PASUYO: AN ONLINE COURIER DELIVERY MOBILE APPLICATION IN THE MUNICIPALITY OF ANAO

ELMER D. PERALTA
JAY LORD S. FERNANDO
JESSA MAE M. CACULITAN

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac
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APPROVAL SHEET

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BIOGRAPHICAL SKETCH

Elmer D. Peralta was born in Anao, Tarlac on August 27, 2000. He is the third among the four children of Mr. Melchor I. Peralta and Mrs. Erlinda D. Peralta.

He finished his elementary education at Bantog Elementary School in March 2013. And he completed his Junior High School and Senior High School at Anao National High School. After he finishes his course Bachelor of Science in Information Technology at the Tarlac Agricultural University, he hopes to be a part of the Information Technology industry.

BIOGRAPHICAL SKETCH

Jay Lord S. Fernando was born in Santa Ignacia, Tarlac on October 13, 1999. He is the eldest among the three sons of Mr. Dindo C. Fernando and Mrs. Laila D. Subiate.

He finished his elementary education at Timmaguab Elementary School in March 2012. And completed his Junior High School and Senior High School at Calipayan National High School. After finishing Bachelor of Science in Information Technology at the Tarlac Agricultural University, he hopes to be a part of the Information Technology industry.

BIOGRAPHICAL SKETCH

Jessa Mae M. Caculitan was born in Santa Ignacia, Tarlac on March 4, 2000. She is the youngest among the two children of Mr. Santos M. Caculitan Jr. and Mrs. Marissa DV. Mendoza.

She finished her elementary education at Taguiporo-Cabaruan Elementary School in March 2012. And completed her Junior High School at SACATA National High School in March 2016 and Senior High School at Glory Dei Montessori College in April 2018. After she finishes her degree, Bachelor of Science in Information Technology at Tarlac Agricultural University, she hopes to be a part of the Information Technology industry.

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ABSTRACT

PaSuyo: An online courier delivery mobile application in the Municipality of Anao was created for an online courier management that would provide a transport service that moved parcels or goods from the sender to the recipient in a short time or a same-day delivery process. This would provide the users (customers) and riders with a platform that they could use for online transactions such as pickup deliveries and tracking parcels.

The basis for the development of the mobile application was the waterfall development model, which included phases for its requirements for planning, analysis, design, implementation, testing and deployment, and evaluation. To meet the requirements of the study, the researchers used different kinds of data gathering to collect useful information. The data gathering tools were literature survey and document sampling as interactive data collection techniques, and the evaluated results were generated with the help of Google Forms and questionnaires.

The developed mobile application was evaluated in terms of usability and functionality, resulting in a Very Satisfactory evaluation from the costumers, and Excellent from the riders' perspectives. Based on the evaluated results, the mobile application was excellent and highly rated as usable by the customers and riders.

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INTRODUCTION

Background of the Study

People nowadays prefer to shop online through various online sites and wait for their purchases to be delivered, rather than going to actual places or physical stores. As a result of this shift in consumer behavior, e-commerce stores have flourished in recent years, with a rising percentage of individuals preferring to shop online (Mohd et al., 2019). When e-commerce sites and applications became prominent, online courier delivery services also gained popularity.

The increase in online shopping necessitates the use of numerous online courier delivery services to suit the demands and expectations of customers, particularly in remote areas such as the Municipality of Anao. The development of the android-based application for courier service management is responsible for picking up the parcels from the sender and delivering the items to the recipient. The PaSuyo mobile app is an online courier delivery service that processes products from the sender and distributes them the same day to the recipient.

As seen in some rural areas, some online courier delivery firm offers delivery services ranging from two to seven business days, depending on how long it takes to deliver the parcel from the sender to its destination. No other companies offer same-day delivery since rural areas are not as progressive as urban places, where many

individuals are more likely to purchase online. However, most people living in rural areas also need the same-day delivery since not everyone has access to transportation or a car while purchasing or sending supplies or other necessities within the town.

The municipality of Anao is also known as the Philippines' Y-lang Y-lang capital and the smallest town in the province of Tarlac. It produces a variety of wet and dry goods, including fruits, vegetables, and Y-lang Y-lang products (perfume, soap, oil, and so on), as well as a variety of objects (such as files and other items or materials) that can be sold or delivered within the town. Since the pandemic started, many people have learned how to buy products and services online instead of going outside and visiting the physical store.

For those reasons, the researchers proposed a responsive online courier delivery android application that would focus only on making online delivery transactions. Through courier delivery or door-to-door delivery of specific parcels, the consumers may save time and transportation fees in a short time within the municipality.

Significance of the Study

The researchers believed that the proposed online courier delivery would create opportunities in the said municipality. The result of the study may be very significant to the following:

End users, the help of online courier service in end-users daily lives would save their time, effort, and money on transit costs when buying something at the market. Also, this app may help address the needs of every customer who will use the mobile application to send and receive an item. It only means that, when the customer book a courier online, they can have the convenience of having the entire process handled without leaving the comforts of their own home. The developed system IT solution may benefit the future generation and the sectors of the community in the municipality of Anao.

Business owners, a courier team is ideal for businesses that want to save time, effort, and money while increasing productivity and efficiency when dealing with multiple orders in a day.

Delivery riders, Some dedicated drivers and vehicles can meet critical delivery deadlines. Customers would have a better experience because they can schedule their day around the delivery time. Amidst the pandemic, we are experiencing difficulties. It would help them have an extra income and improve their productivity when it comes to online courier delivery.

Future developers and researchers, a future researchers, this study may serve as a guide and a reference to help them enhance their research skills in preparation for future studies and computer-related courses.

Objectives of the Study

The main objective of the study was to develop an online courier delivery mobile application.

Specifically, the study aimed to achieve the following objectives:

a. develop an online courier delivery mobile application with the following components:

a.1 user interface to be used by the end-users (Customers):

a.1.1 Login/sign-up

a.1.2 User Profile (Customer)

a.1.3 Create a Parcel

a.1.4 Track the Parcel

a.2 user interface to be used by the riders (Delivery man):

a.2.1 Login/sign-up

a.2.2 User Profile (Rider)

a.2.3 New Orders/Parcel Requests

a.2.4 Update Parcel Status

a.3 user interface to be used by the administration account:

a.3.1 Dashboard

a.3.2 Approval of New Riders

a.3.3 List of Active Riders

a.3.4 List of Registered Users (Consumers)

a.3.5 List of Created Parcels

b. evaluate the proposed IT Solution based on ISO/IEC20510 through the following respondents:

b.1 End User

b.1.1 Usability

b.1.2 Functionality

Scope and Delimitations

The primary purpose of the study was to create an online courier delivery mobile application that would be exclusively available within the town.

The evaluation of the study was conducted in the said town and was limited to 30 participants. Each participant tried the mobile app and provided feedback on their experience while using the application.

Based on the user experience, the respondents rated the usability and functionality of the project. The researchers used the data acquired as the result of the evaluation of the mobile application.

Definition of Terms

Android Application Is a software application that can install using a mobile phone.

Courier Company or person that will deliver the parcel from the sender to the recipient.

Functionality The essential features of a product or system.

Online Delivery A delivery service for shipping and picking up an item.

Online Tracking The page within the mobile application wherein the user can monitor the status of their orders.

Parcel Goods that have been packed and are ready for delivery/shipping.

PaSuyo The name of the mobile application that will allow the users to make an order inside the app.

Proof of Delivery Is a method of proving that a recipient received the items from the sender (Lokesh & Sakthivel, 2022).

Usability It must have a suitable user interface so that the type of user for whom it is intended can use it without exerting too much effort.

REVIEW OF RELATED LITERATURE AND STUDIES

Related Literature and Studies

This chapter presents the review of related literature and studies that provides useful information for conducting and conceptualizing this project.

Companies have sold products directly to consumers via the internet, which has seen technological advancements in the recent decade, such as improved internet availability in rural regions and better online transaction software (O'Hara & Low, 2020). When consumers and businesses trade directly with each other, online marketplaces have the potential to minimize transaction costs. Since manufacturers and customers do not have to travel or coordinate schedules to make the transaction, online purchases delivered by the courier can save transportation costs.

Humans used technology for communication, data recording and retrieval, cloud computing, internet and search, analytics, immersive and augmented reality, and automation in their early years (Bare et al., 2021). However, technology has advanced to the point wherein people may now use food delivery programs to stay at home rather than travel the extra mile to their favorite restaurant.

One of the well-known industries that serve the community is delivery courier service. These are businesses that help with document and package transportation and delivery (Agunos et al., 2021). The need for courier services is growing in

tandem with the growth of e-commerce. Due to the rise in online purchasing, these services have seen increased demand, particularly in pandemics when community regulation is required. Delivery services are practical and needed for businesses and individuals in rural and urban places since this industry plays an important role.

Given a large number of things to be delivered to clients as soon as possible, all courier service businesses need to arrange their tours so that the total distance traveled will keep to a minimum (Tahar & Zainuddin, 2021). Technology is in our hands nowadays. Almost everyone has access to a smartphone, computer, and email address (Shafi, 2018). Accessibility refers to the amount of transportation on which system tools and services enable individuals or groups to reach activities or destinations (Iru & Hqylurqphqw, n.d.).

E-commerce platforms today have exploded in popularity over the years and play a vital role in the lives of people across the globe (Mohd et al., 2019). Despite the covid-19 pandemic, people must continue to innovate existing technology. The increase is led by the strong customer demand and an expanding different variety of products available online. As a result, a logistical challenge arises, and a strong need for reliable courier service to serve the expanding markets. The courier service provider must complete the parcel delivery as quickly as possible.

Online shopping has increased the number of goods to be delivered in rural places in recent year (Rosano et al., 2018). Increased demand leads to increased logistical complexity and environmental concerns for logistics companies. The dynamics of legal support for the development of electronic commerce are significantly influenced by digitalization and the pandemic (Panasenko et al., 2022).

