

ONLINE BEAUTY & ECO SHOPPING SYSTEM

MARC LAURENCE A. GUMILAO

JAN ROBIE E. LAGUDA

CYRIL MEL J. MACAPUGAS

Pasig Catholic College

College Department

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ONLINE BEAUTY & ECO SHOPPING SYSTEM

A Project Plan Presented to the Faculty of
Information Technology Program of
Pasig Catholic College

In Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in
Information Technology

MARC LAURENCE A. GUMILAO

JAN ROBIE E. LAGUDA

CYRIL MEL J. MACAPUGAS

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APPROVAL SHEET

In partial fulfillment of the requirements for the Degree of Bachelor of Science in Information Technology, this project plan entitled “**ONLINE BEAUTY & ECO SHOPPING SYSTEM**” has been prepared and submitted by MARC LAURENCE A. GUMILAO, JAN ROBIE E. LAGUDA, AND CYRIL MEL J. MACAPUGAS.

Mrs. Almeda D. Asuncion
Adviser

December 2024

Approved in partial fulfillment of the requirements for the Degree of Bachelor of Science in Information Technology.

Dr. Riegie D. Tan
Chairman

Mr. Virgilio V. Vivo
Member

Mrs. Celine Anne N. Dormiendo
Member

Accepted in partial fulfillment of the requirements for the Degree of Bachelor of Science in Information Technology.

Dr. Jennifer S. Apolinario
Dean, College Department



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DEDICATION

This Capstone Project is wholeheartedly dedicated to the beloved parents of the researchers, who have been their source of inspiration to succeed in this project and not give up on their future.

To their friends, classmates, and mentors whom they depend on during difficult times and gives them motivation and understanding throughout the development of the project.

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M.L.A.G

J.R.E.L

C.M.J.M



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ABSTRACT

MOMECOPH was launched during the height of the pandemic by its founder, Regina Abrenica, to earn income while staying at home. Over the years, it has grown significantly, leveraging social media platforms to reach a wider audience. As the business expanded, Regina recognized the limitations of these platforms and sought a more efficient solution. Partnering with CLR TECH, she brought her vision of a dedicated e-commerce platform to life.

The platform is designed to serve individuals interested in improving their health both internally and externally while supporting sustainability and contributing to the economy and environment. MOMECOPH consolidates the community into one space, offering seamless shopping experience for customers and streamlining inventory management for sellers. The e-commerce platform simplifies tasks such as inventory control, product addition, and sales reporting, significantly reducing the manual workload for the owner. Customers can easily purchase eco-friendly products, supporting both the economy and environmental sustainability.

By empowering the business with greater efficiency and flexibility, MOMECOPH is not only enhancing customer experience but also setting a solid foundation for sustainable growth and success in the future.



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CHAPTER 1

BACKGROUND OF THE STUDY

Introduction

Health has always been a top priority, no matter the generation. From a young age, we are taught the importance of hygiene, as it is fundamental to both personal well-being and the well-being of the world around us. A clean environment is directly tied to a cleaner, healthier lifestyle, and MOMECOPH embraces this idea by promoting eco-friendly products that contribute to both personal health and environmental sustainability. As we continue to advance into an era dominated by technology, it's crucial to understand how businesses can adapt to thrive in this digital age. With the rapid growth of e-commerce and the ever-expanding influence of social media, MOMECOPH recognizes the importance of integrating technology into its operations in order to stay ahead of the competition.

MOMECOPH has always sought to offer unique products that align with the values of health and sustainability, but with the shift toward online shopping, the company now has the opportunity to expand its reach even further. By transitioning into the e-commerce space, MOMECOPH not only aims to streamline its operations but also to create a personalized shopping experience that caters to the specific needs of its customers. The platform will allow MOMECOPH to manage its products more efficiently while offering customers a convenient way to purchase eco-friendly goods from the comfort of their homes. This integration of technology is a key strategy for growing both sales and the sense of community around MOMECOPH. It will help the brand foster deeper connections with its



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customers and contribute to a more sustainable world, ultimately benefiting both the business and its broader community.

General Objective

To develop an e-commerce platform that would satisfy both buyers and sellers with the entire package, facilitating easier and more effective online buying and selling.

Specific Objectives

- To develop an e-commerce platform that improves the shopping experience for customers while simplifying the administrative side. The goal is to create an organized system for managing products, offering reliable settings for administrators, ensuring client satisfaction, providing a variety of options, and delivering a well-managed user interface.
- To create an e-commerce with a variety of options and add product suggestions or package modification
- To create an e-commerce and assist the administrator in knowing the level, quantity, and on hand of stock, which will reduce the need of manual product inspection. Furthermore, this will help the company's possession of its own inventory for convenient access to transactions and data
- To develop an e-commerce platform that enables administrators to easily monitor stock levels, quantities, and availability, reducing the necessity for manual product checks and providing convenient access to transactional data for better inventory management



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- To implement sentiment analysis using machine learning to evaluate customer comments or reviews as positive or negative, enabling insights into customer feedback, identifying areas for improvement, and enhancing user satisfaction by responding effectively to customer sentiments

Significance of the Study

The project is significant to the following:

Admin. The admin will be able to evaluate products less frequently by hand thanks to the system, which will help with stock levels and shelf-life checks. Their checking and knowing of receiving items can be made readily by the system. Additionally, they will not have any trouble altering the user interface thanks to a large range of customization choices; an administrator may manage this without assistance from an IT specialist.

Customer. The study seeks to elevate customer engagement by providing a user-friendly website and enabling users to suggest products/packaging and freely choose a wide span of options pertaining to delivery and variants. Leading to a higher level of customer satisfaction.

MOMECOPH Community. The creation of a dedicated platform exclusively for the MOMECOPH community fosters a sense of belonging among users. It establishes a space for genuine interactions, suggestions, and updates, enhancing the overall community experience.

Future researchers. By expanding the system, the researchers will be able to develop e-commerce on a larger scale. Numerous companies will be able to



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use it to value their time and provide their customers with a convenient way to buy, as well as a convenient way for businesses to sell.

Statement of the Problem

Based on our previous interview with the Momecoph Owner, the team decided to concede with these problems in their existing system:

General Problem

Understanding how the implementation of MOMECOPH enhances the overall efficiency and customer satisfaction in our e-commerce operation.

Problems:

1. How can an e-commerce platform enhance the shopping experience for customers while simplifying the administrative side? The goal is to create an organized system for managing products, offering reliable settings for administrators, ensuring client satisfaction, providing a variety of options, and delivering a well-managed user interface?
2. How can an e-commerce platform offer a variety of options for product suggestions or package modifications?
3. How can the company manage inventory for convenient access to transactions and data?
4. How can the e-commerce platform effectively generate comprehensive sales reports?
5. How does the system analyze customer comments or reviews to determine if feedback on a product is positive or negative, enabling insights into customer satisfaction and areas for improvement?



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Scope and Limitations of the Project

Scope

- The scope of the project covers the development and implementation of the e-commerce platform from 2023 to 2024, encompassing system design, coding, testing, and deployment to ensure full functionality within this period.
- The system allows users to create accounts, log in, and log out securely.
- The system provides role-based access for customers, admins, and delivery personnel.
- The system enables users to submit product suggestions.
- The system allows admin users to add, update, and delete products, including images, prices, and descriptions.
- The system allows customers should be able to browse and search for products by categories, and price.
- The system allows customers to be able to add products to a shopping cart, update quantities, and remove items.
- The system provides a secure checkout process, including address input, shipping method selection, delivery date, delivery time and order review.
- The system allows customers to place orders and view their order history.
- The system provides live chat functionality between customers and admin.
- The system allows the user to basic information in the user's profile.
- The system allows admin users to manage orders, update order statuses (e.g., pending, shipped, delivered).
- The system allows admin users to track product inventory, set low stock alerts, and update stock levels automatically when purchases are made.
- The system allows delivery personnel to view assigned deliveries, mark orders as delivered, and upload proof of delivery and payment.



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- The system allows customers to leave reviews and rate products based on their purchases.
- The system implements sentiment analysis using machine learning to analyze customer feedback and reviews, determining whether the sentiment is positive or negative.
- The system allows admin to view and manage the tally of product suggestions, helping them decide on potential new products to add.
- The system allows administrators to create and manage rider accounts, including assigning shifts (AM shift or PM shift) and managing rider information.
- The system will provide an e-loyalty card feature that allows customers to earn redeem rewards.
- The system provides forms that give the user freedom to suggest their desired product, which is for approval.
- The system allows administrators to generate printable reports, providing insights into orders, sales, inventory, or other relevant data.

Delimitations

- Delivery options are limited to specific geographic regions and may not cover remote or international areas.
- Discounts and promotional offers are not automatically applied and must be manually entered by customers or admins.
- Customer support is available during business hours only, with no 24/7 assistance or multiple communication channels.



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- The platform supports only limited payment options, including Cash on Delivery (COD), GCash, and PayPal, without additional payment solutions or financing options.
- The platform does not provide a dedicated mobile app, limiting user access to features compared to platforms that offer advanced, mobile-optimized applications.

Definition of Terms

E-commerce. E-commerce, short for electronic commerce, refers to the buying and selling of goods and services over the internet or other electronic systems.

Inventory Management. Inventory management involves monitoring, control, and optimization of inventory levels to ensure adequate stock availability while minimizing costs and maximizing efficiency.

Online Shopping Platform. An online shopping platform is a digital marketplace that allows users to browse, select, and purchase products or services over the internet.

Package Modification. Package modification involves the customization or adjustment of product bundles or packages to meet the specific preferences or requirements of users.

User-Friendly Website. A user-friendly website is designed and organized in a way that is easy for users to navigate and interact with, providing a seamless and enjoyable experience.



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CHAPTER 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter provides relevant documentation, policies and tutorials on e-commerce platforms, inventory management, user engagement features and sentiment analysis. These topics relate to the development of the MOMECOPH online beauty eco-shopping system, which aims to improve the online shopping experience and streamline operations for both buyers and sellers.

Enhancing Shopping Experience

According to Balogh and Kézy (2023), aligning the User Interface (UI) elements with brand values is essential for improving the digital brand experience, which in turn enhances consumer satisfaction on e-commerce platforms. Gulfraz, et al. (2022) emphasized that various aspects of online customers' shopping experiences, including both functional and psychological factors, significantly influence impulsive buying behavior. Naofal, et al. (2024) demonstrated how well-designed, web-based e-commerce systems can streamline business operations and enhance user engagement, while Tenzin, et al. (2024) showed that automated systems with user-friendly interfaces improve customer interaction. Additionally, Al Kurdi, et al. (2022) highlighted the importance of digital marketing channels, such as social media, email marketing, and search engine optimization (SEO), in shaping consumer buying decisions, with electronic word of mouth (eWOM) playing a crucial role in influencing consumer behavior.



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Optimizing Product Recommendations

Panduro-Ramirez (2024) discussed how sentiment analysis of customer reviews can be leveraged to refine product recommendations, offering valuable insights into customer satisfaction and preferences. Alsmadi, et al. (2023) explored the significance of big data analytics (BDA) in enabling personalized recommendations, especially during disruptions like COVID-19, to better match the evolving preferences of consumers. Huang, et al. (2023) provided a comprehensive review of current sentiment analysis techniques that are widely used on e-commerce platforms, offering guidance on how companies can refine their recommendation algorithms to better align with customer feedback, ensuring more relevant product suggestions.

Streamlining Inventory and Data Management

Salih, et al. (2023) highlighted the importance of implementing automated inventory management systems, which can greatly improve inventory tracking, reduce operational costs, and enhance customer satisfaction. Vahdani and Sazvar (2022) explored how social learning, facilitated by user-generated evaluations and social technologies, can be used to optimize pricing and inventory control for perishable goods. They suggested that integrating social learning into pricing strategies can improve inventory management and boost profitability. Muñoz Macas, et al. (2021) reviewed inventory management trends, discussing the benefits and drawbacks of various inventory control systems, and emphasized how adopting advanced technologies can help retail businesses enhance stock control. Naofal, et al. (2024) demonstrated how a comprehensive e-commerce system that



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incorporates efficient data management and transaction processing can significantly streamline inventory management for better operational efficiency.

Improving Sales Insights

Muharam, et al. (2021) explored how high e-service quality and strong customer trust are critical factors in enhancing consumer loyalty, which in turn provided valuable insights into improving sales strategies. They argued that focusing on customer satisfaction and trust will not only improve loyalty but also generate actionable data that can be used to enhance business performance. Fan, et al. (2022) suggested that e-commerce platforms should pay attention to system design, intelligent fulfillment, and security to drive customer engagement, thereby generating richer behavioral data. Al Hamli and Sobaih (2023) showed that shifts in consumer behavior, especially during the COVID-19 pandemic, provide critical data that can help businesses understand changing market dynamics and adjust their sales strategies accordingly.

Leveraging Customer Feedback

Panduro-Ramirez (2024) underscored the importance of sentiment analysis in assessing customer feedback and improving product offerings based on positive or negative reviews. By analyzing customer comments, e-commerce platforms can gain actionable insights into product performance and areas for improvement. Vahdani and Sazvar (2022) argued that incorporating customer opinions into pricing strategies and inventory management can improve both product quality and overall profitability. Salih, et al. (2023) discussed how real-time customer feedback can be used to enhance inventory control and product offerings, while Muñoz



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Macas, et al. (2021) showed that businesses can use customer feedback to continuously refine their inventory management systems, making them more responsive to customer needs and market trends.

Synthesis

As technology evolves, MOMECOPH's Online Beauty & Eco Shopping System exemplifies a modern e-commerce platform designed to enhance user convenience while promoting health and sustainability. By enabling online purchases of eco-friendly products, MOMECOPH addresses the changing consumer behavior highlighted by Al Hamli and Sobaih (2023), particularly during the COVID-19 pandemic. The platform streamlines seller operations through automation, aligning with findings from Salih, et al. (2023) on the benefits of inventory management systems. Furthermore, features like product suggestions and sentiment analysis enhance user experience and personalization, supporting insights from Panduro-Ramirez (2024) and Gulfraz, et al. (2022) about the importance of customer engagement in loyalty in driving. Ultimately, MOMECOPH integrates current e-commerce trends and research to create a robust platform that meets the evolving needs of consumers and positions itself for future growth.



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CHAPTER 3

RESEARCH METHODOLOGY

Software Development Methodology

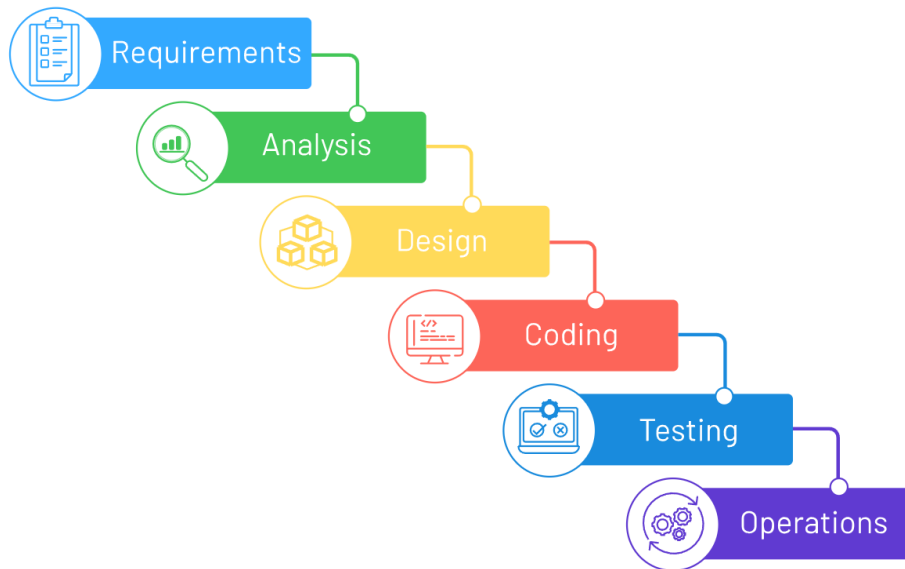


Figure 1. Waterfall Methodology

The methodology used in the process of development is shown above. The development process approach is shown above. The Waterfall approach creates a systematic and ordered framework. The technique starts with a detailed needs phase, in which we gather and write down all the system's needs from stakeholders. This ensures an easy understanding of the system's objectives. The following phase, System Design, involves creating specific design criteria that will influence the overall architectural and technical aspects of the project. After the design is completed, we move on to the implementation phase, where we start to code based on the design documentation. After development is completed, the system will go through the testing to identify and



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fix any problems, while also ensuring that the software meets the initial requirements. When the system has passed all phases, it enters the deployment phase. where it is available for use. Finally, the Maintenance process ensures that any issues or upgrades that arise after deployment are resolved. This linear strategy provides well-defined stages with distinct milestones and deliverables, making it easier to manage complicated projects with steady and unchanging needs.

