

Samgyeopsal Restaurant Management Portal with 2D Mapping

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by:
Lampano, Gen-lyn B.
Magtaan, Jay-r P.
Manansala, Kirk Steven
Molina, Jhairra Mae C.
Pedrosa, Harvie Mariez A.

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APPROVAL SHEET

In partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology major in Network and Web Application, this thesis entitled, **Samgyeopsal Restaurant Management Portal with 2D Mapping**, has been prepared and submitted by Gen-Lyn B. Lampano, Jay-R P. Magtaan, Kirk Steven B. Manansala, Jhairra Mae C. Molina and Harvie Mariez A. Pedrosa who are recommended for oral examination.



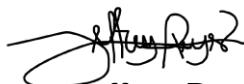
Cherry A. Collera,
PhD

Thesis
Adviser

Approved in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology major in Network and Web Application by the Committee on Oral Examination



Cristina G. Rivera, MScS
Chairman



Jeffrey P.
Reves



Simon T. Soyangco
Member

Approved in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology major in Network and Web Application.



Cristina G. Rivera, MScS
Dean
College of Information and Communications Technology

FEBRUARY 2022

DEDICATION

I would like to dedicate this to my family who is always supporting me, even though I am not that good, but they are still supporting what I can do, to God who is always giving me strength to face those problems I haven't faced yet, and lastly to give thanks to my group mates who give ideas to each other to make this project work.

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ABSTRACT

The study Samgyeopsal Restaurant Management Portal with 2D Mapping is a web portal that focuses on different samgyeopsal restaurants and manages their transactions. The system offered customers an environment where they can look for different samgyeopsal restaurants around Bataan, book for a reservation, add advanced orders, and give feedback to the system and the restaurant management. The study provided efficient ways in handling the restaurants' everyday transactions. The study was convenient to use since they can book advanced reservations and orders instead of waiting in line. The study was useful for the restaurant owners of the samgyeopsal restaurants because they can track their sales, inventory, and transactions anytime and anywhere using the developed system that gave assistance to different samgyeopsal restaurants since the web portal system helped them to handle, manage, and track their reservations, transactions, inventory, and sales. The developed system used Visual Studio Code as its programming language and Windows 10 as its operating system. Dreamweaver and Photoshop for mock-ups. Also, XAMPP serves as the database in order for the developed system to work properly. At the same time, a QR code scanner, a computer with at least 4GB of RAM and has the required software and a working browser should be also provided. The Samgyeopsal Restaurant Management Portal with 2D Mapping was evaluated by forty respondents including IT professionals, restaurant owners, restaurant crews, and customers using ISO 25010 and the system reached an average mean of 4.63 and Excellent in descriptive interpretation. The system meets all the requirements such as the functional sustainability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability[].

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Chapter 1

Background of the Study

Nowadays, Information Technology is constantly rising due to high demand from different industries such as businesses, studies, companies, and so on. People have been using information technology every day. From waking up to the sound of our alarms, getting messages from family and friends, and to the use of an application to book a cab to take people to their works or schools. These are some of the technologies that are brought to us by information technology. It is to help us and make us comfortable when transacting and to easily do the tasks we are intended to do.

In the current setup, technology plays an important role in every industry. Due to the pandemic, people are needed to have a transaction that has minimum interaction between the customer and the service provider. Businesses like restaurants are heavily affected because of the pandemic. There have been numerous lockdowns all around the world and restaurants are forced to close. Either they are forced to close or they don't have a system that can handle the current situation.

Samgyeopsal is a word from Korea that is a popular dish in different countries around the world including the Philippines. It is a thick and fatty slice of pork belly meat. The meat can be marinated with different sauces or just plain meat. It is then grilled at the table while eating.

Here in Bataan, numerous samgyeopsal restaurants are operating. Some of the popular branches are Peer Chee Samgyupsal, Mr. Kimchi, Super Boink, and Romantic Baboy which are all located in the province of Bataan. The operation of these restaurants has been affected numerous times due to lockdowns. Capacity limits are now up to 50%, subject to social distancing requirements. This became a hindrance to their businesses to prosper and to get their normal sales. These restaurants are offering advanced reservations for family dinners, pick-up of orders, dine-in, etc. Walk-in clients are clients who are physically walking into the restaurants without an advanced reservation. Reserved customers are customers who have a transaction before going to the restaurant through phone calls, email, or text messages.

Samgyeopsal Restaurant Management Portal with 2D Mapping is a web portal that focuses on different samgyeopsal restaurants and manages their transactions. The system offered customers an environment where they can look for different samgyeopsal restaurants around Bataan, book for reservation, add advanced order, and give feedback to the system and the restaurant management.

The main problem of the study was to develop and implement a Samgyeopsal Restaurant Management Portal with 2D Mapping that assisted different samgyeopsal restaurants, their employees, and their customers in making their transactions easier. The study sought answers on how the customers can register and create their accounts, how the system can help the customers in finding the nearest restaurants from their registered location, how

the customer can book for a reservation, how the customers can place orders for pick-up, how the customers can see the menus of each restaurant, how to inform the customers about their advanced reservation, how to provide receipts to the customers for their order transactions, how to get insights from customers about the services of the system and the restaurants, and how to track the restaurant's inventory and sales.

The study endeavored significantly in promoting the services of different samgyeopsal restaurants in Bataan. The study provided efficient ways in handling the restaurants' every day transactions. The study was convenient to use since they can book advanced reservations and order instead of waiting in line. The study was useful for the restaurant owners of the samgyeopsal restaurants because they can track their sales, inventory, and transactions anytime and anywhere using the developed system. The developed system gave assistance to different samgyeopsal restaurants since the web portal system helped them to handle, manage, and track their reservations, transactions, inventory, and sales. Finally, the developed system can be used for further studies and research for other students.

Objectives of the Study

The main objective of the study is to develop and implement a Samgyeopsal Restaurant Management Portal with 2D Mapping for managing and securing the restaurants' reservations, transactions, inventory, and sales.

Specifically, the study aims to:

- Design a web portal that is capable of:

- a. Allowing the users to register in the portal through registration module;
 - b. Finding the nearest restaurants based on the user's location using 2D mapping;
 - c. Filling out the information needed such as time, date and orders to book an advance reservation after the registration and sign in.;
 - d. Providing pick-up assistance for the customers.;
 - e. Granting the user to browse the list of menus.;
 - f. Sending user/customer confirmation about their requested reservation through SMS notification module.;
 - g. Generating QR code after confirming the order that will be presented to the cashier for payment through an automated e-receipt.;
 - h. Giving feedback and ratings about the service through feedback module; and
 - i. Monitoring the restaurants' inventory by keeping the records of available stocks and tracking of sales through the use of restaurant's records.
- Create a system using a Visual Studio Code, XAMPP, Windows 10, Dreamweaver, Photoshop, as software requirements, and Monitor, 4GB RAM, mouse, keyboard, and QR code scanner as hardware requirements.

- Test and improve the system in terms of functional suitability, usability, maintainability, security.
- Evaluate the performance of the system based on ISO 25010 characteristics such as functional suitability, maintainability, usability, performance efficiency, compatibility, reliability, security, portability.

Scope and Delimitations of the Study

The developed system, Samgyeopsal Restaurant Management Portal with 2D Mapping systematize the manual setup and improve the restaurants' process of storing and securing data of reservations, and transactions, monitoring their store's inventory, and observing their sales.

Users, both customer and restaurant, are allowed to register by presenting a valid ID for verification. Customers are required to enter their location to be able to search for the nearest restaurants. When this process is already done by the customers, once they are logged in to the portal, the restaurants that are available and that are near from their location are listed guided by a map for easy tracking of restaurants by pinning the restaurants on the map. They are then allowed to book for a reservation, the order in advance, or the order for pick-up transactions. In the process of booking a reservation, customers are allowed to choose their desired time and date and have the privilege to browse the menu. Once the reservation is already confirmed by the restaurant, the customers are going to be notified via SMS Notification through

the cell phone number they used during the registration. Once the orders or reservation is already confirmed from the restaurant side, the system offers QR codes for the customer to present to the cashier. The invoice in the user side is printable to serve as an e-receipt in the form of a pdf file. Any additional orders made in the restaurant are not counted or included in the total amount payable from the QR code. After the services are provided to the customers, either reservation or order for pick-up, customers can give their feedback on the portal itself and the restaurants for ratings.

On the restaurant's side, once they are confirmed by the admins, the portal allows them to add or update their menu list and their stocks in their inventory. The system also allows the restaurants to add tables and chairs. During the booking stage, customers need to settle down first the reservation fee for them to get their desired time and date and table and chairs. If the customer has not yet settled down the reservation fee, the time and date and the table and chairs they are reserving for them will still appear available in the system. The system allows the restaurant to accept and notify their customers about their reservations and pick-up orders by sending an automated message through SMS. Sending SMS is provided by the system. The system also provides assistance to the restaurant's inventory and sales records.

The website is intended only for those who are operating or managing samgyeopsal restaurants in the Province of Bataan and their customers but is not limited to being accessed by the customers in the province. It means that customers that are from other provinces going to Bataan can access the portal

to view the various samgyeopsal restaurants in the province. Records inside the restaurant are accessed by the authorized staff only. Ordering of food can only be accessed if the user is already logged in. Managing the availability and the menu is based upon authorized staff's input only. The user of the website must have at least one working browser and a stable internet connection. The system does not manage payment online. The system is not offering a chatbot that customers can message for inquiries instead, the system provides the email, if there is, and the contact number of the restaurant.

The proponents used the required software suitable for the system. The developed system used Visual Studio Code as its programming language and Windows 10 as its operating system. Dreamweaver and Photoshop for mock-ups. Also, XAMPP serves as the database in order for the developed system to work properly. At the same time, a QR code scanner, a computer with at least 4GB of RAM and has the required software and a working browser should be also provided.

The developed system is evaluated with the use of ISO 25010 with its eight main quality characteristics: functionality, suitability, maintainability, usability, performance efficiency, compatibility, reliability, security, portability. The proponents interviewed forty (40) individuals as respondents. The target respondents were composed of two (2) owners or restaurant managers, two (2) employees, four (4) IT experts, two (2) teachers, and thirty (30) customers for a total of forty (40) respondents

Chapter 2

CONCEPTUAL FRAMEWORK

This chapter provides information related to the topic which aids the researchers in developing the study. The research refers to all the gathered information from books, journals, electronic sources, findings in previous thesis and dissertations which provides sufficient background about the study.

Review of Related Literature and Studies

Samgyeopsal

Gallerina et al. (2019) described samgyeopsal as a grilled pork belly in Korean cuisine. The name of the dish came from the Korean term “sam” which means three because the samgyeopsal meat has three layers. This meat is sliced either thin or thick depending on the customer’s satisfaction. The meat is then marinated or not. Usually, the diners are the ones who grill the meat at the table.

Identically, Newsville (2018) also depicted samgyeopsal and elaborated some facts. Samgyeopsal is a Korean grilled pork that is normally eaten for dinner. Though it is really eaten for dinner, Filipinos are known for having lunch as their biggest meal. So, when samgyeopsal restaurants are getting popular in the Philippines, Filipinos are now eating it either for lunch or dinner time.

Lastly, Javier (2018) elaborated the actual meaning of samgyeopsal. The original samgyeopsal is just thick pork slices without any seasoning. It is then dipped in the ssamjang sauce and wrapped with lettuce or perilla leaves.

In summary, samgyeopsal can be used in study to help the proponents to learn about the different menus available in different samgyeopsal restaurants here in Bataan and to learn where these restaurants came from.

Samgyeopsal Restaurant

Based on eCompareMo (2019), samgyeopsal restaurants have been getting the attention of the public since the Korean wave or Hallyu wave in the Philippines. These restaurants offer unlimited Korean barbecue in different marinades. Some restaurants also offer Korean meals such as bibimbap.

In addition, Destacamento (2019) enumerated some samgyeopsal restaurants in the metropolitan area and documented his honest reviews in these places. Some restaurants do not have a reservation system because they follow the protocol of first come, first serve. These restaurants have different types of meats and marinades. The prices indicated differ depending on what type of meat and marinade the customer ordered.

By the same token, The Booky Team (2021) stated that these restaurants have a noticeable surge in the country with different Korean and samgyeopsal restaurants being established all over the country. The main reason for this is because of the influence of Korean culture, specifically K-Pop.

By all means, the proponents of this project need to know how samgyeopsal restaurants run their businesses, the requirements, and operations that help the proponents to design a suitable web portal for the samgyeopsal restaurants in Bataan.

Samgyeopsal Restaurant Management

Krow (2017) stated that opening a restaurant dedicated to Korean barbecue requires lots of planning, time, and financial resources. Though it might become too overwhelming through the process of opening a restaurant due to preparing of the requirements for the business, deciding the right and needed tools or equipment in the kitchen, interviewing helpers and other processes, the payoff is worth it if the owner were able to have a systematic plan using analysis such as SWOT (Strengths, Weaknesses, Opportunities, and Threats) to manage the restaurant.

Additionally, Singson (2020) elaborated how these samgyeopsal restaurants manage their dine-in customers in times of the current pandemic in the Philippines. Guidelines such as wearing masks, face shields, and gloves for both the customers and employees must be always observed. With these additional guidelines in the restaurant's management, they were able to prevent the closing of their establishment due to the virus.

Lastly, Sari et al. (2020) explained that a restaurant management must be able to understand the factors in considering the consumers when buying products in a restaurant. Through understanding the factors, the management

of the restaurant were able to make changes in their existing marketing strategies that helped them in prospering their business.

In summary, samgyeopsal restaurant management was a stepping stone for the proponents to know the different ways on how these samgyeopsal restaurants are managing their businesses. This gives the proponents a better understanding and analysis of requirements for the developed project.

Restaurant Management Portal

Mamaril (2017) studied the differences between having a management portal and none in a restaurant. His findings showed that it is advantageous for the restaurant to have a management portal. Integrating the management of the restaurant with a developed system helps the restaurant to lessen the problems they are facing without the management portal. The quality of the service in restaurants has also been undeniably improved through the restaurant management portal.

Comparatively, Pyanikova et. al (2020) also studied the digitalization of different industries including restaurants. The impact of modernization led transformations from basic management of restaurants through manual systems to designing and developing automated management system portals for the business. By the continuous improvement of systems for restaurant management the economic activity of restaurants became optimized.

Finally, Kahlon and Sur (2018) stated that the use of a restaurant management portal is to help the restaurant owners in running their businesses by just looking at the portal. With a restaurant management portal, the owners can track their Point of Sale that is integrated in the management portal. This helped the restaurant in managing their transactions more efficiently and effectively.

To sum it up, the proponents need to understand the concept of restaurant management portal and integrate their learnings to create the developed project.

Transaction Processing

Howard (2018) stated that a transaction processing infers secluding information dealing with up into individual, constant tasks, called transactions, that aggregate or miss the mark as a total; a trade cannot remain in a widely appealing, deficient, state (so different structures cannot get to the exchange's data until either the trade has finished, or it has been "moved back" after dissatisfaction). Transaction processing is taking care of saving data set insight (the consistency of related data things) in a known, consistent state.

In addition, James (2020) defined the transaction process as a term that refers to manipulating a record in a database by entering the data at a terminal or workstation. Transaction processing consists of adding, changing, deleting, updating, or looking for the desired data or information in the database. Through the Internet, people from various countries all over the world can feel more at

ease with the processes of transaction. An example of this is tracking of online orders or packages.

Lastly, IBM Corporation (2017, 2021) transaction processing is a way of figuring, regularly performed by computers, that upholds intuitive applications. It is about computing that concerns large organizations. Manipulating records in the database is common since the users need to access the past records to compute for new records that were needed in the future.

Overall, the proponents integrated transaction processing with other technologies to secure all the data or information entered as a transaction is saved in the database of the developed project.

Database Management System

According to Raza (2018), database management systems deal with the innovation to advance, deal with the capacity and recovery of information from databases. Database management systems offer a precise way to deal with large databases by means of interface for clients as responsibilities getting to the databases through applications.

Additionally, Taneja (2017) database management system is a compilation of interrelated information and a set of programs to get the information effectively. An essential objective of database management systems is to recover data from databases and to store data in the database.

Furthermore, Howard (2019) the database management system stores information and gives offices to dealing with that information. In the present day,

data set innovations depend on a partition between the consistent portrayal of the information and its actual launch so one can be changed without influencing the other. In any case, the actual storage model mirrors the coherent portrayal.

To sum it up, the database management system is going to be used in the developed project for the purpose of creating, storing, and deleting, updating data in databases.

Web Programming

Halvorsen (2018) explained the basics of web programming and why it is essential today in everyone's lives. Web applications become powerful as the time goes by, these web applications are designed and programmed using web programming languages such as HTML, CSS, and JavaScript. Halvorsen also compared web applications with desktop applications and said that web applications have more potential in the market as it is integrated with the Internet and anyone can access or search it.

According to Codeconquest (2021) web programming, otherwise called web improvement, is the production of dynamic web applications. Instances of web applications are person to person communication locales like Facebook or online business destinations like Amazon.

Furthermore, Digital Guide IONOS (2019) web programming language can be utilized to characterize complex coherent guidelines and cycles. While markup language, for example, HTML must be utilized to produce records, and

it can utilize programming language to make projects of any size to address the issues.

Overall, web programming was used in the developed project to better understand the basics of making a web portal using a web programming language like PHP.

QR Code

According to Pontius (2021), QR codes or Quick Response codes are developed with the idea of having a fast-track transaction through a code that when scanned by a cell phone or a code scanner, generates information or data. Before it became a mainstream for transaction processes, originally, QR Codes were made to ease the tracking of parts of vehicles in the manufacturing process.

Similarly, Scott (2020) also said that QR codes have minimalistic and simple design that consists of different sizes of squares. These QR codes give lots of restaurants a bright future for their transactions. Just like a barcode on a package of snacks or other items that can easily be scanned and give information to the user of the scanner, these QR codes also have the same functionality. These codes help different industries to provide touchless and faster transactions.

Lastly, Gregersen (2109) defined QR codes as a type of barcode which are printed in small black and white boxes that can later on be scanned with a

cell phone or other electronic devices. The box patterns represent the alphabet letters (A-Z) and numbers (0-9).

To sum it up, the proponents used QR code to provide the customers with the electronic receipt that can be scanned at the cashier.

2D Mapping

Autodesk.Help (2017) 2D Maps are two-dimensional pictures that are commonly planned onto the outside of mathematical items or utilized as climate guides to make a foundation for the scene. The most straightforward 2D guides are bitmaps; different sorts of 2D guides are produced procedurally.

Additionally, Charlon (2020) explained the difference between 2D mapping and 2.5D mapping. The conclusion in his article is that 2D maps do not have heights to show, only the surface of the blocks. 2D maps consist of blocks that are stitched together to create a high-resolution image.

Based on Drone Photography Service (2020) 2D mapping can be utilized to quantify genuine distances, since it is an exact portrayal of the Earth's geographic surface. The covering geo-referred to airborne pictures are sewed together in the product to deliver a 2D orthomosaic - 2D photograph mosaic.

Overall, 2D mapping used in the developed project for entering the customer's current location.

ISO 25010

Rebes (2019) explained the difference between ISO 9126 and ISO 25010. The difference between the two is that there are two characteristics added in ISO 25010. These two characteristics are security and compatibility and because of these new characteristics measuring the quality of the system is more accurate.

Furthermore, iso.org (2018) stated that ISO 25010 is released for it is designed to be a guide for the Quality Assurance officer to check the quality of a system or software product. Without examination, systems and software products have the possibility of having low quality compared to the set standards.

