
category_id	int(10) unsigned
featured	varchar(10)
active	varchar(10)

tbl-admin	
id	int(10) unsigned
full_name	varchar(100)
username	varchar(100)
password	varchar(100)

tbl-category	
id	int(10) unsigned
title	varchar(100)
image_name	varchar(255)
featured	varchar(10)
active	varchar(10)

Figure 3.11 Entity Relation Diagram

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the result of the cafeteria food ordering system and a description of the results obtained. It refers to the manner in which new system files are created, as well as their data flow diagram, database structure, and list of all parameters or input variables that will be utilized in the new system. This section also covers the result of the database, implementation of the frontend and the back-end.

#### 4.2 Program Description

The program helps to order, manage orders, track orders.

Below are the functionalities designed in the project:

##### 4.2.1 Restaurant Management

Admin panel helps in directly managing the restaurant's services, by regularly updating the application while adding or removing from the admin panel new category of food can added, price of food can also be changed.

- i. **Registration and Profiling:** similar to the customer end, the admin panel has its own profiling feature from here the admin will be able to manage the menu and work on pricing.
- ii. **Order Management:** order management such as validating orders, cancelling of orders if customer fails to pick after multiple attempt and various order management features.

#### **4.2.2 Easy Registration and Sign Up**

First impressions leave a lasting impression the food ordering features an easy sign up and login page.

#### **4.2.3 Search menu**

This feature allows the users of the online food ordering system to search for the specific food or drink they desire rather than going through the entire menu.

#### **4.2.4 Add to Cart and Order Management:**

Customers take time selecting the dishes they wish to order, with the add to cart feature customers can easily add orders to cart and also remove already placed orders.

#### **4.2.5 Tracking the Delivery**

With this feature customers will be able to track their orders in real-time.

### **4.3 System Implementation**

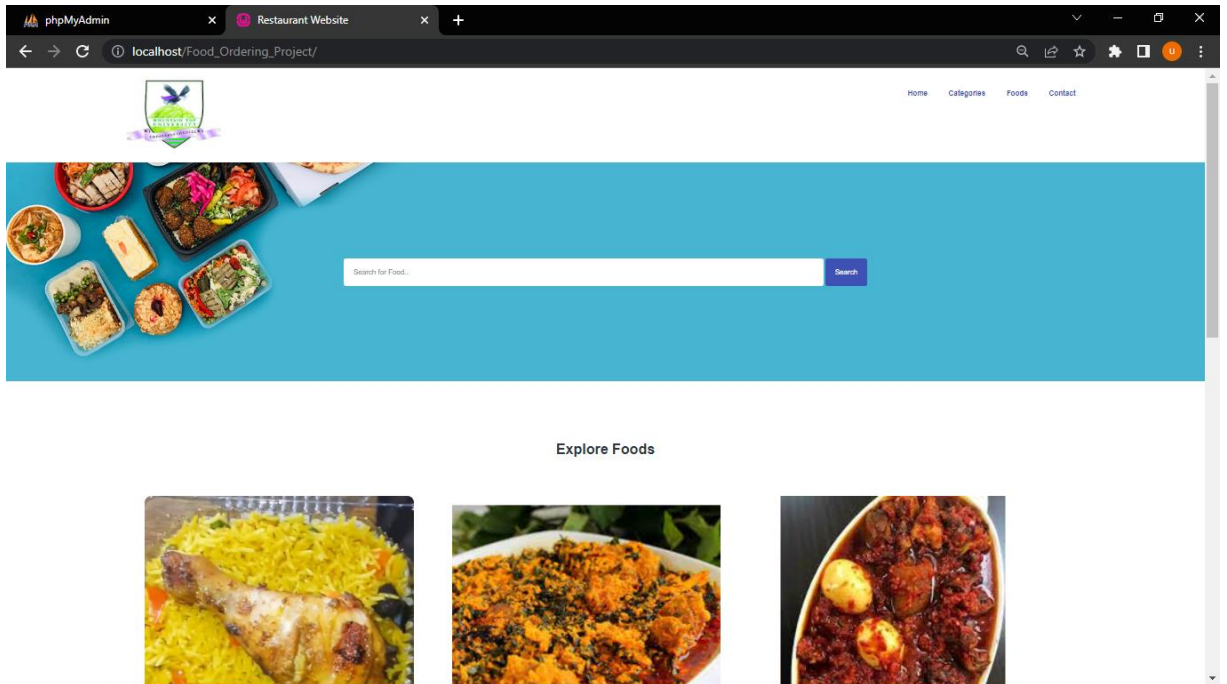
#### **Choice of implementation**

There are many numbers of programming languages with different benefits, I decided to go with PHP because it's open source and free from cost, applications can easily be loaded which are based on PHP and connected to the database and its popularity.

