ONLINE FOOD ORDERING SYSTEM

OGELEKA, CHINEDU NIICHOLAS

15010301016

BEING A PROJECT SUBMITTED IN THE DEPARTMENT OF COMPUTER SCIENCE AND MATHEMATICS, COLLEGE OF BASIC AND APPLIED SCIENCES IN PARTIAL FUFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE MOUNTAIN TOP UNIVERSITY, IBAFO, OGUN STATE, NIGERIA

2019

CERTIFICATION

This Project titled, **ONLINE FOOD ORDERING SYSTEM** prepared and submitted by **OGELEKA CHINEDU NICHOLAS** in partial fulfilment of the requirements for the degree of **BACHELOR OF SCIENCE** (**Computer Science**), is hereby accepted.

_____(Signature and Date)

Dr. Akinyemi I. O. Supervisor

_____(Signature and Date)

Dr. Akinyemi I. O.

Head of Department

Accepted as partial fulfilment of the requirements for the degree of BACHELOR OF

SCIENCE (Computer Science)

(Signature and Date)

Prof. Akinwade A. I.

Dean, College of Basic and Applied Sciences

DEDICATION

This project is dedicated to God Almighty

ACKNOWLEDGEMENTS

The success and outcome of this project goes to the Almighty God for wisdom, understanding and divine help to me from the beginning to the completion of this work. I specially appreciate my major supervisor Dr. Akinyemi I. O. who took keen interest in my project work and guided me all along, and taking the pains out of no time to attend to me. My gratitude goes to Dean, College of Basic and Applied Sciences Prof. Akinwade A. I. for his teachings, guidance, counsel and fatherly support in ensuring the successful completion of this research God bless you Sir. My heart-felt gratitude goes to the Head of Department Computer Science and Mathematics Dr. Akinyemi I. O. for his fatherly role, and owe deep gratitude for the efforts, constant encouragement, guidance and support of all staff members of the department of Computer Science and Mathematics: Dr. Oyetunji M. O., Dr. Adamu O. B, Dr. Alaba O. B., Dr. Mathew O. A., Dr. (Mrs.) Kasali F. A., Dr. (Mrs.) Olaniyan O. O., Dr. Peter A. I., Dr. Okunoye O. B., Dr. Ojesanmi O. A., Dr. (Mrs.) Florence A. O., Mr. Taiwo A., and other members of staff.

I acknowledge the constant support of my mentors who had contributed to my academic achievement. They include Pastor Olumide A., Dr. Asogwa K. K my dad Pastor Ogeleka S. I pray God would continue to increase their knowledge. I will forever be grateful to my parents Mr. and Mrs. Ogeleka. who sacrificed wealth and enjoyable moments of their lives for the sake of my success; and my siblings – Festus, Stella, Emmanuel, Favour an Joy for their prayers and support and my great uncle brother blessing three gbosa for you. I would also like to appreciate Mr and Mrs Omolade for their great support both finically and prayer wise. I would not forget to remember all the students in the Department of Computer Science and Mathematics, and Mountain Top University colleague and friends for their prayers, support, and help in one way or the other for making my stay a worthwhile one, I say God bless you all richly. God bless them all greatly.

Table of Contents

| CERTIFICATION | II |
|---|-----|
| DEDICATION | III |
| ACKNOWLEDGEMENTS | IV |
| LIST OF TABLES | IX |
| ABSTRACT | XI |
| CHAPTER ONE | 1 |
| INTRODUCTION | 1 |
| 1.1 BACKGROUND TO THE STUDY | 1 |
| 1.2 STATEMENT OF THE PROBLEM | 1 |
| 1.3 Scope of the Study | 2 |
| 1.4 AIM AND OBJECTIVES OF STUDY | 2 |
| 1.5 SIGNIFICANCE OF STUDY | 2 |
| 1.6 LIMITATIONS | 3 |
| 1.7 Definition of Terms | 3 |
| CHAPTER TWO | 4 |
| LITERATURE REVIEW | 4 |
| 2.1 INTRODUCTION | 4 |
| 2.2 Components of Food Ordering Systems | 5 |
| 2.2.1 HARDWARE | 5 |
| 2.2.2 Software | 6 |
| 2.2.3 DATA | 6 |
| 2.2.4 Procedures | 6 |
| 2.2.5 PEOPLE | 6 |

| 2.2.6 DATABASE | |
|---|--|
| 2.3 E-Commerce | |
| 2.4 Types of Food Ordering System | |
| 2.5 Types of Information System | |
| 2.5.1 TRANSACTION PROCESSING SYSTEM (TPS) | |
| 2.5.2 MANAGEMENT INFORMATION SYSTEM (MIS) | |
| 2.5.3 DECISION-SUPPORT SYSTEMS (DSS) | |
| 2.5.4 EXECUTIVE SUPPORT SYSTEM (ESS) | |
| 2.6 Advantages of Food Ordering Systems | |
| 2.7 LIMITATIONS OF FOOD ORDERING SYSTEM | |
| CHAPTER THREE | |
| | |
| RESEARCH METHODOLOGY | |
| RESEARCH METHODOLOGY 3.1 INTRODUCTION | |
| | |
| 3.1 INTRODUCTION | |
| 3.1 INTRODUCTION3.2 SYSTEM ANALYSIS AND STUDY | |
| 3.1 INTRODUCTION3.2 SYSTEM ANALYSIS AND STUDY3.2.1 ORAL INTERVIEW | |
| 3.1 INTRODUCTION 3.2 SYSTEM ANALYSIS AND STUDY 3.2.1 ORAL INTERVIEW 3.2.2 STUDY OF MANUALS | |
| 3.1 INTRODUCTION 3.2 SYSTEM ANALYSIS AND STUDY 3.2.1 ORAL INTERVIEW 3.2.2 STUDY OF MANUALS 3.2.3 EVALUATION OF FORMS | |
| 3.1 INTRODUCTION 3.2 SYSTEM ANALYSIS AND STUDY 3.2.1 ORAL INTERVIEW 3.2.2 STUDY OF MANUALS 3.2.3 EVALUATION OF FORMS 3.3 THE EXISTING SYSTEM | |
| 3.1 INTRODUCTION 3.2 SYSTEM ANALYSIS AND STUDY 3.2.1 ORAL INTERVIEW 3.2.2 STUDY OF MANUALS 3.2.3 EVALUATION OF FORMS 3.3 THE EXISTING SYSTEM 3.4 PROBLEM OF EXISTING SYSTEM | |

3.8 OUTPUT DESIGN 17

3.7.1 REQUIREMENTS ANALYSIS

| 3.9 System Implementation | 17 |
|---|----|
| 3.10 INPUT DESIGN | 18 |
| 3.11 System Testing | 18 |
| 3.12 DATABASE STRUCTURE | 18 |
| CHAPTER FOUR | 22 |
| SYSTEM DESIGN, ANALYSIS AND IMPLEMENTATION | 22 |
| 4.1 System Design Objectives | 22 |
| 4.2 FUNCTIONAL REQUIREMENTS | 23 |
| 4.3 Non-Functional Requirements | 23 |
| 4.4 DATABASE DESIGN | 23 |
| 4.4.1 Entities | 24 |
| 4.4.2 TABLE ATTRIBUTE DESCRIPTION (PHYSICAL DESIGN) | 25 |
| 4.5 System Implementation | 27 |
| 4.5.1 SYSTEM USERS ADMINISTRATOR | 28 |
| 4.5.2 HARDWARE PLATFORM | 29 |
| 4.5.3 SOFTWARE PLATFORM | 29 |
| 4.5.4 System Execution Sequence | 29 |
| 4.5.4.1 User's Environment | 30 |
| 4.5.4.2 Administrator Environment | 34 |
| CHAPTER FIVE | 41 |
| SUMMARY, CONCLUSION AND RECOMMENDATION | 41 |
| 5.1 Summary | 41 |
| 5.2 CONCLUSION | 41 |
| 5.3 Recommendations | 42 |

| 5.4 LIMITATIONS TO STUDY | 42 |
|--------------------------|----|
| References | 43 |
| Appendix | 45 |

LIST OF TABLES

| Tables | Page |
|---|------|
| | |
| 4.1: Showing Admin details | 25 |
| 4.2: Showing customer details | 25 |
| 4.3: Showing food details | 26 |
| 4.4: Showing Order details | 26 |
| 4.5: Showing Categories of food details | 27 |