In addition, codacy (2021) defined ISO 25010 to be a set of characteristics that needs to be examined in a system or software product. ISO 25010, a software quality standard which was released in 2011, is divided into two dimensions which are product quality and quality in use. There are eight characteristics for product quality which are Functional Suitability, Performance, Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability.

To summarize, the proponents applied the International Organization for Standardization (ISO) 25010 in assessing the performance of the developed project following the eight characteristics based on functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability to check and to ensure the quality of the system.

Online Restaurant Management System

Yang et al. (2020) stated that the system is a web application that provides services of customers, orders and can help them find free tables or place orders in a restaurant quickly.

Both systems have a menu module where the users can browse and look for the available menus in the restaurant. The services offered include customer online food ordering and booking table management. Customers can send any suggestion or comment to a restaurant based on the food or everything about the restaurant like the services.

The existing system does not provide reports to the owners to track their sales. The customers can search for an item according to the price range. The user has to become a follower to the later part of the site to register a meal online to avoid fake reservation. While the developed system offered the owners of different restaurants a detailed report of the daily sales. Also, 2D mapping is one of the system's features where the user can look for nearby restaurants in his current location that makes the delivery of his order easier.

Online Restaurant Management System Project

Evangelista (2020) noted that this project provides the customers with a convenient way of purchasing food online, without going to the restaurant. This restaurant offers parties such as birthdays, wedding parties, anniversaries,

Christmas parties. The employees of a restaurant can use this online restaurant management system in managing their customers and the transactions.

Both systems offer dine in and reservation booking, a menu of all available items/food in the restaurant and users can send feedback about the food, place, services or anything related in the restaurant. Another is the login and log out for the security of the system. The admin can add, update, and edit the menu or list of food available.

In contrast, the existing project has the ability to get messages from their customers while in the developed system, the admin or owner of the restaurant can only see the lists of feedback to improve their services.

Online Food Pizza and Cake Order Management System

Sabbu (2020) explained that Online Food Pizza and Cake Order Management System Project Report is an online food ordering system is a web-based application that encourages foodies (consumers) to order food online by locating their favorite or closest restaurant.

Both systems can give the nearest restaurants that are available near the customers' location. Users can see all the available menu with the actual pictures of the product and no need to recite the complete menu over the phone and can receive direct customer feedback and suggestions. Prior knowledge of time for delivery helps prepare and provide better service and open 24/7 for the customers.

The developed system offered the owners of different restaurants a detailed report of the daily sales. While the existing system does not provide reports to the owners to track their sales.

Software Requirements

In developing the system, the proponents had used Microsoft Windows as the operating system, PHP as the programming language, MySQL as its database and Microsoft Visual Studio for developing the web-based application.

Microsoft Windows OS

Based on Liu (2021) Microsoft Windows is the most widely used operating system for desktop and laptop computers. As the name says, Microsoft Windows OS is developed by Microsoft and is now compatible with most 32-bit and 64-bit computers.

Overall, the Microsoft Windows operating system is widely installed on every computer. The proponents used Windows as its operating system in the study for the development of the web portal.

PHP

Based on websitebuilders.com (2020), PHP is the most widely used web programming language. Some of the famous websites such as Drupal, MediaWiki! and Magento used PHP or hypertext preprocessor language. PHP is best paired up with MySQL for its server.

In other words, the PHP was used for web development. Pages such as home page, categories page, items page, accounts page and statistics page were created with the use of PHP.

MySQL

Chahal (2019) explained that MySQL is one of the most popular RDBMS or Relational Database Management Systems out there. It is an open source and is usually paired up with the PHP programming language.

As a whole, MySQL was used for creating, updating, and editing the tables such as Restaurant Name, Place, Menu, Price, Employee, History, Notifications, Requests, Revenue, Stocks and Users in the inventory database.

Microsoft Visual Studio Code

Svitla Team (2020) described Microsoft Visual Studio Code, commonly called VS Code, as an open source, cross-platform, and lightweight but powerful and impactful code editor. It is available for computer units with Windows OS, Linux, and macOS. VS Code is packed with different built-in languages such as JavaScript, PHP, Java, C#, C++ and other programming languages.

To sum up, the proponents used Visual Studio Code in developing both the front-end and back-end of the developed project.

Hardware Requirements

The hardware requirements include a computer unit, router, and mobile phone.

Computer Unit

Computerhope.com (2019) defined a computer as a programmable and an electronic device that accepts data, can manipulate these data to store or to display or produce information after being processed by the software.

The proponents used the computer system in developing the system, testing its functionalities and preparing the documentation.

Router

According to Johansen (2019) a router is a device that connects a network of devices and resolves the traffic between the connected devices and the internet. Through the help of the router, the connected devices can enjoy faster internet speed.

To summarize, the proponents used the router to have an internet connection that helped the proponents to do research and for system development.

Mobile Phone

Beal (2021) mobile phone is an electronic device that is often referred to as a cellular phone or cellphone. Mobile phones are portable devices that people use frequently. These devices let the users to send messages through SMS, to browse the internet, to call someone, to take a picture and to play games.

As a whole, a mobile phone was used to test the QR function of the system.

Conceptual Model of the Study

According to uxpin.com (2020), explained that a conceptual model is a representation of a system. In a conceptual model it represents how humans, computers, and or things are interacting with each other. Through the model, the design of the idea was shown with real-world features and interactions.

In other words, a conceptual model is an abstract piece of information that can give you the whole idea of the design and connect it to the real world.

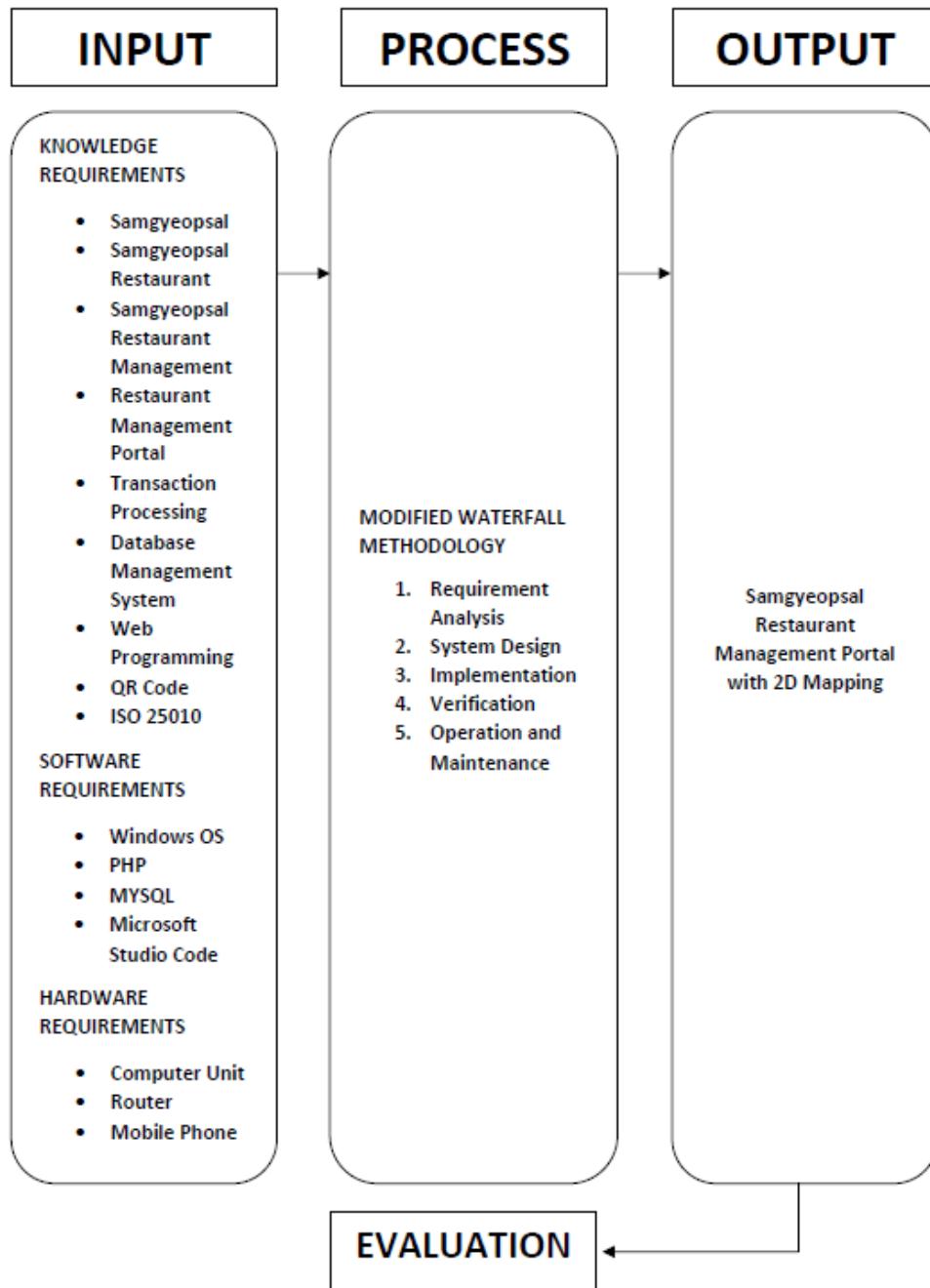


Figure 1. Conceptual Model

Figure 1 represents the conceptual model of the study which includes four phases namely Input, Process, Output and Evaluation.

The input phase includes knowledge requirements, software requirements and hardware requirements used to develop the system. The knowledge requirements consist of Samgyeopsal, Samgyeopsal Restaurant, Samgyeopsal Restaurant Management, Restaurant Management Portal, Transaction, Processing, Database Management System, and QR Code and in addition, Windows OS, PHP, MySQL, and Microsoft Studio Code are the software requirements. And lastly, the hardware requirements consist of Computer Unit, Router, and Mobile Phone.

The process phase shows the Modified Waterfall Methodology which the proponents observed during the development of the system. The Modified Waterfall Method includes five (5) phases namely Requirement Analysis, System Design, Implementation, Verification and Validation, and lastly, Operation and Maintenance.

The Output phase is the result of the input and the process phase combined which is A Developed Samgyeopsal Restaurant Management Portal with 2D Mapping.

Operational Definition of Terms

The following are terms that are operationally defined for better understanding of the study:

Samgyeopsal Restaurant Management Portal with 2D Mapping – is a web portal for samgyeopsal restaurants here in Bataan. It can provide its users an easier and faster way of booking for a reservation and to make orders. The system can provide the owners of the restaurants a report of their sales, transactions, feedbacks, and inventory.

Admin – refers to the owner or the one who is managing both the customer and restaurant users.

QR Code – refers to the e-receipt for the customers to present in the cashier for easier and faster transactions.

Inventory report – refers to the report of available stocks in a restaurant's inventory. After every successful transaction in the portal was subtracted in the restaurant's stocks.

Sales report – refers to the report that is given to the admins after their transaction. In this report, the restaurants can see their total sales for that given day. This is to help the owners to track their sales.

Chapter 3

METHODOLOGY

This chapter contains context diagram, level 0 diagram, project design, database design, project development, and the operations and testing procedures.

Project Design

The Samgyeopsal Restaurant Management Portal with 2D Mapping allowed restaurant owners and their customers to register in the portal. Restaurant owners can handle the restaurant's account. They can add, update, and delete menus, confirm bookings for reservations, view feedback of their customers, view sales reports, and inventory reports. On the other hand, customers can look for restaurants that are near their location using the 2D Mapping, view the restaurants' menus, book for reservations, order food for pick up option, and send feedback. The orders and bookings need to be confirmed first by the chosen restaurant then it notified the customer that their order has been confirmed or that their booking is already noted as booked. The developed system helps the restaurants to improve their services and track their sales and inventory. It also helps customers to have an easier and faster way of transacting with samgyeopsal restaurants.

Data Flow Diagram

Bilyk (2019) defined a data flow diagram as a diagram that represents the flow of information through the system. The DFD uses different shapes to show how the system works and how the data was used in each part of the system.

Context Diagram

Opinaldo (2021) stated that a context diagram is a representation between the processes of a business and the data. Since it does not represent the sequence of events or anything about technical information, it is good to use context diagrams when presenting it with the CEO, stakeholders, and analysts.

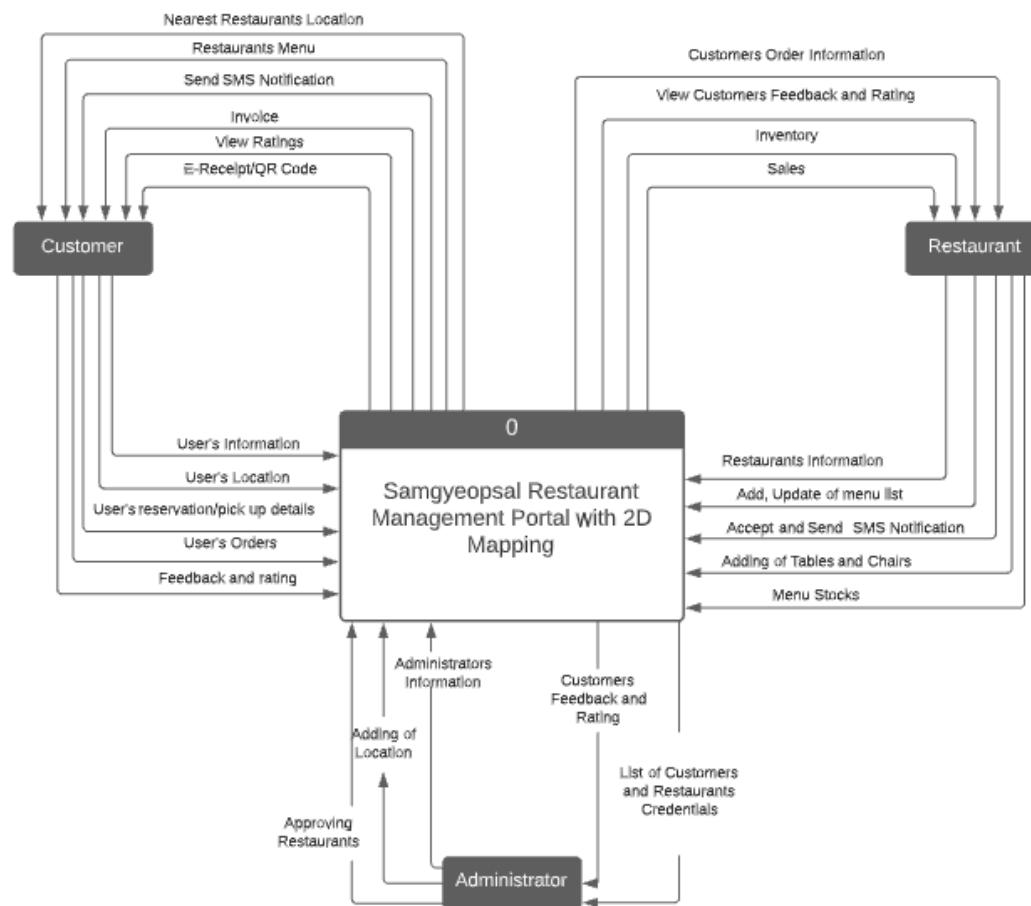


Figure 2. Context Diagram

Figure 2 shows the capabilities of the developed system and the users who can access these functions. Upon reaching the web portal, the restaurant owners and customers need to register first. If the user registered as a restaurant, the administrator would assess the registration before confirming it. The registered restaurants can add employees that are assigned to operate their restaurant in the portal. They can add menus and tables for the reservation. On the other hand, the registered customers upon registration can see the nearest restaurants in their registered location. They can browse the restaurants and the menus of each restaurant. Customers can place orders or if they want to dine-in, they can book a reservation. Upon confirmation of the order or the reservation, they received an e-receipt for their advanced orders that can be printed and saved as a pdf file. Customers who choose to pick up have to get and pay their orders at the restaurant and once they have received their orders, there is a feedback form for them to fill-out to assess their satisfaction and the restaurant's services. The orders, transactions, inventory, and sales details only were seen by the registered restaurant. The administrator can add, update, and delete the list of registered restaurants and can see the list of feedback from the customers.

Level 1 Diagram

Lucidchart (2016) explained that Level 1 Diagram is a more complex version of the context or level 0 diagram where all the specific elements and the differences of its sub-elements are broken down.

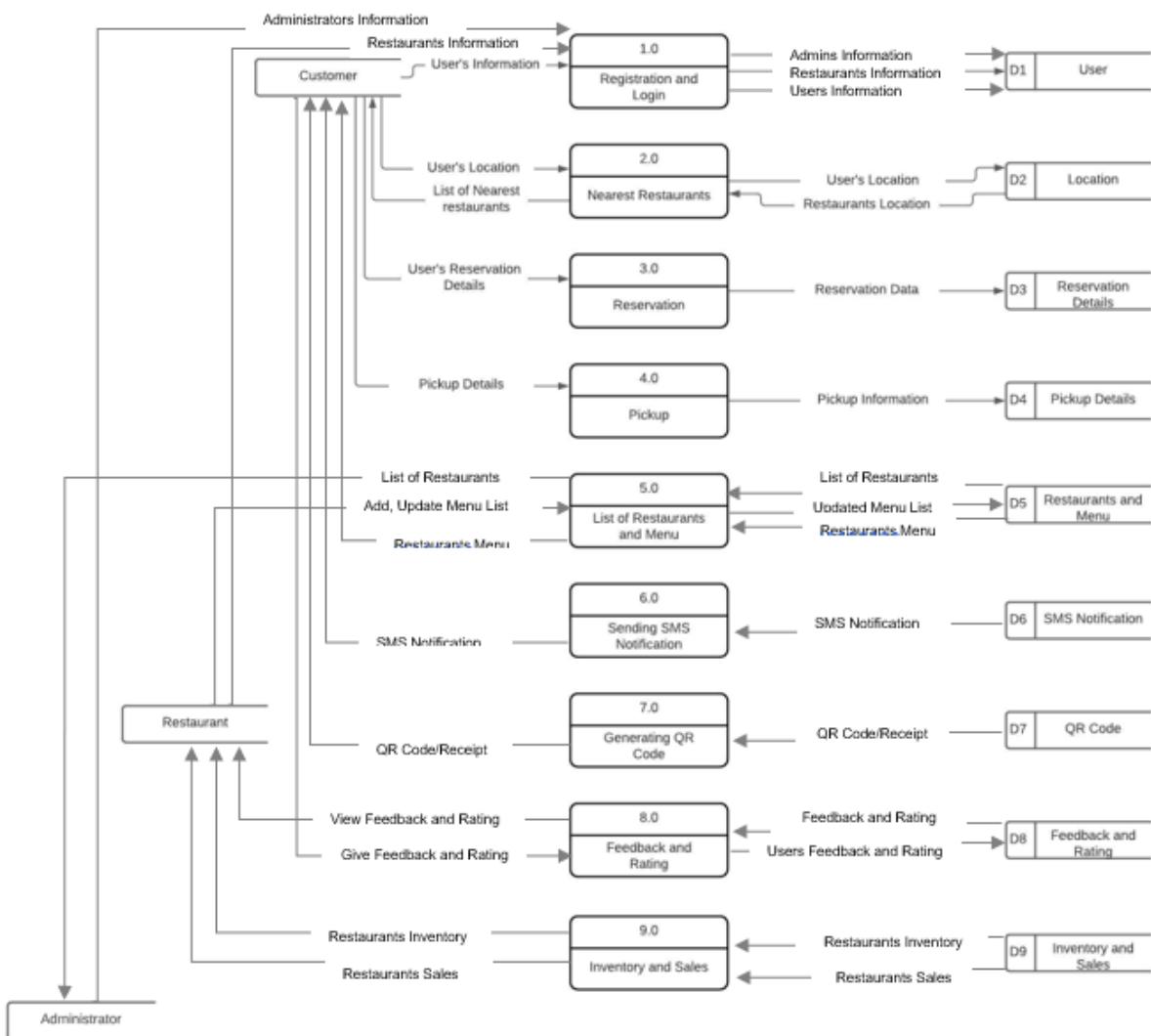


Figure 3. Level 1 Diagram

As shown in the diagram above the developed system has the registration for both admin and user who was the beneficiary of the system. In registration it is important that the user input valid and correct information to enter the portal. Find the nearest restaurant based on the user's location and choose where they ordered or reserve foods and seats. The user can now browse the menu after completing the registration and fill up details needed for confirming the order or reservation. Notification is sent if the reservation is confirmed. Once the ordering process is complete, a QR code is sent for the payment process, this is presented to the cashier but before exiting the portal the user should give any feedback related to the service or system. The updating, deleting, and adding in the menu is on the admin side or the owner and manager of the restaurant, another is the inventory where the admin can track the available stocks. The Restaurant or the owner is the only one who can check the restaurant's sales. To secure the system, records and the users including the admin, they are required to register the details needed before accessing the system.