With HTML and CSS.

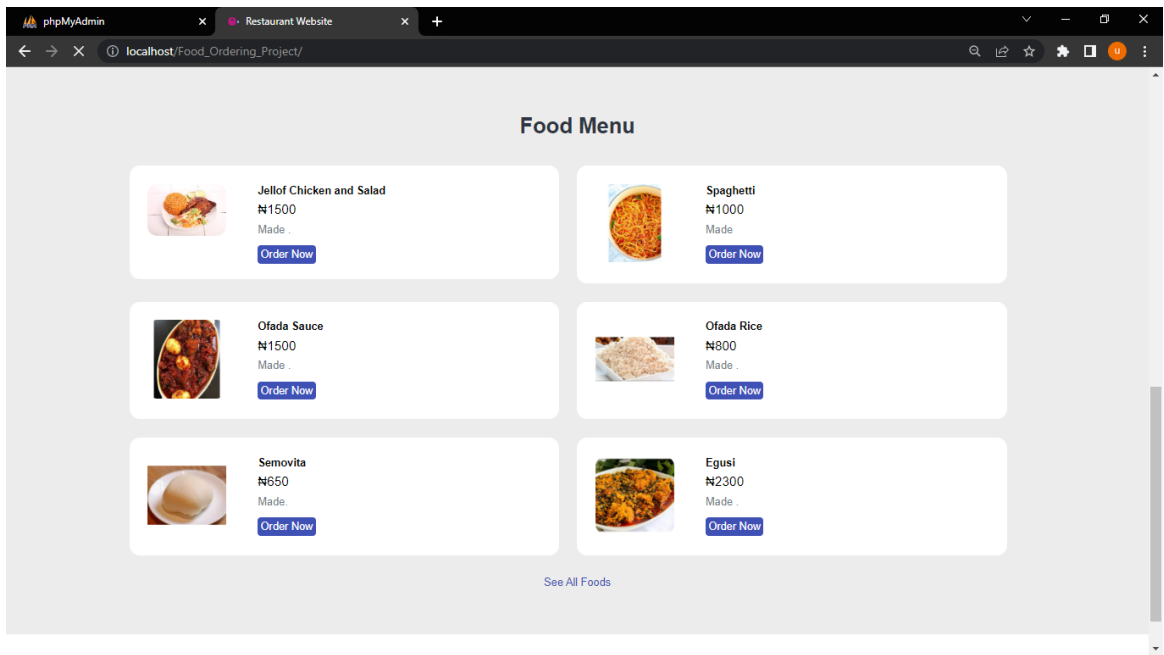
- a. Environment: Atom

- b. Frontend: HTML and CSS
- c. Backend: PHP and MySQL



*Figure 4.1 Homepage Desktop View*

**Figure 4.1 Homepage:** this is the main website from here the customer can explore food, login, scroll down to food menu and order food.




*Figure 4.2 Homepage Food Menu Desktop View*

**Figure 4.2 Food Menu:** it shows the available food, this is where the customer can order.

Fill this form to confirm your order.