Making orders via phone calls, text messages, or even websites does not provide customers with real-time order status information (Ricky, 2014). Furthermore, clients are unable to view their previous order history. Nowadays, a mobile phone is not just for making phone calls or sending SMS; many phones also come with apps that help people with their daily tasks. It is handy to purchase items online since customers only need to sit and push a few clicks. Due to the spread of coronavirus, the trend of internet purchasing has exploded, especially in the last few months. To provide a better service to the customers, most online shopping platforms work with courier services. As a response, a parcel tracking system with pre-notification will be used so that clients can get the most up-to-date host location (Soon & Mohamad, 2021).

When using unique features like push notifications to display order lists, an Android application made exclusively with a web-based application cannot run effectively (Atletiko, 2017). This project will be built as a mobile app and requires a database to store records and user credentials. The administrator can use the system

to create new case records, save them, and update a fully searchable database (Thetu, 2021). Every action requires digitization, which is a trend. Almost every activity involves some form of technology. Similarly, transportation and technology are strongly intertwined (Rajab & Sariani, 2021).

Internet transportation services have already entered the mind of customers and are eventually replacing traditional transportation (Fauzi, 2018). As internet transportation services become more popular, mobile application service quality will become a vital problem for survival and growth. In a company, accuracy and precision in the distribution of goods are critical. However, problems may be encountered when running the distribution process. One of the issues can be complex ordering processes. As a result, you must monitor the courier to determine whether the order has been delivered (Atletiko, 2017). The objective is to develop and build a courier tracking system. It is an Android-based application that sends push notifications from the Android cloud to your device to track and keep customers updated about their orders.

Communication is a must, and keeping it happen in real-time has grown increasingly important as our lives have become more demanding (N. et al., 2018). Depending on the quality of the internet, a communication program should be able to send files and messages quickly or with minimal delay. For such a system to work, it will need a database that will update user data in real-time to keep track of all the

data. Google Firebase is a tool that helps us to quickly build communication-based apps by providing a real-time database server and a range of other features. Firebase is one of the systems that provide a real-time database and cloud services that make developing mobile apps simple for developers. Android is a superior platform for developing various instant messaging applications than other platforms like iOS (Emmadi & Potluri, 2019).

Cloud-based messaging services, such as firebase cloud messaging services, typically require less time, development cost, and infrastructure in terms of Web Services (WS) (Albertengo et al., 2019). They all come with a software development kit and application programming interfaces, so developers do not have to write low-level programming logic. Furthermore, since all these services are cloud-based, mobile apps and data servers can communicate directly with each other without a specific message server, as with WS. For these characteristics, these services are more trustworthy and, in most situations, less expensive than web servers. The login page has a login and registration facility for the user who will use the system and a line chase system server for local shipment distribution and shipping details (Khan, 2019). When receiving orders from clients who have the primary information for the recipient, such as the address, name, and phone number, it will consider all of their main points.

Mobile technology is rapidly evolving, and mobile applications connect almost everyone (Kumar et al., 2021). As a result, the food businesses and the general public are using this technology to place orders online. Ordering groceries online can make grocery shopping easier.

METHODOLOGY

System Development Methodology

For the development of the PaSuyo: online courier delivery mobile application, the study used the waterfall method. The system development process involved requirement gathering, analysis, design, implementation, testing and deployment, and evaluation.

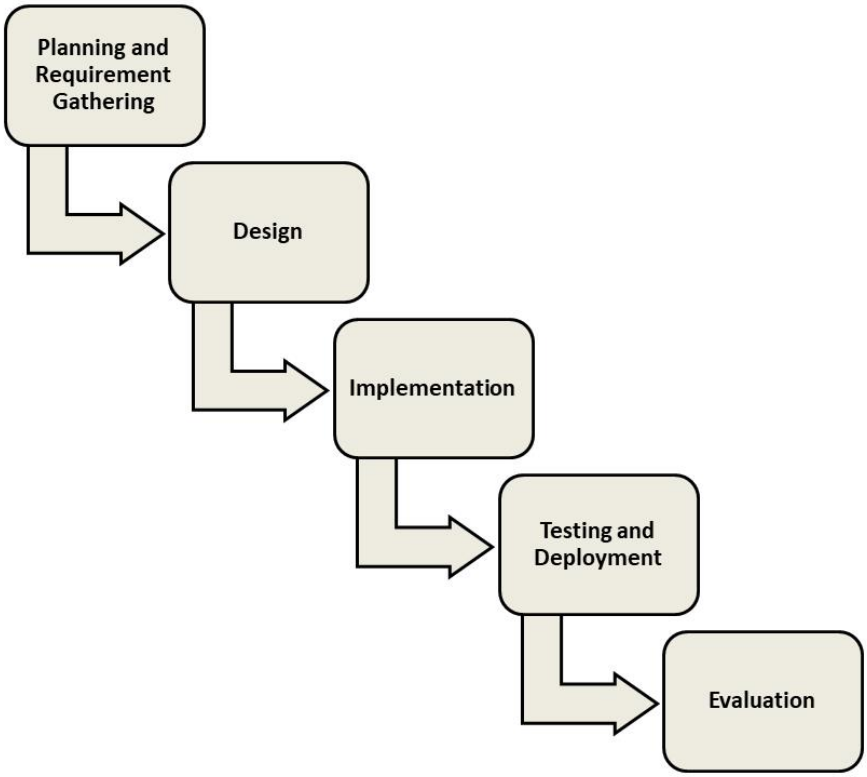

Figure 1. Development Paradigm of the Study

Planning and Requirement Gathering

In this phase, the proponents planned and considered different system requirements (software and hardware) to build the proposed system. It served as a blueprint for developing an online courier delivery mobile app.

Literature Survey. The fact that the researchers' survey of those affected was based on a variety of important publications allowed for the completion of this study.

Questionnaire. Questionnaire was used as interactive data collection techniques. The questionnaire is a method with various sets of questions intended to elicit responses. This was used for the evaluation of the IT solution to gather comments, ideas, and user reviews.

Document Sampling. An efficient and practical method of data collection is document sampling. Researchers was able to obtain additional information by evaluating the sample forms provided.

Design

The researchers constructed the user interface and database of the IT solution for the end-users.

System Design

It presents the system's architectural design and the entity-relationship diagram of the IT solution.

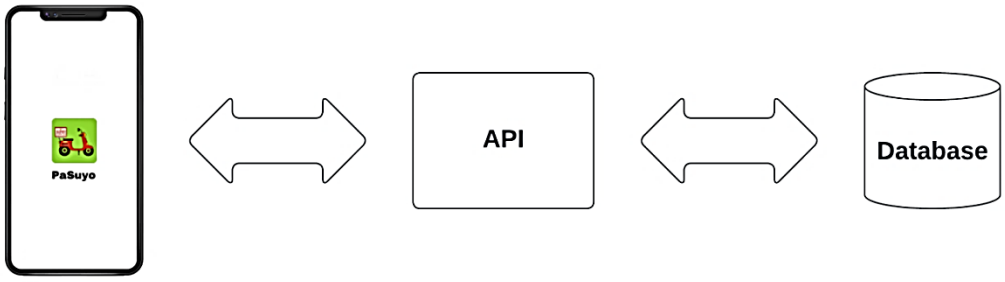

Figure 2. System Architecture Design of the study

Figure 2 demonstrates how the user used the IT solution. The users were requested to submit their personal information as well as the information of the recipient. The data were entered into a database. The data between the database and the end-users was processed using API.

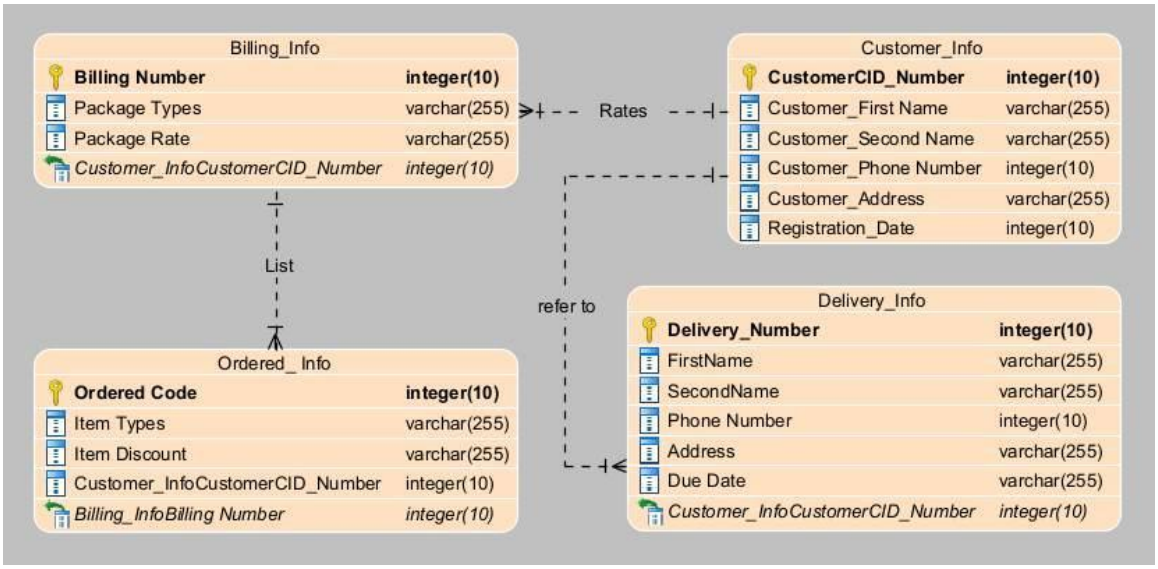

Figure 3. Entity Relationship Diagram of the Study

Figure 3 depicts the system's entity-relationship diagram. It shows that the user may enter the required information so that the database could save the given information and use it to process the information.

Implementation

The researchers began on developing the project with the following tools (hardware and software) below based on the generated user interface and database design.

Tools used in the Development

Hardware. The researchers used the following hardware specifications to build the proposed project.