LIST OF FIGURES

| Figure | page |
|---|------|
| 2.1: Context Level Data Flow Diagram of Online Ordering System | 5 |
| 3.1: Software Development Life Cycle | 13 |
| 4.1: Database logical design for a food ordering system | 24 |
| 4.2: Administration use case diagram | 28 |
| 4.3: Customer use case diagram | 29 |
| 4.4: Screenshot showing the home page of the food ordering system | 30 |
| 4.5: Screenshot showing the user dashboard of the food ordering system | 31 |
| 4.6: Screenshot showing the order list of the food ordering system | 32 |
| 4.7: Screenshot showing the logout page of the food ordering system | 33 |
| 4.8: Screenshot showing the Administrator page of the food ordering system | 34 |
| 4.9: Screenshot showing the Add new food category of the food ordering system | 35 |
| 4.10: Screenshot showing the page to add food of the food ordering system | 36 |
| 4.11: Screenshot showing the Menu list of the food ordering system | 37 |
| 4.12: Screenshot showing the Order list of the food ordering system | 38 |
| 4.13 showing the page to edit food item food ordering system | 39 |
| 4.12: Screenshot showing the Order list information | 40 |

ABSTRACT

The online food ordering system offers clients comfort. It overcomes the traditional queuing system's disadvantages. This scheme improves food intake compared to tourists. This system therefore increases the speed and standardization of the customer taking the order. It offers a better platform for communication. The details of the user are recorded electronically. The online food ordering system set up menu online and the customers easily places the order with a simple click. Also, with a food menu online you can easily track the orders, maintain customer's database and improve your food delivery service. This system allows the user to select the desired food items from the displayed menu. The user orders the food items. The payment can be made online or pay-on-delivery system. The user's details are maintained confidential because it maintains a separate account for each user. An id and password are provided for each user. Therefore, it provides a more secured ordering.

The structured methodologies have been chosen to develop the Online Fast Food Restaurant Ordering System. The structured design methodology adopts a formal step-by-step approach to the System Development Life Cycle that moves logically from one phase to the next. The methodology used involved system analysis, system design, system development, and system testing. The system design will achieved using HTML, CSS AND JavaScript for the frontend and PHP and MySQL for backend design.

It was concluded that the online food ordering system automates these processes of ordering food online, thus reducing the time wasted as well as the errors that are involved in the manual process. Online food ordering system is one the best innovation that has taken place in the restaurant company and those companies that have not yet embraced online food ordering system ought to lose out.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

It is well known around the world that, to start a small-scale business in today's market and survive the competition from already established and settled owners is extremely difficult. In the current state of time, when people are busy with their daily activities, most people are finicky when it comes to ordering food. The patrons of nowadays are not only attracted because ordering online is very convenient but also because they have visibility into the price, items offered and very abridged navigation for the order.

This study proposes an online food ordering system, designed specifically for college cafeterias, but just as applicable in any food delivery industry. The key advantage of my ordering system is that the ordering process for the restaurant and the customers is greatly simplified. When the users (customers) visit the ordering webpage, they are presented with an updated menu and interactive, after choosing what you want the item is added to the order list which can be reviewed, this provides visual confirmation of what was selected and items in the cart are, what was intended.

The system also greatly reduces the stress load on the restaurants end, as the whole process of ordering is automated. Once a customer places an order on the webpage, it is stored into the database and the retrieved in real-time, whit a desktop application and admin login on the restaurant's end. Inside the application, food ordered are displayed, alongside the delivery details and corresponding options, in a brief and easy to read manner. This makes restaurant employees access the orders quickly as they are placed and produce the required items within a short period of time without delay and confusion.

1.2 Statement of the Problem

The major problem connected with the recent system which is done manually leading to long queue of customers increase the work load on the employees which brings about the following problems.

i. Increase in cost effectiveness due to customers seeking more ways to purchasing products.

- ii. The vendors need to purchase all the products in order to sell to end user. The manual method of going to their local food sales outlets to purchase food is becoming obsolete and more tasking.
- iii. Time wastage when at the end of the day the buyer has to walk around to buy food stuff he/she needs to purchase on the store.

1.3 Scope of the Study

In this project a fast food research will be conducted in MTU cafeteria and other restaurants where it will be taken as a case study to enable customers order for food and get delivered accordingly and also reduce long queues of customers at the counter ordering for food and reduce the work load on the employees.

1.4 Aim and Objectives of Study

This research outlines a framework job for a fresh scheme to be created and introduced onto the market for peak use and to establish an avenue through the web where consumers can log in to the severe and make a selection of whatever food they like and then pay through the internet. The following are the objectives:

- i. Time conversation where products and services offered would provide the customer with all the different categories of available products that they can choose and select from.
- ii. Increase service velocity, volume of sales and client satisfaction
- iii. This will provide a user friendly environment between the customer and employee thus increasing the efficiency of the food ordering system.
- iv. It will also help for easy retrieval of orders made by the customers.

1.5 Significance of Study

Given the fast growth of computer technology in almost all operating areas and its use in data leadership, it has become essential to look into the development of online ordering system for firms to meet up with demands of the customers. The food ordering and distribution scheme will therefore assist clients and management to: advertise accessible food in their business Reduce the workload in the current scheme Reduce time-waste in information processing Create an internet purchase and delivery platform Keep precise records of purchase order and delivery Limitations Because of time and economic limitations, the software created covers only aspect of food ordering.

1.6 Limitations

Due to time and financial constraints, the software that is developed covers only aspect of food ordering.

1.7 Definition of Terms

- **a.** Food: Any nutritious substance that people or animals eat or drink, or that plant absorbs, in order to maintain life and growth.
- **b.** Menu: A list of dishes that are accessible in a restaurant or food that can be served in a restaurant or at a meal, such as "a dinner party menu," "politics and sport are on the menu tonight."
- **c.** Ordering System: This is called a set of thorough techniques used in ordering process handling.
- **d. Online Food Ordering**: Online food ordering services are websites with interactive menus that enable clients to place orders with local restaurants and food cooperatives.
- e. Restaurant: (Eating location) is a location where clients sell food and beverages.
- **f. Customer**: Sometimes referred to as a customer, buyer or purchaser) is the recipient of goods, services, products or ideas acquired for financial or other valuable consideration from a seller, vendor or distributor.
- **g. Technology**: It is the study of resource mobilization methods or processes (such as data) to achieve goals that benefit man and his environment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Ordering system has been a piece of doing business for a long time, and has created close by innovation to give amazing methods for capturing, tracking and transporting client's requests. Propelled ordering system can traverse different landmasses to track and encourage worldwide requests, shipments and returns of a wide scope of product offerings and customer sections. Ordering system captures request information from client administration representatives or from clients straightforwardly, stores information in a focal database and sends request data to the accounting and shipping divisions if relevant.

In our age time, computer has rotated into a key part to our day by day life due to the progression innovation of World Wide Web that turns into a web that permit every single client associated with theirs' computer for data sharing all through the entire world. The World Wide Web completed an incredible commitment to a great deal of big business which utilize this component for data sharing inside the endeavour and furthermore outside the undertaking (Kapchnaga, R, 2014).

From the advantage of World Wide Web, a great deal of inexpensive food industry applies a framework known as Online Ordering System to help their business forms. Internet Ordering System is a procedure that enable client to arrange their preferred sustenance online by means of the web by utilizing an internet browser that introduced in their separate PC or PDA. Actualizing this framework can help inexpensive food industry to take care of the issue that they face while utilizing the customary nourishment requesting forms.

The framework extraordinarily disentangles the nourishment requesting process for both client and eatery contrast with the past. The client can put in a request all over the place and anyplace at whatever point web association is accessible for them. Clients access to the site and pick the sustenance that they incline toward from the online menu show then clients need to pick whether the sustenance is conveyed to them or it will be bundled for pick up and the instalment technique will be upon conveyed or get and ultimately it will demonstrate all the request subtleties to the client for twofold checking and affirmation.

Then again, the framework likewise enormously relieves the work burden on the café's end. When clients have put in a request by means of the web, the information will send to the café database and spot in a line continuously. Likewise, the information will be show on the PC screen alongside the relating choice. It permits café worker effectively deal with the requests consecutively, produce the vital thing with a negligible deferral and help diminish human blunder.

