

**FACULTY OF COMPUTING AND INFORMATION SYSTEMS**

**TITLE:**

**DESIGN AND IMPLEMENTATION OF A MULTI-RESTAURANT ANDROID APPLICATION**

**A Project Work Submitted in Partial Fulfilment of the Requirements For**

**BSc. in Information Technology**

**BY:**

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## DECLARATION

This project is presented as part of the requirements for a BSc. in Information Technology awarded by Ghana Technology University College. I hereby declare that this project is entirely the result of hard work, research, and inquiries. I am confident that this project work is not copied from any other person. All sources of information have however been acknowledged with due respect.

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**ABSTRACT**

A restaurant isa place where people pay to sit and eat meals that are cooked and served on the premises. (Oxford dictionary, 2019). This venture is a very lucrative business in the world and has seen an evolution over time. However, bringing it into the age of mobile app development is time-consuming and expensive. The design and implementation of a multi-restaurant system is to help curb this problem and further it into the age of advancement and shared information. This application would help them manage and display their offers to their customers with ease and also help them manage their day-to-day affairs. This application would help users have access to multiple restaurants by searching by their name and or by their current geographical location, order and pay for their food from and to a specific restaurant within the application. The restaurant would be notified of orders from the app and users also a notification on delivery of orders too.

**Introduction**

This chapter seeks to shed more light on how the idea was drafted, the problems it seeks to solve and includes information, which was derived from those directly involved, that is the restaurants and the customers that I seek to merge through this platform

* 1. **Background**

A restaurant isa place where people pay to sit and eat meals that are cooked and served on the premises. (Oxford dictionary, 2019). This venture is a very lucrative business in the world and has seen an evolution over time. Some of these include the use of advertisement to create awareness and recognition for a given restaurant on their services and offerings for the day including discounts and festive season packages, also the introduction of delivery services to their customers to ease them in acquiring food without actually going to the venue seems to be a preferred choice since the rise of the global pandemic. Due to the rise in the trend of this way of business most restaurants want either a platform or mobile application to aid them in that respect. However, the procurement of this is either time-consuming and or expensive for some of this venture. To stay competitive in the restaurant space it has become a necessity to acquire at least a mobile app.

Also, for customers to be able to order food from a given restaurant would require them to either call or get their respective apps if any exists to be able to order. This leads to them having multiple apps and also having to go in search of the respective contact information of the restaurants they want to order from.

This project is to build an android application to bring all these restaurants onto one platform. This app would help the users to create accounts, view multiple restaurants, search nearby restaurants from the app, order and pay for their foods all on that one platform. Also, the respective restaurants would be able to manage their restaurants from within the app i.e., they essentially have their application within the app, Get notifications about orders and deliveries from the application.

* 1. **Problem Statement**

The traditional method in which customers specify their desired menu to a waiter who then takes the order on paper, at the premises of the restaurant is becoming a thing of the past due to the global pandemic. In recent times people prefer to order and have their foods delivered to them at their place of choice without the hassle of being there to pick up an order themselves or join long queues with the uncertainty of when their order might be fulfilled. Most restaurants do not have mobile apps to help facilitate the rise in the trend of the order and delivery service. Those who do offer the order and delivery service only do that over calls which is limited in many ways, i.e., the available menu for the day, the reliability of a call being attended to, etc. Also, for customers to get access to the contact numbers and or know the available restaurants around them has to be by word of mouth or through advertisements.

The proposed solution for this problem is to design an android application to help the restaurants manage their day-to-day activities including ordering and delivery, and in turn help users of the platform have access to all restaurants they wish to order from, know their menus for the day, their discounts, special offers and every required information on one platform.

* 1. **Aim**

This project aims to build an android based multi restaurant application to help mitigate the above problem.

* 1. **Objectives**
* Develop a sign-in and sign-up feature for both restaurants and customers
* Develop a dashboard for restaurants to manage their menus for the day.
* Develop a dashboard for users to order, pay and track orders.
* Develop a search feature for users by text and location.
* Develop payment gateways for each restaurant.
* Develop a notification for delivery for users
* Develop a notification system for orders for the restaurants.
  1. **Significance of the study**

The development of this application would be of significance too;

**STUDENTS**

* Students would be able to use this platform as a case study for better improvements and modifications.
* It can serve as a reference point to the student for better improvement.

