

PA-MINE: A Mobile Live Streaming Application for Online Sellers

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In Partial Fulfillment
Of the requirements for the degree
Bachelor of Science in Information Technology

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This is to certify that we have supervised the preparation of the Capstone Project and read the manuscript prepared by **ABDULLAH ABAGA, CHRISTIAN JETHRO J. BACANI, JAN CEDRIC E. DUQUE** entitled **PA-MINE: A Mobile Live Streaming Application for Online Sellers** and that the said capstone project has been submitted for final examination by the Oral Examination Committee.

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M.A.-Math

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This capstone project is hereby approved and accepted by the College of Computer Studies and Engineering in partial fulfillment of the requirements for the degree in **Bachelor of Science in Information Technology**.

Ardee Joy T. Ocampo, DIT

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CAPSTONE PROJECT ABSTRACT

Title: **PA-MINE: A Mobile Live Streaming Application for Online Sellers**

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ABSTRACT

During this pandemic, people are now into online shopping and online live selling. Online sellers will just post or show their items through live and sell their items to their social media accounts, then online buyers will comment "mine" on the certain item that had been posted or shown. Sometimes the online sellers can't see the person who first to comment on "mine" because of the fast comments and the number of buyers in live selling.

The objective of the study was to develop a mobile-based application that uses a real-time live streaming feature that would allow online sellers to market their products through live streaming. To automate the process from the seller's and shopper's perspective by providing the following features: a) Mine button, and b) Automatic listing of names together with the name of the mined products of the shoppers to the seller's account. To provide a transaction system of the application that would cater all the transactions inside the application. As well as to determine the performance and usability of application using the System Usability Scale(SUS)

The researchers provided a live streaming application that would abide by the existing policies and procedures of live selling. The application provided quality and proper procedures for live selling. The researchers also automated the process from the seller's and shopper's perspective by providing mine button and automatic listing of names on the sellers live. Provided a transaction system of the application that would cater all the transactions inside the application. These features made live selling and buying products convenient and much easier than the existing process of other live selling platforms. Moreover, the developed system has an overall usability score of 81.3 and was able to pass the System Usability Scale based on the survey that was conducted.

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DEDICATION

This research paper is dedicated to our parents of researchers who give their utmost support, and never-ending inspiration throughout the study. They are the ones who provide the resources we needed in the making of this study.

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CHAPTER I

INTRODUCTION

This chapter presents the project context, the review of related literature, and the statement of objective. It also includes the scope and limitations, and the project's technical background.

Project Context

Live selling on different social media platforms has increased significantly in the past few years. According to Hsu and Chang (2019), many social media platforms have also introduced live streaming services, which have exploded the live streaming trend. This condition not only makes a lot of regular online people famous suddenly, but it also helps to create the business model of combining e-commerce with digital marketing.

Furthermore, in the study conducted by Wongkitrungrueng, et al. (2020) live streaming has recently risen in popularity as a direct selling tool that provides small, self-employed businesses with previously unheard-of levels of consumer involvement and engagement. While much existing research has focused on consumer motivation and intent to shop via live streaming, there is little information available from the seller's perspective. Although everyone can access the potential benefits of live streaming commerce, vendors have varying degrees of success with this medium.

According to the study by Wang and Wu (2019), live streaming has started to receive a lot of attention in the business sector as part of new



emerging e-commerce innovations because of its potential ability to improve online sales. Live streaming promises to facilitate real-time interactions among sellers, users, and peers online by enabling both real-time seller and user (i.e., viewers) and peer user interactions on e-Commerce platforms. This is likely to alleviate the physical separation between sellers, users, and products in cyberspace. Although some firms are taking the initiative to invest in this new living stream platform in order to better engage their users, it is yet unclear whether this effort will result in higher consumer conversion rates.

Still in line with live streaming, Wang and Wu (2019), theoretically discussed that Live streaming is unique in terms of the channels it provides for sellers to engage and interact with their online users (i.e., viewers) through live product demonstrations by sellers and synchronous user interactions enabled by live streaming platform functionalities like live videos, real-time online chat, conversation, and other additional capabilities to leverage two-way instantaneous communications (1) between viewers and the seller, and (2) between peer online viewers on the platform. As a result, live streaming is more likely to produce a sense of spatial and communication immediacy, causing viewers to become immersed in the moment rather than behind the screen. Its real-time rich media communication functionality entices users to actively interact with the seller in order to acquire authentic sensory information about a product by touching, seeing, hearing, and following online peers' cues on the live streaming platform, and thus influences users' purchase decision-making process.



In terms of e-commerce and online shopping, Cai and Wohn (2019) briefly discussed in their study the two types of live streaming commerce. Live streaming commerce, sometimes known as live streaming shopping, is a relatively new concept. Live streaming commerce is a subtype of e-commerce that includes real-time social interaction, which is a characteristic that is unique to live streams. Live streaming commerce can be divided into two categories. The first is when live broadcasting capabilities are added to e-commerce or shopping websites or applications. Some startups have entered the market and focused on specific market segments, such as Livby, which introduced the first mobile live streaming shopping app in the United States in 201. Popshop Live, which allows creative individuals to develop their own shopping channels, grow their personal brands, and sell things globally, and Shopshops, which connects American brands with Chinese consumers via live streams, are two other examples.

In the study conducted by Dig, et al. (2017), they mentioned that despite the significant growth and the optimistic future growth of online shopping, negative aspects are also becoming more frequently associated with this alternative shopping method. Consumers perceive a higher level of risk when purchasing on the Internet compared with traditional retail formats (Lee & Tan, 2020). In line with this, they have also mentioned the possibility of financial loss is concerned with the costs of returning the product or the possibility of any additional hidden costs, such as shipping and handling. Consumers are



concerned that delivery will be delayed owing to a variety of factors, including the delivery company's failure to deliver within the agreed-upon time schedule, the goods being damaged while being handled and transported, or a lack of suitable packaging and handling during transportation (Claudia, 2020). Consumers also believe that purchasing a product may cause their family or friends to disapprove. (Li & Zhang, 2019)

In our country, the Philippines, in line with the study of Cruz, et al. (2022) elaborated in their study that many firms are migrating to internet sales as a result of the COVID-19 pandemic. The report also cited the Department of Trade and Industry's (DTI) encouragement and aim to help small enterprises sell social media platforms through e-commerce. Conventional businesses are still active and well-known around the world, but internet selling is quickly gaining traction, compelling traditional firms to go online. The DTI's encouragement of small businesses selling products on these platforms, as well as its aim to assist them in doing so, are meant to help online vendors survive the pandemic. (Lorenciana, 2021)

Despite the encouragement made by the Department of Trade and Industries (DTI) on small businesses, the BIR requires registration for "all persons doing business and earning income in any manner or form, specifically those who are into digital transactions through the use of any electronic platforms and media, and other digital means." that is according to the Revenue Memorandum Circular No. 60-2020. However, days after issuing the order, the



government was forced to clarify that not all internet vendors needed to register. Individuals selling products "intermittently or infrequently" and those who sell handcrafted goods for a pastime are exempt from the DTI and BIR registration requirements. Such internet vendors are not yet considered to be in operation, thus they are not required to register, according to the DTI. Therefore, even if the business is small and it routinely generates money online, it must be registered.

Moreover, Cruz, et al. (2022) mentioned that Filipinos have been compelled to rely on e-commerce activities like online purchases and selling to meet their basic needs. As the article demonstrates, internet sellers discover that the money they earn through online selling enables them to meet their everyday necessities. It is easier to address the expectations of consumers because online purchasing is easy to use and provides a convenient means to exchange goods and services. (Barriero, 2020)

However, according to the study of Aganan and Santos (2019), Regardless of the benefits that this type of business provides, long-term viability is more difficult and uncertain. A capitalist must keep in mind that if a typical business setting is not handled efficiently and appropriately, it might still decline and fail to generate profit. This isn't to say that starting an online business is a guaranteed thing. Due to the rapid advancement of technology, which affects all of the internet's opportunities, users, and beneficiaries, online entrepreneurs continue to take risks and are still in the trial and error stage, especially on this type of



platform.

With our society currently in the new normal situation, many people of the Philippines preferred to shop online rather than going to physical stores. A quotation from the article in agencylocal.ph written by Chua (2021) states that "Online shopping and marketing platforms has played a bigger role in the new normal as businesses and consumers increase the use of electronic transactions, including cashless payment systems and other financial technology platforms. Businesses need to innovate and make full use of technology to resume operations and cater to consumer needs and preferences while still managing the risks of COVID-19 infection. Online transactions have now become the new standard for engaging with clients, buyers, and suppliers. Therefore, both public and private sectors need to invest in digital technology."

The researchers used the system architecture to systematically present the workflow of their system. Figure 1 (see page 7) shows the System Architecture of the study. This illustrates that the "Agora API" have been integrated into the system. It states in the figure that the system's workflow is represented into four processes namely; setting the client role(seller/shopper), authentication of the user, joining a channel, and publishing and subscribing. There are two types of clients which are the host (seller) and the audience (shopper). Both the application client are handled by the application server. Moreover, it is also supervised by the admin using the database and the application server.



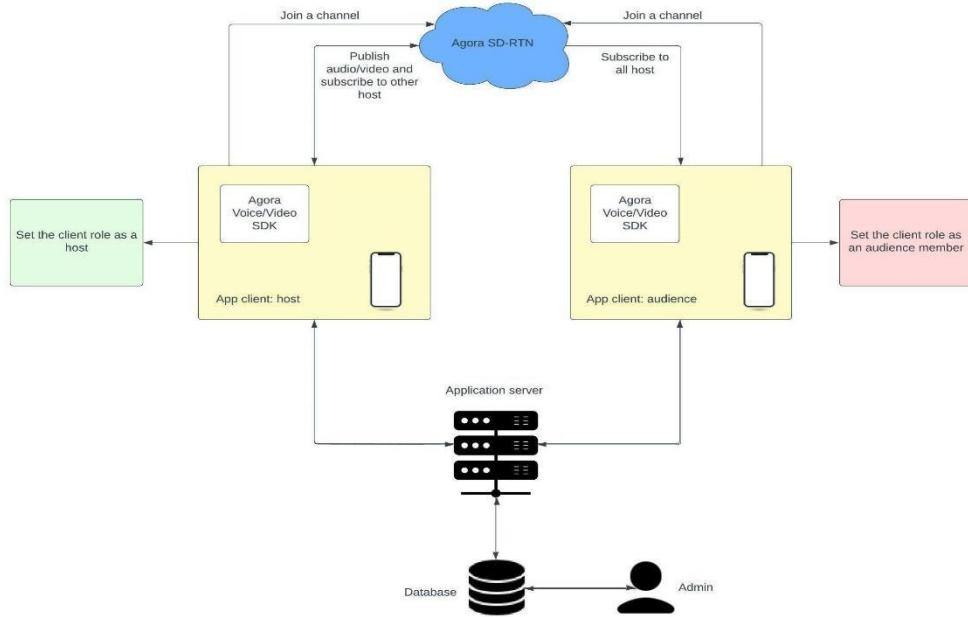


Figure 1. System Architecture of Pa-Mine

This system was divided into three parts, which are the host(seller), the audience(shopper), and the administrator. In the first process, each user is either a host or a member of the audience. The audience subscribes to the broadcasts that the hosts publish to the channel. In the second process, when the app client(seller/shopper) enters a channel, a token is used to authenticate the user. The application's client then obtained tokens from a server in the security infrastructure to test the user's authenticity. In the third process, clients(seller/shopper) who use the same channel name in their app join the same channel. And lastly, application's clients(sellers) who have the position of host can publish audio and video after joining a channel. Lastly, the administrator part of the system is the part where the database of the application is managed, thus, all the information of both the host(sellers) and audiences(shoppers) have

been managed and monitored.

Statement of the Objectives

The general objective of the study was to develop a mobile-based application that uses a real-time live streaming feature that would allow online sellers to market their products through live streaming.

The researchers used the system architecture to systematically present the workflow of their system following statements were the specific objectives of the study:

1. Provided a live streaming application that abide by the existing policies and procedures of live selling.
2. Automated the process from the seller's and shopper's perspective by providing the following features:
 - a) *Mine* button, which is utilized by the shopper to reserve the items they want to purchase during the live selling.
 - b) Automatic listing of names together with the name of the *mined* (items that were reserved during the live selling) products of the shoppers to the seller's account.
3. Provided a transaction system of the application that would cater all the transactions inside the application.
4. Determined the performance and usability of Pa-Mine using the System Usability Scale (SUS).

Purpose and Description



The development of this project benefited online live sellers, online shoppers, local shop owners, researchers, and future researchers through the process of building a mobile live streaming application.

Online live sellers. This project benefits the live sellers because it helps them start and expand their business online as live selling would drastically increase a seller's reach, which results in increased sales opportunities. It also helps them save a lot of time and money, which will increase their revenues.

Online shoppers. This project benefits online shoppers to shop in live selling because there was no need for transportation, no crowded places, or sales pressure. They can also easily choose their items online as they can visualize each item through their gadgets, and they had more control over their purchases and had the benefit of shopping in private.

Local Shops Owners. This project benefits the local shop owners as they have the opportunity to showcase their products locally and virtually.

Researchers. This project benefits the researchers as they would experience how to build a live streaming application. It would also be an opportunity for them as they are able to develop their skills in using different software in developing their project.

Future Researchers. Future researchers benefit from this study as they are able to use this project as their reference for building the same concept as their project.

Scope and Limitations



This study aims to develop a mobile live streaming application for online sellers and online shoppers that provide automatic features such as the mine, steal, and grab button feature that eases the shoppers to choose and buy the items that they want on the seller's live stream. On the other hand, the seller also provided a feature wherein the names of the shopper who mined their products has automatically listed on a table together with the name of their mined products. Moreover, the application also provided a transaction feature that catered to all the transactions inside the application.

The project has a limitation wherein only live sellers who want to showcase their products online via live streaming have been allowed to use the live streaming feature of the application. This restriction allowed the application to become organized since it was only exclusive to live sellers. Moreover, the application had not catered/monitored the delivery of every item after the transaction. In addition, the application requires internet connectivity for its users. If the internet connectivity of the users is slow then the application cannot give an accurate response, especially on mining the products. Furthermore, the application was initially available on Android devices that run on android version 6.0 operating system to the latest and the application only work with an internet connection.

Technical Background

In developing this project, the researchers needed the following tools in order to build the application.



Agora Live Streaming API and SDK. Using Agora API and SDK, the researchers quickly implemented real-time communication functionality in developing the live streaming feature of the application using the Flutter framework.

Android Studio. The android studio provides an Android Virtual Device (AVD) which has been helpful for the researchers as it provides an alternative to a real mobile device to test and design the interface of their project.

Firebase Realtime Database. Firebase provides a database used by researchers to store and retrieve the inputted information of the users.

Dart. Dart was the programming language that was used by the researchers in creating the backend of their application. It serves as a bridge to connect the data of the users into the database of their project. Moreover, it serves as their tool to create more effective functionalities of their project.

Flutter. Flutter was the framework that was used by the researchers, this framework was the tool to build the project's user interface and other functionalities.

