DESIGN AND IMPLEMENTATION OF AN ONLINE FOOD ORDERING SYSTEM

AIGBOKHAEVBO CLEMENTINA
PSC1712794

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF PHYSICAL SCIENCES
UNIVERSITY OF BENIN

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APPROVAL PAGE

This is to certify that this project work, "**Design and Implementation of an Online Food Ordering System***", was written by* **Aigbokhaevbo Clementina** with Registration number ***PSC1712794*** and has been read and approved for the award of **(Degree, ND, or HND)** in the Department of Computer Science, University of Benin, Benin City.

……	**……**
Prof. (Mrs.) A.O. Egwali	**DATE**
(Project Supervisor)	
……	**……**
Prof G.O. Ekuobase	**DATE**
(Head of Department)	

DEDICATION

This work is dedicated to God for his enabling grace, and to all computer enthusiasts who help to make life a pleasant experience. To the relentless pursuit of knowledge and the unyielding spirit of innovation.

ACKNOWLEDGEMENT

I owe my indebtedness to my Supervisor Prof. (Mrs.) A. Egwali, the Head of Department Prof. G.O. Ekuobase and the Lecturers in the department of Computer Science for their moral support that facilitated the successful completion of my programme in University of Benin, Benin City. I am grateful to God Almighty and my parent for their financial support in my career. I really appreciate you all for everything, Thank you very much.

ABSTRACT

Online Food Ordering System is database program that keeps record of all transaction carried out in the restaurant on daily bases. The aim of the study is to design and implement an Online Food Ordering System. In achieving this aim, the following objectives were laid out to determine how computerized management information system has facilitated increase productivity, decrease paperwork, and ability to analyze trouble spots. The motivation that led to the implementation of the proposed system is that the use of manual method in keeping information in the system. So among the numerous problems associated with the existing system are; staff are spending far too much time chasing mistakes instead of tending to customers, sales going unrecorded, inventory doesn't match your tallies and other. The methodology adopted in this study is the object oriented analysis and design methodology (OOADM) which is a technical approach for analyzing and designing an application or system by applying object throughout the software development process. The programming language used is HTML, CSS, JAVASCRIPT, PHP, SQL and JQUERY. The reason why web programming languages was used is because, it is platform independent and it is a web based application. This study is significance because its conclusions would be useful to: Human Resources Managers in the hotel and restaurants business, the Federal, State and Local Government, scholars in the field of hotel and restaurant management. The expected result is an Online Food Ordering System that will focus on food ordering, food menu, and payment on food delivery.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Online Food Ordering System is database program that keeps record of all transaction carried out in the restaurant on daily bases. The system helps the restaurant management to keep adequate record of all transactions carried out and does that will still be carried out by the restaurant and maintain the database of the restaurant. As a prelude to other parts of this study, this chapter will discuss the background upon which this study was initiated, the statement of problems that led to this study, the Aim and Objectives of the study. Others are Significance of the study, Scope of work, Limitation of the study and Definition of technical terms.

1.2 Background of Study

The online food ordering system is one of the latest services most fast food restaurants in the western world are adopting. With this method, food is ordered online and delivered to the customer. This is made possible through the use of electronic payment system. Customers pay with their credit cards, although credit card customers can be served even before they make payment either through cash or cheque. So, the system designed in this project will enable customers go online and place order for their food.

Due to the great increase in the awareness of internet and the technologies associated with it, several opportunities are coming up on the web. So many businesses and companies now venture into their business with ease because of the internet. One of such business that the internet introduced is an online food ordering system. In today's age of fast food and take out, many restaurants have chosen to focus on quick preparation and speedy delivery of orders rather than

offering a rich dining experience. Until recently, most of this delivery orders were placed over the phone, but there are many disadvantages to this system.

It is possible for anybody to order any goods via the internet and have the goods delivered at his/her doorsteps. But while trying to discuss the transfer method of the goods and services, attention is focused on the payment mode. In other words, how possible is it to pay for goods and services via the internet? This then leads to the discussion of the economic consequences of digital cash. What are the implementations from the view point of economic? Since the world is fast becoming a global village, the necessary tool for this process is communication of which telecommunication is a key player?

The challenges encountered that led to the execution of the research work is that, food sales and ordering services are the fundamental tools in any business organization the profit and loose of any business depends on detailed information on sales and services made to aid in decision making and implementation, if accountability is not checked, then the business is sure to collapse, as a result in a any retail and hospitality business there is a need for a system that gives feedback to the management to aid decision making, this is where computerized management information system comes handy. Since all of the ordering is done automatically, the method also significantly lessens the strain on the eateries. After a consumer puts an order on the website, it is entered into a database and is retrievable in real time by the restaurant via an admin login and desktop program. The program shows the ordered meal in a clear and concise format, together with the delivery information and alternatives.

This research work is based on providing adequate information about restaurant. At the end of this project, the research work, the software will be able to provide precise and concise food ordering information from daily records from the database.

1.3 Statement of the Problems

Improving Restaurant Operations through Computerized Management Information Systems

Restaurant businesses rely heavily on accurate sales data and efficient ordering services to inform decision-making and drive profitability. However, manual systems can lead to accountability issues, wasted resources, and decreased customer satisfaction.

1.4 Aims and Objectives of the study

This research aims to investigate the implementation of a computerized management information system (MIS) in a restaurant setting to address the following key issues:

1. Inaccurate Sales Data: Manual sales tracking can lead to errors, making it challenging to make informed decisions.
2. Inefficient Ordering and Inventory Management: Manual ordering systems can result in wasted resources, overstocking, or stockouts.
3. Insufficient Customer Feedback Mechanisms: Customers may struggle to provide feedback or request specialized dietary options through computerized ordering systems.
4. Labor Management and Scheduling: Restaurants face challenges in staffing and scheduling due to fluctuating demand.

By exploring the implementation of a computerized MIS, this research seeks to provide insights into how restaurants can:

1. Improve sales data accuracy and decision-making.
2. Optimize ordering and inventory management processes.
3. Enhance customer feedback mechanisms and specialized dietary options.
4. Develop more effective labor management and scheduling strategies.

This study will focus on the restaurant industry, with a specific emphasis on the application of computerized MIS to address operational challenges and improve overall performance.

1.5 Significance of Study

The study is primarily aimed at increasing efficiency in operation, reducing time and running cost, monitoring and the recording of the activities and total administration in Jeveniks Restaurant Ltd Enugu by introducing an Online Food Ordering System.

Besides, this study is significance because its conclusions would be useful to:

1. Human Resources Managers in the hotel and restaurants business
2. The Federal, State and Local Government
3. Scholars in the field of hotel and restaurant management
4. Management of Jeveniks Restaurant Ltd Enugu

1.6 Scope of the Study

The scope of this research is focused on the Design and Implementation of an Online Food Ordering System. This project work is narrowed to Jeveniks Restaurant Ltd Enugu. The program will concentrate on Food Ordering, Food Menu and Payment on Delivery.

1.7 Limitations of the Study

During the course of this study, many things militated against its completion, some of which are:

1. **Time Constraint:** The time frame given to accomplish this project was very short due to school academic calendar and it was carried out under pressure which made the researcher not to implement some necessary features.
2. **Establishment Policies:** Establishment policies posed a serious limitation as most staffs are not ready to release information needed for this project work. There were lots of

information needed from the staffs of this institution to enhance the study which took them time to release or they did not release at all for security purposes, hence the scope was reduced.

3. **Research Material:** availability of research material is a major setback to the scope of the study.
4. **Financial Constraint:** Insufficient fund tends to impede the efficiency of the researcher in sourcing for the relevant materials, literature or information and in the process of data collection (internet).

1.8 Definition of Terms

Computer:

A computer is an electronic machine that is capable of solving problems by accepting data, performing prescribed operation on the data accepting and supply the result of those operations.

Data:

They are values, numbers, quantities or instruction by the computer user. Data are raw facts or figure that are not yet processed.

Database:

A structured set of data held in a computer, especially one that is accessible in various ways.

Management:

It is the co-ordination of all the resources of an organization through the process of planning, organization, directing and controlling in order to attain organizational objectives.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the review of related literature. A literature review includes the current knowledge as well as theoretical and methodological contributions to a particular topic. It documents the state of the art with respect to the topic you are writing. It surveys the literature in the topic selected. In this research work the literature review includes the An Overview of Different Types of Restaurants, Technology's Effect on Restaurants: Building a Strategic Competitive Advantage, Strategic Management Process for Restaurants, Broad Environment for Restaurants, Technology's Impact in the Restaurant and Hotel Industry, Managerial Implications in the Restaurant Industry, Different Types of Restaurant Concepts, Definition of Management Information Systems, Management Information Systems in Restaurants, Online Food Ordering, Multi-Online Food Ordering System Solution, Restaurant Booking Systems, and Management information System and the Computer.

2.2 An Overview of Different Types of Restaurants

There are many different restaurant types out there. New restaurants open all the time, and concepts vary from pizza chains to fine sushi restaurants to breakfast cafes and even restaurants that specialize in peanut butter and jelly sandwiches. Despite the broad range of restaurant concepts, most are classified by one of three major restaurant types, including full-service, fast-casual and quick-service. This article details the challenges and opportunities operators face within each restaurant type.

Figure 2.1: Full Restaurant Outlook

(a) **Full-Service Restaurants:** Full-service restaurants encapsulate the old-fashioned idea of going out to eat. These restaurants invite guests to be seated at tables, while servers take their full order and serve food and drink. Full-service restaurants are typically either fine dining establishments or casual eateries, and in addition to kitchen staff, they almost always employ hosts or hostesses, servers and bartenders. Two standard types of full-service operations include fine dining and casual dining restaurants, discussed below.

i. **Fine Dining:** Fine dining restaurants top the ladder when it comes to service and quality. Fine dining restaurants usually gain perceived value with unique and beautiful décor, renowned chefs and special dishes. Listed below are some of the features, challenges and advantages of running a fine dining restaurant.

Figure 2.2: Fast Casual Restaurant Outlook

(b) **Fast-Casual Restaurants:** Fast-casual is relatively modern terminology for a restaurant that falls between full-service and quick-service. Also called quick-casual and limited-service, these types of restaurants are typically distinguished by service type and food quality. Fast-casual restaurants are often perceived to offer better quality food and a more upscale dining area than quick-service restaurants, but with less expensive menu items than full-service restaurants.

Figure 2.3: Quick Service restaurant Outlook

(c) **Quick-Service Restaurants:** Quick-service is the term for restaurants that capitalize on speed of service and convenience. Fast-food restaurants often fall under the umbrella of quick-service restaurants, but not all quick-service places serve fast-food.

2.3 Technology's Effect on Restaurants: Building a Strategic Competitive Advantage

Current economic conditions have had a dramatic, negative financial impact on the hospitality industry (Brandau, 2009). Consumer behavior patterns have been changed for multiple reasons, including high levels of unemployment, a deep recession, and overall fear of what the future holds. Hoteliers and restaurateurs will need to look at various strategic vehicles to build and regain customers. The face of innovation in technology is continually changing.

The hotel and restaurant industry needs to take a proactive stance in implementing technological advances, while continually striving to build levels of service quality and guest loyalty (Magnini, Honeycutt, & Hodge, 2003). A 2004 study conducted by the National Restaurant Association stated that 70% of a restaurants business base comes from repeat customers. The same survey asked restaurateurs if it was getting more difficult to maintain customer loyalty. Fifty-two percent of the respondents said yes (Sanson, 2004). Tapping into customers needs through the use of information can be instrumental in building loyalty and gaining competitive advantage (Piccoli, 2008).

Hotels and restaurants are continually competing for employees, locations, and more recently information about customers. As more people are using the Internet there is a high amount of information that is being captured on web server logs (Garver, 2002). Proper extraction of this information coupled with high levels of service is what will help the hotel and restaurant industry build competitive advantage in a troubled economy. An organizations ability to take advantage

of external environmental factors will help the firm sustain and grow in economically challenging times (Oparanma, Hamilton& Accra-Jaja, 2009).

Piccoli, Spalding, and Ives (2001) stated that organizations need to structure the way they think around how customers think and act. By accomplishing a customer-centred focus, companies will be able to highlight their strengths and highlight opportunities for improvement. Information regarding customers will continue to have a big impact on the future of the industry.

2.4 The Strategic Management Process for Restaurants

The strategy formulation component is the driving force of the analysis. An in depth look at firm direction begins at this point. The focus in this stage is to assess the current vision, mission and objectives of the organization in addition to examining both the external and internal environments. From an external perspective, organizations need to look at two distinct environments: the broad environment and the task or firm environment (Harrison &John, 2008; Harrison, 2003).

The broad environment looks at factors, including societal trends, technological advances political and legal trends, economic factors and other major industry innovations. The task or firm environment looks at factors such as customers, competition, government agencies, suppliers, and financial intermediaries. Finally, the internal environment focuses on factors within the organization such as management, financial and human (Berry, 2009).