**PUBLIC**

* Get awareness of restaurants near them.
* Get information on a restaurant when needed.

**GOVERNMENT**

* Get awareness of restaurants near them.
* Get information on a restaurant when needed.
  1. **Scope**

The system is an easy-to-use self-service, which enables restaurants to receive orders placed by users from the application from their smartphones without having the presence of the customers on their premises. In addition, users can get access to multiple restaurants within their vicinity and see their menu for the day to make an informed decision of their purchase. The restaurants can manage their day-to-day affairs from the application from orders to the menu and financial from within then the app. As well as customers can order, pay and have their orders delivered. The multi-restaurant system will be developed using the System Development Life Cycle (SDLC).

# **CHAPTER TWO**

# **LITERATURE REVIEW**

## 2.0 INTRODUCTION

This chapter defines facts and findings based on multi-restaurant systems and food ordering systems as well as reviews of the development of such systems in many countries. This chapter will analyze issues concerning the development of the multi-restaurant system and an interactive system integrated into an android application in general.

**E-commerce and its advantages**

The internet has become an integral part of lives and businesses today and companies use the internet for so many things. Companies use it to advertise products, communicate with clients and suppliers and so many more. It has even become an integral part of business operations today and some companies like Google, Facebook, Uber, Bolt, and others cannot be a business without the internet. People also use the internet to communicate with family and friends, book plane flights, buy things, track orders and do so many things. People depend on it and others cannot go a day without using the services provided by the internet.

One of the most popular activities on the web today is online shopping. One can shop for almost anything at any time and at any place you may find yourself. Because of the convenience and ease, e-commerce has become one of the big services the web and the internet could be used for. Businesses and individuals in today’s world use it a lot.

The beginnings of e-commerce can be traced to the 1960s when businesses started using Electronic Data Interchange (EDI) to share business documents with other companies. In 1979, the American National Standards Institute developed ASC X12 as a universal standard for businesses to share documents through electronic networks. After the number of individual users sharing electronic documents grew in the 1980s, in the 1990s 11the rise of eBay and Amazon revolutionized the e-commerce industry. Consumers can now purchase endless amounts of items online, both from typical brick and mortar stores with e-commerce capabilities and one another (Rouse, 2016).

Rouse again said, “Even though the internet and world wide web began to grow in name among the people, it took some time to develop security protocols and Digital Subscriber Line (DSL) that would allow fast access to the internet. A greater number of business organizations in the United States and some part of Europe represented their services and advertised using the World Wide Web (WWW). At this time the meaning of e-commerce was changed and people began to describe e-commerce as the process of purchasing goods and services over the internet using safe and secure connections. They also use electronic payment services to pay for the goods and services they want.” (Rouse, 2016).

The “brick and mortar” retailers noticed the benefits and advantages of electronic commerce and began to add such service to their already built platforms that only advertised products. At the end of the year 2001, the largest form of e-commerce, the business-to-business e-commerce model had generated about $700 billion in transactions. E-commerce continued and continues to grow in today’s world and it has become an integral part of today’s businesses.

Sacha Poignonnec, CEO of Jumia an e-commerce platform said, “internet and mobile phone penetration in Ghana have seen a steady increase, especially in the area of e-commerce.” (Kubi 2017). In an article by Kubi in 2017 according to Mr. Sacha, a study conducted in 2016 in 15 countries in Africa showed a significant increase in usage, especially in Ghana, which is very good for the future of internet shopping. Mr. Sacha said mobile phone subscriptions in Africa stood at 960 million pieces while Ghana had 36.6 million in 2016, more than double its population. In our plight to understand what e-commerce is and what it entails we looked at some views of people on what e-commerce is. “E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business, business-to-consumer, consumer-to-consumer, or consumer-to-business. The terms 12e-commerce and e-business are often used interchangeably. The term e-tail is also sometimes used about the transactional process for online shopping.” (Rouse, 2016)