Planning/Conception – Initiation Phase

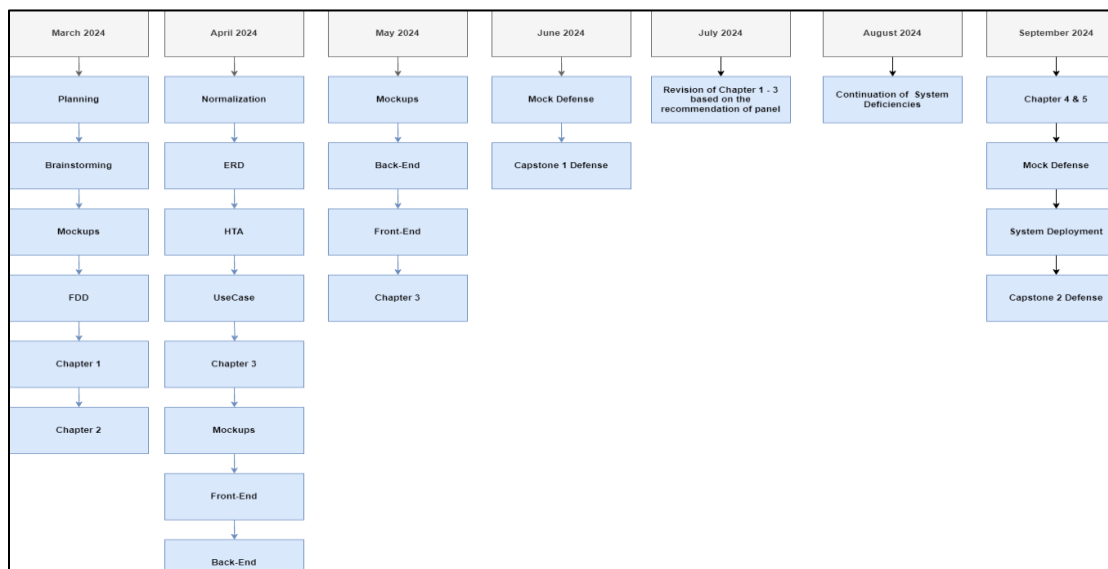


Figure 2. Work Breakdown Structure

The table above shows the summary of schedules and tasks that were encountered by the team, during the planning and implementation phase.



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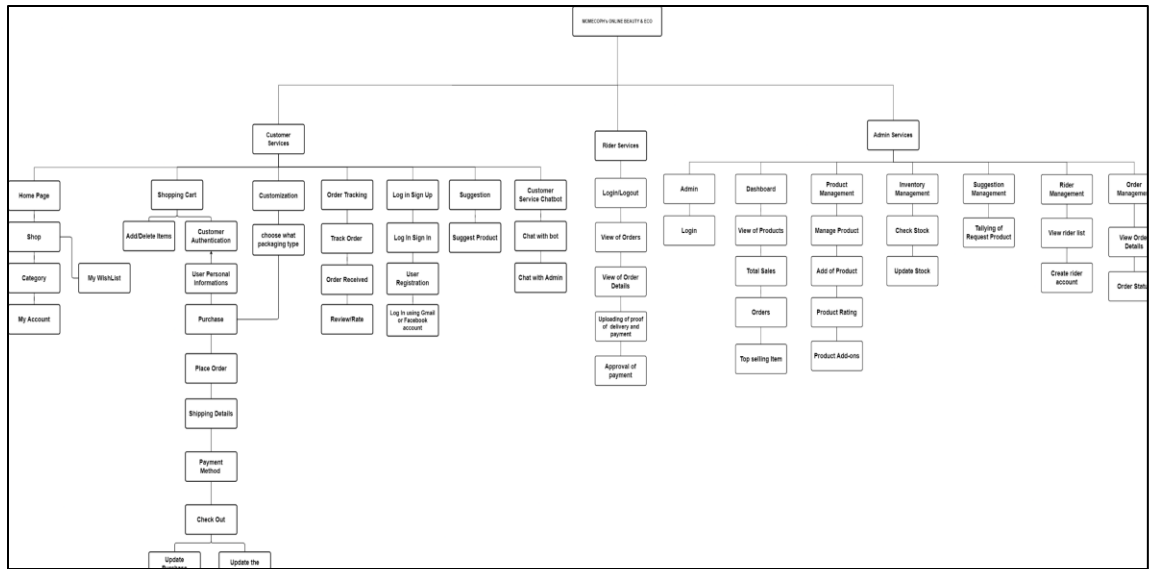


Figure 3. Functional Decomposition Diagram

This is the Functional Decomposition Diagram of Online Beauty & Eco e-commerce website, which outlines the breakdown of functionalities within the system. The system is divided into two main categories: Customer Services and Admin Services. In Customer Services, users can browse products through the Home Page, add or delete items in the Shopping Cart, and manage their personal information for authentication and purchase. They can also customize their orders, register and log in, and provide feedback through suggestions, reviews, and ratings. Admin Services include logging in to access the Dashboard, where admins can view products, sales, refunds, and orders. They can manage product details and inventory, and oversee order management, including viewing details, processing, approval, and user communication. This structured breakdown ensures that all user and administrative tasks are clearly defined and efficiently managed within the system.



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Analysis Design Phase

Software Requirements Specification

This part outlines the functional requirements gathered by the team to proceed with the implementation of the web application, it involves the users and their roles in the functionality. This will serve as a reference for the data that will be needed. During the process, the team gathered the functional requirements of the web application that would help us through the development and implementation stage.

Functional Requirements

Table 1

Log In Sign Up

Functional Requirement No.	Requirement Title	Description
1	User Login and Log out	This requirement shall allow the user to log in and log out.
2	Create an Account	This requirement shall allow the user to create an account to access the web application.
3	Login using Gmail or Facebook Account	This requirement shall allow the user to log in using their Gmail or Facebook Account.

This table is to explain the process that the user can do for logging in and creating account functionality.



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Table 2

Home Page

Functional Requirement No.	Requirement Title	Description
4	Shop	This requirement shall allow the user to browse around the website and view all the product.
5	Category	This requirement shall allow the user to sort the product based on their category.
6	My Account	This requirement allows the user to view and edit basic information like name, email, phone number, and address.
7	Wishlist	This requirement shall allow the user to add product to their wish list.

This table explains what users can do with the Home Page.



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Table 3

Shopping Cart

Functional Requirement No.	Requirement Title	Description
8	Add and Delete to Cart	This requirement shall allow the user to add and delete to their shopping Cart.
9	Purchase Order	This requirement allows the user to purchase products from the website and choose what time, and date to deliver their order, also choose what payment method and packaging type that they want.
10	View Shipping Details	This requirement allows the user to view the shipping details of their orders.

This table is to explain what users can do with the Shopping Cart.

Table 4

Order Tracking

Functional Requirement No.	Requirement Title	Description
11	Track Order	This requirement shall allow the user to track their order.
12	Order Received	This requirement shall allow the user to inform the admin that they already received the order.
13	Review/Rate	This requirement allows the user to rate and review the product after receiving it.

This table is to explain what users can do with Order Tracking.



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Table 5

Suggestion

Functional Requirement No.	Requirement Title	Description
14	Suggest Product	This requirement shall allow the user to suggest a product and they can also explain the reason why they suggested that product.

This table explains what users can do with the Suggestion page.

Table 6

Customer Service Chatbot

Functional Requirement No.	Requirement Title	Description
15	Chat with Bot	This requirement shall allow the user to ask question from the bot, and it will answer what are the frequently asked question.
16	Chat with Admin	This requirement shall allow the user to chat with the admin and can ask anything, so the admin can help and assist them.

This table is to explain what users can do with the Customer Service Chatbot.



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Table 7

Rider

Functional Requirement No.	Requirement Title	Description
17	Login/logout	This requirement shall allow the rider to log in and log out.
18	View of Orders	This requirement shall allow the rider to view all the orders that has been assigned to him/her.
19	View of Order Details	This requirement shall allow the rider to view the order details of a specific order.
20	Uploading of Proof of payment and delivery	This requirement shall allow the rider to upload an image of the proof of payment and delivery.
21	Approval of Payment	This requirement shall allow the rider to change the status of an order to "delivered".

This table is to explain what a Rider can do with Rider Services.

Table 8

Admin

Functional Requirement No.	Requirement Title	Description
22	Admin Login and log out	This requirement shall allow the user to log in and log out.

This table explains the process that the admin can do for logging in.



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Table 9

Dashboard

Functional Requirement No.	Requirement Title	Description
23	View of Product	This requirement shall allow the admin to view all the products that is public to the website.
24	Total Sales	This requirement shall allow the admin to view the total sales overall and to a specific date.
25	Orders	This requirement shall allow the admin to view how many pending, total, cancel, and orders to a specific day.
26	Top Selling item	This requirement shall allow the admin to view the top selling product and view how many orders the product gets.

This table is to explain what Admin can do with Dashboard.



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Table 10

Product Management

Functional Requirement No.	Requirement Title	Description
27	Manage Product	This requirement shall allow the admin to perform a CRUD of products.
28	Add of Product	This requirement shall allow the admin to add new product.
29	Product Rating	This requirement shall allow the admin to view the overall rating of the products and Sentiment Analysis. They can also view the comment of the user of a specific product.
30	Product Add-ons	This requirement shall allow the admin to add a packing with uploading of image the packing.

This table explains what Admin can do with Product Management.

Table 11

Inventory Management

Functional Requirement No.	Requirement Title	Description
31	Check Stock	This requirement shall allow the admin to view the stocks to all the products.
32	Update Stock	This requirement shall allow the admin to update the stocks to all the products.

This table is to explain what Admin can do with Inventory Management.



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Table 12

Suggestion Management

Functional Requirement No.	Requirement Title	Description
33	Tallying of request product	This requirement shall allow the admin to view the total requested products and how many people requested them.

This table explains what Admin can do with Suggestion Management.

Table 13

Rider Management

Functional Requirement No.	Requirement Title	Description
34	View rider list	This requirement shall allow the admin to view all riders and their basic information like name, email, and shift.
35	Create Rider Account	This requirement shall allow the admin to create a new rider account.

This table is to explain what Admin can do with Rider Management.



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Table 14

Order Management

Functional Requirement No.	Requirement Title	Description
36	View order details	This requirement shall allow the admin to view the order details
37	Order Status	This requirement shall allow the admin to view and update the status of the order

This table is to explain what Admin can do with Order Management.

Non-Functional Requirements

Performance

The e-commerce website will serve as a platform for customers to browse, search, and purchase products. It will also allow administrators to manage products, orders, and customer interactions.

The websites shall load within 2 seconds for 95% of users under normal operating conditions.

Availability

The website will be available 24/7 for customers to browse products, make purchases, and track orders.

The site shall be available for administrators to manage inventory, orders, and customer reviews. Administrators must also be able to always access the system for maintenance and updates.



Security

User's Personal Information will be stored at the backend side of the system, including their username and password. User's information will be confidential.

Usability

The website will be designed with a user-friendly interface, ensuring ease of navigation and accessibility for all users.

Data and Process Modeling

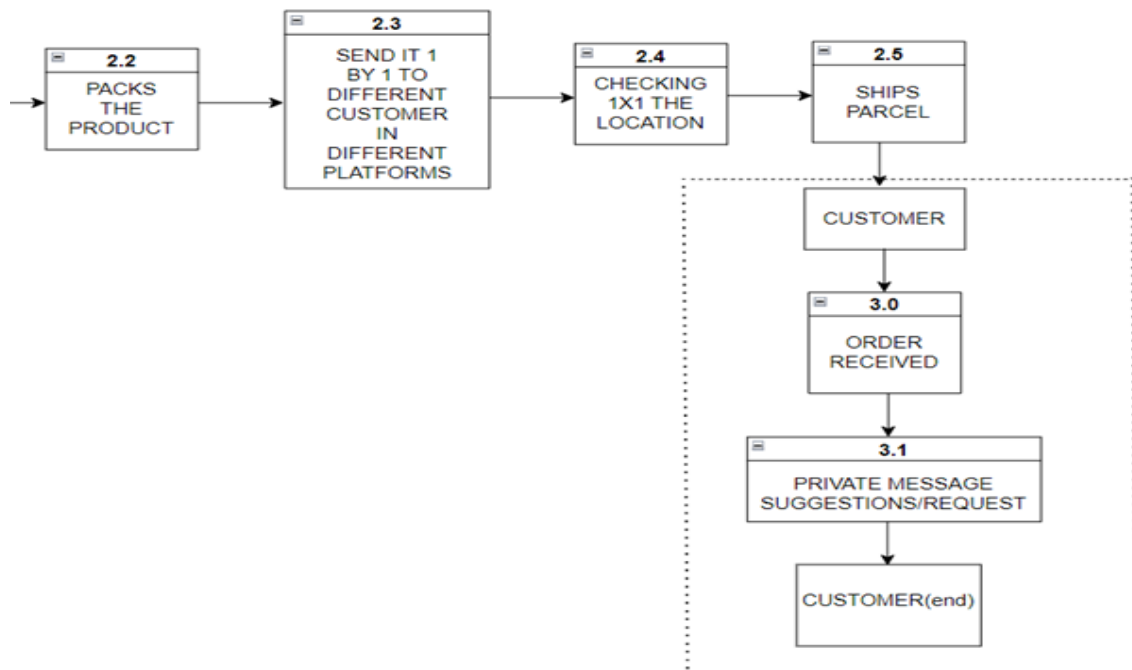


Figure 4. Data Flow Diagram – Context Level

This diagram illustrates MOMECOPH's current process, where they manually check orders, messages, and posts across various platforms, lacking their own dedicated system. This method is akin to traditional, manual approaches to ordering.



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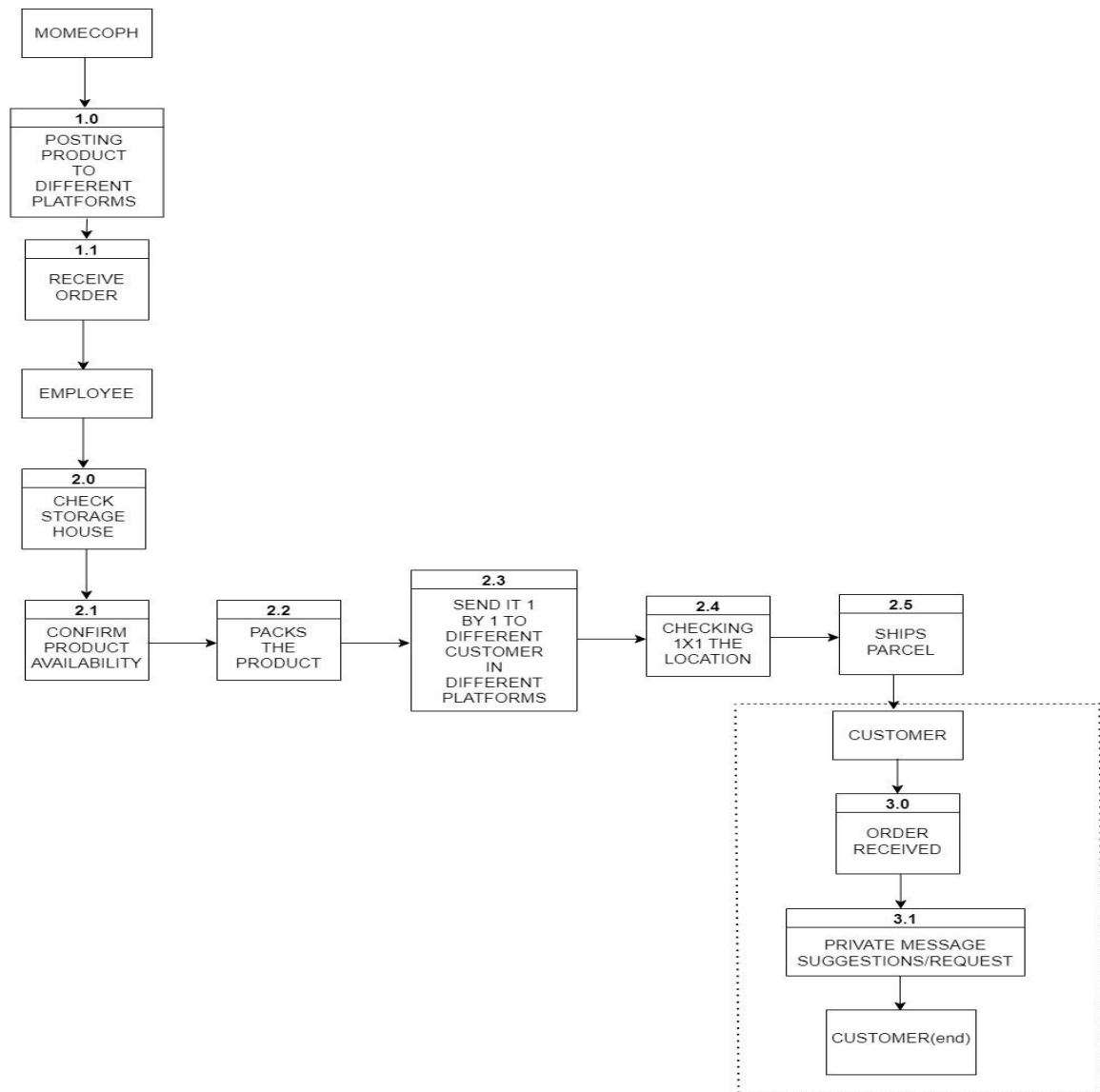


Figure 5. Data Flow Diagram – Level 1

This represents the complete data flow diagram for MOMECOPH. It illustrates the sequence starting from the administrator, extending to the employees, and ultimately reaching the customer. MOMECOPH presently relies on various platforms and manual procedures for its product-related processes. This diagram provides a detailed perspective on the data flow within MOMECOPH, also known as the MOMECOPH DFD.



