IT303 SYSTEMS ANALYSIS AND DESIGN

GROUP 2- Le Bon Coin Patisserie (Food Ordering System)

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Bachelor of Science in Information Technology

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Description of the Proposed System

The primary purpose of the research is to develop a reliable, practical, and accurate ordering system. The specific goals of the study are as follows: To create a system that will unquestionably satisfy customer service requirements: To create a system that can handle multiple orders at once: To assess its functionality and acceptability in terms of security, friendliness, accuracy, and dependability.

Reduce the time it takes to place an order and improve client-server communication. Because the data for that item has already been entered, the system will automatically compute and show the final bill, ensuring that the invoices are error-free when printed: To automatically calculate the bill.

Business Case

Project Name: Le Bon Coin Patisserie (Food Ordering System)

Date of Project Approval: December 17, 2022

Executive Summary

This ordering system was designed and patterned in a french pastry website wherein bread, and coffee is the star, to bring every filipino the taste of french cafe. This as well shows the consumers and clients on how convenient it is to order their food with our system. The reason why we, the developer came up with this idea, is to help consumers give options in ordering Their Food preferences, by giving them the privilege to choose in what type of delivery and service we would give to Satisfy their cravings. Most importantly, customers could earn equivalent vouchers upon ordering their likes.

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Reasons

Convenience is the main goal of the online food ordering system. The goal is to make it possible for customers to order food from anywhere at any time. Both customers and businesses can benefit from our food ordering system. Some of the key benefits of the online food ordering system include the freedom to select from your favorite delicacies, the ability to customize the dishes, and the simplicity of placing another order for the same dishes.

Expected benefits

This proposal project benefits customers who crave French cuisine but do not have the budget to travel and try the French experience for two, so the company offered it for local enjoyment. This system allows customers to rest assured that their snack cravings will be satisfied, and desserts will allow them to relax and have a carefree day without worrying about food or health safety. In a country with limited outlets serving French cuisine and pastries in the Philippine Islands, anyone could be tempted to try a foreign delicacy.

Expected downside

Chances that the system will experience a technical issue **(Redundant)**

- Due to data redundancy, a database's size and complexity may grow, making maintenance more challenging.
- Because they take longer to complete daily tasks, larger databases can also cause slower load times and much employee annoyance.

Timescale

Gantt Chart

Gantt Chart

This Gantt chart represents the timeframe for the entire system. Timeframe refers to his entire semester from building the team to defending the system. Each week there are tasks that must be completed for the team to progress. The number one priority is "Sourcing a Team" and the team must consist of at least five of her members. The second task is "brainstorming". The team must find the most suitable system that meets the criteria set by the professor. The third task is presentation. This task is a planned system proposal where the team decides whether to proceed with the selected system.

A SWOT analysis determines the strengths, weaknesses, opportunities and threats of our system. Then go to the documentation. Documents include background, objectives, goals, scope, Gantt charts, and constraints. We then proceed to the next task of presenting the documentation and instructing the panelists on the process of the system. I got the website after the presentation. It serves as the main platform for our ordering system. This means that many orders are placed through the website. The next task is the final validation before defense. This serves as a dry run for the actual defense, as well as the system's first success. There can be some major/minor issues with this part as well. Fix it quickly for smooth sailing defense. The final part is the actual defense. Present all the documents and web pages you have built so far.

Cost and Benefit Analysis

The table focuses on the main sources of expenses, like the ingredients, rent, bills, shipment, promotions, and sales. Through this, the management can monitor the costs and revenues that are generated in a year. The approach on the Total Sales is performed through the most realistic approach of a newborn business, starting with a small number of orders to a decent number of patronage overtime. Ingredient prices may vary overtime due to uncontrollable reasons in the marketplace. Space rent, electrical bills, and water bill may also vary but this will not heavily affect the overall costs. The same goes for packaging and shipping. Spam orders are those that are returned or cancelled, which cannot be avoided during these trying times. Promotional ads are generated by giving sponsorships to social media content creators, which can boost both the business's total sales and the creator's follower count. Seasonal sales are there because of the festivities or holidays that everyone celebrates.

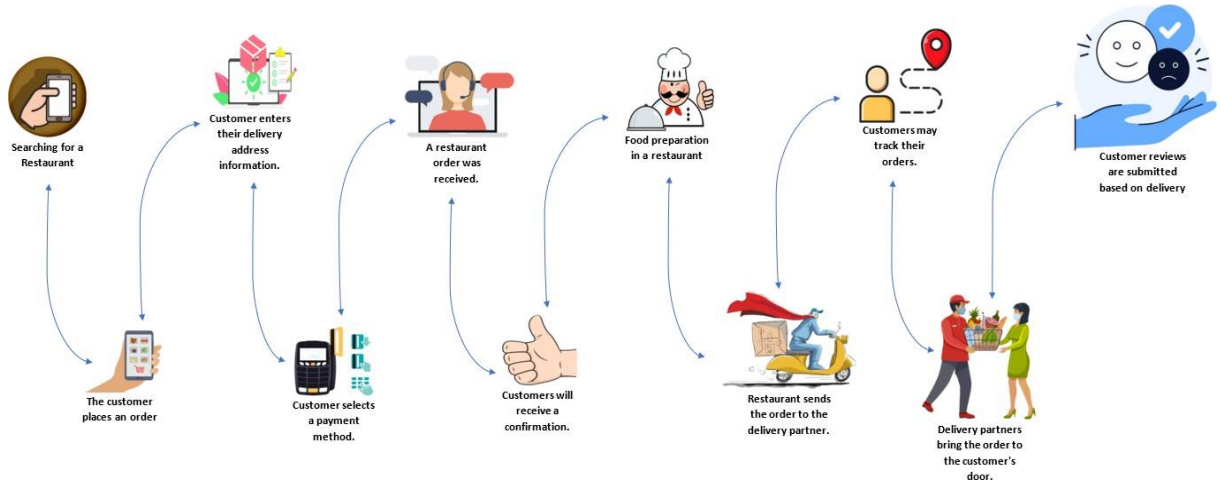
Major Risks

- Customer Data and Privacy. Customers used to call your business to place their orders back in the day.
- Food security. Having the proper equipment is essential for food safety and delivery.
- Tampering.
- Food Safety.
- Delivery Driver Problems.

Recommendations

We built our ordering system to eliminate the hassle for the consumer while purchasing food. They no longer need to travel anywhere to purchase pastries and sweets because we have an online ordering system that allows them to order and select the food they desire. We designed our ordering system to make it easier for customers to buy food. This is open for all ages but only available in some rural provinces. The quality and price are dependent on the economic income of the country as well as the company.

PHYSICAL ARCHITECTURE



AGILE METHODOLOGY

Agile Methodology

The project title had been chosen during this phase. The project title for the system was Food Ordering System.

This project began with brainstorming ideas with the professor, who proposed the system title. An abstract and description of the project module has also been done and provided. Furthermore, the Gantt chart was required as a project guideline and reference. The purpose of this phase is to analyze the existing system as well as the article of the approaches or methods that will be employed for this project. Obtain all of the requirements required to design and create the new system during this phase. Based on the information gathered from the article, an appropriate method and technique have been determined.

Design Phase

All data or requirements gathered during the planning and analysis phases are translated into the design during the design phase. This chapter will construct diagrams to depict the system's flow, such as Context Diagrams (CD), Data Flow Diagrams (DFD) Levels 0 and 1, and Entity Relationship Diagrams (ERD) (ERD). These diagrams are intended to serve as a guidance for creating the system. Following that, the database and system interface will be designed.