Willis in 2014 also defined it as, “Electronic Commerce is also known as e-commerce that consists of the purchasing and selling of products or services through electronic systems like computer networks and the Internet. In this modern world of technology, e-commerce is becoming a very significant option for many businesses as there are lots of companies that are interested in developing the online stores.” (Willis, 2014)

“What is B2B? This term simply means business-to-business, which is a model that focuses on selling products and services to other companies. Think of it as a supportive enterprise that offers the things other companies need to succeed or get a leg up on the competition. In contrast with the business-to-consumer (B2C) or consumer-to-business (C2B) models, B2B offers the raw materials, parts or services companies need to boost profits, from manufacturing industries to retail environments.” (Uzialko, 2017) “B2C, or business-to-consumer, is the type of commerce transaction in which businesses sell products or services to consumers. Traditionally, this could refer to individuals shopping for clothes for themselves at the mall, diners eating in a restaurant, or subscribing to pay-per-view TV at home. More recently, the term B2C refers to the online selling of products, or e-tailing, in which manufacturers or retailers sell their products to consumers over the Internet.” (Horn, 2013)

“C2C, or customer-to-customer, or consumer-to-consumer, is a business model that facilitates the transaction of products or services between customers. It is one of four categories of e-commerce, along with (business to business), C2B (customer to business) and B2C (business to customer).” (Horn, 2013)

“In contrast with the more traditional business-to-consumer model, the C2B (consumer-to-business) model allows businesses to extract value from consumers – and vice versa. In the C2B model, businesses profit from the willingness of consumers to name their 13own price or contribute data or marketing to the company, while consumers profit from the flexibility, direct payment, or free or reduced-price products and services.” (Airline, 2015)

Ecommerce provides numerous advantages to customers and businesses. It is convenient and easy to use. For the numerous populations in the world, e-Commerce has become one of the preferred ways of shopping as they enjoy it being online because of its easiness and convenience. They are allowed to buy products or services from their home at any time of day or night. Because of its convenience, consumers can save a lot of time as well as money by searching their products easily and making purchasing online. There’s virtually no need to go to a store anymore.

For businesses, e-commerce brings in more customers because of the convenience it brings to board. People want a simple to get what they want and a business that is involved in the use of an e-commerce site to both advertise and provide customers with an easy option boost the business by reach more and more customers who want to shop easily.

Businesses do not have to hire a constructor to build a shop for them to sell products to customers anymore. E-commerce is readily available for the customer to purchase goods and services. It reduces the cost incurred by businesses and increases the profitability of the margin of the business. Now businesses can make money and not waste it rather on building physical stores.

Complete automation of check-out, billing, inventory management, payments, and other types of operational costs lower the total number of employees that you require to run your eCommerce business. Therefore, for the business, it means less money would be spent on salaries and wages since the human resource of the company would be less.

One of the most important benefits that eCommerce merchants can enjoy is store timings are now 24/7 as they can run e-commerce platforms all the time. In this way, they can increase their sales by boosting their number of orders. However, it is also beneficial for customers as they can purchase products whenever they want no matter whether it is early morning or midnight.

The best thing is e-commerce retailers can easily keep a constant eye on consumers’ buying habits and interests to tailors their offer suit to consumers’ requirements. By satisfying their needs constantly, you can improve your ongoing relationship with them and build long-lasting relationships. It also helps the retailer to determine which products are selling and which are not. This is critical information to the retailer so he can satisfy the customer and maximize profit.

If you are running a physical store, it will be limited by the geographical area that you can service, but with an e-commerce platform, you can sell your products and services across the world. The entire world is your playground, where you can sell your complete range of products without any geographical limits. Moreover, the remaining limitation of geography has been dissolved by e-commerce that is also known as mobile commerce.

One of the best benefits of e-commerce for customers is they can get huge information that is not possible in a physical store. We all know that it is quite difficult to equip employees to respond to customers who are looking for information on different product lines. But e-commerce platforms offer additional information to their customers without any hassle. All the given information is provided by vendors so that their customers find it easy to purchase products with information.