Child Diagram

W3computing (2021) expounded that a child diagram consists of processes that can be done in a specific function of the system. It is to better understand the flow of that system and how it works. The child diagram is named with the parent diagram number and a decimal number.

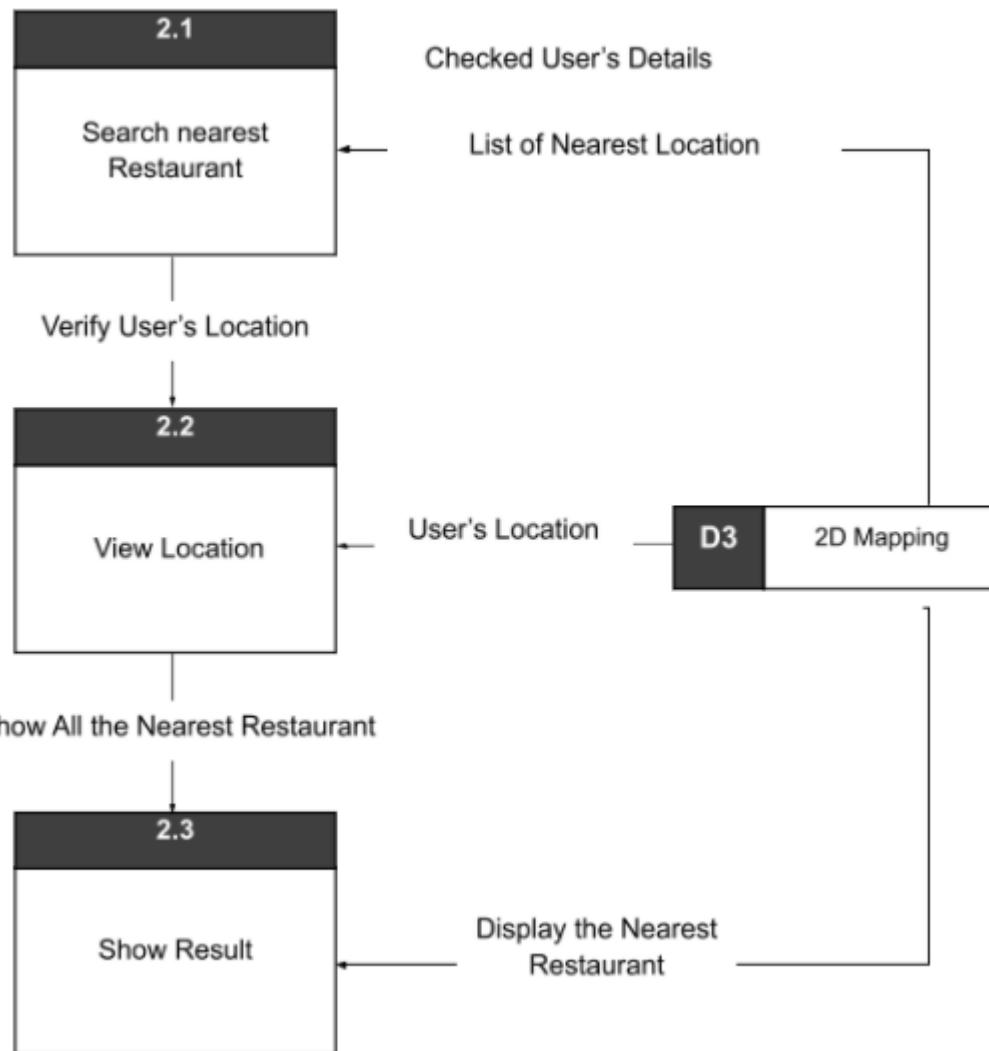


Figure 4. Child Diagram for Browsing of Nearest Restaurant

Figure 4 is the child diagram for browsing the nearest restaurant. In this diagram, the customer's location is fetched from the database and the system generates the nearest restaurants from the customer's location using the 2D mapping technology.

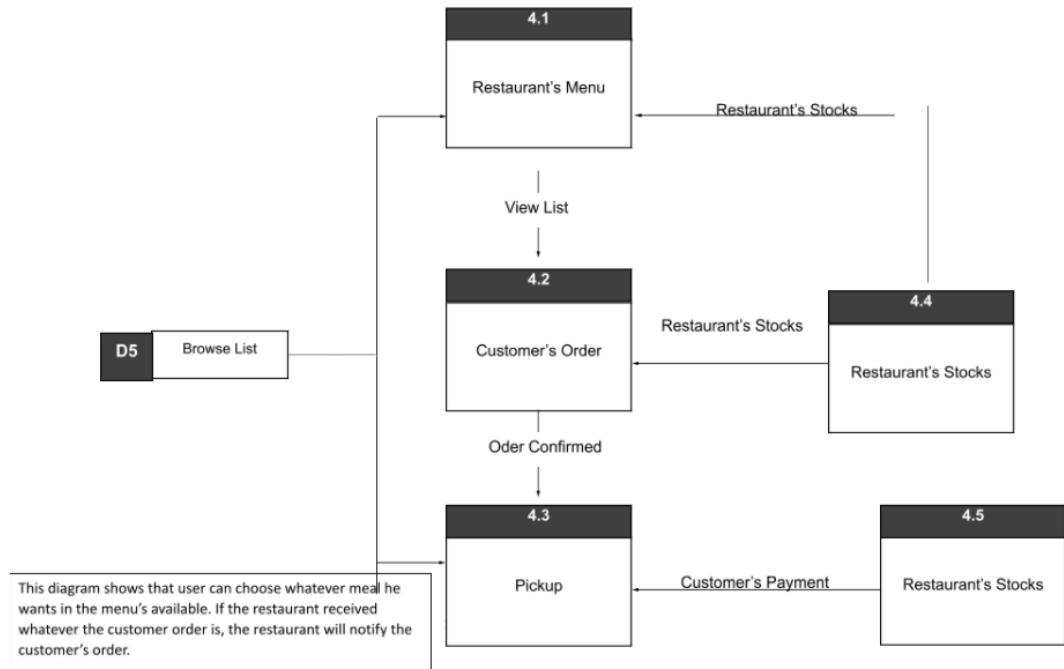


Figure 5. Child Diagram for Book a Reservation

Figure 5 is the child diagram for booking of reservations. It shows that the customer filled out a form to book for a reservation. The customer can choose the date and time he wants for the reservation.

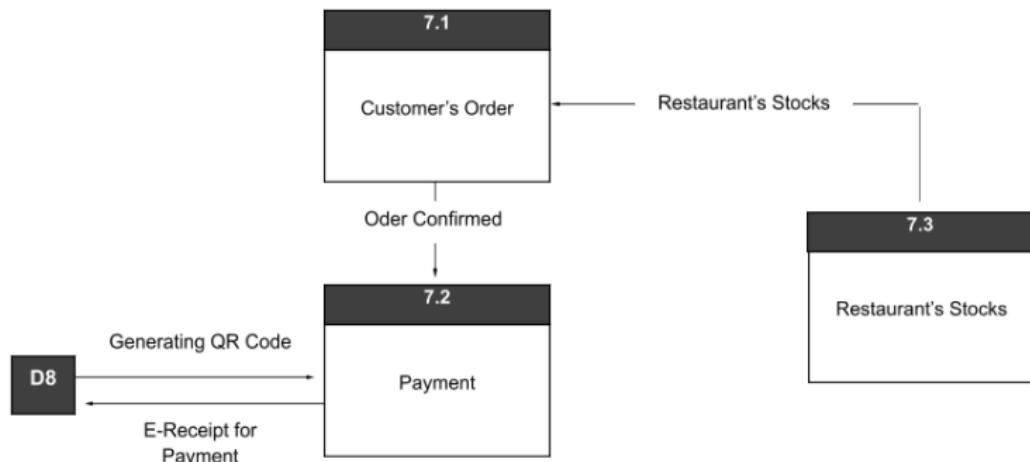


Figure 6. Child Diagram for Generating QR code

Figure 6 is the child diagram for generating the QR code for the customers as their e-receipt that should be presented in the cashier for payment processing.

Database Design

Naeem (2021) defined database design as a group of steps that helps in the making of the data management system of a company or an organization. It includes the designing, creation, implementation, and maintenance of the database.

Entity Relationship Model

Lucidchart (2016) explained that the entity relationship model or also called entity relationship diagram is a representation of the relationships between the entities or the tables that are involved in a database.

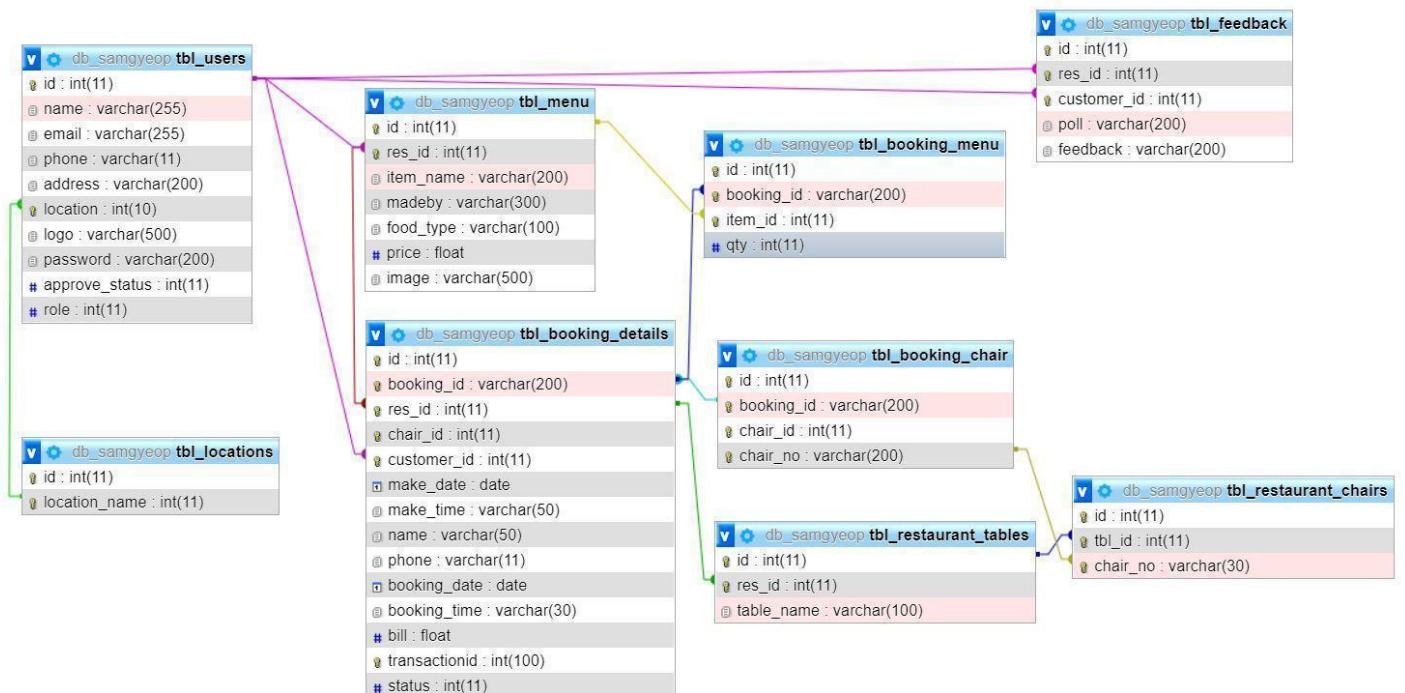


Figure 7. Entity Relationship Model

Figure 7 shows the entity relationship model of the Samgyeopsal Restaurant Management Portal using PHP. It displays the nine tables of the website and mySQL database and each table stored different data.

The `tbl_restaurant_tables` and `tbl_booking_details` are connected to show how many tables the restaurant has. The `tbl_restaurant_tables` and `tbl_restaurant_chairs` are connected to determine how many chairs are on that table. The `tbl_booking_details` and `tbl_booking_chair` are connected to determine the number of seats.

The `tbl_booking_menu` and `tbl_booking_details` are connected to determine what the customer ordered. The `tbl_menu` and `tbl_booking_menu` are connected to show the products that the restaurant has to offer.

The `tbl_users` table and `tbl_location` table are connected so the customers can pick where their address is. The `tbl_users` and `tbl_feedback` is connected to acquire the restaurant name and customer name. The `tbl_users` are connected to `tbl_menu` to show all the menu from the user where the role is restaurant.

Data Dictionary

Meador (2018) stated that the data dictionary contains the metadata for the database. In the data dictionary, it shows who can access the data in the

database. Mostly, the database administrator can only access all the data in the database.

Table 1. Transaction Table

| System Name: A Developed Samgyeopsal Restaurant Management Portal with 2D Mapping | | | | |
|---|-----|------------|-----------|-----------------------------------|
| Subject: Transaction Table | | | | |
| PK | FK | Field Name | Data Type | Description |
| Yes | No | ID | Number | Installment identification number |
| | No | Date | Date/Time | Date of Installment |
| | No | Cus_name | Text | Customer's Name |
| | No | Res_name | Text | Restaurant's Name |
| | No | Menu_name | Text | Menu's Name |
| | No | Quantity | Number | Quantity Result |
| | No | Price | Number | Price Result |
| | No | Total | Number | Total Result |
| | Yes | Status_ID | Number | Status ID number |

Table 1 shows the Transaction Table of A developed Samgyeopsal Restaurant Management Web Portal with 2D mapping. This table stores the information of the Transaction of Samgyeopsal Restaurant. The field's names are: ID, Date, Cus_name, Res_name, Menu_name, Quantity, Price, Total, Status_ID.

Table 2. Menu Table

| System Name: A Developed Samgyeopsal Restaurant Management Portal with 2D Mapping | | | | |
|---|-----|------------|-----------|----------------------------------|
| Subject: Menu Table | | | | |
| PK | FK | Field Name | Data Type | Description |
| Yes | No | ID | Number | Menu Identification number |
| | No | Name | Text | Menu Name |
| | Yes | CAT_ID | Number | Cat identification number |
| | No | Price | Number | The price of product |
| | Yes | Res_ID | Number | Restaurant identification number |

Table 2 exhibits the Menu Table of the Developed Samgyeopsal Restaurant Management Web Portal with 2D mapping. This table stores the information of the Transaction of Samgyeopsal Restaurant. The table's fields are: ID, Name, CAT_ID, Price, Res_ID.

Table 3. Stocks Table

| System Name: A Developed Samgyeopsal Restaurant Management Portal with 2D Mapping | | | | |
|---|----|----------------|-----------|-------------------------------|
| Subject: Stocks Table | | | | |
| PK | FK | Field Name | Data Type | Description |
| Yes | | ID | Number | Stock's identification number |
| | | Menu_ID | Number | Menu identification number |
| | | Menu_Name | Text | Menu identification name |
| | | Stocks/on hand | Number | Number of products left |

Table 3 shows the Developed Samgyeopsal Restaurant Management Web Portal with 2D mapping. This table stores the information of the Transaction of Samgyeopsal Restaurant. This table's fields are: ID, Menu_ID, Menu_Name, Stocks/on hand.

Project Development

Dains (2017) explained how the modified waterfall model became a trend and how it is formed. He said that through his five years of working with Agile approach, he came to realize that projects which use the waterfall model are failing. So, if the ability to change plans that can be done in an agile approach was added in the waterfall model it was created a hybrid between the two models. This is when the modified waterfall model became known.

The proponents used the Modified Waterfall Model for the methodology in accomplishing the system. In the modified waterfall model, the proponents were able to go back to the previous phases after the verification and validation phase. In this phase, the proponents verify and validate if the requirements from the requirement analysis are met and if there is a bug or an error in the process of the system, the proponents can go back to the previous phases before the deployment of the system.

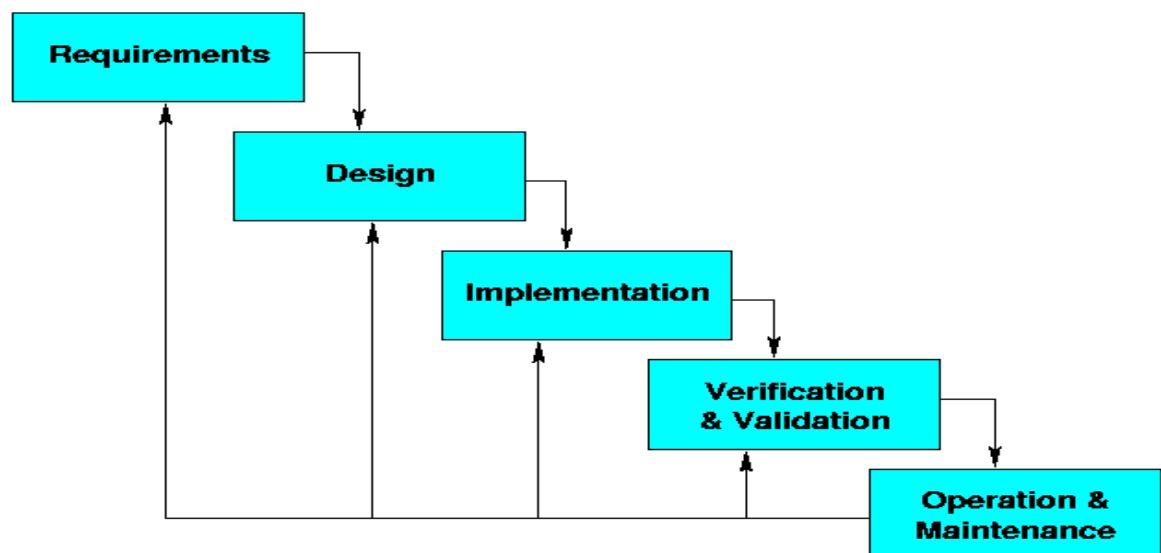


Figure 8. Modified Waterfall Model

Requirement Analysis Phase

Zulqadar (2019) explained that in the requirement analysis phase, the researchers need to gather data and analyze the data that are gathered. This is a documented part of the system before the actual coding. The requirements that are gathered in this phase should be met at the end of the cycle.