Selected Food

 **Jellof Chicken and Salad**  
N1500  
Quantity  
1

Delivery Details

**Full Name**  
E.g. Madu Ugochukwu

**Phone Number**  
E.g. 081xxxxxxx

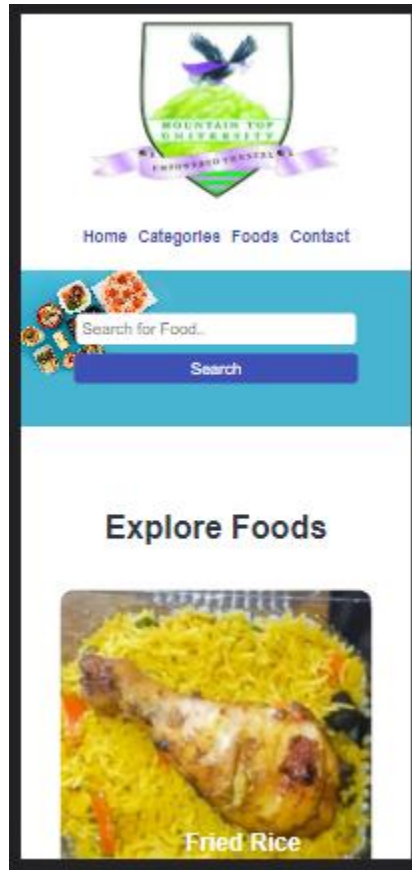
**Email**  
E.g. hi@gmail.com

**Address**

*Figure 4.3 Order Page Desktop View*

**Figure 4.3 Order Page:** This is where the customer confirms the order placed earlier.





*Figure 4.4 Homepage Mobile View*

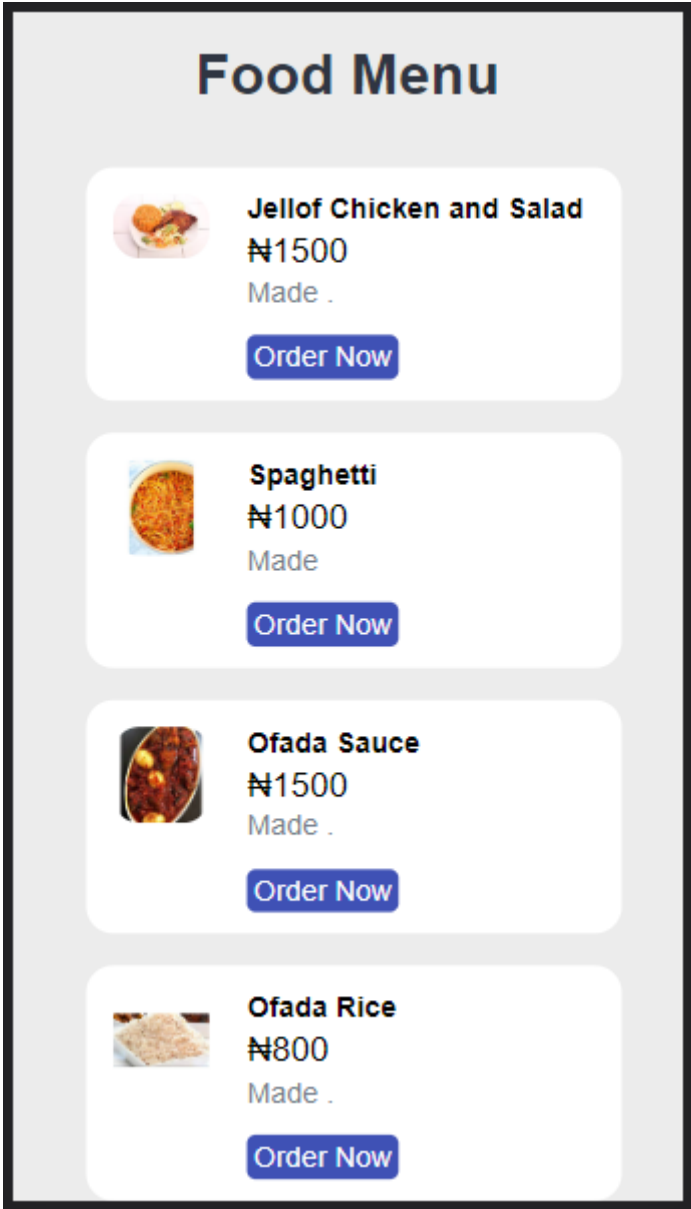
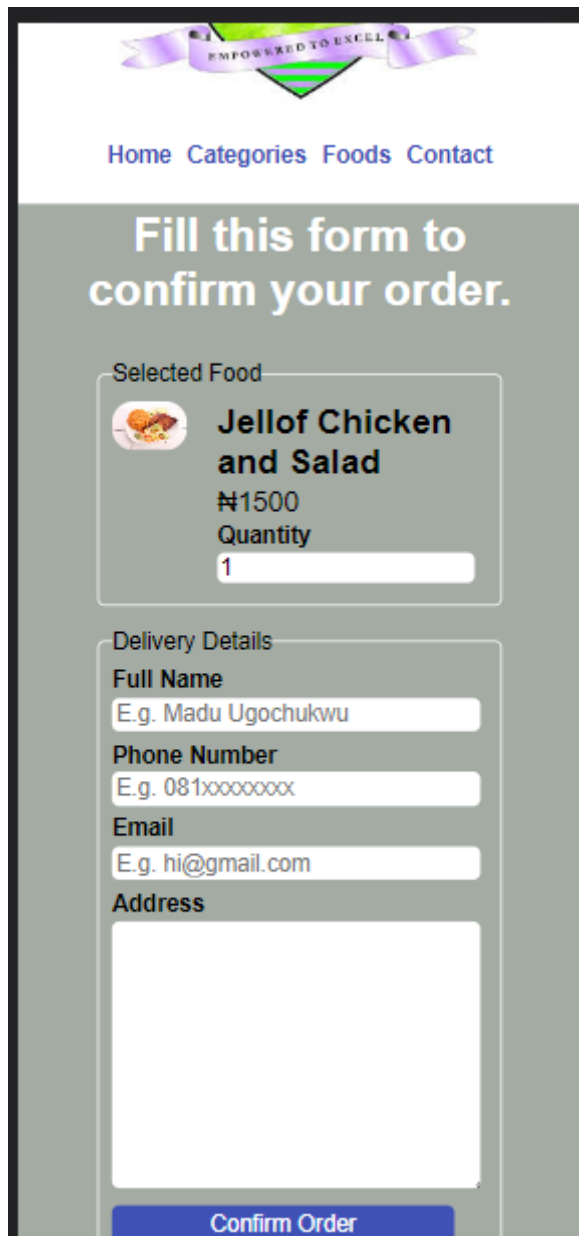