Table 1. Hardware Specifications

HARDWARE	SPECIFICATION
CPU	Intel Pentium Silver (N5000)
RAM	4GB DDR4
ROM	240 GB SSD
OS	Windows 10 Home

Software. The following software were used to build the proposed project:

- **Android Studio.** The official android application development environment offers code editing and development tools and is based on IntelliJ IDEA.
- **Node js.** Thousands of libraries have been written on Node js by the community to make things easier and more exciting for developers.

- **HTML.** The markup language that is used to create Web apps and pages.
- **CSS.** Stylesheet language is used for HTML documents.
- **Java Script.** Scripts are the name of the programs written in this language. They can be written directly in the HTML of a web page and run when the page is loaded.
- **Ionic Angular.** It brings together the main Ionic experience with Angular Developer-specific tooling and APIs.
- **Android APK File.** Android package kit is the primary way Android apps are distributed and installed.
- **Bootstrap 5.** It supports JavaScript plugins and its design templates, which have elements like navigation, tables, buttons, forms, and many more.
- **PHP.** A programming language used to give websites functionalities that HTML and CSS are unable to provide.
- **MySQL.** A database where the data is stored, retrieved and used from the internet.
- **Hostinger.** Is a web hosting providers and Internet domain registrar used to make the system available online.

- **Movider (SMS APIs).** A software service that can be used for sending SMS notifications.

Testing and Deployment

Testing

Through this phase, the IT solution was tested by the researchers to check if the mobile application was working properly.

Deployment

Once the Application Package (APK File) was checked, it was available to the end-users and ready for evaluation.

Evaluation

In this phase, the project was ready to use. And the end-users evaluated the developed IT solution based on user feedback to know their level of satisfaction with using the online courier delivery mobile application.

Scale Used in the Evaluation.

The system was evaluated using the Likert scale to interpret the composite means. Each characteristic was described in greater detail in the questionnaire for the user evaluators' better comprehension, and the users also utilized a scale to rate the system's functioning and usefulness.

Table 2. Numerical rate and equivalent description in the questionnaire

FIRST	LEVEL HEADING
4.50 – 5.00	Excellent
3.50 – 4.49	Very Satisfactory
2.50 – 3.49	Satisfactory
1.50 – 2.49	Good
0.00 – 1.49	Poor

Table 2 shows that a Likert scale was used to interpret its weighted mean with its equivalent descriptive interpretation. The evaluators rated the application according to an identified parameter on a scale of 1 to 5, where five (5) means Excellent; four (4) means Very Satisfactory; three (3) means Satisfactory; two (2) means Good; and one (1) means Poor.

Respondents to the Evaluation.

The evaluators of the study were residents of the Municipality of Anao, Tarlac. A total of 30 respondents evaluated the system and identified the means through the use of Purposive Sampling. Out of the 30, 25 respondents evaluated the end-user side (customer), while the remaining five (5) respondents evaluated the rider side of the PaSuyo mobile application.

RESULTS AND DISCUSSION

PaSuyo: An Online Courier Delivery Mobile Application in Municipality of Anao

The mobile application was developed with a customer and rider interface that can be used to create and monitor a parcel's status until delivery.

End-users (customers) can create and monitor their parcels via in-app and SMS notifications from time to time and choose a rider.

The riders can receive parcel requests from the customers and will update the customers from time to time using the mobile application.

User Requirements

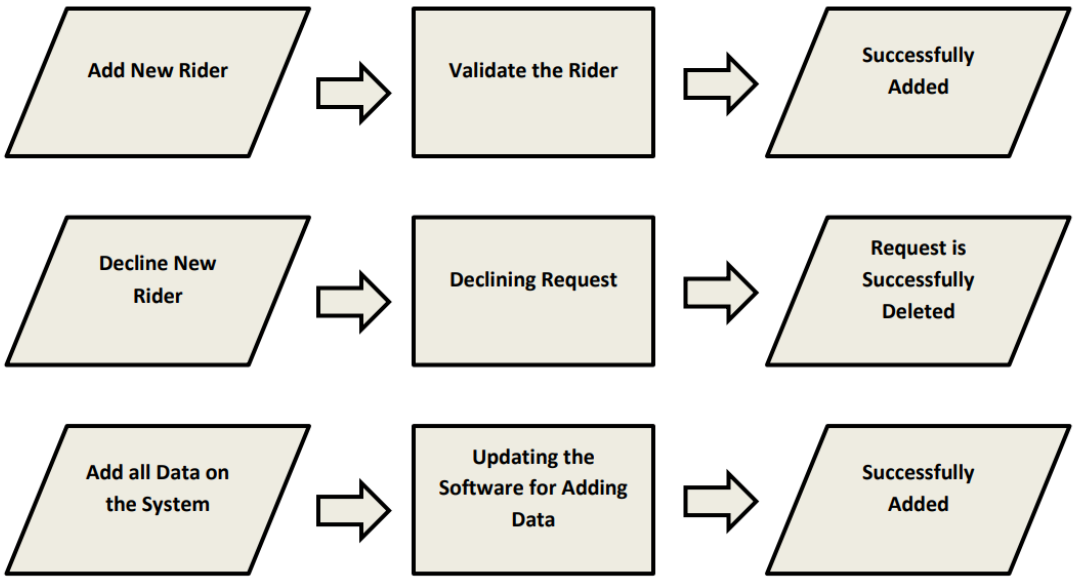

Figure 4. Admin Input Process Output

Figure 4 specifies the administrator account, input, and output processes. It consists of approving and declining new riders and customers and parcel monitoring. The admin can monitor any activities that happen between customers and riders.

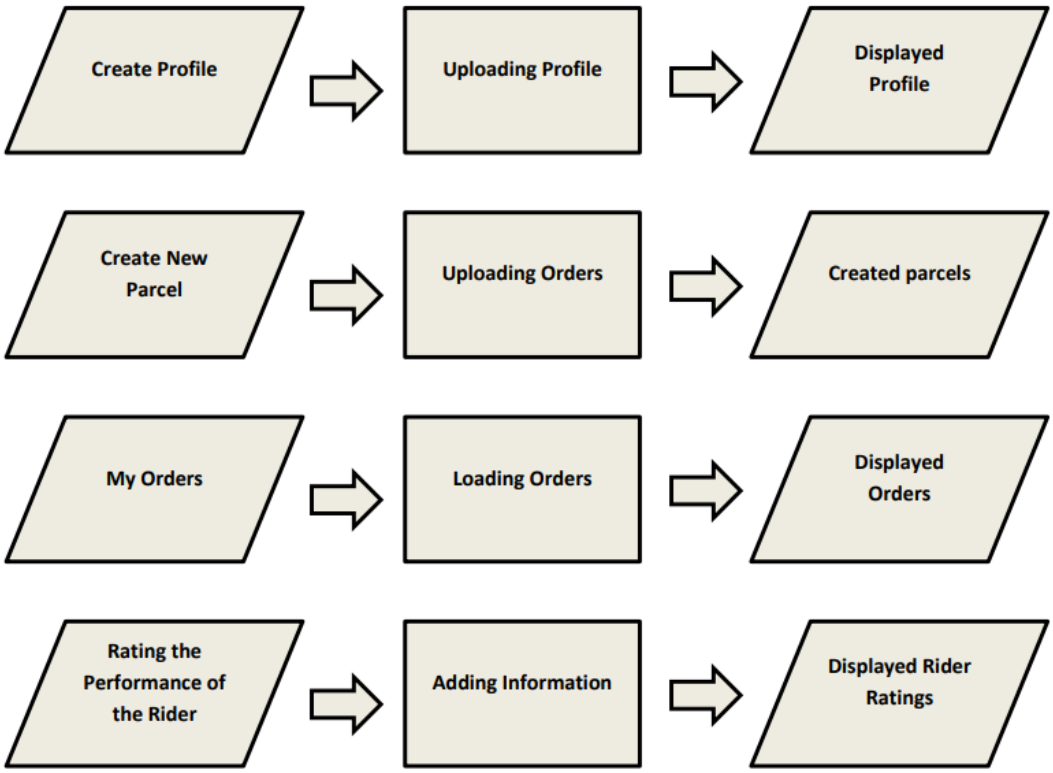

Figure 5. Customer Input Process Output

Figure 5 indicates the processes for the customer account input and output processes. The customer needs to create a profile to create a new parcel. After that, the customer can easily monitor his or her order status from time to time via in-app and SMS notifications.

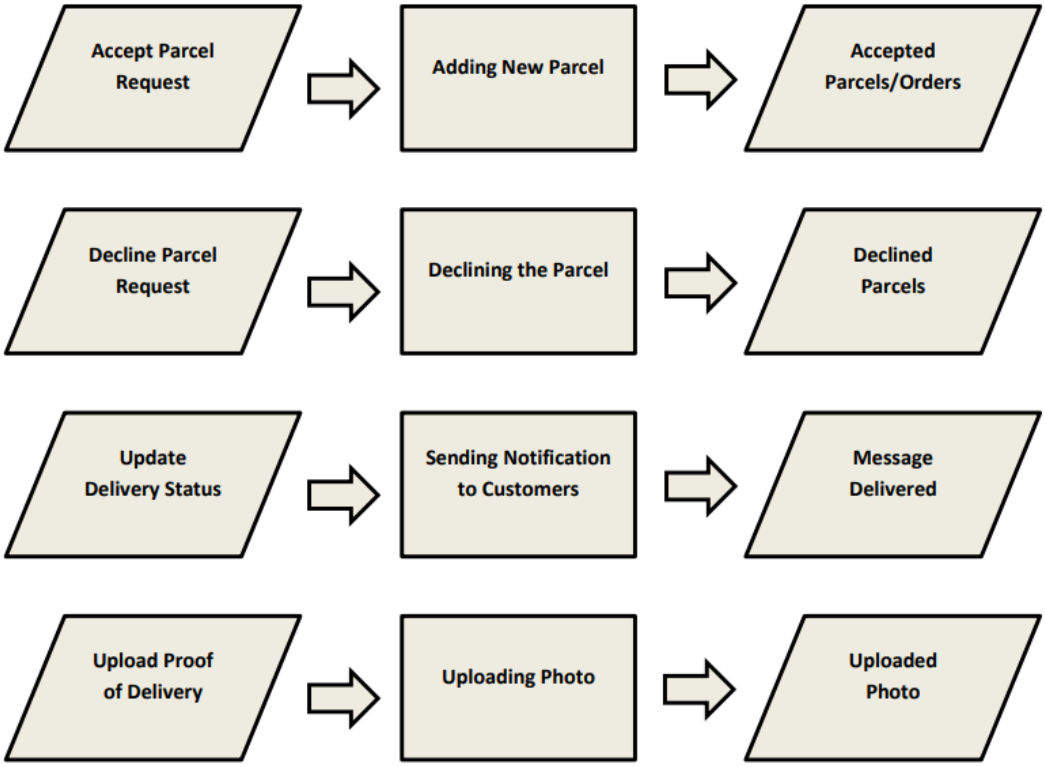

Figure 6. Rider Input Process Output

Figure 6 indicates the processes on the rider's account, tasks, such as accepting and declining parcel requests as well as updating the customers about the delivery status. The rider will also see the list of ongoing parcels to be delivered. Uploading a picture or proof of delivery for rider security is also possible.