Object Modeling

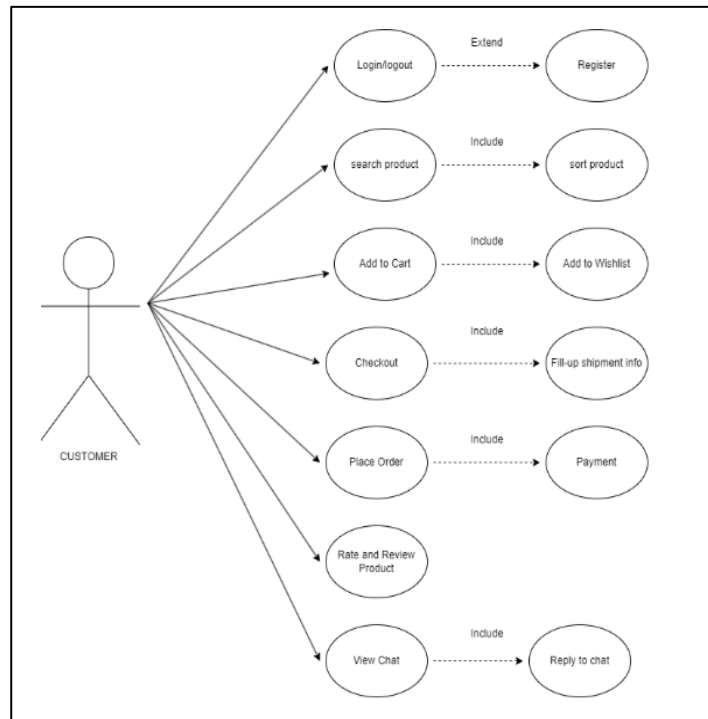


Figure 6. Use Case Diagram – Customer

This is the Use-Case Diagram of Customer of the system, which summarizes the interaction of these users with the system.

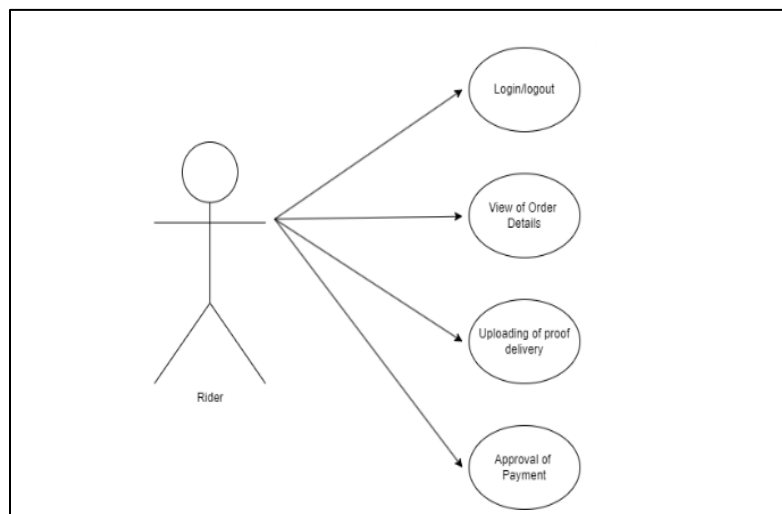


Figure 7. Use Case Diagram – Rider



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This is the Use-Case Diagram of Rider of the system, which summarizes the interaction of these users with the system.

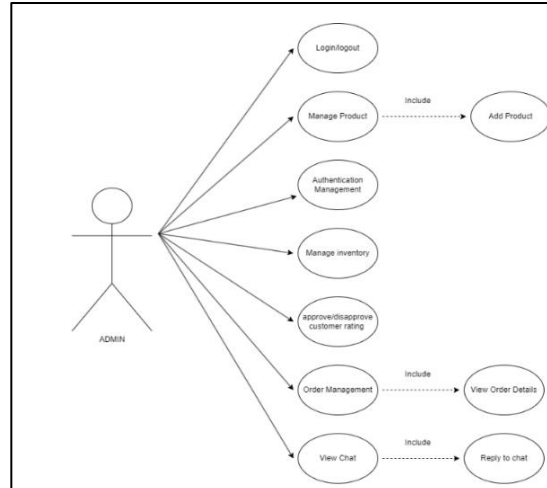


Figure 8. Use Case Diagram – Admin

This is the Use-Case Diagram of the Admin, Use-Case summarizes the interaction of the admin with the system.



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User Interface

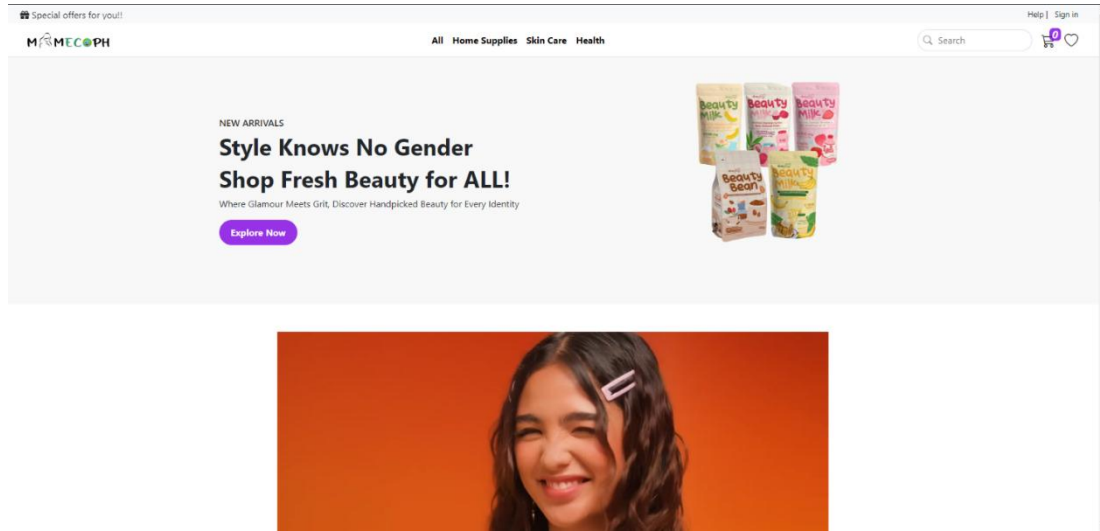


Figure 9. Landing Page

This figure shows the Landing or Home Page of MOMECOPH, featuring advertisements and highlighting the Flash Deals available on the E-commerce platform.

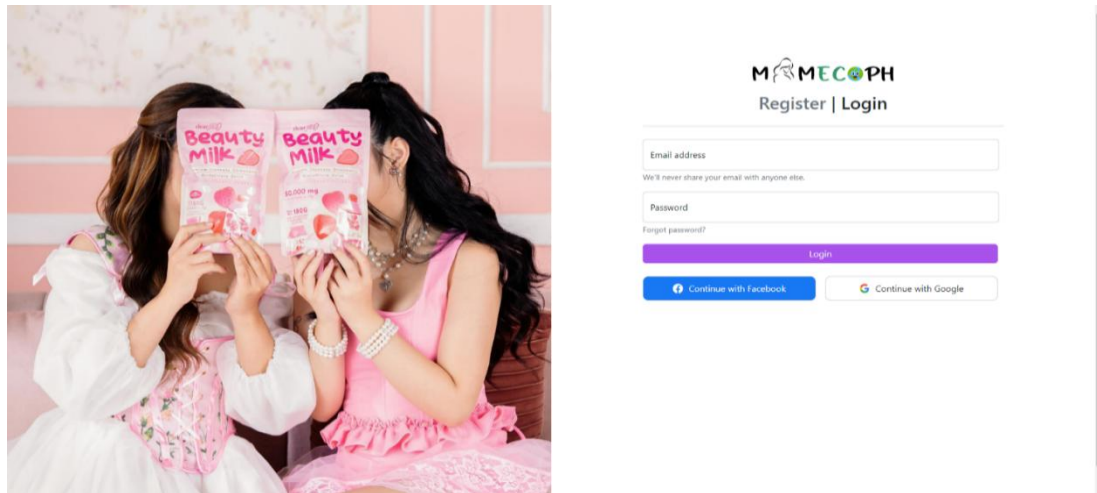


Figure 10. Login Page

This figure shows the Login Page of MOMECOPH, which includes fields for user credentials and options for account recovery and registration.



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MOMECOPH
Register | Login

First Name
Last Name
Email
Password
Confirm Password
Register
Continue with Facebook
Continue with Google

Figure 11. Register Page

This figure shows the Sign-In Page of MOMECOPH, featuring fields for entering a password and options to sign up using Google or Facebook.

Special offers for you!

MOMECOPH All Home Supplies Skin Care Health Help | My Account | Logout

Search

Profile Orders Suggestion Loyalty Card

Manage Profile

Basic Information

First Name	Last Name
Juan	Dela Cruz
Email	Phone Number
juandelacruz@gmail.com	9692179684
Address	
22 V. Pagan St. Bambang Pasig City	
Update Information	

CUSTOMER SERVICE
Payment Methods
Order Tracking
Return & Refund
Contact Us

ABOUT SHOP
About Us
MOMECOPH Blog
MOMECOPH Privacy Policy

FOLLOW US
Facebook
Instagram
TikTok

Figure 12. User Profile Page

This figure shows the User Profile section of MOMECOPH, where customers can update their information, manage orders, receive personalized suggestions, and access their e-loyalty card for rewards.



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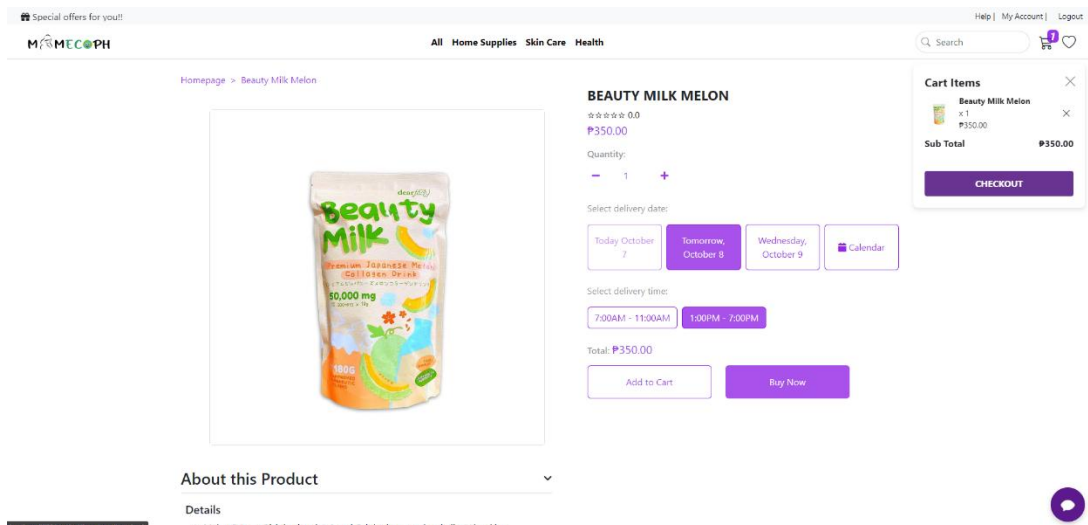


Figure 13. Add to Cart Page

This figure shows the Add to Cart page of MOMECOPH, featuring options for selecting product variants, detailed descriptions, and customer reviews to assist users in making informed purchasing decisions.

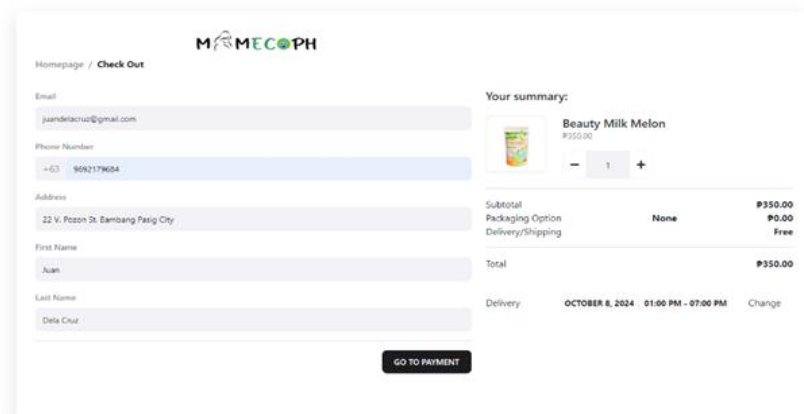


Figure 14. Checkout Page

This figure shows the Checkout page of MOMECOPH, where users can fill out or automatically access their profile information. It includes fields for delivery date



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selection and a summary of product prices, ensuring a streamlined and efficient purchasing process.

Homepage / Check Out / **Payment**

Payment Method:

Email:

Phone Number:

First Name:

Last Name:

Address:

Your summary:

	BEAUTY MILK MELON P350.00
- 1 +	
Subtotal	P350.00
Packaging Option	None P0.00
Delivery/Shipping	Free
Total	P350.00

Delivery: **DECEMBER 6, 2024 01:00 PM - 07:00 PM** [Change](#)

User Instructions Optional:

Optional: Select Packaging Option

Mesh net P20.00	Echo Bamboo Towel P23.00	Platinum Silicone P25.00
---------------------------	------------------------------------	------------------------------------

Optional: Message for delivery

Optional: Special instructions for the rider

How do you want to pay?

☐ Cash on Delivery (COD)

Pay at your doorstep upon delivery.

☐ GCash

☐ Paypal

Proceed with COD

Figure 15. Payment Method Page

This figure shows the Payment Method page of MOMECOPH, which includes a final summary of personal information and instructions for the delivery rider. It allows users to select customized packaging options and choose their preferred payment method, ensuring a personalized and convenient checkout experience.



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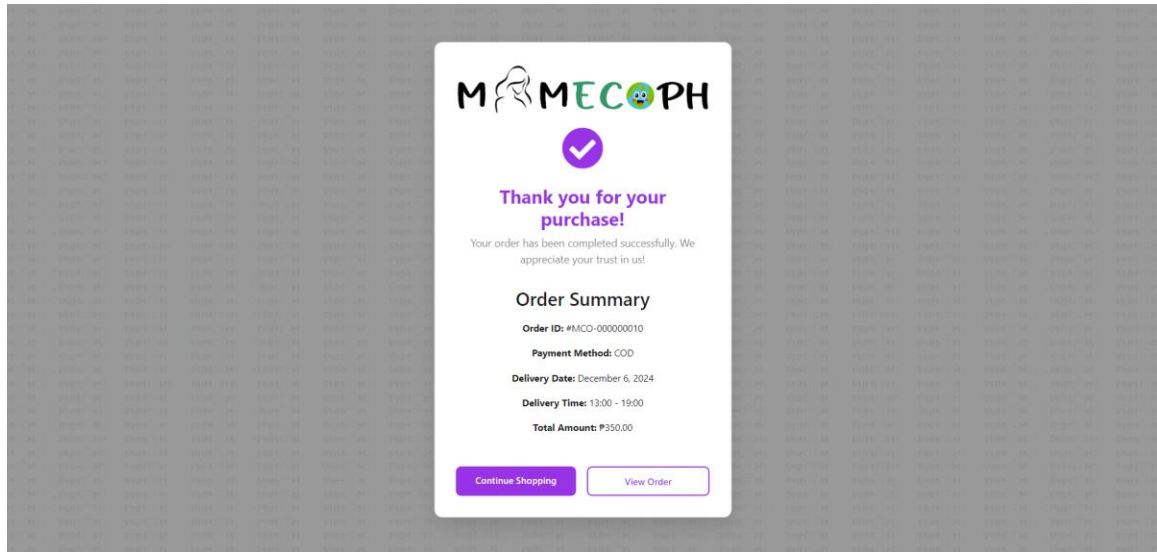


Figure 16. Successful Transaction Page

This figure shows the Successful Transaction page of MOMECOPH, confirming the completion of the order. It includes options to continue shopping or view the order details, displaying the order ID, payment method, delivery date, time, and total amount for easy reference.

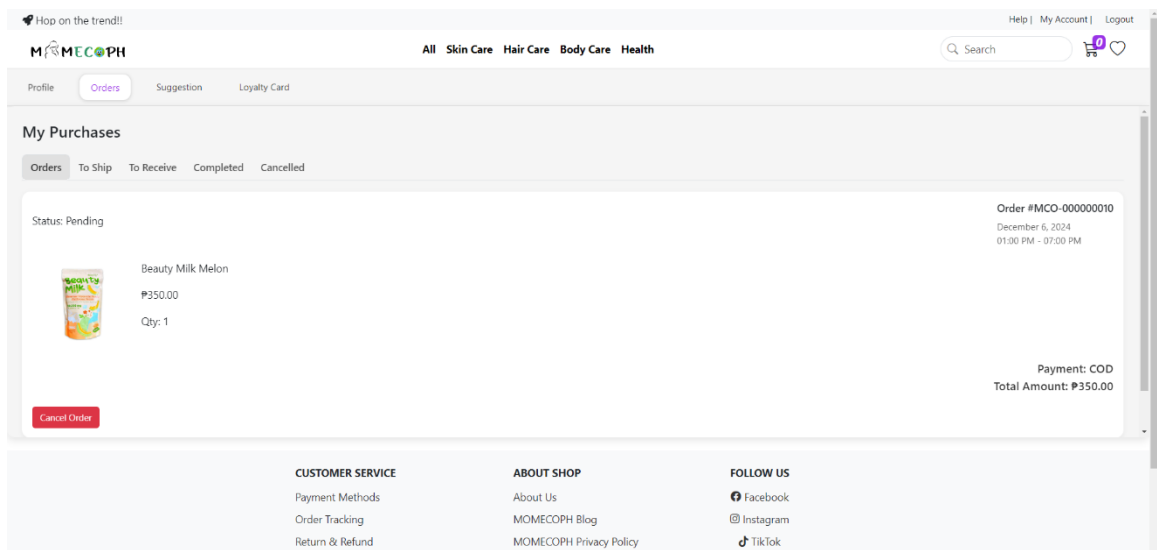


Figure 17. User Purchase Page



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This figure shows the My Purchase page of MOMECPH, where users can view their order summary and tracking details. For orders in pending status, users have the option to cancel. The page includes all relevant information, such as the order ID, items purchased, payment method, and estimated delivery date.