Visual Studio Code. Visual Studio Code is the IDE that the researchers used to build their application.



CHAPTER II

DESIGN AND METHODOLOGY

This chapter discusses the Design and Methodology that the researchers used in developing the application. The scope and objectives were discussed in relation to the methods that the researchers used in the project.

Population and Locale

The study was conducted in the province of La Union. There was a total of forty respondents (see table 1 on page 13) which comprised of: ten (10) live sellers, ten (10) online shoppers, ten (10) local shop owners, and ten (10) IT experts. The first group was the live sellers, online shoppers, and local shop owners which were the users of the application. While the second group was the IT experts who were the evaluators of the application based on the objectives of the study. Their qualifications should have the following: a). experience in building mobile applications b). knowledge and experience in testing mobile applications c). experience in designing mobile applications (see table 2 on page 13).

On the other hand, convenience sampling was the sampling technique that was used for the second group of respondents. The sampling technique



provides convenience in choosing the respondents of the study. The sampling technique that was used in the first group of respondents was the Random Sampling Technique. The sampling technique will randomly select a subset of participants from a population.

Table 1. Distribution of Respondents and Evaluators

Respondents/Evaluators	No. Of Respondents
Live Sellers	10
Online Shoppers	10
Local Shop Owners	10
IT Experts	10
TOTAL	40

Table 2. Qualifications of IT Experts

IT Experts	Position	Qualification
IT Expert 1	IT Analyst	MIT
IT Expert 2	Web Developer	BSIT
IT Expert 3	Database Administrator	DIT
IT Expert 4	Web Developer	BSIT
IT Expert 5	Software Engineer	MIT
IT Expert 6	Application Developer	DIT
IT Expert 7	IT Instructor	BSIT



IT Expert 8	Software Engineer	MIT
IT Expert 9	IT Instructor	MIT
IT Expert 10	Database Administrator	DIT

By identifying all the respondents and evaluators that were involved in the study, the researchers considered the ethical considerations throughout the development of the study. In compliance with the ethical considerations in research, the researchers addressed and informed all the respondents about the purpose, benefits, risks, and funding of the study before accepting or declining the request to be part of the study. The researchers also addressed the voluntary participation of their respondents by giving them the freedom to choose whether they want to participate in the study or not. Furthermore, the researchers were also obliged to accept all the conditions that the respondents set about their identities, thus, giving assurance that all the information gathered by the researchers was subject to confidentiality and solely be used for research purposes only. Moreover, the researchers considered all possible sources of harm to the participants that may affect their physical, social, and psychological well-being by providing a safe environment to conduct an interview and by providing a well-reviewed set of questionnaires. Lastly, the researchers considered the transparency of the data that was collected from the respondents and transparent about the results as possible.

Data Gathering Tools and Procedures

For objective 1, which is to provide a live streaming application that abides



by the existing policies and procedures of live selling, the researchers gathered data through online searching, brainstorming, and benchmarking other mobile applications and platforms that support live selling. The obtained information was utilized to improve the system.

For objective 2, which is to automate the process from the seller's and shopper's perspective by providing the following features of a.) mine button and b.) automatic listing of names together with the name of the mined products of the shoppers to the seller's account, the researchers used an interview guide for the online live sellers. The interview (see appendix B) also includes a discussion of the information regarding the said objective of the study which was conducted face to face. Moreover, the researchers also benchmarked related mobile applications, websites, and other platforms that were related to the objective of the study. The information obtained was used to improve the system.

For objective 3, which is to provide a transaction system of the application that caters all the transactions within the application. The researchers gathered data about the existing transaction process in online selling by conducting an interview with the respondents (see appendix E). The acquired information was utilized to improve the system.

For objective 4, which is to determine the performance and usability of Pa-Mine using the SUS (see appendix F). The researchers conducted a survey using the SUS to the IT experts and the selected users of the application (sellers and shoppers) for them to evaluate the performance and usability of the



application.

Software Methodology

The researchers used the Agile Methodology as its methodology to develop the application. This methodology guides the researchers throughout the application's development and ensures higher client satisfaction upon the completion of the project. Agile methodology was known for its fast-paced development nature; hence, the given methodology was well-fitted for the study.



Figure 2. Agile Software Methodology

Figure 2 (see page 16) illustrates the methodology that the researchers used to develop the project. The Agile methodology was composed of six (6) developmental phases; requirements phase, design phase, development phase, testing phase, deployment phase, and review phase. However, if one part of the project has failed, the methodology allows the researchers to go back to a certain phase of development in order to fix the problem.

Requirements

In the requirements phase of the study, the researchers needed to gather data from the respondents; sellers, shoppers, and local shop owners in order to



determine the problem and come up with a solution. Moreover, the researchers prepared all the necessary requirements by discussing what were the features of the project based on the data gathered. Meanwhile, the researchers had to estimate the time needed to complete each phase of the project thus, doing this detailed analysis helped the researchers determine if the project was feasible or not.

Design

In the project's design phase, the researchers created a mock-up of the user interface and built the system architecture to illustrate the project's workflow. Moreover, the researchers also created all the figures by creating a flowchart based on the features created from the data gathered in the first phase. By this, the researchers determined the functionality of the features and to better understand what the outcome of the project would be.

Development

In the development phase of the project, the researchers started to develop the real application based on the mock-up created during the design phase combining it with the features that were to be formulated during the first phase of the project. The goal of this phase was to build the functionality of the application which was divided into parts allowing the researchers to build the application as quickly as possible.

Testing

In the testing phase of the project, the researchers first tested the



application before deploying. This is the part where researchers needed to seek help from the IT experts and selected users of the application to test the performance and usability of the application by evaluating it using the System Usability Scale (SUS).

SUS was created specifically so designers and evaluators could have a quick and reliable way to gauge the subjective usability of a system or product. The SUS data and scores can be analyzed to potentially provide numerous measures of perceived usability (Peres, Pham, and Philipps, 2019).

The System Usability Scale (SUS) is a simple, widely used 10-statement survey developed by John Brooke while at Digital Equipment Corporation in the 1980s as a quick-and-dirty subjective measure of system usability. The tool asks users to rate their level of agreement or disagreement with the ten statements—half worded positively, half negatively—about the software under review. For reporting results, it used a scoring template that turns the raw individual survey ratings across multiple users of a specific software product into a single SUS score based on Brooke's standard scoring method (manipulating statement ratings to get them a common 0-4 rating, then multiplying the sum by 2.5 to get a score that can range from 0-100) (McLellan, Muddimer and Peres, 2019).



System Usability Scale

Instructions: For each of the following statements, mark one box that best describes your reactions to the website *today*.

	Strongly Disagree	□	□	□	□	□	Strongly Agree
1. I think that I would like to use this website frequently.	<input type="checkbox"/>						
2. I found this website unnecessarily complex.	<input type="checkbox"/>						
3. I thought this website was easy to use.	<input type="checkbox"/>						
4. I think that I would need assistance to be able to use this website.	<input type="checkbox"/>						
5. I found the various functions in this website were well integrated.	<input type="checkbox"/>						
6. I thought there was too much inconsistency in this website.	<input type="checkbox"/>						
7. I would imagine that most people would learn to use this website very quickly.	<input type="checkbox"/>						
8. I found this website very cumbersome/awkward to use.	<input type="checkbox"/>						
9. I felt very confident using this website.	<input type="checkbox"/>						
10. I needed to learn a lot of things before I could get going with this website.	<input type="checkbox"/>						

Figure 3. System Usability Scale Questionnaire

The SUS is composed of 10 statements, as shown in Figure 3. Users were asked to rate their agreement using a 5-point Likert scale.

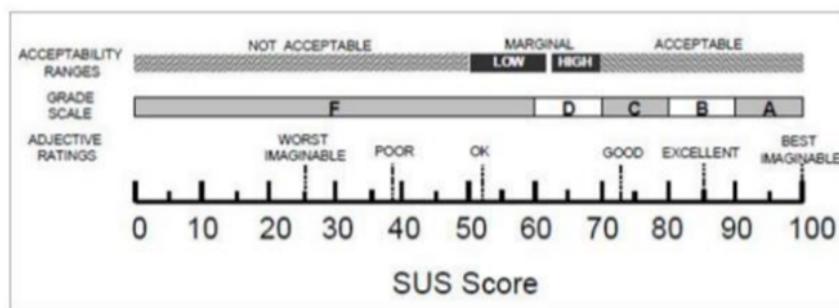


Figure 4. Grade ranking for SUS Scores

The responses of the evaluator was analyzed and interpreted using a grade ranking of SUS as presented in Figure 4 (see page 19) by Brooke (2018) and Bangor et al. (2019). Based on the grade ranking, seven ratings can be interpreted, namely: "Best Imaginable," "Excellent," "Good," "OK," "Poor," "Awful," and "Worst Imaginable." The overall SUS score was also acquired and interpreted



using the same basis. The goal is to get at least a 70 SUS score.

Deployment

In the deployment phase of the project, the researchers introduced the application to its users by uploading the application to GitHub which was named Pa-Mine Apk. The researchers explained the full functionality of the application and its features by providing a set of instructions or video demonstrations on how the application works.

Review

Lastly, in the review phase of the project, the researchers started to gather feedback from the users of the application if there are some features that needed to be improved or bugs and glitches that affect the performance of the application. Moreover, the feedback gathered from the users helped the researchers to address the problem and to give them an idea to better improve the application.



CHAPTER III

RESULTS AND DISCUSSIONS

This chapter presents the findings from the implementation of the system. The System Usability Scale (SUS) metric was used to measure the statements that they agree or disagree with.

Provided a live streaming application that would abide by the existing policies and procedures of live selling.

The live streaming application provided was developed by complying with the existing policies and procedures of live selling. The researchers determined the proper and necessary information to be included in the system through online searching, brainstorming, and benchmarking other mobile applications. The researchers used the Flutter framework and Dart programming language to develop the interface and functionalities of the application. For the backend, the researchers used Firebase for their database. Lastly, the researchers used the AGORA live streaming API and SDK to integrate the live streaming feature of the application.

Figure 5 (see page 22) shows the live stream module on the live seller's part. In this module, it shows the number of online shoppers watching, the product that was pinned by the seller, and the comments of the online shoppers. It also consists of different buttons to unmute or mute the seller's audio, flip the camera, and add a product to be pinned. In addition, an input box is provided for the seller



to comment as well as a shopping bag icon which is a list of online shoppers that have mined the product. The seller can end the live stream by tapping the leave icon at the top right of the screen.

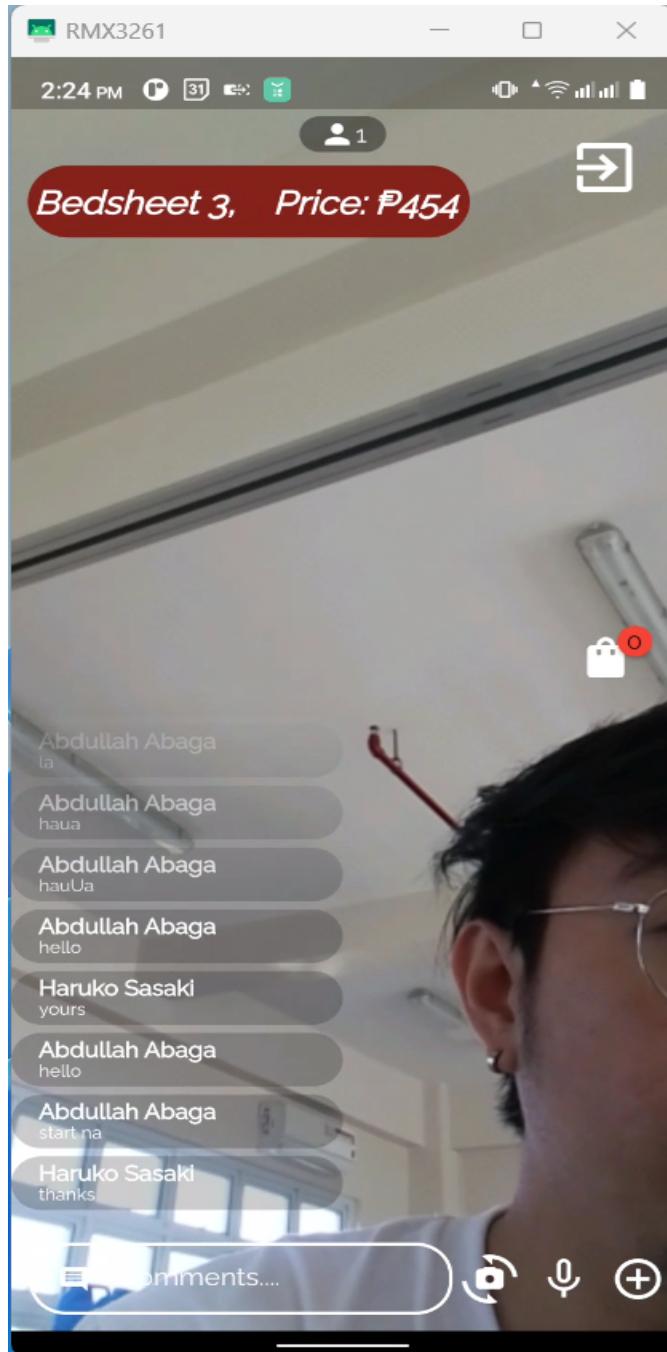


Figure 5. Seller's Live Stream Module

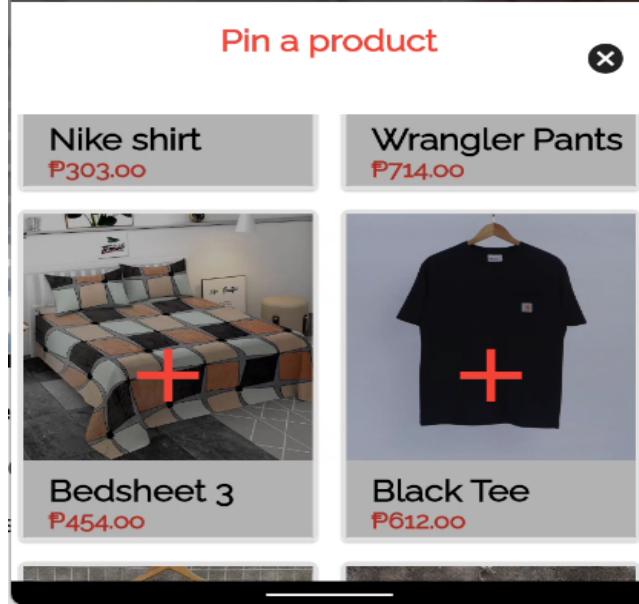
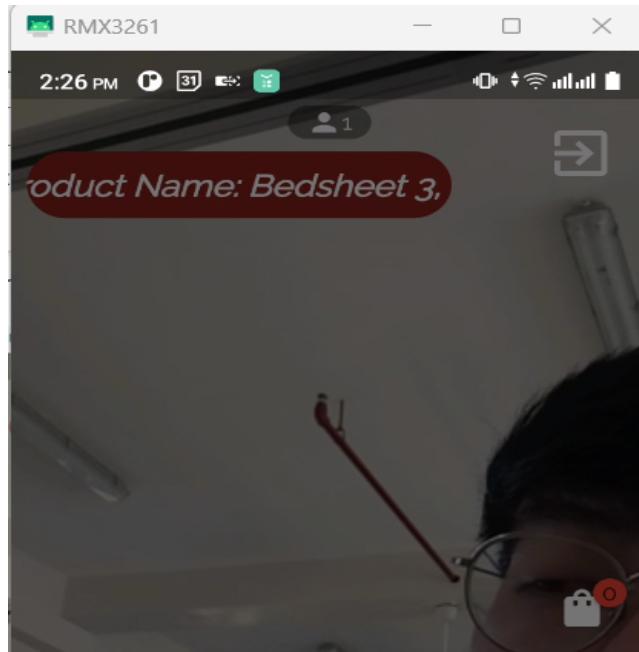


Figure 6. Pinning of Seller's Item Modal

As shown in Figure 6, the pinning of the seller's item modal is where sellers can choose an item to pin on their live selling. By clicking the add symbol on the item, it had been successfully shown and pinned on the live stream. However, if a seller wish to cancel the pinning of a product then the seller can



tap the upper right close icon of the modal.