2.5 The Broad Environment for Restaurants

Opportunities are discovered when organizations begin to analyze the broad environment. Hoteliers and restaurateurs need to be cognizant of these factors and how they can drive change in the industry. Societal trends and technological trends should be critical points of interest for

industry executives. From a societal perspective, organizations need to look at influences such as current hot topics, emerging attitudes, demographic shifts and new fads (Oparanma, et al., 2009; Harrison, 2003).

An example of societal trends that are impacting the hospitality industry would include the explosion of social networking. The trend has spanned across several demographic barriers ranging from Baby Boomers to theMillennials.

There has additionally been an enormous affect on the hotel and restaurant industry. Bloggers have launched sites commenting about experiences that they have had and have made recommendations regarding the hotel or restaurant. Savvy industry executives understand the impact of these societal trends and focus efforts on establishing methodologies that can incorporate appropriate strategies to take advantage of these trends (Luebke, 2010).

Technological advances focus on the innovation of products, procedures, or services and how these developments can affect the hospitality industry (Yang & Fu, 2007; Harrison, 2003). For example, online reservations have grown exponentially over the years (Jin-Zhao & Jing, 2009).

The ability for industry executives to recognize the implications of this technological advance and develop strategies to take advantage of it is a critical component of strategy development. One of the premier online reservation74 Journal of Applied Business and Economics vol. 12(1) 2011portals, OpenTable.com, boasted that in 2006 dining seats filled in restaurants through the use of their online reservation system exceeded one million (Ross, 2006).

This was a 65% increase from the previous year. Industry leaders, not acknowledging this technological advance and implementing it in some capacity would find their companies lagging in providing the appropriate customer service that their clientele would demand. Delay in the implementation of technological advances of this magnitude detracts from developing sustainability and competitive advantage (Jin-Zhao & Jing, 2009; Piccoli, 2008; Yang & Fu, 2007).

2.6 Technology's Impact in the Restaurant and Hotel Industry

A study conducted by Griffin (1998) investigated how information (through data warehouses) was being utilized by restaurants/hotels, through the investigation of 12 of the largest hotel firms in the industry. In this study, only 7 of the 12 hotels were involved with data manipulation and 2 of the 7 had successfully developed and implemented their own data warehouses. Even though some of the hotels did not have data houses in place they were planning on the future development of this technology.

Most of the hotels in the study were, using information for support of strategic market analysis including, targeting new customers, fine tuning loyalty programs, sales analysis and conducting trend analysis. The study concluded that the hotels ability to collect, process, and access large amounts of data can help companies build a competitive advantage (Griffin, 1998).

A study conducted by Robinson (1996) examined 62 companies who had successfully developed and implemented data warehouses. The financial impact shown was remarkable, return results; ROI equaling 401% and payback periods of approximately 2.31 years.One of the limitations discovered in Robinson study was the expense involved with the development of this type of

technology. O'Sullivan (1996) has stated that the development of this type of data warehouse could cost in excess of 3 million dollars. The shear cost of development of this type technology will simply eliminate many smaller companies from participating in using this technology. A possible solution to the smaller firms could be purchasing information from a third party vendor on a decision-by-decision basis (O'Sullivan, 1996; Robinson, 1996).

Hotel executives understand the importance and power of information, especially in troubled financial Journal of Applied Business and Economics vol. 12(1) 2011 75times. The development and use of information systems can additionally aid in hotels ability to develop concepts for new development, target better locations, identify potential franchisees, locate new labormarkets, track employee performance, and, most importantly, track customer satisfaction (Jin- Zhao &Jing, 2009; Griffin, 1998).

Magnini, et al. (2003) have identified six essential factors that can help build successful marketing strategies through the use of data mining, a statistical technique that builds models from vast data bases. They include,

(a) Creating direct mail campaigns,

(b) Planning seasonal promotions,

(c) Planning the timing and placement of ad campaigns,

(d) Create personal advertisements,

(e) Define growing and emerging markets,

(f) Help in room reservations (wholesale and business customers) (Magnini et al., 2003).

The factors are recommended to be used in conjunction with other statistical modelling tools and help build competitive advantage. According to Siguaw and Enz (1999), companies that

effectively use technology will have the biggest affect on the customer satisfaction. The authors discussed three hotels which were awarded “best practices” for their technological innovations. These programs were specifically designed to improve service. These hotels were, The Balsams Grand Resort Hotel, Fairmont Copley Plaza, and the Ritz-Carlton Chicago.

At the Balsams Grand Resort Hotel in New Hampshire, technology was used to help develop a guest history log. The Balsams Grand used the guest history logs to capture customized information on the guests that had already made reservations at the hotel. The program was one of the first attempts to use an expert system model to gauge the needs and wants of the guests. Information was generated in regards to hotel inquiries, rooms, room types and numbers, special requests, times of year visited, any special requests, service personnel requested, etc. (Siguaw&Enz, 1999).

All of this information was stored into an individual’s personal file. The expert system then can anticipate almost any guest request. The success of this program has generated approximately 85% repeat business for the hotel. Additionally, newbusiness has been generated from previous guest recommendations (Siguaw&Enz, 1999).

Boston’s, Fairmont Copley Plaza’s property management system was adopted and incorporated to expedite the concierge service at the hotel. Property management system enabled to get guest information such as newspaper preference, wake up time, overnight laundry service, restaurants with distance and directions from hotel as well as many other options. The result was an overwhelming, 90% satisfaction rate of the concierge service at this hotel, with an increased revisiting rate (Siguaw&Enz, 1999).

At the Ritz Carlton in Chicago, customer demand of technical help with computers in the rooms was on the rise. With most guests making inquires to the concierge office, both guests and employees were getting frustrated due to lack of technical knowledge. In response Ritz management created a new position, pulling from the hotel management information systems department, called the concierge. With services being offered Monday through Friday, guests were able to obtain any technical support they need in conducting business requiring computers or computer technology. Customer service has improved overall, as well as the moral of the staff at the Ritz Carlton (Siguaw&Enz, 1999).

In addition to improving customer service and satisfaction several hotels were given "Best Practices Awards" for information technology by implementing systems that helped in the increased efficiency of hotel operations. The Barbizon Hotel and Empire Hotel New York co-developed a computer database and hotel logbooks, phone calls for maintenance and record keeping of operations.

Hotel personnel from any house phone or PC throughout the hotel can access the expert system. The expert system automatically assigns tasks to the responsible employee or manager, and can even page them to make them aware of the task. In 15 minutes the system will re-page to remind, and if the task has not shown to be completed the system will automatically notify the appropriate manager. The system also facilitates management in $750,000 in 3 years through increased productivity, decreased paperwork, and ability to analyze trouble spots. Directly linked to the hotels improvement in operations they have shared a 30% increase in repeat business (Siguaw&Enz, 1999).

It is evident through the preceding literature that leveraging this type of Information can lead organizations toward better decision making and building and sustaining competitive 76 Journal of Applied Business and Economics vol. 12(1) 2011advantage (Yang & Fu, 2007; Lee, Barker &Kandampully, 2003).

2.7 Managerial Implications in the Restaurant Industry

The technology being developed and implemented by hotels and restaurants is ultimately going to increase the level of service quality and customer satisfaction industry wide. As was seen by the studies conducted in the hotel industry, a primary focus was the improvement of the level of service to the guests (Siguaw&Enz, 1999).

The same scenario holds true for the restaurant industry. Service quality is a construct, which has received a great deal of attention and has been studied empirically in many industries including the restaurant industry (Garver, 2002; Bojanic& Rosen 1994; Stevens, Knutson, & Patton, 1999).

Vandermerwe (1993) felt that those companies which would become successful would have had to look at the customer's entire experience from the pre to post purchase stage. Strategic use of technological factors gives industry executives the ability to gauge that experience and to predict purchasing habits of current customers, future customers, clusters of customers, and can break groups down demographically for better analysis (Garver, 2002).

As in the hotel industry, restaurateurs would have the ability to build competitive and strategic advantage by better understanding the needs and wants of the guests, hence building repeat business.

Piccoli et al. (2001) believed that competitive advantage which is provided by technology can and will be invaluable to hospitality and other industries in the future. It is also felt that gaining competitive advantage by using technology, as a distinctive competency will require a total commitment from the entire organization.

Piccoli et al. (2001) continues by adding that proper evaluation of customers, competitors, internal and external factors combined with technology will uncover many opportunities which could be used to increase the service quality and customer satisfaction of hospitality and other industries customers.

2.8 Different Types of Restaurant Concepts

There are many differ types of restaurant concepts to choose from, when planning a new restaurant. It can be hard to decide which concept will be right for you. Before you settle on one particular concept, first consider the following: who's your audience? What is your price range? Are you thinking formal or casual? Do you have a particular type of food in mind that you can build a brand around? Below are eight distinct types of restaurant concepts, from fast food chains to fine dining. Keep in mind that your restaurant design theme can blur the line between concepts to make it unique (Harrison, 2007).

One of the hottest trends at the moment is fast casual, which is a slightly more upscale (and therefore more expensive) than fast food. Fast casual restaurants offer disposable dishes and flatware, but their food tends to be presented as more upscale, such as gourmet breads and organic ingredients. Open kitchens are popular with fast casual chains, where customers can see their food being prepared. Panera Bread is a good example of fast casual.

2.9 Definition of Management Information Systems

Management information systems provide critical information used to effectively operate a business. Many companies have entire departments devoted to managing, maintaining and configuring their management information systems. MIS began in the late 1960s and really gained ground in the 1990s. Because a MIS represents a significant investment for most organizations, small businesses must perform thorough due diligence before deciding to implement a new system or overhaul existing systems (Miller, 2001).

Management information systems refer to the practice of integrating computer systems, hardware and software used to meet an organization's strategic goals. A MIS basically provides companies with four different types of information: descriptive, diagnostic, predictive and prescriptive (Miller, 2001).

A MIS has become very important in the areas of strategic support, data processing and managing by objectives. Because a MIS provides enormous amounts of information many companies think they make great investments. This holds true only if the information gained from the MIS generates a change in a company's harmful behavior.

(a) **Descriptive Information:** Descriptive information provided by a MIS gives a company the "what is" state of the business. Descriptive, or "what is" information, provides the business with pertinent information that captures a specific moment during the company's operation. Examples of "what is" information include sales reports, financial reports, production reports, shipping, and receiving reports and customer service reports (Miller, 2001).

(b) **Diagnostic Information:** A MIS also provides companies with diagnostic information. Think of this type of information in terms of an automobile checkup. When a vehicle has a mechanical issue, often it gets a diagnostic checkup to determine the problem. A MIS provides the same type of diagnostic or "what is wrong" information. The diagnostic information generated compares the "what is wrong" information to standardized correct information. Companies use diagnostic information coupled with other information types to make decisions regarding corrective actions. For example, a shipment report indicates how many units of product "X" shipped (descriptive information) but the key performance indicator report indicates that shipments have fallen below target levels (diagnostic information).

(c) **Predictive Information:** As indicated by its name, predictive information provides companies with "what if" scenario analysis. Predictive information generated by a MIS doesn't always answer "what if" but it does provide companies with information to help determine future scenarios based on current information. Examples of predictive information include: What will sales look like next quarter? Should we increase the forecast for this line? Will prices stabilize next year(Miller, 2001)?

(d) **Prescriptive Information:** Prescriptive information answers the question "what should be done." After the predictive information provides a company with the "what if" scenario and the diagnostic information provides the "what is wrong" information, the predictive information leads the company in the direction to make an informed decision. Although predictive information does not provide the answer to "what if" or "what is wrong" information, it does give the company the information required to make a decision based on the company's goals and strategic objectives (Garver, 1999).

2.10 Management Information Systems in Restaurants

Restaurants are built of complex systems for buying, storing, preparing and selling food. The well-being of a restaurant depends on its management information systems, which coordinate everything from scheduling personnel to customer service. Online Food Ordering Systems should make a restaurant more profitable as well as a better place for customers to eat (Griffen, 2002).

(a) **Point of Sale Systems:** Every restaurant needs a strategy for taking orders, delivering information to the kitchen and charging customers for their food. These systems can be as simple as handwritten notes or as complicated as computer systems that send orders to the kitchen and tally sales for each server. Simple systems are less prone to technical difficulties, but they cannot process information as efficiently as smoothly functioning computer systems. Restaurant point of sale systems should also include infrastructure for processing credit card payments (Griffen, 2002).

(b) **Communication Systems:** Restaurants depend on communicating information between different divisions, such as servers relaying orders to kitchen staff and kitchen staff letting servers knows that their orders are ready. In addition, restaurant communication systems should enable staff to connect finished meals with the customers who ordered them, and convey details about special requests and special needs. Restaurant management must also develop information systems for communicating with both the front and the back of the house about issues such as low stock on particular menu items or ingredients (Griffen, 2002).