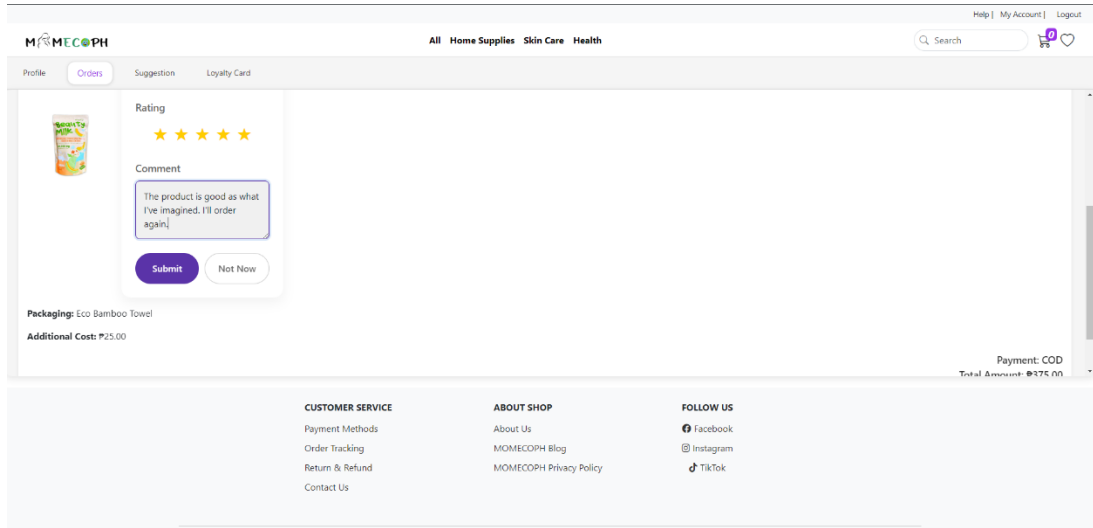


Figure 18. Completed Purchase Page

This figure shows the Completed Order page of MOMECPH, where users can confirm receipt of their items. It allows them to check the product details and submit a rating and review, providing feedback on their purchase experience.



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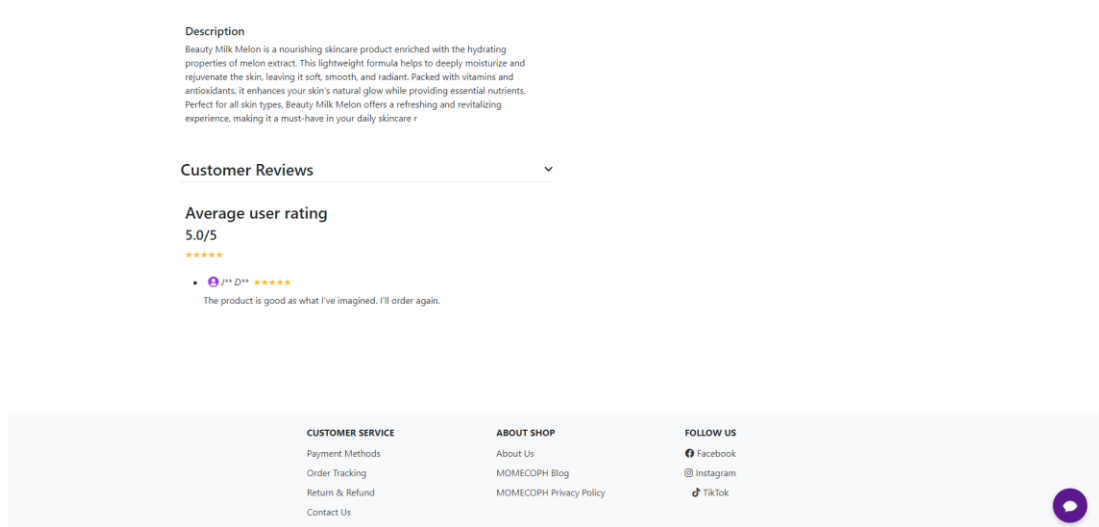


Figure 19. Product Review Page

This figure shows the Product Review page of MOMECOPH, featuring a sentiment analysis tool that detects whether comments are positive or negative, visible on the admin side. Usernames are blurred to protect privacy, ensuring a secure environment while providing valuable feedback for product improvement.

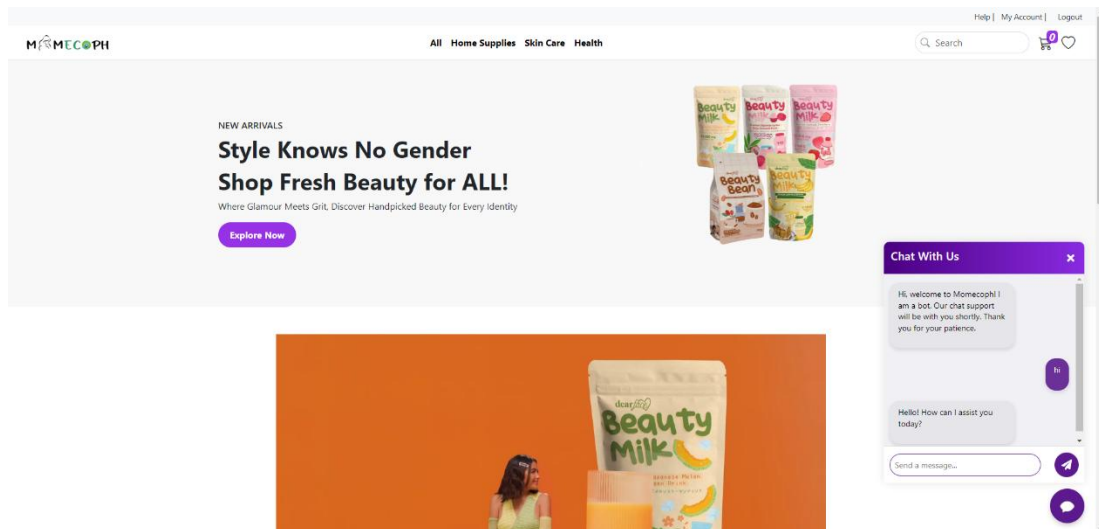


Figure 20. Chat With Us Page

This figure shows the Chat feature of MOMECOPH, which includes a chatbot to assist users when technical support is unavailable. This tool allows



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customers to report issues or ask questions, providing a convenient and responsive way to enhance their shopping experience.

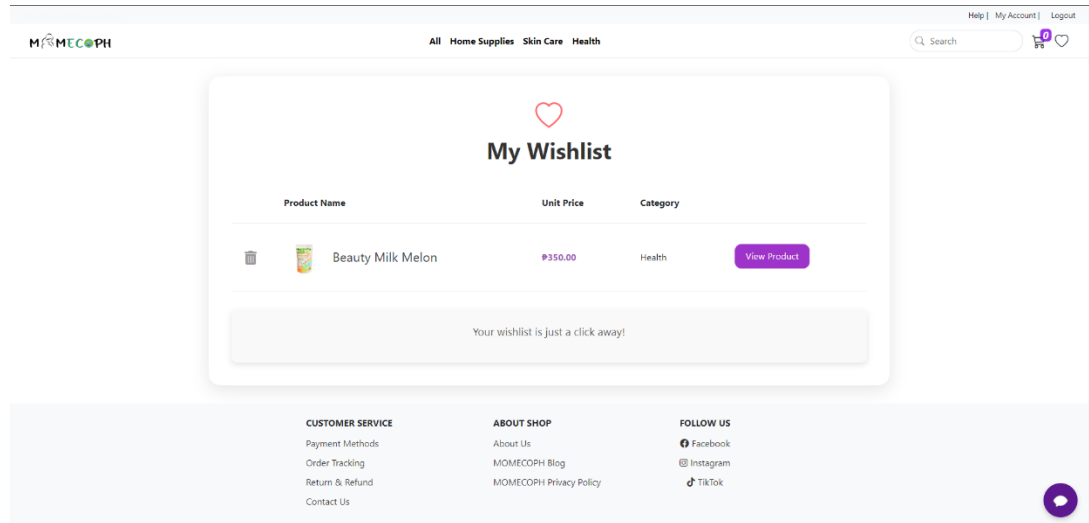


Figure 21. User Wishlist Page

This figure shows the Wishlist page of MOMECOPH, where users can save their favorite products for future reference. It allows customers to easily track items they wish to purchase later, enhancing their shopping experience by providing quick access to desired products.



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Showing results for: "beauty milk"

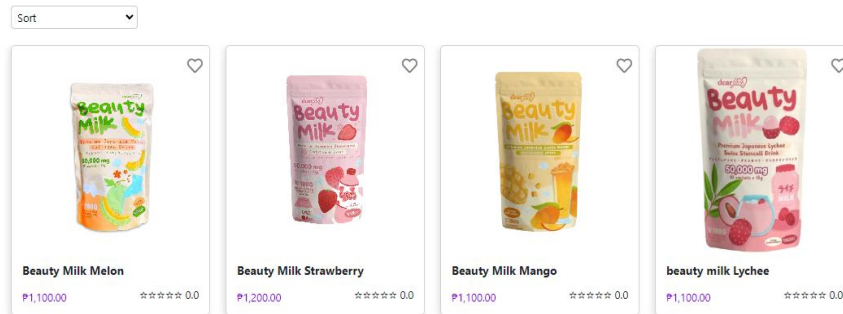


Figure 22. Search Bar

This figure shows the Search Bar on MOMECOPH, enabling users to quickly find products by entering keywords. The intuitive design suggests relevant items as users' type, facilitating a seamless and efficient shopping experience.

Figure 23. Suggestion Page

This figure shows the Search Bar on MOMECOPH, enabling users to quickly find products by entering keywords. The intuitive design suggests relevant items as users' type, facilitating a seamless and efficient shopping experience.



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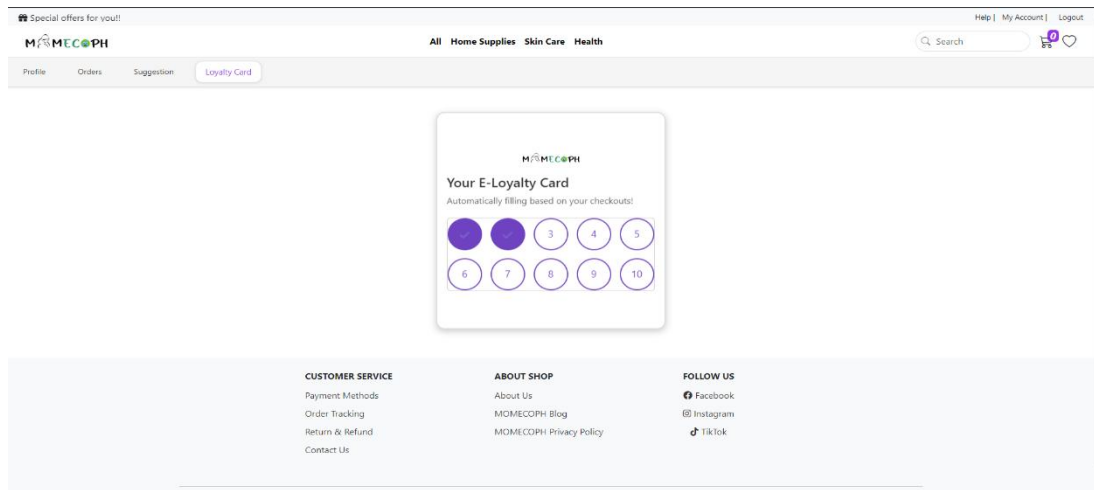


Figure 24. E-Loyalty Card

This figure shows the E-Loyalty Card feature of MOME C O P H, which unlocks after 10 orders. Users can earn freebies by making 10 more purchases, rewarding their loyalty to the platform.

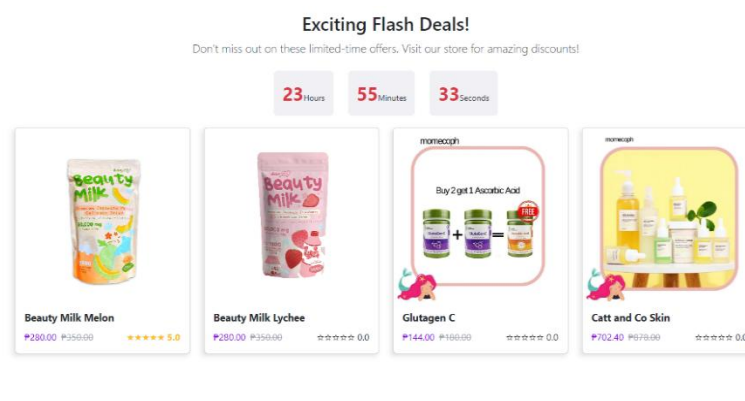


Figure 25. Flash Deal Page

This figure shows the Flash Deal page on MOME C O P H, prominently featured on the landing page. Users can easily view discounted products and limited time offers, encouraging quick purchases and enhancing their shopping experience.



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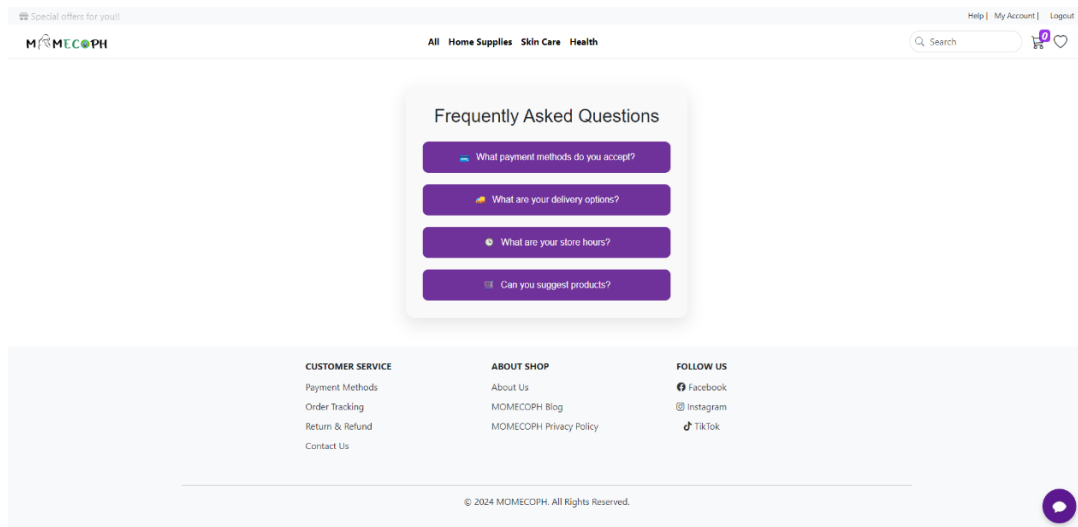


Figure 26. Help Page

This figure shows the Help & FAQ page of MOMECOPH, providing users with answers to common questions and issues. It includes topics such as order tracking, returns, payment methods, and account management, helping customers find solutions quickly and enhancing their overall experience.

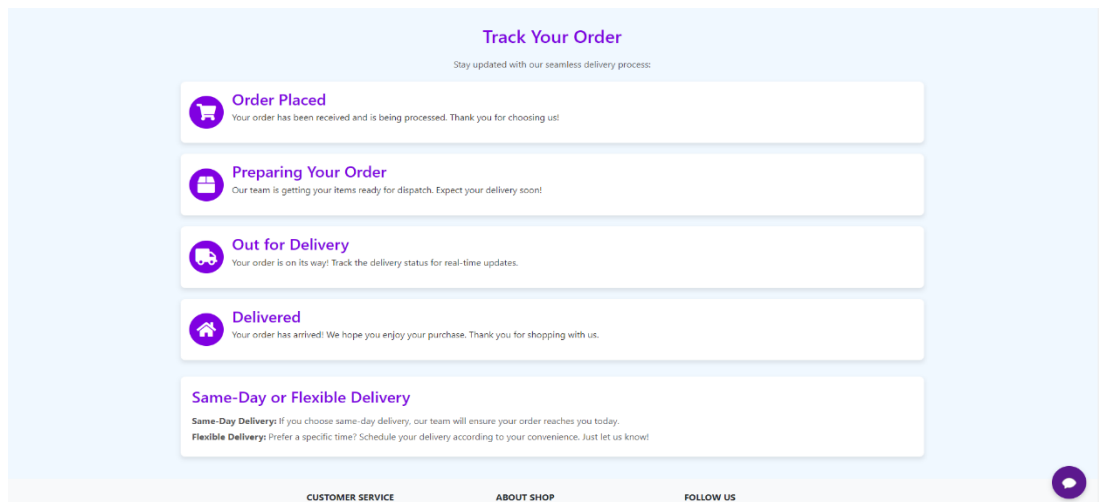


Figure 27. Order Tracking Information

This figure shows the Help & FAQ page of MOMECOPH, providing users with answers to common questions and issues. It includes topics such as order



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tracking, returns, payment methods, and account management, helping customers find solutions quickly and enhancing their overall experience.

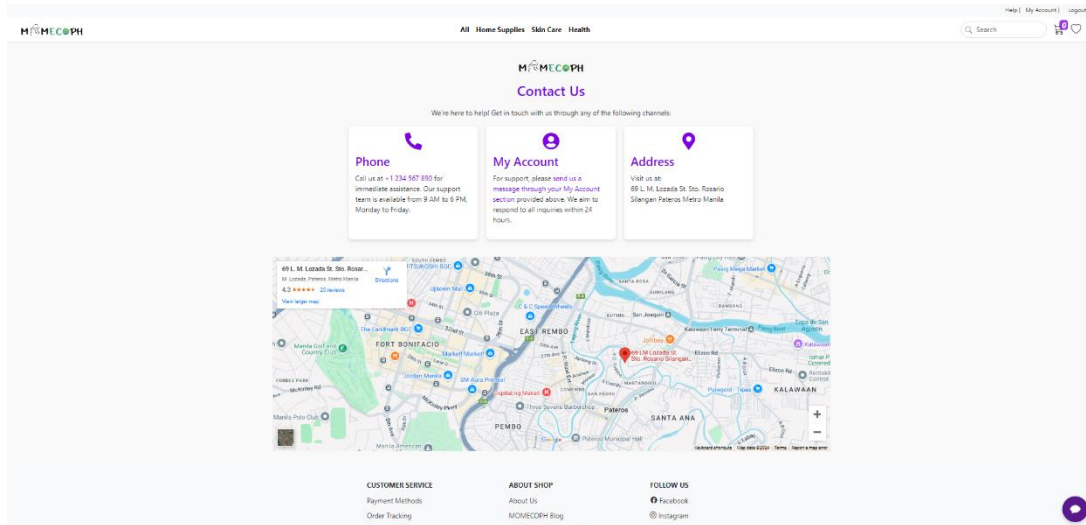


Figure 28. Contact Us Information

This figure shows the Contact Us page of MOME C O P H, featuring a message tab for users to reach out to customer support directly. This streamlined option allows customers to easily submit their inquiries or concerns for prompt assistance.