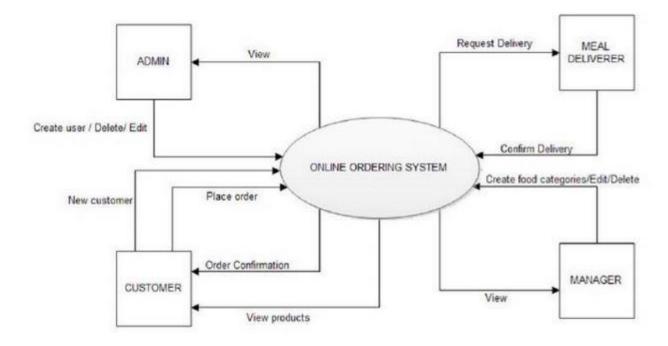


Figure 1 Context Level Data Flow Diagram of Online Order System

2.2 Components of Food Ordering Systems

These are complete Information Technology subsystems that reserve the spot Information System operational; they are good in nature and the failure of one part may influence the task of the others with in the system. They comprise of PC assets, information, individuals, and procedures utilized in the modern business enterprise.

2.2.1 Hardware

O'Brien (2001) characterizes hardware as individual physical gadgets and material utilized in data processing. In particular, it incorporates machines like computers as well as information media that is every single substantial item on which information are recorded from sheets of paper to magnetic disk. Others incorporate keyboard, mouse, printers, scanners and so forth.

2.2.2 Software

Rochester (1996) attest that software incorporates all information processing instructions and it contains various sorts of programs that empower the hardware to carryout various assignments. Software is additionally arranged into system software and Applications software. System software is concerned with keeping the computer system working while Application software is the general purpose or written for a specific task like stock control. It may be written using a programming language or more general purpose piece of software such as database.

2.2.3 Data

Rochester (1996) defined data as all the raw and unprocessed facts that can be used easily. Cleary Without information, no database system can exist. The fundamental factor is based on the handling requirements of an organization and data requirements. Data elements and relationships must be defined precisely and the definitions in the data dictionary must be recorded accurately.

2.2.4 Procedures

These are set of guidance about how to join the above components so as to process the data and produce the ideal yield. They comprise of the route how to sign on to the DBMS, utilization of various structures and controls all through the task.

2.2.5 People

According to O'Brien (2001), these are required for the operation of all information systems. They include end-users and information system specialists. End-users are people who use an Information System. They include system analysts, programmers, computer operators and others. People, are probably the component that most influence the success or failure of information systems

2.2.6 Database

The Database Management System (DBMS) is a software package intended to describe, manipulate, collect and handle information in a database, according to techopedia.com

6

(2016).

A DBMS generally manipulates the data itself, the data format, field names, record structure and file structure. It also lays down guidelines for validating and manipulating this information. A DBMS relieves users of information maintenance framing programs. Query languages of the fourth generation, such as SQL, are used to communicate with a database together with the DBMS package. In addition, the Database Management System (DBMS) of the IBM Corporation is essentially nothing more than a computerized data-keeping system. DBMS is also a set of related software applications that provide a systematic way for endusers and application programmers to create and manage databases.

Database consumers use Data Definition Languages (DDL) and Data Manipulation Languages (DML) through database management systems to indicate their demands to the database. The database management system will certainly provide an interface between the programs of the user and the database content. During the creation and subsequent maintenance of the data base contents, the DML and the DDL are used for the following, add new files, increase the database, delete the absolute records, adjust data, and increase the database capacity, connect the data items and many others.

2.3 E-Commerce

Electronic commerce or e-commerce according to Garret (1996) is the exchange of goods and services by means of the internet or other computer networks. Buyers and vendors operate on networked pcs in ecommerce. Electronic commerce also uses communication networks to share company data, maintain company relationships and conduct company operations. It involves business-to-business relationships, customer-to-customer relationships, as well as business-to-customer relationships. Business-to-business segment presently dominates e-commerce, while customer-oriented segment lags considerably behind and present estimates place it at less than 10% of complete volume, although all are experiencing exponential development (Vladimir, 1998). E-commerce provides comfort to buyers. They can visit various vendors ' World Wide Web (www) sites 24/7 to compare rates and create purchases without having to leave their homes or offices.

E-commerce provides vendors a way of cutting expenses and expanding their markets. They don't have to construct employees or keep a shop or print and distribute the catalogue of mail order. Sellers have the ability to market their products or services worldwide because they sell over the worldwide internet and are not restricted by a store's physical place.

However, e-commerce also has some drawbacks. Customers are unwilling to purchase online certain products. For instance, online furniture companies have mostly failed because clients want to test the convenience of a costly product like a sofa before buying it.

Many people are also considering shopping for a social experience, such as going to a shop or shopping mall with friends or family, an experience they cannot get online. It is also important to reassure customers that credit card transactions are secure and that their privacy is respected.

E-commerce not only expands the choice of products and services for clients, but also creates fresh and compelling businesses established business to develop internet strategies.

2.4 Types of Food Ordering System

i. Market place online Ordering system

This is where most restaurant owners start. Deliveroo, EatNow, Menulog, Uber Eats, Foodpanda etc. are marketplace ordering systems. These platforms can be considered similar to those such as eBay and Etsy. Generally speaking, these companies will first reach you. You will be able to upload your menu online and start accepting orders immediately. They also promote and market large amounts to drive traffic to their website to generate sales for their stores.

These services will start with most restaurant owners but soon come to this realization and start looking for alternative solutions. That said, though it's not a bad thing at all. Ideally, with all the marketing that these companies do, they can generate some new customers you might not have had otherwise.

ii. Self-Service/Self-Ordering In Restaurant

In the restaurant sector, self-service or self-ordering relates to the restaurant taking client orders by implementing various kinds of techniques such as the internet and many others. Self-service or self-ordering is effective when applied to restaurants in many other nations. Most investors have been shown to profit from the use of selfservice or self-demanding technology.

Odesser-Torpey (2008) has been saying that most Americans hate waiting for an order. Consequently, they prefer self-service technology that can be in the form of phone calls, text messaging, web and kiosk. The client usually prefers self-service in ordering and transaction while minimizing miscommunication due to velocity and comfort. He also stated that to order innovation, self-activated terminals are more probable to be used in the future. Implementing alternative ordering can improve the size of the check, free counter personnel to serve clients, and remove cash handling from the service equation.

Bhatnagar (2006) stated that the kiosk innovation and the computerized table top ordering screen will force the restaurant sector to re-jigger the restaurant with a frequently used acronym of quick service restaurant. Customers can search for recipes or receive data from the internet and kiosk. The internet and kiosk also place orders and receive credit card or debit card payment. As a consequence, erroneous order and lengthy queue can be avoided, order employees can be arranged elsewhere and concentrate on accelerating shipping orders. On the other side, a table-top touch screen order scheme can take orders from customers and manage other requests from customers such as refill beverages, call a waiter, and pay by credit card and debit card.

Bytes, a Canterbury-based restaurant has been effectively standing apart from rivals due to internet self-service ordering and payment concepts being applied. The scheme used in Bytes enables clients to place an order via the touch screen and the order is directed to the bar or kitchen. The system also provides games after orders are placed by a client while clients will be supplied with internet access in the future. The ordering of the touch screen decreases the waiter's need. The system also offers customer habits and preferences database, generates management reports, performs assessment, and enables for instant updating of the menu. (Brickers from 2006).

The online food ordering scheme can be applied to fast food restaurants in Nigeria based on research. This is because the scheme can enhance effectiveness in the workplace, boost restaurant revenues and decrease improper ordering. As a consequence, investing in the scheme is worthwhile, allowing it to shorten the return on investment.

The scheme should also be backed by the taste and services of food origin to keep the allegiance and satisfaction of the clients. Widespread implementation of the food ordering scheme, however, can trigger the influx of labor due to the removal of waiters in the restaurant sector. Even the scheme is essential to implement, but there is still some danger in other variables, such as a notion of direct interaction and restaurant design, to be regarded in order to ensure the system's achievement.

Gan (Gan, 2002) suggested developing an internet fast-food restaurant ordering scheme that would enable clients to place orders anywhere at any time. The system enables client order management and promotion advertising. It enables kitchen employees to view data about ordering, management of fast food raw materials and employees to search for data about client shipment and profile. This system helps decrease queue problems during peak hours, accelerate food preparation and boost quantities of customers. As a consequence, fast food restaurant's market share can be increased and improves the investor's return on investment.

De Leon (De Leon, 2008) stated that a good internet food ordering scheme should include several elements. System should be easy to navigate, not clustered, and easy to order (Sharma, 2007), designed with experts looking to optimize the capacity of the search engine and accessible 24 hours. Also, the system should have a secure payment gateway to safeguard credit card data for their clients, quickly and readily maintain track of orders and sales history and produce a detailed sales report (Sharma, 2007).