Figure 4.5 Food Menu Mobile View



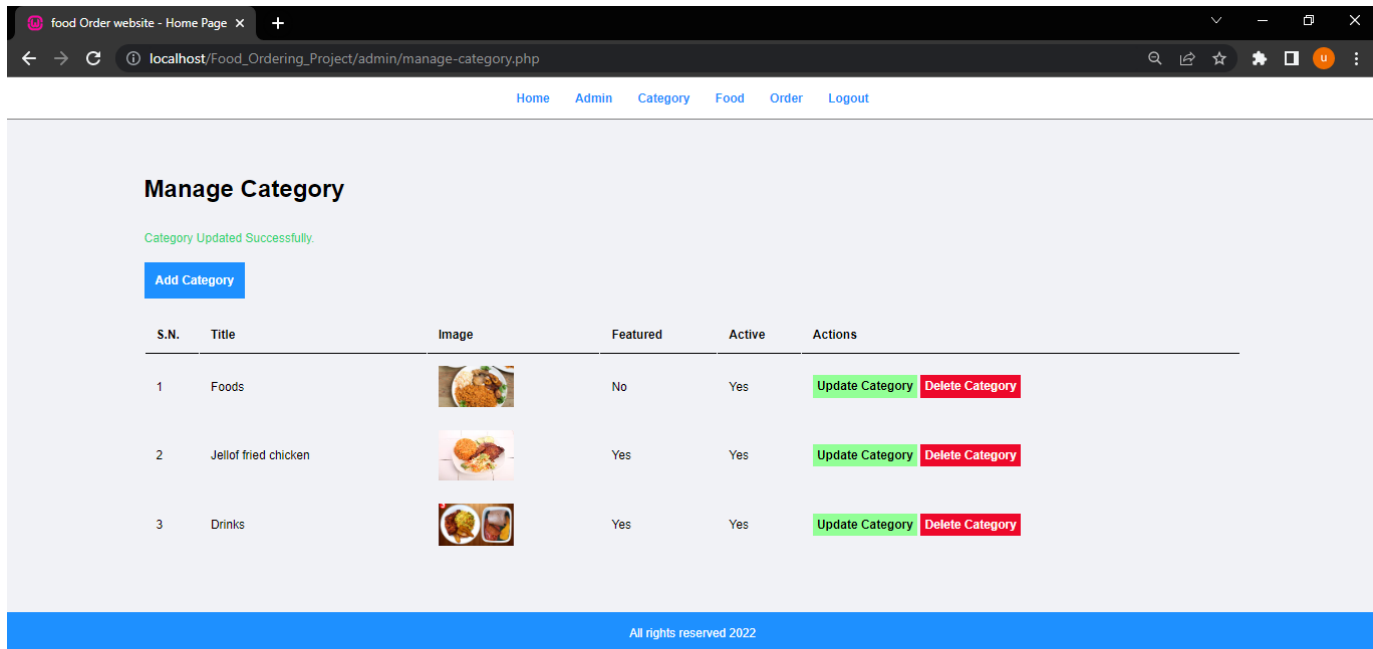
The image shows a mobile application interface for confirming an order. At the top, there is a logo with the text "EMPOWERED TO EXCELLE" and a navigation menu with links for "Home", "Categories", "Foods", and "Contact". The main heading reads "Fill this form to confirm your order." Below this, the "Selected Food" section displays a dish icon, the name "Jellof Chicken and Salad", a price of "₦1500", and a quantity input field set to "1". The "Delivery Details" section includes input fields for "Full Name" (example: "E.g. Madu Ugochukwu"), "Phone Number" (example: "E.g. 081xxxxxxxx"), "Email" (example: "E.g. hi@gmail.com"), and a large "Address" input area. A blue "Confirm Order" button is located at the bottom of the form.