Figure 7. Online Shopper's Live Stream Module

Figure 7 shows the online shopper's live stream module. This module consists of an input box for comments, mine button, a bag icon for the cart, and the pinned item of the seller. If the online shopper is the first one to mine the



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pinned item, then the online shopper can tap the button to do so.

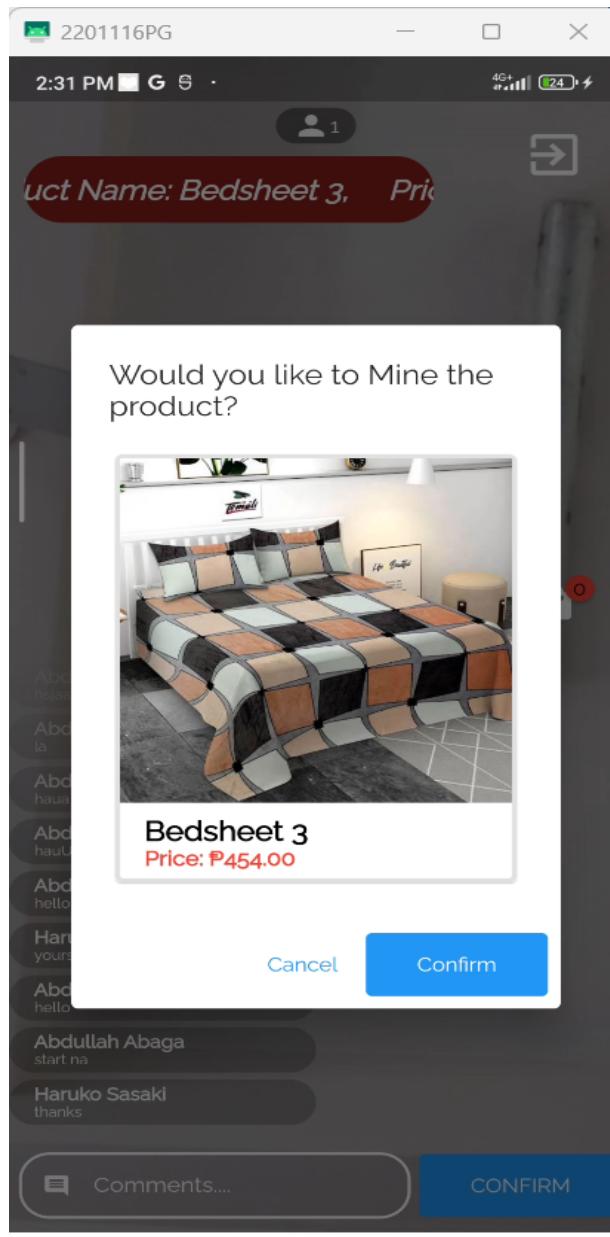


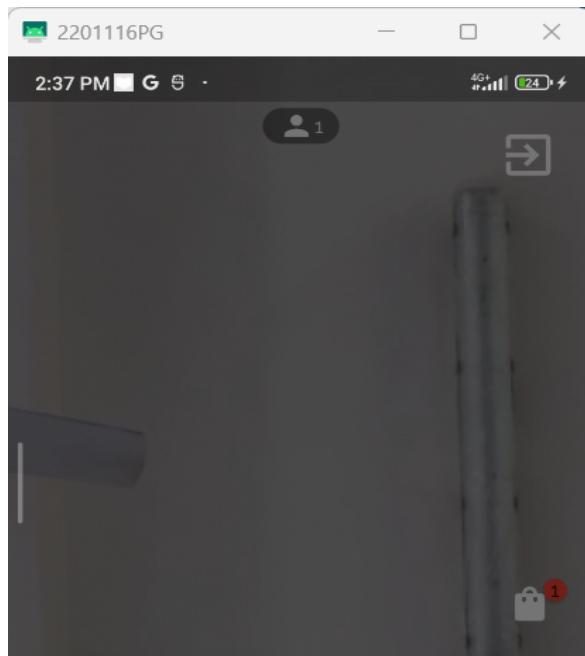
Figure 8. Mine Confirmation Modal

As shown in Figure 8, the confirmation modal is where the online shopper chooses whether wants to confirm the mined item or not. If the online shopper confirms, the item has been added to the cart. However, if it was canceled, then the item go back on pinned in the live stream again until someone from the



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online shoppers mined it.



Mined Items



Figure 9. Mined Items Modal

Figure 9 shows the mined items modal, this is where the mined items of the online shopper go. It consists of the product's name and price.

As shown in Figure 10 (see page 27), it is the live stream with a disabled mine button module. If another online shopper has already confirmed the mined



item, then the item cannot be mined with another buyer. In this case, the mine button has been disabled. This prevented multiple online shoppers from mining a single item and only the first online shopper to mine and confirm the pinned item can get it.

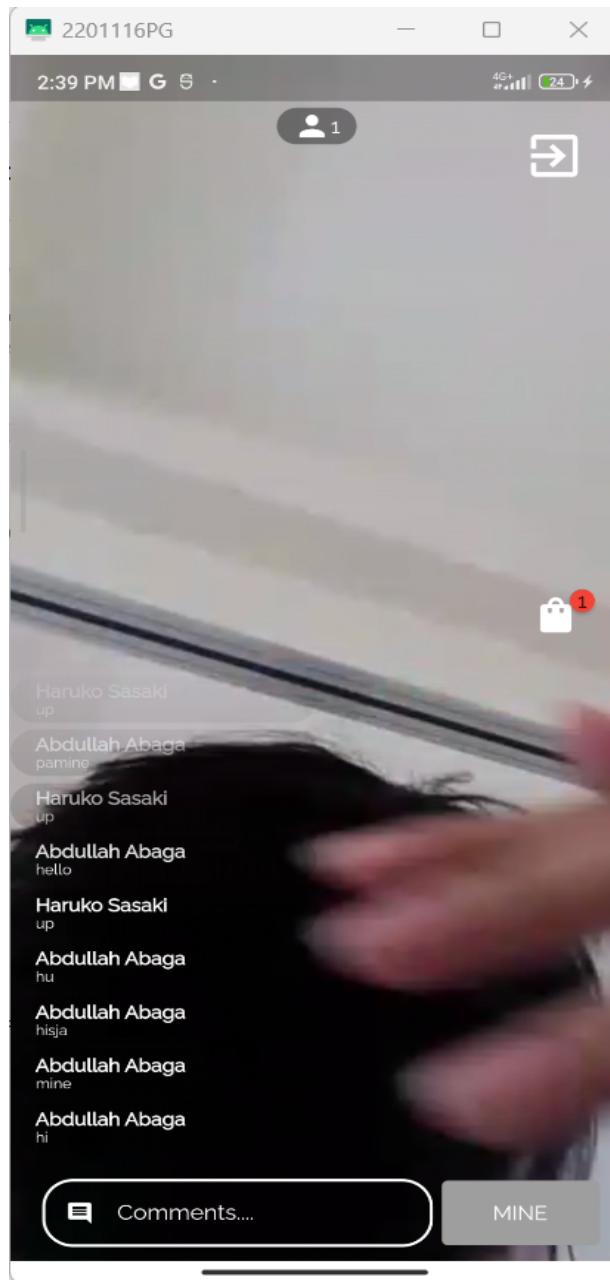


Figure 10. Disabled Mine Button Module



Automated the process from the seller's and shopper's perspective by providing the mine button and automatic listing of names together with the name of the mined products of the shoppers to the seller's account.

Figure 11 shows the live stream with the mine button module. This module lets the online shopper mine the item just by tapping a button. Unlike other platforms or applications where online shoppers still need to comment a code or word in the comment section or message the live seller to mine the item.



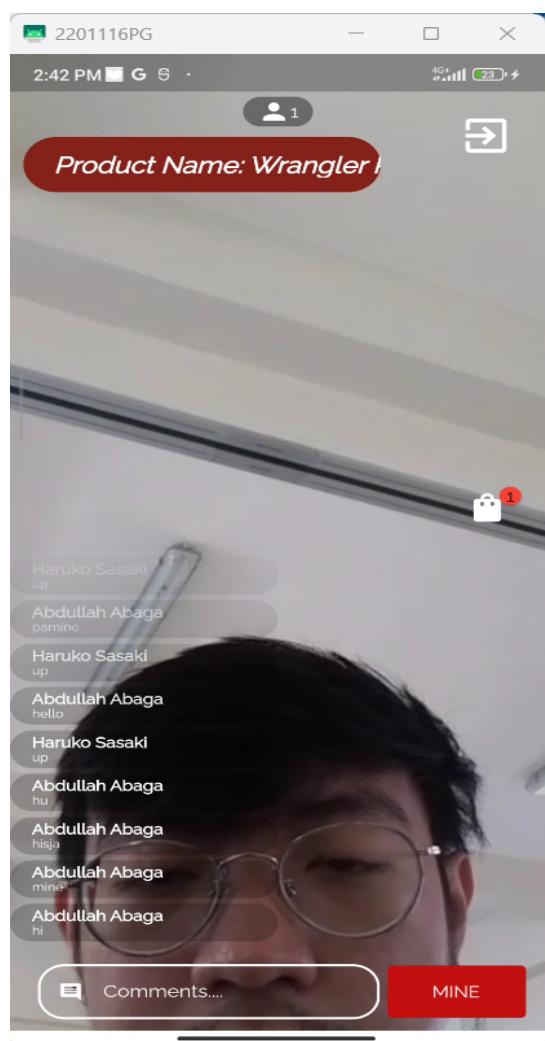


Figure 11. Mine Button Module

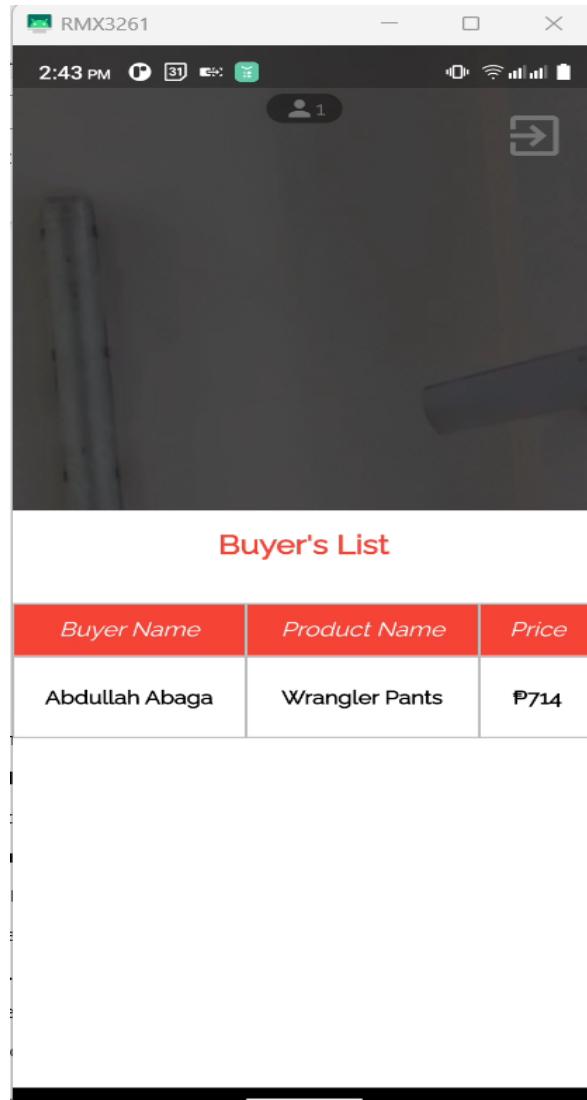


Figure 12. Automatic Listing of Names Modal

As shown in Figure 12, it is the automatic listing of names modal. This modal lets the sellers see the summarized details of the online shoppers that have mined the items during the live stream. It is in a tabular form and consists of the buyer's name, the product's name, and its price.

Provided a transaction system of the application that would cater all the transactions inside the application.



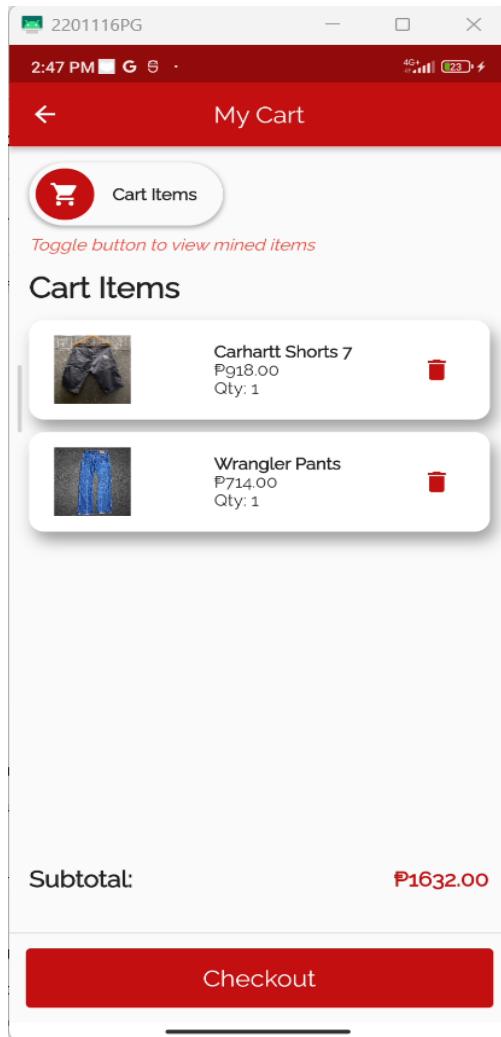


Figure 13. Cart Items Module

Figure 13 shows the online shopper's cart items. This is the cart where the items from the seller's page go. It means that the items here were not mined during the live stream, rather, it was only added through browsing on the seller's page. It shows the cart items which are the products' names, prices, quantity, and subtotal. Moreover, the shopper can remove the item by tapping the trash icon on the right side of the product tile. Lastly, the checkout button to proceed with the transaction.