2.5 Types of Information System

Information System is a combination of people, hardware, and software, devices of communication, network and data resources that process data and information for a specific purpose (can be stored, retrieved, transformed information). The characteristics are;

2.5.1 Transaction Processing System (TPS)

This is a computerized system that performs and records routine daily transactions necessary for business conduct. TPSs are information systems that process data resulting from business transactions occurring. Example: system of payroll; instructions for production.

2.5.2 Management Information System (MIS)

These relate primarily to internal information sources. MIS usually collects and summarizes data from transaction processing systems into a series of management reports. MIS therefore provides information for an organization's management. MIS information helps managers monitor the organization and direct it.

2.5.3 Decision-Support Systems (DSS)

These are specifically designed to assist management in making decisions in situations where there is uncertainty about the potential outcomes of those decisions. DSS includes tools and techniques to assist in collecting relevant information and analysing options and alternatives. DSS often involves using complex tablets and databases to create Finley et al "what - if" models.

2.5.4 Executive Support System (ESS)

This is intended to assist senior management in making strategic decisions. It collects analyses and summarizes the business 'key internal and external information. A good way to think about an ESS is to imagine the senior management team in an aircraft cockpit with the instrument panel showing them the current status of all the key business activities. Usually, ESS involves lots of data analysis and modelling tools such as analysing "what-if" to help make strategic decisions. Stair, (1996).

2.6 Advantages of Food Ordering Systems

i) Convenience; One advantage of ordering food online, is the convenience. Being able to make all your orders on the Internet means you can do it any time of the day or night at home, or while you are on your lunch break at the office. Customers on the go can even make orders on their smartphones or tablets. There is no need for lengthy phone calls or visits to a restaurant, with just a few minutes and a click of the mouse, you will have all your food ordered and delivered. Diane, (1993).

ii) Enhanced productivity: Errors are reduced and your customers have a hassle free ordering system. Workers can continue with their designated jobs with no distractions. Workers can focus on customers in your restaurant and ensure they have the best service.

11

iii) Simplicity: It's very handy. The food will be ordered, supplied and eaten. There is no struggle in the house to remember ingredients or try to pore over recipes and create lists of foodstuffs. Food distribution systems are ideal for busy people who have no time every week to shop. Food delivery systems are also beneficial for those who, like the elderly or the disabled, cannot get out of the house to shop.

2.7 Limitations of Food Ordering System

i) Live Help: when you order food online, you usually can't ask a live person questions about ingredient used in cooking the food, the day the food was cooked, or anything else you're concerned about.

ii) Limited Menu: The menu decisions are another disadvantage for food distribution technologies. The food ordering system deliver a restricted amount of dishes. The menu will change every few weeks or months, but if you stick to the system for more than a few months, the menu items will be repetitive.

iii) Hidden Fees: Many food ordering sites advertise low rates to attract your attention, and then add fees and surcharges for a much less competitive deal.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology process, techniques, tool that were used to attain the specific objective of the Food ordering system. The development was based on the water fall model. It involved the requirement determination, requirement analysis, system design, implementation, testing and validation. The approach below describes the sequence of steps involved.

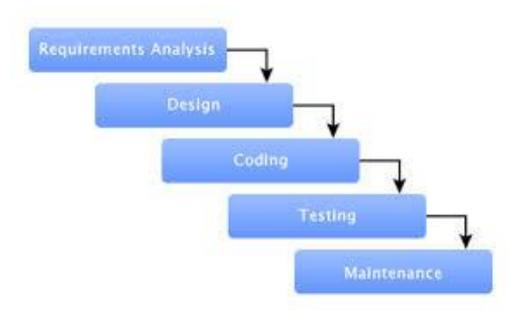


Figure 3.1: Software Development Life Cycle

3.2 System Analysis and Study

This was carried out on the existing system. It helped in showing the down side of the existing system. The methods I used to collect information about the existing system is shown below.

3.2.1 Oral Interview

The data collection interview technique can be described as a systematic manner of gathering data or information from a respondent by requesting questions straight from the respondent

and also gathering information for understanding purposes. The oral interview was conducted between the Mountain Top University (MTU) investigator and student. Reliable facts have been obtained based on the question posed to the students by the researcher which help the researcher in starting the work and also helped in the area of solution presentation of the new design.

3.2.2 Study of Manuals

Manuals and reports were acquired and studied based on fast food facilities and a lot of data was acquired about the scheme to be manufactured.

3.2.3 Evaluation of Forms

Some needed and accessible forms have been obtained. These include the fast food order type of the restaurant menu, etc. These elements contributed to the design of the new scheme

3.3 The Existing System

The current scheme turns out to be a non-computerized operating system if all activities are performed manually by the waiter carrying paper and the customer's order is taken down or ordered over the counter. This leads to errors because the waiter may not comprehend what the client had ordered to serve a distinct menu for him / her. This might be so awkward because of the customer might not take it lightly with the waiter which may lead to misunderstanding.

3.4 Problem of Existing System

Because the fast food restaurants use manual means, it is very hard to meet the customers ' requirements and wishes. Most of the issues are:

- 1. Mistakes are produced when customer
- Orders are placed. The method of purchasing order from clients is very tedious. This makes delivering products on time impossible.
- 3. It leads to incomprehension between clients and staff.

4. The system of record keeping is poor. Consequently, losses of essential documents were recorded in the past. In addition, protecting the file system from unauthorized access is a defiled solution issue.

5. There is a waste of unnecessary time transmitting data through the authority ladder. Management is sometimes looking for a copy of the customer's order form and this may take a lot of time to obtain it.

6. It causes reduction of production flow.

These are the major problems facing the existing system and would be corrected with the help of the proposed system.

3.5 Objectives of the Proposed System

The suggested scheme is created to handle fast-food restaurant ordering operations. It enables record orders submitted by the client. To help the business process of the restaurant to achieve the goals, the scheme should contain the following features:

- To enable the client to place an order, view the order and make adjustments before submitting their order and enable them to create payment by credit card or debit card.
 s
- 2. To provide a promotional and menu-enabled interface.
- 3. To avoid interface that displays details of customer orders to front-end and kitchen staff to deliver customer orders s
- 4. Tools that produce reports that can be used to make decisions
- 5. A tool that allows the management to modify the food information such as price, add a new menu and many others as well as tools for managing user, system menu and promotion records.

3.6 Justification for the New System

The new system's aim is to tackle all the issues that plague the current system. This scheme will automatically or interactively analyse and store data. It's going to use PHP-MYSQL. This will be like this: a report is produced through the monitor that conforms to the specific information the management needs. This will involve the input of needed information and fast food ordering and delivery recording, and then a report will be produced.

There will also be some other characteristics of the suggested scheme such as:

- 1. Accuracy of information handling
- 2. The quantity of paper job is going to be decreased considerably.
- 3. Fast rate of operation as in the availability and delivery of the ordered food on time.
- 4. Flexibility (that is, at any moment it can be accessed).
- 5. In case of data loss.
- 6. Easy way to back up or duplicate information in CDs. Better system for storage and quicker recovery.
- 7. Errors in the reports will be minimized considerably.

3.7 Requirements Determination

The requirement assurance included the accumulation of data about how the framework ought to work. The prerequisites assurance action was the most troublesome piece of frameworks examination. It included assembling and reporting of the genuine and genuine prerequisites for the framework being created. In here the scientist was fundamentally thinking and endeavouring to address the inquiry,

"What should the framework do?" This data was utilized to recognize the users" necessities and the framework details.

3.7.1 Requirements Analysis

The essential objective of this stage was to make a point by point Functional Specification characterizing the full arrangement of framework abilities to be actualized, alongside going with information and procedure models representing the data to be overseen and the procedures to be upheld by the new framework

It included examination of the gathered information. Models, for example, Data Flow Diagrams (DFD) and Entity Relationship Diagrams (ERD's) were utilized to show individual procedures and information separately. Under here necessities were delegated useful and non-functional prerequisites, the assurance and examination of necessities helped the specialist to accomplish his second target.

3.8 Output Design

This demonstrated the utilization of framework hypothesis to item advancement by characterizing the engineering, segments, modules, interfaces and information for a framework to fulfil determined necessities. The objective of configuration stage was not simply to create a structure for the framework; rather it was to locate the most ideal plan inside the impediments forced by the prerequisites and the physical just as the social advancement in which the framework was to work Stair.