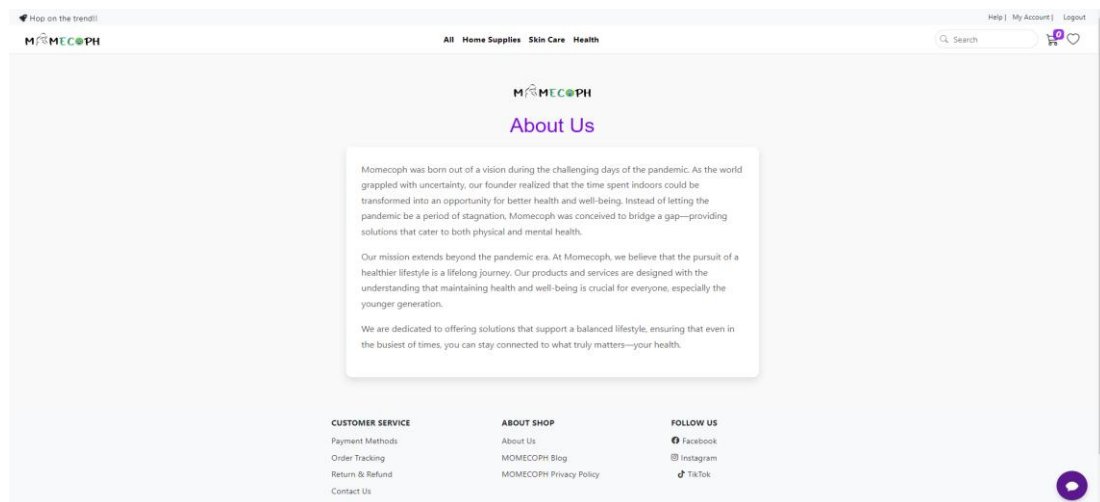


Figure 29. About Us Page



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This figure shows the About Us page of MOMECOPH, providing an overview of the company's mission and values. It highlights our commitment to eco-friendly products and exceptional customer service, along with our dedication to promoting sustainable skincare and health solutions for all.

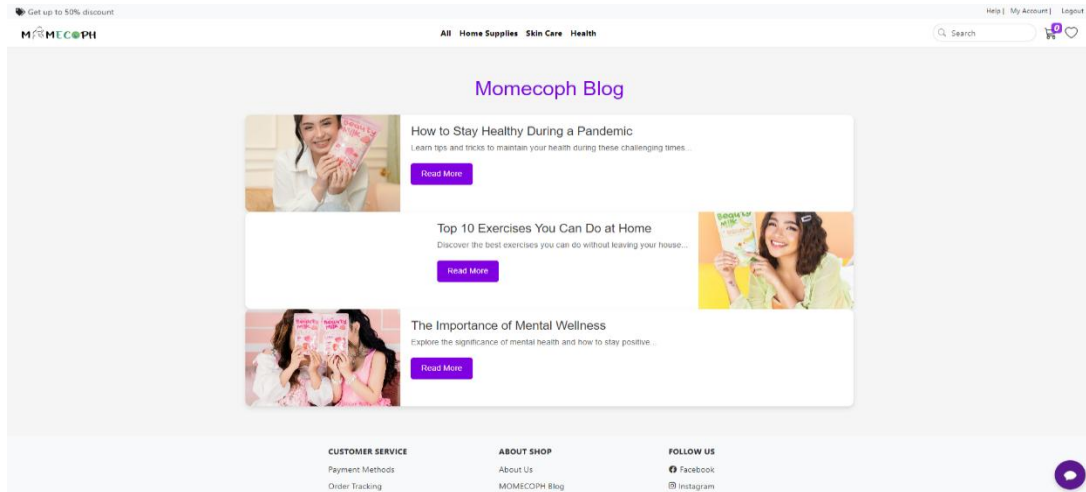


Figure 30. Momecoph Blog Page

This figure shows the Blog page of MOMECOPH, where users can explore articles on skincare tips, health advice, and eco-friendly living. The blog provides valuable insights and updates, fostering a community of informed customers who are passionate about sustainability and wellness.



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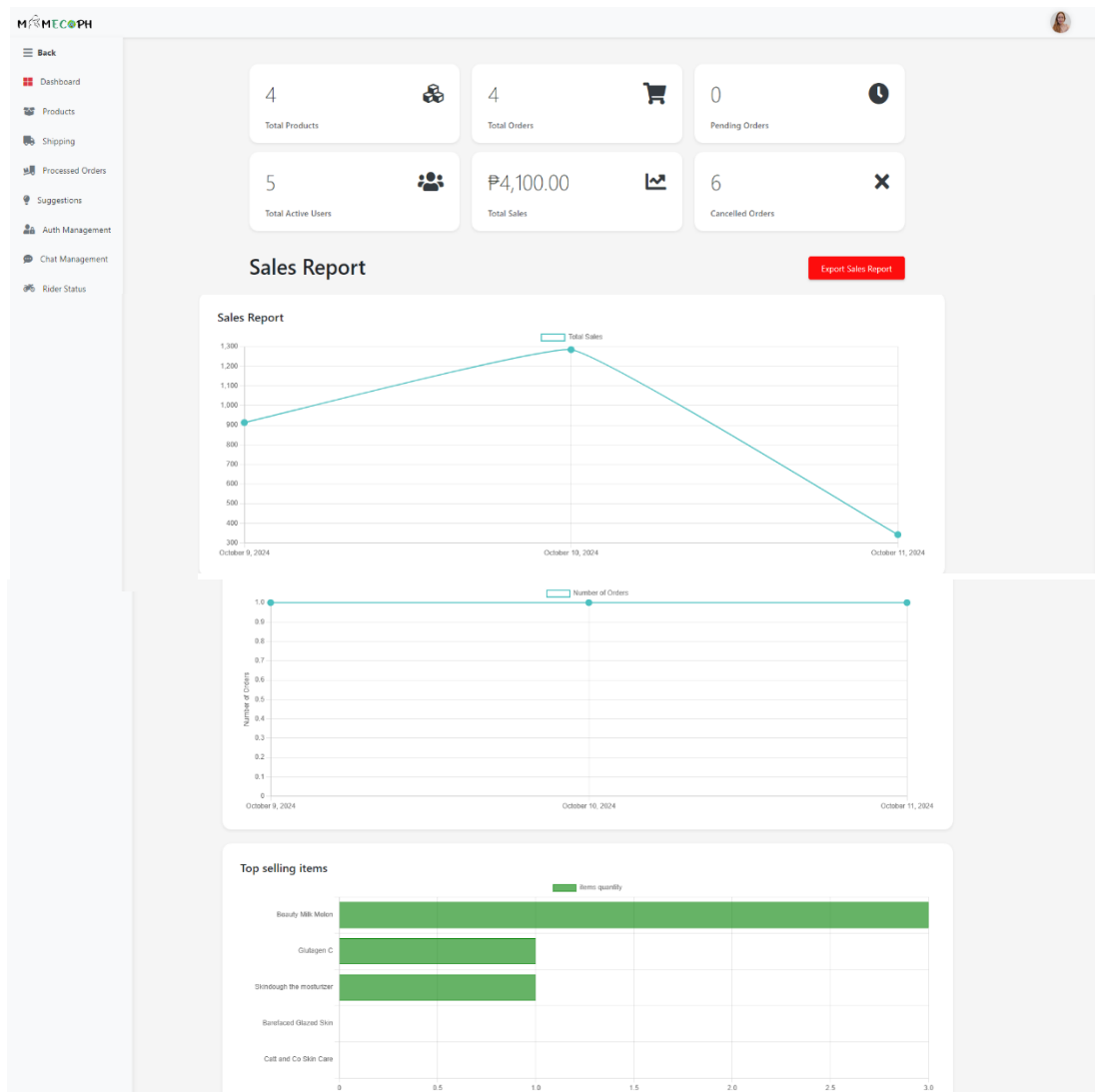
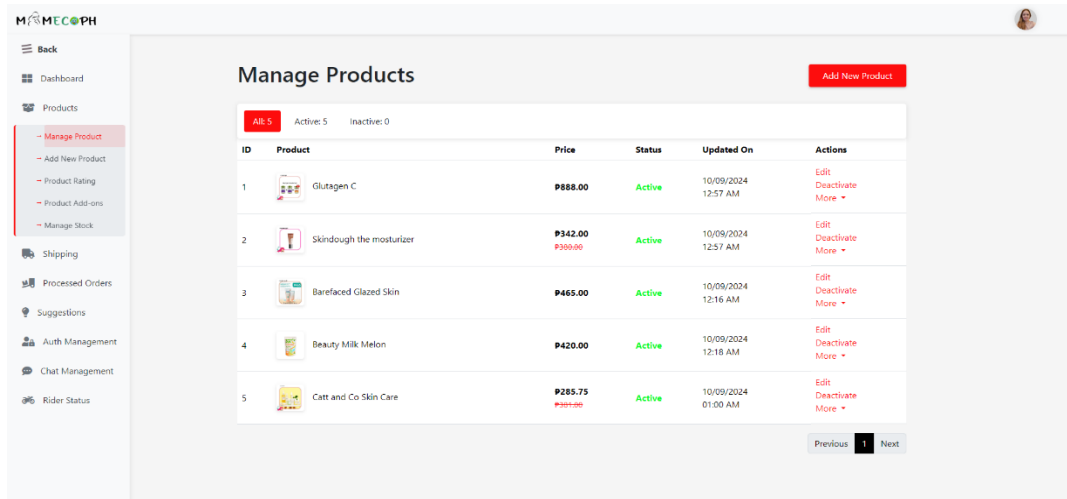


Figure 31. Admin Dashboard

This figure shows the admin dashboard of MOMECPH, which includes the sales report, total products, total orders, and pending orders, providing a summary of all products.



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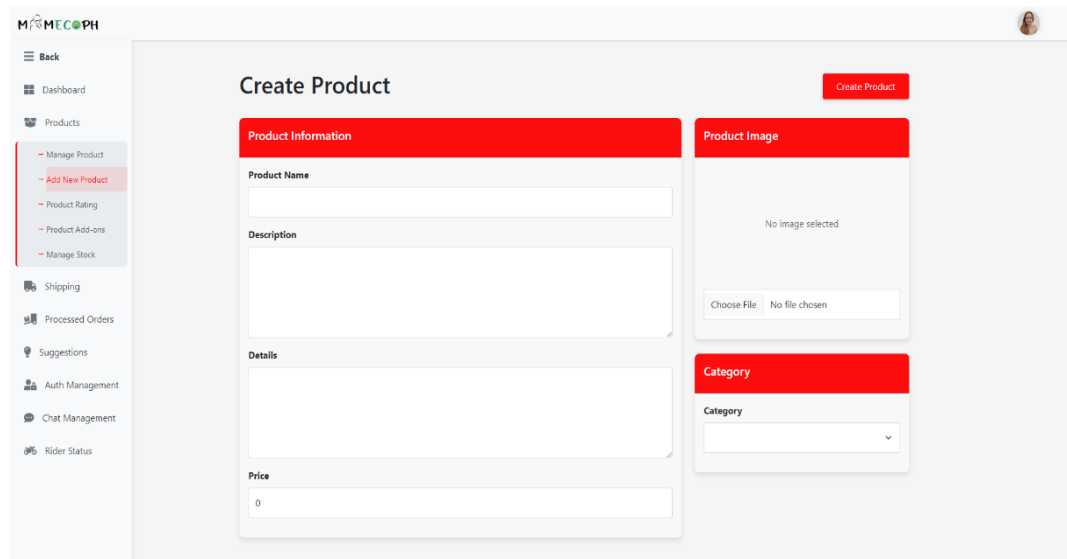


The screenshot shows the 'Manage Products' page in the MECOPH system. It features a sidebar with navigation options like Back, Dashboard, Products, Shipping, Processed Orders, Suggestions, Auth Management, Chat Management, and Rider Status. The main content area displays a table of products with columns for ID, Product, Price, Status, Updated On, and Actions. There are 5 active products listed, including Glutagen C, Skindough the moisturizer, Barefaced Glazed Skin, Beauty Milk Melon, and Catt and Co Skin Care. Each product entry includes an 'Add New Product' button and a 'Previous' button.

ID	Product	Price	Status	Updated On	Actions
1	Glutagen C	P888.00	Active	10/09/2024 12:57 AM	Edit Deactivate More
2	Skindough the moisturizer	P342.00 P300.00	Active	10/09/2024 12:57 AM	Edit Deactivate More
3	Barefaced Glazed Skin	P465.00	Active	10/09/2024 12:16 AM	Edit Deactivate More
4	Beauty Milk Melon	P420.00	Active	10/09/2024 12:18 AM	Edit Deactivate More
5	Catt and Co Skin Care	P285.75 P300.00	Active	10/09/2024 01:00 AM	Edit Deactivate More

Figure 32. Product Management

This figure illustrates the management of products, including sale price adjustments, adding new products, activation, and editing existing entries.



The screenshot shows the 'Create Product' form in the MECOPH system. It includes a sidebar with navigation options and a main content area with a 'Create Product' button. The form is divided into two main sections: 'Product Information' and 'Product Image'. The 'Product Information' section contains fields for Product Name, Description, Details, and Price. The 'Product Image' section includes a 'Choose File' button and a 'No file chosen' message. There is also a 'Category' dropdown menu.

Product Information	Product Image
Product Name <input type="text"/>	No image selected
Description <input type="text"/>	Choose File No file chosen
Details <input type="text"/>	Category <input type="text"/>
Price <input type="text"/>	

Figure 33. Create Products

This figure displays the form for entering product information and pricing details.



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The screenshot shows the 'Edit Product' interface. On the left is a sidebar with a menu: Back, Dashboard, Products (highlighted), Shipping, Processed Orders, Suggestions, Auth Management, Chat Management, and Rider Status. Under 'Products', there are sub-items: Manage Product, Add New Product, Product Rating, Product Add-ons, and Manage Stock. The main area is titled 'Edit Product' and contains a form with the following fields: Product Name (Glutagen C), Description (Helps you whiten your SKIN. Enhance your radiance. Promotes youthful and Healthy Skin.), Details (FDA Registration No.: FR400000101819911, VITA GlutaGenC 60), Price (888.00), Product Image (a placeholder image of a product box), and Category (Health). A red 'Update' button is at the bottom of the form.

Figure 34. Edit Product

This figure represents the interface used to update or edit product information.

The screenshot shows the 'Set Discount for Glutagen C' interface. It features the same sidebar as Figure 34. The main area is titled 'Set Discount for Glutagen C' and contains a form with the following fields: Original Price (P) (888.00), Discount Percentage (%) (0), Sale Price (P) (888.00), Start Time (mm/dd/yyyy --:-- --), and End Time (mm/dd/yyyy --:-- --). A red 'Set Discount' button is at the bottom of the form.

Figure 35. Product Set Discount

This figure illustrates the interface for setting new prices or discount prices for a specific product, as well as specifying the start and end dates for those changes.



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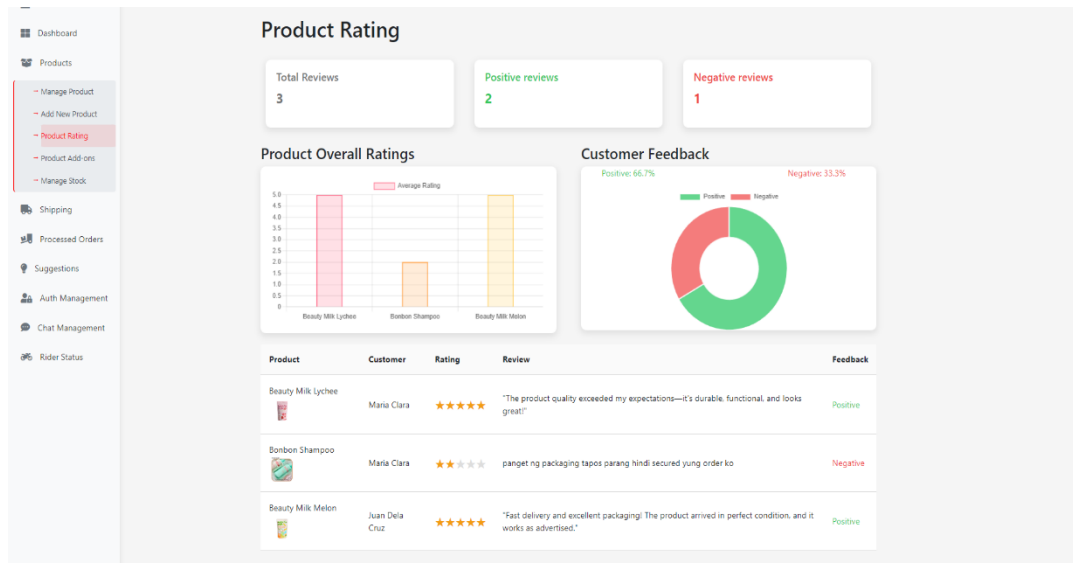


Figure 36. Product Rating

This figure presents the sentiment analysis of products, showcasing customer reviews and ratings that have been configured and analyzed by the system, making it easier for the admin to read and manage.