Figure 4.6 Order Page Mobile View



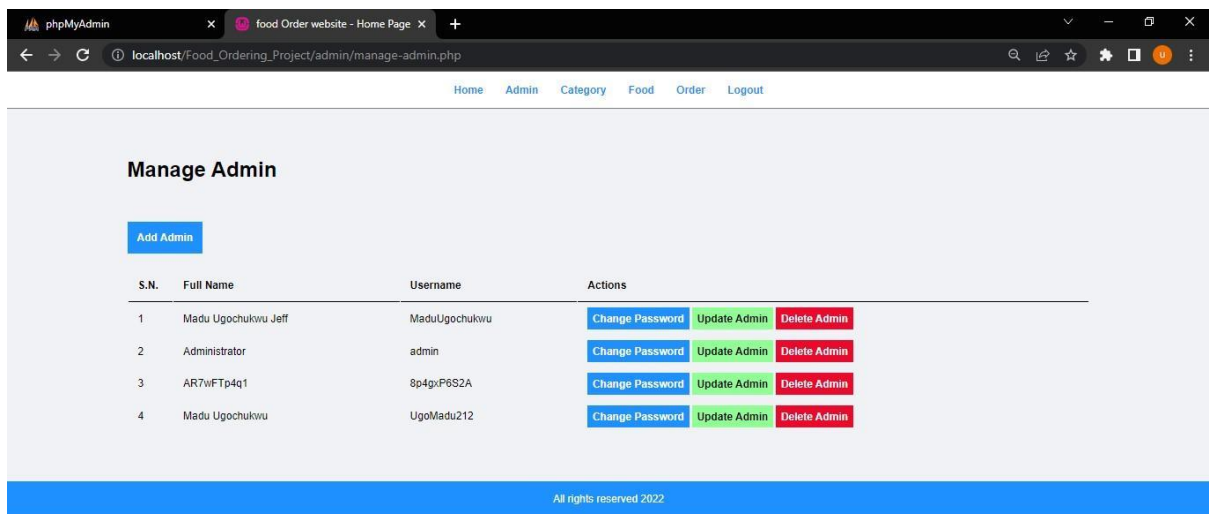
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*Figure 4.7 Admin Login page*



*Figure 4.8 Manage Category page*

**Figure 4.9 Manage Category page:** This is where the admin manages the category of food in the customer page.



*Figure 4.9 Manage Admin Page*

**Manage Admin Page:** This is where the admin can add staff so they can be able to view ordered food.

#### **4.7. Development Platform Configuration**

This section lists the minimum hardware and software requirements needed to run the system efficiently.

##### **Hardware Interface:**

- Pentium Processor
- 60 MB of free hard-drive space
- 128 MB of RAM
  - Smartphone

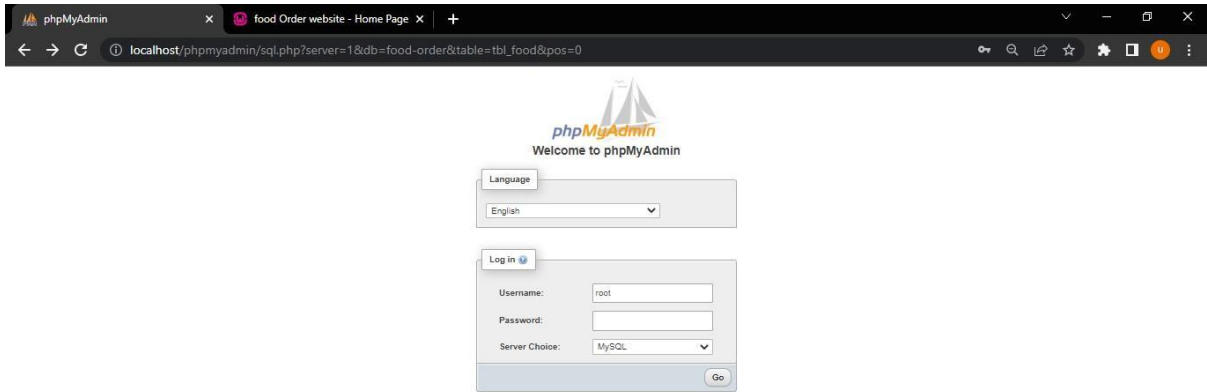
##### **Software Interface:**

- Operating System: windows or android
- Web Browser: Chrome, Firefox, Opera browser, Microsoft Edge.