Hardware and Software Requirements

The following were the minimum hardware and software requirements in running the "PaSuyo" mobile application.

Hardware:

- Mobile/Computer Devices having 2 GB RAM; and
- Dual Core Processors

Software:

- Web Browsers or Android Devices

Evaluation Results of the System

Based on the specified objectives, the mobile application was reviewed by the end-user using likert scale to understand what to look for while reviewing the mobile application. The users were composed of 35 respondents from the municipality of Anao.

Evaluation Results for Customers

Table 3 presents the result of the customer evaluation for the system in terms of Usability.

Table 3. Evaluation for Customers on Software Usability.

A. USABILITY	AVERAGE	DESCRIPTIVE RATING
A.1 Information provided by the system was accurate and well-organized.	4.48	Very Satisfactory
A.2 System requires no technical skills or assistance to use.	4.24	Very Satisfactory
A.3 It is simple to navigate from one page to another.	4.68	Excellent
A.4 Easy to complete a specific task while using the system.	4.40	Very Satisfactory
A.5 The system has all the expected features and capabilities.	4.16	Very Satisfactory
Section Mean	**4.39**	**Very Satisfactory**

Table 3 shows that most of the measurements of the software usability got a score from 3.50 to 4.49, which means that the software usability from the perspective of the user, is very satisfactory.

Table 4. Evaluation for Customers on Software Functionality.

B. USABILITY	AVERAGE	DESCRIPTIVE RATING
B.1 Creating/generating a new parcel.	4.52	Very satisfactory
B.2 SMS and in-app notifications of the system.	4.20	Very satisfactory
B.3 I can choose a rider and rate them based on their performance.	4.52	Very satisfactory
B.4 Option to add/change address before placing a new parcel.	4.64	Very satisfactory
B.5 System's features are functioning properly.	4.36	Excellent
Section Mean	**4.45**	**Very Satisfactory**

In Table 4, users found that the application features, such as creating and monitoring a parcel via in-app and SMS notification was very satisfactory.

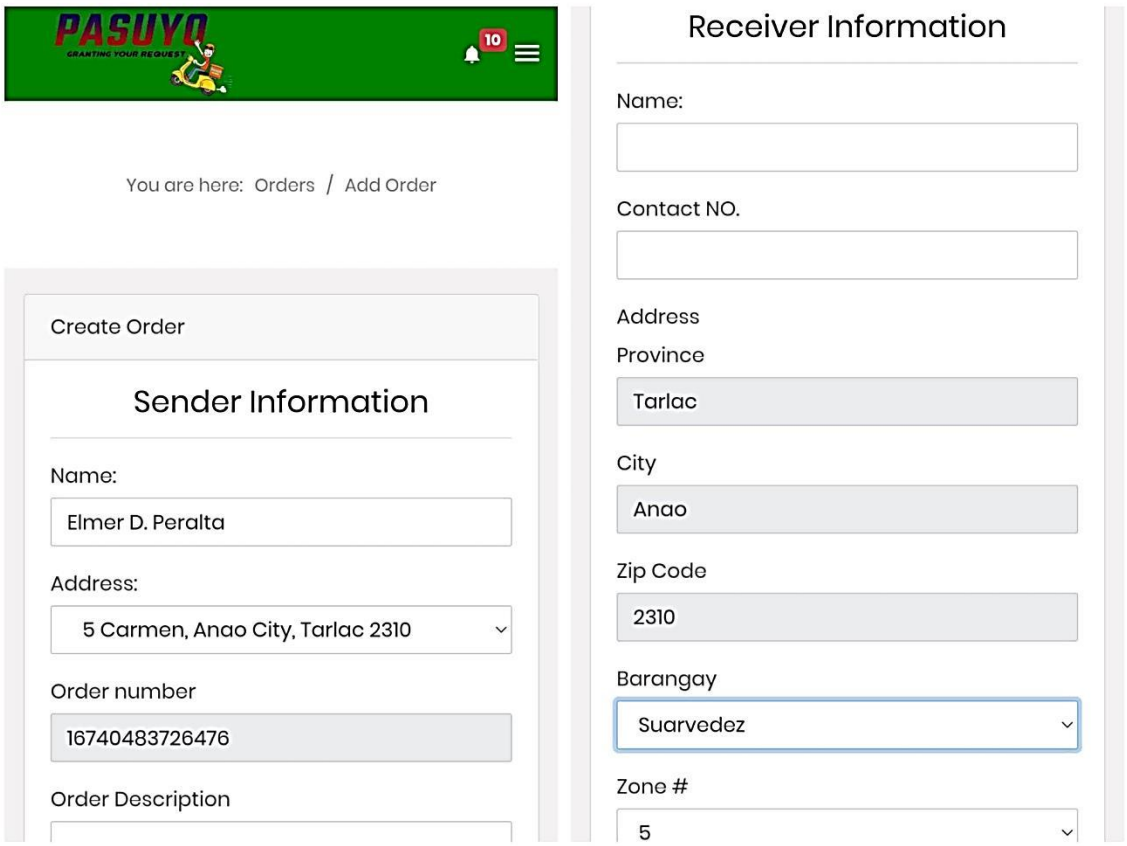

Figure 7. Creating a new parcel

Figure 7 shows the needed information in creating a new parcel. For users to create a new parcel the following information must be entered (Recipient name, contact number, address and size of the parcel) then afterwards they should click the submit button.

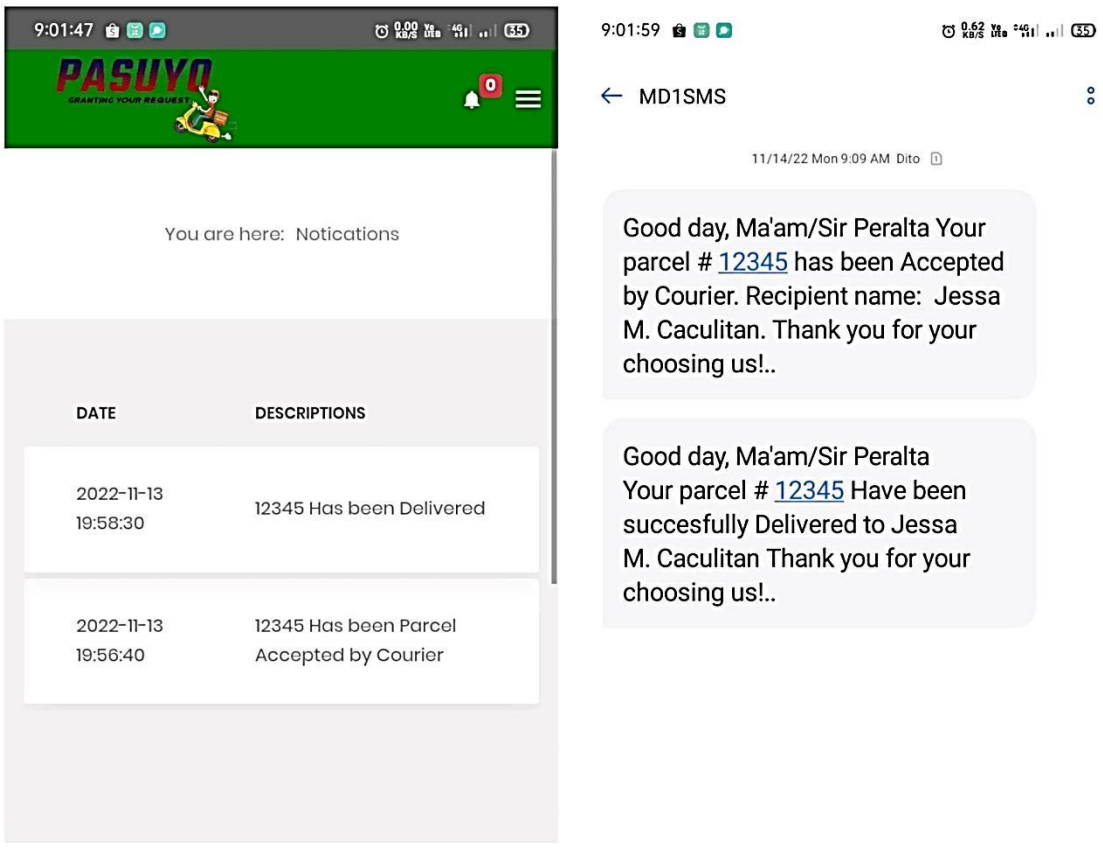

Figure 8. In-app and SMS notification

Figure 8 shows that the notifications were received by the end-users via in-app and SMS.