Development Phase

The design will be implemented into the coding during this phase. The system will evolve in response to user and system requirements. In this project, the system will be developed using Xampp server for the database, Notepad++ for coding, and Bootstrap as a framework. This is a vital step since the user must fulfill and ensure that the objectives are met.

Testing Phase

System testing is completed once all modules have been completed as a complete system. This testing phase will put the system through its paces to identify errors and ensure that the function works properly as a whole. Any errors or bugs will be addressed, and the system will be tested again and again until all functions are available.

Deployment Phase

This phase occurs when the system has completed all of the objectives. The system can be deployed, and then it will be published for use by the user.

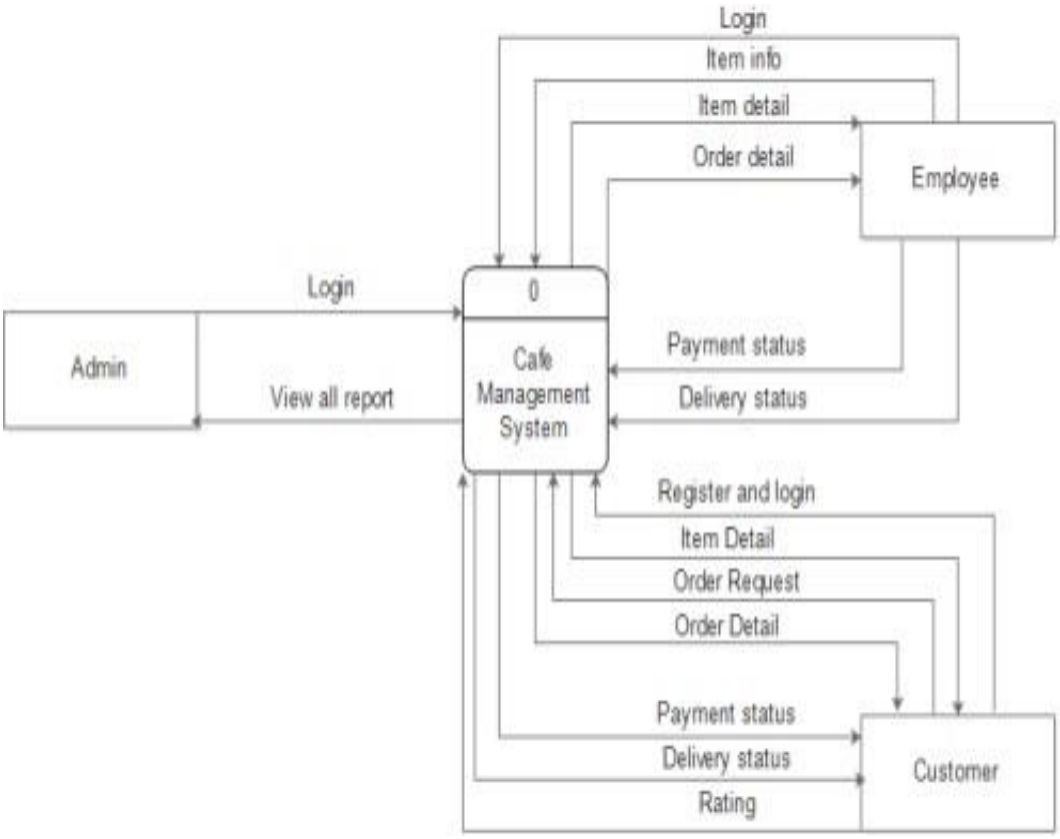
Review Phase

This phase received user feedback and review for maintenance. During this phase, we will follow up with the user to discuss upgrading the system to a newer version in the future.

GAP ANALYSIS`

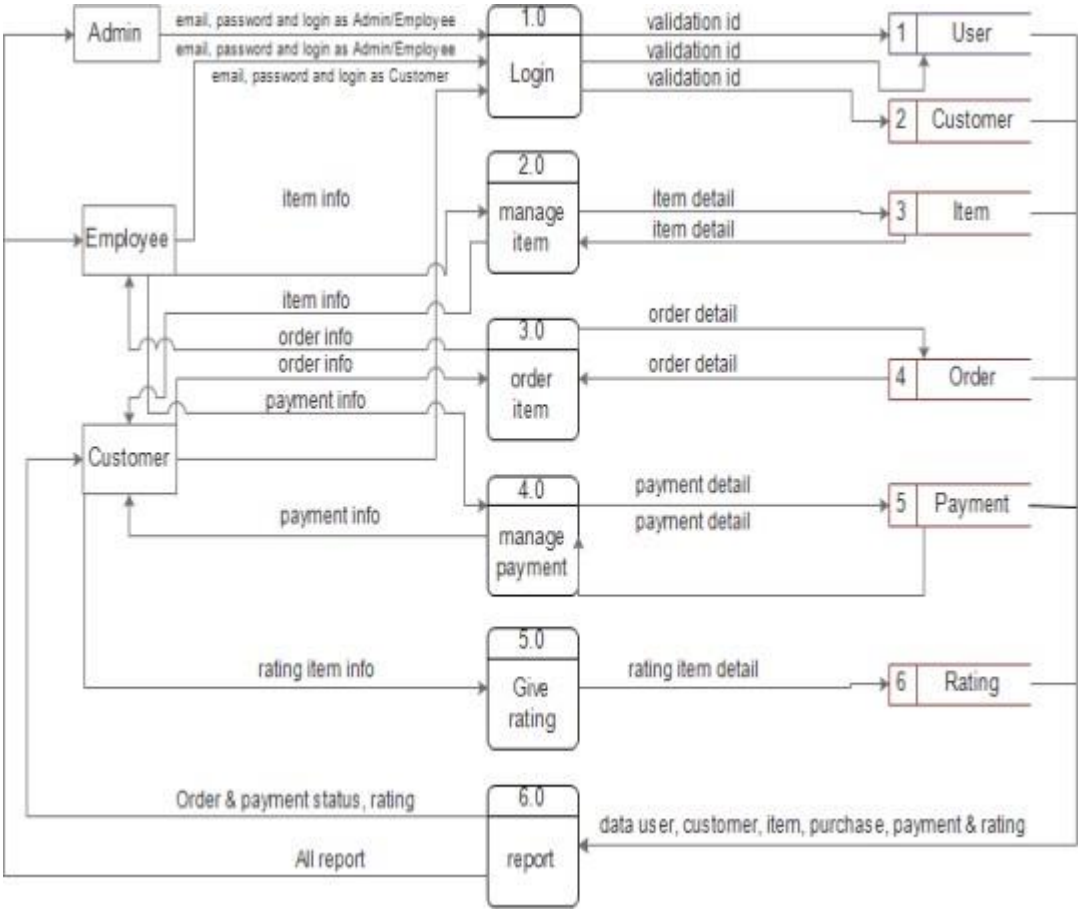
Modeling Requirements Using Data Flow Diagram (DFD)