(c) **Human Resources Management Systems:** Staffing a restaurant can be tricky because demand for food will likely fluctuate dramatically, often due to variables that you cannot

track. Identify any variables you do observe that influence traffic in your restaurant, such as weather and day of the week. Build a weekly schedule to staff your restaurant in accordance with these variables, such as scheduling additional staff on Saturday night if that is your busiest shift (Griffen, 2002).

Compile data about sales and employee hours to determine a profitable ratio of employee hours to sales totals. Restaurant personnel training systems are also vital to success, ensuring that employees know company protocol and systems, and are capable of delivering a high quality product. Write a comprehensive employee manual detailing information that each member of your staff should know (Griffen, 2002).

(d) **Financial Management Systems:** Restaurant financial management systems should navigate issues of cash flow and keeping track of costs. A restaurant needs sufficient cash flow to buy supplies and pay employees, or it cannot continue to function. In addition, restaurants need to earn profit by controlling costs and maximizing revenue. Restaurant financial management systems should include cash flow projections forecasting income and expenses for upcoming months, and developing strategies to compensate for cash flow shortfalls such as a business line of credit or business credit card (Griffen, 2002).

2.10.1 Management Information Systems and Restaurant Reporting

All of our company restaurants utilize computerized management information systems, which are designed to improve operating efficiencies, provide restaurant and Support Center management with timely access to financial and operating data and reduce administrative time and expense (Ansel, 1999).

With our current information systems, we have the ability to query, report and analyze this intelligent data on a daily, weekly, period, quarter and year-to-date basis and beyond, on a company-wide, regional or individual restaurant basis.

Together, this enables us to closely monitor sales, food and beverage costs and labor and operating expenses at each of our restaurants. We have a number of systems and reports that provide comparative information that enables both restaurant and Support Center management to supervise the financial and operational performance of our restaurants and to recognize and understand trends in the business (Ansel, 1999).

Our accounting department uses a standard, integrated system to prepare monthly profit and loss statements, which provide a detailed analysis of sales and costs, and which are compared both to the restaurant-prepared reports and to prior periods. We have satellite technology at the restaurant level, which serves as a high-speed, secure communication link between the restaurants and our Support Center as well as our credit and gift card processor (Ansel, 1999).

2.11 Online Food Ordering

Online food ordering services are websites that feature interactive menus allowing customers to place orders with local restaurants and food cooperatives. Much like Online Shop, many of these allow customers to keep accounts with them in order to make frequent ordering convenient. A customer will search for a favorite restaurant, choose from available items, and choose delivery or pick-up. Payment can be amongst others by Credit card or cash, with the restaurant returning a percentage to the online food company (Ansel, 1999).

(a) **Service Types:** While e-commerce has been around for over a decade, closing the gap between food and the Internet has taken longer. The first restaurants to adopt online food

ordering services were corporate franchises such as Domino's and Papa John's. Other pizza franchises such as Pizza Hut have been quick to adopt online food ordering (Ansel, 1999).

Local companies have teamed up with e-commerce companies to make ordering quicker and more precise. Annie (2001), director of operations for the Original Pizza Pan, Inc. of Cleveland, Ohio comments that "the system is good for customers who don't speak English." Some restaurants have adopted online ordering despite their lack of delivery systems, using it to manage pick-up orders or to take reservations.

(b) **Independent:** Independent online food ordering companies offer two solutions. One is a software service whereby restaurants purchase database and account management software from the company and manage the online ordering themselves. The other solution is a Net-based service whereby restaurants sign contracts with an online food ordering website that may handle orders from many restaurants in a regional or national area (Ansel, 1999).

One difference between the systems is how the online menu is created and later updated. Managed services do this via phone or email, while unmanaged services require the customer to do it. Some websites use wizards to find the best- suited menu for the customer (Ansel, 1999).

(c) **Food Cooperatives:** Food cooperatives also allow consumers the ability to place an order of locally grown and/or produced food online. Consumers place an order online based on what is available for the ordering cycle (month, week) and then pick up and pay for their orders at a central location (Ansel, 1999).

(d) **Online Menus:** As an offshoot of online food ordering services, websites archiving restaurant menus online have appeared.

2.11.1 Advantages for Online Ordering

There are advantages for both the customer and for the restaurants who participate in online ordering. First, a customer can order at will when they have time to. Also, the customer is able to customize their order the way they like it without errors in communication between the customer and the person taking the order. In addition to customer advantages, the restaurant is able to take more orders with less staff. The restaurant does not need a waiter or hostess to be on the phone to take the order. The order can go straight to the kitchen (Irvine, 2008).

2.11.2 Disadvantage for Online Ordering

Customers are not able to ask about quality of food or ask for any specialized diet foods. It is more difficult to ask for gluten free or allergy free foods with online ordering. Also, it is more possible for a customer to place an order, but never pick up the order which can lead to waste of food and possibly a loss of profits (Irvine, 2008).

2.11.3 Online Ordering with Phone Apps

Today, many restaurants offer the technology to place an order with an app. Many restaurants will offer a special if the order is placed online. Subway offers a free cookie while Papa Johns offers specials only available on the app. Restaurants do this because they are able to reach a larger market with this technology. They are able to reach a target market that is tech friendly. Many people these days have a smart phone and that percentage continues to rise (Irvine, 2008).

2.12 Multi-Online Food Ordering System Solution

Food a necessity of our daily life and many have over the years build this industry into a very challenging and highly competitive market to penetrate and set up as a new business.

The main reason is the capital investment and the location of the premises where the restaurant or the takeaway to be established. So one of the top model businesses of the 21st century is to build a business around these restaurants and takeaways. Please read the below model that will give a very clear understanding as to what a multi-Online Food Ordering System is (David, 2009).

OVERVIEW OF THE PROJECT / BUSINESS MODEL Customer comes to RESTAURANT WEB PORTAL front-end of the multi-restaurant online ordering system and given the option to enter their postcode or town/city name to search for a local RESTAURANT to place either a collection or a delivery order.

Upon entering a valid postcode or selecting the area, a list of pre-added restaurants names will be displayed sorted by various criteria as per the restaurant(s) to the clients given postcode/area during the search. All sorting options within the list should be available for the customer to select the best recommended one or the ones which has more votes & reviews from customers.

Once the Customer selects the Restaurant to place the order they will be then displayed the electronic menu with the items listed to add to the shopping basket/cart. Customers should be able to add the items very quickly without having to refresh the page on every addition of the menu items to the cart.

Once the customer adds all the menu items they wish to order they would then proceed to the Checkout. If the customer is logged in, they move straight to the first checkout which will give the customer options to add more items or delete items from the cart along with discount code and special vouchers redemption option. If the customer is a new customer they will have to register with the WEB PORTAL and verify their email address.

Customer will have to select the order type (Delivery or Collection) and based on the selection the order date and time will change according to the closing and opening hours of the Restaurant/Takeaway.

The same page will show how many loyalty points customers have collected and give the option to redeem the points based on a order-based point system, configured in the back-office per restaurant or the main company.

Once the Customers are happy with the order date and time, shopping cart items, special offer/promotional discounts and loyalty points redemption, they will continue to the second checkout where they will have the option to select the mode of payment (Credit/Debit card or Cash on Delivery/Collection)

Once the payment is process for credit/debit card transactions (preferably PayPal), these LIVE order(s) are then displayed in the live order section of the back-office. All orders are saved in the Company Central Server (dedicated server) saving detailed description of the order along with the restaurant, customer details, payment type along with payment details and all other necessary information required to process and invoice the order. Every restaurant that is connect to the website will each have their own restaurant portal to login to see their live orders along with their own menu items list and prices.

Restaurant will have the option to Confirm or Decline the order based on their decisions or can AUTO COMPLETE an order. Once the order is confirmed and accepted, an email will be send to the customer automatically saying the order is accepted and the order is in preparing mode.

These orders will automatically be sent to three individual owner/manager email addresses set for the restaurant in their individual back-office. If the system is connected to an automatic receipt print system, it will print the order or restaurant will receive a fax if they do not have the facilities to confirm or decline orders.

Once the order is finally completed (either delivery or collection), each order will have to be completed by the Restaurant to update the company that the order was successfully completed and the order to be added to the invoice module to invoice the restaurant weekly/monthly. The whole operation will be atomized giving a detailed report through the company central server dashboard per day. The reports should be able to be printed or saved in the server for future usage.

All agents will fill in a form when a sale is made taking all the necessary signatures from the restaurant and then pass it to the users who will add the restaurant to the system and do the tests before it goes live into the main website.

Restaurants can be added by the agents who will be on a commission based either on per sale or per order (This is an extra module). The system should also give an agent back-office, so that they can see how many restaurants they have added and what is the turn-over from these restaurants. Strategic decisions can be made based on these data to see the performance of the agent and restaurant/area performance.

2.13 Restaurant Booking Systems

According to Miller (2007) the two key components of the restaurant reservation system are the live table management system and the live booking pages. The former manages your restaurant's availability for the latter, which is a conduit for new restaurant bookings.

(a) **Live Reservations:** The restaurant continues to use a paper diary, allocating a number of tables for online. If these tables are otherwise used, their availability is modified with a very easy to use restaurant control console.

The control console also stores all booking details and cross-references customers when each new booking is made. This gives you a complete database of your customers, without duplication or missing details.

(b) **Live Table Management:** The restaurant computerizes its diary, and all bookings, whether online, telephone or walk in are recorded. Live table management allows you to plan out and organise your bookings. It is custom built for your restaurant and includes your specific booking rules and restrictions (Brandau, 2007).

The system also records who is eating at the restaurant, together with useful information such as eating preferences, average spend, address, telephone number etc. This database is updated with each new booking, helping you keep accurate and useful records of your customers.

2.14 Management information System and the Computer

Translating the real concept of the MIS into reality is technically, an infeasible proposition unless computers are used. The MIS relies heavily on the hardware and software capacity of the computer and its ability to process, retrieve communicate with no serious limitations. The variety

of the hardware having distinct capabilities makes it possible to design the MIS for a specific situation. For example, if the organization needs a large database and very little processing, a computer system is available for such a requirement. Suppose the organization has multiple business location at long distances and if the need is to bring the data at one place, process, and then send the information to various location, it is possible to have a computer system with a distributed data processing capability. If the distance is too long, then the computer system can be hooked through a satellite communication system (Brandau, 2007).

The ability of the hardware to store data and process it at a very fast rate helps to deal with the data volumes, its storage and access effectively. The ability of the computer to sort and merge helps to organize the data in a particular manner and process it for complex lengthy computations. Since the computer is capable of digital, graphic, word image, voice and text processing, it is exploited to generate information and present it in the form which is easy to understand for the information user. The ability of a computer system to provide security of data brings a confidence in the management in the storage o data on a magnetic media in an impersonal mode (Brandau, 2007).

The computer system provides the facilities such as READ ONLY where you cannot delete to UPDATE. It provides an access to the selected information through a password and layered access facilities. The confidence nature of the data and information can be maintained in a computer system. With this ability, the MIS become a safe application in the organization. The software, an integral part of a computer system, further enhances the hardware capability. The software is available to handle the procedural and nonprocedural data processing. For example, if you want to use a formula to calculate a certain result, an efficient language is available to handle

the situation. If you are not use formulas but have to resort every time to a new procedure, the nonprocedural languages are available. The software is available to transfer the data from one computer system to another. Hence, you can compute the results at one place and transfer them to a computer located at another place for some other use. The computer system being able to configure to the specific needs helps to design a flexible MIS (Brandau, 2007).

The advancement in computers and the communication technology has the distance, speed, volume and complex computing an easy task. Hence, designing the MIS for a specific need and simultaneously designing a flexible and open system becomes possible, thereby saving a lot of drudgery of development and maintenance (Burkingham, 1998).

2.15 Related Work

i. "Design and Implementation of Online Food Ordering System" by A. Kumar et al. (2018)
ii. This study proposes a web-based online food ordering system using PHP and MySQL.
iii. The system allows users to browse menus, place orders, and make payments online.
iv. "Online Food Ordering System Using Android Application" by S. S. Rao et al. (2019)
v. This research presents an Android-based online food ordering system that enables users to order food from various restaurants. The system uses Firebase as the backend database.
vi. "Design and Development of Online Food Ordering System Using Cloud Computing" by M. A. Hakim et al. (2020)
vii. This study designs and implements an online food ordering system using cloud computing. The system utilizes Amazon Web Services (AWS) for scalability and reliability.

viii. "Online Food Ordering System with Payment Gateway Integration" by R. K. Singh et al. (2017)

ix. This research proposes an online food ordering system with payment gateway integration using PayPal. The system allows users to place orders and make payments securely.

x. "Development of Online Food Ordering System Using Agile Methodology" by A. K. Singh et al. (2019)

xi. This study presents the development of an online food ordering system using Agile methodology. The system uses Scrum framework for iterative and incremental development.

xii. "Online Food Ordering System with Real-Time Tracking" by S. K. Yadav et al. (2020)

xiii. This research proposes an online food ordering system with real-time tracking using GPS and Google Maps. The system enables users to track the status of their orders in real-time.

xiv. "Design and Implementation of Online Food Ordering System with Recommendation Engine" by M. R. Patel et al. (2019).

xv. This study designs and implements an online food ordering system with a recommendation engine using collaborative filtering. The system suggests food items to users based on their past orders and preferences.