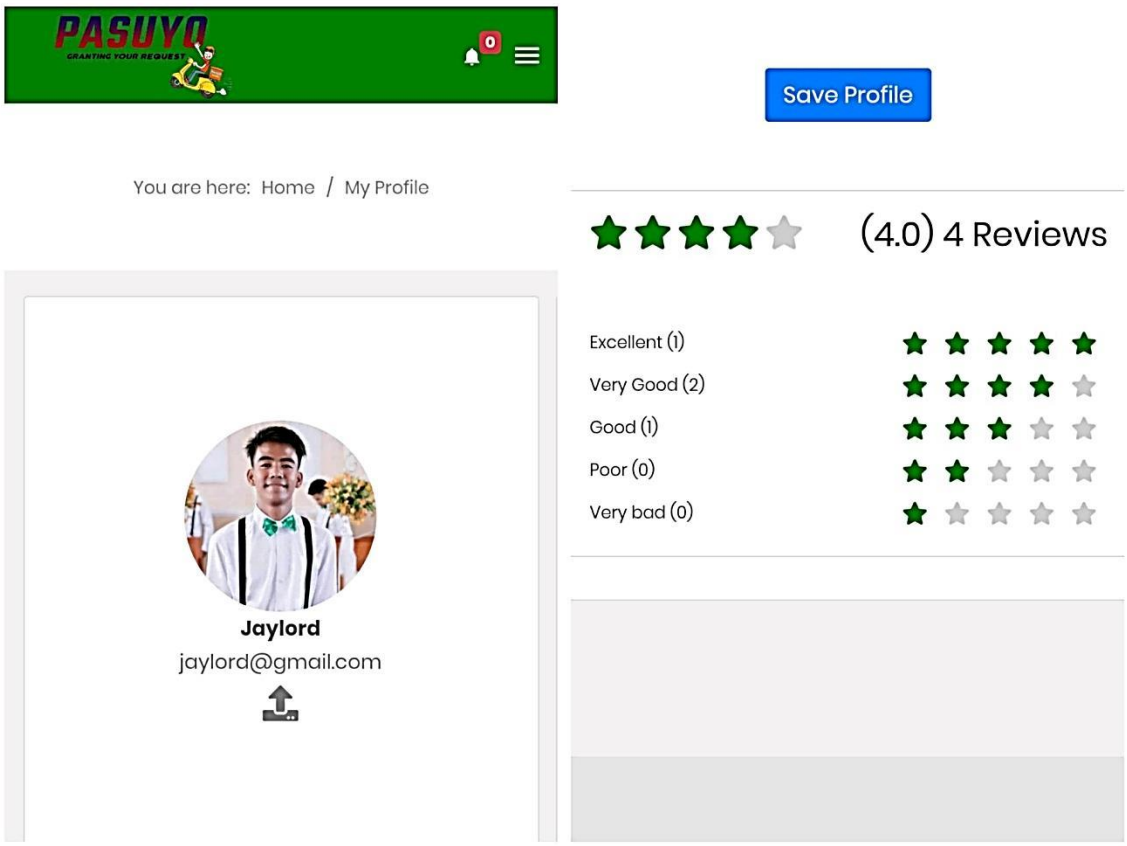

Figure 9. Rider's Profile and Ratings

Figure 9 shows the rider's profile and performance based on the end-users rating while using the mobile application.

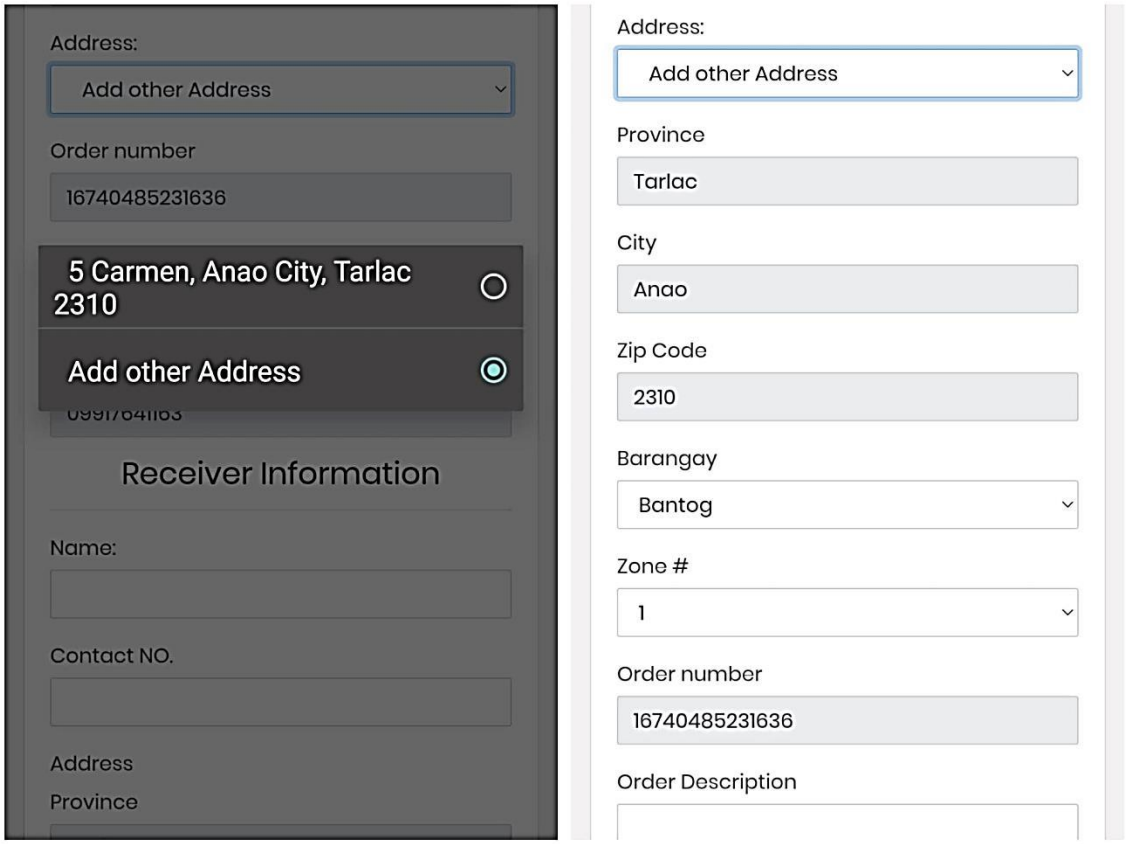

Figure 10. Option to add new address

Figure 10 shows that users have the option to add and change the default address.

Evaluation Results for Riders

Table 5 presents the result of the customer evaluation for the system in terms of Usability.

Table 5. Evaluation for the Riders on Software Usability.

A. USABILITY	AVERAGE	DESCRIPTIVE RATING
A.1 Information provided by the system was accurate and well-organized.	4.60	Excellent
A.2 System requires no technical skills or assistance to use.	4.80	Excellent
A.3 It is simple to navigate from one page to another.	4.60	Excellent
A.4 Easy to complete a specific task while using the system.	4.60	Excellent
A.5 The system has all the expected features and capabilities.	4.40	Very Satisfactory
Section Mean	**4.60**	**Excellent**

Table 5 shows that most of the measurements of the software usability got a score from 4.50 to 5.00, which means that the software usability from the perspective of the user, is excellent.

Table 6 presents the result of evaluation for the Software Usability in the perspective of the Riders.

Table 6. Evaluation for Riders on Software Functionality.

B. USABILITY	AVERAGE	DESCRIPTIVE RATING
B.1 Receiving of new parcel requests.	4.80	Excellent
B.2 Accepting and declining parcel requests.	4.60	Excellent
B.3 Select delivery status options to notify the customers.	4.80	Excellent
B.4 Option for uploading proof of delivery.	4.80	Excellent
B.5 System's features are functioning properly.	4.60	Excellent
Section Mean	**4.72**	**Excellent**

Table 6 shows that the riders found that receiving, accepting, declining parcel requests, and updating parcel status via in-app and SMS notification application features were excellent.

Table 7. Grand Mean for Customers

MEAN	WEIGHTED MEAN	DESCRIPTIVE RATING
A. Usability	4.39	Very Satisfactory
B. Functionality	4.45	Very Satisfactory
Grand Mean	**4.42**	Very Satisfactory

Table 7 shows that the customers evaluated the system's usability and functionality as *very satisfactory*, with a grand mean of 4.42.

Table 8. Grand mean for Riders

MEAN	WEIGHTED MEAN	DESCRIPTIVE RATING
A. Usability	4.60	Excellent
B. Functionality	4.72	Excellent
Grand Mean	**4.66**	Excellent

Table 8 shows that the rider evaluated the system's usability and functionality as *excellent*, with a grand mean of 4.66.

SUMMARY, CONCLUSION AND RECOMMENDATION

Summary

People nowadays prefer to shop online through various online sites and wait for their purchases to be delivered, rather than going to actual places. PaSuyo is an online courier delivery mobile application that offers online courier management.

Prospective users assessed the acceptability of the system. The system's functionality and usability were rated as very satisfactory in the perspective of the users.

Conclusion

1. Development of the PaSuyo mobile application can be made through the use of HTML, CSS, bootstrap, Android Studio, MySQL and PHP.
2. The PaSuyo: an online courier delivery mobile application in the Municipality of Anao, was rate Very Satisfactory by the customers in terms of system’s functionality and usability with a section mean of 4.39 and 4.45, respectively. Further, it was rated excellent by the riders in terms of the system’s usability and functionality with a section of 4.60 and 4.72, respectively.

3. The PaSuyo mobile application is excellent in terms of system's functionality and usability as indicated by the customers with a grand mean of 4.42 and by the riders by a grand mean of 4.66.

Recommendation

The researchers recommend the following:

1. The mobile application can also be implemented in other places.
2. Checking out a products and services can be added in the future.
3. Compare with other similar technology.
4. The application must be compatible not only with android phones, but also with iOS.