CONTEXT DIAGRAM



Context Diagram

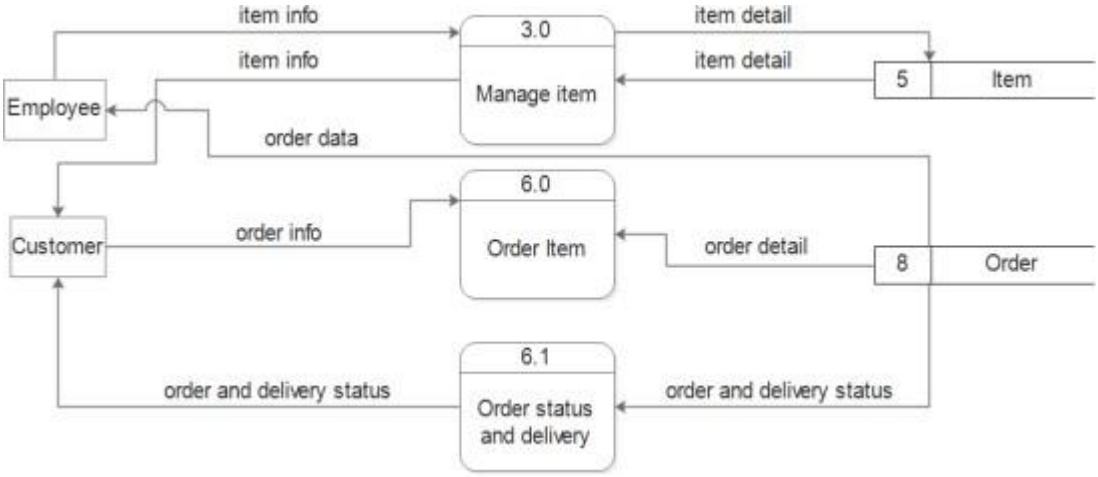
There are three users involve in this procedure which are admin, employee and customer. In the interaction between the process and entities, seventeen data flows are involved. There are two incoming data streams for the administrator (Login and Manage Employee). There is only one piece of incoming data (View Report). There are four incoming data points for Employee (Login, Item Info, Booking Table Status and Delivery Status). There are additionally three incoming data streams (Item Detail, Order Detail and Booking Table detail). There are three incoming data streams for the Customer (Register and Login, Order Request and Booking Table Info). There are four pieces of data arriving (Item Detail, Order Detail, Booking Table Status, Delivery Status).



Data Flow Diagram (DFD)

The data flow diagram contains three entities: admin, employee, and customer. This data flow diagram includes seven processes (Login, Manage Item, Order Item, Make Payment, Rating, and Report), as well as six data stores established for this system (User (Admin and Employee), Customer, Item, and Purchase, Payment, and Rating.

- The administrator, employee, and customer will login to the system by entering their email and password, and the process will validate the id, email, and password in the data store.
- Employee will manage the item and save it in the item data storage.
- The customer can browse the item information and place an order. The information will be saved in the Purchase data store. The order will then be processed and delivered to the customer by the employee. Employees can also update the order status and delivery status, allowing customers to obtain information from the system.
- The customer can rate the item they purchased using the system. Customers can also check their order and payment history as a report.
- Admin can access all data stores, User, Customer, Item, Purchase, Payment, and Rating, from the Report process, and Customers may view Purchase and Payment data from the Report process.

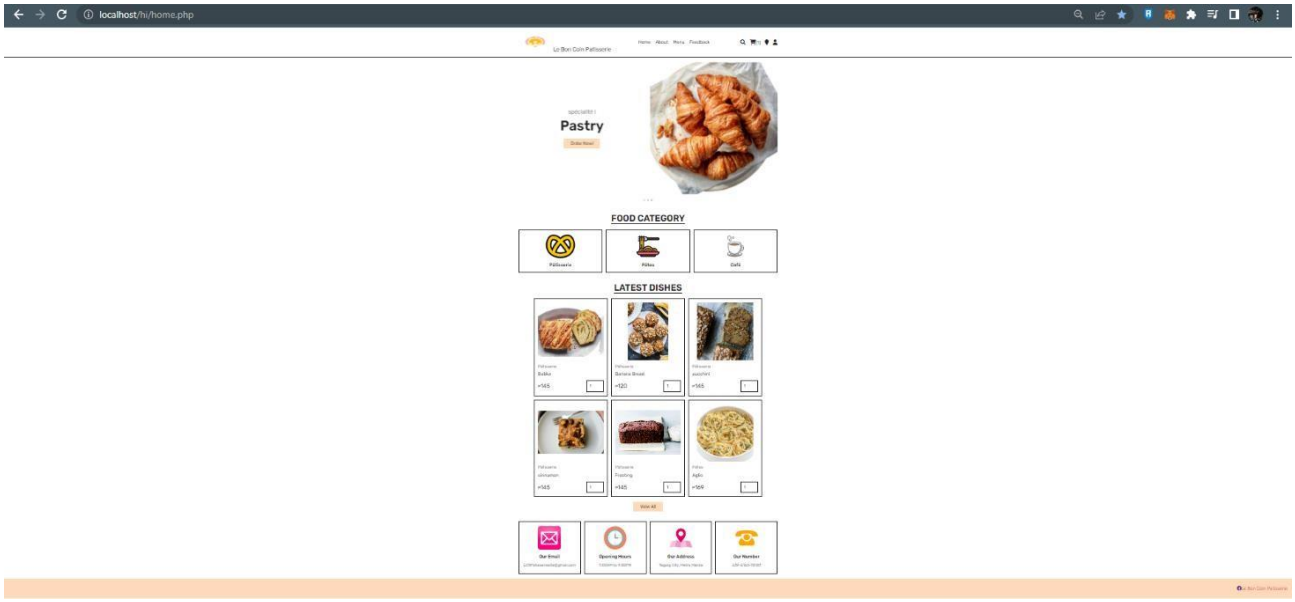


Data Flow Diagram Process (DFD)

- The customer can look at the item and place an order. The information will be saved in the Order data store. Following that, the Employee will receive the Order Detail, and the Employee will be able to proceed with the order and deliver the item to the customer. Employees can also update the delivery status.