These related works demonstrate various approaches to designing and implementing online food ordering systems, including the use of different technologies, methodologies, and features.

Table 1: Summary of Related Work of Online Food Ordering System

S/N	Author	Objective	Methodology	Parameter	Tools	Strength	Weakness
1.	A. Kumar et al. (2018)	Develop a web-based online food ordering system.	PHP and MySQL	User registration, menu browsing, order placement, payment gateway	PHP, MySQL, HTML, CSS	Easy to use, secure payment gateway	Limited scalability
2.	S.S. Rao et al. (2019)	Design an Android-based online food ordering system	Firebase, Android Studio	User registration, menu browsing, order placement, real-time tracking	Android Studio, Firebase, Java	Real-time tracking, user-friendly interface	Limited to Android devices
3.	M.A. Hakim et al. (2020)	Develop a cloud-based online food ordering system	Cloud computing, AWS	Scalability, reliability, security	AWS, PHP, MySQL	Scalable, reliable, secure	High development cost
4.	R.K. Singh et al. (2017)	Integrate a payment gateway into an online food ordering system	PayPal, PHP, MySQL	Secure payment processing, user registration, order placement	PayPal, PHP, MySQL	Secure payment processing, easy to use	Limited payment options

5.	A. K. Singh et al. (2019)	Develop an online food ordering system using Agile methodology	Scrum, PHP, MySQL	Iterative development, user registration, menu browsing, order placement	Scrum, PHP, MySQL	Flexible development process, user-friendly interface	High development cost
6.	S. K. Yadav et al. (2020)	Develop an online food ordering system with real-time tracking	GPS, Google Maps, PHP, MySQL	Real-time tracking, user registration, menu browsing, order placement	GPS, Google Maps, PHP, MySQL	Real-time tracking, user-friendly interface	Limited to areas with GPS coverage
7.	M. R. Patel et al. (2019)	Develop an online food ordering system with a recommendation engine	Collaborative filtering, PHP, MySQL	User registration, menu browsing, order placement, personalized Recommendations.	Collaborative filtering, PHP, MySQL	Personalized recommendations, user-friendly interface	Limited scalability

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 Methodology Adopted

The structured system analysis and design methodology (SSADM) was adopted for the analysis, design and implementation of this system. Structured systems analysis and design methodology (SSADM) is a set of standards for systems analysis and application design. It uses a formal methodical approach to the analysis and design of information systems.

SSADM follows the waterfall life cycle model starting from the feasibility study to the physical design stage of development. One of the main features of SSADM is the intensive user involvement in the requirements analysis stage. The users are made to sign off each stage as they are completed assuring that requirements are met. The users are provided with clear, easily understandable documentation consisting of various diagrammatic representations of the system. SSADM breaks up a development project into stages, modules, steps and tasks. The first and foremost model developed in SSADM is the data model. It is a part of requirements gathering and consists of well defined stages, steps and products. The techniques used in SSADM are logical data modeling, data flow modeling and entity behavior modeling.

a) **Logical Data Modeling:** This involves the process of identifying, modeling and documenting data as a part of system requirements gathering. The data are classified further into entities and relationships.

b) **Data Flow Modeling:** This involves tracking the data flow in an information system. It clearly analyzes the processes, data stores, external entities and data movement.

c) **Entity Behavior Modeling:** This involves identifying and documenting the events influencing each entity and the sequence in which these events happen.

3.1.1 Problem Identification Using SSADM

The SSADM was used to discover some problems;

a) **Feasibility Study:** This assumes that the proposed project has been identified as a result of an exercise such as strategic planning and sets out to evaluate the various technical, organizational, financial and business options available. The aim is to establish the whether the direction and requirements of the project are feasible. The aim is to evaluate the feasibility of the proposal, involving an analysis of the problem and determination of the best solution; usually a range of potential solutions are presented.

b) **Investigation of the Environment:** The process of identifying, modeling and documenting the data requirements of the system being designed. The result is a data model containing entities (things about which a business needs to record information), attributes (facts about the entities) and relationships (associations between the entities).

c) **Business System Option (BSO):** A BSO defines the functional scope of a proposed solution. At its most basic level it consists of textual descriptions of those requirements satisfied by the solution. All BSOs must satisfy the minimum requirement as identified by user representatives.

d) **Requirement Certification:** Requirement Certificate aims to equip the learner or end user (client) with the advanced knowledge of project management and will enable the learner to understand the system requirement to uphold the project management required parameters.

e) **Technical System Option (Implementation):** There is availability of software, hardware and technical man power for the development and running of the new system. Hence the system is technically feasible as the requirement can be met without stress and much financial input. The software and hardware requirements include an Integrated

Development Environment for web based applications, a standard PC for running this application, a local server and an up to date web browser for testing. As a programmer, the researcher can provide these requirements with ease and as such, this project is technically feasible.

f) **Logical Design:** Technical system options are production and logical design updates and query processing and system dialogue.

g) **Physical Design:** physical database design and a set of program specifications Program specifications are using the logical system specification and the technical system specification.

3.2 Analysis of the Existing System

The analysis of the existing system comprises the following;

a) **Input Analysis:** The input of layout of the existing system comprises user intervention such as; filling of food request form, opening account and login into system.

b) **Process Analysis:** The customer is registered and being given Identification number, when the customer wants to request or order food, the customer login to the system with the aim of the identification number, information related to that ID number is displayed if the information matches the customer's information, the customer then proceed to choose the type of food he/she prefers and then answer security questions.

c) **Output Analysis:** The output from the system designed is generated from the system inputs. These reports can also be presented as hard copy.

3.2.1 Dataflow of the Existing System

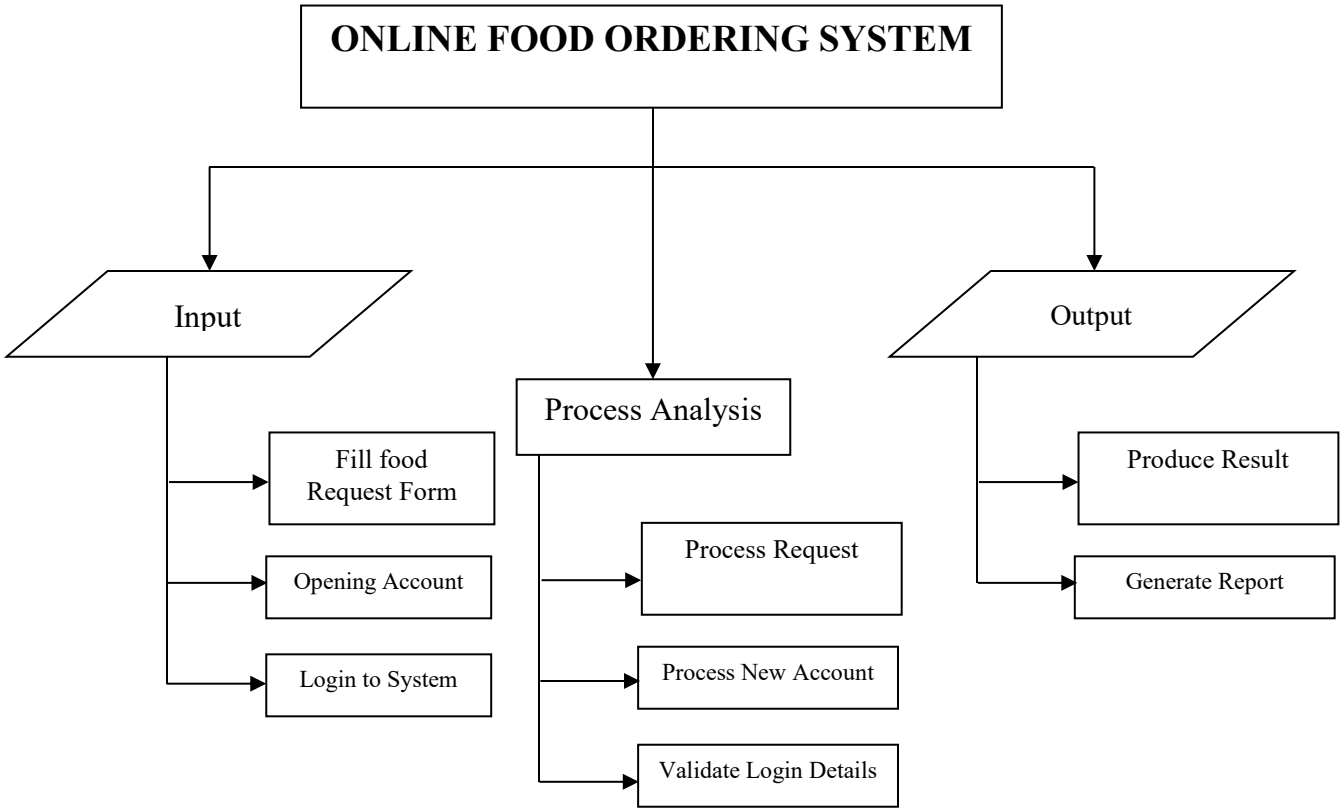


Figure 3.2.1: Dataflow of the Existing System

3.2.2 Disadvantages of the Existing System

Some of the problems identified in the present system include:

1. The speed of processing data manually is low and prone to errors.
2. The current process is stressful to end-users
3. Things done manually were very uncomfortable.

3.2.3 Weakness of the existing System

The weakness of the existing system is that staffing a restaurant can be tricky because demand for food will likely fluctuate dramatically, often due to variables that you cannot track. Identify

any variables you do observe that influence traffic in your restaurant, such as weather and day of the week. Build a weekly schedule to staff your restaurant in accordance with these variables, such as scheduling additional staff on Saturday night if that is your busiest shift.

3.3 Analysis of the Proposed System

An overview of the proposed system flow chat has a relationship between an object to another just like the entity. Relationship diagram, the object relationship pair can be graphically represented by a diagram called entity relationship diagram (Entity Relationship Diagram). It is mainly used in database applications but now it is more commonly used in data design. The primary purpose of ERD is to represent the relationship between data object.

3.3.1 Data Flow Diagram of the Proposed System

This is a data flowchart of the proposed system as shown in figure 3.2.

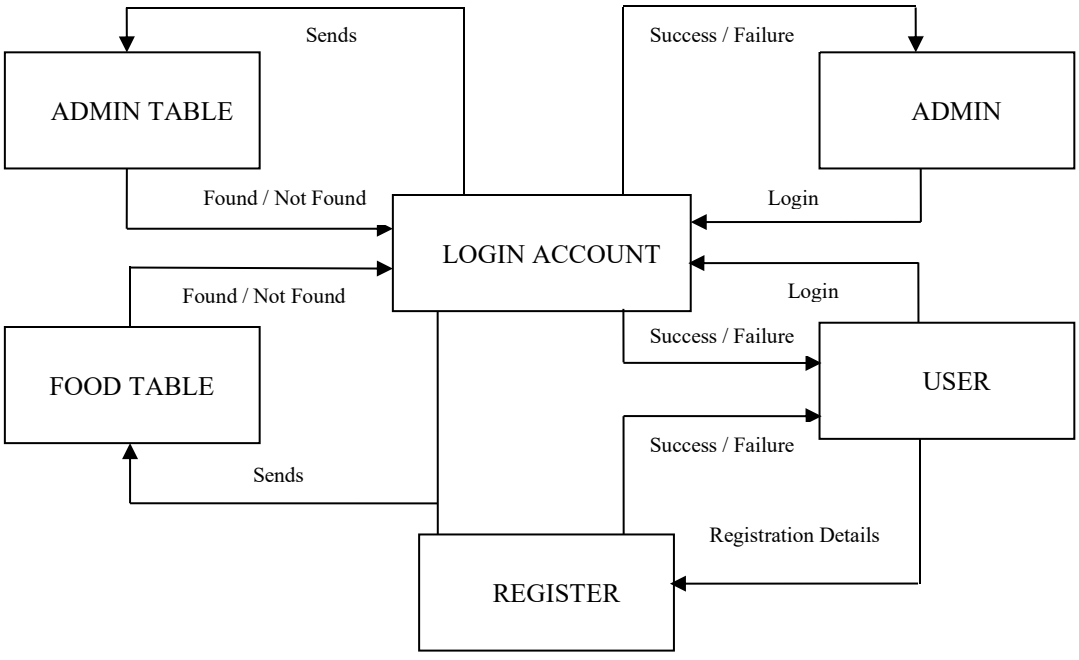


Figure 3.2: Data Flow Diagram of the Proposed System

3.3.2 Advantages of the Proposed System

The following are the advantages of the proposed Online Food Ordering System;

a) The new system will determine how computerized management information system has facilitated increase productivity, decrease paperwork, and ability to analyze trouble spots.

b) It will determine how the system will increase the level of services quality and customer satisfaction.

c) It will determine how the system can lead organization towards better decision making and building a competitive advantage over its competitors.

d) The new system will determine how computerized management information system will improve the operating efficiencies, provide restaurant and support center management with timely access to financial and operating data and reduce administrative time and expense

3.3.3 Justification of the Proposed System

From the analysis carried out of the present system of the restaurant, it is evidently clear that a new automated management information system is inevitable for effectives and proper management information system of the restaurant. The new system will help to solve all the problems inherent in the existing system. The justification for the new system includes:

1. Timely staff record registration.
2. Timely processing of employee information Error free processing of data
3. It is inexpensive to administrators Transactions are secured.