Add Packaging Option

Packaging Name:

Packaging Image: Choose File No file chosen

Extra Price:

Add Packaging Option

Existing Packaging Options

Image	Name	Extra Price	Action
	Eco Bamboo Towel Reusable	Extra Price: ₱25.00	Delete
	Mesh Net	Extra Price: ₱25.00	Delete
	Platinum Silicone	Extra Price: ₱25.00	Delete

Figure 37. Product Add-ons

This figure shows the interface where the admin can add add-ons for users, specifically packaging options, allowing them to fill in the relevant information for each packaging type.



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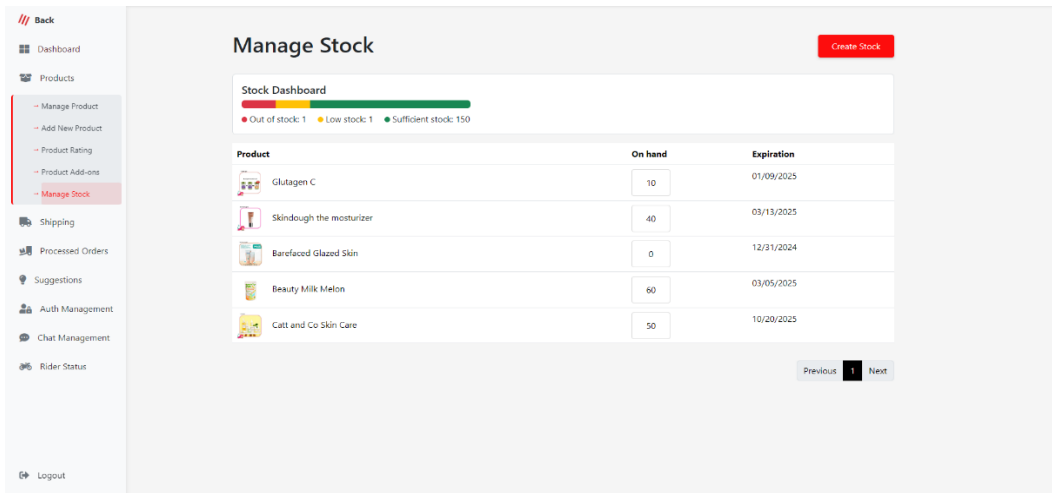


Figure 38. Inventory Management

This figure illustrates the stock management system for products, where the admin can input the quantity delivered, and the system will automatically calculate the total stock.

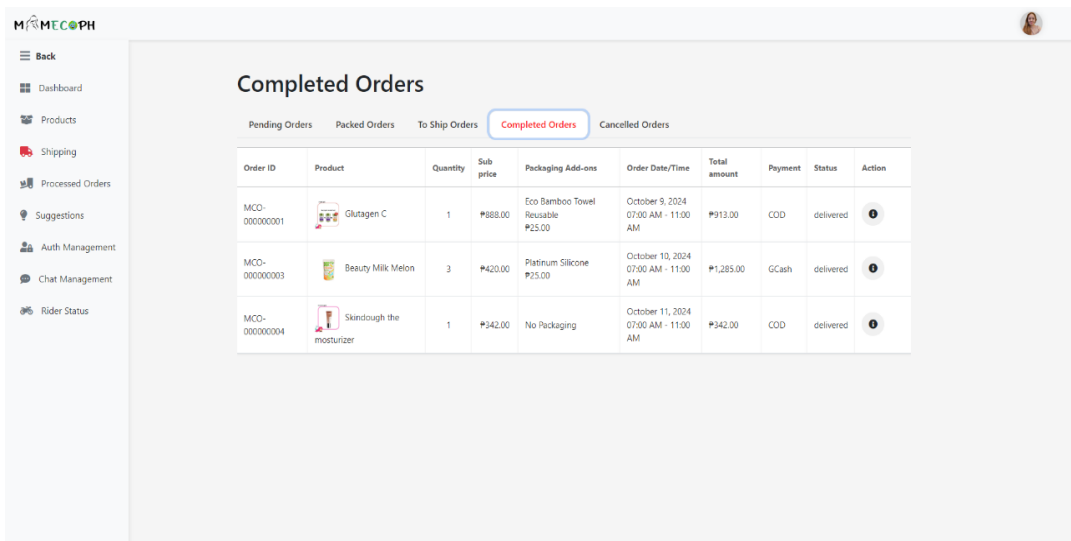


Figure 39. Orders Management

This figure displays the order tracking system, highlighting pending orders, packed orders, orders to ship, completed orders, and canceled orders, all managed by the admin.



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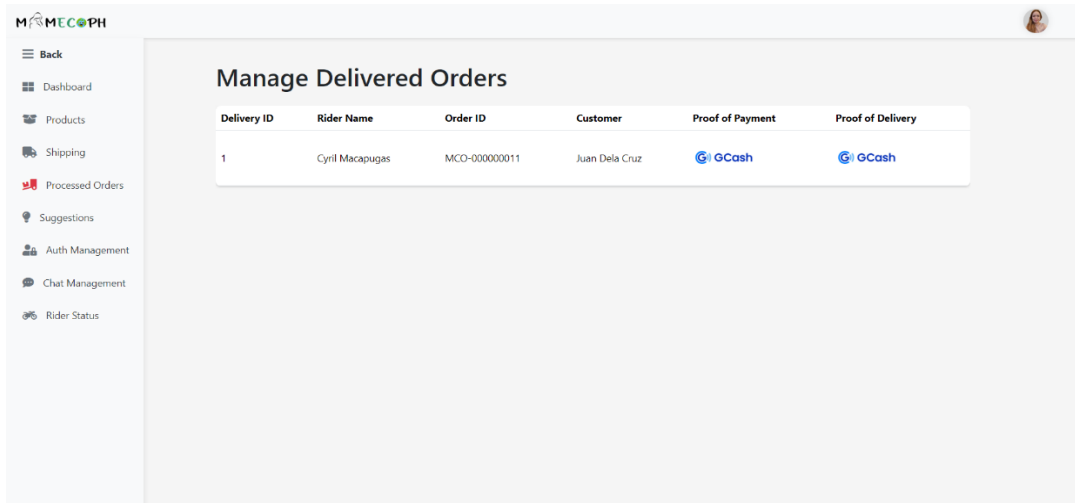


Figure 40. Manage Delivered

This figure shows the proof of deliveries made by the rider, providing a record of each buyer's payment history and transactions.

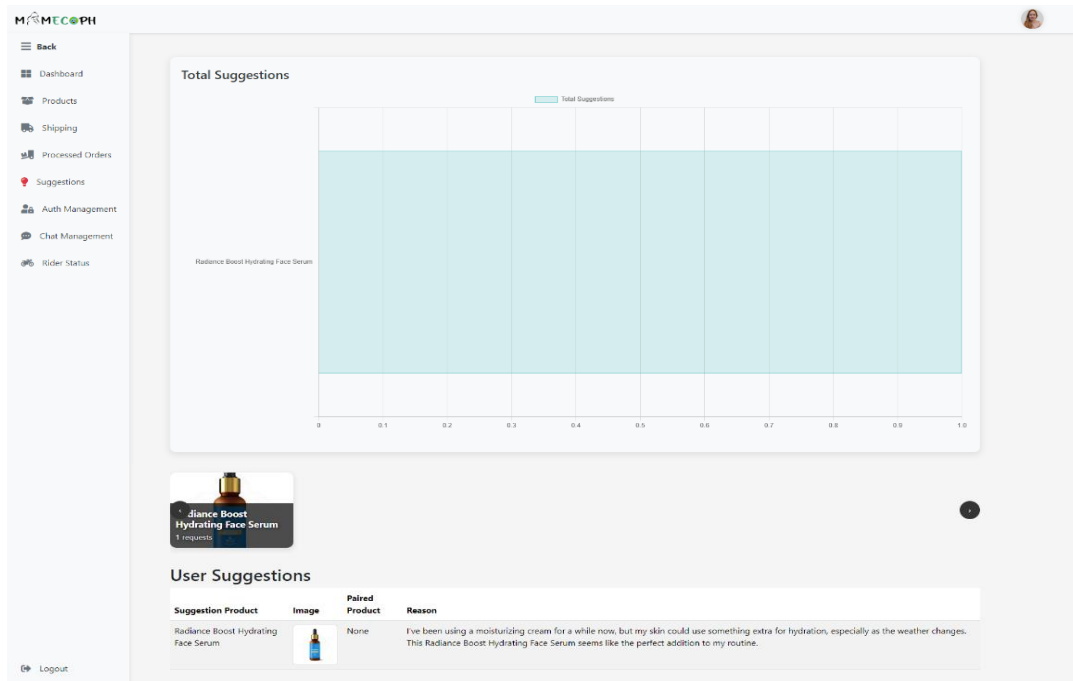
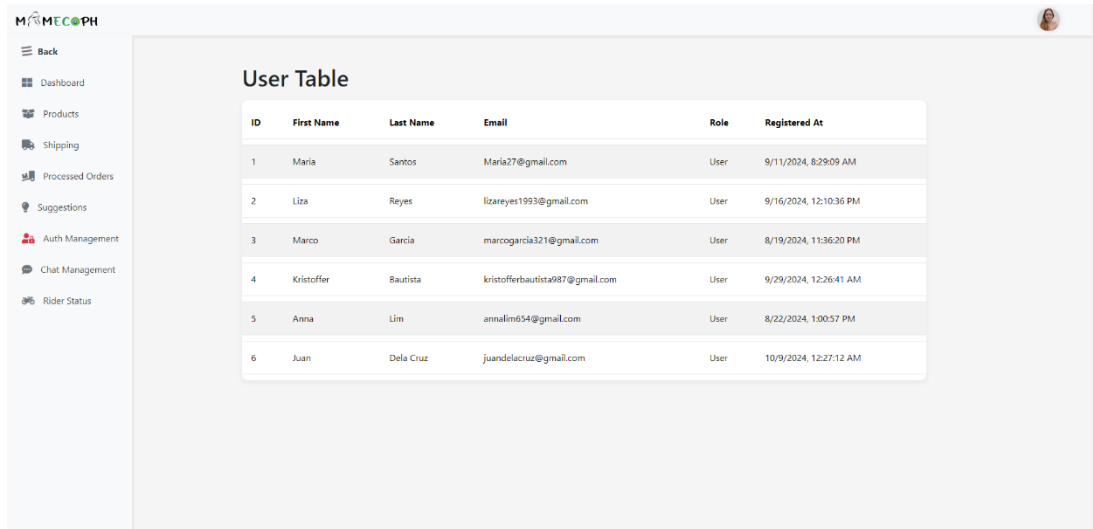


Figure 41. User Suggestion



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This figure shows where the admin can view which products have the highest demand from potential buyers, helping to identify suitable products for MOMECOPH to sell in the future.



The screenshot shows the MOMECOPH dashboard with a sidebar menu on the left containing: Back, Dashboard, Products, Shipping, Processed Orders, Suggestions, Auth Management, Chat Management, and Rider Status. The main content area is titled 'User Table' and displays a table with the following data:

ID	First Name	Last Name	Email	Role	Registered At
1	Maria	Santos	Maria27@gmail.com	User	9/11/2024, 8:29:09 AM
2	Liza	Reyes	lizareyes1993@gmail.com	User	9/16/2024, 12:10:36 PM
3	Marco	Garcia	marcogarcia321@gmail.com	User	8/19/2024, 11:36:20 PM
4	Kristoffer	Bautista	kristofferbautista987@gmail.com	User	9/29/2024, 12:26:41 AM
5	Anna	Lim	annalin654@gmail.com	User	8/22/2024, 1:00:57 PM
6	Juan	Dela Cruz	juandelacruz@gmail.com	User	10/9/2024, 12:27:12 AM

Figure 42. User Table

This figure displays the auth management system, where the admin can view users who have logged in, along with the date and time of their login.

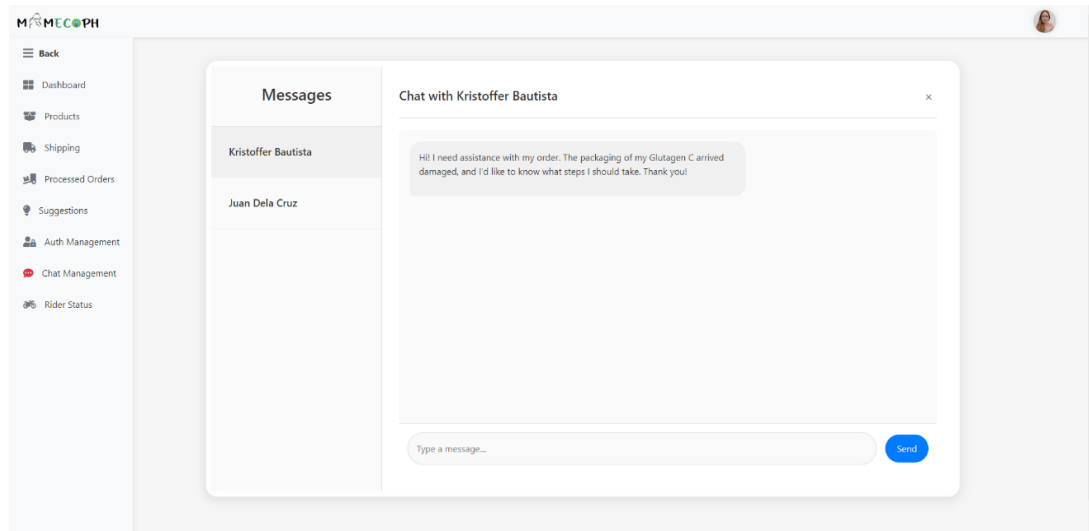


Figure 43. Messages Management



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This figure illustrates the chat management system, where technical support can view customer concerns and private messages within the community.

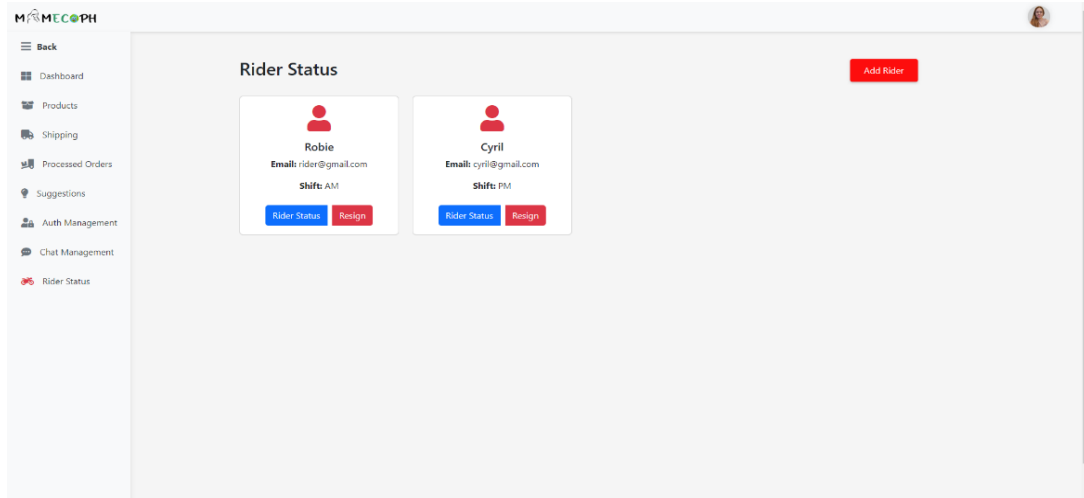
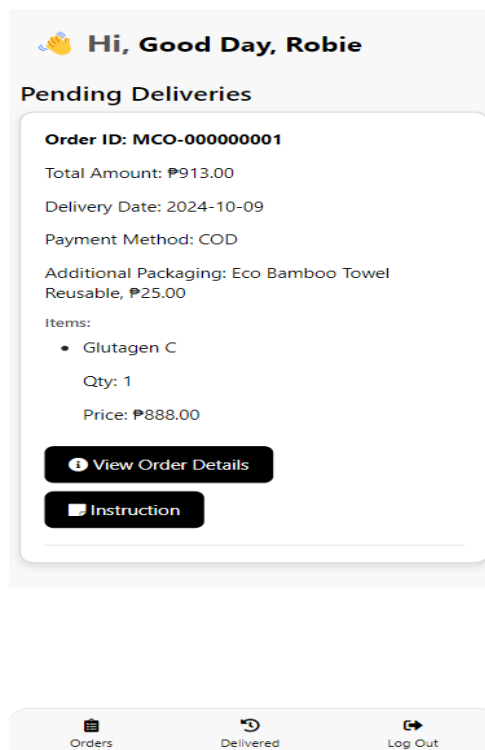


Figure 44. Rider Management

This figure shows the rider management system, where the admin can add information to create accounts for riders, enabling them to access the system.





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Figure 45. Rider Dashboard

This figure depicts the landing page for the rider, where they can see their name, view the pending deliveries that need to be completed, along with the buyer's instructions, their location, and the deadline for each delivery.

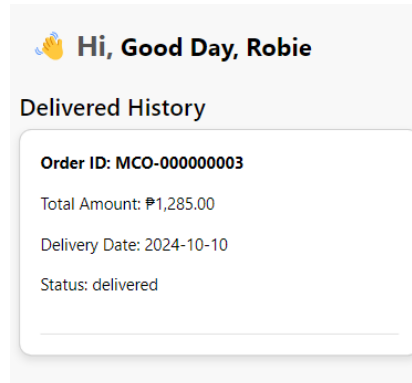


Figure 46. Delivered History

This figure shows the delivered items by the rider, along with their history information, serving as proof of delivery.