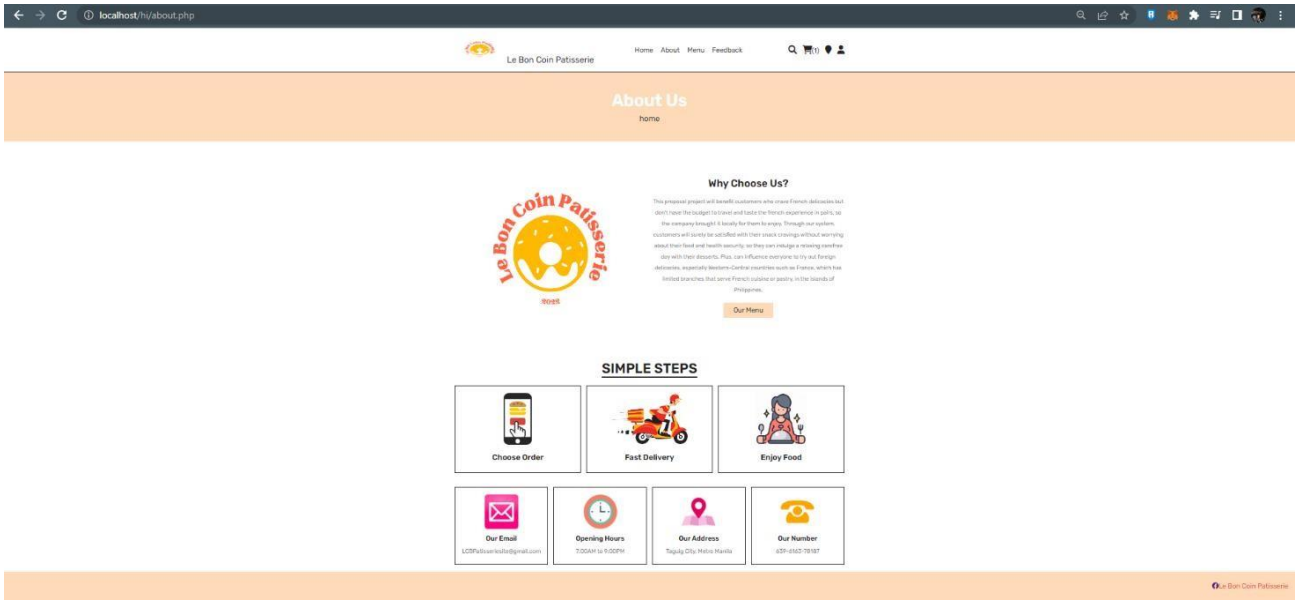
Presentation of the Proposed System

User Interface



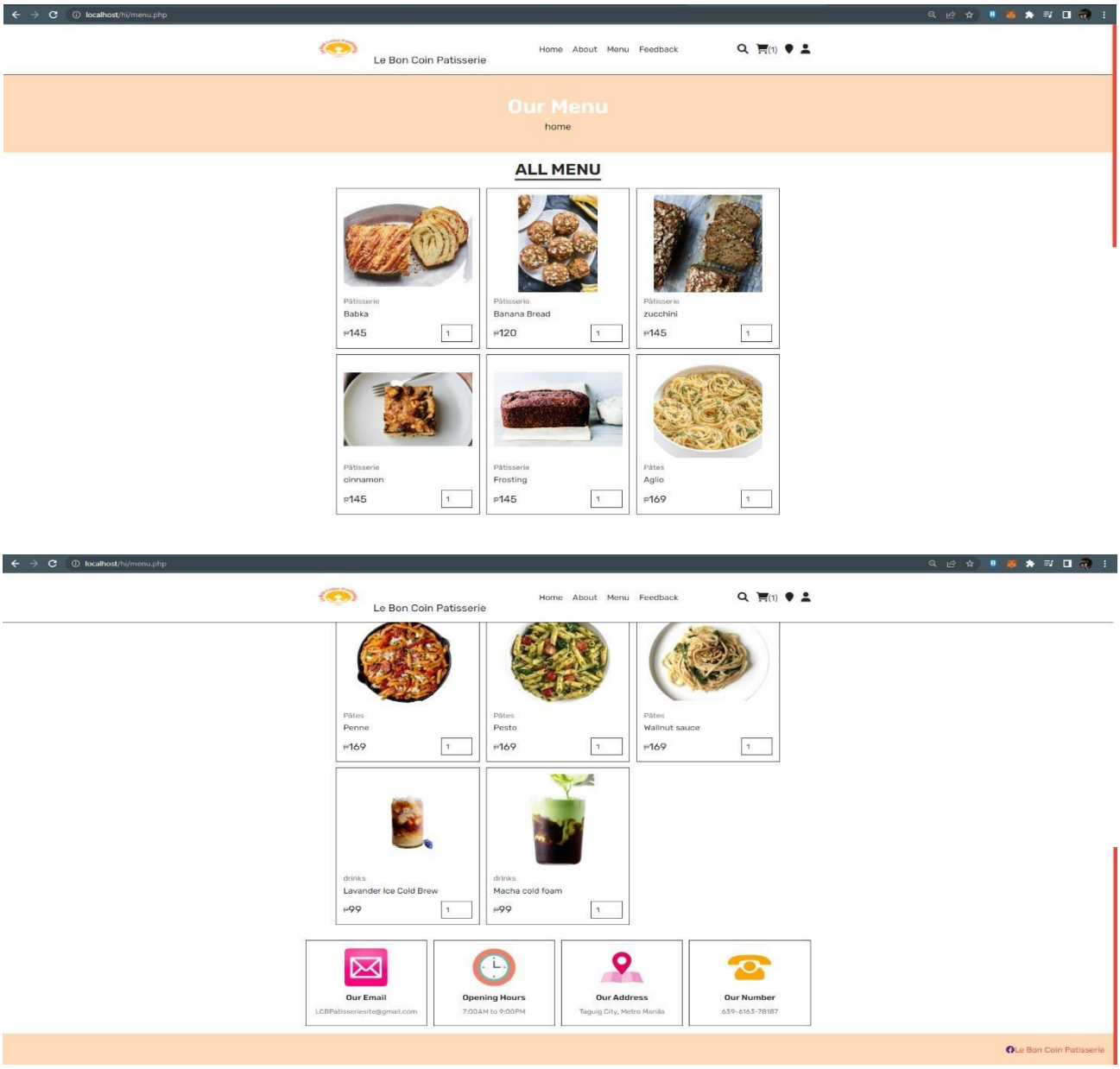
HOMEPAGE

Before you can use or order from our system, you need to login first or if you don't have an account you can register then after you register you will go to the home page where you can see all the info of our system. like our food category and latest products.



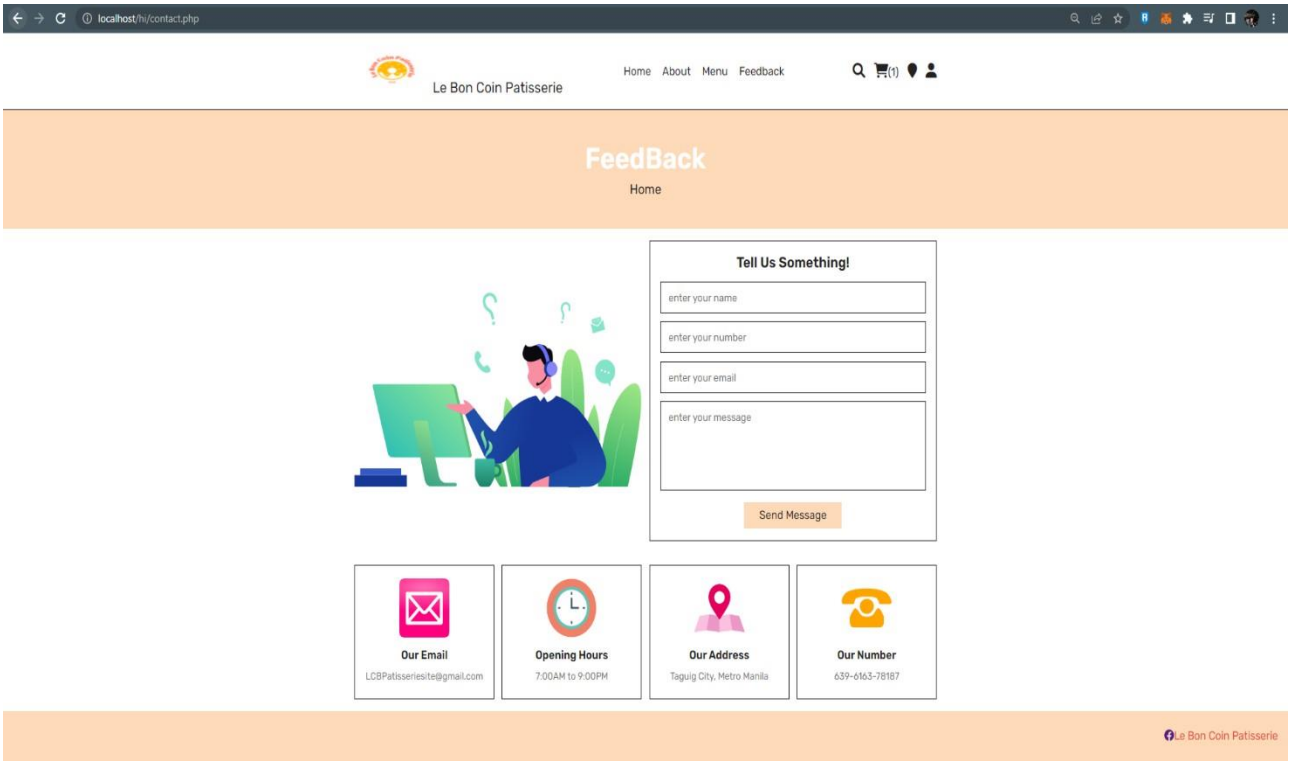
ABOUT

Then, if you go to about on our system, you'll see information and insight into our store.