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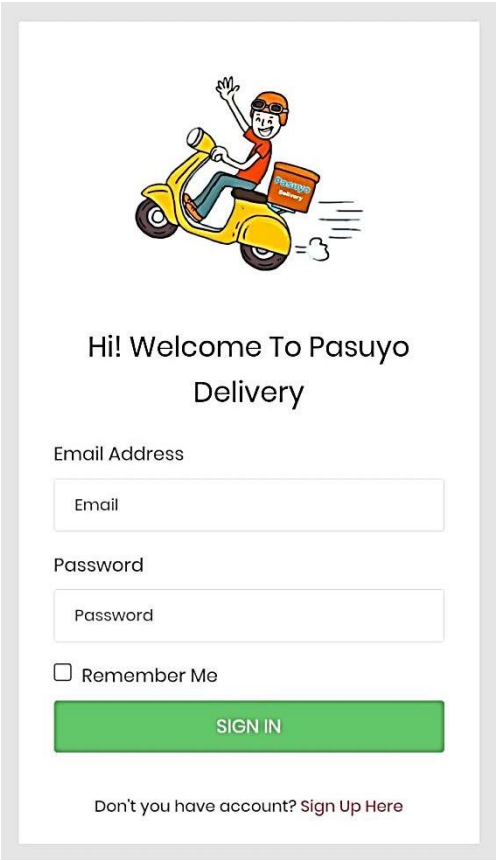
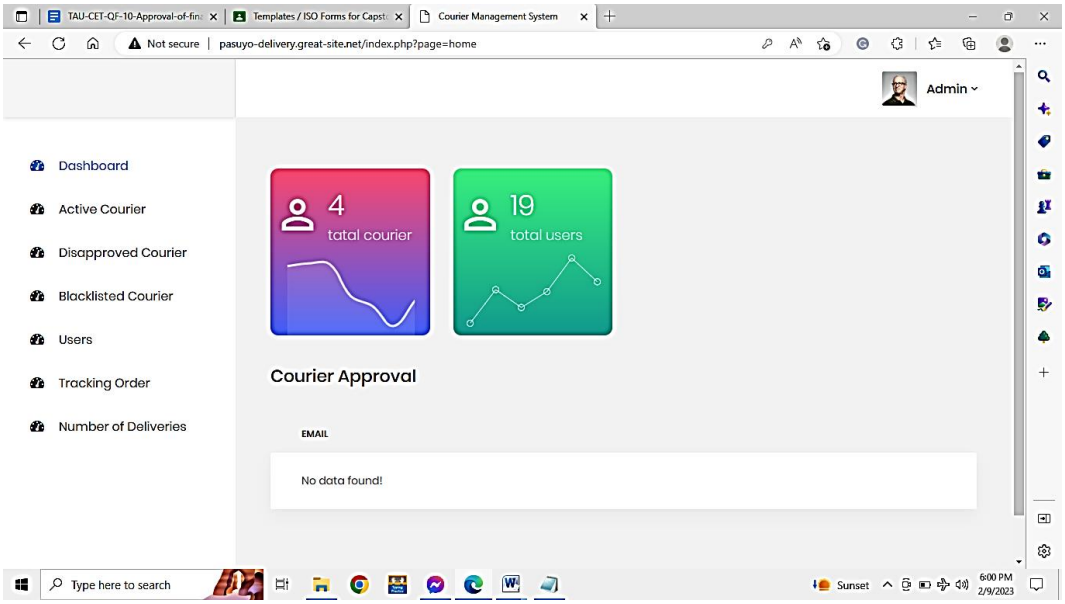
APPENDICES

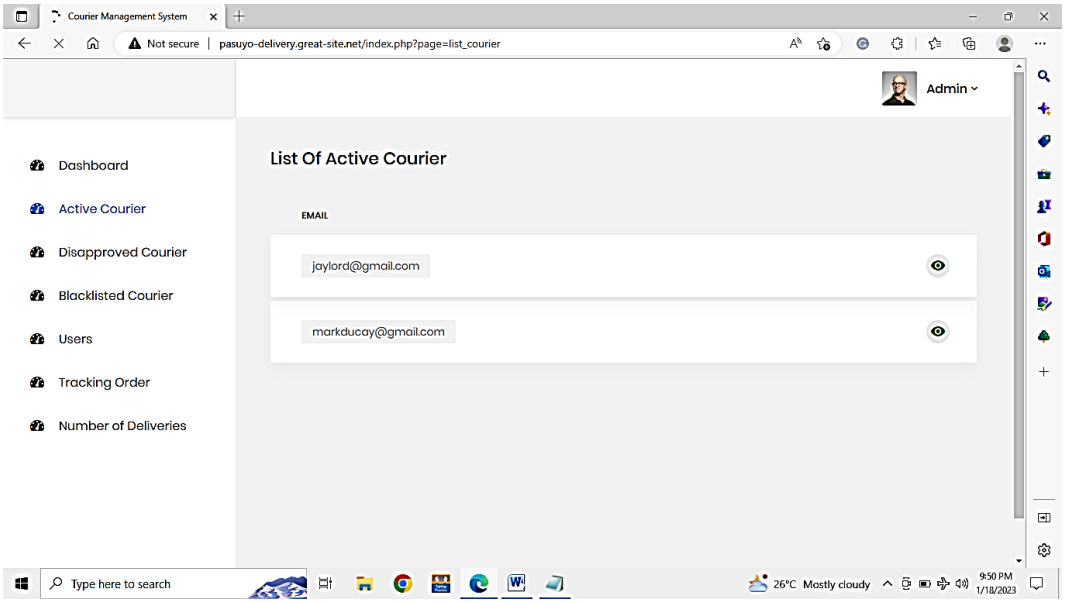
Appendix A: Login Interface



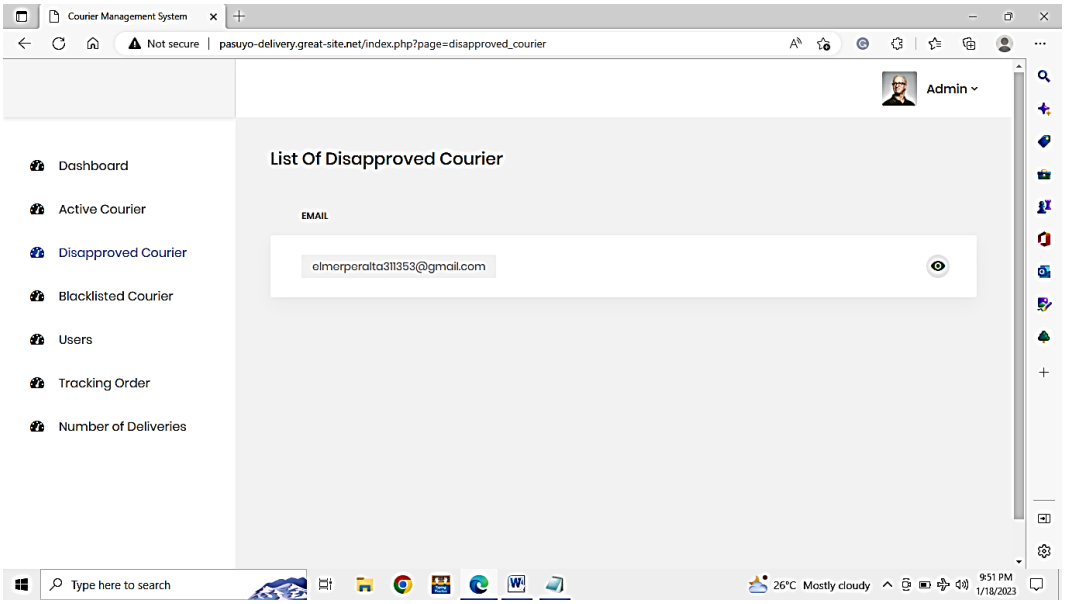
Appendix B: Admin Dashboard



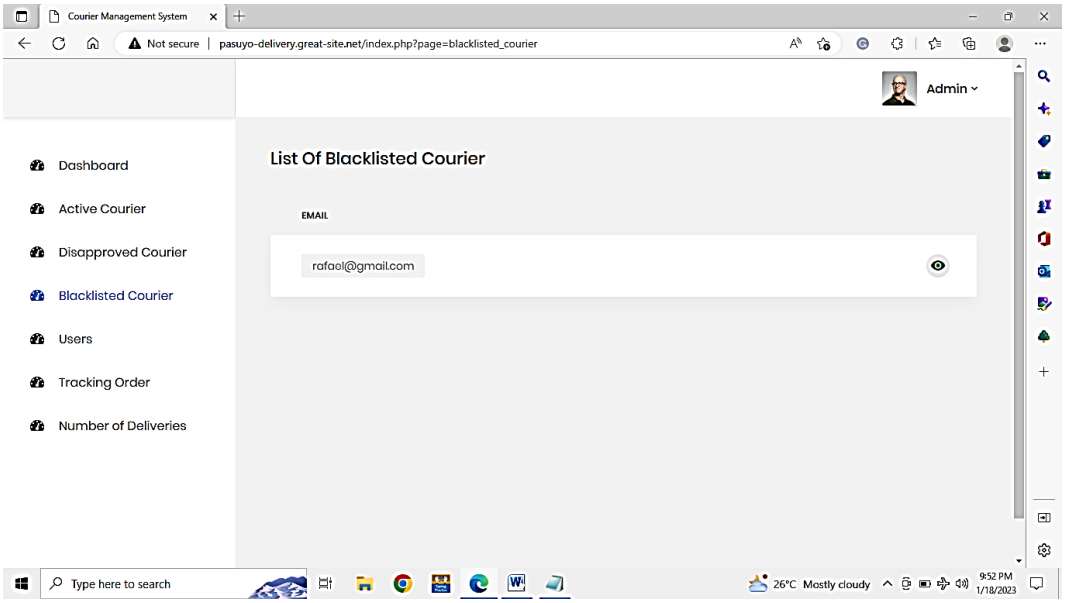
Appendix C: Lists of Active Riders



Appendix D: Lists of Disapproved Riders



Appendix E: List of Blacklisted Riders



Appendix F: Questionnaire for Customers

PASUYO: AN ONLINE COURIER DELIVERY MOBILE APPLICATION IN MUNICIPALITY OF ANAO

Name: _____ **Date:** _____

Address: _____

Instructions: Put a checkmark (✔) that corresponds to the rating you will give to the system, based on how well it met your expectations in terms of usability and functionality.