The proponents hold an online meeting with the concerned users such as the restaurant employees and the owner, and the customers. Through the online meeting, the restaurant owners can explain how their restaurants work. Including the processes for their available services like booking of reservation, dine in, and delivery. This phase helped the proponents to analyze the detailed requirements that should be met at the deployment of the system.

System Design Phase

Zulqadar (2019) stated that this phase is about the implementation of the gathered requirements. This is where the team should design and apply all the requirements. The team should be planning on what are the tools that helped them in finishing the system. The wireframe that was the basis for the actual user interface.

Through the system design phase, the proponents hold an online meeting for the brainstorming of possible design concepts. In the design, the

researchers must consider all the given requirements to them by the restaurants and the customers to have a user-friendly user interface for the system.

Implementation Phase

Zulqadar (2019) said that the implementation phase is where the actual coding happens. The wireframe from the previous phase turned into an actual code. The back end and front-end were done in this phase. The capabilities of the system should follow the requirements.

The proponents turned the design concepts into codes. Implementation of the requirement analysis and the system design phase were done in this phase. Before the deployment of the system, the proponents should test to find the possible bugs. After the testing, the programmer should finalize the system for the deployment.

Verification and Validation Phase

Eastern Peak (2016) explained that during this phase, the system needed to be verified and validated if all the requirements from the requirement analysis phase are met. The system is inspected by the QA engineering that examined all the functions of the system.

The proponents need help from a professional to examine the system. Before the deployment, the system needs to include all the requirements and to pass the validation process. After the inspection, if there are requirements that are left behind, the proponents need to work on it again and if necessary, they

need to go back from the requirement analysis phase for reverification of the requirements.

Operation and Maintenance

Zulqadar (2019) described those operations and maintenance is the last phase. This is when the system is already checked and has approval for the actual release on the market. After validation and if the system already passed in the last phase, the system can now be released. Maintenance is wherein the users can encounter errors or bugs while using the system. These errors or bugs need to be addressed and the programmer needs to mend these problems.

The proponents released the system to the market to get more users and to be able to use the system for its purpose. The target users for the system are different samgyeopsal restaurants in Bataan and their customers. The proponents have a documented guide for the system and frequently asked questions at the end of making the system. It is used for the users that encounter problems in the system. Maintenance needed once the users of the system encounter multiple bugs and cannot use the system with ease.

Gantt Chart

Kienapple (2019) described the Gantt chart as a chart and a timetable for a project. It is usually used in project management to track the progress of the project and to track the members if they are doing their assigned tasks. The

chart includes the tasks, the name of the members assigned in each task, the days that the task should be completed, and the starting date and ending date in each task.

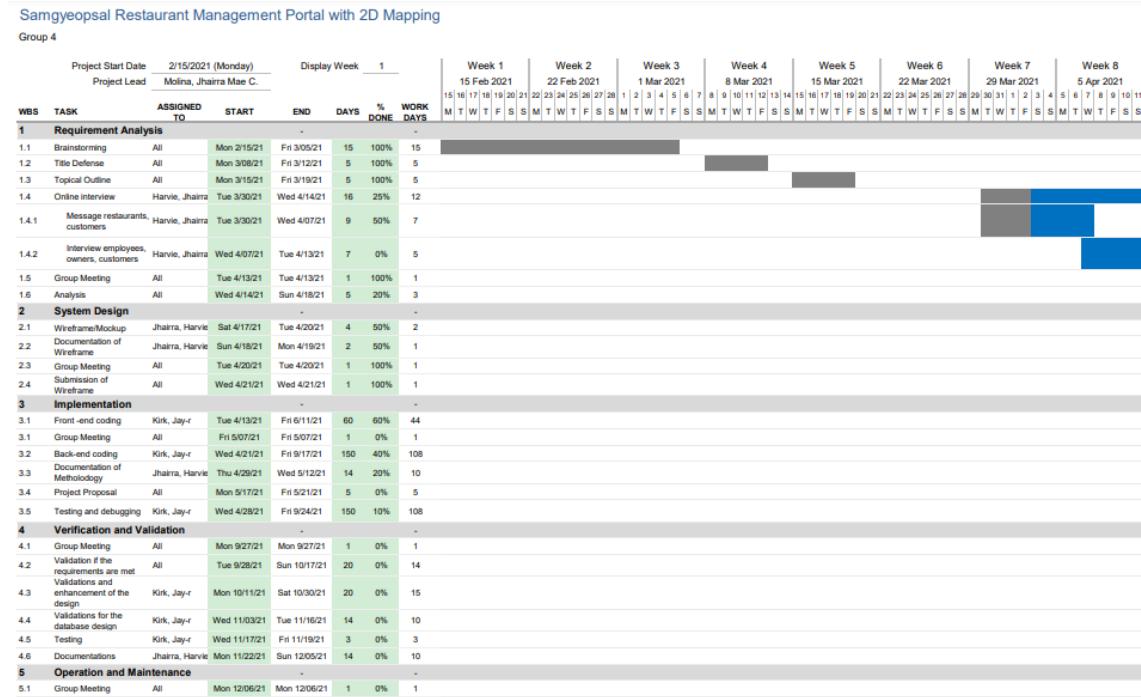


Figure 9 Gantt Chart

Figure 9 shows that the starting date for the project was on February 15, 2021 and presumably end in February 2022. The proponents used the Modified Waterfall Model with five phases which are: Requirement Analysis, System Design, Implementation, Verification and Validation, and Operation and Maintenance. In each task, two or more proponents helped in accomplishing it in time. The gray parts in the chart correspond to the finished tasks while the blue parts correspond to the unfinished tasks. In each phase, the proponents have one or two meetings for better understanding of the developed system and

to avoid miscommunication. In the Gantt chart, the Implementation has the longest time because this is where the actual coding starts. After the coding, the system was tested in the Verification and Validation phase. The proponents with the help of other professional's test and evaluate the system if it follows the system requirements that are gathered in the Requirements Analysis phase.

Operation and Testing Procedure

In this section, the operation procedure and testing procedure was discussed. The different testing procedures such as unit testing, integration testing, system testing, and performance testing was also explained.

Operation Procedure

The system has three users which are the customer, the restaurant, and the super admin. The customer needs to fill out all the information in the registration form such as their complete name, address, telephone number, email, and password. After the registration, the customer has already had their own account for them to log in and log out.

For the customer, in the home page, the customer can browse restaurants and can choose their location within the province of Bataan using the drop-down menu. When the customer chooses their location, the system releases the list of the restaurants from the location. After picking the restaurant that the customer wants, it directed the customer to the menus of the restaurant. The customer can choose their order by clicking the check box and can increase

their number of orders. To complete their order, it went to the summary of orders to check what they have ordered. The customer waited for the owner of the restaurant to accept or reject their order. The customer was notified if the owner of the restaurant accepts their order and has an e-receipt via QR Code. In the system, the only allowed payment method is G-cash. For reservation, the customers can reserve their seats and tables in the restaurant and should pay for the reservation fee and wait for the approval of the restaurant. Lastly, the customer can give feedback after receiving their orders.

Second, the admin of the restaurant needs to fill out the information in the registration form such as the name of the restaurant, address, telephone number, and their logo photo. After the registration, the admin of the restaurant can log in and log out. In the home page, the admin can add and update their employees, tables, and menu. The admin can accept or reject the customer's order or reservation. After confirmation, the admin can view the customer's feedback, inventory, and sales.

Lastly, the super admin confirmed the registration of the restaurant. Just like the two users, the super admin can log in and log out. Only the super admin can view the feedback, and add, update, or delete the restaurant.

Testing Procedure

Testing procedure shows how the users performed testing using unit testing, integration testing, system testing and performance testing.

1. Unit Testing

TestingXperts (2020) explained that unit testing is one of the software testing types in which the modules are tested individually. The testers and developers can identify the defects in the system to fix it early. If the capabilities and the expectation into the system are consistent then the unit test is good, probably it passed.

The proponents examined the system to the people in Bataan to see what the errors could be and make sure that the system is fixed and completely done. It is important to have Unit Testing to know if the expectation in the system is followed.

2. Integration Testing

Choudary (2020) claimed that integration testing tested the interfaces between the modules. It can detect the errors that are related to interfaces between the units. To increase the functionality and reliability of tests.

The proponents checked if the system has completely no errors while functioning the system that meets the expectations.

3. System Testing

ProfessionalQA.com (2020) says that the system testing is monitoring the behavior of integrated software of a system. It evaluated the functionality of

the complete system. The system testing focuses are performance, security, and interface of the system.

The proponents make it sure if the system meets the expectations of the system and the quality of the system. It checked the whole system like pretending to be a customer or an admin of the restaurant to make sure no system fails.

4. Performance Testing

Based on Neotys (2021), performance testing is the process of evaluating how a system performs its functionalities and the responsiveness of the system to the user's actions or commands.

The proponents checked the users if the system is fully functioning without any errors and how it works. It is to see if the system is user-friendly in the Bataan.

Table 4. Table Test Script Form

| | |
|------------------------------|--|
| Date | |
| Tested by | |
| Test Case Number | |
| Test Case Name | |
| Test Case Description | |
| Item(s) to be tested | |
| | |
| Procedural Steps | |
| | |
| Specifications | |
| | |

| Input | Expected Output/Result | Pass Y/N | Actual Result/Output |
|--------------|-----------------------------------|-----------------|---------------------------------|
|--------------|-----------------------------------|-----------------|---------------------------------|

Evaluation Procedure

These are the following activities that the researchers performed during the evaluation.

1. The researchers set up the system.
2. The proponents distributed the survey form to the respondents.
3. The proponents explained the flow of the system to the respondents.
4. The proponents tested the system based on criteria under ISO 25010.
5. The respondents evaluated the system performance using the survey form.
6. The proponents collected the evaluation forms from the respondents and analyzed the data collected.
7. The proponents computed the data using the weighted formula.
8. The overall rating were interpreted using the numerical range and equivalent descriptive interpretation using the Likert scale.

Table 5. Likert's Scale

| Rating | Numerical Scale | Interpretation |
|--------|-----------------|----------------|
| 5 | 4.51 - 5.00 | Excellent |
| 4 | 3.51 - 4.50 | Very Good |
| 3 | 2.51 - 3.50 | Good |
| 2 | 1.51 - 2.50 | Fair |
| 1 | 1.00 - 1.50 | Poor |

Chapter 4

Results and Discussion

This chapter will discuss the project description that tackles about what is the project, project structure of the project, project capabilities and limitations, the test result in which came from the testing procedures, and lastly the project evaluation.

Project Description

Samgyeopsal Restaurant Management Portal with 2D Mapping is a web-based system that will help the different samgyeopsal restaurants in the Province of Bataan. Not only it can help the restaurants, it can also provide to the users a better and easier way of transacting to the restaurants. Users can order food via pick-up option and can book for a reservation in a restaurant. With the help of 2D mapping, the users can find different samgyeopsal restaurants near their location. Another technology integrated in the system is the SMS notifications. With this technology, the restaurants can confirm or cancel orders and bookings and the system will notify the users via SMS or a text message.

Project

Structure

The screenshot shows the login interface for the Samgyeopsal Restaurant Table Booking system. At the top, there is a dark header bar with the title "Samgyeopsal Restaurant Table Booking" on the left and "Register" and "Login" links on the right. Below the header is a yellow rectangular button containing a user icon and the word "Login". The main form area contains two input fields: "Your Email" and "Your Password", followed by a yellow "Login" button. Below the buttons is a small text link: "For Register [Click Here.](#)". At the bottom of the page, a dark footer bar displays the text "Samgyeopsal Restaurant Table Booking" on the left and "Copyright ©2021" on the right.

Figure 10. Login

Figure 10 shows the login form where the user can login the account that they already created and can access the system.

The screenshot shows the registration form for restaurant owners. At the top, there is a dark header bar with the title "Samgyeopsal Restaurant Table Booking" on the left and "Register" and "Login" links on the right. Below the header are two buttons: "As Customer" (gray) and "As Restaurant" (yellow). The main form area contains several input fields: "Restaurant Name", "Restaurant Email", "Password", "Restaurant Phone", a dropdown menu for "Select Restaurant Area", "Restaurant Address", and a file upload field labeled "Choose File" with the placeholder "No file chosen". Below these fields is a yellow "Register" button. At the bottom of the page is a small text link: "For Login [Click Here.](#)".

Figure 10.1 Registration for the Restaurant

Figure 10.1 displays the Registration form for the restaurant where the Restaurant owners will input the information needed based on the form.

The screenshot shows a registration form for a customer. At the top, there are two buttons: "As Customer" (highlighted in yellow) and "As Restaurant". Below these are several input fields: "Your Name", "Your Email", "Your Phone", "# St. Brgy", "-Town-", "Your Password", and a file upload field labeled "Choose File" with the message "No file chosen". At the bottom left is a yellow "Register" button, and at the bottom right is a link "For Login Click Here".

Figure 10.2 Registration for the Customer

Figure 10.2 exposes the registration form for the customer where the customer will input the information needed based on the form.

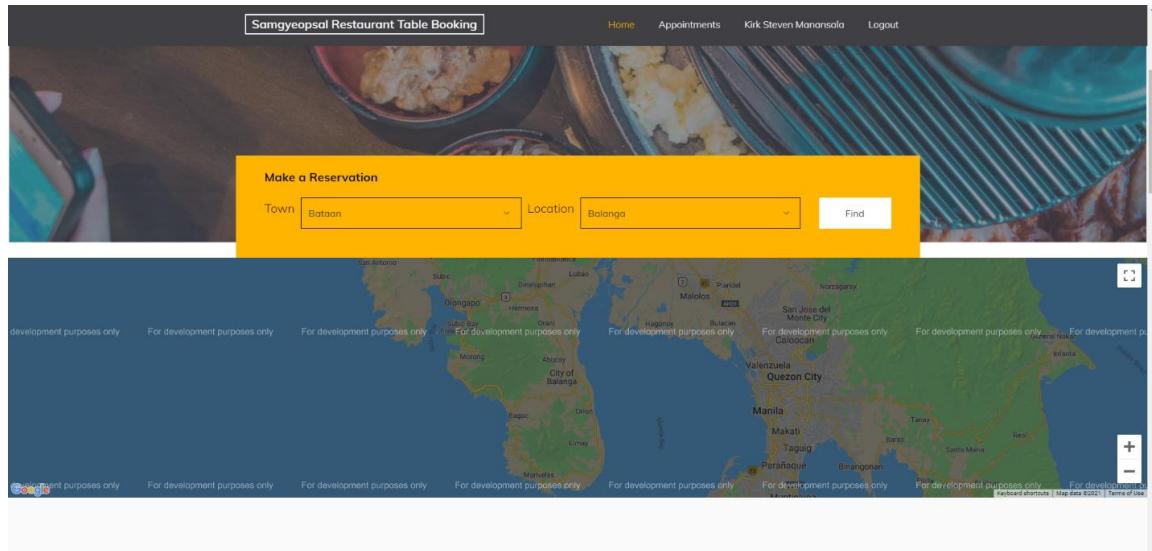


Figure 11. 2D Mapping

Figure 11 presents the 2D Mapping that helps the customer to locate the nearest restaurant available based on the address they input.

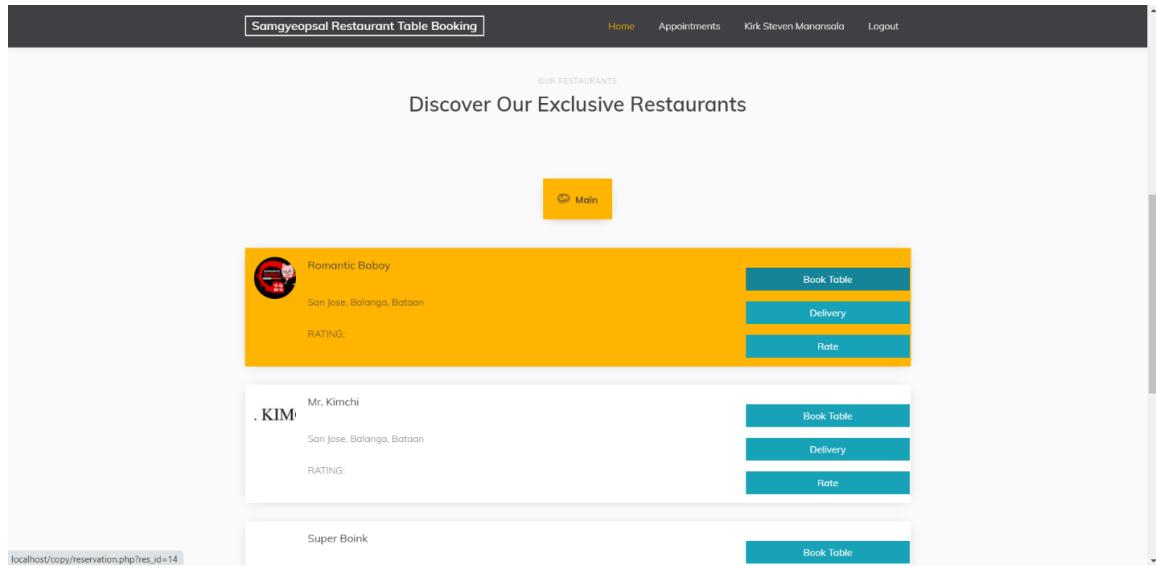


Figure 12. Mode of Ordering

Figure 12 shows the mode of ordering food whether book table or delivery.

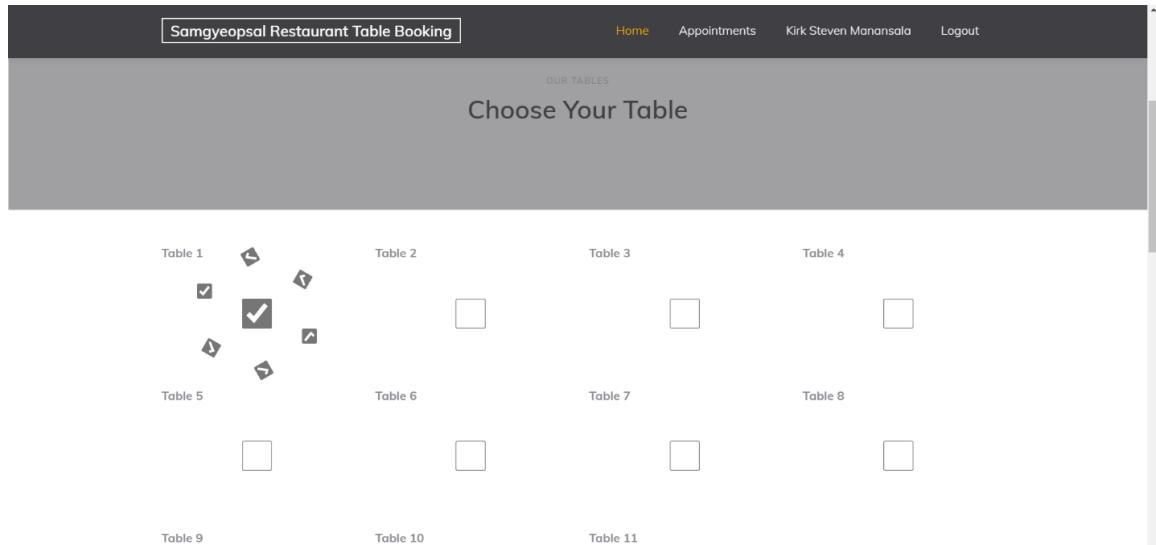


Figure 12.1 Choose Your Table

Figure 12.1 displays the tables and chairs available considering the social distance. The customer can choose how many chairs they can avail in a table.