The yield configuration procedure was partitioned into sensible, applied and physical structure. In Logical structure; the sensible model of the framework was created demonstrating all the indispensable advances the framework improvement experienced. Here, the specialist utilized case apparatuses like stream graphs and information stream charts. Theoretical structure was a depiction of the proposed framework as far as a lot of coordinated thoughts and ideas about what it ought to do, carry on, and resemble, that was justifiable by the clients in the way expected. The Physical structure was the physical acknowledgment of coherent plan. Tables, structures and reports were made and connections characterized among these tables and security compels set amid the physical plan the specialist made an interpretation of the normal mappings into real database structures. In here the analyst accomplished his third target.

3.9 System Implementation

This included assembling or building different components of a framework for instance MySQL for database Xampp Server for facilitating the site pages. This is the phase wherein the genuine framework was perceived. The specialized engineering characterized in the structure stage was the gauge for building up the framework. The interface product structured utilizing HTML and Java content dialects. This is on the grounds that these dialects gave gigantic agreeable UIs; that is anything but difficult to learn and reasonable. The database was planned in MYSQL basing on Xampp Server programming. MYSQL gives an abnormal state of security to the database, that is, confirmation which can either be amid the signing in to the database or on DML directions, for example, erase, include or even alter, it additionally diminishes repetition. In here the specialist accomplished his fourth target.

3.10 Input Design

This was the input acknowledgment of input structure. Tables, structures and reports were made and connections characterized among these tables and security compels set. Amid the physical plan the scientist made an interpretation of the schemas into genuine database structures and as of now, he needed to outline:

- Entities to tables.
- Relationship to foreign key constraints.
- Attribute to column primary unique identifiers to primary key constraints.
- Unique identifier to unique key constraint.
- Attributes to columns.

3.11 System Testing

This included testing the framework so as to address blunders or expel abandons that rose. This stage included testing the source code to ensure that it delivered the normal and wanted outcomes when exposed to a lot of predefined conditions. It was subdivided into three noteworthy stages, that is, unit trying, framework testing and client acknowledgment testing

Under unit testing, specific parts of the source code were tested. Emphasis was put on the website database connections to ensure that information sent by a user from the web page form reaches the systems database. System testing involved putting the entire software to test in order to find out whether or not the functional requirements of the system had been efficiently and effectively integrated and satisfied

Finally, User acceptance testing was done; this was a key factor for the success of the system performance. The system under consideration was tested for user acceptance by constantly keeping in touch with the system users that is, the airline customers and staff.

3.12 Database Structure

The system was used by different customers to order food and different food stands to update food menu. And indeed the orders were reserved and food were delivered on time. This helped to achieve his last objective.

Table 3.1: ADMIN TABLE

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Admin_id | Int | No | 12 |
| Name | Varchar | Yes | 100 |
| Username | Varchar | Yes | 60 |
| Password | Varchar | Yes | 60 |
| Email | Varchar | Yes | 100 |
| Last_login | Datetime | Yes | 60 |
| Role | Varchar | Yes | 60 |
| Status | Tinyint | Yes | 1 |

Table 3.2: CUSTOMER TABLE

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Customer_id | Int | No | 1 |
| Name | Varchar | Yes | 100 |
| Address | Varchar | Yes | 100 |
| Email | Varchar | Yes | 60 |
| Contact | Varchar | Yes | 60 |
| Password | Varchar | Yes | 60 |

Table 3.3: FOOD TABLE

| t t | Yes | 11 |
|---------|---|---|
| t | | |
| | Yes | 11 |
| archar | Yes | 100 |
| ouble | Yes | 100 |
| archar | Yes | 255 |
| archar | Yes | 100 |
| atetime | Yes | |
| archar | Yes | 100 |
| atetime | Yes | |
| t | No | 11 |
| | ouble archar archar atetime archar atetime | oubleYesarcharYesarcharYesatetimeYesarcharYesatetimeYesatetimeYes |

Table 3.4: ORDER TABLE

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Order_id | Int | Yes | 11 |
| Quantity | Int | Yes | 11 |
| Food_id | Int | Yes | 11 |
| Order_date | Datetime | Yes | |

| Customer_id | Int | Yes | 11 |
|-------------|-----|-----|----|
| | | | |

Table 3.5: CATEGORY TABLE

| Column | Data Type | Nullable | Size |
|--------------|-----------|----------|------|
| Name | | | |
| Category_id | Int | Yes | 11 |
| Categoryname | Varchar | Yes | 250 |
| Created_by | Varchar | Yes | 255 |
| Created_date | Datetime | Yes | |
| Updated_by | Varchar | Yes | 200 |
| Updated_date | Datetime | Yes | |

CHAPTER FOUR

SYSTEM DESIGN, ANALYSIS AND IMPLEMENTATION

This segment portrays the tools that were utilised to create and actualise the framework. These incorporate the context diagram, level zero, and one data flow chart. These apparatuses helped in designing the framework and concocting the fundamental idea and rationale of the framework. When data frameworks improvement advanced to the design activities, the researcher who was in the meantime frameworks examiner and software engineer concentrated on the inquiry, "How does the framework do what it should do.

4.1 System Design Objectives

The Food Ordering System is a software application to assist to assist restaurant with transaction related to making food reservation, which includes buying food, and delivering it to the required destination. From the view point the food ordering system provides the following

- 1. The system should increase the rate of sales in the cafeteria.
- 2. The system should make it easy for customers to check the menu and know the total amount of food.
- 3. The system should decrease the queue in the cafeteria.
- 4. The system should maintain customer information in case of emergency.
- 5. The system should reduce effort of frustration for customers in getting food.

The system has been developed on the following requirements;

4.2 Functional Requirements

The following requirements were captured for the intended use of the system.

- **1.** User account: The registered user can directly do the ordering of food and if there is a new user he/she have to register or he only sees the login and registration page.
- 2. **Creation of new user account:** When there is a new customer he should fill the form containing field like Name, Address, and Matric No.., and also Email address and Password.
- 3. **Checking Availability:** To check the available food, the user should scan or check through the menu list.
- 4. **Ordering of Food:** After providing all information the system will ask user for confirmation. After confirming the information, the food will be ordered.

4.3 Non-Functional Requirements

The application was designed to fulfil the following non-functional requirements.

- **1. Performance Requirements:** Performance of the system is dependent on the bandwidth of the internet and also the hardware itself.
- 2. Security Requirements: There is only one authorized person who can see the confidential Information. The information of the customer is only available for the administrator.
- 3. Software Quality Attributes: The system is user friendly, interoperable and flexible

4.4 Database Design

Attributes and data types, as well as the relationships among them were defined basing on the user requirements. It also involves the construction of a suitable data model for the system.

4.4.1 Entities

a. Customer

The person getting food from the restaurant (online platform).

b. Category details

The categories of food available for purchase.

c. Food

The details of the available food.

d. Order details

The details of the food order and the customer details.

e. Admin

Information about

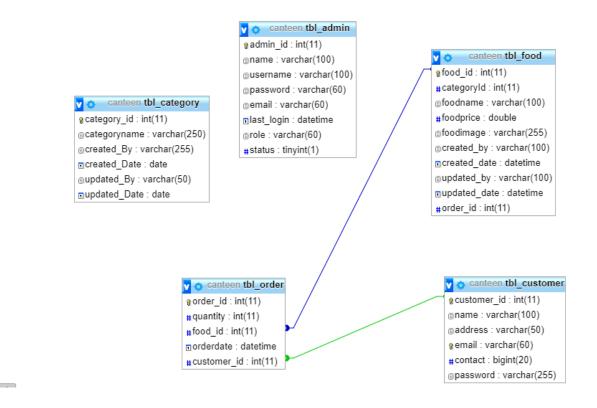


Figure 4.1 showing the data base logical design for a food ordering system

4.4.2 Table Attribute Description (Physical Design)

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Admin_id | Int | No | 12 |
| Name | Varchar | Yes | 100 |
| Username | Varchar | Yes | 60 |
| Password | Varchar | Yes | 60 |
| Email | Varchar | Yes | 100 |
| Last_login | Datetime | Yes | 60 |
| Role | Varchar | Yes | 60 |
| Status | Tinyint | Yes | 1 |
| | | | |
| | | | |