5 = Excellent | 4 = Very Satisfactory | 3 = Satisfactory |

2 = Good | 1 = Poor

For Customers	5	4	3	2	1
A. Usability					
1. Information provided by the system was accurate and well-organized.					
2. System requires no technical skills or assistance to use.					
3. It is simple to navigate from one page to another.					
4. Easy to complete a specific task while using the system.					
5. The system has all the expected features and capabilities.					
B. Functionality					
1. Creating/generating a new parcel.					
2. SMS and in-app notifications of the system.					
3. I can choose a rider and rate them based on their performance.					
4. System's features are functioning properly.					
5. Option to add/change address before placing a new parcel.					

Comments/Suggestions:

_____

_____

Appendix G: Questionnaire for Riders

PASUYO: AN ONLINE COURIER DELIVERY MOBILE APPLICATION IN MUNICIPALITY OF ANAO

Name: _____ **Date:** _____

Address: _____

Instructions: Put a checkmark (✔) that corresponds to the rating you will give to the system, based on how well it met your expectations in terms of usability and functionality.

5 = Excellent | 4 = Very Satisfactory | 3 = Satisfactory |

2 = Good | 1 = Poor

For Riders	5	4	3	2	1
A. Usability					
1. Information provided by the system was accurate and well-organized.					
2. System requires no technical skills or assistance to use.					
3. It is simple to navigate from one page to another.					
4. Easy to complete a specific task while using the system.					
5. The system has all the expected features and capabilities.					
B. Functionality					
1. Receiving of new parcel requests.					
2. Accepting and declining parcel requests.					
3. Select delivery status options to notify the customers.					
4. Option for uploading proof of delivery.					
5. System's features are functioning properly.					

Comments/Suggestions:

_____

_____

Appendix H: User Profile

Email Address:	Name: (Optional)	Address:
marivicv325@gmail.com	M	Suaverdez Anao, Tarlac
barisalyssa2501@gmail.com	Alyssa Joy Baris	Suaverdez Anao, Tarlac
domingovia22@gmail.com		Suaverdez Anao, Tarlac
juliegili0707@gmail.com	Julie	Suaverdez Anao, Tarlac
rubybautista2110@gmail.com	Ruby Bautista	Casili Anao, Tarlac
nyllen093@gmail.com	Cece	Bantog Anao, Tarlac
shylyncalaunan@gmail.com	Shy	Suaverdez Anao, Tarlac
enteangelica25@gmail.com		Suaverdez Anao, Tarlac
angelajeanbutardo26@gmail.com	angela butardo	Baguindoc Anao, Tarlac
sevillakristine24@gmail.com		Casili Anao, Tarlac
rosemariesumaoang3131@gmail.com	RDS	San Francisco East Anao, Tarlac
melodyguillermo13@gmail.com		San Roque, Anao, Tarlac
zcareenperalta02@gmail.com		Suaverdez Anao, Tarlac
monicaobena1003@gmail.com		Poblacion Anao, Tarlac
justinejeanalfonso@gmail.com		Sto. Domingo Anao, Tarlac
jaezelletzapanta@gmail.com		Don Ramon Anao, Tarlac
mramos210276@tau.edu.ph	n/a	San Jose North Anao, Tarlac
novymhariee@gmail.com		San Jose South Anao, Tarlac
corazonp@gmail.com		Campos Anao, Tarlac
myuuuhh688@gmail.com		Rizal Anao, Tarlac
cyfeliciano2020@tau.edu.ph	Clarkie	Hernando Anao, Tarlac
damascojhona@gmail.com	Jona	Hernando Anao, Tarlac
jeiahdiata273@gmail.com	Jeiah Diata	San Francisco West Anao, Tarlac
ducayarajane@gmail.com		Suaverdez Anao, Tarlac
marygracegadong22@gmail.com	GRATIA	Suaverdez Anao, Tarlac
gemamikecarodriguez@gmail.com		Hernando Anao, Tarlac
erwindomingo158@gmail.com		Carmen Anao, Tarlac
ep0891732@gmail.com	Estelito	Suaverdez Anao, Tarlac
third.watermellows@gmail.com	Angelo	Hernando Anao, Tarlac
angelo.antonio.carpo@gmail.com	Antonio	Casili Anao,Tarlac

Appendix I: Grammarian's Certificate

January 23, 2023

GRAMMARIAN'S CERTIFICATE

This is to certify that the study of Elmer D. Peralta, Jay Lord S. Fernando and Jessa Mae M. Caculitan has been reviewed and went through all the pages of the manuscript of the research project entitled "**Pasuyo: An online courier delivery mobile application in municipality of Anao**" considering the set of structural rules governing the composition of sentences, phrases and words in the English language and the Information Technology technical writing.

Signed:

LESLIE C. LOPEZ
Instructor 1, College of Arts and Sciences
Tarlac Agricultural University

Appendix J: TAU-CET-QF-02 ADVISORY COMMITTEE

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

COLLEGE OF ENGINEERING AND TECHNOLOGY

RECOMMENDATION OF ADVISORY COMMITTEE
(For Undergraduate Thesis/Capstone Students)

February 16, 2022
Date

DR. LEONELL P. LIJAUCO
Dean, College of Engineering and Technology

Sir:

We have the honor to nominate the following staff to constitute our thesis Advisory Committee:

Chairman: Ms. Catherine S. Rosete
Members: Mr. Renel F. Dumlao
Mr. Bryan Paul D. Domingo

Your approval on this matter will be highly appreciated.

Very truly yours,

ELMER D. PERALTA	BS in Information Technology	February 16, 2022
JAY LORD S. FERNANDO	BS in Information Technology	February 16, 2022
JESSA MAE M. CACULITAN	BS in Information Technology	February 16, 2022
KENNETH E. KAZALAN	BS in Information Technology	February 16, 2022

Conforme:

THE ADVISORY COMMITTEE

RENEL F. DUMLAO
Member
Date Signed:

BRYAN PAUL D. DANGANAN
Member
Date Signed:

CATHERINE S. ROSETE, MSIT
Chairman, Advisory Committee
Date Signed:

APPROVED:

LEONELL P. LIJAUCO, Ph.D.
Dean, College of Engineering and Technology
Date Signed: _____

NOTED:

MARIA ELENA T. CAGUIOA, Ph.D.
Director, Dept. of Research and Development
Date Signed: 19 MAR 2022

Form Code:	Revision No.:	Effectivity Date:	Page:
TAU-CET-QF-02	00	May 10, 2021	1 of 1

Appendix K: TAU-CET-QF-03 CAPSTONE TITLE APPROVAL

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

COLLEGE OF ENGINEERING AND TECHNOLOGY

THESIS/CAPSTONE TITLE APPROVAL SHEET
(For Undergraduate Thesis/Capstone Students)

April 06, 2022
Date

Leonnel P. Lijauco, Ph.d.
Dean, College of Engineering and Technology

Sir / Madam:

I have the honor to present my/our study entitled **"PaSuyo: An Online Courier Delivery Mobile Application in the Municipality of Anao"** for your consideration and approval.

Your approval on this matter will be highly appreciated.

Very truly yours,

ELMER D. PERALTA	BS in Information Technology	April 06, 2022
JAY LORD S. FERNANDO	BS in Information Technology	April 06, 2022
JESSA MAE M. CACULITAN	BS in Information Technology	April 06, 2022
KENNETH L. RAZALAN	BS in Information Technology	April 06, 2022

Conforme:

THE ADVISORY COMMITTEE

MR. RENEL F. DUMLAO
Member
Date Signed: **APRIL 07, 2022**

MR. BRYAN PAUL D. DANGANAN
Member
Date Signed: **APRIL 08, 2022**

CATHERINE S. ROSETE, MS
Chairman, Advisory Committee
Date Signed: **JUNE 23, 2022**

APPROVED:

LEONELL P. LIJAUCO, Ph.D.
Dean, College of Engineering and Technology
Date Signed: 3-1-20 23

NOTED:

MARIA ELENA T. CAGUIOA, Ph.D.
Director, Dept. of Research and Development
Date Signed: 6 MAR 2023

Form Code:	Revision No.:	Effectivity Date:	Page:
TAU-CET-QF-03	00	May 10, 2021	1 of 1

Appendix L: TAU-CET-QF-08 REQUEST FOR PROPOSAL DEFENSE

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

COLLEGE OF ENGINEERING AND TECHNOLOGY

REQUEST FOR ORAL EXAMINATION
(For Undergraduate Thesis/Capstone Student)

August 18, 2022
Date

DR. LEONELL P. LIJAUCO
Dean, College of Engineering and Technology

Sir/Madam:

May I request for an Oral Examination of our undergraduate thesis/outline/capstone entitled "PaSuyo: An Online Courier Delivery Mobile Application in Municipality of Anao" to be administered on September 5, 2022 at 2PM.

Your approval on this matter will be highly appreciated.

Very truly yours,

ELMER D. PERALTA	BS in Information Technology	August 18, 2022
JAY LORD S. FERNANDO	BS in Information Technology	August 18, 2022
JESSA MAE M. CACULITAN	BS in Information Technology	August 18, 2022
KENNETH L. RAZALAN	BS in Information Technology	August 18, 2022

Conforme:

THE ADVISORY COMMITTEE

MR. BRYAN PAUL D. DANGANAN
Member
Date Signed: **August 18, 2022**

MR. RENEL F. DUMLAO
Member
Date Signed: **AUGUST 18, 2022**

CATHERINE S. ROSETE MS,
Chairman, Advisory Committee
Date Signed: **AUGUST 18, 2022**

APPROVED:

LEONELL P. LIJAUCO, Ph.D.
Dean, College of Engineering and Technology
Date Signed: 8-18-2022

NOTED:

MARIA ELENA T. CAGUIOA, Ph.D.
Director, Dept. of Research and Development

Date Signed: 26 AUG 2022

Form Code:	*Revision No.:*	*Effectivity Date:*	*Page:*
TAU-CET-QF-08	00	May 10, 2021	1 of

Appendix M: TAU-CET-QF-08 REQUEST FOR FINAL DEFENSE

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

COLLEGE OF ENGINEERING AND TECHNOLOGY

REQUEST FOR ORAL EXAMINATION
(For Undergraduate Thesis/Capstone Student)

November 25,2022
Date

DR. LEONELL P. LIJAUCO
Dean, College of Engineering and Technology

S i r/M a d a m:

May I request for an Oral Examination of my/our undergraduate thesis/outline/capstone entitled PaSuyo: An online courier delivery mobile application in municipality of Anao to be administered on December 12, 2022 at 10 AM.