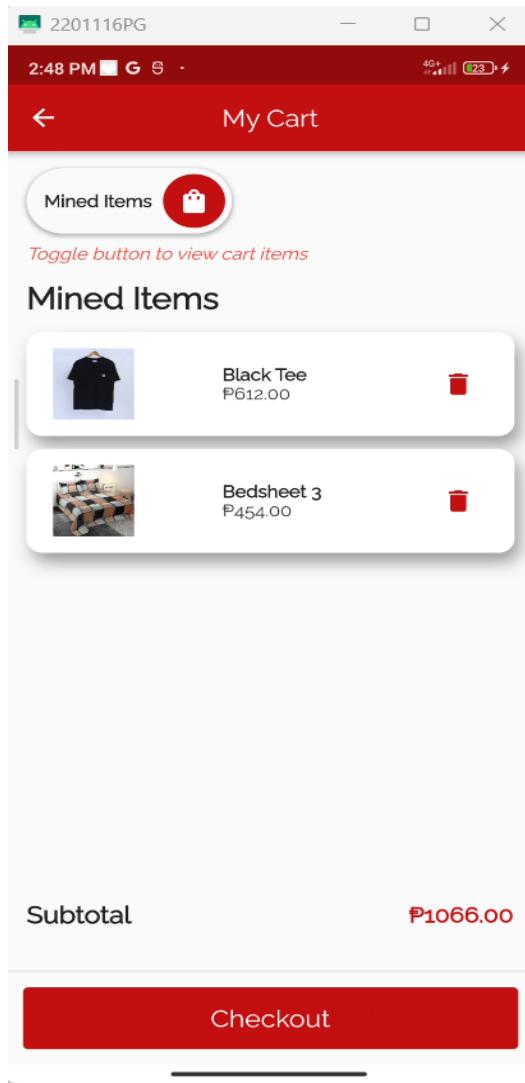


Figure 14. Mined Items Cart Module

As shown in Figure 14, there is another kind of cart which is the online shopper's mined items cart. This cart is where the mined items from the live selling go. It shows the cart items which are the products' names, prices, quantity, and subtotal. Moreover, the shopper can remove the item by tapping the trash icon on the right side of the product tile. Lastly, the checkout button to proceed with the transaction.



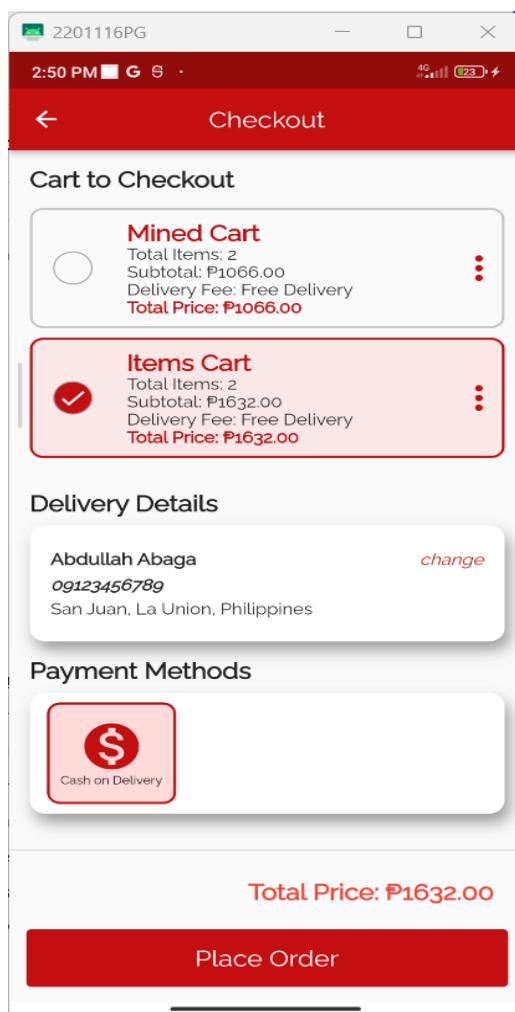


Figure 15. Checkout Details Module

Figure 15 shows the Checkout Details Module. This module is where online shoppers check the details of the transaction before placing the order. The shopper can choose on what cart to check out, if it is the mined cart only, the items cart only, or both the mined and items cart. Delivery details can also be reviewed or changed by the shopper as well as the payment method which is either cash on delivery or debit card. The total price of the cart to order appear below and when the shopper is ready to place the order, the place order button below should be tapped.



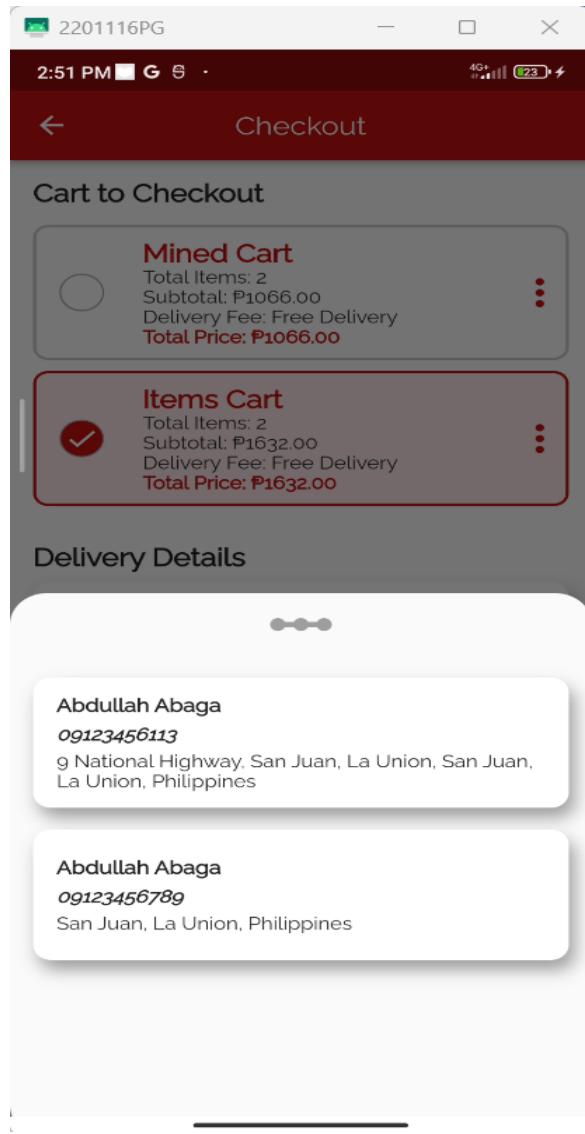


Figure 16. Change Address Modal

As shown in Figure 16, this is the change address modal. This modal lets the shopper change their delivery details or add another delivery address. These details can be added through the adding of an address at the profile screen. As displayed, the details included are the name of the shopper, phone number at address.



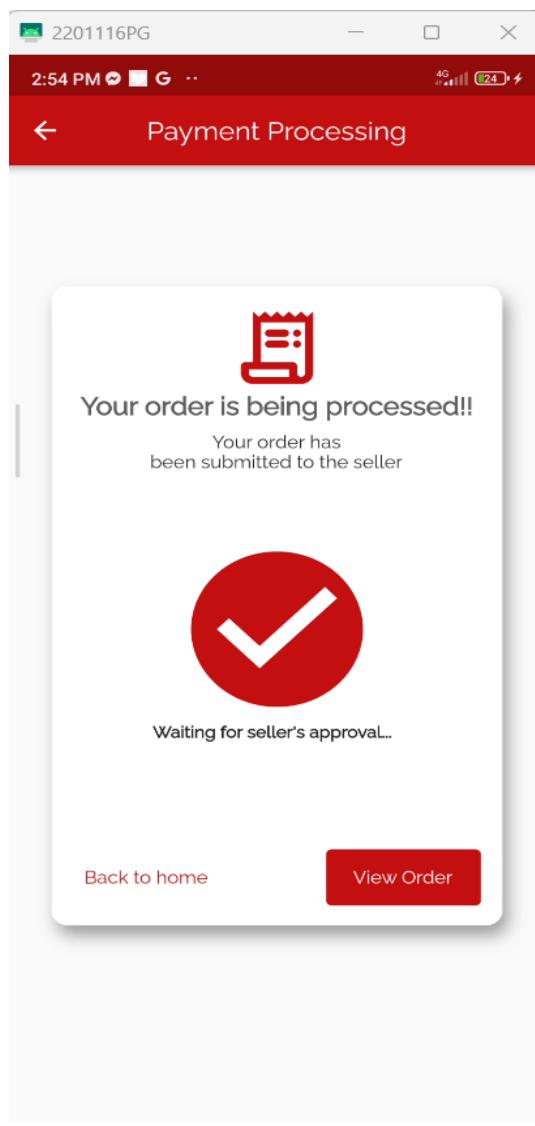


Figure 17. Payment Processing Module

Figure 17 shows the payment processing module. This module appears once an order has been checked out. It shows that the orders is being processed as well as submitter to the seller of the checked out item. The shopper has two options, to go back to the app home or to preview the order through the buttons below.



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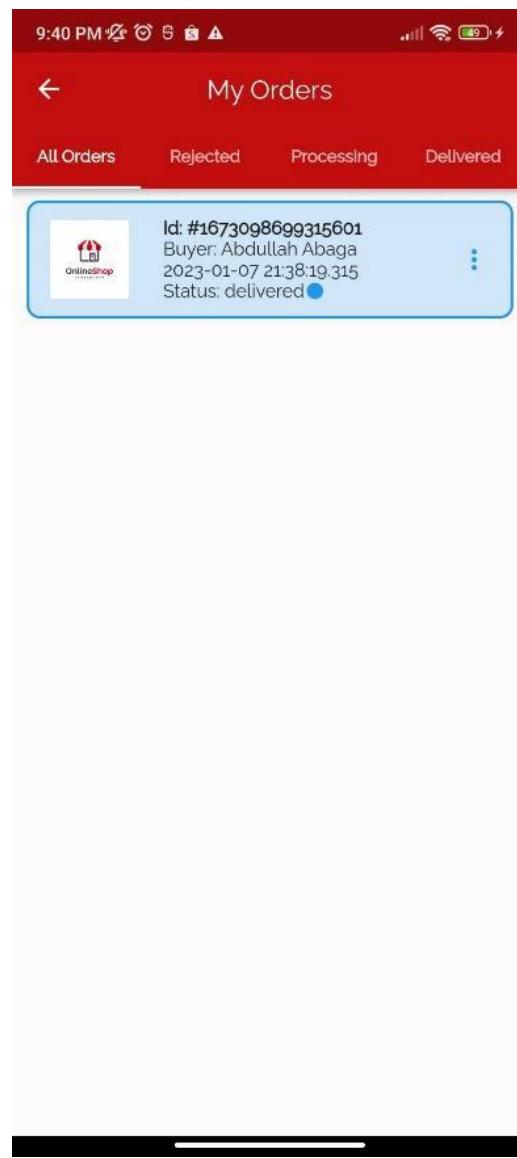


Figure 18. All Orders Module

As shown in Figure 18, this module is where all orders are listed. All the orders has been listed on a tile with a blue background color. The order tile contains the transaction's ID number, buyer's name, date and time ordered, and status.



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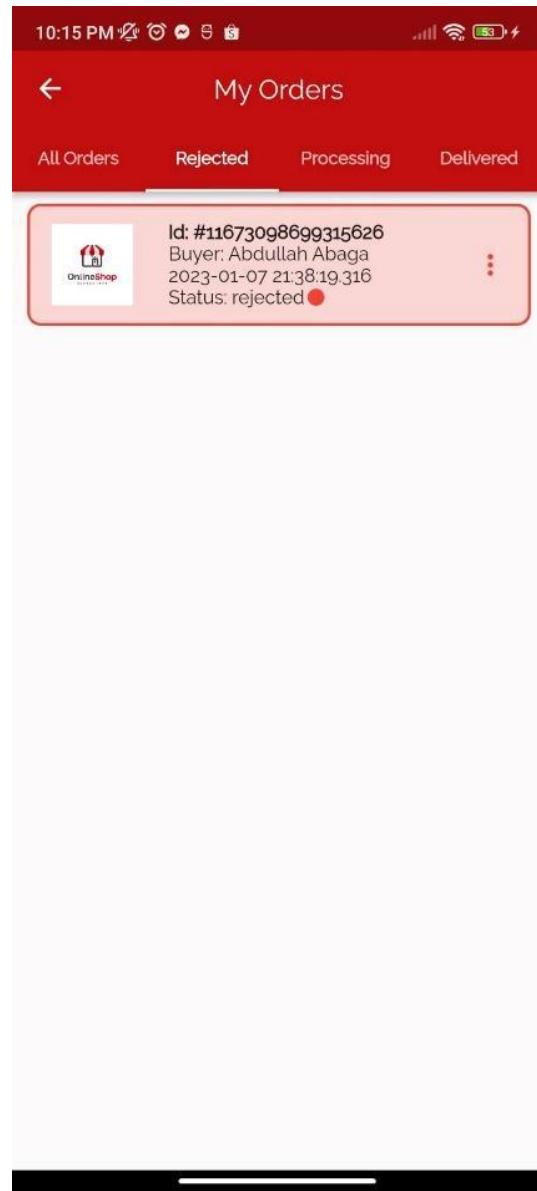


Figure 19. Rejected Orders Module

Figure 19 shows the rejected orders module. This module is where all the rejected orders are listed. Basically, the order tiles in this module are red colored. The rejected order tile contains the transaction's ID number, buyer's name, date and time ordered as well as the status which is rejected.



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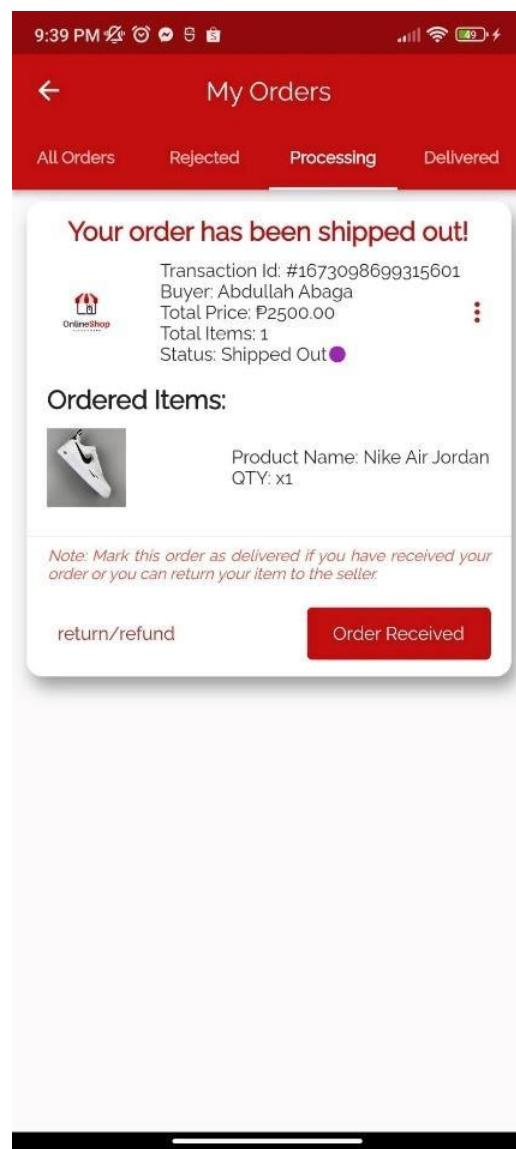


Figure 20. Processing Orders Module

As shown in Figure 20, the processing orders module is where the processing orders are listed. It includes the transaction's ID number, buyer, total price, total items, and the status which is shipped out. The shopper has the option to tap the order received button if the order was already received. On the other hand, if there is a problem with the order or transaction, the shopper can choose the return/refund option.