Table 4.1: showing Admin details

Table 4.2: showing customer details table

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Customer_id | Int | No | 1 |
| Name | Varchar | Yes | 100 |
| Address | Varchar | Yes | 100 |
| Email | Varchar | Yes | 60 |
| Contact | Varchar | Yes | 60 |
| Password | Varchar | Yes | 60 |

Table 4.3: Showing food table details

| Column Name | Data Type | Nullable | Size |
|--------------|-----------|----------|------|
| Food_id | Int | Yes | 11 |
| Categoryid | Int | Yes | 11 |
| Foodname | Varchar | Yes | 100 |
| Foodprice | Double | Yes | 100 |
| Foodimage | Varchar | Yes | 255 |
| Created_by | Varchar | Yes | 100 |
| Created_date | Datetime | Yes | |
| Updated_by | Varchar | Yes | 100 |
| Updated_date | Datetime | Yes | |
| Order_id | Int | No | 11 |

Table 4.4: Showing order details

| Column Name | Data Type | Nullable | Size |
|-------------|-----------|----------|------|
| Order_id | Int | Yes | 11 |
| Quantity | Int | Yes | 11 |
| Food_id | Int | Yes | 11 |
| Order_date | Datetime | Yes | |
| Customer_id | Int | Yes | 11 |

Table 4.5: Showing categories of food details

| Column Name | Data Type | Nullable | Size |
|----------------|-----------|----------|------|
| Category_id | Int | Yes | 11 |
| Categoryname | Varchar | Yes | 250 |
| Created_by | Varchar | Yes | 255 |
| Created_date | Datetime | Yes | |
| Updated_by | Varchar | Yes | 200 |
| Updated_date | Datetime | Yes | |

4.5 System Implementation

The Food ordering system (FOS) provides the following types of easy-to-use, interactive, and intuitive graphical and telephonic interfaces.

- i. The FOS provides an easy-to-use, intuitive Graphical User Interface (GUI) as part of the Administrator's working desktop environment.
- ii. The FOS also provide an interactive Graphical User Interface, for the general customers.

The system working scenario is as follows:

- i. The customer should register himself/herself in order to see the menu list and order food as well.
- ii. The customer will need to input all the required particular details during the registration process.

iii. Upon successful login, the customer will be registered officially to the web service and he can login using his username and password.

4.5.1 SYSTEM USERS ADMINISTRATOR

This is the person charged with responsibility of updating System Content

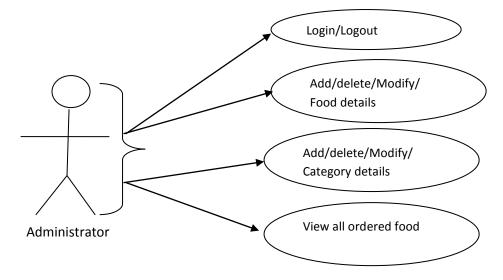
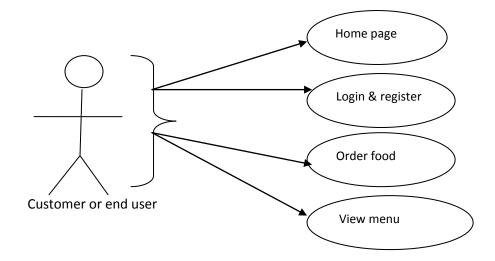


Figure 4.2 Administrator use case diagram

Customer (Registered user)



The person who accesses the system from the user point of view

Figure 4.3 Customer use case diagram

4.5.2 Hardware Platform

The implementation requirements depend on the system specifications. These are the hardware and software requirements that the system runs on. The system supports all Pentium III clients and above computers, operating systems, Linux, Windows NT, Mac with 512 MB of RAM, at least 10GB of hard disk space and a 550 MHZ of the processor speed.

4.5.3 Software Platform

The client computer must have internet connectivity to have access to the web server through TCP/IP. The system should be installed on any server computer running on either Linux or windows architecture. The server should have at least 10 GB of RAM and I Terabyte of storage space and running on processor speed of at least 10 GHz.

4.5.4 System Execution Sequence

This is divided into two, User's environment and Administrator environment

4.5.4.1 User's Environment

a) Welcome Page

This appears when the URL of Chop-easy is typed in any browser. While on this page customers are required to register or login.

| Name: |
|----------------|
| |
| Full Name |
| Hostel: |
| Hostel |
| Matric Number: |
| Matric Number |
| Email: |
| Email |
| Password: |
| |

Figure 4.4 showing the home page a food ordering system

b) User Dashboard

After a successful login the customer is being directed to the user dashboard section where the user can view the menu list and also order food and log out.

| Welcome, Chin User Dashboard | | | | | View Orders Logout |
|---------------------------------|-----------------------|-------|-------|----------|--------------------|
| Food List | | | | | |
| Name | Category | Price | Image | Quantity | Order |
| Rice and chicken | grains | 400 | | 1 | Order |
| spaghetti | grains | 300 | | 1 | Order |
| Beans | grains | 200 | | 1 | Order |
| Apple | Vegetables and Fruits | 50 | | 1 | Order |

Figure 4.5 showing the user dashboard for the food ordering system

c) Order List

This section shows the list of previously and currently ordered food. It contains the list of the ordered food as well as the amount spent for each food on the menu, it also contains the quantity of the particular meal purchased and the date and time of purchase.

| Welcome, Chined User Dashboard | u Ogeleka | | | | Dashboard Logout |
|-----------------------------------|-----------|------------|-------------|-----------------|---------------------|
| Orders List | | | | | |
| Food Name | Quantity | Food Price | Total Price | Customer | Date |
| bottle water | 1 | 50 | 50 | Chinedu Ogeleka | 2019-06-22 17:50:56 |
| soft drink | 1 | 100 | 100 | Chinedu Ogeleka | 2019-06-22 17:50:50 |
| spaghetti | 1 | 300 | 300 | Chinedu Ogeleka | 2019-06-22 17:50:44 |
| Rice and chicken | 1 | 400 | 400 | Chinedu Ogeleka | 2019-06-22 17:50:42 |
| © Chop-easy | | | | | |

Figure 4.6 showing the order list for the food ordering system

d) Logout page

When the user clicks on the logout button, he or she is redirected back to the home page.

| Chop-easy | |
|--------------------------|-----------------------------|
| User Logged Out. | |
| Login | Register as a new Customer: |
| Email: | Name: |
| nicolaschinedu@gmail.com | Full Name |
| Password: | Hostel: |
| | Hostel |
| Login | Matric Number: |
| | Matric Number |
| Login as Admin ? | Email: |
| | Email |

Figure 4.7 showing the logout page for the food ordering system

4.5.4.2 Administrator Environment

This is restricted environment; it is used by the administrator to change system content. It's accessed by clicking on administrator link on the system menu. Access to this environment requires an admin password. Once the correct admin password is entered the person will have access to modify/ delete and all control of the system.

e) Administrator Password Interface

Admin Login - My Canteen

| Admin Details | |
|---------------|--|
| Username: | |
| Password: | |
| | |
| Login Admin | |
| Chop-easy | |

Figure 4.8 showing the administrators food ordering system

f) Administrators Home Interface

This is the administrator's home interface; it's accessed when a correct admin password is entered in the interface above. Once on this interface the administrator can add category, edit food details, add food price, update menu list, upload food pictures, change database passwords and control every aspect of the system.