Data Design

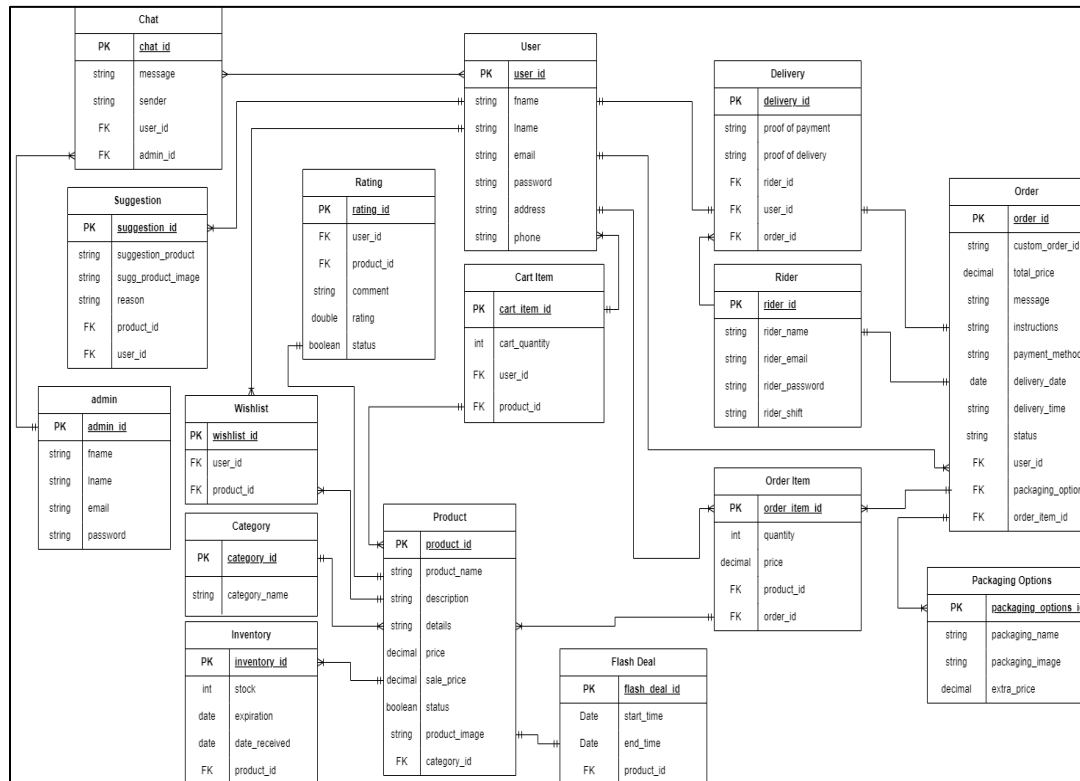


Figure 47. Entity Relationship Diagram

This is the Entity Relationship Diagram (ERD) for the Momecoph e-commerce system. The ERD illustrates the relationships between various entities within the system, highlighting their attributes and how they interact with each other. Each entity in the diagram is represented by a table, and their attributes are the columns within these tables. Primary keys, which are unique identifiers for each record in a table, are indicated, ensuring each entity can be distinctly identified.



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Data Dictionary

The Data dictionary includes the database fields, lengths, types, and descriptions of data. This helps in creating the database of the system and for the readers to understand how data are related to each other in the system database.

Table 15

USER_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the user.
fname	String	100	This field includes the first name of the user.
lname	String	100	This field includes the last name of the user.
email	String	255	This field includes the email address of the user.
password	String	255	This field includes the password of the user.
address	String	255	This field includes the address of the user.
phone	String	255	This field includes the phone number of the user.

This table accepts all information the user indicates upon registering for Momecoph.



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Table 16

PRODUCT_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the product.
product_name	String	100	This field includes the name of the product.
description	String	100	This field includes the description of the product.
details	String	1000	This field includes the details of the product.
price	Decimal	10,2	This field includes the price of the product.
sale_price	Decimal	10,2	This field includes the sale price of the product.
status	Boolean	1	This field includes the status of the product.
product_image	String	255	This field includes the image of the product.
category	Integer	36	This field is referencing to Category.

This table accepts all information the admin indicates upon adding a new product for Momecoph.



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Table 17

RATING_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the rating.
comment	String	1000	This field includes the comment of the product.
rating	String	5,2	This field includes the rating of the product.
status	String	1	This field includes the status of the rating.
sentiment	String	255	It tells the review of the product if it is positive or negative
user_id	Integer	36	This field is referencing to User.
product_id	Integer	36	This field is referencing to Product.

This table accepts all information the user indicates upon rating the product of Momecoph.

Table 18

WISHLIST_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the wishlist.
user_id	Decimal	36	This field is referencing to User.
product_id	Integer	36	This field is referencing to Product.



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This table accepts all information the user indicates upon adding product to their Wishlist.

Table 19

CART_ITEM_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the cart item.
cart_quantity	Integer	4	This field includes the quantity of the cart item.
product_id	Integer	36	This field is referencing to product.
user_id	Integer	36	This field is referencing to user.

This table contains items added to user carts. Each item is linked to a specific product and user.



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Table 20

ORDER_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the order.
total_price	Integer	4	This field includes the total price of the order.
custom_order_id	String	255	This field includes the custom order id of the order.
message	Integer	255	This field includes the message of the order.
instructions	String	255	This field includes instruction of the order
payment_method	String		This field includes payment method of the order
delivery_time	String		This field includes delivery time of the order
delivery_date	Date		This field includes delivery date of the order
status	String		This field includes status of the order
user_id	Integer	36	This field is referencing to user.
packaging_option_id	Integer	36	This field is referencing to packaging option.
order_item_id	Integer	36	This field is referencing to order item.

This table contains items added to user carts. Each item is linked to a specific product and user.



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Table 21

ORDER_ITEM_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the order item.
quantity	Integer	4	This field includes the status of the order item.
product_price	Integer	4	This field includes the unit price of the order item.
product_id	Integer	36	This field is referencing to product.

This table details items included in orders, specifying quantity, unit price, and references to the product, order, and user.

Table 22

INVENTORY_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the inventory.
stock	Integer	4	This field includes the stock of the product.
expiration	Date	100	This field includes the expiration of the product.
date_receivied	product	100	This field includes the date received of the product.
product_id	Integer	36	This field is referencing to product.



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This table manages the inventory of products, tracking stock levels, expiration dates, and dates received for each product.

Table 23

CATEGORY_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the category.
category_name	string	255	This field includes the name of the category.

This table contains information about the various categories available in the system.

Table 24

ADMIN_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	15	This field includes the id number of the admin.
fname	String	100	This field includes the first name of the user.
lname	String	100	This field includes the last name of the user.
email	String	255	This field includes the email address of the user.
password	String	255	This field includes the password of the user.

This table accepts all information the information related to admin.



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Table 25

DELIVERY_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the delivery.
proof_of_payment	String	255	Image of the payment
proof_of_delivery	String	255	Image of the delivery
rider_id	Integer	36	This field includes the details of the Rider.
user_id	Integer	36	This field includes the price of the User.
order_id	Integer	36	This field is referencing to Order.

This table delivery-related details for Momecoph, including image of payment, delivery proofs, and references to riders, users, and orders.

Table 26

SUGGESTION_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the suggestion.
suggestion_product	String	100	Name of the suggested product
sugg_product_image	String	100	Image of the suggested product
reason	String	1000	Reason why they suggest this product
product_id	Decimal	10,2	This field includes the price of the Product.
user_id	Integer	36	This field is referencing to User.



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This table accepts all information related to product suggestions for Momecoph, including product names, images, reasons, and links to users.

Table 27

CHAT_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the chat.
sender	String	255	This field includes the indication if the message was sent by a user or an admin.
message	String	255	This field includes the content of the message sent between users and admin.
admin_id	Integer	36	This field includes the phone number of the admin.
user_id	Integer	36	This field includes the phone number of the user.

This table store logs chat communication in Momecoph, including messages and references to users and admins.

Table 28

RIDER_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	15	This field includes the id number of the rider.
rider_name	String	100	This field includes the full name of the rider.
rider_email	String	100	This field includes the email of the rider.
rider_password	String	255	This field includes rider's Password.
rider_shift	String	255	This field includes the rider's shift, A.M Shift or P.M Shift



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This table stores rider information in Momecoph, including names, emails, passwords, and shift schedules.

Table 29

FLASH_DEAL_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the flash deal.
start_time	Date	255	This field is the start time of flash deal.
end_time	Date	255	This field is the start end of flash deal.
product_id	Integer	36	This field is referencing to Product.

This table stores information about flash deals on Momecoph, including the deal's ID, the start and end times, and the product associated with the deal.

Table 30

PACKAGING_OPTION_TBL

Field Name	Data Type	Length	Description
id (PK)	Integer	36	This field includes the id number of the flash deal.
packaging_name	String	255	This field is the name of the packaging option
packaging_image	String	255	This field is the image of the packaging option
extra_price	Integer	36	This field is the extra price of the packaging option



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This table stores Packaging option information in Momecoph, including packaging names, packaging image, and extra price.

System Architecture

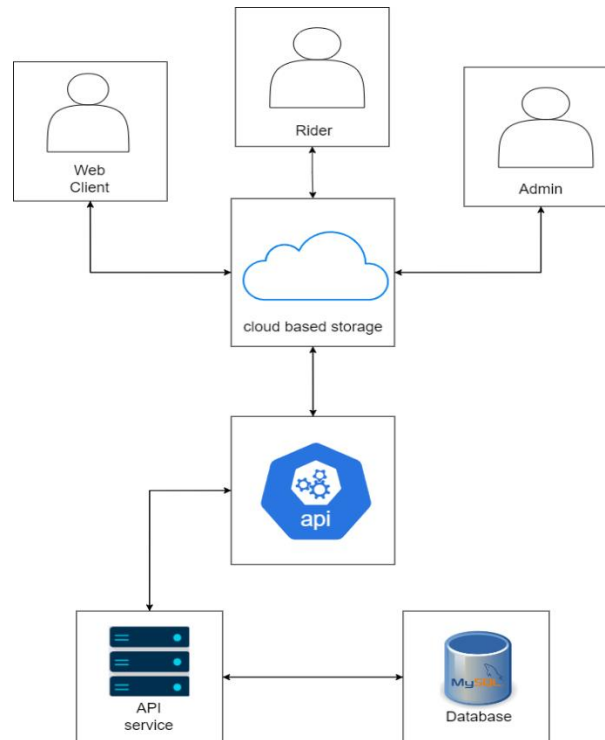


Figure 48. Network Design

The Momecoph system architecture outlines the network design and components of the e-commerce platform. Users will interact with the web client and administrators with the admin panel, both of which will be connected to a cloud-based storage and API server. The API server will handle the business logic and database interactions.



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DEVELOPMENT/CONSTRUCTION/BUILD PHASES

Software Requirements for the Development

The following information is the software requirements that going to be used for the development of the Web Application:

MySQL. This is a relational database management system that will be used to store all the data for the system, including user information, product details, orders, etc.

Vue.js. This is a progressive JavaScript framework for building user interfaces. It will be used for developing the front end of the web application, allowing for a reactive and dynamic user experience.

Laravel. This is a PHP framework for web application development. It will be used for building the backend of the application, including handling API requests, managing business logic, and interacting with the MySQL database.

XAMPP. will be used to configure a single command for the webserver and database stack.

Figma. This is a design tool that will be used for creating UI/UX prototypes. It allows designers to create wireframes, mockups, and interactive prototypes to visualize and plan the user interface and user experience.

Hardware/Technical Specification

The Momecoph e-commerce system requires robust hardware to ensure smooth operation and maintenance. The following details outline the minimum hardware specifications necessary for the development and initiation phase of the Momecoph e-commerce website:



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Table 31

Hardware/Technical Specification

Item	Quantity	Specification
Operating System		Windows 10 (x64-bit)
RAM	1 unit	8GB RAM
Storage	1 HDD or SSD	1TB HDD
GPU	1 onboard	Nvidia GeForce GTX 1050
Processor	1	Intel Core i7-7700
Computer Peripherals	1	Mouse, Keyboard, Monitor
Internet Connection	1	Fiber 200 Mbps

This table specifies the device specification that is used during the development and initiation phase of the project.

Program/Module Specification

MOMECOPH is introducing an online marketplace focused on advocating holistic well-being via beauty and health items. The platform will spotlight a carefully selected range of MOMECOPH's products, guaranteeing a safe shopping environment with tailored suggestions. Customers will have access to wellness materials, community involvement, as well as promotional deals and informative material. This endeavor seeks to broaden MOMECOPH's audience and elevate client contentment by offering easy product accessibility and beneficial wellness assistance.



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Table 32

List of Modules

Module	Description
Landing Page	Home, Featured Products, New Products, Carousel of Products
Login	Login for Admin & User.
Registration	Sign-up for Admin & User.
Shop	All Products, Check Out, Customization, Suggestion and Tracking of Delivery.
My Account	Favorites, Cart, & Edit of User Information.
Admin	Inventory, Product, Add and Remove User, User Interface Management.
User Reviews & Rating	Allows users to review products and leave ratings Download Certificates, View Grades
Wishlist	Enables users to maintain a Wishlist for future purchases
Help & Support	live chat with admin and chatbot that will answer FAQs for customer queries.
Product Rating	analyze user reviews and feedback, if it is positive or negative to inform product and service improvements
Tally of Products	Track product suggestions and show administrators how many times a specific product has been recommended or purchased based on user interactions.
Chat & Message	Communication between admin and customer

This table identifies the list of modules of the system, which explains the functionality of the system.

Programming Environment

XAMPP is a versatile web server solution allowing developers to build and test applications locally. It includes Apache HTTP Server, MySQL. Laravel 10, a modern PHP framework, simplifies backend development with features like routing and authentication. For the frontend, Vue.js 3 is a progressive JavaScript framework for creating dynamic user interfaces. Axios facilitates HTTP requests, making API interactions straightforward. Apache serves web pages, while MySQL



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manages databases. Git handles version control, with GitHub offering collaborative tools. Bootstrap 5 helps design responsive, mobile-first websites quickly with its pre-designed components. Together, these technologies form a robust environment for developing scalable web applications.

Technicality of the Study

MOMECOPH is an e-commerce platform that delivers excellence for both buyers and sellers, catering to diverse buy-and-sell enterprises. It provides a superior buying and selling experience that guarantees satisfaction for both users and administrators.

Details of the Technologies Used

Laravel 10 is a PHP framework for web development that includes authentication, database management, and RESTful API development capabilities. MySQL, an open-source relational database management system, Vue.js 3, a progressive JavaScript framework, complements Laravel by allowing developers to create dynamic and interactive user interfaces using reactive data binding and component-based architecture. Together, Laravel 10 and Vue.js 3 enable developers to build modern, scalable web applications that deliver a seamless user experience across platforms, leveraging APIs for communication between the frontend and backend.



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How System Works

At MOMECOPH, the system operates seamlessly to cater to your beauty and health needs. As a visitor, you're encouraged to explore the website's features freely using a guest account, ensuring you feel welcome and informed. Should you wish to access additional perks, like saving preferences and data, registering for a free membership is quick and easy. Once logged in, you can navigate through the curated selection of products, tailor your order with preferred packaging options, and even expedite delivery for your convenience. Checking out is a breeze, facilitated by the system's intuitive interface, streamlining the transaction process. Upon receiving your order, you're invited to share your experience by leaving reviews and ratings, contributing to the community's collective insights. Behind the scenes, administrators have the flexibility to tweak the user interface to suit preferences. Additionally, the system's robust notification feature ensures administrators stay informed about stock levels, minimizing manual stock counting hassle.



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CHAPTER 4

RESULTS AND DISCUSSION

This chapter contains detailed results and discussions of the study. The results are presented under the following major headings: Statement of the Problem and their discussion. The Statement of the Problem is the following:

1. Building an Effective E-Commerce Platform

Managing an online business becomes challenging without a dedicated platform. In the case of MOMECOPH, the owner relies on multiple social media platforms to handle transactions, leading to disorganized operations. This approach complicates inventory management, often requiring the owner to manually track and compute stock levels—a time-consuming and inefficient process. Gathering and managing data from various platforms is overwhelming, especially for businesses with a wide range of products. Customers also face difficulties knowing where and how to place orders, creating confusion about the legitimate MOMECOPH platform. This issue is further exacerbated by the prevalence of online scams, which erode customer trust.

To build an effective e-commerce platform that streamlines the shopping experience for both owners and users, it is crucial to automate functionalities within the system. Automation can significantly alleviate administrative burdens, enabling owners to focus on strategic growth while ensuring smooth operations. For users, incorporating engaging features such as an e-loyalty card enhances their shopping experience by offering redeemable rewards and promoting customer loyalty.



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Additionally, a suggestion mechanism allows users to propose products for future consideration, fostering a sense of involvement and community. This aligns with findings by Al Hamli and Sobaih (2023), emphasizing the importance of adapting to consumer preferences in an evolving market. By integrating these features, the platform not only meets the needs of its users but also positions itself for sustainable growth, reflecting the essential role of technology in enhancing e-commerce operations as noted by Salih, et al. (2023), Balogh and Kézy.

2. Enhancing Product Suggestions and Package Modifications in E-Commerce

Before the implementation of an online platform, customers faced significant challenges when it came to customizing packages or receiving product suggestions. MOMECOPH lacked a system for package modifications, requiring customers to send private messages to the owner for specific requests. This process was time-consuming and often led to delays or miscommunication. Additionally, without a centralized platform, both the owner and users struggled to explore or select options easily. The absence of streamlined customization made it difficult for customers to make informed choices and limited their available options. Now, with the online platform in place, both the owner and users benefit from a more efficient system, offering greater convenience and a broader range of choices.