Samgyeopsal Restaurant Table Booking

Choose a Reservation Date and Time

Name: Kirk Steven Manansala

Phone: +639301226407

Date: 20/10/2021

Time: 10:00am

Submit

Figure 12.2 Reservation

Figure 12.2 presents the form that the customers need to fill up for reservation.

Samgyeopsal Restaurant Table Booking

Home Appointments Kirk Steven Manansala Logout

Fast Food

Reservation Information

Reservation Date: 2021-10-20

Reservation Time: 10:00am

Table No: TBL-1
Chair No: TBL-1-1, TBL-1-2, TBL-1-3, TBL-1-4, TBL-1-5, TBL-1-6,

| | | |
|------------------|-----|---|
| Samgyeopsal Set | 300 | 3 |
| Samgyeopsal Beef | 390 | 3 |
| Samgyeopsal Meat | 699 | 3 |

Confirm

Figure 12.3 Menu

Figure 12.3 exposes the menu where the customer can see the reservation information they made before, all the available foods, price and can input the quantity they want.

The screenshot shows a web application for booking a table at Samgyeopsal Restaurant. At the top, there's a navigation bar with links for Home, Appointments, Kirk Steven Manansala, and Logout. Below the navigation, the title "Samgyeopsal Restaurant Table Booking" is displayed. The main content area is titled "Confirm Your Booking". It contains two main sections: "Contact Information" and "Menu Item Information".

Contact Information:

- Name: Kirk Steven Manansala
- Phone: +639301226407
- Reservation Date: 2021-10-20
- Reservation Time: 10:00am

Menu Item Information:

| Image | Item Name | Unit Price | Quantity | Subtotal |
|-------|------------------|------------|----------|----------|
| | Samgyeopsal Set | 300 | 3 | 900 |
| | Samgyeopsal Beef | 390 | 3 | 1170 |
| | Samgyeopsal Meat | 699 | 3 | 2097 |
| | Kimchi | 50 | 3 | 150 |

Total Price: ₩ 4317

A large orange "Book" button is located at the bottom left of the form.

Figure 12.4 Booking Confirmation

Figure 12.4 indicates the total price, all information and orders given by the customer before confirming the booking.

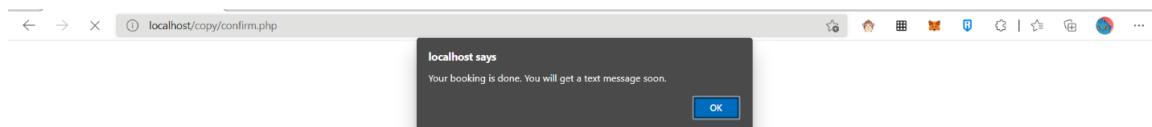


Figure 12.5 Booking Notification

Figure 12.5 shows a notification where the transaction about the customer's booking is done.

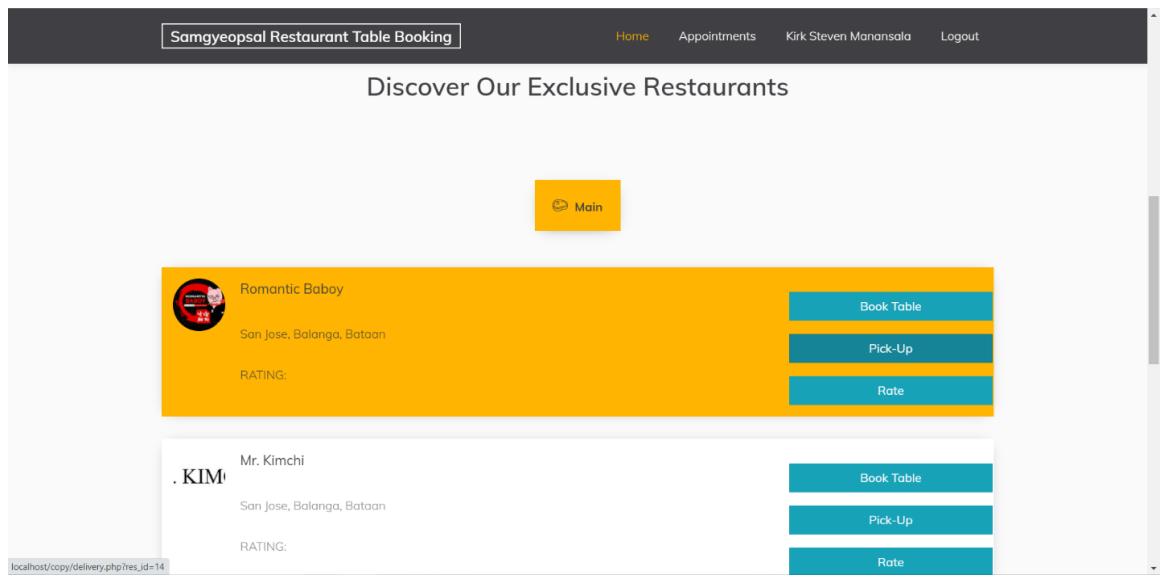


Figure 13. Mode of Order

Figure 13 displays the mode of order where the user can choose the Pick-up assistance.

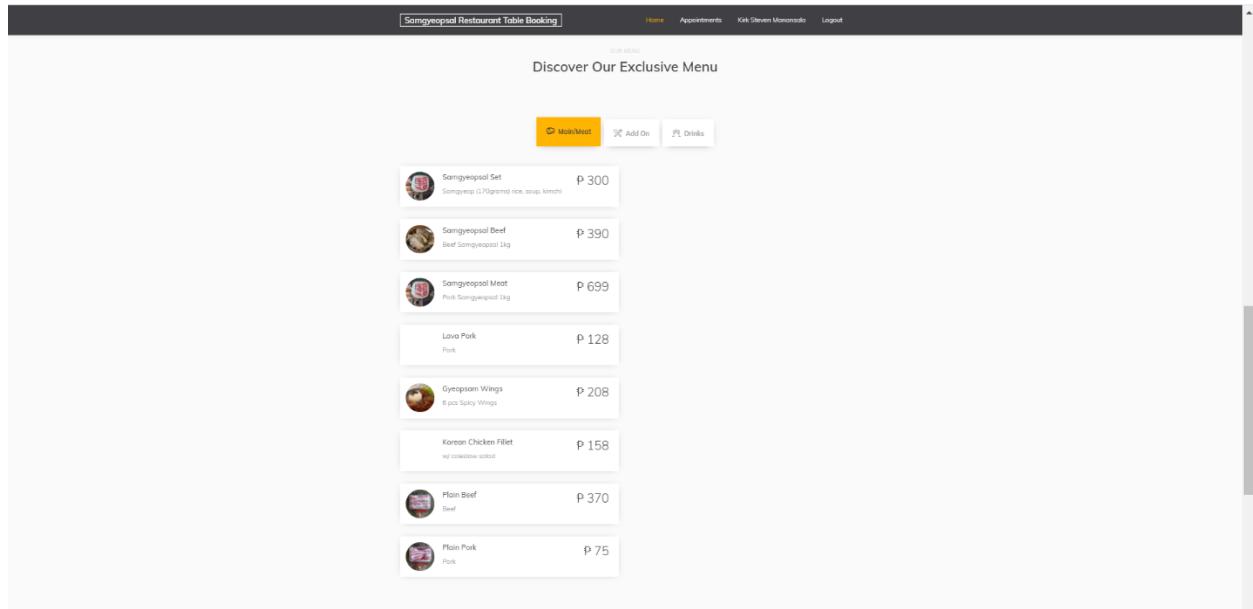


Figure 14. List of Menus

Figure 14 presents the list of menus where the Customer can browse the menu in each category.

The screenshot shows a web-based management system for a restaurant. The left sidebar has navigation links for Dashboard, Restaurant Table, Menu Item, Booking, and Feedbacks. The main content area is titled 'Table' and shows a list of 'All Bookings'. The table has the following columns: No, Booking Id, Name, Phone, Date, Time, Bill, Status, Action, and View. There are 7 rows of data, each representing a booking. All bookings listed have a 'Rejected' status. Each row contains three buttons: 'Confirm' (green), 'View' (blue), and 'Notify' (blue). The URL in the address bar is 'localhost/copy/dashboard/notify.php?booking-number=616e8b138a853'.

| No | Booking Id | Name | Phone | Date | Time | Bill | Status | Action | View |
|----|---------------|-------------------------------|---------------|------------|---------|--------|----------|--------------------------|---|
| 1 | 616e8b138a853 | Kirk Steven Manansala | +639301226407 | 2021-10-20 | 10:00am | P 4317 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 2 | 616c0c07cb148 | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 3300 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 3 | 616c0c35d0a79 | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 690 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 4 | 616c0dd60127b | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 690 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 5 | 616c0e90f41a3 | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 1389 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 6 | 616c0eeee3722 | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 1290 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |
| 7 | 616c0f8d0ee2f | kirk steven bernabe Manansala | +639301226407 | 2021-10-18 | 10:00am | P 1080 | Rejected | <button>Confirm</button> | <button>View</button> <button>Notify</button> |

Figure 15. All Bookings

Figure 15 exposes the record of all booking data of the customers. This form can be seen by the restaurants.

The screenshot shows a simple form for sending a notification. It has three input fields: 'Name' containing 'Romantic Baboy', 'Number' containing '+639301226407', and 'Message' containing 'Good Day Kirk Steven Manansala, Booking Number:616e8b138a853 Status: Confirmed.'. Below the message field is a green 'Send' button.

Figure 15.1 Sending Notification

Figure 15.1 indicates a form with the details of the restaurant and the message, which will be sent to the customer to notify them about the order.

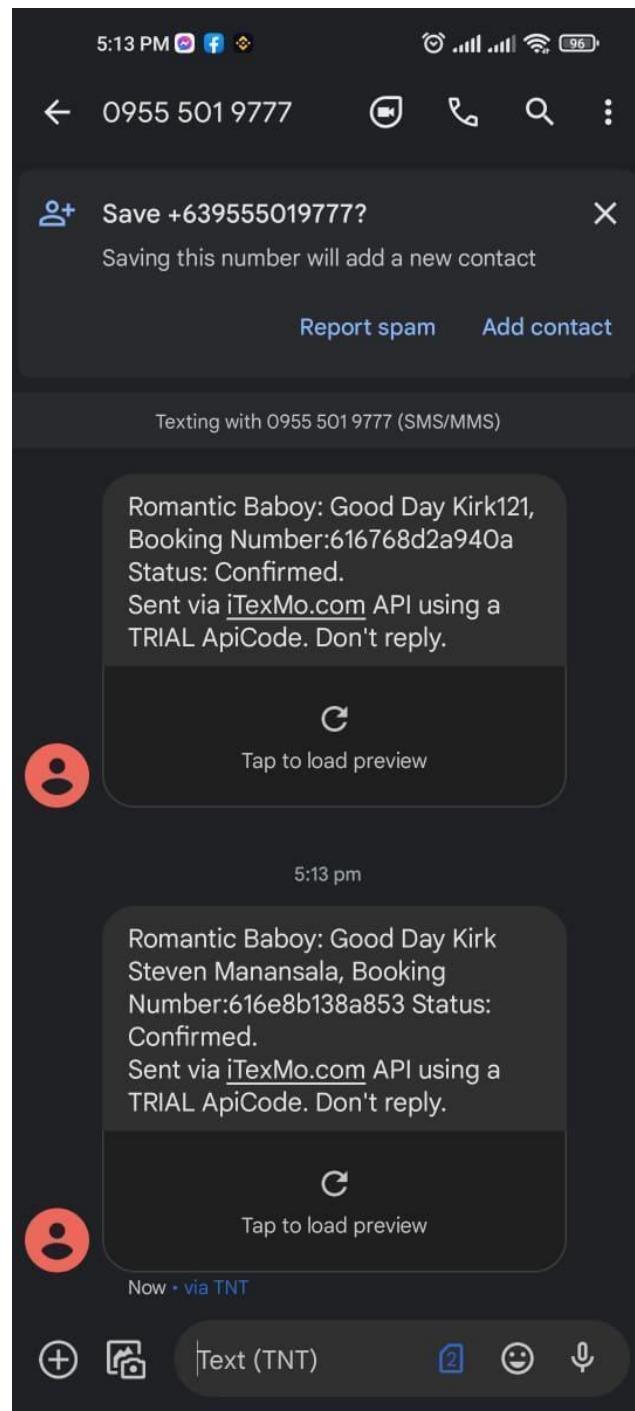


Figure 15.2 SMS Notification

Figure 15.2 shows the SMS notification about the order received by the customer.

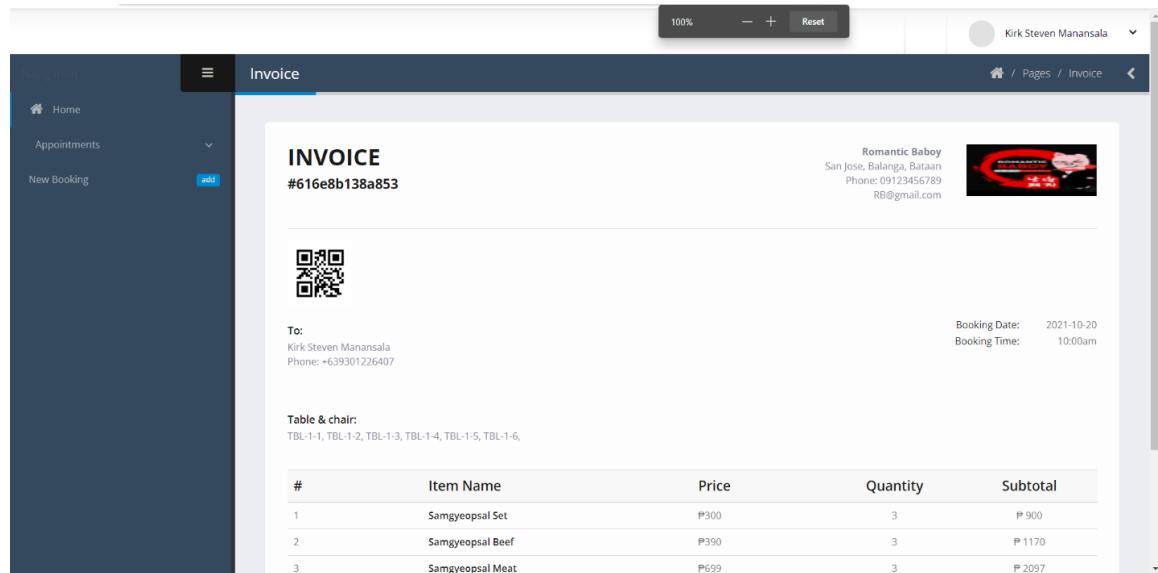


Figure 16. Invoice

Figure 16 presents the Invoice of the customer. All the details of the orders, address, date and time and the QR code which has the booking number of the customer.

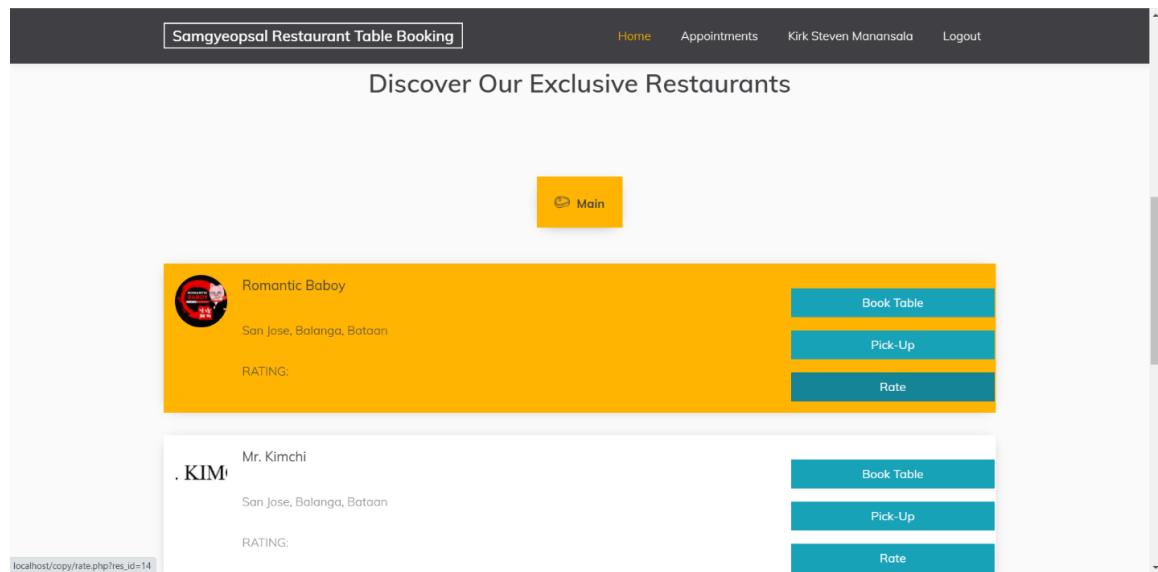


Figure 17. Rating

Figure 17 displays the form where the customer can choose and give rating after the transaction or after the order was received.

Figure 17.1 Feedback

Figure 17.1 indicates the feedback form where the user can rate and give any comment about the service of the restaurant.

| No | Image | Name | Type | Price | Made By | Stocks | Action |
|----|-------|------------------|-----------|-------|--|--------|---|
| 1 | | Samgyeopsal Set | Fast Food | 300 | Samgyeop (170grams) rice, soup, kimchi | 100 | <button>Delete</button> <button>Edit</button> |
| 2 | | Coke | Drink | 50 | in can 12 oz | 100 | <button>Delete</button> <button>Edit</button> |
| 3 | | Samgyeopsal Beef | Fast Food | 390 | Beef Samgyeopsal 1kg | 100 | <button>Delete</button> <button>Edit</button> |
| 4 | | Soju | Drink | 250 | 1 bottle | 100 | <button>Delete</button> <button>Edit</button> |
| 5 | | Kimchi | Add On | 50 | 100 grams | 9000 | <button>Delete</button> <button>Edit</button> |
| 6 | | Ssamjang Sauce | Add On | 15 | Green | 100 | <button>Delete</button> <button>Edit</button> |
| 7 | | Extra Meat | Add On | 90 | 100 grams | 10000 | <button>Delete</button> <button>Edit</button> |
| 8 | | Samgyeopsal Meat | Fast Food | 699 | Pork Samgyeopsal 1kg | 100 | <button>Delete</button> <button>Edit</button> |

Figure 18. Inventory

Figure 18 presents the available menu and stocks; it can be deleted and edited by the restaurant.

Project Capabilities and Limitations

The following are the capabilities of the developed Samgyeopsal Restaurant Management Portal with 2D Mapping:

1. Allowing the users to register in the portal through registration module.;
2. Finding the nearest restaurants based on the user's location using 2D mapping.;
3. Filling out the information needed such as time, date and orders to book an advance reservation after the registration and sign in.;
4. Providing pick-up assistance for the customers.;
5. Granting the user to browse the list of menus.;
6. Sending user/customer confirmation about their requested reservation through SMS notification module.;
7. Generating QR code after confirming the order that will be presented to the cashier for payment through an automated e-receipt.;
8. Giving feedback and ratings about the service through feedback module; and
9. Monitoring the restaurants' inventory by keeping the records of available stocks and tracking of sales through the use of restaurant's records.