The new system will store information with easy, allow easy retrieval of existing sales transactions, and can print information from any date and year as hard copy(i.e. on a paper).

3.4 Functional Requirements

The following figure 3.4 shows the various modules involved in the system and available to users who have limited access and to the Admin who have full access to the system.

3.4.1 Use Case Diagram of the Admin / User Privileges

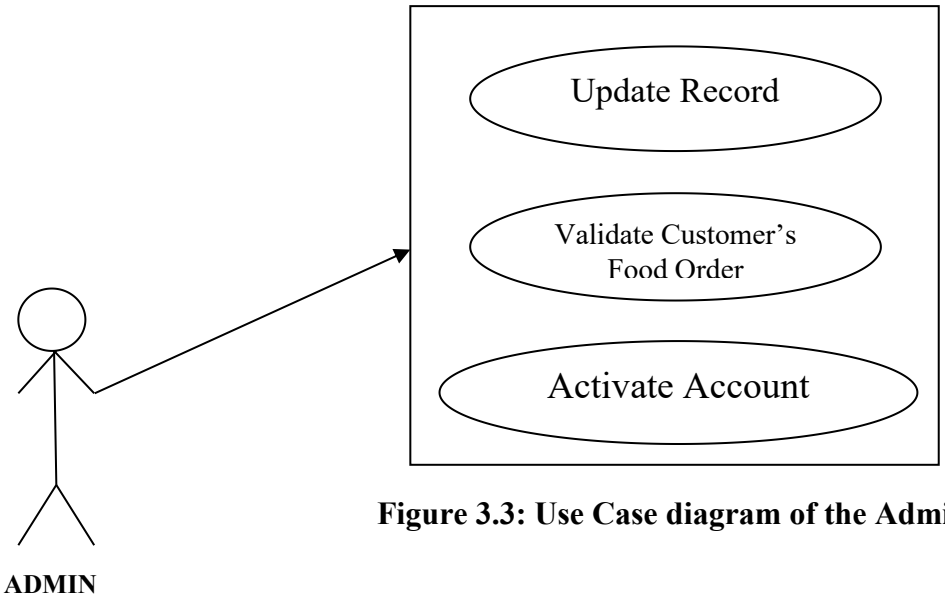


Figure 3.3: Use Case diagram of the Admin

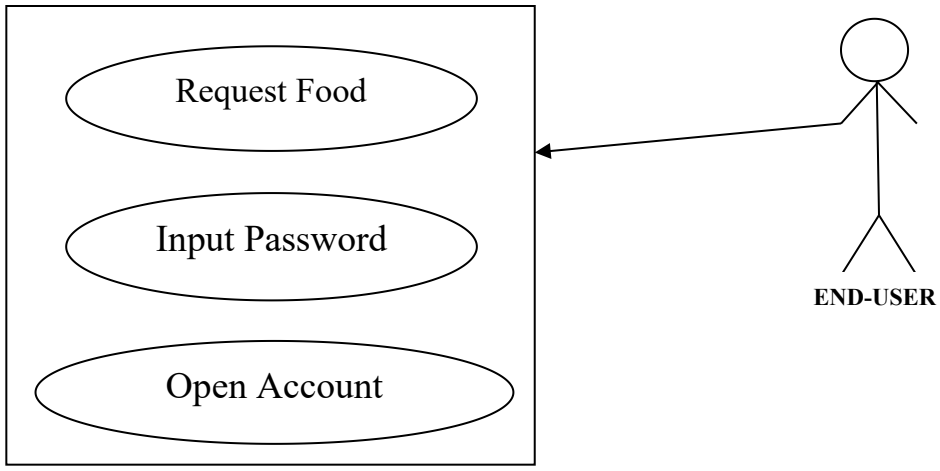


Figure 3.4: Use Case diagram of the User

3.5 Data Requirements

The following are the data requirements of new and existing users in the system. New users are required to create an account by providing some necessary information:

a) **Email Address:** The user's email address is required during registration and subsequent login on the system.

b) **Password:** The user is required to enter a secured password or pin during registration and subsequent login on the system

c) **User Name:** The user is required to enter a nickname which he/she will be addressed as subsequently for security reasons.

d) **Passport:** This field contains the photograph or picture of the account holder or system user.

e) **Address:** This field contains the address of the system user.

3.6 High Level Model of the Proposed System

The high level model of the proposed system is illustrated below;

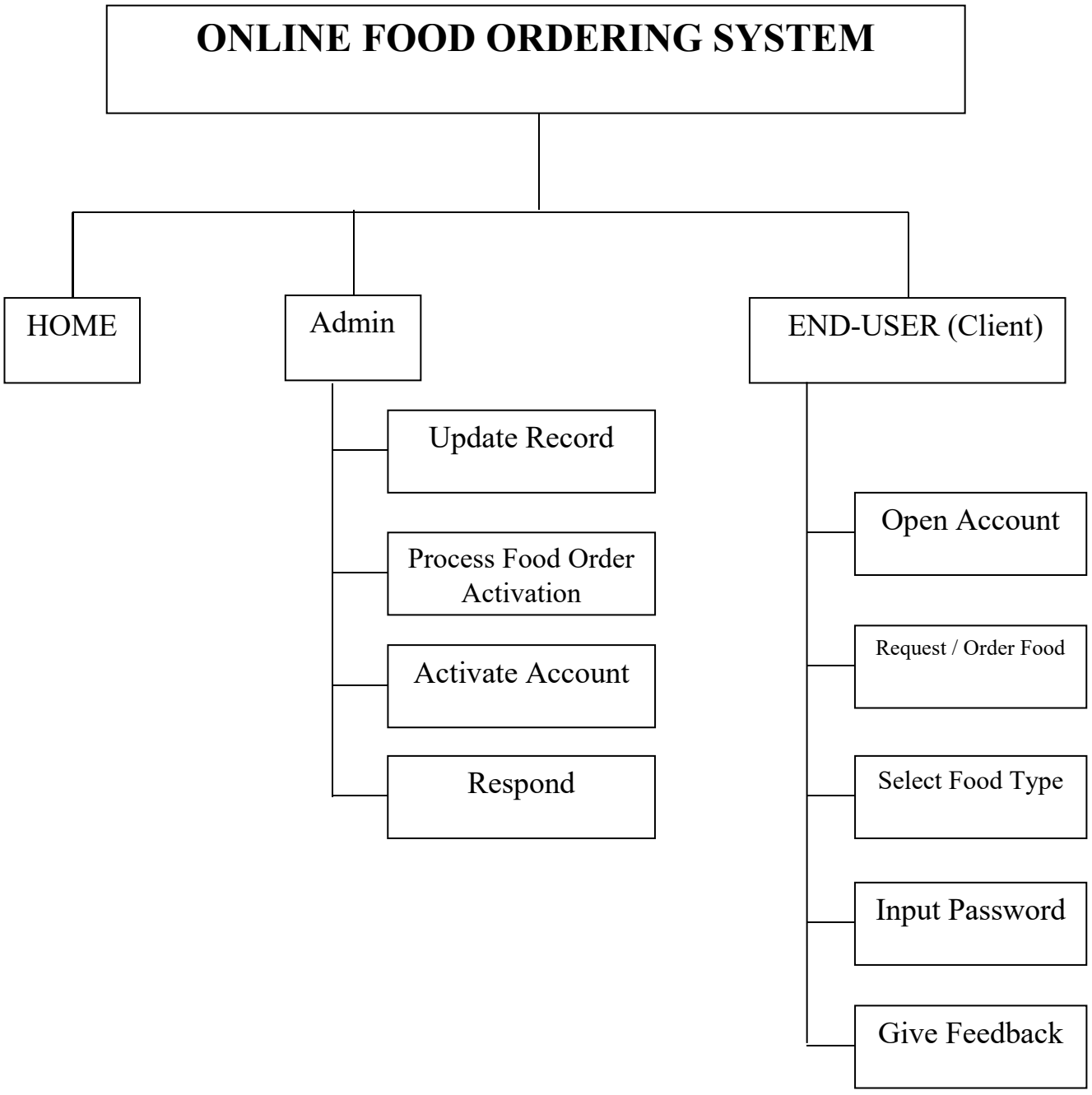


Figure 3.5: High Level Model of the Proposed System

CHAPTER FOUR

SYSTEM DESIGN AND IMPLEMENTATION

4.1 Objectives of the Design

The following are the objectives of the proposed Online Food Ordering System design;

1. To determine how computerized management information system has facilitated increase productivity, decrease paperwork, and ability to analyze trouble spots.
2. To determine how the system will increase the level of services quality and customer satisfaction.
3. To determine how the system can lead organization towards better decision making and building a competitive advantage over its competitors.
4. To determine how computerized management information system will improve the operating efficiencies, provide restaurant and support center management with timely access to financial and operating data and reduce administrative time and expense.