#### **4.8 Administrator Database**

The Administrator has access to the database of the food ordering system the database is the critical section of the system that stores all information. The database uses queries to provide accurate results using MySQL as a query language.

## DATABASE IMPLEMENTATION



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*Figure 4.10 PHP my Admin Login Page*



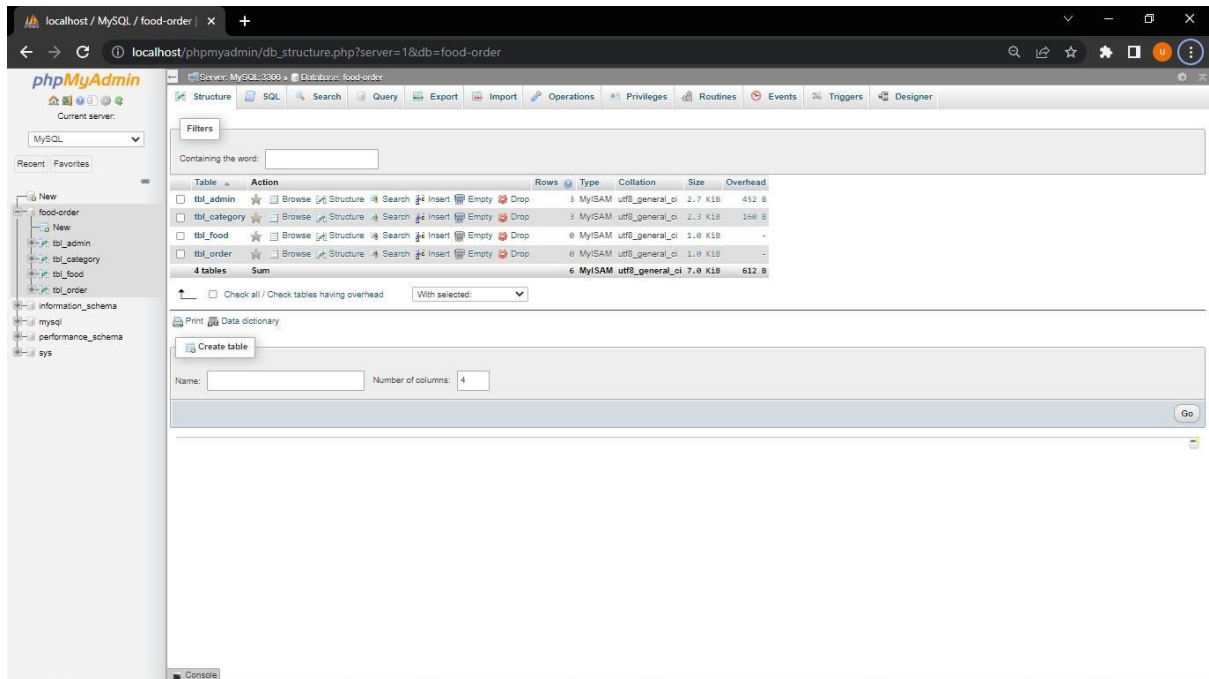


Figure 4.11 Food Order Database

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1. Introduction

This chapter contains the summary, conclusion, recommendation and appendices.

#### 5.2. Summary

Nowadays the use of internet is rapid and technologies associated with it several opportunities are coming and have also been made through it, the use of internet has made it possible for electronic payment which is used in online food ordering system, the ordering system include a customer page and admin page, the customer being able to place order, review, track order and the admin page for management.

#### 5.3. Conclusion

At the end of this project, i was able to design and develop software that can successfully handle food ordering and product order for Mountain Top University Cafeteria. This work also will serve as a stepping-stone for people who wish to research more on this topic. Other benefits include fewer costly errors, improved customer service and review of order.

#### 5.4. Recommendations

- i. Report & Analytics.
- ii. Monitoring customer actions.
- iii. Login using other methods such as Google.

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