Admin Login - My Canteen

| Admin Details | |
|---------------|--|
| Username: | |
| Password: | |
| | |
| Login Admin | |
| © Chop-easy | |

Figure 4.8 showing the administrator's login food ordering system

g) Add Category Interface

This interface is used by the administrator to add category of food in the system. categories added here can then available for ordering by the customer. In here the administrator can add a new category or update an existing category.

| elcome, admin Imin Dashboard |
|---------------------------------|
| Add New Food Category |
| Category Name: |
| Add Reset |

Figure 4.10 showing the add new food category page for the food ordering system

h) Add Food Interface

This form is used by the administrator to add food to the menu list to the system. Food added here is displayed to the user menu list, and available for ordering by the customer. In here the administrator can add the food name, or food category, price and the administrator can also upload images of the food.

| Add New Food Item |
|-----------------------------------|
| Food Name: |
| Food Category: |
| grains • |
| |
| Image: Choose file No file chosen |
| Add Reset |
| |

Figure 4.11 showing the page to add food to the menu list food ordering system

i) Food List

This interface is used by the administrator to update the food on the menu list added food as well as delete food from the menu list.

| Food List | | | | |
|------------------|-----------------------|-------|----------|-------------|
| Name | Category | Price | Image | Edit |
| Rice and chicken | grains | 400 | 6 | EDIT DELETE |
| spaghetti | grains | 300 | | EDIT DELETE |
| Beans | grains | 200 | | EDIT DELETE |
| Apple | Vegetables and Fruits | 50 | (| EDIT DELETE |

Figure 4.12 interface showing the menu list of the food ordering system

| Edit Food Item |
|--|
| Food Name: |
| Rice and chicken |
| Food Category: |
| grains 🔹 |
| Price: |
| 400 |
| New Image (Old as Default): Choose file No file chosen Old Food Image: |
| Edit It |

Figure 4.13 showing the page to edit food item food ordering system

j) Order Information Interface

This interface is used by the administrator to view ordered food. This interface gives a record of what has been ordered, the customer that ordered and the time the user ordered.

| All Orders List | | | | | | |
|------------------|----------|------------|-------------|-----------------|---------------------|--|
| Food Name | Quantity | Food Price | Total Price | Customer | Date | |
| bottle water | 1 | 50 | 50 | Chinedu Ogeleka | 2019-06-22 17:50:56 | |
| soft drink | 1 | 100 | 100 | Chinedu Ogeleka | 2019-06-22 17:50:50 | |
| spaghetti | 1 | 300 | 300 | Chinedu Ogeleka | 2019-06-22 17:50:44 | |
| Rice and chicken | 1 | 400 | 400 | Chinedu Ogeleka | 2019-06-22 17:50:42 | |
| plantain | 1 | 50 | 50 | ayanfe | 2019-06-16 22:26:34 | |
| Apple | 1 | 50 | 50 | ayanfe | 2019-06-16 22:26:29 | |
| Rice and chicken | 1 | 400 | 400 | ayanfe | 2019-06-16 22:26:24 | |

Figure 4.14 showing the ordered list food ordering system

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

After studying the method involved in student ordering food in Mountain Top University (MTU), it was discovered that this method is associated with many problems. A new system was developed to overcome some of the major problems. The new system was built using the water fall model and was coded in visual studio code environment, using major web development languages HTML, CSS and JavaScript for the development of the frontend and PHP and MySQL for the backend and database management. Also the web app was tested to ensure smooth operation of the new system

5.2 Conclusion

Before modern computing, the ordering system was done using manual means. This meant that a person about to order had to spend a lot of unnecessary time waiting in queues in order to food from the cafeteria. The manual process of ordering was also prone to human errors, which lead to a lot of dissatisfaction amongst customers. Nowadays competition is so fierce between restaurants that there are lot of discounts and a lot of luxuries given to customers that will give an edge to that particular restaurant. The online food ordering system automates these processes of ordering food online, thus reducing the time wasted as well as the errors that are involved in the manual process. People will argue that online ordering system are expensive, and create unfair competition between other restaurants that don't have them. From the researchers view, online food ordering system is one the best innovation that has taken place in the restaurant company and those companies that have not yet embraced online food ordering system ought to lose out, they may sight, additional costs, maintenance cost and the cost of development as their drawbacks but as Henry R. Luce, put it "Business is a continuous dealing with the future, more than any other occupation ; it is a continuous calculation, an instinctive exercise in foresight". World Wide Web and the Internet is here and restaurant companies for the future will seize this opportunity develop online food ordering system and prosper.

5.3 Recommendations

The researcher recommends the following about the system:

- The researcher recommends that the administrators and staff should be trained on how to use the system, thus enabling them to understand the functionality of the entire system.
- More research on this system is required to fully identify and eliminate some of the weaknesses and integrate it with banks to enable online payment
- i. There is need for the system upgrade as user's requirements change. User requirements differ with time, therefore, it is of great help for the system to be flexible enough.
- ii. Other researchers can use this project report as a basis during future study of food ordering system.
- iii. Owing to the ease and comfort of Food Ordering Systems, local restaurant which are not on the system should be encouraged to compensate the system.
- iv. The framework should be produced affordable to promote patronization of the scheme by customers
- v. However, a lot of system access is protected by a username and password, the entire computer system should be shielded from unauthorized individuals in order to prevent misuse and system component harm.
- vi. Users should closely select distinctive usernames and very powerful passwords to prevent system safety breaches, so they should not have brief passwords, using the names of their colleagues or families as passwords.
- vii. In case of hardware or software malfunction, backups should be done frequently to avoid data loss.

5.4 Limitations to Study

- i. Time Constraints.
- ii. Scarcity of previous works

References

- Anderson, R.G. (1978), "Data processing and Management Information Systems" McDonald and Evans Ltd.
- Bhatnagar, P. (2006, march 28). Dinning Trends: self-service=Quick-service.
- Brickers, J. (2006, July 24). Is Fast Casual Self-Service at the Tripping Ponit?
- De Leon, E. (2008, August 23). Best Online Food Ordering System. Restaurant Checklist.
- Diane (1993) Computer Reservation Systems: "Action Needed to Better Monitor the CRS Industry and Eliminate CRS Biases", DIANE Publishing Company. ISBN1568069774
- Gan, C.C. (2002). Online Fast Food Restaurant Ordering Systems.
- Henry R. Luce (2001) "The Rise of the American News Media" The Johns Hopkins University Press (July 12, 2001)
- Hobbs, N. (2004, march 26). Restaurant Customer Ordering.
- Kapchnaga, R, (2014). Food Ordering System Using Mobile Phone (Doctoral dissertation, UTAR).
- Kroc, Ray (1977). Grinding it out: The Making of McDonald's. Chicago: Contemporary Books.
- Nathaniel, R., Bashe, C. J., Oaks, M. R., Crago, R. P., Fox, P. E., Haddad, J. A., & Phelps,
 B. E. (1966). U.S. Patent No. 3,245,039. Washington, DC: U.S. Patent and Trademark Office.
- O'Brien, Jerraya, A. A., K., & Ismail, T. B. (2001). Linking system design tools and hardware design tools. In *Computer Hardware Description Languages and their Applications* (pp. 345-351). North-Holland.
- Purname, J., & Wibowo, A.Y. (2007). Wireless Application for Ordering Management System in a Restaurant.

- Sharma, I. (2007, June 22). How Online Food Ordering System helps you run more efficiently.
- Stair, A. T. (1996). MSX design parameters driven by targets and backgrounds. Johns Hopkins Apl Technical Digest, 17(1), 11.
- Techopedia.com.(2017). *database*.m[online]https://www.techopedia.com/definition/1185/d atabase-db.

Appendix

Source Code for food ordering system

```
REGISTRATION AND LOGIN
```

```
<?php
  session_start();
  if(isset($_SESSION['id']) ){
   header("Location:dashboard.php");
    die();
  }
  if(isset($_SESSION['admin'])){
    header("Location:admin-cp.php");
   die();
  }
?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <meta support="Niush" domain=".tk" status="live">
  <title>Chop-easy</title>
  <link rel="stylesheet" href="dist/css/bootstrap.min.css">
</head>
<body >
  <div class="container">
    <br/>
    <h1>Chop-easy</h1>
    <hr/>
    <?php
      if(isset($_GET['user']) && $_GET['user'] == 'off'){
    ?>
      <div class="alert alert-warning" role="alert">
        User Logged Out.
      </div>
    <?php } ?>
    <?php
      if(isset($_GET['login'])){
    ?>
      <div class="alert alert-danger" role="alert">
        Login Error !!
      </div>
    <?php } ?>
```

```
<?php
      if(isset($_GET['register'])){
        if($ GET['register'] == 'success'){
    ?>
      <div class="alert alert-success" role="alert">
        Register Successful !! Login to Continue.
      </div>
    <?php
        }else{
    ?>
      <div class="alert alert-danger" role="alert">
        Registration Failed !!
      </div>
    <?php
        }
      }
    ?>
    <?php
      if(isset($_GET['email'])){
        if($_GET['email'] == 'taken'){
    ?>
      <div class="alert alert-danger" role="alert">
        Opps. Email already used !!!
      </div>
    <?php
        }
      }
    ?>
    <div class="container">
      <div class="row">
        <div class="col-sm">
          <div class="card">
            <div class="card-header">
              <h4>Login</h4>
            </div>
            <div class="card-body">
              <form id="login" action="logincheck.php" method="POST">
                <div class="form-group">
                  <label for="email">Email: </label>
                  <input type="text" class="form-control" placeholder="Email"</pre>
id="email" name="email" required/>
                </div>
                <div class="form-group">
                  <label for="password">Password: </label>
```

```
<input type="password" class="form-control"</pre>
placeholder="Password" id="password" name="password" required/>
                </div>
                <input class="btn btn-success" type="submit" value="Login"/>
              </form>
            </div>
            <div class="card-footer">
              <a href="admin.php">Login as Admin ?</a>
            </div>
          </div>
        </div>
        <div class="col-sm">
          <div class="card">
            <div class="card-header">
              <h4>Register as a new Customer:</h4>
            </div>
            <div class="card-body">
              <form id="register" action="registercheck.php" method="POST">
                <div class="form-group">
                  <label for="name">Name: </label>
                  <input type="text" class="form-control" placeholder="Full</pre>
Name" id="name" name="name" required/>
                </div>
                <div class="form-group">
                  <label for="address">Hostel: </label>
                  <input type="text" class="form-control" placeholder="Hostel"</pre>
id="address" name="address" required/>
                </div>
                <div class="form-group">
                  <label for="contact">Matric Number: </label>
                  <input type="text" class="form-control" placeholder="Matric</pre>
Number" id="contact" name="contact" required/>
                </div>
                <div class="form-group">
                  <label for="email">Email: </label>
                  <input type="text" class="form-control" placeholder="Email"</pre>
id="email" name="email" required/>
                </div>
                <div class="form-group">
                  <label for="password">Password: </label>
                  <input type="password" class="form-control"</pre>
placeholder="Password" id="password" name="password" required/>
                </div>
```