An e-commerce platform can enhance user experience by offering a diverse array of options for product suggestions and package modifications. By implementing advanced algorithms that analyze user preferences and shopping



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behavior, the platform can generate personalized product recommendations, ensuring that customers encounter items that align with their tastes and needs. Furthermore, integrating user feedback mechanisms allows customers to suggest new products or modifications, fostering a collaborative shopping environment. As highlighted by Gulfraz, et al. (2022), understanding the customer journey and incorporating their input can lead to impulsive buying and increased satisfaction.

Additionally, offering customizable packaging options not only caters to individual preferences but also enhances brand engagement, aligning with the findings of Muñoz Macas, et al. (2021) regarding the significance of inventory management and customer-centric strategies. By prioritizing user experience through these features, the platform can build stronger relationships with customers and drive long-term loyalty.

3. Managing Inventory for Convenient Access to Transactions and Data

The inventory system used by MOMECOPH before transitioning to an e-commerce platform was inefficient and inconsistent. The previous inventory tools were not specifically designed for e-commerce, often requiring the owner to use different platforms to gather data. This scattered approach made the data disorganized and created additional hassle for the owner. Furthermore, many of these inventory systems had limited features, requiring payments to unlock essential functionalities. As a result, tracking stock levels, accessing sales history, and managing transactions became cumbersome and unreliable. The introduction of a dedicated e-commerce platform now provides a centralized and



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comprehensive inventory system, ensuring organized data and easier access to transaction records.

To effectively manage inventory for convenient access to transactions and data, a company should implement a robust inventory management system that automates tracking and reporting processes. By utilizing technology solutions, such as cloud-based software, the company can provide real-time updates on stock levels, sales data, and order status. Salih, et al. (2023) emphasized that such systems not only improve inventory tracking but also enhance customer satisfaction by minimizing stockouts and overstock situations.

Furthermore, integrating data analytics tools allows the company to analyze sales patterns, forecast demand, and make informed purchasing decisions, aligning with the insights from Muñoz Macas, et al. (2021) on the importance of advanced inventory control systems for operational efficiency. This strategic approach not only streamlines transactions but also ensures that accurate data is readily accessible for decision-making, ultimately fostering a more responsive and agile business environment.

4. Generating Comprehensive Sales Reports in E-Commerce Platforms

Before adopting an e-commerce platform, MOMECOPH faced significant challenges in generating accurate and comprehensive sales reports. The limited options of their previous system forced the owner to manually gather data from multiple platforms, a time-consuming and error-prone process. This fragmented approach often resulted in inaccuracies, making it difficult to assess sales performance effectively. The lack of a centralized reporting system not only



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hindered decision-making but also added unnecessary workload for the owner. With the implementation of an e-commerce platform, generating detailed and accurate sales reports is now streamlined, providing reliable insights and reducing manual effort.

To effectively generate comprehensive sales reports, an e-commerce platform should leverage automated data collection and reporting tools integrated into its system. By utilizing advanced analytics software, the platform can automatically compile data from various sources, including sales transactions, inventory levels, and customer interactions. According to Huang, et al. (2023), employing machine learning techniques can enhance the accuracy and depth of these reports, providing insights into customer behavior and sales trends.

Furthermore, implementing a dashboard feature allows stakeholders to visualize key performance indicators (KPIs) in real-time, facilitating quicker decision-making. As noted by Muñoz Macas, et al. (2021), maintaining organized and accessible data is crucial for effective inventory management, which complements the sales reporting process. By ensuring that the data is both accurate and easily interpretable, the e-commerce platform can generate reports that not only reflect current performance but also provide forecasts and recommendations for future strategies, ultimately driving business growth and efficiency.

5. Determining Product Feedback Using Sentiment Analysis

Previously, MOMECPH relied on the owner manually reading customer reviews one by one to gauge feedback. This process was extremely time-



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consuming and made it difficult to identify areas needing the most improvement or products requiring the greatest focus. Additionally, the system lacked the capability to automatically analyze the accuracy and consistency of customer reviews and ratings. As a result, valuable insights were often overlooked, and addressing customer concerns was inefficient. By integrating sentiment analysis into the e-commerce platform, feedback is now analyzed automatically, enabling the owner to pinpoint key areas for improvement with greater accuracy and efficiency.

The system can effectively determine if product reviews are positive or negative by utilizing sentiment analysis techniques. This advanced analytical approach processes customer comments automatically, classifying them as positive, negative, or neutral based on the language used. According to Panduro-Ramirez (2024), sentiment analysis leverages machine learning algorithms to analyze patterns in textual feedback, enabling it to understand the nuances of language, including Taglish (a mix of Tagalog and English).

By automating this process, the system provides users and administrators with immediate insights into product ratings without requiring manual review of each comment. This not only streamlines feedback assessment but also enhances user experience by offering clear ratings immediately. As highlighted by Huang, et al. (2023), the ability to analyze sentiments effectively enables platforms to improve product recommendations and address customer concerns proactively, thus fostering a more engaging shopping experience.



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CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS, AND

RECOMMENDATIONS

This chapter presents the summary of the study's findings, conclusions, and recommendations.

Summary of Findings

Based on the analysis of the data presented, the following are the findings:

1. Building an Effective E-Commerce Platform

The integration of the e-commerce platform effectively addresses MOMECOPH's challenges of disorganized inventory management and reliance on multiple social media platforms by centralizing transactions, automating tasks, and streamlining inventory processes. This results in reduced inefficiencies, improved accuracy, and enhanced customer experience through a secure, centralized shopping space. Features like an e-loyalty card and product suggestions foster trust and engagement, aligning with findings from Al Hamli and Sobaih (2023) and Salih, et al. (2023) on the importance of technology in driving e-commerce growth and meeting consumer needs.

2. Enhancing Product Suggestions and Package Modifications in E-Commerce

The implementation of the online platform has significantly improved the customization of product packages and product suggestions for MOMECOPH. Previously, customers had to privately message the owner for package modifications, leading to delays and miscommunication. Now, users benefit from



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greater convenience, personalized product recommendations, and user feedback mechanisms that foster collaborative suggestions. These features enhance the shopping experience and align with Gulfraz, et al. (2022) and Muñoz Macas, et al. (2021), who emphasized the importance of understanding the customer journey and customer-centric strategies to build long-term loyalty.

3. Managing Inventory for Convenient Access to Transactions and Data

MOMECOPH's previous inventory system was inefficient, fragmented, and relied on multiple platforms for data collection, making stock tracking and transaction management cumbersome. The transition to an e-commerce platform has resolved these issues by centralizing inventory data and automating tracking and reporting. Real-time updates on stock levels and sales data have improved operational efficiency, customer satisfaction, and business responsiveness. As noted by Salih, et al. (2023) and Muñoz Macas, et al. (2021), integrating data analytics for sales forecasting and demand analysis has further optimized inventory management, supporting agile business decisions.

4. Generating Comprehensive Sales Reports in E-Commerce Platforms

Before adopting an e-commerce platform, MOMECOPH struggled to generate accurate and comprehensive sales reports, relying on manual data collection from various platforms, which led to inefficiencies and inaccuracies. The integration of automated data collection and reporting tools has streamlined the process, providing detailed and accurate sales reports that offer valuable insights into customer behavior and sales trends. The addition of a dashboard feature to visualize key performance indicators (KPIs) supports



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quicker decision-making, as emphasized by Huang, et al. (2023) and Muñoz Macas et al. (2021), ensuring more effective business strategies and growth.

5. Determining Product Feedback Using Sentiment Analysis

The implementation of sentiment analysis at MOMECOPH has streamlined the process of determining product feedback by automatically analyzing reviews and ratings. This reduces the need for manual checks, enabling the platform to quickly identify trends in customer satisfaction and address areas for improvement. By leveraging sentiment analysis, MOMECOPH can respond promptly to negative feedback and enhance the shopping experience, fostering a more customer-centric approach and enabling informed decision-making, as highlighted by Huang, et al. (2023).

Conclusions

The conclusions that come from the findings were the following:

1. Building an Effective E-Commerce Platform

The reliability of an e-commerce platform is critical to ensuring a positive user experience. For Momecoph, designing a platform that is adaptable to market trends and consumer needs is essential for sustained growth. Features such as personalized product suggestions, intuitive navigation, and secure payment processes, including email verification for transactions, contribute to increased user satisfaction and loyalty. By focusing on these elements, Momecoph can create a robust platform that not only meets user expectations but also positions business for long-term success in the competitive online marketplace.



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2. Enhancing Product Suggestions and Package Modifications in E-Commerce

The Personalized product suggestions and customizable package options are key drivers of customer satisfaction in e-commerce. The ability to recommend relevant products tailored to individual needs and to modify packages enhances the shopping experience and encourages repeat business. As consumers continue to favor e-commerce platforms for their shopping needs, Momecoph's focus on these features ensures a seamless and personalized experience, fostering loyalty and a competitive edge in the marketplace.

3. Managing Inventory for Convenient Access to Transactions and Data

An efficient and organized inventory management system is crucial for the smooth operation of an e-commerce business. For Momecoph, centralizing inventory data and providing real-time updates on stock levels and sales data improves operational efficiency and decision-making. By enhancing inventory management tools, Momecoph can better identify trends and challenges, enabling quicker and more informed decisions that improve overall business performance and customer satisfaction.

4. Generating Comprehensive Sales Reports in E-Commerce Platforms

Comprehensive sales reports are vital for understanding customer behavior and tracking sales trends. For Momecoph, automating this process has provided valuable insights into business performance and areas for improvement. The integration of dashboard features to visualize key performance indicators (KPIs) aids in faster decision-making. Additionally, effective communication tools, such as



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chat support, enhance the customer experience by providing a reliable channel for feedback, building trust and strengthening relationships with customers.

5. Determining Product Feedback Using Sentiment Analysis

Before the integration of sentiment analysis, Momecoph relied on manual review processes, which were time-consuming and inefficient. With sentiment analysis, customer feedback is automatically analyzed, allowing the business to quickly identify areas for improvement and address customer concerns. This system classifies reviews as positive, negative, or neutral, leveraging machine learning to detect nuanced feedback, including Taglish (Panduro-Ramirez, 2024). By streamlining this process, Momecoph can proactively enhance the shopping experience, improve product recommendations, and foster a more responsive and customer-centric platform.

Recommendations

Based on the conclusions, the proponents recommend the following:

1. Administrators

Utilize all suggestions effectively by integrating graphs into each tab on the admin side, enabling them to manage and identify areas where they may be lacking.

2. MOMECOPH Community

They should make suggestions to expand the community and introduce new products. Utilizing the chat feature will greatly assist both buyers and sellers in enhancing their interactions and improving the overall experience.



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3. Future Researchers

That researchers will incorporate a payment gateway to expand the range of available payment methods. That allows regular non-coders to edit the user interface design, enabling the platform to extend beyond a single use and be sold to other sellers for their utilization.



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Appendix A

Company Profile

MOMECOPH is a store that specializes in selling beauty and eco-friendly products, aiming to promote skin health and overall well-being. The business was initiated by REGINA ABRENICA in 2021 during the pandemic, recognizing the need for activities as people were spending more time indoors. Despite the challenging times, Regina decided to start this venture, offering products that not only benefit individuals but also contribute to societal and environmental well-being. Despite the initial launch during the pandemic, the products were ensured to be safe and well-maintained. Over the years, MOMECOPH has gained popularity and remains sought after, even in the present day.

The company consists mainly of the owner's family, with most of the workers being siblings. Additionally, there are family friends involved in the business. It consists of 25 employees including the owner itself.

MISSION

- Empower individuals to achieve both beauty and health through our premium products and services.
- Foster a community that prioritizes holistic well-being and self-care.
- Provide accessible resources and guidance to steer individuals towards a balanced lifestyle.



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VISION

Our vision is to have a nation with inspired, strong-willed, and empowered women that happily contribute to their family's every day. We envision a world where beauty and health are harmoniously intertwined, where individuals radiate confidence and vitality from within. Through our commitment to excellence, innovation, and integrity, we aim to inspire and empower people on their journey to holistic well-being, guiding them towards a path of self-discovery and fulfillment.



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Appendix B

Questionnaire

1. Why do you want to create a system for MOMECOPH?
2. What are the things that provoke you to want and E-commerce?
3. What are the unique features that are needed in MOMECOPH?
4. What are the limitations of the system?
5. What payment method should the system use?
6. What are the features that an E-commerce can do that social media platform cannot?
7. Is it much user/admin friendly if MOMECOPH will have its own website?



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Appendix C

User's Guide to Accessing the Web App

Purpose

The purpose of this section was to provide a step-by-step procedure on how to access the MOMECOPH Online Beauty and Eco Shopping System.

Scope

This Website can be accessed by using a Laptop, Desktop or Mobile.

How to access the Website – Customer Side

1. The Customer should have access to the Internet.
2. Open any Browser (e.g., Google Chrome and Microsoft Edge)
3. Type “momecoph.onrender.com” on the Search Bar.
4. After the website load, the users can Sign up their account in the Registration form or Sign in their account.
5. It will redirect them to MOMECOPH's landing page and can now explore the website's features and functions.

How to access the Website – Admin Side

The Admin Dashboard is a functionality of a system where admins can access the settings of MOMECOPH user interface.

1. The admin should have access to the Internet.
2. Open any Browser (e.g., Google Chrome and Microsoft Edge)
3. Type “momecoph.onrender.com” on the Search Bar.
4. After the website load, the administrators can log the given account by the developers to access the Dashboard or the Admin sections.



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How to access the Website – Rider Side

1. The Rider should have access to the Internet.
2. Open any Browser (e.g., Google Chrome and Microsoft Edge)
3. Type “momecoph.onrender.com” on the Search Bar.
4. After the website load, the rider can log the given account by the developers to access the Dashboard or the rider interface.

System Requirements

You can access the Web Application by using a Desktop, Laptop, and Mobile.

User levels

1. Admin Account
2. Customer Account
3. Rider Account

System Requirements

MOMECOPH Online Beauty and Eco Shopping System can be accessed by using a Laptop, Desktop, and Mobile as long as it has access to the Internet.



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College Department

Curriculum Vitae

Marc Laurence A. Gumilao

PROGRAMMER

📞 09692179684

✉ gumilaomarclaurance@gmail.com

📍 22 V. Pozon St. Bambang Pasig City

🌐 github.com/laurenccee



Achievement

Pasig Catholic College

Dean's Lister (2020) - (Grade 12)

Pasig City Scholar

(2021 - 2022)

Pasig Catholic College

Dean's Lister (2021) - (1st year college)

Pasig City Scholar

(2022 - 2023)

Academic Achiever (2021) - (1st year college)

Pasig Catholic College

Academic Achiever (2022) - (2nd year college)

Pasig Catholic College

Dean's Lister (2023) - (3rd year college)

Gifted to Give Scholar (2023) - (3rd year college)

Extra Curricular

CSCB OSMO - TECH

Pasig Catholic College (2024 - 2025)

Basketball 2nd Place

Pasig Catholic College (2022 - 2023)

Basketball 1st Place

Pasig Catholic College (2023 - 2024)

IT SOCIETY MEMBER

Pasig Catholic College (2022 - 2023)

Certificate

- Cisco Networking Academy® CCNA v7: Introduction to Networks
- Cisco Networking Academy® CCNA v7: Switching, Routing, and Wireless Essentials
- Cisco Networking Academy® Cybersecurity Essentials
- Cisco Networking Academy® CCNA v7: Enterprise Networking, Security, and Automation
- Cisco Networking Academy® Network Security

Education

Pasig Catholic College

Information Technology
2021-2025

Pasig Catholic College

SHS - Tech Voc ICT
2019 - 2020

Skill

Html & Css

Java

TypeScript

Javascript

Python

PHP

Frameworks

Laravel

Vue

Codeigniter

Tools

Postman

Xampp

Github

Git

Visual Studio Code

Figma

Database

MySQL

Firebase



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College Department

Jan Robie E. Laguda

PROGRAMMER

📞 09556549219

✉️ robie192002@gmail.com

📍 58 DSAA, Rosario Pasig City

🐙 github.com/roviee



Achievement

Pasig Catholic College

Dean's Lister (2020) - (Grade 12)

Pasig Catholic College

Dean's Lister (2021) - (1st year college)

Pasig Catholic College

Dean's Lister (2023) - (3rd year college)

Extra Curricular

CSCB OSMO - TECH

Pasig Catholic College (2024 - 2025)

IT SOCIETY MEMBER

Pasig Catholic College (2022 - 2023)

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TypeScript
Javascript
Python
PHP

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Vue
Codeigniter
Angular
Ionic

Tools

Postman
Xampp
Github
Git
Visual Studio Code
Figma

Database

MySQL
Firebase



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College Department

Cyril Mel Macapugas

PROGRAMMER

📞 09954171790

✉️ cyrilmel09282001@gmail.com

📍 2069 N. Cuevas St. Kalawaan, Pasig City

🌐 github.com/CyrilMel



Achievement

Pasig Catholic College

Dean's Lister (2020) - (Grade 12)

Pasig Catholic College

Dean's Lister (2021) - (1st year college)

Academic Achiever(2021) - (1st year college)

Pasig Catholic College

Academic Achiever (2022) - (2nd year college)

Pasig Catholic College

Dean's Lister (2023) - (3rd year college)

Extra Curricular

CSCB OSMO - TECH

Pasig Catholic College (2024 - 2025)

IT SOCIETY 3rd Year Beadle

Pasig Catholic College (2023 - 2024)

IT SOCIETY 4th Year Beadle

Pasig Catholic College (2024 - 2025)

Certificate

- Cisco Networking Academy® CCNA v7: Introduction to Networks
- Cisco Networking Academy® CCNA v7: Switching, Routing, and Wireless Essentials
- Cisco Networking Academy® Cybersecurity Essentials
- Cisco Networking Academy® CCNA v7: Enterprise Networking, Security, and Automation
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