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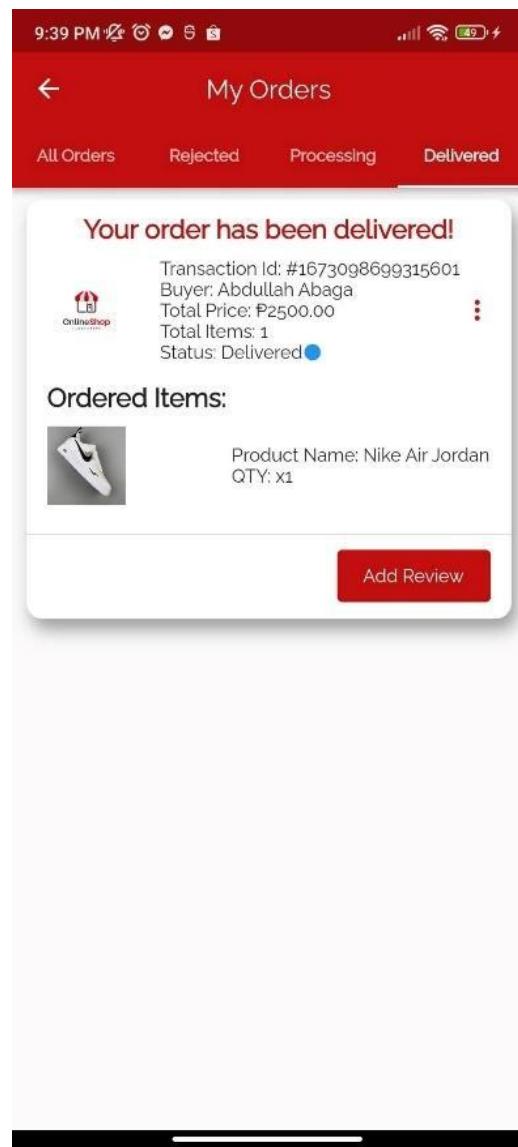


Figure 21. Delivered Orders Module

Figure 21 shows the delivered orders module where the orders that have been successfully delivered are listed. The order tile includes the transaction's ID number, buyer's name, total price, total items, and the status which is delivered. It also displays the image of the ordered items as well as its quantity. The shopper has the option to add a review regarding the product that was bought.



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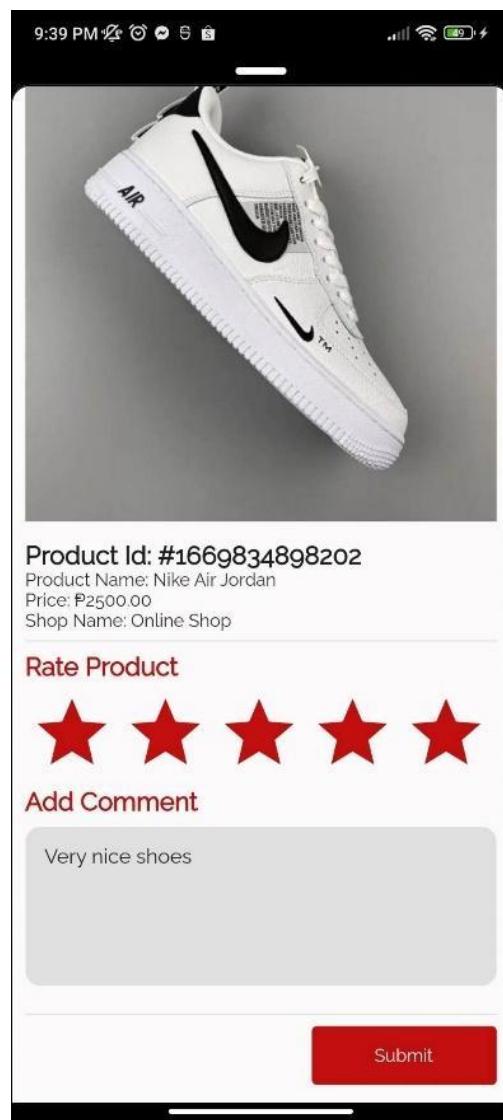


Figure 22. Add Review Module

As shown in Figure 22, the shopper can add a review to a product using the add review module. This module displays the purchased item's product ID, name, price, and the seller of the item. After purchasing a product, the shopper can add a review of the item by rating the products through a star classification and putting comments on the input box provided. After that, tapping the submit button below would successfully post the review about the product.



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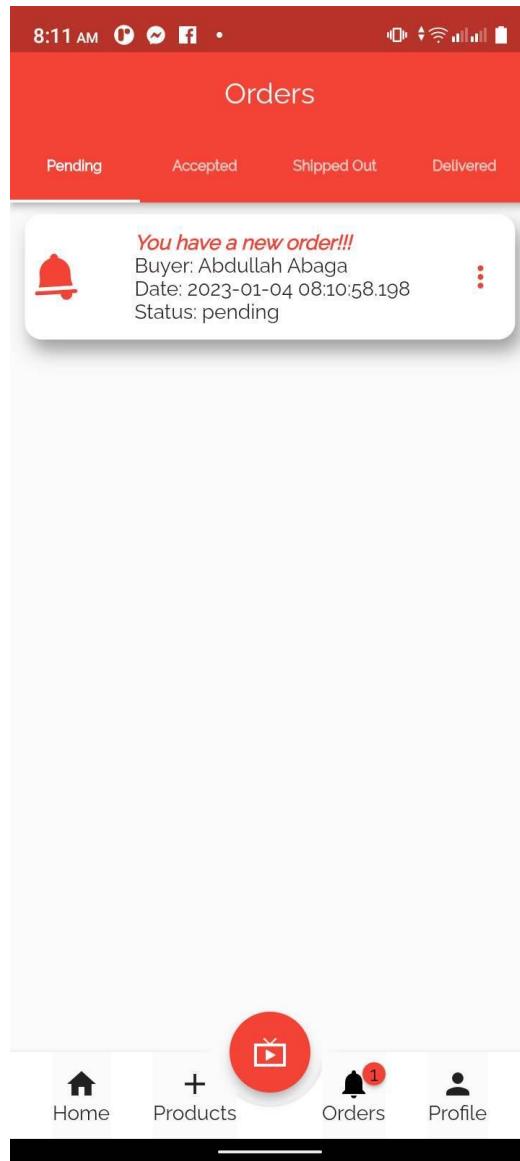


Figure 23. Pending Orders Module

Figure 23 shows the pending order module. The tile has an alert icon on the right side notifying that the seller has a new order. After an online shopper placed an order, it notifies the seller that a new order has been placed. It includes the name of the buyer, the date and time ordered, and the status of the order which is still pending.



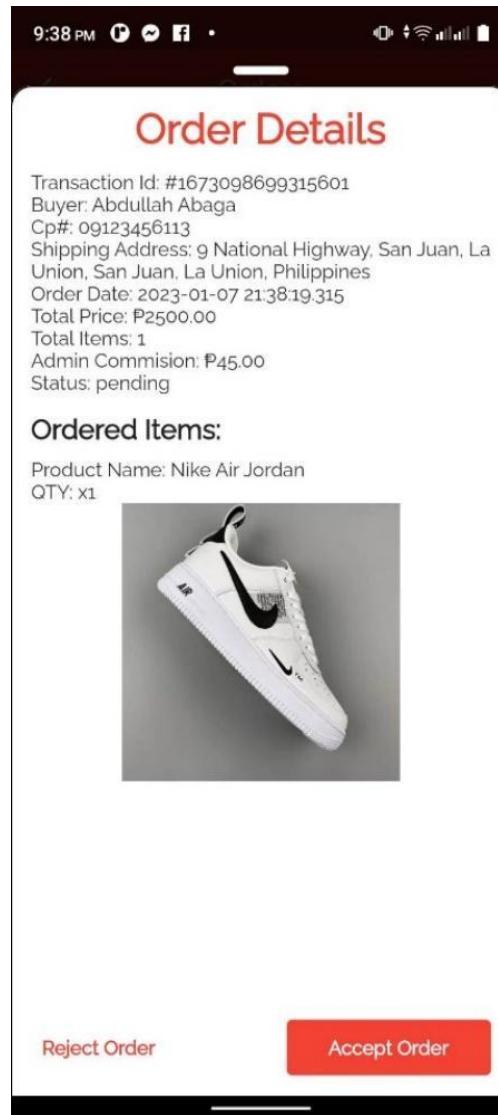


Figure 24. Order Acceptance Module

As shown in Figure 24, the seller can accept or reject an order through the order acceptance module. The modal displays the order's transaction ID, buyer's name, buyer's contact number, shipping information, date ordered, total price, total items, administrator commission, the status of the order, name of the ordered item, its image, and quantity. The seller has the option to accept or reject the order by tapping the buttons on the bottom part of the module.



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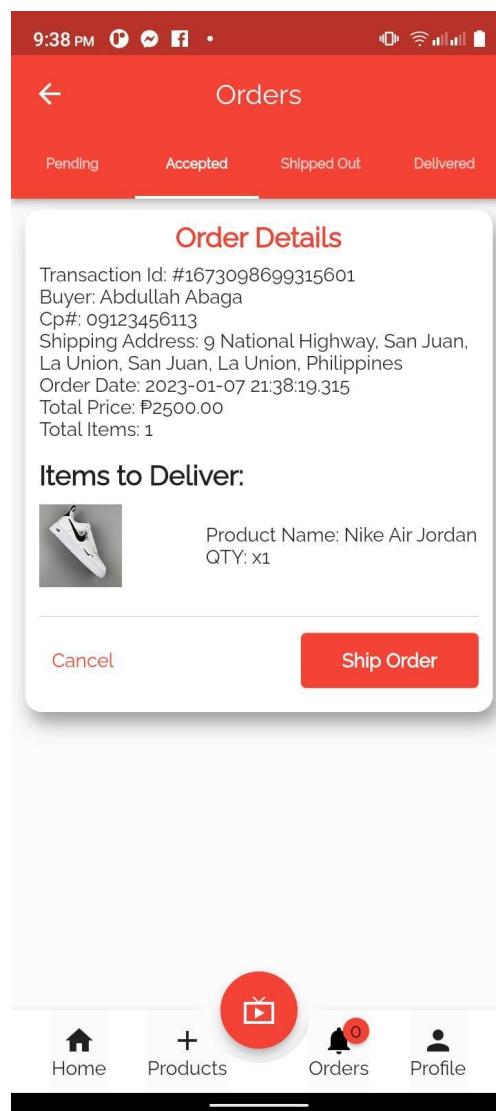


Figure 25. Accepted Orders Module

Figure 25 shows where the orders that have been accepted by the seller go to. The module displays the order's transaction ID, buyer's name, buyer's contact number, shipping information, date ordered, total price, total items, the status of the order, name of the ordered item, image, and quantity. The seller can tap the ship order button at the bottom right part of the tile if the order is ready to be shipped. However, if the seller wants to cancel the order, the cancel



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button at the bottom left part of the tile should be tapped.

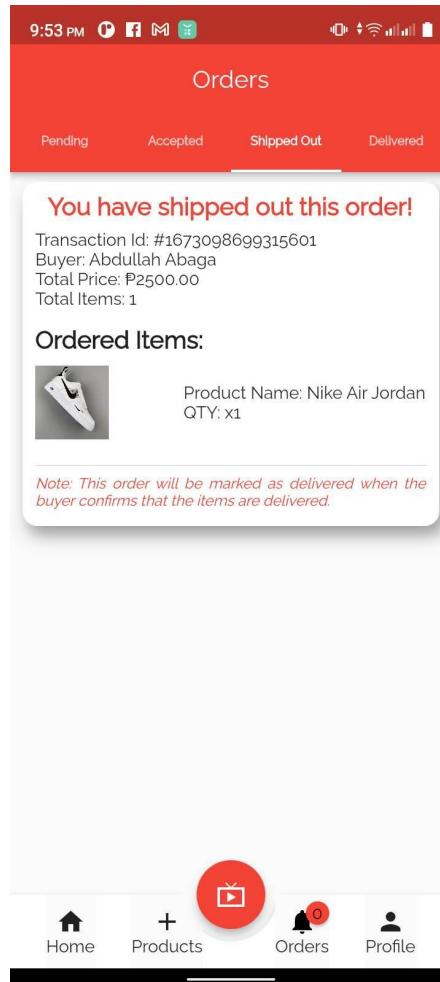


Figure 26. Shipped Out Orders Module

As shown in Figure 26, this module is where the shipped out orders are listed. This module displays the order's transaction ID, buyer, total price, total items, product name, image, and quantity. There is also a note that the order has been transferred to the delivered tab if the buyer confirmed that the order has been received.

Figure 27 (see page 44) shows the delivered items module. Once the buyer confirms that the order has been received, the transaction means



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successful. The order has been marked as delivered and would be listed in this module.

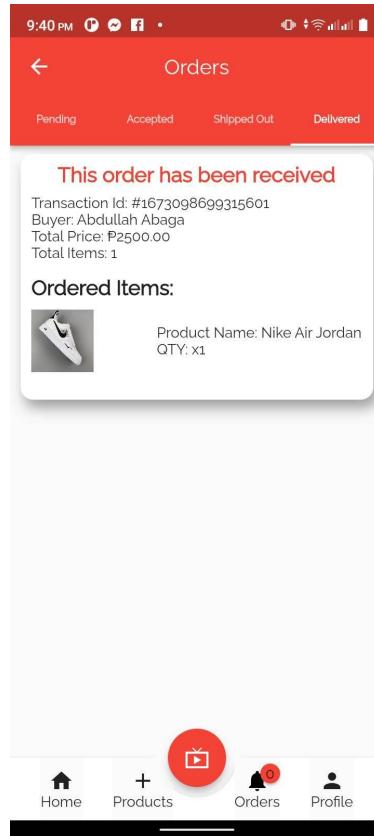


Figure 27. Delivered Items Module

Determined the performance and usability of Pa-Mine using the System

Usability Scale (SUS)

To assess the performance of the mobile application, a survey was conducted. There were four (4) types of respondents under the respondents and evaluators: ten (10) for the live sellers, ten (10) for the online shoppers, ten (10) for the local shop owners, and ten (10) for the IT experts. The Purposive Sampling Technique was used to select the respondents, which involves choosing those who can provide the best information. The respondents were picked since



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they are the end-users of the developed mobile application.

In evaluating the responses, the System Usability Scale (SUS) metric was used. The survey consists of 10 statements and respondents are expected to rate these on a scale of 1 to 5 based on how much they agree with which statement is presented to them and that the total answers are then converted to a new score between 1 and 100.