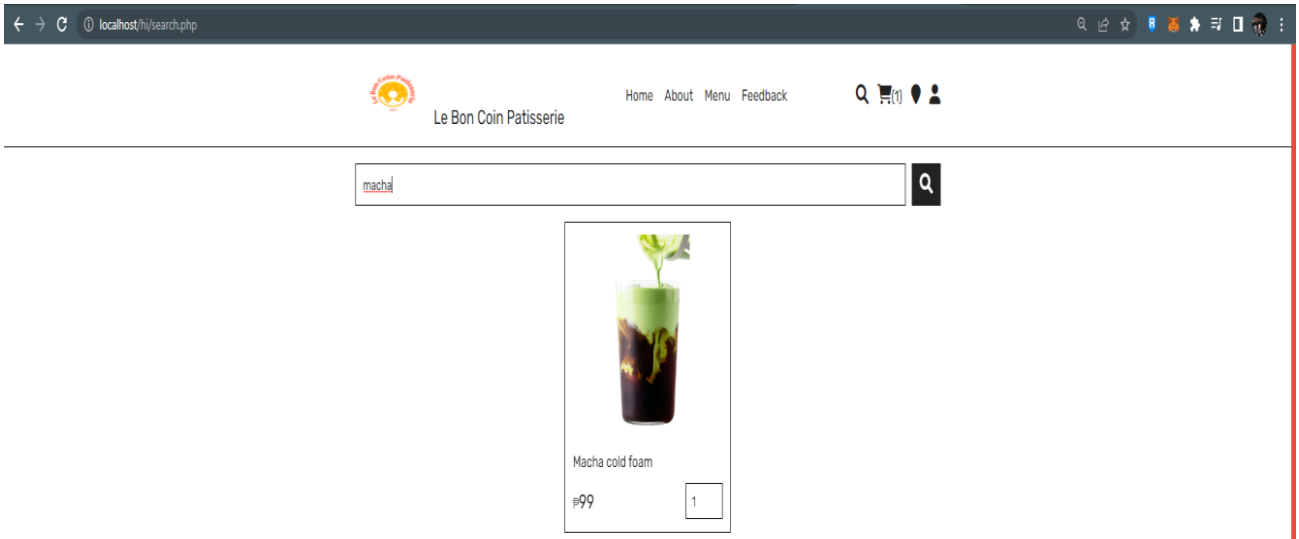
MENU

Once there, you can add any of our meals to your cart by visiting the menu website.



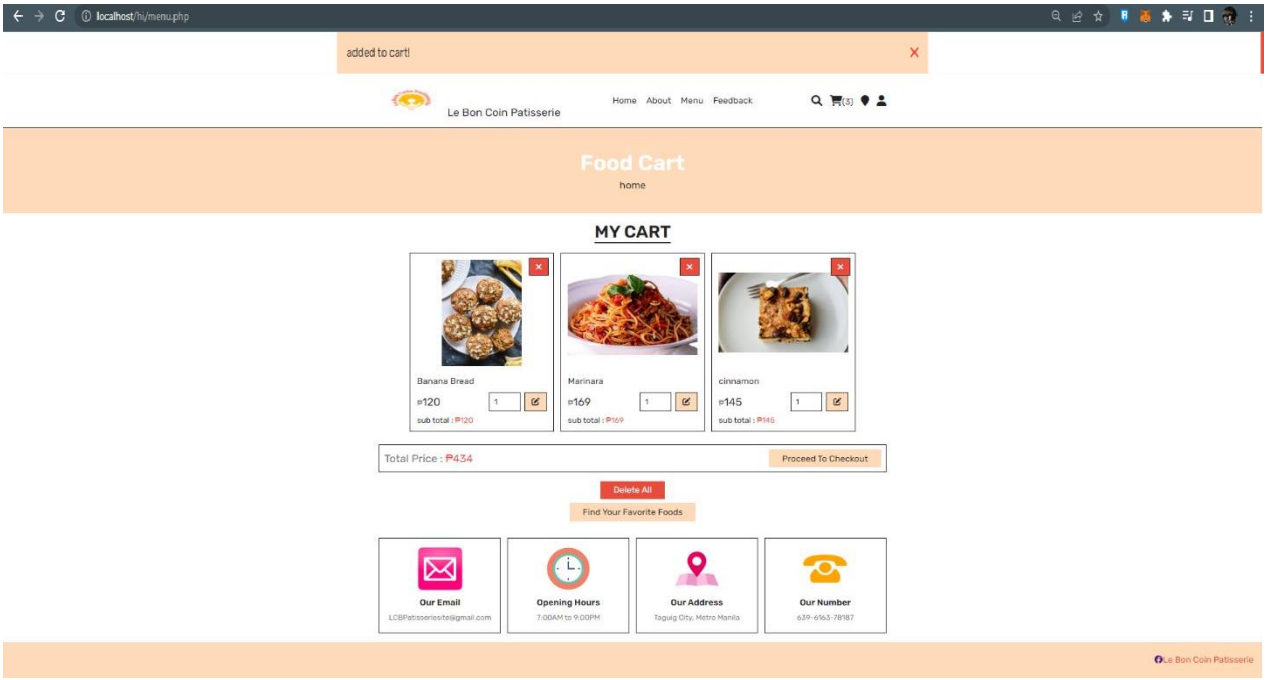
FEEDBACK

Then, through our feedback system, you may leave all of your product-related feedback or let us know how long it took for your order to arrive.