4.2 Cohesion and Decomposition High level Model

Description: This is a cohesion and Decomposition High level Model

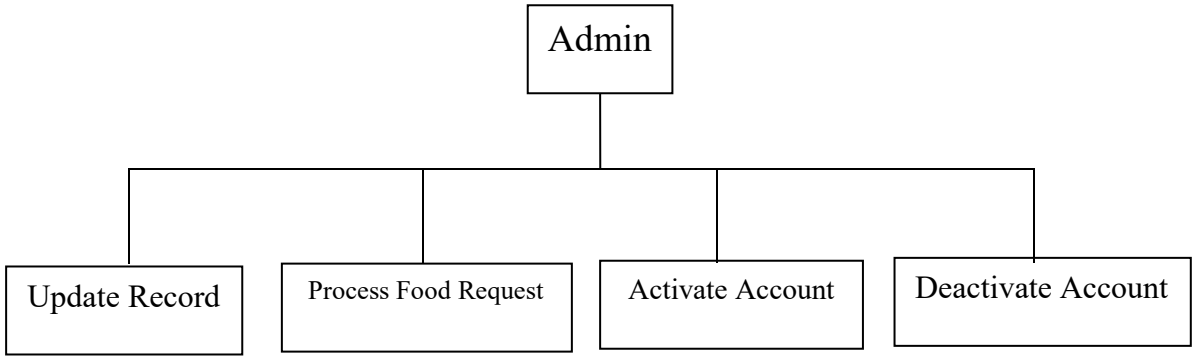


Figure 4.1: Admin User Privileges

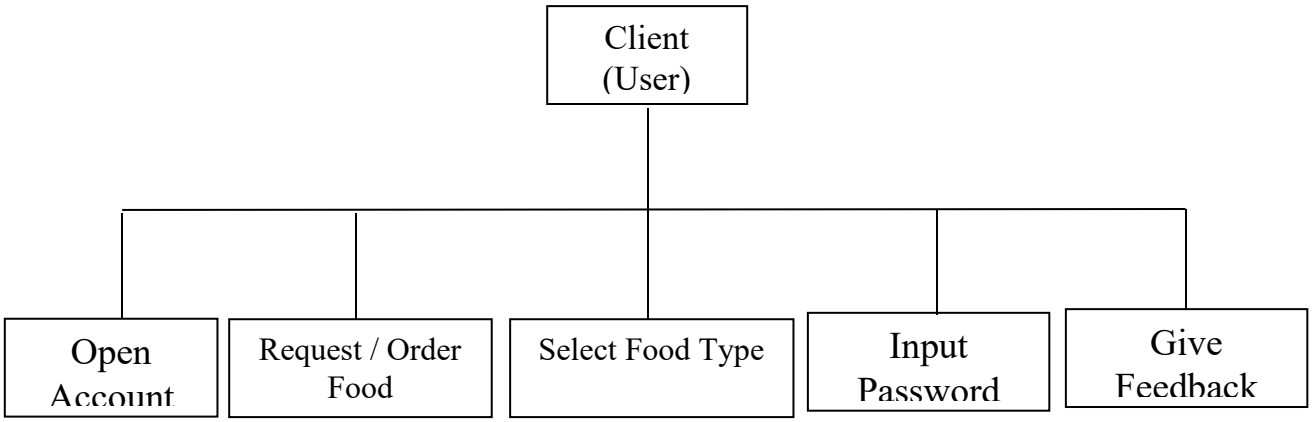


Figure 4.2: Client (User) Privileges

4.3 Control Center / Overall Dataflow Diagram

Description: This is a control center / overall dataflow diagram

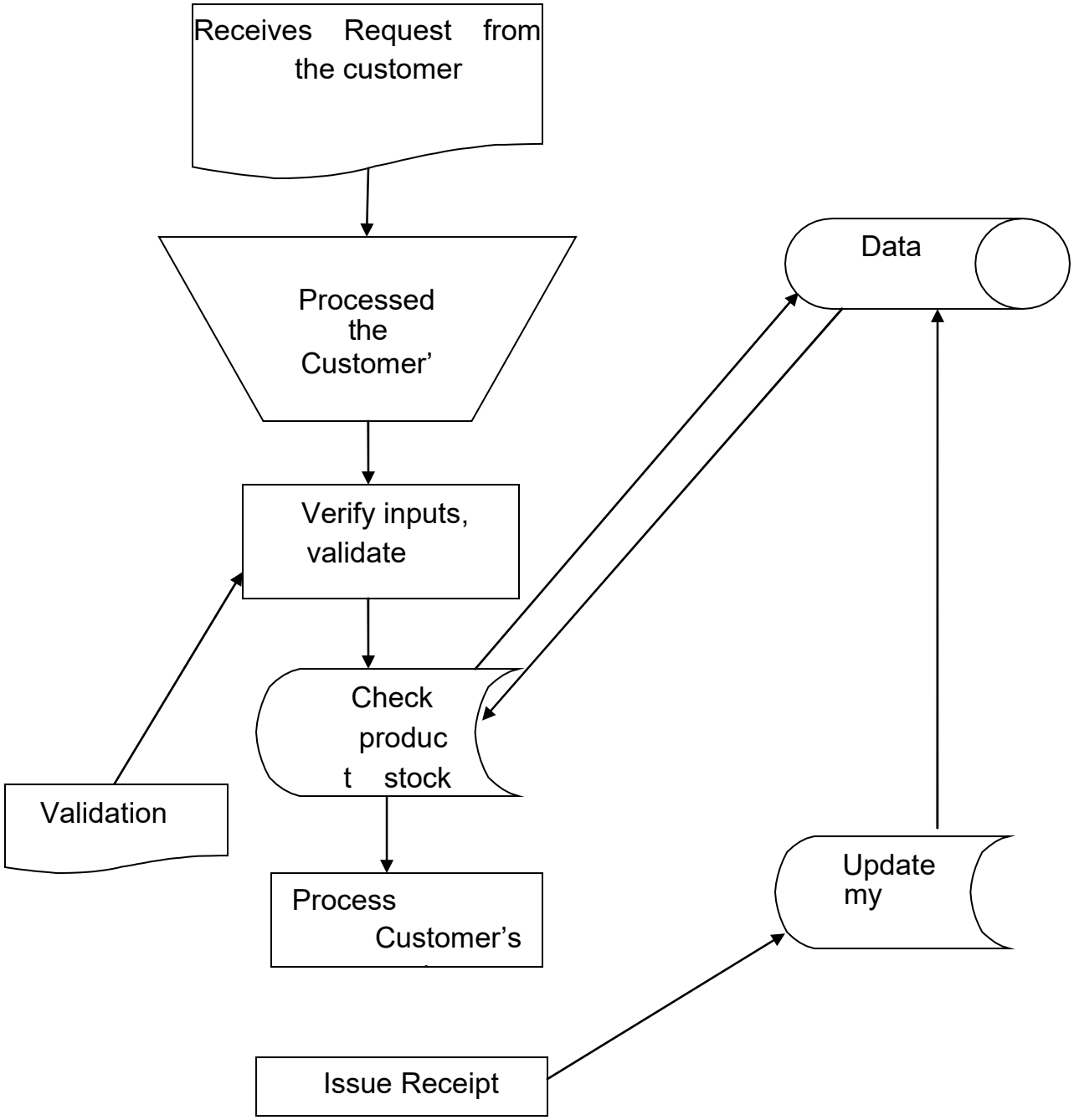
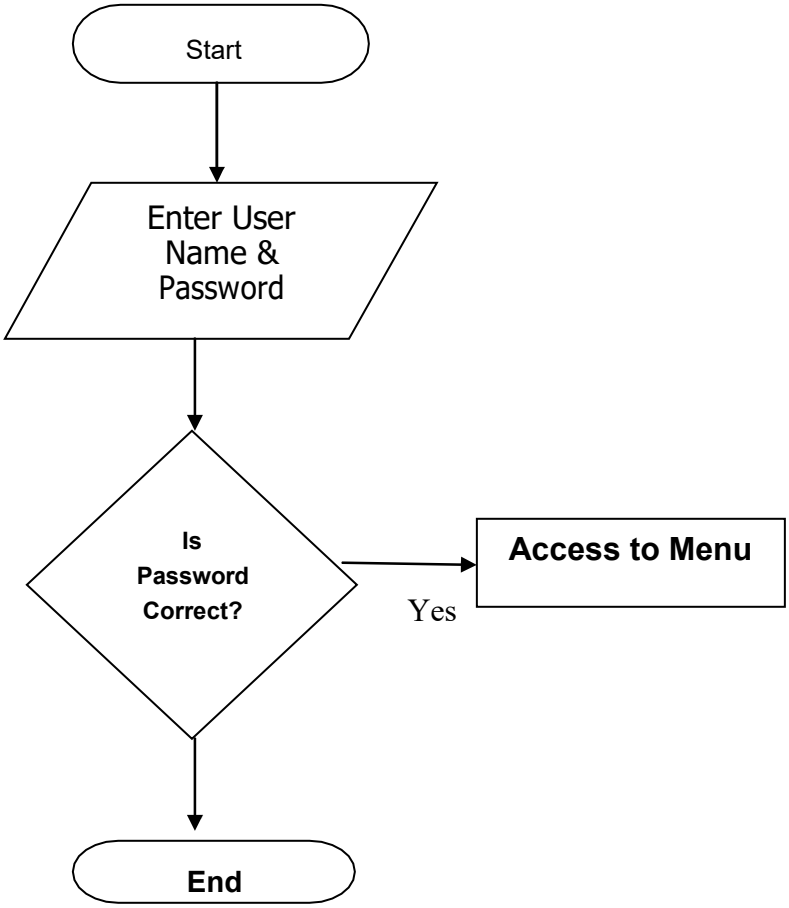


Figure 4.3: Control Center / Overall Dataflow Diagram

4.3.1 Proposed System Operation Flowchart

Description: The diagram below entails the proposed system operation flowchart



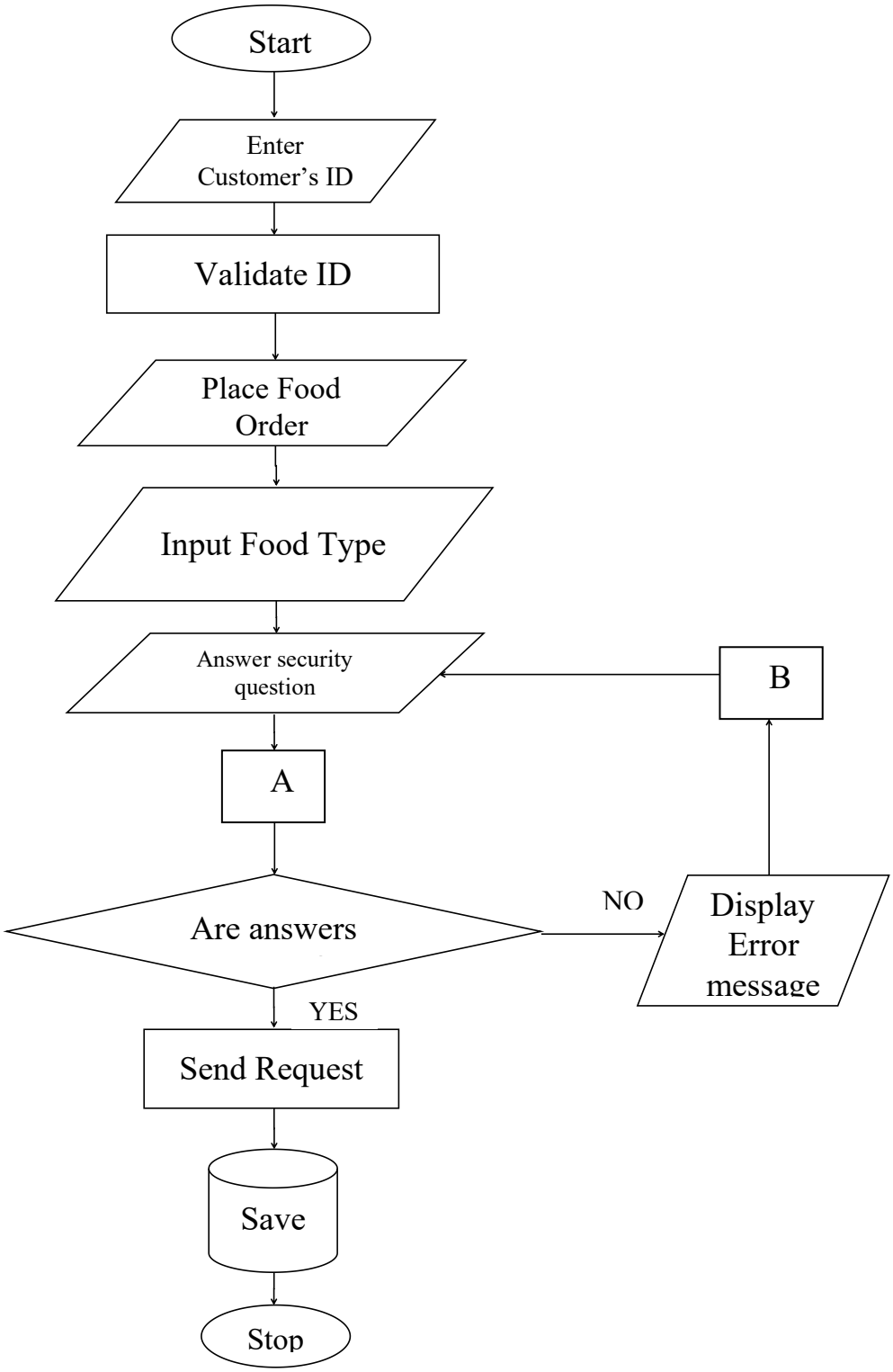


Figure 4.4: Proposed System Operation Flowchart

4.4 System Specification and Design

4.4.1 Input and Output Specification

Description: The diagram below entails the Input and Output Specification of the proposed system.

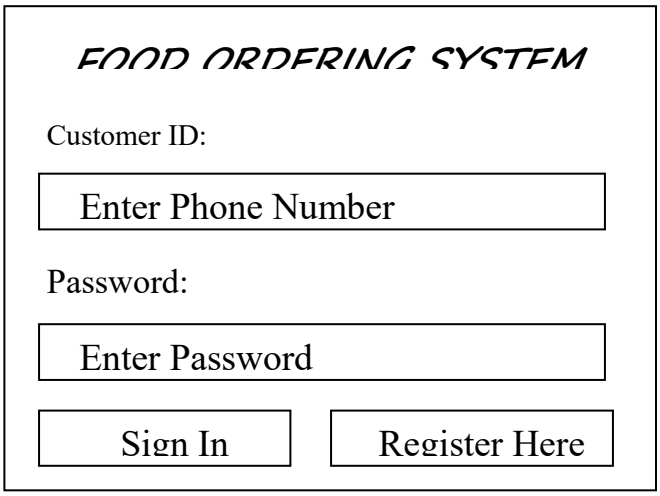


Figure 4.5: Input Specification for Login System

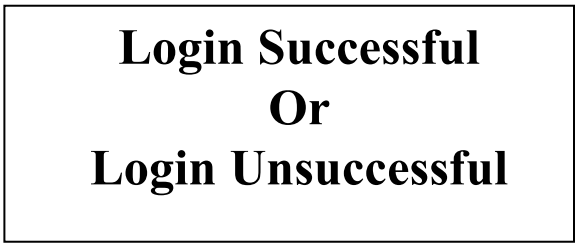


Figure 4.6: Output Specification for Online Food Ordering System

4.4.2 Database Specification and Design

The Online Food Ordering System database contains three (3) tables which are country table, register table and Foodrequest request table:

Table 4.1: Food Request table structure

S/N	Field Name	Type	Size
1.	Id	Integer	30
2.	Foodtype	Varchar	50
3.	Destination	Varchar	200
4.	Comment	mediumtext	
5.	Status	Varchar	50
6.	Contact	Varchar	30
7.	Datereques	Timestamp	
8.	FoodCost	Varchar	50
9.	State	Varchar	30

Table 4.3: Country table structure

S/N	Field Name	Data type	Size
1.	id	Integer	30
2.	Country	Varchar	100
3.	Location	Varchar	100

Table 4.4: Register table structure

S/N	Field Name	Data type	Size
1.	id	Integer	30
2.	Fname	Varchar	100
3.	Gender	Varchar	10
4.	address	Varchar	1000
5.	acctno	Varchar	50

6.	bvn	Varchar	50
7.	photo	Varchar	255
8.	pn	Varchar	30
9.	bank	Varchar	200
10.	pass	Varchar	100
11.	datereg	timestamp	

4.4.3 Data Dictionary

The data dictionary table contains the list of field and their description used in the database table structure designation.