The following are the limitation of the developed system:

1. The developed system, Samgyeopsal Restaurant Management Portal with 2D Mapping systematize the manual setup and improve the

restaurants' process of storing and securing data of reservations, and transactions, monitoring their store's inventory, and observing their daily sales.;

2. The developed system allowed users to register and be able to access the service of different restaurants including advance reservation and order.;
3. The developed system required customers to enter their location to be able to search for the nearest restaurants.;
4. The customer is allowed to input the time, date and has a privilege to browse the menu and book tables before the reservation process.;
5. The developed system provided pick up assistance.;
6. The customers have the privilege to browse nearby restaurants in the list based on their location and also in browsing the menu.;
7. The developed system notified a customer about their reservation details and when it was already confirmed.;
8. The developed system generated QR codes. Customers presented the QR code to the cashier after their meal. This was their basis for their total amount payable.;
9. The developed system provided a feedback form for the user/customer on our services after they finished the purpose with the portal.;
10. The developed system allowed the manager or the owner to add, delete or update the menu list based on their inventory.;

11. The developed system allowed authorized staff to see and manage the stocks available at the restaurant. It is to track whether their stocks are still enough for their upcoming customers.;
12. The developed system allowed the owner to see all the transactions made and were able to see the restaurant's profit through the use of sales records. Registration is made to access the portal based on their role.;
13. The website is intended only for those involved in the Samgyeopsal Restaurants. Records inside the restaurant accessed by the authorized staff only. Ordering of food can only be done if the user is already logged in. Managing the availability and the menu is based upon authorized staff's input only. The user of the website must have at least one working browser and stable internet connection. The system does not manage payment online.;
14. The proponents used the required software suitable for the system. The developed system used Visual Studio Code as its programming language and Windows 10 as its operating system. Dreamweaver and Photoshop for mock-ups. Also, XAMPP serves as the database in order for the developed system to work properly. At the same time, a QR code scanner, a computer with at least 4GB of RAM and has the required software and a working browser should be also provided.; and
15. The developed system is evaluated with the use of ISO 25010 with its eight main quality characteristics: functionality suitability, maintainability, usability, performance efficiency, compatibility, reliability, security,

portability. The proponents interviewed forty (40) individuals as respondents. The target respondents were composed of two (2) owners or restaurant managers, two (2) employees, four (4) IT experts, two (2) teachers, and thirty (30) customers for a total of forty (40) respondents.

Test Results

The test results show the different testing procedures. The proponents have tested these procedures to ensure that every capability of the system is working well. It includes the step-by-step process and it also displays the outputs of the system. Lastly, the proponents were able to test the functionality of the project.

| Table 6. Login and Registration Form | |
|---|---|
| Date | 27/10/2021 |
| Tested By | Jay-R P. Magtaan |
| Test Case Number | 001 |
| Test Case Name | Registration Form |
| Test Case Description | This will allow the user to register their information and Login to access the system or website. |
| Item(s) to be tested | |
| 1 | Register button |

| 2 | As Customer button | | |
|---|--|-----------------|--|
| 3 | As Restaurant button | | |
| 4 | Login button | | |
| Procedural Steps | | | |
| 1 | Click the Login button once you're done filling up the form | | |
| 2 | Click the As Customer button | | |
| 3 | Click the As Restaurant button | | |
| 4 | Click the Register button once you're done filling up the form | | |
| Specifications | | | |
| Input | Expected Output/Result | Pas s Y/N | Actual Result/Output |
| Customer name, email, phone number, address, and password , | 1. If the User chooses the Register button, they will go directly in the Registration form and need to fill up the form. | Y | The Customers information will be submitted and automatically go in the Login Form |
| | 2. If the user chooses the As Customer button the form will appear. | Y | The form for Customer's Registration will appear. |

| | | | |
|--|---|---|--|
| photo. Restaurant name, email, phone number, area, longitude, Latitude, address, password , and photo. | 3. If the user chooses the As Restaurant button the form will appear. | Y | The form for Restaurant's Registration will appear |
| | 4. If the user can now access the system/website after clicking the Login button. | Y | The user can now access the system/website after they input their correct email and password to login. |

| Table 7. 2D Mapping Form | |
|---------------------------------|---|
| Date | 27/10/2021 |
| Tested By | Kirk Steven B. Manansala |
| Test Case Number | 002 |
| Test Case Name | Finding the nearest Restaurant |
| Test Case Description | This will allow the user to find the nearest restaurants based on the user's location using 2D mapping. |
| Item(s) to be tested | |
| 1 | Town drop down menu |

| 2 | Find button | | | | | | |
|-------------------------|---|-----------------|---|--|--|--|--|
| Procedural Steps | | | | | | | |
| 1 | Click the Town drop down menu to select your town | | | | | | |
| 2 | Click the Location drop down menu to select your location | | | | | | |
| 3 | Click the Find button to automatically find your Town and Location in the Map | | | | | | |
| Specifications | | | | | | | |
| Input | Expected Output/Result | Pas s Y/N | Actual Result/Output | | | | |
| Town | 1. When the user clicks the Town drop down menu the list of towns in Bataan will appear. | Y | The list of towns in Bataan will appear. | | | | |
| | 2. If the user clicks the Find button the Map will show the nearest Restaurant based on user's input will appear. | Y | The Nearest Restaurant based on user's input will appear. | | | | |

| Table 8. Mode of Order Form/Main Form | | | |
|--|--|-------------|-------------------------|
| Date | 27/10/2021 | | |
| Tested By | Harvie Mariez Pedrosa | | |
| Test Case Number | 004 | | |
| Test Case Name | Main Form | | |
| Test Case Description | This will allow the Customer to choose if they are going to Book Table, Pick-up or Rate. | | |
| Item(s) to be tested | | | |
| 1 | Book Table button | | |
| 2 | Pick-Up button | | |
| Procedural Steps | | | |
| 1 | Click Book Table button to go in choosing of tables | | |
| 2 | Click Pick-Up button for receiving the order | | |
| 3 | Click Rate button to give rates and feedback | | |
| Specifications | | | |
| Input | Expected Output/Result | Pass Y/N | Actual Result/Output |

| | | | |
|--|---|---|--|
| Date, Time, rating and comment | 1. If the user chooses Book Table, they will enter the form for the Reservation Date and Time | Y | The user will access the Reservation Date and Time that is needed for the Booking Table. |
| | 2. If the user chooses Pick-Up, they will enter the form for the pick-up Date and Time | Y | The user will access the Pick-up Date and Time that is needed for the Booking Table, also including the real time and date when the customer book table. |

| Table 9. List of Menu Form | |
|-----------------------------------|----------------------------------|
| Date | 27/10/2021 |
| Tested By | Jhairra Mae Molina |
| Test Case Number | 005 |
| Test Case Name | Menu |
| Test Case Description | Allowing user to browse the menu |
| Item(s) to be tested | |
| 1 | Main/Meat button |

| 2 | Add On button | | |
|-------------------------|---|-------------|---|
| 3 | Drinks button | | |
| Procedural Steps | | | |
| 1 | Click Main/Meat button to show the Main/Meat menu | | |
| 2 | Click Add On button to show the Add On menu | | |
| 3 | Click Drinks button to show the Drinks menu | | |
| Specifications | | | |
| Input | Expected Output/Result | Pass Y/N | Actual Result/Output |
| - | 1. If the customer clicks the Main/Meat button they can see and browse its menu | Y | The customer can browse the menu of Main/Meat |
| | 2. If the customer clicks the Add On button they can see and browse its menu | Y | The customer can browse the menu of Add On |
| | 3. If the customer clicks the Drinks button they can see and browse its menu | Y | The customer can browse the menu of Drinks |

Table 10. All Bookings Form

| | |
|-----------------------------|--|
| Date | 27/10/2021 |
| Tested By | Kirk Steven B. Manansala |
| Test Case Number | 006 |
| Test Case Name | Record of all bookings |
| Test Case Description | This is where the Restaurant can see all the pending orders. |
| Item(s) to be tested | |
| 1 | Confirm button |
| 2 | View button |
| 3 | Notify button |
| 4 | Send Button |
| Procedural Steps | |
| 1 | Click Confirm button to accept booking |
| 2 | Click View button to see the details of the orders |
| 3 | Click Notify button |
| 4 | Click Send button to Notify the Customer through SMS |

| Specifications | | | |
|-----------------------|---|--------------------------|---|
| Input | 1. Expected Output/Result | Pas s Y/N | Actual Result/Output |
| - | 2. 1. When the Restaurant clicks the Confirm button the user's order will now be processed. | Y | The customer's reservation or pick-up order will be approved. |
| | 2. If the Restaurant clicks the View button, they can now see the details order. | Y | The customers reservation or pick-up order details can be seen as Invoice |
| | 3. If the restaurant clicks the Notify button, the restaurant will notify the customer. | Y | The restaurant will notify the customer through SMS. |
| | 4. If the Restaurant clicks the Send button the customers will receive a SMS Notification. | Y | The customer will be receiving a SMS Notification from the Restaurant about the Reservation or their Pick-up order. |

Table 11. Invoice Form

| Date | 10/27/2021 | | |
|-----------------------------|---|--------------|---|
| Tested By | Jay-R P. Magtaan | | |
| Test Case Number | 007 | | |
| Test Case Name | All customers reservation or pick-up order details | | |
| Test Case Description | This is where the total price of orders will see. | | |
| Item(s) to be tested | | | |
| 1 | QR Code | | |
| Procedural Steps | | | |
| 1 | Scan the QR code to see the invoice details | | |
| Specifications | | | |
| Input | Expected Output/Result | Pas s Y/N | Actual Result/Output |
| - | 1. If the restaurants scan the QR Code the Invoice details will appear. | Y | This acts as the receipt of all the orders of the customer. |

| Table 12. Rating and Feedback Form | | | |
|---|--|-----------|---|
| Date | 10/27/2021 | | |
| Tested By | Gen-lyn B. Lampano | | |
| Test Case Number | 008 | | |
| Test Case Name | Feedback and Ratings | | |
| Test Case Description | This is where the Customers will give their comments and ratings. | | |
| Item(s) to be tested | | | |
| 1 | Rate Us drop down menu | | |
| 2 | Submit button | | |
| Procedural Steps | | | |
| 1 | Click Rate Us drop down menu to choose | | |
| 2 | Click Submit button after choosing your rate and your feedback | | |
| Specifications | | | |
| Input | Expected Output/Result | Pas s Y/N | Actual Result/Output |
| Excellent , Very Good, Good, Fair, Bad | If the user clicks the Rate Us drop down menu, they can choose either excellent, very good, good, fair, bad. | Y | The user can see and choose in the rating list for feedback |
| | If the user clicks the submit button the rating will be saved. | Y | The user's rate will be saved in the database and the star rating under the restaurant's name in list of restaurants will be updated. |

| Table 13. Inventory Form |
|---------------------------------|
|---------------------------------|

| Date | 01/06/2022 | | |
|-----------------------------|---|-----------|---|
| Tested By | Jhaira Mae Molina | | |
| Test Case Number | 009 | | |
| Test Case Name | Inventory of Restaurant | | |
| Test Case Description | List of available menu and stocks of the restaurant. | | |
| Item(s) to be tested | | | |
| 1 | Add Stock button | | |
| 2 | Print button | | |
| Procedural Steps | | | |
| 1 | Click Edit menu to edit the details of the menu item | | |
| 2 | Search menu item in the Search textbox to find specific menu item | | |
| Specifications | | | |
| Input | Expected Output/Result | Pas s Y/N | Actual Result/Output |
| Amount or number of stocks | 1. When the restaurant clicks the Add Stock button, there will be a stock added to the specific item. | Y | The edit menu will pop up and they can put how many stocks they will add and it will be saved and the stocks will be updated. |
| | 2. If the Restaurant clicks the Print button the list of stocks can now print. | Y | The list or record of stocks can now print. |

Project Evaluation

These are the results of the project evaluation from the given questionnaires to the restaurant owners/managers, employees, and customers following the ISO 25010.

Researchers set up the system. The proponents distributed the survey form to the respondents. The proponents explained the survey form and the flow of the system to the respondents. Based on ISO 25010, the proponents tested the system and the respondents evaluated the system performance using the survey form. After the evaluation, the proponents collected all the evaluation forms to analyze the data. Through the collected data, the proponents computed using the weighted average formula. The overall rating is interpreted using the numerical range and equivalent descriptive interpretation using the Likert scale.

Table 14. Evaluation of Software Quality: Functional Suitability

| FUNCTIONAL SUITABILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|-------------------------------|---------------------|-----------------------------------|
| A. Functional completeness | 4.68 | Excellent |
| B. Functional correctness | 4.53 | Excellent |
| C. Functional appropriateness | 4.58 | Excellent |
| MEAN | 4.60 | Excellent |

Table 14 presented evaluation of the system in terms of Functional Suitability. The mean of Functional Suitability got 4.60 with the descriptive interpretation of Excellent. Almost all of the respondents say the system covers all the specified tasks and the user objectives.

Table 15. Evaluation of Software Quality: Efficiency

| EFFICIENCY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|-------------------------|--------------|----------------------------|
| A. Time behavior | 4.65 | Excellent |
| B. Resource Utilisation | 4.65 | Excellent |
| C. Capacity | 4.68 | Excellent |
| MEAN | 4.66 | Excellent |

Table 15 shows the result of evaluation of the system in terms of Efficiency. The mean got 4.66 of rating with descriptive interpretation of Excellent since the system achieved every requirement needed.

Table 16. Evaluation of Software Quality: Compatibility

| COMPATIBILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|---------------------|--------------|----------------------------|
| A. Co-existence | 4.68 | Excellent |
| B. Interoperability | 4.63 | Excellent |
| MEAN | 4.66 | Excellent |

Table 16 explained the evaluation of the system in terms of Compatibility. The mean of compatibility got 4.66 with the descriptive interpretation Excellent. The system can perform its required functions efficiently and they are hoping it will be implemented soon and overall, it was good for them.

Table 17. Evaluation of Software Quality: Usability

| USABILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|------------------------------|--------------|----------------------------|
| A. Recognizability | 4.65 | Excellent |
| B. Learnability | 4.58 | Excellent |
| C. Operability | 4.60 | Excellent |
| D. Accessibility | 4.55 | Excellent |
| E. User error protection | 4.68 | Excellent |
| F. User interface aesthetics | 4.65 | Excellent |
| MEAN | 4.62 | Excellent |

Table 17 concludes that the evaluation of the system in terms of Usability, it got 4.62 mean with the descriptive interpretation is Excellent. The system is appropriate to the needs of the user and almost all the respondents say this system can help many people and it is good for them. It is easy to use and works well. The concept was amazing.

Table 18. Evaluation of Software Quality: Reliability

| RELIABILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|--------------------|--------------|----------------------------|
| A. Maturity | 4.65 | Excellent |
| B. Availability | 4.63 | Excellent |
| C. Fault Tolerance | 4.60 | Excellent |
| D. Recoverability | 4.60 | Excellent |
| MEAN | 4.62 | Excellent |

Table 18 displayed the evaluation of the system in terms of Reliability. It got 4.62 average mean with the descriptive interpretation Excellent. It says that the system is operational and accessible when required for use and meets needs for reliability under normal operations.

Table 19. Evaluation of Software Quality: Security

| SECURITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|--------------------|--------------|----------------------------|
| A. Confidentiality | 4.68 | Excellent |
| B. Integrity | 4.75 | Excellent |
| C. Non-repudiation | 4.53 | Excellent |
| D. Authenticity | 4.55 | Excellent |
| E. Accountability | 4.60 | Excellent |
| MEAN | 4.63 | Excellent |

Table 19 shows the evaluation of the system in terms of Security. The mean is 4.63 with the descriptive interpretation Excellent. The system meets the requirement about the security which is the identification of the user can be authenticated and proved to be the one claimed.

Table 20. Evaluation of Software Quality: Maintainability

| MAINTAINABILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|------------------|--------------|----------------------------|
| A. Analyzability | 4.60 | Excellent |
| B. Modifiability | 4.60 | Excellent |
| C. Testability | 4.68 | Excellent |
| D. Modularity | 4.70 | Excellent |
| E. Reusability | 4.73 | Excellent |
| MEAN | 4.66 | Excellent |

Table 20 explained the evaluation of the system in terms of Maintainability. The average mean got 4.66 with the descriptive interpretation Excellent. The other respondents showed interest about the registration of the customers and restaurants with the inappropriate details that admin can reject or approve. The system can be tested to determine whether test criteria have been met.

Table 21. Evaluation of Software Quality: Portability

| PORTABILITY | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|-------------------|--------------|----------------------------|
| A. Adaptability | 4.68 | Excellent |
| B. Installability | 4.73 | Excellent |
| C. Replaceability | 4.60 | Excellent |
| MEAN | 4.67 | Excellent |

Table 21 displayed the evaluation of the system in terms of Portability. It got 4.67 mean with the descriptive interpretation is Excellent. The system can effectively be adapted for different hardware or software environments.

After evaluating and gathering all the average mean and its interpretation of functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, portability in Table 22, next page, the Summary of Project Evaluation was shown for the overall average mean and interpretation.

Table 22. Summary of Project Evaluation

| SOFTWARE QUALITY FACTOR | AVERAGE MEAN | DESCRIPTIVE INTERPRETATION |
|---------------------------|--------------|----------------------------|
| A. Functional Suitability | 4.60 | Excellent |
| B. Performance Efficiency | 4.62 | Excellent |
| C. Compatibility | 4.66 | Excellent |

| | | |
|--------------------|-------------|-----------|
| D. Usability | 4.62 | Excellent |
| E. Reliability | 4.66 | Excellent |
| F. Security | 4.63 | Excellent |
| G. Maintainability | 4.66 | Excellent |
| H. Portability | 4.67 | Excellent |
| MEAN | 4.63 | Excellent |

Table 22 shows the result of the overall evaluation of the system entitled Samgyeopsal Restaurant Management Portal with 2D Mapping reaches an average mean of 4.63 and Excellent in descriptive interpretation. The system meets all the requirements such as the functional sustainability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability. The developed systems have the ability to track the restaurants' sales and inventory, locate the nearest restaurants, to book a reservation and pick up their orders, and give feedback to the restaurants. The respondents' opinions about the developed system could help the people and make it easy for them to find the nearest restaurant. However, the developed system would be easier for the customer to find a restaurant by their location and for the restaurant to track their sales and inventory

Chapter 5

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter includes the discussion of the summary of findings, conclusions, and recommendations.

Summary of Findings

Based on the analysis of data, the findings are as follows:

On the basis of the system capabilities, the proponents have concluded some assumption of findings such as:

- The system is capable of operating with accuracy and giving the desired results with a functional suitability criterion mean of 4.60 and with a descriptive interpretation of Excellent.
- The system is running steadily and all resources are used effectively with a performance efficiency criterion mean of 4.66 and with a descriptive interpretation of Excellent.
- The information stated and written on the system are compatible to the user's needs with a compatibility criterion mean of 4.66 and with a descriptive interpretation of Excellent.

- The users of the system are able to use the system with ease and understand fully the flow of the procedures with a usability criterion mean of 4.62 and with a descriptive interpretation of Excellent.
- The users find the system dependable when it comes to accessing with a reliability criterion mean of 4.66 and with a descriptive interpretation of Excellent.
- The users find their information details secured but there are still room for improvement with a security criterion mean of 4.63 and with a descriptive interpretation of Excellent.
- The system received a maintainability criterion mean of 4.66 with a descriptive interpretation of Excellent. This means that the system can be easily modified for other changes.
- The system is running to different types of gadgets and can easily be used by the users. It received a portability criterion of 4.67 and with a descriptive interpretation of Excellent.

Conclusions

The following conclusions are gathered based on the evaluation.