Each response is assigned a value for the System Usability Scale score calculation. The breakdown of points for the responses are:

Strongly Disagree: 1 point

Disagree: 2 points

Neutral: 3 points

Agree: 4 points

Strongly Agree: 5 points

NAME	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	ODD (X)	EVEN (Y)	SUS SCORE (X+Y) * 2.5
Respondent 1	5	2	5	2	5	1	5	2	5	1	20	17	92.5
Respondent 2	4	1	5	1	4	2	5	2	5	2	18	17	87.5
Respondent 3	4	2	4	2	4	2	5	1	5	1	17	17	85
Respondent 4	4	1	3	1	5	3	5	1	5	3	17	16	82.5
Respondent 5	3	2	4	2	3	3	4	3	4	2	13	13	65
Respondent 6	5	2	4	2	5	2	4	2	4	2	17	15	80
Respondent 7	4	3	5	4	5	2	5	2	5	3	19	11	75
Respondent 8	5	2	5	1	5	2	4	3	5	1	19	16	87.5
Respondent 9	3	1	4	2	5	1	5	1	5	3	17	17	85
Respondent 10	4	2	4	2	4	1	4	2	5	1	16	17	82.5
AVERAGE													82.25

Figure 28. Calculating the Usability Score (Live Sellers)

Figure 28 shows the total score accumulated based on the Live Seller's Evaluation was 82.25 out of 100. The result suggests that the application would make it simpler for the seller to sell their goods, increase sales, locate and



accommodate customers, and carry out transactions.

NAME	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	ODD (X)	EVEN (Y)	SUS SCORE (X+Y) * 2.5
Respondent 1	5	2	4	2	5	2	5	1	5	1	19	17	90
Respondent 2	5	3	5	1	4	2	4	2	4	2	17	15	80
Respondent 3	4	1	4	2	4	1	3	1	5	1	15	19	85
Respondent 4	5	2	5	1	5	3	5	3	5	3	20	13	82.5
Respondent 5	4	2	4	4	5	1	4	2	5	1	17	15	80
Respondent 6	5	2	5	3	3	2	4	2	5	3	17	13	75
Respondent 7	5	1	5	4	5	2	5	3	4	2	19	13	80
Respondent 8	4	2	5	1	5	2	4	2	5	2	18	16	85
Respondent 9	5	1	4	1	5	1	5	1	5	2	19	19	95
Respondent 10	5	1	5	2	5	1	5	2	5	1	20	18	95
											AVERAGE		84.75

Figure 29. Calculating the Usability Score (Online Shoppers)

Figure 29 shows the total score accumulated based on the Online Shopper's Evaluation was 84.75 out of 100. The majority of customers firmly agreed that the mobile application was easy to use, that they would probably use it frequently, that the functions were nicely integrated, that most users would quickly pick up using it, and that they felt comfortable doing so. The result of the findings indicated that the application enhanced their online shopping experience.

NAME	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	ODD (X)	EVEN (Y)	SUS SCORE (X+Y) * 2.5
Respondent 1	4	2	5	2	4	2	4	1	5	1	17	17	85
Respondent 2	5	3	5	1	4	2	4	2	4	2	17	15	80
Respondent 3	4	1	4	2	3	1	3	1	3	1	12	19	77.5
Respondent 4	5	2	5	1	5	3	5	3	5	2	20	14	85
Respondent 5	3	2	4	2	4	2	4	2	5	3	15	14	72.5
Respondent 6	5	3	4	2	3	1	4	2	5	3	16	14	75
Respondent 7	4	1	4	3	5	2	5	3	4	2	17	14	77.5
Respondent 8	4	2	5	1	4	3	4	2	5	2	17	15	80
Respondent 9	4	2	3	1	5	1	5	1	5	3	17	17	85
Respondent 10	3	2	5	3	4	1	4	2	4	1	15	16	77.5
											AVERAGE		79.5

Figure 30. Calculating the Usability Score (Local Shop Owners)

Figure 30 shows the total score accumulated based on the Local Shop



Owner's Evaluation was 79.5 out of 100. The result suggests that the application will help their products be showcased locally and virtually and find it easier to accommodate and make transactions with the customers.

NAME	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	ODD (X)	EVEN (Y)	SUS SCORE (X+Y) * 2.5
Respondent 1	4	2	5	1	5	1	5	2	5	1	19	18	92.5
Respondent 2	4	1	5	2	5	1	4	1	4	3	17	17	85
Respondent 3	3	5	5	2	5	2	4	1	5	1	17	14	77.5
Respondent 4	4	1	4	2	5	3	5	4	5	3	18	12	75
Respondent 5	4	1	4	2	5	2	5	1	5	1	18	18	90
Respondent 6	5	5	5	1	5	1	5	1	5	1	20	16	90
Respondent 7	3	4	4	3	4	4	5	3	4	3	15	8	57.5
Respondent 8	4	3	2	2	4	2	5	2	4	2	14	14	70
Respondent 9	4	4	4	2	4	4	4	3	5	3	16	9	62.5
Respondent 10	5	2	4	2	5	1	4	1	5	2	18	17	87.5
											AVERAGE		78.75

Figure 31. Calculating the Usability Score (IT Experts)

Figure 31 shows the total score accumulated based on the IT Expert's Evaluation was 78.75 out of 100. According to them, the application was discovered to be unnecessarily complicated despite being simple to use, well-designed in terms of its operations, and lacking numerous discrepancies. As a result, the application that was created meets the needs of both consumers and sellers.

Average Score of Live Sellers	82.25
Average Score of Online Shoppers	84.75
Average Score of Local Shop Owners	79.5
Average Score of IT Experts	78.75
Overall SUS Score	81.3125

Figure 32. Calculating the Overall Usability Score

Figure 32 shows the total score of the application was 81.3 out of 100.



This means that in accordance with the scoring scale shown in Figure 4 (see page 19), the mobile application gained an excellent adjective rating, a B on the grade scale which means that the application is well above average, effective, and efficient. However, it still needs a little bit of improvement in terms of the overall ease and use. Moreover, it received an Acceptable rating in acceptability range. Therefore, the results of the testing showed that the Pa-Mine mobile application satisfies the needs of its target users.



CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary made on PA-MINE: A Mobile Live Streaming Application for Online Sellers. Conclusions drawn from the findings of this study and the researcher's recommendations are presented.

Conclusions

In conclusion, based on the data-gathering tools which were used in conducting the testing of the application with the help of live sellers, online shoppers, local shop owners, and IT experts, the following conclusions were listed.

Provided a live streaming application that would abide by the existing policies and procedures of live selling.

The researchers developed a live streaming application that abides by the existing policies and procedures of live selling. The mobile application provided quality and proper procedures for live selling. The asserting of products also referred to as "mine" was correctly implemented.

Automated the process from the seller's and shopper's perspective by providing the mine button and automatic listing of names together



with the name of the mined products of the shoppers to the seller's account.

The researchers successfully automated the process from the seller's and shopper's perspective by the integration of the mine button and automatic listing of names together with the name of the mined products of the shoppers to the seller's account. These features made the live selling and mining of products convenient and much easier than the existing process of other live selling platforms.

Provided a transaction system of the application that would cater all the transactions inside the application.

The researchers provided a transaction system of the application that catered all the transactions inside the application. It assisted both online shoppers and live sellers with checking out and placing an order, tracking purchases, secure payment processes, return/refund option, and viewing and adding reviews to the products.

Determined the performance and usability of Pa-Mine using the System Usability Scale (SUS).

The researchers determined the performance and usability of Pa-Mine using the System Usability Scale (SUS). The developed system has an overall usability score of 81.3 and was able to pass the System Usability Scale based on the survey that was conducted. Moreover, it showed that the mobile application satisfies the needs of its target users.



Recommendations

Following the completion of the system, the researchers made the following recommendations:

Provided a live streaming application that would abide by the existing policies and procedures of live selling.

1. Further conduct studies about the functionality of the developed system.

Automated the process from the seller's and shopper's perspective by providing the mine button and automatic listing of names together with the name of the mined products of the shoppers to the seller's account.

2. Integrate the steal and grab feature in live selling.

Provided a transaction system of the application that would cater all the transactions inside the application.

3. Include delivery system and partnership with couriers.
4. Include SMS or email notification received by both live sellers and online shoppers regarding their respective transactions.

Additional Recommendation.

5. Incorporate a live chat feature where buyers can converse with sellers, and vice versa.
6. Integrate the iOS version of the application.



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APPENDIX A

Letter for Respondents

Dear Respondents,

We are 4th-year students taking up Bachelor of Science in Information Technology enrolled in the subject Capstone 2. We would like to conduct a survey test regarding our project, PA-MINE: A mobile live streaming application for online sellers.

The information contained in this material and/or e-mail, including those in its attachments, is confidential and intended only for the person(s) or entity(ies) to which it is addressed. If you are not an intended recipient, you must not read, copy, store, disclose, distribute this form, or act in reliance upon the information contained in it. If you received this form in error, please contact the sender, and delete the form from any computer or system.



Bachelor of Science in Information Technology

I have read and fully understand the instructions and disclaimer and confidentiality notice written above. By placing your name below, I hereby signify that I will abide by the rules and regulations written above.

Respectfully yours,

Abaga, Abdullah

Bacani, Christian Jethro

Duque, Jan Cedric

APPENDIX B

Interview Guide for Live Sellers and Local Shop Owners

1. Name of business.
2. How long have you been selling online?
3. Do you own a physical shop? If yes, what are the challenges that you usually encounter?
4. Have you tried using live streaming online platform to sell p?
5. If yes, what platform do you use?
6. How is the process of live selling?
7. What is/are your mode of delivery?
8. What is/are your mode of payment?
9. What are the challenges have you encountered?



10. Describe a negative and positive experience as an online seller/business owner?
11. Do you believe that it's necessary to have a live streaming mobile application that will allow sellers to introduce/establish their businesses/brands?
12. If yes, what do you think are the benefits as a seller that you can get from this?

APPENDIX C

Transcript of Interview Guide for Live Sellers and Local Shop Owners

1. Name of business.
 - Trisha Tricia
2. How long have you been selling online?
 - 2 years
3. Do you own a physical shop? If yes, what are the challenges that you usually encounter?
 - Yes. Managing a physical shop was challenging since it was tough to promote, and occasionally we were unable to leave the shop because no one was taking care of our clients.
4. Have you tried using live streaming online platform to sell?



- Yes

5. If yes, what platform do you use?

- Facebook and Tiktok

6. How is the process of live selling?

- We display and show our items on live and the customers will comment mine on the comment section.

7. What is/are your mode of delivery?

- Dropping Center and Car Delivery

8. What is/are your mode of payment?

- Online Payment and Cash on Delivery

9. What are the challenges have you encountered?

- I have met scammers and sometimes it is hard to deliver to far places.

10. Describe a negative and positive experience as an online seller/business owner?

- A positive experience is earning more money than usual and having experience in entrepreneurship.

- A negative experience is encountering customers that are scammers and has an attitude problem.

11. Do you believe that it's necessary to have a live streaming mobile application that will allow sellers to introduce/establish their businesses/brands?

- Yes



12. If yes, what do you think are the benefits as a seller that you can get from this?

- It will give more opportunities for sellers and it will be more convenient for both sellers and buyers.

APPENDIX D

Interview Guide for Online Shoppers

1. How long have you been buying products from live selling?
2. How often do you buy product/s in a month?
3. When selecting products to purchase, what do you consider?
4. In buying from a live selling, what are the major challenges that you encounter?
5. Give factors that made you purchase products through live selling
6. If you purchase products online, what major challenges have you encountered?
7. What is your negative experience when purchasing products from online/physical shops?



8. What is your positive experience when purchasing products from online/physical shops?
9. Do you think a live streaming mobile application intended live selling and ecommerce is necessary? Why or why not.

APPENDIX E

Transcript of Interview Guide for Online Shoppers

1. How long have you been buying products from live selling?
 - Almost 2 years
2. How often do you buy product/s in a month?
 - 10 times
3. When selecting products to purchase, what do you consider?
 - The quality and its design.
4. In buying from a live selling, what are the major challenges that you encounter?
 - Mining a product at the same time with another customers.
5. Give factors that made you purchase products through live selling



- The product's details were more explained and a lot cheaper.
6. If you purchase products online, what major challenges have you encountered?
- Products descriptions are not exact and there are little to no reviews.
7. What is your negative experience when purchasing products from online/physical shops?
- Wrong variation of product was delivered to me.
8. What is your positive experience when purchasing products from online/physical shops?
- I can see all the details and get the exact preference that I want.
9. Do you think a live streaming mobile application intended live selling and ecommerce is necessary? Why or why not.
- Yes, it is more convenient as I am shopping at the comfort of my own home.



APPENDIX F

Survey Questionnaires to Determine the Usability of PA-MINE using the System Usability Scale (SUS)

Dear Respondents,

After simulating the system, please rate the usability of the developed system, PA-MINE: A Mobile Live Streaming Application for Online Sellers based on your observations.

Respectfully yours,

Abaga, Abdullah

Bacani, Christian Jethro

Duque, Jan Cedric

Direction:



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For each of the following statements, mark one box that describes your reactions to the system. Please base on the scale below.

Scale Meaning	Descriptive
5	Strongly Disagree
4	Disagree
3	Neutral
2	Agree
1	Strongly Agree

Statements	5	4	3	2	1
1. I think that I would like to use this application frequently.					
2. I found this application unnecessarily complex.					
3. I thought this application was easy to use.					
4. I think that I would need assistance to be able to use this application.					
5. I found the various functions in this application were well integrated.					
6. I thought there was too much inconsistency in this application.					
7. I would imagine that most people would learn to use this application very quickly.					



8. I found this application very cumbersome/awkward to use.						
9. I felt very confident using this application.						
10. I needed to learn a lot of things before I could get going with this application.						

APPENDIX G

TERMS AND CONDITIONS

WELCOME TO PA-MINE!

This page contains the Terms and Conditions of Service (hence, the "Terms") for our application, which is provided together with any related products and services. These Terms are an addition to our privacy statement (the "Policy"), which is incorporated herein by reference.

Pa-Mine is responsible for delivering the application and the offered services and products. The terms "client," "user," "you," and "your" refer to the user logged into this application and agreeing to be bound by the terms and conditions of the



Company; "ourselves," "we," "ours," and "us," refer to our parent and holding companies. The terminology "Terms," "Privacy Policy," "Cookie Statement," "Accessibility Disclaimer," and other guidelines or agreements referenced herein and/or offered by us from time to time," is referred to herein Any use of the aforementioned terms or other words, whether they are written in the singular, plural, capitalized, or with he/she or they, is understood to be referring to the same thing.

All of the terms herein refer to the offer, acceptance, and consideration of payment necessary to carry out the process of our assistance to the user in the

most suitable manner for the specific purpose of addressing the client's needs in relation to the delivery of Pa-Mine's stated services, in accordance with and subject to, prevailing laws applicable to Pa-Mine. Any use of the aforementioned language, as well as any additional words in the singular, plural, capitalization, or with the pronouns he/she or they, is understood to be interchangeable and to be referring to the same thing.