Table 4.5: FoodOrder table structure

S/N	Field Name	Description
1.	Id	This field signifies the unique identification of the table and it's a primary key.
2.	Destination	The end-user destination the requested food will be delivered.
3.	Comment	This field stores the compliant or statement of the customer.
4.	Contact	It contains the phone number of the end-user
5.	Datereques	It signifies the date the Food was requested
6.	Country	It consist of the list of countries
7.	Location	It consist of the list of states within a specific country
8.	Fname	It signifies the full name of the End-user
9.	Gender	It signifies the gender of the End-user
10.	Address	It signifies the address of the End-user
11.	Pn	It contains the phone number of the End-user
12.	Bank	It consist of the list of banks in Nigeria
13.	Pass	It contains the end-user's password / pin
14.	Datereg	Date of registration

4.5 Choice and Justification of Programming Language

To ensure a standardized object oriented program in its entire ramification, HTML, CSS, JAVASCRIPT, PHP and MYSQL Database was used in the development of Online Food Ordering System. These entire programs are used to ensure effective program. The motive behind the use of the language is its compatibility with several Operating Systems. It is object oriented and combines the feature of hypertext Preprocessor (PHP) and JavaScript platform thereby making it to run on any Operating System. It is secured in that it does not cause harm to user's system and access to information is restricted. The language is simple and easy to learn.

Below is a brief explanation of the programming languages used;

HTML: HTML is a **markup** language for **describing** web documents (web pages).

1. HTML stands for **H**yper **T**ext **M**arkup **L**anguage
2. A markup language is a set of **markup tags**
3. HTML documents are described by **HTML tags**
4. Each HTML tag **describes** different document content

CSS: stands for Cascading Style Sheet, it describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once and External style sheets are stored in CSS files

JAVASCRIPT: JavaScript is the programming language of HTML and the Web. Programming makes computers do what you want them to do. JavaScript is easy to learn.

Hypertext Preprocessor (PHP): PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. PHP is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

MYSQL: SQL is a standard language for accessing and manipulating databases. SQL stands for Structured Query Language, SQL lets you access and manipulate databases, and SQL is an ANSI (American National Standards Institute) standard. SQL can perform the following task;

1. SQL can execute queries against a database
2. SQL can retrieve data from a database
3. SQL can insert records in a database
4. SQL can update records in a database
5. SQL can delete records from a database
6. SQL can create new databases
7. SQL can create new tables in a database
8. SQL can create stored procedures in a database
9. SQL can create views in a database
10. SQL can set permissions on tables, procedures, and views

4.6 Program Documentation

The main purpose of program documentation is to describe the design of your program. The documentation also provides the framework in which to place the code. As coding progresses, the code is inserted into the framework already created by the program documentation. The following was documented for the successful implementation of the software;

a) README file which contains a brief description of the project, installation instructions, a short example/tutorial,
b) Document your code which comprises application of coding conventions, such as file organization, comments, naming conventions, programming practices, etc.
c) Version of the files along with the major edits you did in each version

4.7 Implementation Techniques

The software Implementation is a process carried out to make changes on the tested programs developed in the system. The software will be installed successfully if the hardware requirement and the software requirement are available. The following phase contains how the software was implemented successfully;

1) Coding: The coding system has been developed to meet the following main objectives;

a) To determine how computerized management information system has facilitated increase productivity, decrease paperwork, and ability to analyze trouble spots.

b) To determine how the system will increase the level of services quality and customer satisfaction.

c) To determine how the system can lead organization towards better decision making and building a competitive advantage over its competitors.

d) To determine how computerized management information system will improve the operating efficiencies, provide restaurant and support center management with timely access to financial and operating data and reduce administrative time and expense

2) File conversion: During file setup it is necessary to convert the existing master file to a new page. This new form is the responsibility of the newly designed, which undergoes the process of converting the old system master file to a new one.

System Conversion is a transformation process stage in system implementation at which the newly designed system is put in place of the old system by the organization after been tested and documented to prove that it is working. It is a significant milestone after which the ownership of the system if been officially transferred from the researcher (analyst) and the programmer to the end user.

The under listed are various system conversion briefly described to enable the implementation process.

a) **Parallel System of Conversion:** This takes place simultaneously at the same time, runs between the old and new system until probably the new system is completely put in place and the old system discarded.
b) **Direct System of Conversion:** This takes place automatically at a time over a short period of time. It saves cost, manages time and enhances fast operation but finds to a high risk of failure without new system comparability.

3) Changeover Procedure:

This is the process of changing from the former or previous system to the new system. In a changeover procedure, the organization change from the existing system to new system. This can be done in one of the following ways:

a) **Parallel Changeover:** This is the process of running the two systems simultaneously and comparing their results until the new system proves satisfactory; after which the use of the new system would be commenced.
b) **Direct Changeover:** This is the case whereby the new system replaced the old system immediately after development and when it must have proved successful. This procedure may be drastic if the new system fails.
c) **Phased Changeover:** In phased changeover method, the system usually starts with one unit or department of the organization. The advantage is that the organization would avoid losses in case it (the new system) fails.

4) Commissioning: This is the process of ensuring that installed systems are functionally tested and capable of being operated and conform to the design intention.

4.8 Programming Module Specification

Programming module specification follows successful implementation and incorporates also evaluation of the system in order to give the desired or necessary improvement. It includes monitoring the process of the other stages of system development to ensure that the development plan and objective are being accomplished. There are three types of system maintenance which include;

a) **Corrective Maintenance:** This covers maintenance, which is needed to put right coding errors and other faults, which may be introduced into the software. It include, the routine "debugging" of newly produced or recently amended code and emergency error correction in response to report faults.

b) **Adaptive Maintenance:** This covers the changes which are made to the software to meet new or changed circumstances, such as restructuring of a database, alternatives in operating procedures and changes to hardware or software versions.

c) **Preventive Maintenance:** This covers attempts to make the software perform more effectively. It includes user requests for enhancement, improvement due to experience, changes to make the software more easy to use and rewrite the code to make the maintenance that is specifically used for the new system to reduce its chances of breakages.

4.8.1 Installation

The following are the steps required for the installation of the new Online Food Ordering System;

Installing Software from the CD Drive or Flash Drive

Step 1: Insert and Open you Compact Disk (CD)

Step 2: Copy the "**restaurant-information-system"** folder and paste in your WAMP server Path to Paste the folder: **C:\wamp\www**

Step 3: Turn on your Window Apache MySQL and PHP (WAMP Server 2.4)

Step 4: Open your browser e.g Mozilla Firefox, Google Chrome.

Step 5: Type in this URL below on your address bar of your browser

localhost/phpmyadmin/

Step 6: Ensure the username is **root** and password is empty before clicking on **Go** button

Step 7: Click on Import and Browse your computer to search for restaurant.db

Path: **C: \wamp\www\restaurant-information-system\db**

Step 8: Click and open on **restaurant**, then click on **Go** button below the import page.

Step 9: Type in this URL below to execute the Software

127.0.0.1/restaurant-information-system/

Step 10: You're done

Re-Executing the Software after Installation

Step 1: Start your WAMP Server

Step 2: Open your browser and type in the URL below and click enter

127.0.0.1/restaurant-information-system/

4.9 Computer Hardware Minimum Requirement

The software designed needed the following hardware for an effective operation of the newly designed system.

a) A system running on AMD, Pentium 2 or higher processor

b) The random access memory (ram) should be at least 512mb.

c) Enhanced keyboard.

d) At least 20 GB hard disk.

e) V.G.A or a colored monitor.

4.10 Software Requirement

The software requirements include:

a) A Windows XP operating system or higher version for faster processing

b) MySQL database

c) Apache webserver

d) PHP 5.6+ runtime environment

4.11 Personnel / User Training

Before the user can use the software, it is necessary to give a thorough training on how to use the software. It is also important to note that the users of the software are the operators. Training involves the tutorials, lectures or other methods used to make the users to understand how to use and maintain the software program. The following steps would help train and guide the users on how to use the program effectively:

a) Follow the instruction as in the software installation above

b) Right click on the Online Food Ordering System

c) If successful, click on your browser and type in **127.0.0.1/restaurant-information-system**

d) Enter the security password and click on login

e) Enter the main menu, select any of the submenus you want and continue

f) After performing necessary actions on the submenu, exit the program from the browser close button.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATION

5.1 Introduction

It is important to ascertain that the objective of this study was on Design and Implementation of an Online Food Ordering System. In the preceding chapter, the relevant data collected for this study were presented, critically analyzed and appropriate interpretation given. In this chapter, certain recommendations made which in the opinion of the researcher will be of benefits in addressing the Online Food Ordering System.

5.2 Summary

Online Food Ordering System is database program that keeps record of all transaction carried out in the restaurant on daily bases. The online food ordering system is one of the latest services most fast food restaurants in the western world are adopting. With this method, food is ordered online and delivered to the customer. This is made possible through the use of electronic payment system. Customers pay with their credit cards, although credit card customers can be served even before they make payment either through cash or cheque. So, the system designed in this project will enable customers go online and place order for their food.

The motivation that led to the implementation of the proposed system is that the use of manual method in keeping information in the system. So among the numerous problems associated with the existing system are; staff are spending far too much time chasing mistakes instead of tending to customers, sales going unrecorded, inventory doesn't match your tallies and other.

The aim of the study is to design and implement an Online Food Ordering System. In achieving this aim, the following objectives were laid out to determine how computerized management information system has facilitated increase productivity, decrease paperwork, and ability to analyze trouble spots.

The methodology adopted in this study is the object oriented analysis and design methodology (OOADM) which is a technical approach for analyzing and designing an application or system by applying object throughout the software development process. The programming language used is HTML, CSS, JAVASCRIPT, PHP, SQL and JQUERY. The reason why web programming languages was used is because, it is platform independent and it is a web based application. This study is significance because its conclusions would be useful to: Human Resources Managers in the hotel and restaurants business, the Federal, State and Local Government, scholars in the field of hotel and restaurant management. The expected result is an Online Food Ordering System that will focus on food ordering, food menu, and payment on food delivery.

5.3 Conclusion

In conclusion, the design and implementation of an online food ordering system have demonstrated the potential to significantly enhance the efficiency and convenience of food service operations. By leveraging modern web technologies, the system has successfully streamlined the ordering process, reduced manual errors, and improved overall customer satisfaction. Users can easily browse menus, place orders, and make payments online, while restaurant staff can efficiently manage orders and track inventory in real-time.

This project highlights the importance of integrating user-friendly interfaces with robust backend support to create a seamless experience for both customers and service providers. Moving forward, the system can be further improved by incorporating advanced features such as AI-driven recommendations, loyalty programs, and enhanced security measures to better serve the evolving needs of the market. The successful deployment of this system represents a significant

step towards modernizing food service operations and meeting the growing demand for digital solutions in the industry.

5.4 Recommendation

To enhance the effectiveness of the online food ordering system, several recommendations should be considered. The system should incorporate AI-driven recommendations to personalize user experiences and suggest menu items based on previous orders and preferences. Additionally, a robust loyalty program should be implemented to encourage repeat business and reward loyal customers. Enhanced security measures should be put in place to protect user data and ensure safe transactions. The user interface should be continuously refined to improve usability and accessibility for all users. Regular updates and maintenance should be scheduled to address any bugs and incorporate user feedback.

Finally, the system should integrate with popular social media platforms and mobile applications to increase visibility and convenience for users. These improvements should help in maintaining a competitive edge and ensuring long-term success in the evolving digital marketplace.