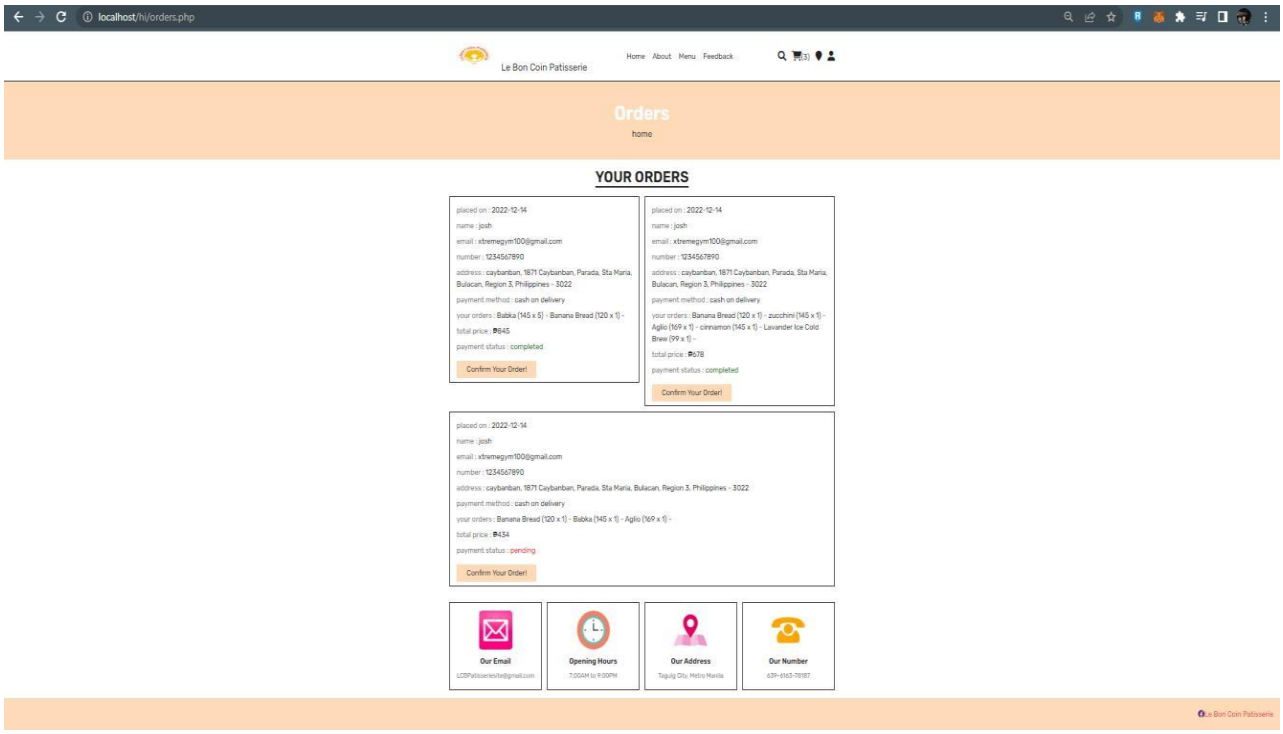
SEARCH BAR

If you want to locate what you're searching for quickly, we also have a search bar.



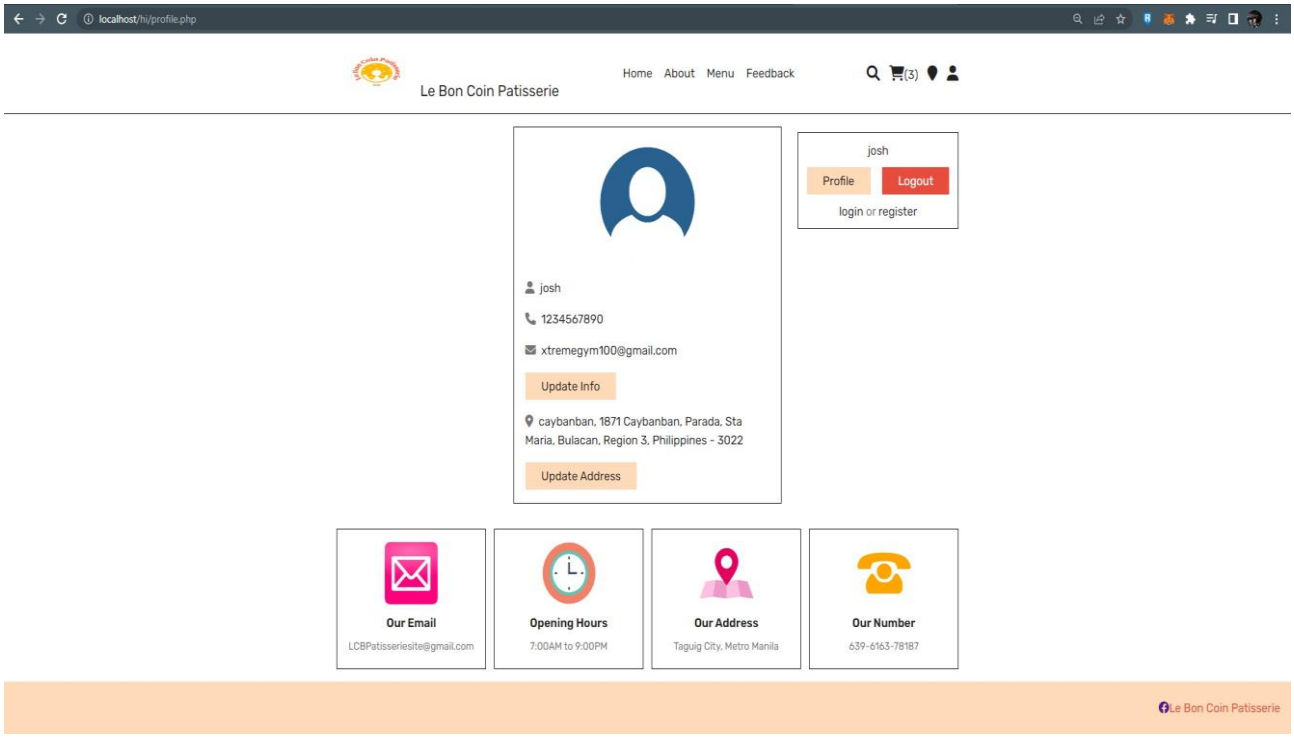
CART ICON

Here, you will also see the cart icon, a list of all the items you have put to your shopping cart with us, and the total cost of your purchase. When you hit "Proceed to Checkout" throughout the order process, you will travel to the order summary to verify that your order, your information, and your shipping address are accurate. There is a button there that you can use to amend it if it is incorrect. After you shop at the payment method site, you may also select the payment method, such as cash on delivery, credit card, or gcash. click "place order"



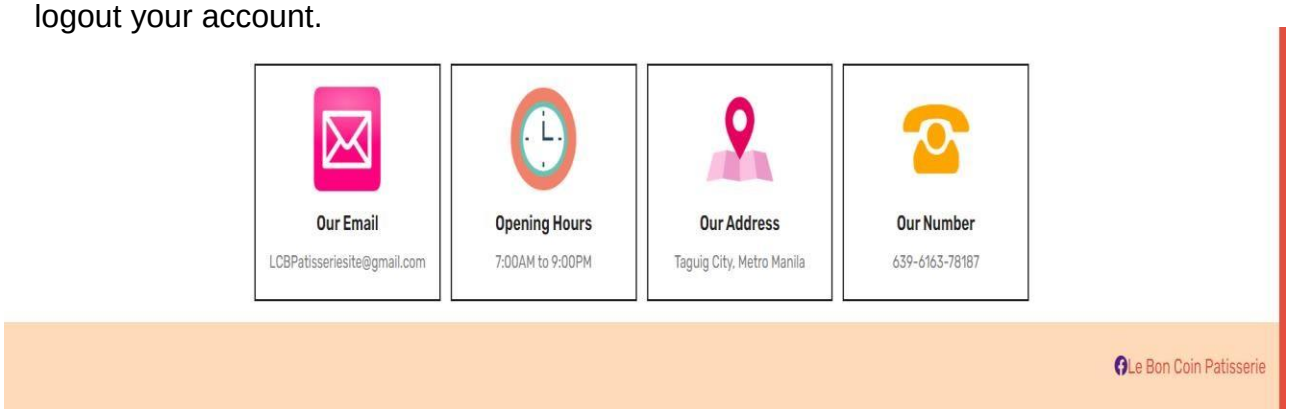
TRACKING ORDER

If you visit the order tracking page, you may track the development of your order. You will see an icon similar to a tracking icon next to the cart icon where you can check the food you ordered, the status of the order, and whether it has been delivered or not.



PROFILE

Then last icon there you will see your account you can update profile your profile or logout your account.