1. The proponents were able to create and develop a web portal called Samgyeopsal Restaurant Management Portal with 2D Mapping that can help both the restaurant owners or employees and their customers.

Additionally, it allows its users to store and to maintain all the gathered information; to look or search for the nearest samgyeopsal restaurants near their locations; to fill out forms for booking a reservation with their desired date and time; to provide pick-up assistance for the customers; to grant the users to see the list of menus of the restaurants; to sending a text message to the customers when their reservation or pick-up is already confirmed by the restaurant through SMS notification; to generate a QR code to serve as an e-receipt that can be presented at the cashier; to provide customers a feedback and ratings form; and lastly to provide an inventory and sales record for the restaurants.

2. The web portal was developed using Visual Studio Code, XAMPP, Windows 10, Dreamweaver, Photoshop, as software requirements, and Monitor, 4GB RAM, mouse, keyboard, and QR code scanner as hardware requirements.
3. The proposed system was tested and improved in terms of functional suitability, usability, maintainability, security. As a result the system passed the requirements because the web portal was tested using evaluation criteria.
4. Samgyeopsal Restaurant Management Portal with 2D Mapping's performance was evaluated using ISO 25010 characteristics such as functional suitability, maintainability, usability, performance efficiency, compatibility, reliability, security, portability. The evaluation shows that the system reached an overall mean of 4.63 with a descriptive

interpretation of Excellent by the help of the forty (40) respondents that consists of two (2) owners or restaurant managers, two (2) employees, four (4) IT experts, two (2) teachers, and thirty (30) customers for a total of forty (40) respondents.

Recommendations

Based on the foregoing conclusions, the following are recommended for the further improvement of the system.

1. To add an OTP or CAPTCHA during the registration of users.
2. To add a chat bot that can answer the users' inquiries.
3. To add another method of payment other than Gcash.

BIBLIOGRAPHY

WWW Document - corporate author:

E.A., P., Kovaleva, Galchenko, Kobchenko, Ovchinnikova, & Pikalova. (2020, August 1). *Proceedings of the Russian Conference on Digital Economy and Knowledge Management*. Retrieved from Atlantis Press: <https://www.atlantis-press.com/proceedings/rudeck-20/125942567>

Gallinera, Corpuz, Gocotano, & Demdam. (2019, September 15). *Digitoy: The Popularity of Samgyeopsal in the Philippines*. Retrieved from WordPress: <https://education238214257.wordpress.com/2019/09/15/%EB%A7%9B%EC%9E%88%EC%96%B4%EC%9A%94-the-popularity-of-samgyeopsal-in-the-philippines/>

Kahlon, K., & Sur, K. S. (2018). *Digital Adoption for Consumer Delight: E-Restaurant*. Retrieved from proquest: <https://www.proquest.com/openview/bbdf4b6366a6ca90c8ee86af323f1b25/1?pq-origsite=gscholar&cbl=2046061>

Sari, D. A., Sudarmiatin, & Dhewi, T. S. (2020). *FACTORS CONSIDERED BY CONSUMERS IN TAKING PRODUCT PURCHASE DECISIONS*. Retrieved from WordPress: https://seajbel.com/wp-content/uploads/2020/05/SEAJBEL21_248.pdf

WWW Document - no author:

2D Maps. (2017, June 15). Retrieved from AUTODESK: <https://knowledge.autodesk.com/support/3ds-max/learn-explore/caas/CloudHelp/cloudhelp/2017/ENU/3DSMax/files/GUID-734C2152-1B75-45E5-B25F-EA12E63DC62C-htm.html>

All About PHP [PHP: HyperText Preprocessor]. (2020). Retrieved from websitebuilders: <https://websitebuilders.com/how-to/glossary/php/>

Developing Data Flow Diagrams (DFDs). (2021). Retrieved from W3COMPUTING: <https://www.w3computing.com/systemsanalysis/developing-data-flow-diagrams/#:~:text=The%20child%20diagram%20is%20given,number%20for%20each%20child%20process.>

Introduction to Web Development. (2021). Retrieved from codeconquest: <https://www.codeconquest.com/what-is-coding/web-programming/>

ISO/IEC 25010 Software Quality Model. (2021, March 17). Retrieved from codacy: <https://blog.codacy.com/iso-25010-software-quality-model/>

ISO/IEC 25010:2011. (2018). Retrieved from ISO: <https://www.iso.org/standard/35733.html>

Conceptual Model. (2020). Retrieved from uxpin:
<https://www.uxpin.com/studio/blog/conceptual-model/>

CPU. (2021, May 2). Retrieved from Computer Hope:
<https://www.computerhope.com/jargon/c/cpu.htm#:~:text=Alternately%20referred%20to%20as%20a,software%20running%20on%20the%20computer>.

Mapping with Drones. (2020). Retrieved from Drone Photography Services:
<https://dronephotographyservices.co.uk/mapping/>

Microsoft Visual Studio Code, a cross-platform and free source code editor. (2020, May 12). Retrieved from Svitla: <https://svitla.com/blog/microsoft-visual-studio-code-a-cross-platform-and-free-source-code-editor>

Open Samgyupsal Restaurants. (2021, March 11). Retrieved from booky:
<https://ph.phonebooky.com/blog/samgyupsal-restaurants-metro-manila/>

Performance testing. (2021, January 20). Retrieved from Neotys:
<https://www.neotys.com/insights/performance-testing>

Samgyeopsal everywhere. (2018, June 6). Retrieved from NewsVille:
<http://newsville.com.ph/samgyeopsal-everywhere/>

Transaction processing. (2017). Retrieved from IBM:
<https://www.ibm.com/docs/en/cics-ts/5.4?topic=overview-transaction-processing>

Web programming languages: the best languages for web development. (2019). Retrieved from IONOS: <https://www.ionos.com/digitalguide/websites/web-development/web-programming-languages/>

What is a Data Flow Diagram. (2016). Retrieved from Lucidchart:
[https://www.lucidchart.com/pages/data-flow-diagram#:~:text=A%20data%20flow%20diagram%20\(DFD,the%20routes%20between%20each%20destination](https://www.lucidchart.com/pages/data-flow-diagram#:~:text=A%20data%20flow%20diagram%20(DFD,the%20routes%20between%20each%20destination).

What is an Entity Relationship Diagram (ERD)? (2016). Retrieved from Lucidchart:
<https://www.lucidchart.com/pages/er-diagrams>

What is waterfall methodology? (2016). Retrieved from Eastern Peak:
<https://easternpeak.com/definition/waterfall-development/>

Page from a website:

Beal, V. (2021). *Mobile Phone.* Retrieved from webopedia:
<https://www.webopedia.com/definitions/mobile-phone/>

Bilyk, V. (2019, December 24). *Data Flow Diagrams (DFD) Explained.* Retrieved from Volodymyr Bilyk: <https://volodymyrbilyk.medium.com/data-flow-diagrams-dfd-explained-24cb620f9040>

- Chahal, P. (2019, November 30). *What is MySQL? Definition, Features, Explanation*. Retrieved from TemplateToaster: <https://blog.templatetoaster.com/what-is-mysql/>
- Charlon, R. (2020, April 6). *The benefits of 2.5D maps vs. 2D maps*. Retrieved from LinkedIn: [https://www.linkedin.com/pulse/benefits-25d-maps-vs-2d-romain-charlon?](https://www.linkedin.com/pulse/benefits-25d-maps-vs-2d-romain-charlon/)
- Dains, B. (2017, January 6). *Why is the use of a modified waterfall model becoming more popular?* Retrieved from Quora: <https://www.quora.com/Why-is-the-use-of-a-modified-waterfall-model-becoming-more-popular>
- Evangelista, A. (2020, February 20). *Online Restaurant Management System Project in PHP with Source Code*. Retrieved from IT Source Code: <https://itsourcecode.com/free-projects/php-project/online-restaurant-management-system-project-in-php-with-source-code/>
- Gregersen, E. (2021, April 8). *QR Code*. Retrieved from Britannica: <https://www.britannica.com/technology/QR-Code>
- Howard, P. (2018, September 10). *Technologies*. Retrieved from Bloor: <https://www.bloorresearch.com/technology/transaction-processing-dbms/#:~:text=Transaction%20processing%20means%20dividing%20information,until%20either%20the%20transaction%20has>
- Howard, P. (2019, February 5). *Database Management Systems*. Retrieved from Bloor: <https://www.bloorresearch.com/technology/database-management-system/>
- James, L. (2020). *Best Point of Sale (POS) System for Small Business - 2021*. Retrieved from Inc.: <https://www.inc.com/finance/best-point-of-sale-pos-system-for-small-business.html>
- Javier, M. M. (2018, May 23). *Samgyeopsal becomes most popular Korean food in Manila*. Retrieved from KOREA.net: <https://m.korea.net/english/NewsFocus/HonoraryReporters/view?articleId=159314>
- Johansen, A. G. (2019, September 5). *What is a router, and how does it work?* Retrieved from Norton: <https://us.norton.com/internetsecurity-iot-smarter-home-what-is-router.html>
- Kienapple, B. (2019, March 15). *11 Gantt Chart Examples and Templates For Effective Project Management*. Retrieved from Venngage: <https://venngage.com/blog/gantt-chart-example/>
- Krow, S. (2017, September 26). *How to Set Up a Korean BBQ Restaurant*. Retrieved from bizfluent: <https://bizfluent.com/how-8460718-set-up-korean-bbq-restaurant.html>
- Liu, S. (2021, January 18). *Global market share held by operating systems for desktop PCs, from January 2013 to December 2020*. Retrieved from statista: <https://www.statista.com/statistics/218089/global-market-share-of-windows-7/>

- Mamaril, J. C. (2017, April 26). *Mobile-Based Service Management Online Reservation Portal (Msmorp) Towards Continuous Quality Improvement*. Retrieved from Southeast Asian Journal of Science and Technology: <https://sajst.org/online/index.php/sajst/article/view/21>
- Meador, D. (2018, July 27). *What is Data Dictionary*. Retrieved from tutorialspoint: <https://www.tutorialspoint.com/What-is-Data-Dictionary>
- Naeem, T. (2021, April 30). *All You Need to Know About Database Design*. Retrieved from Astera: <https://www.astera.com/type/blog/all-you-need-to-know-about-database-design/>
- Opinaldo, N. (2021, May 12). *Context Diagram*. Retrieved from GitMind: <https://gitmind.com/context-diagram.html>
- Pontius, N. (2021, January 24). *What is a QR Code?* Retrieved from camcode: <https://www.camcode.com/asset-tags/what-is-a-qr-code/>
- Raza, M. (2018, August 29). *DBMS: An Intro to Database Management Systems*. Retrieved from bmc: <https://www.bmc.com/blogs/dbms-database-management-systems/>
- Rebes, P. (2019, August 13). *Software Quality Standards—How and Why We Applied ISO 25010*. Retrieved from monterail: <https://www.monterail.com/blog/software-qa-standards-iso-25010>
- Sabbu. (2020). *ONLINE FOOD PIZZA AND CAKE ORDER MANAGEMENT SYSTEM*. Retrieved from IGNOU: <https://ignousupport.blogspot.com/p/online-pizza-order-management-system.html?fbclid=IwAR39FWq7Uliovz30ki0Vlaknsf2j0N4Q5Od-C3c-atkVH504klpKZxM3ZLo>
- Scott. (2020, September 14). *What is a QR Code?* Retrieved from SproutQR: <https://www.sproutqr.com/blog/what-is-a-qr-code>
- Singson, Y. (2020, June 27). *Planning A Korean BBQ Date With Friends? Check Out These Dine-In Rules First*. Retrieved from Cosmopolitan: <https://www.cosmo.ph/lifestyle/food-drink/dine-in-rules-korean-restaurants-philippines-a704-20200627>
- Zulqadar, A. (2019, February 12). *SDLC Waterfall Model: The 6 phases you need to know about*. Retrieved from REZAID: <https://rezaid.co.uk/sdlc-waterfall-model/>

Blog post:

Destacamento, J. (2019, June 15). Retrieved from THE JERNY:
<https://thejerny.com/food/romantic-baboy-unlimited-cheesy-samgyupsal-and-korean-bbq-for-%E2%82%B1499/>

Halvorsen, H.-P. (2018). *Web Technology and Programming*. Retrieved from Halvorsen Blog:
<https://www.halvorsen.blog/documents/programming/web/web.php>

Top Samgyupsal In Metro Manila For Budgets Of ₱500 And Below. (2019, September 17). Retrieved from eCompareMo: <https://www.ecomparemo.com/info/top-samgyupsal-in-metro-manila-for-budgets-p500-and-below>

APPENDIX A

Title Proposal



BATAAN PENINSULA STATE UNIVERSITY

MAIN CAMPUS

College of Information and Communications Technology (047) 237 2010
City of Balanga, 2100 Bataan www.bpsu.edu.ph

bpsu.cict2016@gmail.com

Title Proposal

Project Title: Samgyeopsal Restaurant Management Portal with 2D Mapping

Summary

The operations of the samgyeopsal restaurants here in Bataan are affected by the COVID-19 pandemic. Due to this, many samgyeopsal restaurants were mandated to only have a maximum of 50% capacity of diners at the same time for over a year. This became a hindrance to their businesses to prosper and to get their normal sales. Samgyeopsal Restaurant Management Portal with 2D Mapping is a web portal that focuses on different samgyeopsal restaurants and manages their transactions. The system offered customers an environment where they can look for different samgyeopsal restaurants around Bataan, book for reservation, add advanced order, and give feedback to the system and the restaurant management.

Project Background

Due to the popularity of the Korean wave in our country, lots of Filipinos enjoyed eating in samgyeopsal restaurants around the country. But because of the pandemic, samgyeopsal restaurants were limited to only 50 to 75% of the capacity of diners inside the restaurants at the same time. People who wanted to eat in the restaurants found it too difficult to dine since the restaurants have limited capacity.

The Current State of the Technology

In the current setup, technology plays an important role in every industry. Due to the pandemic, people are needed to have a transaction that has minimum interaction between the customer and the service provider. Businesses like restaurants are heavily affected because of the pandemic. There have been numerous lockdowns all around the world and restaurants are forced to close. Either they are forced to close or they don't have a system that can handle the current situation.

Project Problem Statement

The process of tracking, transactions, inventory and sales of samgyeopsal restaurants is a hard job for the restaurants' employees and managers when it is manually done. Humans are subjective to make mistakes

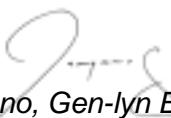
Project Assumption

Samgyeopsal Restaurant Management Portal with 2D Mapping is designed to provide customers and restaurants a system that will cater their needs in making their transactions easier through registration module, searching for the nearest restaurants module, booking a reservation module, pick up module, browsing of menu module, SMS notification module, QR code module, feedback module, inventory and sales module.

The following are the benefits that will be gained from the proposed system:

- Allowing the users to register in the portal through registration module;
- Finding the nearest restaurants based on the user's location using 2D mapping;
- Filling out the information needed such as time, date and orders to book an advance reservation after the registration and sign in.;
- Providing pick-up assistance for the customers.;
- Granting the user to browse the list of menus.;
- Sending user/customer confirmation about their requested reservation through SMS notification module.;
- Generating QR code after confirming the order that will be presented to the cashier for payment through an automated e-receipt.;
- Giving feedback and ratings about the service through feedback module; and
- Monitoring the restaurants' inventory by keeping the records of available stocks and tracking of sales through the use of restaurant's records.

Proponents:



Lampano, Gen-lyn Balanay



Molina, Jhairra Mae Calma



Pedrosa, Harvie Mariez Amistad

J. Magtaan
Magtaan, Jay-R Pamintuan



Manansala, Kirk Steven Bernabe

Our Vision

A leading university in the Philippines recognized for its proactive contribution to Sustainable Development through equitable and inclusive programs and services by 2030.

Our Mission

To develop competitive graduates and empowered community members by providing relevant, innovative and transformative knowledge, research, extension and production programs and services through progressive enhancement of its human resources capabilities and institutional mechanism.

Approved by:

Maria Diorella A. Paguio, M. Eng. Marissa B. Ramos, MIT Cristina G. Rivera
MSCS

Roda A. Pangilinan, Ph.D. Aida T. Solomon, M. Eng. Cherry A. Collera,
Ph.D.

Janice Christian M. Sacdalan, MIT Arlyne M. Naoe, MEM Janette S. Ambito,
MIT

Joseph Ross E. Cortel, MIT Ruben D. Espejo, MSCS Noel N. Tolentino

APPENDIX B

Adviser' Commitment

STUDENTS' AND ADVISER
THESIS COMMITMENT and AGREEMENT

This agreement is binding the Student/s and their adviser for the duration and completion of their research project. As an agreement, the following will be expected from both parties:

- Student/s is/are expected to put his/her work into their thesis.
- Faculty advisers are expected to guide students to produce their best work.
- Both jobs are time-consuming and must be carried out by students and faculty members working together in a disciplined way over a sustained period.
- Both parties have the responsibility to see the necessary work is completed on time. A clear schedule should be made and agreed by both parties for their meetings to supervise the progressive elaboration of the research project.

Whereas, the thesis adviser is expected to perform the following duties:

- The thesis adviser is expected to mentor the students throughout the project development by providing guidance for the preparation and completion of the project.
- The thesis adviser shall be the source of encouragement and support for the student to ensure that the objective of the system will be achieved.

The signature below indicates that the both parties agree to the duties and responsibilities set forth as stipulated in the Thesis/Research Methodology Manual.

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Title: Samgyeopsal Restaurant Management Portal with 2D Mapping
Course: BSIT NW4-C

Advisee/s Full name Signature/s>Date Adviser's Full Name Signature/Date

Lampano, Gen-lyn Balanay

Cherry A. Collera, Ph.D.

Molina, Jhairra Mae Calma

Pedrosa, Harvie Mariez Amistad

J. Magtaan
Magtaan , Jay-R Pamintuan

Manansala, Kirk Steven Bernabe

APPENDIX C

Milestone Contract

and Checklist



BATAAN PENINSULA STATE UNIVERSITY

MAIN CAMPUS

College of Information and Communications Technology (047) 237 2010
City of Balanga, 2100 Bataan
www.bpsu.edu.ph
bpsu.cict2016@gmail.com

Thesis Milestone Contract and Checklist

This contract is authorized in the Regulations for four-year BS Information Technology, BS Computer Science and BS Entertainment and Multimedia Computing. The student shall submit this contract for approval at the college responsible for the thesis in accordance with the deadlines stipulated. Any changes to the contract during its duration (e.g., syllabus, adviser, leave of absence/extension, etc.) should be processed by the college.

1. STUDENTS DETAILS (Last Name, First Name, Middle Initial)

Member 1: Lampano, Gen-lyn Balanay

Member 2: Molina, Jhairra Mae Calma

Member 3: Pedrosa, Harvie Mariez Amistad

Member 4: Magtaan, Jay-R Pamintuan

Member 5: Manansala, Kirk Steven Bernabe

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2. ADVISER(S)

State the name of the principal adviser and any co-adviser(s) or external adviser(s). The principal adviser has the overall responsibility for following up the contract on behalf of the college and ensuring the student receives academic supervision for the entire duration of the contract. The student has the right to receive academic supervision during the period he/she shall work on their undergraduate thesis (in accordance with the programme description). If the adviser plans to have a sabbatical during the duration of the contract, the student should be informed of this at the time of entering into the contract.