E-commerce also provides job opportunities to the people of society. Businesses need people like the delivery drivers to transport purchased products to clients in the comfort of their homes. The services of customer care representatives are also needed by businesses to represent them in addressing the needs of customers.

The benefits or advantages of e-commerce have brought to light the need for Ghanaian restaurants to have an e-commerce platform that would help them reach out to the customers and clients who wish to purchase their products. Restaurants in Ghana would now have a platform to advertise menus and services. With an e-commerce platform, restaurants can now maximize profits and reduce costs drastically. They do not need to spend money on the building of physical restaurants.

## Management information system

A Management Information System (MIS), is a computer-based system that optimizes the collection, transfer, and presentation of information throughout an organization by using an integrated structure of databases and information flow (Long & Long, 2004). MIS combines the theoretical work of computer science, management science, and operations research with a practical orientation toward developing system solutions to real-world problems and managing information technology resources (Kenneth C. Laudon *et al*., 2004).

MIS is also seen as a system collecting and analysing data and producing reports. Its purpose is to help managers to solve structured problems. However, it should also fulfill several other purposes (Adriana Harizanova, 2003):

* It should provide a basis to analyze warning signals that can originate both externally and internally; this is the main function of a database;
* It should automate routine operations thus avoiding human work in the processing tasks;
* It should assist management in making routine decisions;
* It should provide the information necessary to make non-routine decisions;
* It should serve as a strategic weapon to gain competitive advantages.

There are numerous definitions of MIS, for this research, MIS can be defined as a system providing bus operator management with accurate and timely information necessary to facilitate the decision-making process and enable the bus operator’s planning, control, and operational functions to be carried out effectively. By doing so, MIS will increase competitiveness between bus operators, reducing cost and improving processing speed.

## Smartphones

A smartphone is a handheld personal computer with a mobile operating system and an integrated mobile broadband cellular network connection for voice, SMS, and internet data communication; most if not all smartphones also support Wi-Fi (PC World, 2016). Smartphones are typically pocket-sized as opposed to tablets. Which are much larger. They can run a variety of software known as apps. Most basic apps come pre-installed with the system while others are available for download from places like the Google Play Store.

Today, smartphones largely fulfill most people’s needs for a telephone, digital camera and video camera, GPS navigation, a media player, clock, news, calculator, web browser, handheld video game player, flashlight, compass, an address book, note-taking, digital messaging, an event calendar, etc.

There are various types of smartphones on the market today, namely;

* Samsung Phones
* Xiaomi
* Techno

These smartphones all have some kind of Operating System pre-installed on them. Typical types are the Google OS called Android and the IOS from Apple. As far as this project is concerned, we would be using the Android OS to achieve its goals.

**Android**

(Android PIT, 2018) Android is software for mobile phones, tablets, and a growing range of devices encompassing everything from wearable computing to in-car entertainment. It launched in 2003 and is the world’s most popular mobile operating system (OS). Android is an open-source project (led by Google but it doesn't belong to them) called AOSP (Android Open-Source Project). Google uses this project as a base to create its version of Android, which is then used by the other manufacturers. AS an OS, Android's job is to act as a translator between you and your gadget. When you take a photo, Android provides the button you tap and tells the phone what to do when you tap it. When you make or receive a call, Android tells your phone how to do that. When you play a game, Android tells the game what movements you’re making and what buttons you’re pressing. It’s like Windows, but for mobile devices. Android provides a rich application framework that allows us to build innovative apps and games for mobile devices in a Java language environment. Android apps are built as a combination of distinct components that can be invoked individually. For instance, an individual activity provides a single screen for a user interface, and a service independently performs work in the background. Android provides an adaptive app framework that allows you to provide unique resources for different device configurations. You can also declare the features your app requires. So, app markets such as Google Play Store do not allow installation on devices that do not support that feature [8]. The Android software itself is developed in conjunction with Google, which releases major updates to the platform every year. Manufacturers which run Android on their phones include Samsung, Huawei, Sony, Lenovo, HTC, LG, and many others; it's currently operational on more than one billion devices. (www.javatpoint.com, 2018) Initially, Andy Rubin founded Android Incorporation in Palo Alto, California, the United States in October 2003. On 17th August 2005, Google acquired android Incorporation. Since then, it is in a subsidiary of Google Incorporation. The key employees of Android Incorporation are Andy Rubin, Rich Miner, Chris White, and Nick Sears. Originally intended for the camera but shifted to smartphones later because of a low market for the camera only. Android is the nickname Andy Rubin given by co-workers because of his love for robots. In 2007, Google announces the development of android OS. In 2008, HTC launched the first android mobile. (Todd, 2018) Versions usually come with a numerical code and a name that’s so far been themed after sweets and desserts, running in alphabetical order.