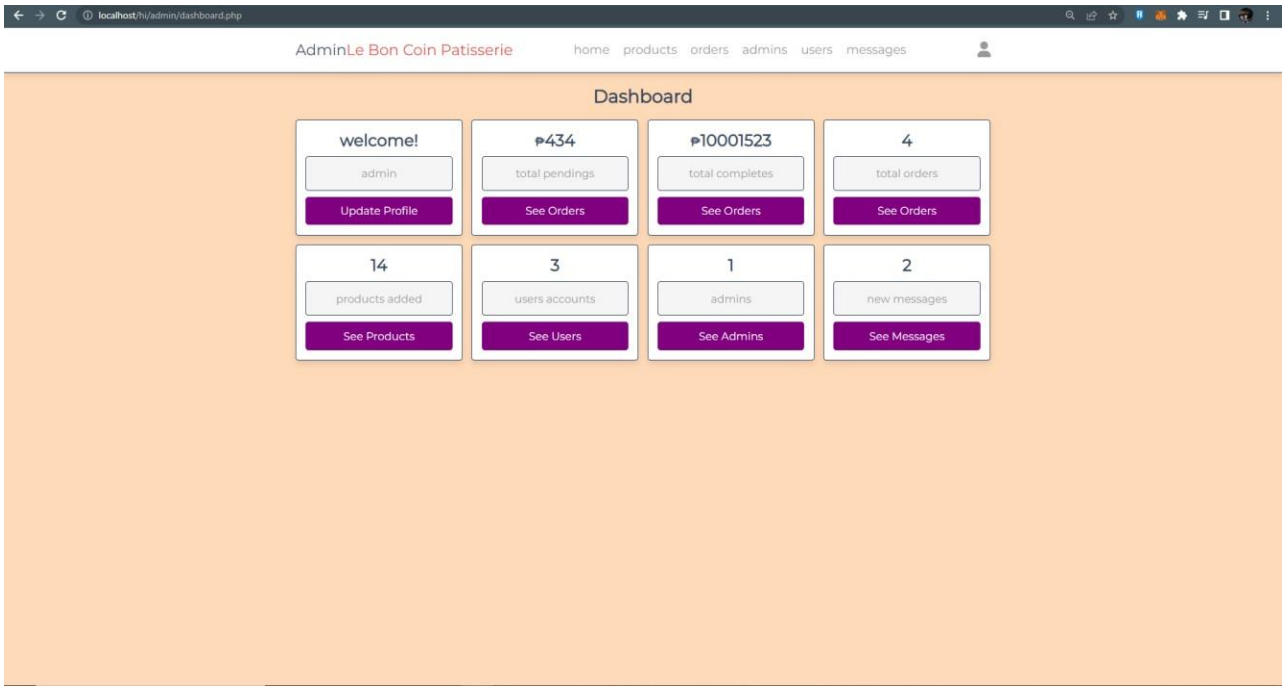
FOOTER

Additionally, you may find information about our store's location and hours of operation in the bottom, followed by our store's phone number.

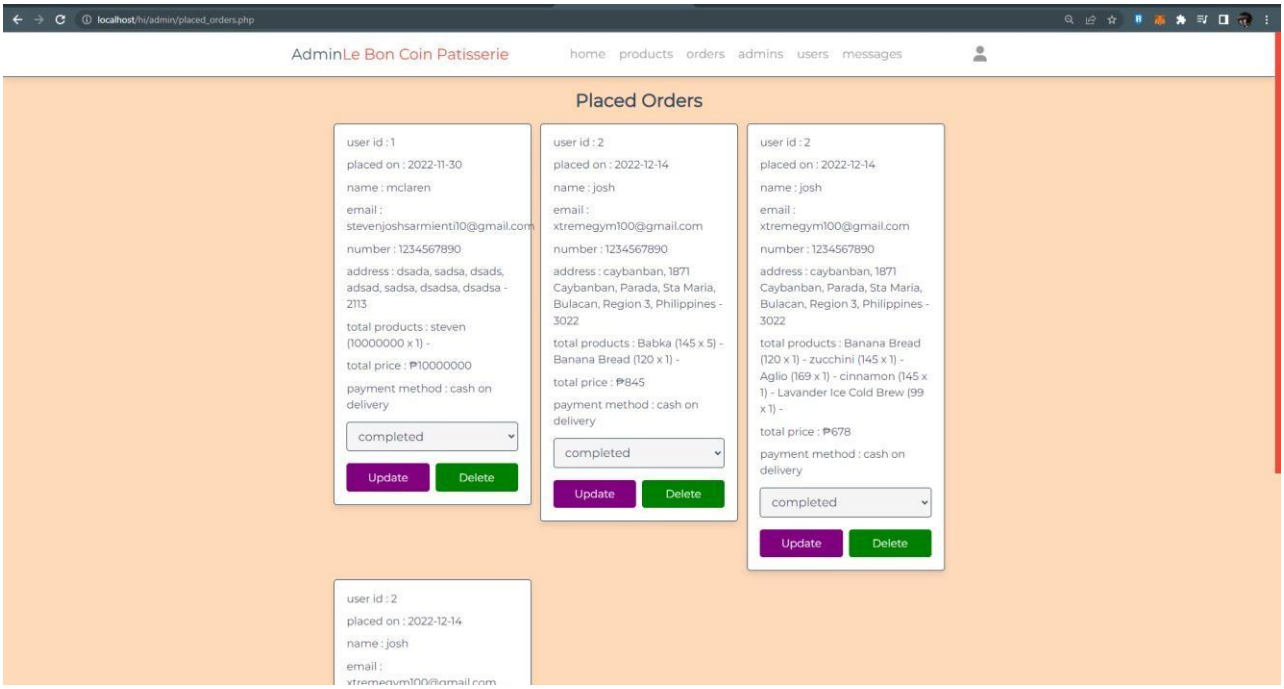
STORE & FACEBOOK PAGE

The name of our store is also visible at the bottom, where you can also locate our Facebook page if you're interested.`