REGISTRATION CHECK

```
<?php
 require 'database.php';
  $name=isset($_POST['name']) && !empty(trim($_POST['name'])) ?
htmlspecialchars(trim($ POST['name'])):null;
  $address=isset($_POST['address']) && !empty(trim($_POST['address'])) ?
htmlspecialchars(trim($_POST['address'])):null;
  $contact=isset($_POST['contact']) && !empty(trim($_POST['contact'])) ?
htmlspecialchars(trim($_POST['contact'])):null;
  $email=isset($_POST['email']) && !empty(trim($_POST['email'])) ?
htmlspecialchars(trim($_POST['email'])):null;
  $password=isset($_POST['password']) && !empty(trim($_POST['password'])) ?
md5(trim($_POST['password'])):null;
 //echo $name.$username.$password;
  if($password != null && $email != null && $name != null && $address != null
&& $contact != null){
    $select_query = "SELECT * FROM tbl_customer WHERE email='${email}'";
    $search_user = $db->query($select_query);
    $search_result = $search_user->fetch_assoc();
    if($db->affected_rows > 0){
      header("Location: index.php?register=taken&email=exist");
      die();
```

```
$insert_query = "INSERT INTO
tbl_customer(name,email,address,contact,password)
VALUES('${name}','${email}','${address}','${contact}','${password}')";
    $insert_user = $db->query($insert_query);
    if($db->affected_rows > 0){
      header("Location:index.php?register=success");
    }else{
     header("Location:index.php?register=failed");
      die();
    }
  }else{
   header("Location:index.php?register=failed_empty");
   die();
  }
 $db->close();
?>
```

```
LOGIN CHECK
```

}

```
<?php
  require 'database.php';
  $email=isset($_POST['email']) && !empty(trim($_POST['email'])) ?
htmlspecialchars(trim($_POST['email'])):null;
  $password=isset($_POST['password']) && !empty(trim($_POST['password'])) ?
md5(trim($_POST['password'])):null;
  if($password !== null && $email !== null){
    $select query = "SELECT * FROM tbl customer WHERE email='${email}' AND
password='${password}'";
    $search_user = $db->query($select_query);
    $search_result = $search_user->fetch_assoc();
    if($db->affected_rows > 0){
      $user_id = $search_result['customer_id'];
      $email = $search_result['email'];
      $name = $search_result['name'];
      $address = $search_result['address'];
      session_start();
      $_SESSION['id']=$user_id;
      $_SESSION['name']=$name;
      $_SESSION['email']=$email;
```

```
$_SESSION['address'] = $address;
header("Location: dashboard.php");
die();
}else{
header("Location:index.php?login=failed");
die();
}
}else{
header("Location:index.php?login=failed_empty");
die();
}
$db->close();
}>
```

CHECK ORDER

```
<?php
 require 'database.php';
  $food_id=isset($_POST['food_id']) && !empty(trim($_POST['food_id'])) ?
htmlspecialchars(trim($_POST['food_id'])):null;
  $customer_id=isset($_POST['customer_id']) &&
!empty(trim($_POST['customer_id'])) ?
htmlspecialchars(trim($_POST['customer_id'])):null;
  $quantity=isset($_POST['quantity']) && !empty(trim($_POST['quantity'])) ?
trim($ POST['quantity']):null;
  $orderdate = date('Y-m-d H:i:s');
 //echo $name.$username.$password;
  if($quantity != null && $customer_id != null && $food_id != null){
    $insert query = "INSERT INTO tbl order
(quantity,food id,orderdate,customer id)
VALUES('${quantity}','${food_id}','${orderdate}','${customer_id}')";
    $insert order = $db->query($insert query);
    if($db->affected_rows > 0){
      header("Location:dashboard.php?order=success");
    }else{
      echo mysqli_error($db);
      die();
      header("Location:dashboard.php?order=failed");
      die();
    }
  }else{
   header("Location:dashboard.php?order=failed empty");
   die();
  }
```

```
$db->close();
}>
```

DASHBOARD

```
<?php
  require 'database.php';
  session_start();
  if(!isset($ SESSION['email']) && !isset($ SESSION['id']) ){
    header("Location:index.php?login=failed");
    die();
  }
  if(isset($_SESSION['admin'])){
    header("Location:admin-cp.php");
    die();
  }
?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <meta support="Niush" domain=".tk" status="live">
  <title>Admin Dashboard</title>
  <link rel="stylesheet" href="dist/css/bootstrap.min.css">
</head>
<body>
  <br/>
  <div class="container">
  <h4>Welcome, <?=$_SESSION['name'];?></h4>
  <div class="row">
    <div class="col-sm">
      <h4>User Dashboard</h4>
    </div>
    <div class="pull-right col-l">
      <a href="vieworder.php" class="btn btn-success">View Orders</a>
      <a href="logout.php"><button class="btn btn-danger">Logout</button></a>
    </div>
  </div>
  <hr/>
  <?php
    if(isset($_GET['order'])){
      if($_GET['order'] == 'success'){
```

```
?>
   <div class="alert alert-success" role="alert">
     Order Successfully Placed !!
   </div>
 <?php
     }else{
 ?>
   <div class="alert alert-danger" role="alert">
     Order Failed !!
   </div>
 <?php
     }
   }
 ?>
 <?php
   $select_query = "SELECT tbl_food.food_id, tbl_food.foodname,
tbl_food.foodprice, tbl_food.foodimage, tbl_category.categoryname FROM
tbl food JOIN tbl category WHERE tbl food.categoryid =
tbl_category.category_id ORDER BY categoryid";
   $search_posts = $db->query($select_query);
 ?>
 <div class="card-footer">
   <h2>Food List</h2>
 </div>
 <thead class="thead-light">
     Name
       Category
       Price
      Image
      Quantity
       Order
     </thead>
   <?php
     while($search_result = $search_posts->fetch_assoc()){
        echo '<form action="ordercheck.php" method="POST">';
        echo '';
        echo '';
          echo '<input type="hidden" name="food_id" value="'.</pre>
$search_result['food_id'] .'">';
          echo '<input type="hidden" name="customer_id" value="'.</pre>
$_SESSION['id'] .'">';
          echo $search_result['foodname'];
```

```
echo '';
         echo '';
           echo $search_result['categoryname'];
         echo '';
         echo '';
           echo $search_result['foodprice'];
         echo '';
         echo '';
         if($search_result['foodimage'] != null){
       ?>
           <img src="<?=$search_result['foodimage']?>" width="120px"/>
       <?php
         }else{
          echo 'NULL';
         }
         echo '';
         echo '';
         ?>
         <input type="number" name="quantity" value="1" min="1">
     <?php
         echo '';
         echo '';
         ?>
         <input class="btn btn-success" onclick="return confirm('Place The</pre>
Order ?');" type="submit" value="Order">
         </form>
     <?php
         echo '';
         echo '';
       }
     ?>
   <br/>
 <div class="card-footer">
 <h4>&copy; Chop-Easy</h4>
```

</div> </body> </html>