Android 1.5 Cupcake

Android 1.6 Donut

Android 2.1 Eclair

Android 2.2 Froyo

Android 2.3 Gingerbread

Android 3.2 Honeycomb – The first OS design specifically for tablets, launching on the Motorola Xoom

Android 4.0 Ice Cream Sandwich: The first OS to run on smartphones and tablets, ending the 2.X naming convention.

Android 4.1 Jelly Bean: Launched on the Google Nexus 7 tablet by Asus

Android 4.2 Jelly Bean: Arrived on the LG Nexus 4

Android 4.3 Jelly Bean

Android 4.4 KitKat: Launched on the LG Nexus 5

Android 5.0 Lollipop: Launched on the Motorola Nexus 6 and HTC Nexus 9

Android 6.0 Marshmallow: Launched on the LG Nexus 5X and Huawei Nexus 6P

Android 7.0 Nougat

Android 7.1 Nougat: Launched on the HTC-made Google Pixel and Pixel XL

Android 8.0 Oreo: Launched on the Google Pixel 2 and Pixel XL 2

The latest public version, Android Nougat, makes the OS even faster than ever with a feature called “instant apps”. It also offers improved battery life with Doze on the go and adds native VR support.

## Security

G.J. Udo (2001) defined Security as the protection of data against accidental or intentional disclosure to unauthorized persons, or unauthorized modifications or destruction. Security concern has become one of the main reasons for not transacting online because as soon as a user accesses the Internet, anyone from anywhere around the world has access to the information being sent. The risk of data theft, theft of service, and corruption of data, and viruses becomes a reality. The lack of security, reliability, and accountability make the Internet online transaction too risky for many users (T. Ramayah *et al*., 2003).

Devising the Internet security policy can be complex because a rational policy requires an organization to access the value of information. The policy must apply to information stored in computers as well as to information traveling through a network.

Nowadays, the society consisting of either the businesses or the government these internet security issues concern areas. These people are very dependent on the data communication networks for their daily performance, especially in the business areas. The rise of the internet with opportunities to connect computers anywhere in the world has significantly increased the potential vulnerability of the organizational assets (Fitzgerald and Dennis, 2002). Emphasis on internet security also has increased because of well-publicized security.

For this project, the Internet security that should be taken into consideration is unauthorized access. Unauthorized access can have defined as the use and access of information without getting permission from the administrator. This problem is often viewed as the hacker or the employee gaining access to the information and resources from the organization through the internet.

## Notification systems

According to Oxford Dictionary (2010), a notification is defined as “the action of notifying someone or something”. Generally, a notification system is a combination of software and hardware that provides a means of delivering a message to a set of recipients. It commonly shows activity related to an account. Such systems constitute an important aspect of modern Web applications (WiseGeek.com, 2016). Notification systems can be categorized into two types, paper-based and electronic-based.

### **Analysis of Existing Multi-restaurant Systems**

This section will analyze some already existing multi-restaurant systems.

1. **Uber Eats** is an American online food ordering and delivery platform launched by Uber in 2014 and based in San Francisco, California. Users can read menus, reviews, and ratings, order, and pay for food from participating restaurants using an application on the iOS or Android platforms, or through a web browser. A customer opens the Uber Eats app, browses your menu, and places an order. You accept the order with the tablet you received from Uber Eats. The customer tracks the order's progress through the Uber Eats app. You fulfill the order and hand it off to a delivery partner. Uber Eats' parent company Uber was founded in 2009 by [Garrett Camp](https://en.wikipedia.org/wiki/Garrett_Camp) and [Travis Kalanick](https://en.wikipedia.org/wiki/Travis_Kalanick). The company began food delivery in August 2014 with the launch of the UberFRESH service in [Santa Monica, California](https://en.wikipedia.org/wiki/Santa_Monica,_California). In 2015, the platform was renamed to UberEATS and the ordering software was released as its own application, separate from the app for Uber rides. Its London operation opened in 2016.