Your approval on this matter will be highly appreciated.

Very truly yours,

Elmer D. Peralta (Signature over printed Name)	BS in Information Technology Course	November 25, 2022 Date Signed
Jay Loyd S. Fernando (Signature over printed Name)	BS in Information Technology Course	November 25, 2022 Date Signed
Jessa Mae M. Caculitan (Signature over printed Name)	BS in Information Technology Course	November 25, 2022 Date Signed

Recommending Approval:

THE ADVISORY COMMITTEE

MR. BRYAN PAUL D. DANGANAN
(Member)
Date Signed: DEC 1, 2022

MR. RENEX M. DUMLAO
(Member)
Date Signed: Nov 25, 2022

CATHERINE S. ROSETE, MSIT
(Chairman, Advisory Committee)
Date Signed: Nov 26, 2022

APPROVED:

LEONELL P. LIJAUCO, Ph.D.
Dean, College of Engineering and Technology
Date Signed: Nov 28

NOTED:

MARIA ELENA T. CAGUIOA, Ph.D.
Director, Dept. of Research and Development
Date Signed: 05 DEC 2022

Form Code	Revision No.	Effectivity Date	Page
TAU-CET-QF-08	00	May 10, 2021	1 of 1

Appendix N: TAU-CET-QF-10 FINAL CIRCULATING COPY

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

COLLEGE OF ENGINEERING AND TECHNOLOGY

APPROVAL FORM FOR FINAL CIRCULATING COPY

Name of Students (s):	Date:
Elmer D. Peralta	Jan. 20, 2023
Jay Lord S. Fernando	Jan. 29, 2023
Jessa Mae M. Caculitan	January 20, 2023

Title: Pasuyo: an online courier delivery mobile application in municipality of Anao

ADVISORY AND PANEL COMMITTEE

Name:	Signature/Date Signed:
Catherine S. Rosete, MSIT (Chairman, Advisory Committee)	1/20/23
Mr. Bryan Paul D. Danganan (Member)	1/20/2023
Mr. Renel F. Dumlao (Member)	1/20/20
English Editor: Leslie Lopez	1/20/2023
Format Editor: Maria Regina M. Pablo	1/20/2023

Recommending Approval:

Catherine S. Rosete, MSIT
Chairman/Adviser, Advisory Committee
Date Signed: 02-17-2023

Joven T. Olendino
Chairperson, Department of Computer Studies
Date Signed: 02-17-2023

Approved:

Leonell P. Lijauco
Dean, College of Engineering and Technology
Date Signed: 02-17-2023

Form Code:	Revision No.:	Effectivity Date:	Page:
TAU-CET-QF-10	00	May 10, 2021	1 of 1

Appendix O: TAU-CET-QF-39 TESTING FOR SIMILARITY INDEX

Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

DEPARTMENT OF RESEARCH AND DEVELOPMENT

TESTING FOR SIMILARITY INDEX

Research Title: PASUYO: AN ONLINE COURIER DELIVERY MOBILE APPLICATION IN THE MUNICIPALITY OF ANAO

Researcher(s): Elmer D. Peralta, Jay Lord S. Fernando, Jessa Mae M. Caculitan
Contact No.: 0991 764 1163
Email Address: elmerperalta311353@gmail.com
Type of Research: Technical

Ma'am/ Sir may I request for the plagiarism check of the abovementioned research. I am entrusting the softcopy of the research to be used for this purpose only. I hereby certify that the information given are true and correct and the research conducted is authentic. I further signify my commitment to revise the paper as per evaluation results.

Edperalta
Elmer D. Peralta
Requestor
(Signature over Printed Name)

February 14, 2023
Date

Received by:

MARY JOY S. LICTAWA
DRD Staff/Turnitin Instructor
(Signature over Printed Name)

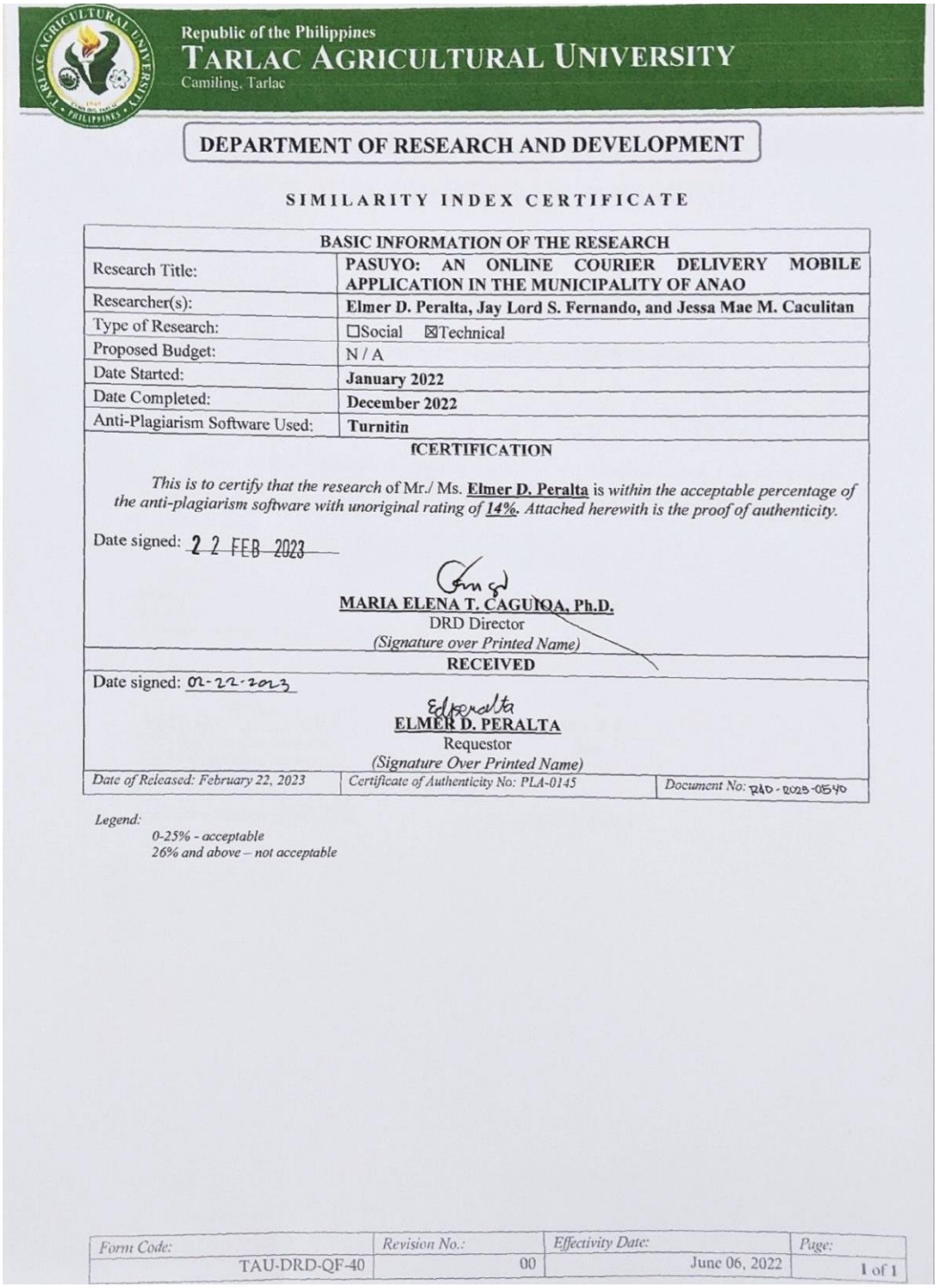
02 - 14 - 23
Date

Application Number: PLA - 0145

Official Receipt Number: _____

Form Code:	Revision No.:	Effectivity Date:	Page:
TAU-DRD-QF-39	01	December 20, 2022	1 of 1

Appendix P: TAU-CET-QF-40 SIMILARITY INDEX CERTIFICATE



Republic of the Philippines
TARLAC AGRICULTURAL UNIVERSITY
Camiling, Tarlac

DEPARTMENT OF RESEARCH AND DEVELOPMENT

SIMILARITY INDEX CERTIFICATE

BASIC INFORMATION OF THE RESEARCH	
Research Title:	**PASUYO: AN ONLINE COURIER DELIVERY MOBILE APPLICATION IN THE MUNICIPALITY OF ANAO**
Researcher(s):	**Elmer D. Peralta, Jay Lord S. Fernando, and Jessa Mae M. Caculitan**
Type of Research:	☐Social ☒Technical
Proposed Budget:	N / A
Date Started:	**January 2022**
Date Completed:	**December 2022**
Anti-Plagiarism Software Used:	**Turnitin**

CERTIFICATION

This is to certify that the research of Mr./ Ms. **Elmer D. Peralta** is *within the acceptable percentage of the anti-plagiarism software with unoriginal rating of* **14%**. *Attached herewith is the proof of authenticity.*

Date signed: 2 2 FEB 2023

MARIA ELENA T. CAGUIOA, Ph.D.
DRD Director
(Signature over Printed Name)

RECEIVED

Date signed: 02-22-2023

ELMER D. PERALTA
Requestor
(Signature Over Printed Name)

Date of Released: February 22, 2023	*Certificate of Authenticity No: PLA-0145*	*Document No:* RAD-2023-0540

Legend:
0-25% - acceptable
26% and above – not acceptable

Form Code:	*Revision No.:*	*Effectivity Date:*	*Page:*
TAU-DRD-QF-40	00	June 06, 2022	1 of 1