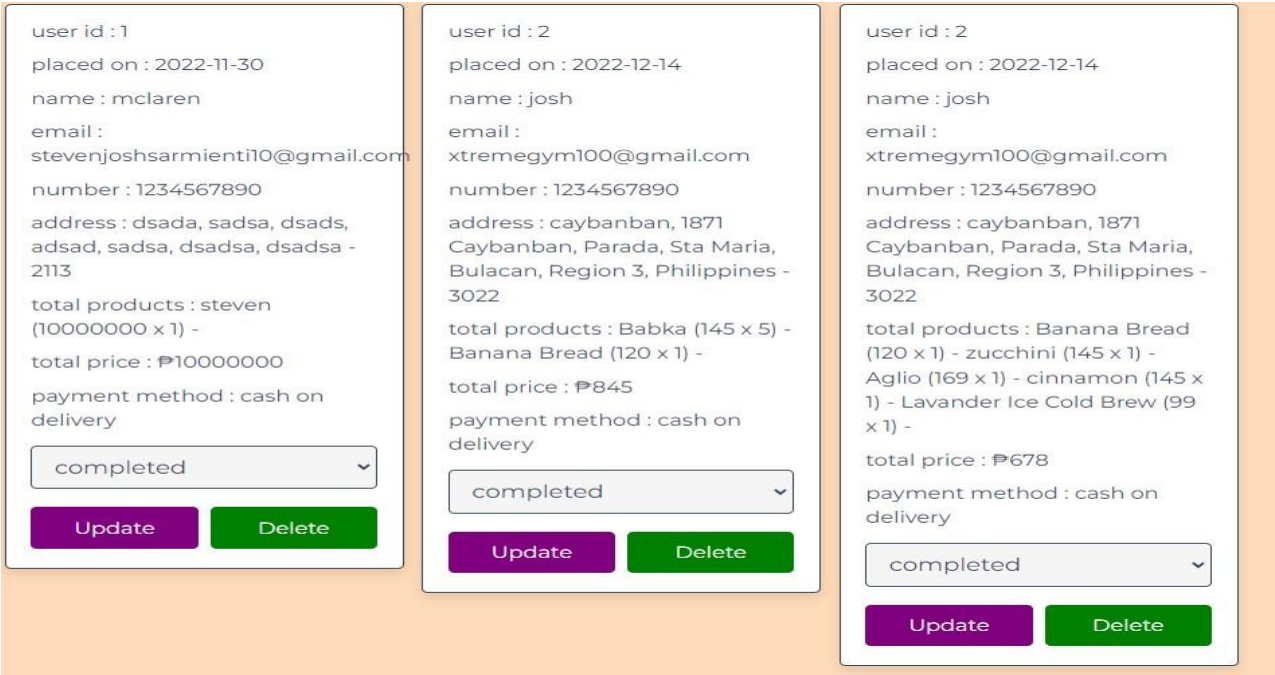
Sample Reports



I chose these three crucial reports because, first, you can see on the dashboard that all of our system's information is present, and you can also see whether an order has been placed and whether the store has made any money.



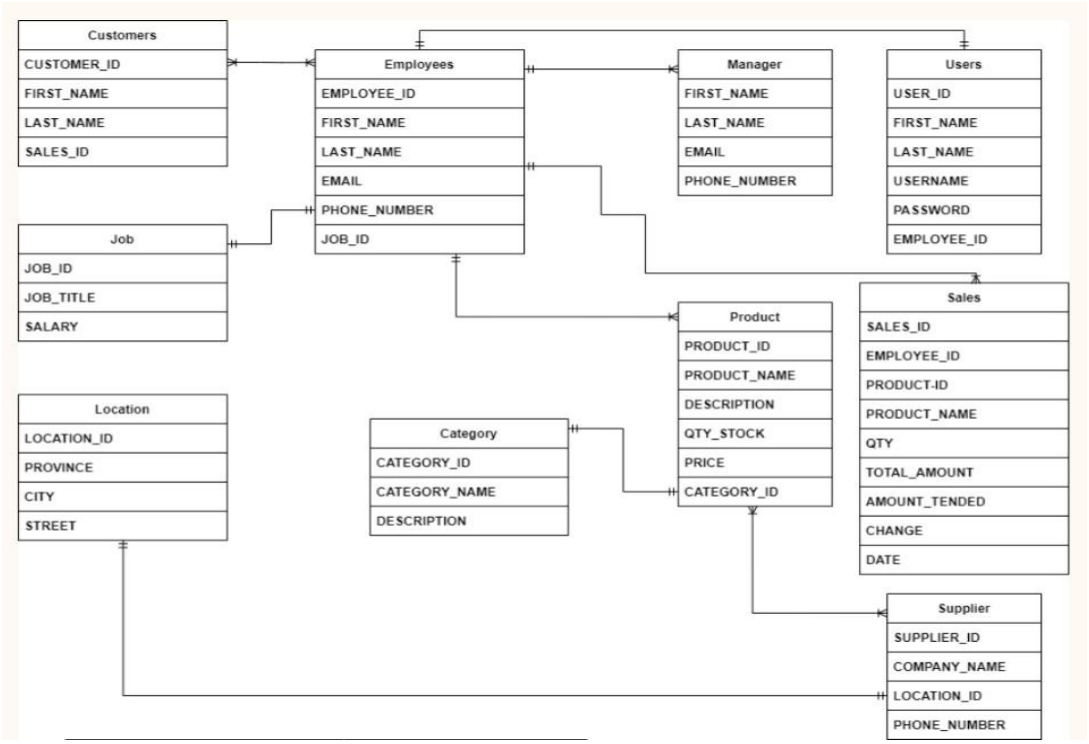
This is the second manage order because it is here that we may inform our clients of the status of their orders or any updates.



The third is the order history since from here we can determine how many customers have ordered from us and use that information to estimate our store's revenue.

Database Design

ERD



GRADING RUBRICS FOR FINAL REQUIREMENTS

HOW WELL DID YOU PERFORM?

Attach here the RUBRIC that student will use to self-check their required output prior to submission. The same rubric will also be used to grade the student's work.

CRITERIA	EXEMPLARY 4	SATISFACTORY 3	DEVELOPING 2	BEGINNING 1	RATING
Presentation of Business Case	Clearly discussed the background of the chosen organization including its anticipated growth rate based on its current status and how they carry their business routines. Evidently pointed out the problems and limitations of the present office environme	Clearly discussed the background of the chosen organization but missed its anticipated growth rate based on its current status and how they carry their business routines. Evidently pointed out the problems and limitations of the present office environment, and then objectively considered the existing	Partially discussed the background of the chosen organization without its anticipated growth rate based on its current status and how they carry their business routines. Evidently pointed out the problems and limitations of the present office environment, but failed to consider the existing organizationa l	Partially discussed the background of the chosen organizatio n without its anticipated growth rate based on its current status and how they carry their business routines. Presented objectives of the system but failed to justify its need and importance .	

	nt, and then objectively considered the existing organizational management and policies in developing new objectives to provide proper solution.	organizational management and policies in developing new objectives to provide proper solution.	management and policies in developing new objectives to provide proper solution.		
ER Diagram clearly presents the business rules and matches the relational schema and database diagram of the program	The ER diagram presented clearly captures the existing business rules of the chosen organization and the converted relational schema is well-structured and normalized.	The ER diagram presented clearly captures the existing business rules of the chosen organization but the converted relational schema is not well-structured and normalized.	The ER diagram presented partially captures the existing business rules of the chosen organization and the converted relational schema is not well-structured and normalized.	The ER diagram presented does captures the existing business rules of the chosen organization and the converted relational schema are not well-structured and normalized.	

Data Flow /UML diagram	The data flow/UML diagram clearly captures and translates the business-process requirements for the information systems.	The data flow/UML diagram captures and translates the business-process requirements for the information systems.	The data flow/UML diagram partially captures and translates the business-process requirements for the information systems.	The data flow/UML diagram failed to captures and translates the business-process requirements for the information systems.	
Interface Design	The interfaces of the systems allow the user's to take full control.	The interfaces of the systems allow the user's to take in control but needs little assistance from the developer.	The interfaces of the systems allow the user's to take in control but requires much assistance from the developer.	The interfaces of the systems do not allow the user's to take in control due to ambiguity and complexity.	
Functionality of operation	The system manifests complete functionality (CRUD) which goes beyond the given requirements.	The system manifests complete functionality (CRUD) based on the given requirements.	The system partially manifests functionality (CRUD) based on given requirements.	The system partially manifests functionality (CRUD) based on some given requirements.	

Generation of Important Reports	The system is capable to generate complete, accurate and timely reports and capable to respond to ad-hoc inquiries of the user.	The system is capable to generate complete, accurate and timely reports and but not capable to respond to ad-hoc inquiries of the user.	The system is partially capable to generate reports and not capable to respond to ad-hoc inquiries of the user.	The system does not capable to generate reports.	
Security of the information system	The system manifests full and proper security in front-end and back-end.	The system manifests full and proper security in front-end but partially loose security in the back-end.	The system manifests partial security in font-end and back-end.	The system does not manifest any kind of security in font-end and back-end.	