**Advantage**

Uber eats leverages the existing Uber service to technology to provide food deliveries to its customers. Since it is an existing brand people are comfortable trusting and using the service.

**Disadvantage**

Uber eats is not available in Ghana.

Drivers are paid a low wage by Uber and some customers don't want to tip the drivers.

1. **Bolt Food** is the most recent service of ride-hailing tech company Bolt (formerly Taxify). B Bolt Food is the most recent service of ride-hailing tech company Bolt (formerly Taxify). Bolt Food is here to challenge the efficiency of the food delivery industry all over the world while helping restaurants get more orders and couriers earn extra money. Bolt Food is here to challenge the efficiency of the food delivery industry all over the world while helping the restaurants get more orders and the couriers to earn extra money.

**Advantage**

Bolt food also leverages it’s existing service and brand to sell this feature to it’s users.

**Disadvantage**

Bolt food isn’t accessible in all parts of the country.

1. **Just Eat Limited** is an online food order and delivery service founded in 2001 in [Kolding](https://en.wikipedia.org/wiki/Kolding), Denmark. It acts as an [intermediary](https://en.wikipedia.org/wiki/Intermediary) between independent [takeaway](https://en.wikipedia.org/wiki/Takeaway) food outlets and customers. According to their website, it is headquartered in [London](https://en.wikipedia.org/wiki/London), England, and operates in 13 countries throughout [Europe](https://en.wikipedia.org/wiki/Europe), [Asia](https://en.wikipedia.org/wiki/Asia), [Oceania](https://en.wikipedia.org/wiki/Oceania), and the [Americas](https://en.wikipedia.org/wiki/Americas). The platform enables customers to search for local takeaway restaurants, place orders and pay online, and choose from pick-up or delivery options. Five Danish entrepreneurs, including Jesper Buch, founded Just Eat in Denmark in 2000 and launched the service in August 2001. In 2005 the technology entrepreneur Bo Bendtsen (co-founder) bought out all the founders and initial investors apart from Jesper Buch and moved the company to the UK. Jesper Buch moved to the UK as part of the buyout in 2006 and hired Welsh executive David Buttress to join as CEO and co-founder of Just Eat UK in March. The international expansion from the UK headquarters, starting with the Netherlands, launched in July 2007 and was followed by Ireland in April 2008.

**Advantage**

Just Eat is feature rich and helps break the barrier between a restaurant and a customer if there exists one.

**Disadvantage**

Just Eat only operates in 11 countries in Europe, [Australasia](https://en.wikipedia.org/wiki/Australasia), North America and South America and is not available to Africa and there are no known plans of them coming to establish here either.

1. **Deliveroo** is an online [food delivery](https://en.wikipedia.org/wiki/Food_delivery) company founded by [Will Shu](https://en.wikipedia.org/wiki/Will_Shu) in 2013 in [London](https://en.wikipedia.org/wiki/London), England. It operates in over two hundred locations across the United Kingdom, the Netherlands, France, Belgium, Ireland, Spain, Italy, Australia, Singapore, Hong Kong, the United Arab Emirates, and Kuwait. Its subsidiary operation, Deliveroo Editions, focuses on growing a network of [ghost kitchens](https://en.wikipedia.org/wiki/Ghost_kitchen)—kitchens located off-site from restaurants for the preparation of delivery-only meals. Deliveroo has not yet made a profit. Deliveroo, headquartered in London, was founded in 2013 by Will Shu and Greg Orlowski. The company makes revenue by charging restaurants a commission fee, as well as by charging customers a per-order fee. It operates in two hundred cities in the UK, and in The Netherlands, France, Belgium, Ireland, Spain, Italy, Australia, Singapore, United Arab Emirates, Kuwait and Hong Kong. Customers place orders through its app or website, then self-employed bicycle or motorcycle couriers transport orders from restaurants to them.