Therefore, by using this application, you agree to be bound by these Terms, all applicable laws, and regulations and accept that you are in charge of adhering to any local laws that may be in force. This application cannot be used or accessed by you if you disagree with any of these terms. The relevant copyright and trademark laws protect the materials in this application.



Services Offered.

Pa-Mine is a live streaming application where sellers showcase their products through live streams, allowing customers to buy products in real time. Additionally, there is an online marketplace where items that are not being streamed live are listed. Pa-Mine hereby agrees to provide its live stream and online marketplace platform services (the "Services"), subject to the following Terms, to (i) visitors who browse the application, (ii) buyers and sellers of items registered into the application, and (iii) any other users who have opened an account.

Please remember that certain providers may be located in or have facilities that are located in a different jurisdiction than either you or us. Therefore, if you elect to proceed with a transaction that involves the products or services of a third-party service provider, then your information may become subject to the laws of the jurisdiction(s) in which that service provider or its facilities are located.

Account Registration, Verification, and Safety.

You must register for an account and fill out all of the required fields on the registration form before using our Services. You must provide true and accurate information, and you hereby agree to keep the password you chose when making your account private and not to disclose it to anyone else.



You are required to notify us right away if you lose it or disclose it. You are solely in charge of monitoring the activity on your account, protecting the confidentiality of your password, and notifying us right away in the event that your account is breached or used without your permission.

Purchase Terms.

Despite the aforementioned, Pa-Mine cannot absolutely guarantee that the mentioned prices and descriptions are truthful, accurate, updated, and correct. This is true for all of our vendors, who will make their best commercial efforts to do so. As a result, Pa-Mine disclaims all liability and makes no representations on the accuracy of the details, availability, eligibility, prices, or other aspects of the goods and services offered through the application, all of which are subject to change at any time.

Pa-Mine's fees may be charged to your account as per your authorization. Tax is extra and all fees are in Philippine Peso unless otherwise stated. Fees are nonrefundable, even for anything we delete, to the degree authorized by law. Purchases may be rejected by us, which could put a hold on your account.

Our platform keeps track of and confirms the receipt of each order by sending an email to the address provided by the customer upon registration. Keep the email in your possession until you receive the ordered item (s).



While the costs of the products supplied online through our application are typically based on the prices of the goods listed by sellers, it is possible that you may see different prices owing to promotional events and updated pricing at various times.

Please be aware that the color of the actual products could differ from the one shown on your screen. Though we make every effort to do so, we cannot guarantee that your screen will accurately display any color. We make every effort to portray the colors of the products shown on the application as accurately as is technologically possible.

Regarding the subjective aspects of the products made available through the application, Pa-Mine makes no claims or guarantees.

Regarding the texture and color of the products sold, as well as the quality, merit, and other subjective features of the goods offered through the application, Pa-Mine makes no representation or warranty.

Any and all product guarantees such as weight, amount, size, color, texture and other measurable characteristics of the goods sold will be the responsibility of the sellers.

There may be occasions where a product that is listed by sellers has been



incorrectly listed (e.g., typographical error, human error, or system error). In such case, the seller hereby reserves the right to refuse or cancel any orders placed for any and all products incorrectly listed. If the payment processing method of the buyer has already been charged, the seller may cancel the order and issue a refund or credit in the amount of the incorrect price. However, in most scenarios, the seller on Pa-Mine would be responsible for the processing fees collected by the payment processor (stripe and/or others in the future) and any servicing commission to Pa-Mine.

Shipping Terms.

The third-party sellers who offer the goods on our application will determine the costs and terms of delivery on a case-by-case basis. We do not handle deliveries ourselves.

Prior to processing and sending your order, Pa-Mine must receive and process your payment. There are no listing or registration costs; instead, payment is taken from the buyer only once the sale has been completed.

After the payment has cleared, the seller can start shipping. All products are subject to availability, and the seller is required to notify customers when the products they have chosen are out of stock and offer alternatives or a complete refund.



Buyers will be able to see the quantity and kind of shipping and handling fees for their order before submitting a final order for purchased items. Since sellers may transport their goods via outside couriers, the dates listed are merely estimates. Pa-Mine disclaims all liability for any delays, extra costs, customs charges, or other issues resulting from the logistics of third parties, as should be understood by all buyers.

Numerous elements, including dimensions, delivery address, and shipping method, influence shipping costs. For better results, please get in touch with each seller and send him all the necessary details, such as your address, the nation, and your zip code.

In the future, we may implement a shipping cost and time calculator so that customers may make decisions prior to completing each order. We may also provide updates via the application's integrated parcel tracking technology. Nevertheless, merchants are in charge of all shipment schedules.

Depending on the buyer's place of residence, the seller may collect taxes on orders placed. All of our users should be reminded that tax obligations are not optional.

As a final notice for this section, our sellers may not be able to ship items to certain regions, and, therefore, they should reject orders with delivery addresses in such regions.



Refund Terms.

The seller must deliver the item when the customer completes a successful transaction. The automatic cooling-off period for all purchases is ten (10) days, starting from the day the customer received the merchandise, as certified by the courier service. After that time, all purchases are considered automatic and final. The funds from the purchase will be transferred to the seller's account following the cooling-off period.

Pa-Mine may, as a last resort, step in if the disagreement hasn't been settled after ten (10) days, which is an extremely unlikely scenario. In order to be fair to both sides, we try to settle any disagreements as promptly as we can. Please enquire with the seller prior to purchasing if you have any concerns regarding the refund policy. Please visit our Mediation Section if you would want further details.

The terms of our refunds vary depending on the seller. We advise our sellers to set up their return policy through their vendor dashboard and post it on their profile pages. Refunds are often honored in full or in part, depending on the information we obtain from each party.

In the case of a refund, the buyer will receive the full price of each order back, less our service fees and any merchant fees. In such a case, the seller would not



receive any amount at all. Once the refund is approved, Pa-Mine will transfer the refund within no less than fifteen (15) days from the date our systems approve the refund or when the merchant approves the refund, whichever occurs later.

A description of the products in question, the reason for the refund, the buyer's name, address, account information, payment information, and the product(s),

as well as pictures of the shipping container, the goods, and any flaws or damage from delivery, should all be included. Buyers should be aware that they will often be responsible for covering the cost of shipping and/or insurance for returns to the seller.

Mediation.

The Buyer and Seller shall resolve any and all final disputes between themselves and our users who acquired goods from third parties. Despite the aforementioned, Pa-Mine may choose to provide mediation services for egregious circumstances, such as (i) customers who made a significant investment and are dissatisfied with the product they purchased, claiming that the characteristics, nature, and/or quality of a product are not what such a customer may reasonably expect from the seller; and/or (ii) sellers who determine that they effectively sold a product with specific specifications. It is significant to note that circumstances caused by shipment and/or weather concerns that are beyond the seller's control are not relevant. The buyer must request mediation services



within the ten (10) day cooling-off period, starting from the day the merchandise was delivered as specified by the courier service. Each mediation situation will now be referred to as a "Dispute."

Pa-Mine will only act as a mediator in a Dispute and will make use of the tools provided by the Services to help users come to a mutually agreeable settlement. The dispute may be escalated to Pa-Mine, and we will make a non-binding recommendation for how to resolve it if the parties to it are unable to resolve it amicably (after making all reasonable efforts to do so). Either party may be charged for these services.

Payment Terms.

We use payment platforms provided by globally accepted third-party payment processors. Accordingly, the processing of payments will be subject to the fees, terms, conditions, and privacy policies of such payment processors. Pa-Mine is not responsible for any and all errors, and fees by such payment processors.

These third-party payment transaction processors have their own terms of service, user agreements, and privacy policies in place, which will govern the services they provide to you in relation to the data we are obligated to give them for your transaction-related transactions. We advise you to read the privacy policies of these providers so you are aware of how your personal information will be handled by them.



Commission Percentage

Commission Percentage is a commission charge fee on every product input by the seller to continue enjoying the services and benefits of Pa-Mine. These fees allow us to enhance our services to help our sellers grow with us. The commission percentage depends on the number of products. The higher the amount of product, the lower the commission to be charged. The commission percentage pricing was based on Shopee (an E-Commerce Application) commission percentage pricing. However, the exact commission percentage was not exactly copied as it may change anytime. On the contrary, the lower the amount of the product, the higher the commission to be charged.

Product Price	Commission Percentage
Below ₱300.00	3%
₱301.00-₱500.00	2%
₱501.00-₱1000.00	1%
₱1000.00 and above	0.5%

Disputes & Chargebacks.

All invoicing information supplied by buyers must be accurate and up to date. All payment charges are final and non-refundable unless otherwise specifically



stated here. You agree to pay us all sums owed to us immediately after being notified if we discover any chargebacks or if any payments are not received by us or our payment processors for any reason. You are still responsible for all payments, regardless of our incapacity or failure to complete them.

The most common reason for a chargeback is when a buyer contests a charge that they see on their bank or payment processing statement. If you receive a charge-back, the transaction may be reversed, and the money returned to you. Chargebacks may be applied to your account for the following reasons: (i) customer disputes; (ii) unauthorized or improperly authorized transactions; (iii) transactions that violate payment processor network policies or that are allegedly illegal or suspicious; or (iv) any reversals for any reason by our payment processor or the institutions handling the transaction.

When a chargeback is made, you are instantly liable to Pa-Mine for the chargeback's entire payment as well as all related fees, fines, costs, or penalties (including those assessed by our payment processor or the financial institutions handling the transaction). As a result, you therefore represent and warrant that Pa-Mine is your duly authorized agent, fully empowered to recover these sums by debiting your account or offsetting any monies owing to you by us.

You agree to pay all fees and costs incurred by or on behalf of us in connection with the collection of any unpaid charge-backs that you are responsible for,



including without limitation, fees assessed by our payment processor, legal fees, and other legal expenses. If we are unable to recover funds related to a chargeback for which you are responsible, you will pay us the full amount of the chargeback immediately upon demand.

User Support.

You can always get in touch with our staff if you have any questions about our Services, and we'll do our best to respond to them and find a solution together. You must give us complete information about your service inquiry so we can understand your worries.

Feel free to write us using the information on our contact email if you have any queries or complaints about the application or our Services. We shall make commercially reasonable attempts to respond as soon as we can.

Intellectual Property Rights.

Whether acknowledged (or not), Pa-Mine, its licensors, or affiliates are the owners of the trademarks, copyright, service marks, trade names, and other intellectual property rights and proprietary notices displayed on Pa-Mine. These items are protected by intellectual and proprietary rights in the Philippines and other countries around the world. Respective title holders may or may not be connected to us, or to our partners, advertising, or affiliates. No aspect of this



agreement should be read as granting you any kind of interest or right in Pa-Mine or our services, in whole or in part.

For ease of understanding, 'intellectual property rights shall mean any and all patent rights, copyright rights, mask work rights, moral rights, rights of publicity, trademark, trade dress and service mark rights, goodwill, trade secret rights, and other intellectual property rights as may now exist or hereafter come into

existence, and all applications therefore and registrations, renewals, and extensions thereof, under the laws of the Philippines and other applicable jurisdictions.

You acknowledge and agree that all infringing use or exploitation of copyrighted content in Pa-Mine and/or the Services may cause us, our affiliates, licensors, or content providers irreparable injury, which may not be remedied solely at law, and therefore our affiliates, licensors or content providers may seek remedy for breach of these Terms, either in equity or through injunctive or other equitable relief.

User Code of Conduct.

As our user, you agree not to undertake, motivate, or facilitate the use or access of the application or the Services in order to:



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- Infringe these Terms or allow, encourage, or facilitate others to do so.
- Plagiarize and/or infringe on the intellectual property rights or privacy rights of any third party, including any breach of confidence, copyright, trademark, patent, trade secret, moral right, privacy right, right of publicity, or any other intellectual property or proprietary right.
- Collect, receive, transfer or disseminate any personally identifiable information of any person without due consent from the title holder.
- Republish, sell, rent, or sub-license content or materials from the application without our authorization.
- Reproduce, duplicate, or copy material from the application without our authorization.
- Distribute, post, or otherwise make available any content that: (i) infringes on or endangers the intellectual property rights of any person (e.g. trademark, moral rights, trade secret, copyright, ancillary rights, or other); (ii) enables any act that could promote or cause discrimination, racism, harm, libel, hatred, or violence against any individual or group; (iii) endangers children and underage persons; (iv) is or allows illegal or fraudulent activities to take place; (v) is or may constitute a criminal or capital offense or otherwise infringes on any applicable law; and/or (vi) is or can be considered to be obscene, sexually explicit material, pornographic, threatening/defamatory, plagiarized, firearms, tobacco,



alcohol, marijuana, gambling, binary options, Forex, pornographic, or analogous material.

- Collect, receive, transfer, or disseminate any personally identifiable information of any person without due consent from the title holder.
- Use any automated or manual process to obtain, copy, process, access, and/or use our application or Services or any part therefrom to capture unauthorized data or content, for any purpose.
- Enable, undertake, program, or execute any type of system, computer program, or technique in order to data-mine, retrieve, scrape, index, or otherwise extract unauthorized information from Pa-Mine or any portion or data feeds therefrom. For purposes of clarification, such actions will include the use of persons, application search/retrieval applications, software 'robots' and 'spiders', and any analogous data gathering and extraction tools, regardless of the type and amount of information intended for extraction.
- Use our services or application vulnerabilities to disseminate any type of computer viruses, worms, defects, trojan horses, or other items of a destructive nature.
- Undertake any action that will or may cause an unreasonable load on Pa-Mine's and/or its partners and affiliates' technology or infrastructure, or otherwise make excessive traffic demands from Pa-Mine.



- Intercept or monitor activity via our application or Services, without our express authorization.
- Otherwise, reverse engineer, decompile or extract the proprietary code of the application and our Services.

Content Moderation.

Users are encouraged to report any infractions of our terms to Pa-Mine. Each user is solely accountable for their actions and any posts, transmissions, and other content made available through our Services.

Parts of the application may offer an opportunity for users to post and exchange opinions and information in certain areas. Pa-Mine does not filter, edit, publish or review comments prior to them being posted. Comments do not reflect the views and opinions of Pa-Mine, its agents, and/or affiliates; rather, they reflect the views and opinions of the person who posts his or her views and opinions. To the extent permitted by applicable laws, Pa-Mine shall not be liable for the comments or for any liability, damages, or expenses caused and/or suffered as a result of any use of and/or posting of and/or appearance of the comments on our application. Pa-Mine reserves the right to monitor all comments and to remove any comments which can be considered inappropriate, offensive, or cause a breach of these Terms.

You acknowledge that, in our sole discretion, we may limit access to Pa-Mine for



any visitor or user (for example, by blocking IP addresses), filtering content, deleting content, delaying its removal, omitting content, performing authentication checks, and/or terminating access, accounts, and licenses). You acknowledge and agree that I we are not accountable for moderating, not moderating, or making statements regarding moderating; (ii) nothing we say or do waives our right to moderate, or not.

The Internet is not an anonymous means of communication; thus, we cannot guarantee the confidentiality of any content that you provide to us via the Services. Each piece of content that you post is intended for public review, and except for content expressly marked as private, most user-generated content that you share with us will result in such content being made publicly available for users in our application and other third-party websites, including search engines and social media sites. Not all content can be marked as private.