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APPENDIX A

“SOURCE CODE”

```
<?php
#Online Food Ordering System
session_start();
$db['db_host'] = 'localhost';
$db['db_user'] = 'root';
$db['db_pass'] = '';
$db['db_name'] = 'stdreg';

foreach($db as $key => $value){
 define(strtoupper($key), $value);
}

$conn = mysqli_connect(DB_HOST,DB_USER,DB_PASS,DB_NAME);

if (isset($_POST['register1'])) {

 $name = $_POST['name'];
 $email = $_POST['email'];
 $dob = $_POST['dob'];
 $address = $_POST['address'];
 $department = $_POST['department'];
 $sex = $_POST['sex'];
 $level = $_POST['level'];
 $session = $_POST['session'];

 $sql = "INSERT INTO `student` (`id`, `regno`, `name`, `email`, `sex`, `dob`, `department`, `level`, `session`, `waec`, `nd`, `birth`, `attestation`, `fees`, `date`, `status`) VALUES (NULL, '', '$name', '$email', '$sex', '$dob', '$department', '$level', '$session', '', '', '', '', '', '', '');";
if(mysqli_query($conn,$sql)){
 $message = "Bio Data Uploaded Successfully, Proceed to Upload Your Credentials!";
}else{
 $error = "Bio Data was not Uploaded Successfully, try again later!";
 }
```

```
if (isset($message)) {

 $sql = "SELECT * FROM `student` WHERE `email` = '$email' AND `name` = '$name';";
 $query=mysqli_query($conn,$sql);
 $numrow=mysqli_num_rows($query);
 if($numrow>0){
 $result=mysqli_fetch_array($query,MYSQLI_ASSOC);
 $_SESSION['uid']=$result['id'];

 }
 echo "<script>alert('".$message."');</script>";
 echo "<script>window.location='register2.html';</script>";
}elseif (isset($error)) {
 echo "<script>alert('".$error."');</script>";
}

}

if (isset($_POST['register2'])) {

 // Count # of uploaded files in array
$total = count($_FILES['waec']['name']);

// Loop through each file
for( $i=0 ; $i< $total ; $i++ ) {
$name = $_FILES['waec']['name'][$i];
$ext = end((explode('.', $name)));
$ext1= ".".$ext;
 //Get the temp file path
 $tmpFilePath = $_FILES['waec']['tmp_name'][$i];

 //Make sure we have a file path
 if ($tmpFilePath != ""){
 //Setup our new file path
```

```
 $newFilePath = "images/" . $newname = date('YmdHis',time()).mt_rand().$ext1;

 //Upload the file into the temp dir
if(move_uploaded_file($tmpFilePath, $newFilePath)) {
 $waec = $newname;

 }
 }
}

 // Count # of uploaded files in array
$total = count($_FILES['nd']['name']);

// Loop through each file
for( $i=0 ; $i< $total ; $i++ ) {
$name = $_FILES['nd']['name'][$i];
$ext = end((explode('.', $name)));
$ext1= ".".$ext;
 //Get the temp file path
 $tmpFilePath = $_FILES['nd']['tmp_name'][$i];

 //Make sure we have a file path
 if ($tmpFilePath != ""){
 //Setup our new file path
 $newFilePath = "images/" . $newname = date('YmdHis',time()).mt_rand().$ext1;

 //Upload the file into the temp dir
if(move_uploaded_file($tmpFilePath, $newFilePath)) {
 $nd = $newname;

 }
 }
}
```

```
 // Count # of uploaded files in array
$total = count($_FILES['birth']['name']);

// Loop through each file
for( $i=0 ; $i< $total ; $i++ ) {
$name = $_FILES['birth']['name'][$i];
$ext = end((explode('.', $name)));
$ext1= ".".$ext;
 //Get the temp file path
 $tmpFilePath = $_FILES['birth']['tmp_name'][$i];

 //Make sure we have a file path
 if ($tmpFilePath != ""){
 //Setup our new file path
 $newFilePath = "images/" . $newname = date('YmdHis',time()).mt_rand().$ext1;

 //Upload the file into the temp dir
if(move_uploaded_file($tmpFilePath, $newFilePath)) {
 $birth = $newname;

 }
 }
}

 // Count # of uploaded files in array
$total = count($_FILES['attestation']['name']);

// Loop through each file
for( $i=0 ; $i< $total ; $i++ ) {
$name = $_FILES['attestation']['name'][$i];
$ext = end((explode('.', $name)));
$ext1= ".".$ext;
 //Get the temp file path
 $tmpFilePath = $_FILES['attestation']['tmp_name'][$i];
```

```
 //Make sure we have a file path
 if ($tmpFilePath != ""){
 //Setup our new file path
 $newFilePath = "images/" . $newname = date('YmdHis',time()).mt_rand().$ext1;

 //Upload the file into the temp dir
if(move_uploaded_file($tmpFilePath, $newFilePath)) {
 $attestation = $newname;

 }
 }
}

 // Count # of uploaded files in array
$total = count($_FILES['fees']['name']);

// Loop through each file
for( $i=0 ; $i< $total ; $i++ ) {
$name = $_FILES['fees']['name'][$i];
$ext = end((explode('.', $name)));
$ext1= ".".$ext;
 //Get the temp file path
 $tmpFilePath = $_FILES['fees']['tmp_name'][$i];

 //Make sure we have a file path
 if ($tmpFilePath != ""){
 //Setup our new file path
 $newFilePath = "images/" . $newname = date('YmdHis',time()).mt_rand().$ext1;

 //Upload the file into the temp dir
if(move_uploaded_file($tmpFilePath, $newFilePath)) {
 $fees = $newname;
```

```
 }
 }
}
$date = date('U');
 $uid = $_SESSION['uid'];
 $sql = "UPDATE `student` SET `status` = 'Pending', `waec` = '$waec', `nd` = '$nd', `birth` = '$birth', `attestation` = '$attestation', `fees` = '$fees', `date` = '$date' WHERE `id` = '$uid';";
if(mysqli_query($conn,$sql)){
 $message = "Credentials Uploaded Successfully, a confirmation email will be sent to you shortly!";
}else{
 $error = "Credentials were not Uploaded Successfully, try again later!";
 }
if (isset($message)) {

 echo "<script>alert('".$message."');</script>";
 echo "<script>window.location='index.html';</script>";

}elseif (isset($error)) {
 echo "<script>alert('".$error."');</script>";
}
}
?>

<!DOCTYPE html>
<html>
 <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">
  <title>Student's Portal</title>
<link href="css/index.css" type="text/css" rel="stylesheet">
 </head>
 <body>
  <div class="container">
```

```
<header>
 <nav>
  <ul>
   <li><a href="index.html">Home</a></li>
  <li><a href="register.html">Portal</a></li>
  <li><a href="login.html">Login</a></li>
  </ul>
 </nav>
</header>
<h1>Online Food Ordering System</h1>

<div class="slideshow-container">
 <div class="mySlides fade">
  <div class="numbertext">1 / 3</div>
  <imgsrc="img/museum.jpg" style="width:100%">
  <div class="text">Art & Design</div>
 </div>
 <div class="mySlides fade">
  <div class="numbertext">2 / 3</div>
  <imgsrc="img/paper.jpg" style="width:100%">
  <div class="text">Research</div>
 </div>

 <div class="mySlides fade">
  <div class="numbertext">3 / 3</div>
  <imgsrc="img/student.jpg" style="width:100%">
  <div class="text">Tech</div>
 </div>
</div>
<br>
<div style="text-align:center">
 <span class="dot"></span>
 <span class="dot"></span>
 <span class="dot"></span>
```

```
  </div>
  <script>
   varslideIndex = 0;
   showSlides();

   function showSlides() {
    vari;
    var slides = document.getElementsByClassName("mySlides");
    var dots = document.getElementsByClassName("dot");
    for (i = 0; i<slides.length; i++) {
     slides[i].style.display = "none";
    }
    slideIndex++;
    if (slideIndex>slides.length) {
     slideIndex = 1
    }
    for (i = 0; i<dots.length; i++) {
     dots[i].className = dots[i].className.replace(" active", "");
    }
    slides[slideIndex-1].style.display = "block";
    dots[slideIndex-1].className += " active";
    setTimeout(showSlides, 3000); // Change image every 3 seconds
   }
  </script>
 </div>
</body>
</html>
<?php
$allow = "no";
ob_start();
session_start();
require_once('db.php');

include('mail.php');
```

```
if(isset($_POST['checkbox'])){

foreach($_POST['checkbox'] as $user_id){
 $regno = "15H/000".$user_id."/CS";

 $sql = "SELECT * FROM `student` WHERE `id` = '$user_id';";
 $query=mysqli_query($conn,$sql);
 $numrow=mysqli_num_rows($query);
 if($numrow>0){
 $result=mysqli_fetch_array($query,MYSQLI_ASSOC);
 $email=$result['email'];
 $name=$result['name'];
 $department=$result['department'];



 $bd = urlencode('Congratulations '.$name.', your registration in the '.$department.' department is completed. Your Registration Number is '.$regno);

file_get_contents("https://www.bulksmsnigeria.com/api/v1/sms/create?api_token=0NHYGfiCNxlbb6rP00bTtKoGd3KZ8vckE28f0ansI7Dvzvx8ZYgYSm8SpS3r&from=StdRegPortl&to=".$email."&body=".$bd);



 $bulk_option = "delete";

if($bulk_option == 'delete'){
 $bulk_del_query = "UPDATE `student` SET `status` = 'Approved', `regno` = '$regno' WHERE `id` = '$user_id';";
mysqli_query($conn, $bulk_del_query);



 echo "<script>alert('Approval Successful!');</script>";
 echo "<script>window.location='index.php';</script>";
 }

 }
```

```
}
}

?>

<!DOCTYPE html>
<html lang="en">

<?php
include_once('head.php');

$x = "";
$sql = "SELECT * FROM `student` WHERE `status` = 'Pending';";
 $query=mysqli_query($conn,$sql);
 $numrow=mysqli_num_rows($query);
 if($numrow>0){
 $result=mysqli_fetch_array($query,MYSQLI_ASSOC);
 $id=$result['id'];
 $name=$result['name'];
 $email=$result['email'];
 $sex=$result['sex'];
 $dob=$result['dob'];
 $department=$result['department'];
 $level=$result['level'];
 $session=$result['session'];
 while ($result=mysqli_fetch_array($query)) {
 $id=$id."||".$result['id'];
 $name=$name."||".$result['name'];
 $email=$email."||".$result['email'];
 $sex=$sex."||".$result['sex'];
 $dob=$dob."||".$result['dob'];
 $department=$department."||".$result['department'];
 $level=$level."||".$result['level'];
```

```
$session=$session."||".$result['session'];
}
$id2=explode("||", $id);
$name2=explode("||", $name);
$email2=explode("||", $email);
$sex2=explode("||", $sex);
$dob2=explode("||", $dob);
$department2=explode("||", $department);
$level2=explode("||", $level);
$session2=explode("||", $session);
$allow = "yes";
$px=count($id2);
}

?>
<div class="content-wrapper">
<div class="container-fluid">
<!-- Breadcrumbs-->
<ol class="breadcrumb">
<li class="breadcrumb-item">
<a href="#">Dashboard</a>
</li>
<li class="breadcrumb-item active">View All Students</li>
</ol>
<!-- Example DataTables Card-->
<div class="card mb-3">
<div class="card-header">
 View All Students</div>
<div class="card-body">
<div class="table-responsive">
<form method="POST" action="">
<table class="table table-bordered" id="dataTable" width="100%" cellspacing="0">

<thead>
```

```
<tr>
<th style="width: 60px"><button type="submit" class="btnbtn-primary btn-block" name="del" >Approve (*)</button></th>
<th>Name</th>
<th>Email</th>
<th>Sex</th>
<th>DOB</th>
<th>Department</th>
<th>Level</th>
<th>Session</th>
<th>View</th>
</tr>
</thead>
<tfoot>
<tr>
<th><button type="submit" class="btnbtn-primary btn-block" name="del" >Approve (*)</button></th>
<th>Name</th>
<th>Email</th>
<th>Sex</th>
<th>DOB</th>
<th>Department</th>
<th>Level</th>
<th>Session</th>
<th>View</th>
</tr>
</tfoot>
<tbody>
<?php
if($allow === "yes"){
 for ($i=0; $i< $px; $i++) {
 ?>

<tr>
<td><input type="checkbox" name="checkbox[]" value="<?php echo $id2[$i]; ?>"></td>
```

```
<td><?php echo $name2[$i]; ?></td>
<td><?php echo $email2[$i]; ?></td>
<td><?php echo $sex2[$i]; ?></td>
<td><?php echo $dob2[$i]; ?></td>
<td><?php echo $department2[$i]; ?></td>
<td><?php echo $level2[$i]; ?></td>
<td><?php echo $session2[$i]; ?></td>
<td><a target="_blank" href="<?php echo 'view.php?id='.$id2[$i] ?>" ><i class="fa fa-eye"></i></a></td>
</tr>
<?php
 }}
 ?>
</tbody>
</table>
</form>
</div>
</div>
<div class="card-footer small text-muted">Student Registration Portal</div>
</div>
</div>
<!-- /.container-fluid-->
<!-- /.content-wrapper-->
<footer class="sticky-footer">
<div class="container">
<div class="text-center">
<small>Copyright © Priceless Stores 2018</small>
</div>
</div>
</footer>
<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded" href="#page-top">
<i class="fa fa-angle-up"></i>
</a>
<!-- Logout Modal-->
```

<h5 class="modal-title" id="exampleModalLabel">Ready to Leave?</h5>

<button class="close" type="button" data-dismiss="modal" aria-label="Close">

×

</button>

Select "Logout" below if you are ready to end your current session.

<button class="btnbtn-secondary" type="button" data-dismiss="modal">Cancel</button>

Logout

<!-- Custom scripts for all pages-->

<script src="js/sb-admin.min.js"></script>

<!-- Custom scripts for this page-->

<script src="js/sb-admin-datatables.min.js"></script>

</body>

</html>

APPENDIX B

“OBJECT PROGRAM”

THE SOFTWARE (OBJECT PROGRAM) IS AVAILABLE ON REQUEST