Deliveroo works with some of the biggest chain restaurants across the UK, with the majority being available exclusively on the Deliveroo app along with thousands of independent restaurants. On 16 November 2016, it became known that the brewing company Heineken International had closed a deal for Deliveroo to deliver the latter's beers and ciders, initially across 15 sites in London, Bath and Cardiff. This delivery deal, whose activities started that same week, was considered the biggest one of its kind (that is, with regards to the brewing industry). Further expansion of these activities across the UK were planned by the end of the year 2017.

**Advantage**

This system is feature-rich and comes with multiple features that can be tweaked to suit the activities of a business that is in use of it.

**Disadvantage**

This service comes with a fee and a bit of technical know-how to set up the system.The fees range from above 845 dollars for a solo package, 1495 dollars for classic business, and as high as 2795 dollars for their business package.

1. **Menu log** is Australia’s home-ground online food delivery service with the greatest choice of both restaurants and cuisine types on offer.   
   Launching in Sydney in 2006, Menu log connects more than 2.7 million active customers with almost 20,000 local restaurants via our native mobile apps and easy-to-use website.  
   The Menu log business is founded on a simple premise, which is to enable great restaurants to provide delicious food to more local customers. Having pioneered the online food delivery industry in Australia, Menu log is now powered by a global leader in food delivery, Just Eat Takeaway.com, and delivers to more than 87 percent of Australian delivery addresses via our network of local restaurant partners. With hundreds of thousands of reviews and a range of promotions and specials, Menu log offers the greatest choice for delivery, pick up, or catering orders, from brekkie to late night.

**Advantage**

This system is feature-rich and comes with multiple features that can be tweaked to suit the activities of a business that is in use of it.

**Disadvantage**

This service comes with a fee and a bit of technical know-how to set up the system.The fees range from above 845 dollars for a solo package, 1495 dollars for classic business, and as high as 2795 dollars for their business package.

1. IXXO Cart is an online shop that provides features allowing you to set up and run a successful online business. IXXO Cart comes in several editions, IXXO Cart Plus for single merchants and IXXO Cart Multivendor

(IXXO Cart MV) for online malls. IXXO Cart is a complete software package that runs independently with its content management system.

Separate versions for popular content management platforms are available too, especially WordPress and Joomla.   
IXXO Cart meets most server configurations ranging from shared hosting servers to dedicated servers.

The following software must be present on your server to run the core functions of IXXO Cart:

* PHP 5.6 or 7.x
* MySQL 4.1 or greater

Some functions require additional software to be installed on your server:

cURL (especially for some payment and shipping gateways)

GDLibrary (for several graphics operations, like resizing images, creating thumbnails, cropping images, CAPTCHA functionality, watermarks, etc.)

iconv (for transliteration of foreign languages, if other functions are not available).  
  
**Advantage**

This system is feature-rich and comes with multiple features that can be tweaked to suit the activities of a business that is in use of it.

**Disadvantage**

This service comes with a fee and a bit of technical know-how to set up the system.The fees range from above 845 dollars for a solo package, 1495 dollars for classic business, and as high as 2795 dollars for their business package.

## Conclusion

I have reviewed different mobile applications designed to help users order, pay, and get foods delivered to them. And also help restaurants manage their orders and catalog their menu for the day. I can therefore conclude that the Multi-restaurant system is not a brand-new research topic. Related works have been implemented by major companies whose software is expensive. A few other systems have been implemented by other individuals, but are not widely used by the public. Nevertheless, a lot of those applications designed lack petty functionalities.

Furthermore, it has been noticed that these application’s location services sometimes don’t work as they should, can be hard to navigate, uses your location while you are not using the app, and a lot more function abnormalities just to mention a few. It is therefore a step in the right direction that I go on, to implement a Multi-restaurant system. I will like to develop this system to give power and flexibility to the restaurants to manage their affairs and serving their customers with ease at their convenience. And to also, help them attract new customers.

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