Pa-Mine has the right, but not the obligation, to monitor any user activity and "user-generated content" (such as names, photos, posts, feedback, images, comments, questions, and other content) in order to ascertain compliance therewith. Pa-Mine also has the right to edit, refuse to post or remove any material or content that is submitted to or posted on our Services and that we find to be in violation of our Terms of Use or that is otherwise objectionable.

You understand and agree that we may notify law enforcement, government



agencies, or other appropriate third parties about any activity we believe to be illegal, and that any violation of the aforementioned terms may result in the immediate termination of your access to Pa-Mine and our Services.

No Spam Policy.

We reserve the right to screen any user-generated content to locate and delete any spam or deceiving coupon, code, offer or link to any product or service. We

will not tolerate, and we will not allow others to undertake through our Services or application, any and all massive delivery of unsolicited bulk communications to our users or to any third party.

Any commercial electronic communication that you receive from us, our partners, licensors, suppliers, and affiliates will require your prior consent to such communication. Our commercial communications will include measures in order for you to stop receiving them, usually through an unsubscribe link. Please see our Policy for more information.

Account Suspension & Termination.

Pa-Mine encourages you to report violations of our guidelines and Terms. Users undertaking conducts that may constitute a factual –or even alleged– breach of these Terms, including but not limited, to using automated mechanisms to make



fraudulent communications, may become subject to immediate account suspension/termination, at our sole and final discretion, without notice and without responsibility.

We reserve the right, at our sole and final discretion, to deactivate, freeze, suspend or terminate any account upon any factual or alleged breach of these Terms. You must notify us immediately of any change in your eligibility to use our platform, or if you suspect a breach of security or unauthorized use of your account.

You acknowledge and agree that we may report any activity that we believe may violate any law-to-law enforcement, regulators, or other relevant third parties and that any violation of the aforementioned provisions may result in the immediate termination of your access to the application or our Services.

Updates & Amendments.

Pa-Mine maintains the right, at any time and without prior notice, to change, amend, suspend, terminate, upgrade, update, or otherwise alter these Terms. Any updates will be shown in the application, and we reserve the right to email you to let you know. Please take note of the most recent date on which updates were made by us. Your continued use of our Services following the publication of any updates, whether through the creation of an account or through regular use, constitutes your acceptance of such changes.



Parental Notice.

Pa-Mine encourages parents, guardians, and other responsible people to actively supervise their children's and minors' online activities. Pa-Mine knows that it does not intentionally offer its services to anyone under the age of eighteen (18). You may only use the application if you are at least that age, and your parent or legal guardian is watching you closely while using it. Without the permission of their parents or legal guardians, users are not allowed to give Pa-Mine any personally identifying information about people under the age of eighteen (18).

Pa-Mine will remove any information pertaining to anyone under the age of thirteen (13) that it has knowledgeably collected. We encourage you to read our Policy for more details.

Term, Termination.

The term hereof shall begin on the date that comes first among: (i) first access to the application; (ii) your first access or execution of any of our Services; or (iii) Pa-Mine begins providing its Services to you.

The term hereof will automatically end on the earlier date of either your: (i) account deactivation or suspension; (ii) access termination or access revocation for our Services; (iii) Pa-Mine's termination of these Terms, at its sole and final discretion; (iv) the termination date indicated by Pa-Mine to you from time to



time; or (v) Pa-Mine's decision to make the application or the Services no longer available for use, at its sole and final discretion.

User Privacy.

You consent to our Policy, including the collection, processing, storage, and dissemination of such personally identifiable information, including to our affiliates, partners, and clients, by providing us with any data and personally-identifying information. When it comes to being included in our newsletters, updates, and follow-ups, we will explicitly request your permission. We encourage you to read our Policy for more details.

Advertising, Opt-out.

Through advertising and other business opportunities, we might support the application and our Services. These advertisements might be customized to the application's content, and we reserve the right to change the type and volume of such advertising at any time and without prior notice. Please see our Policy for details on how to opt-out of specific advertisements.

Content Liability.

Pa-Mine is a platform that helps sellers connect with their audience in new and innovative ways. We do not allow content that is gratuitously shocking, graphic,



sadistic, or gruesome or that promotes, normalizes, or glorifies extreme violence or suffering on our platform. When it is a threat to public safety, we ban the account and, when warranted, we will report it to relevant legal authorities.

Do not post, upload, stream, or share:

- Content of humans that depicts:
 - violent or graphic deaths or accidents
 - dismembered, mutilated, charred, or burned human remains
 - gore in which an open wound or injury is the core focus
 - real-world physical violence, fighting, or torture
- Content of animals that depicts:
 - the slaughter or other non-natural death of animals
 - dismembered, mutilated, charred, or burned animal remains
 - animal cruelty and gore

Removal of links from the Application.

If you find any link on our application that is offensive for any reason, you are free to contact and inform us at any time. We will consider requests to remove links, but we are not obligated to do so or to respond to you directly.

You understand and accept that Pa-Mine is not obligated to actively monitor or exert any editorial control over any message, material, or information made,



obtained, or available through the Services or application. Each visitor or user is solely responsible for the information contained in his or her communications and may be held legally liable or accountable for such information. This also applies to comments and any other materials or information that they provide.

No Endorsement.

The images, texts, posts, information, photographs, and other content and media displayed on or through the application are not necessarily available and any results therefrom – which we cannot ultimately control – are out of our control as they are provided by Pa-Mine vendors. Some of the images shown on the application are licensed and/or purchased stock photos and are only shown for illustration purposes. Some or all of the content displayed in the application is undertaken by external third parties, and does not reflect Pa-Mine's opinions, nor does Pa-Mine, its affiliates, subsidiaries, officers, employees, and agents guarantee its actual veracity or make any endorsement thereof.

Disclaimer of Warranty.

The application and the Services are given to you "as is," "with all faults," and "as available," without any warranty of any kind, to the fullest extent permitted by applicable law. By law, common law, custom, usage of trade, course of dealing, or otherwise, Pa-Mine and its affiliates, clients, agents, officers,



licensors, and/or distributors do not make and hereby disclaim any and all express, implied, or statutory warranties, including implied warranties of description, quality, fitness for a particular purpose, non-infringement, and non-interference with use and/or enjoyment.

Nothing contained in this disclaimer shall limit or exclude our or your liability for

death or personal injury caused by negligence, nor shall it limit or exclude our or your liability for fraud or fraudulent misrepresentation, nor shall it limit or exclude our or your liability in any manner prohibited by applicable law, nor shall it exclude our or your liability for any other liabilities that may not be limited or excluded by applicable law.

In no event shall Pa-Mine, its affiliates, clients, agents, officers, licensors, distributors, and/or any authorized third party, be held liable for any special, indirect, incidental, or consequential damages, including losses, costs, or expenses of any kind resulting from possession, access, use, inaccessibility or malfunction of the application or the Services including, but not limited to, loss of revenue, profits, business, loss of use or lack of availability of computer resources; whatsoever arising out of or related thereto, whether arising in tort (including negligence), contract, strict liability or other legal or equitable theory and whether or not Pa-Mine, its affiliates, clients, licensors and/or distributors have been advised of the possibility of such damages.



Limitation of Liability.

If a user sustains loss or damage as a result of Pa-Mine's negligence or violation of these Terms, the amount of any claim by that user against us for any single incident, or series of connected incidents, shall not exceed the fees paid by that user over the previous three (3) months, or the customer's actual direct loss or damage, whichever is less. These Terms provide you with specific legal rights, and you may have other rights that may vary from jurisdiction to jurisdiction. Legislation of some states/countries does not allow certain limitations of liability, and henceforth this limitation of liability shall apply to the fullest extent permitted by law in the applicable jurisdiction.

Indemnification.

You agree and acknowledge to indemnify, hold harmless, and defend Pa-Mine, its affiliates, clients, agents, officers, licensors, distributors and/or any authorized representatives, and the officers, directors and employees of each (jointly, the "**Pa-Mine's Indemnitees**") from and against any and all third party liabilities, claims, causes of action, suits, losses, damages, fines, judgments, settlements and expenses (including any and all reasonable outside attorneys' fees and court costs) which may be suffered, made or incurred by any of such Pa-Mine's Indemnitees arising out of or relating to: (i) any breach of any warranties, representations and/or covenants made by you hereunder (to the extent not



arising substantially from any breach hereof by Pa-Mine); and/or (ii) any third party claim arising out of or in relation to the application, the Products or the Services or use thereof in combination with your business platform, including without limitation, any claim that the application, the Products or the Services violate, infringe, or misappropriate any proprietary or intellectual property right of any third party, including without limitation, any privacy right of any person.

Generals

Assignment. Any successors of the parties will be benefited from these Terms. Any associated firm, present or future, as well as any interested successor, may receive any rights or responsibilities under this agreement that we may assign. Any rights that aren't explicitly given in this clause are so reserved. Any successors of the parties will be benefited from these terms. In the event of a bankruptcy, merger, acquisition, reorganization, or sale of assets, we reserve the right to transfer all or a portion of Pa-Mine's assets.

Force Majeure. Pa-Mine shall not be liable for any failure of Pa-Mine to perform its obligations hereunder where such failure results from any cause beyond Pa-Mine's reasonable control, including, without limitation, electronic, power, mechanical, or Internet failure, from acts of nature, forces, or causes beyond our control, such as, without limitation, failures of the Internet, computer, telecommunications, or other equipment, failures of electrical power, strikes,



labor disputes, or other similar causes.

Headings. The titles of paragraphs in these Terms are shown only for ease of reference and will not affect any interpretation therefrom.

Entire Agreement. These Terms constitute the complete and exclusive statement of the agreement between the Parties with respect to the subject matter of these Terms, and these Terms supersede any and all prior oral or written communications, proposals, representations, and agreements. The Terms may be amended only by mutual agreement expressed in writing and signed by both parties, and any attempted amendment in violation of this section shall be void.

Equitable remedies: You hereby acknowledge and agree that if these Terms are not specifically enforced, Pa-Mine will be irreparably damaged, and therefore you agree that Pa-Mine shall be entitled, without bond, other security or proof of damages, to appropriate equitable remedies with respect to your breach of any of these Terms, in addition to any other available remedies.

Language. These Terms may be translated into other languages, but English shall be and remain the official language of this agreement and in any conflict

between the English language version and any other version, the English language version shall control.

Severability. If any provision of these Terms is held unenforceable, then such



provision will be modified to reflect the parties' intention. All remaining provisions of these Terms will remain in full force and effect. The failure of either party to exercise in any respect any right provided for herein will not be deemed a waiver of any further rights hereunder.

No Relationship. You and Pa-Mine are independent contractors, and no agency, partnership, joint venture, employee-employer, or franchiser-franchisee relationship is intended or created by these Terms.

No Waiver. Failure by Pa-Mine to enforce any rights hereunder shall not be construed as a waiver of any rights with respect to the subject matter hereof.

Contact

If you have any questions or queries about us, the application, our Services, or these Terms, please contact us at Info@pa-mine.com



Bachelor of Science in Information Technology

PHOTO DOCUMENTATION



Bachelor of Science in Information Technology



Bachelor of Science in Information Technology



Abdullah Abaga

I. PERSONAL INFORMATION

Address : Purok 5 Naguituban, San Juan, La Union
Contact Number : 09982390146
Email add : abdullah.abaga@lorma.edu
Date of Birth : December 3, 2000
Place of Birth : San Fernando City, La Union

II. EDUCATIONAL BACKGROUND

Tertiary

- Lorma Colleges

Secondary

- San Juan National High School
- Northern Philippines College for Maritime, Science, and Technology

Primary

- Naguituban Elementary School

III. AWARDS/CITATIONS/RECOGNITIONS RECEIVED

- With Honors | Senior High School (NPCMST)
- Academic Full Scholar | 1st Sem 2020 – 2021 (Lorma Colleges)
- Academic Half Scholar | 2020 – 2022 (Lorma Colleges)
- Dean's List | 2nd Sem 2021 – 2022 (Lorma Colleges)

IV. WORK EXPERIENCE :

- NPCMST | Work Immersion
San Fernando City, La Union

V. SEMINARS ATTENDED

- Filmmaking Essentials Webinar | 2021
- ISOG: Securing Your Customers from Mobile Banking Attacks | 2021
- DICT: Startup Basiqs+ Workshop | 2021
- PSIA's 45th Enablement Seminar: Teaching Code Quality | 2021



- 1st CCSE Pytalks Webinar: "Better Code Management and Collaboration: Introduction to Git" | 2022
- Data Analytics with SQL for beginners | 2022

VI. INVOLVEMENT IN RESEARCH/RESEARCHES CONDUCTED

- Construction and Deconstruction of Maria Clara: an analysis of gender stereotypes through generations
- Drop&Move: A Courier Management System for So Fab-Fashion House
- Redefining Maria Clara: An Analysis on How Globalization Paved the Way for Women in Technology
- PAMINE—A Mobile Live Streaming Application for Online Sellers (PRESENT)





Christian Jethro J. Bacani

I. PERSONAL INFORMATION

Address : Zone 1 Dalumpinas Oeste, San Fernando, La Union
Contact Number : 09086099053
Email add : christianjethro.bacani@gmail.com
Date of Birth : November 11, 2000
Place of Birth : San Fernando, La Union

II. EDUCATIONAL BACKGROUND

Tertiary

- Lorma Colleges

Secondary

- Christ The King College
- Lorma Colleges Senior High

Primary

- Christ The King College

III. AWARDS/CITATIONS/RECOGNITIONS RECEIVED

IV. WORK EXPERIENCE :

- Work immersion at Department of Health, San Fernando City, La Union
January 2019 - February 2019 (80 hours)

V. SEMINARS ATTENDED

- ISOG: Securing Your Customers from Mobile Banking Attacks | 2021
- DICT: Startup Basiqs+ Workshop | 2021

VI. INVOLVEMENT IN RESEARCH/RESEARCHES CONDUCTED

- PAMINE-A Mobile Live Streaming Application for Online Sellers
(PRESENT)





Jan Cedric E. Duque

I. PERSONAL INFORMATION

Address : Urbiztondo, San Juan, La Union
Contact Number : 09776964710
Email address : jancedric.duque@lorma.edu
Date of Birth : 01/30/01
Place of Birth : City of San Fernando, La Union

II. EDUCATIONAL BACKGROUND

Tertiary

- Lorma Colleges

Secondary

- San Juan National High School (2013-2017)
- Saint Louis College (2017-2019)

Primary

- Lingsat Elementary School (2007-2013)

III. AWARDS/CITATIONS/RECOGNITIONS RECEIVED

- NCII Animation (2019), Academic Dean's List 1st Semester (2020-2021)
- 1st place Virtual Science Quiz bee at SLC (2019)

IV. WORK EXPERIENCE

V. SEMINARS ATTENDED

- Coastal Clean Up Seminar, La Union United Lions Club, San Juan La Union

VI. INVOLVEMENT IN RESEARCH/RESEARCHES CONDUCTED

- ROMANTIC RELATIONSHIP AMONG SENIOR HIGH STUDENTS (2019)
- PAMINE - A Mobile Live Streaming Application for Online Sellers (PRESENT)



Bachelor of Science in Information Technology