Principal adviser:

Office address / Phone / E-mail:

Co-/external adviser:

3. THESIS PROJECT

a.) Working Title: E-Barter: Online Bartering System for Agricultural Products and Supplies

The copy of the approved Title Proposal should be attached. It should include:

Research Problems

Objectives

Methodology

Schedule/timetable

Technical/scientific partners (if any)

b.) Implementation of Thesis Project:

Each group member takes responsibility for the project's objectives. All students are entitled to implement their theses on a group basis which will consist of 2-4 members. However, 5 members will be permitted if the class populations exceeded the grouping requirements.

Group project with 4 members.

c.) Timetable for Thesis Project:

Date of Approval – Title Defense

Date of Approval – Proposal Defense

Date of Approval – Final Defense January 13, 2022

Date of Book Submission

d.) Planned Progress:

For part-time students, the academic progress must constitute a minimum ____ %. Undergraduate theses of 30 credits should normally implemented on a full-time basis. Students who have engagements as part-time lab assistants and equivalent may apply for the length of study to be adjusted.

Full-time student (100%)

Part-time student ____ %

4. REQUIREMENTS FOR EQUIPMENT/RESOURCES

In the event that resources at an external institution shall be used, this must be specified

in point 6 b).

a) The student's place of work (office/lab):

b) Requirements for equipment/resources:

Will, there be a requirement for (any of) the following resources during the thesis project:

Access to/purchase of equipment or software

Please specify:

Access to systems

Please specify:

| | |
|--|------------------------|
| Access to background information and data(set) | Please specify: |
| Expenses (if any): | |
| Approved by the person responsible for resources at the college: | |
| Approved by the person responsible for resources at the external institution: | |
| 1. NOTES | |

2. SIGNATURES

The student, principal adviser, other advisers, and college dean have reached agreements concerning all points covered in the contract.

Student/Date:

Principal Adviser/Date:

Co-/External Adviser/Date:

Co-/External Adviser/Date:

College Dean:

APPENDIX D

Letter of Intent

April 12, 2021

Ms. Kimberly Kosca

Supervisor, Region III

Super Boink Unlimited Korean BBQ

Remaville Subdivision, Ibayo,

Balanga City, Bataan

Dear Ma'am:

Good day!

We, the 3rd year students of Bachelor of Science in Information Technology major in Network and Web Application, are currently enrolled in ICTC2023 (Capstone Project I) course. The final requirement of this course is to create a Samgyupsal Restaurant Management Portal with 2D Mapping.

At this moment, we are looking for a company, an agency or an organization which will help us to explore our study and to start with the development of the system.

In this regard, we humbly ask your good office to allow us to conduct a **Virtual Interview** during your available time this week. A *Virtual Invitation to Interview link* will be sent to your email once you have agreed to our request.

You can rest assured that any information you share with us will be treated confidentially. We are looking forward to being partners in this endeavor. Thank you very much and more power!

Very truly yours,

Magtaan, Jay-r P.

Manansala, Kirk Steven B.

Lampano, Gen-Lyn B.

Molina, Jhairra Mae C.

Pedrosa, Harvie Mariez A.

Endorsed by:

Cherry A. Collera, PhD

ICTC2023 Instructor

Noted by:

Cristina G. Rivera, MSCS
Dean, CICT

Approved by:

Ms. Kimberly Kosca
Supervisor Region III

Email: _____

Date and Time of Virtual Interview:

May 3, 2021 at 1:00p.m.

APPENDIX E

Transcript of

Interview

Transcript of Interview

Title: Samgyeopsal Restaurant Management Portal with 2D Mapping

Date and Time: April 12, 2021

Venue: Google Meet

Proponent: Before pandemic, how many times do you go to samgyeopsal restaurants?

Ms Paula: 4

Proponent: During pandemic, how many times do you go to samgyeopsal restaurants?

Ms. Paula: 1

Proponent: Do you know any application or portal website here in Bataan that offers you to book for reservation and at the same time can offer to have a delivery option if you don't want to dine in?

Ms. Paula: Yes

Proponent: What's the hardest part of booking a reservation in samgyeopsal restaurants?

Ms. Paula: It's always full booked.

Proponent: Do you prefer to dine in or to order food and be delivered to your house? Why?

Ms. Paula: Yes

Proponent: Did you experience a situation wherein you wanted to order samgyeopsal but they are already out of stock? What do you think are the possible reason for this situation?

Ms. Paula: Yes. The possible reason is that there are too many customers that order samgyeopsal.

Proponent: Do you encounter a situation wherein the restaurant is hard to locate? If yes, what do you think are the possible reasons and possible solutions to this problem?

Ms. Paula: No

Proponent: What is your thought, as a customer of a samgyeopsal restaurant, in having a portal website wherein different samgyeopsal restaurants can offer their services and will help them and their customers in locating, transacting, tracking, and managing their restaurants?

Ms. Paula: It is very nice.

I certify that all information written here are true and correct to the best of my knowledge. I give my consent to the proponents to use any information provided herein for the purpose of development of their proposed system.

PAULA C. RAZON

Signature over Printed Name

Transcript of Interview

Title: Samgyeopsal Restaurant Management Portal with 2D Mapping

Date and Time: April 12, 2021

Venue: Google Meet

Proponent: Before pandemic, how many times do you go to samgyeopsal restaurants?

Ms. Hara: 0 times. I didn't go that much to Samgy Restaurants.

Proponent: During pandemic, how many times do you go to samgyeopsal restaurants?

Ms. Hara: I only go once.

Proponent: Do you know any application or portal website here in Bataan that offers you to book for reservation and at the same time can offer to have a delivery option if you don't want to dine in?

Ms. Hara: No, I don't know any portal website.

Proponent: What's the hardest part of booking for a reservation in samgyeopsal restaurants?

Ms. Hara: I haven't experienced booking yet when it comes to Samgy restaurants, so I didn't know that 'hardest part of booking for a reservation'.

Proponent: Do you prefer to dine in or to order food and be delivered it to your house? Why?

Ms. Hara: Considering the situation we're in, I prefer deliveries more than 'dine-ins' for the sake of health security and convenience.

Proponent: Did you experience a situation wherein you wanted to order samgyeopsal but they are already out of stock? What do you think are the possible reason for this situation?

Ms. Hara: No, but I think one of the possible reasons is due to the surge of customers now that most of the Filipinos these days do love patronizing Korean cuisine.

Proponent: Do you encounter a situation wherein the restaurant is hard to locate? If yes, what do you think are the possible reasons and possible solutions to this problem?

Ms. Hara: Yes. The possible reason might be the restaurant can't be seen easily by the people around—or the restaurant is too hidden—thus, can affect their sales and promotions. With that, we can resolve this

by finding a location that is perfectly fit for business; a location that is people-friendly.

Proponent: What is your thought, as a customer of a samgyeopsal restaurant, in having a portal website wherein different samgyeopsal restaurants can offer their services and will help them and their customers in locating, transacting, tracking, and managing their restaurants?

Ms. Hara: This idea is so good! It will help the customers to lessen or even erase any complications when it comes to ordering samgyeopsal. As we all know, samgyeopsal is a kind of food, hence, a necessity. Truly, every customer deserves this kind of service! Hassle-free.

I certify that all information written here are true and correct to the best of my knowledge. I give my consent to the proponents to use any information provided herein for the purpose of development of their proposed system.



HARA MICAH ELLA G. VELASCO

Signature over Printed Name

APPENDIX F

Topical Outline

Topical Outline

Samgyeopsal Restaurant Management Portal with 2D Mapping

1. Introduction
 - 1.1 Samgyeopsal
 - 1.2 Samgyeopsal Restaurant
 - 1.3 Restaurant Management
 - 1.4 Restaurant Management Portal
2. BASIC CONCEPTS (*this will include all theoretical knowledge needed in order to finish the research as well as technologies present in the study*)
 - 2.1 Transaction Processing
 - 2.2 Database Management System
 - 2.3 Web Programming
 - 2.4 QR Code
 - 2.5 2D Mapping
3. EVALUATION SCHEME MODEL
 - 3.1 ISO 25010
 - Functional Suitability
 - Performance Efficiency
 - Compatibility
 - Usability
 - Reliability
 - Security
 - Maintainability
 - Portability
4. SIMILAR MACHINES/APPLICATIONS
 - 4.1 Online Restaurant Management System
 - 4.2 Online Restaurant Management System Project
 - 4.3 Online Food Pizza and Cake Order Management System Project
5. DESIGN CONSIDERATIONS/CRITERIA IN TERMS OF RELIABILITY
 - 5.1 Software Requirements
 - Visual Studio Code
 - XAMPP
 - Windows 10

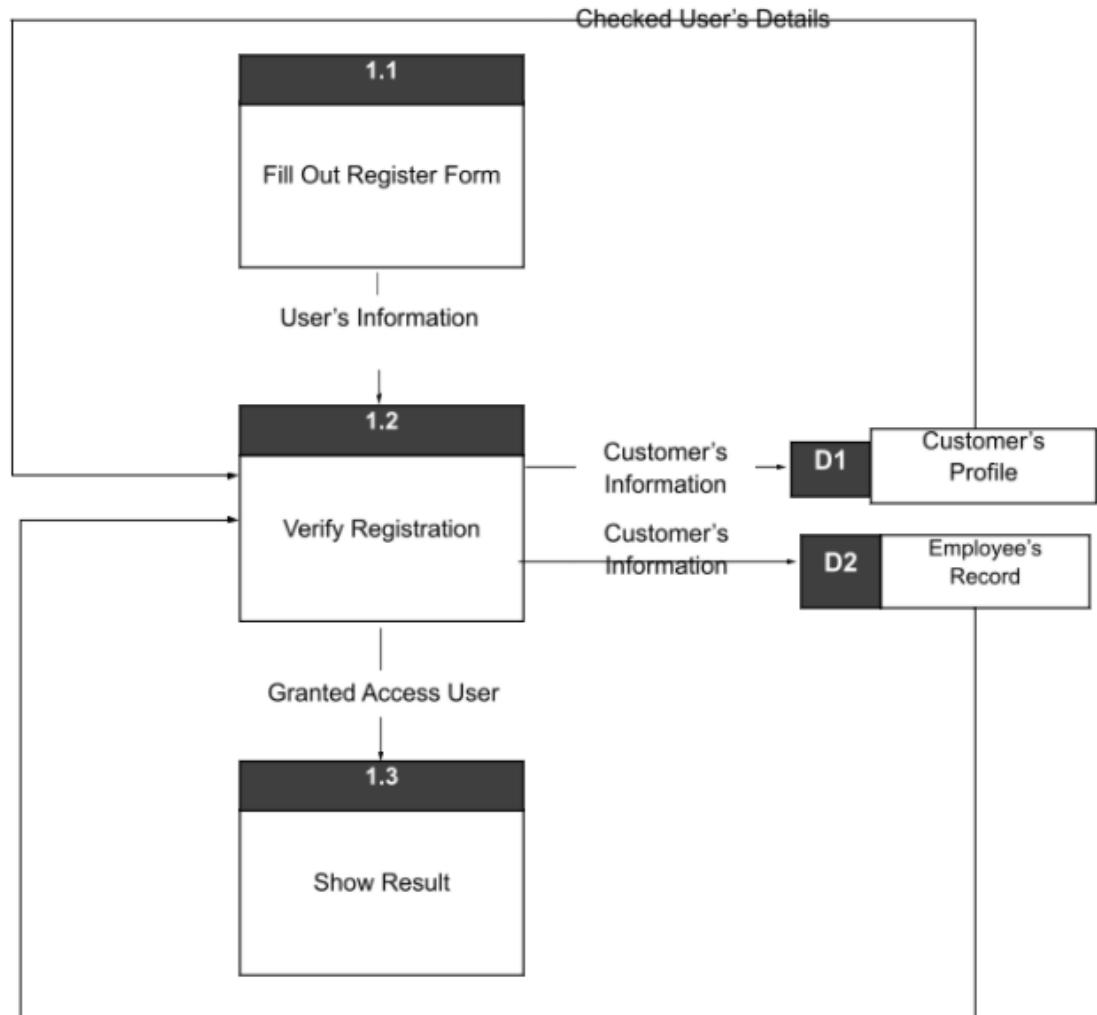
- Dreamweaver
- Photoshop
- HTML

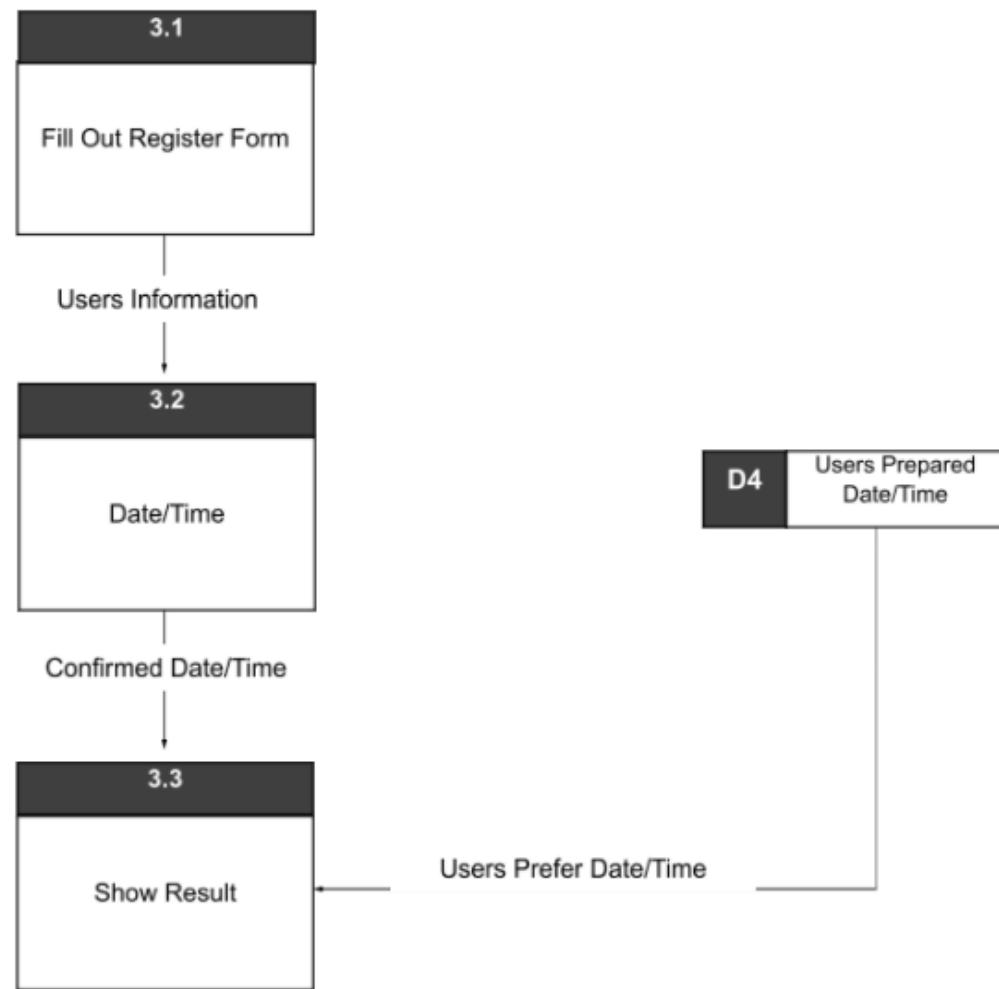
5.2 Hardware Requirements

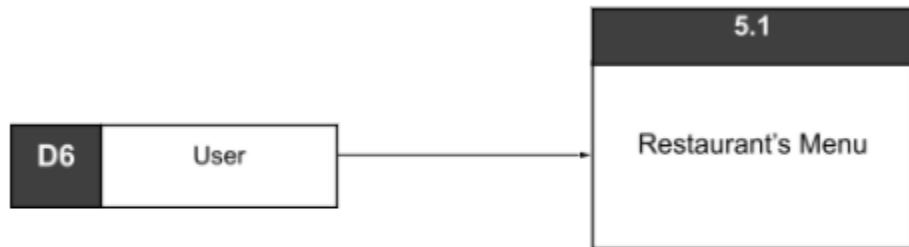
- Mouse
- Keyboard
- Monitor
- 4GB RAM
- Router

APPENDIX G

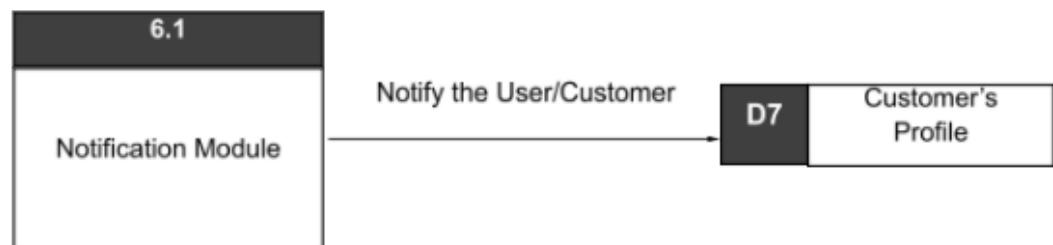
Additional Diagrams

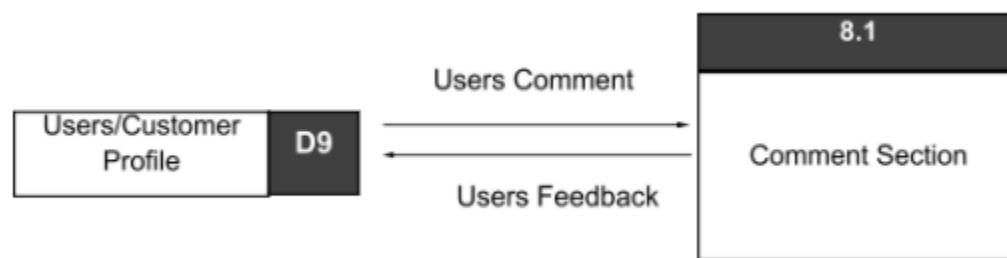






This diagram shows that the user can view the available dish or meal in the restaurant's menu.





APPENDIX H

Evaluation

Instrument

Good day!

We are currently developing our project entitled Samgyeopsal Restaurant Management Portal with 2D Mapping. Please evaluate our system based on the criteria below. Thank you.

| | |
|-----------------------|------------------------|
| NAME: _____ | AGE: _____ |
| COMPANY/SCHOOL: _____ | COURSE/POSITION: _____ |

INSTRUCTION: Read each question carefully and check (/) the corresponding number of choice.

5 – EXCELLENT 4 – VERY GOOD 3 – GOOD 2 – FAIR 1 – POOR

* Please use appropriate ratings for acceptance testing

| FUNCTIONAL SUITABILITY | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|
| The system covers all the specified tasks and user objectives. | | | | | |
| The system provides the correct results with the needed degree of precision | | | | | |
| The system facilitates the accomplishment of specified tasks and objectives. | | | | | |
| PERFORMANCE EFFICIENCY | | | | | |
| The response and processing times of the system meet the requirements. | | | | | |
| The amounts and types of resources used by the system meet requirements | | | | | |
| The maximum limits of the system meet requirements. | | | | | |
| COMPATIBILITY | | | | | |
| The system can perform its required functions efficiently while sharing a common environment and resources with other systems. | | | | | |
| The system or system components can exchange information to other systems. | | | | | |
| USABILITY | | | | | |
| The system is appropriate to the needs of the user. | | | | | |
| The system can be used by specified users with effectiveness, efficiency, freedom from risk and satisfaction. | | | | | |
| The system has attributes that make it easy to operate and control. | | | | | |
| The system protects users from making errors. | | | | | |
| The user interface enables pleasing and satisfying interaction for the user. | | | | | |
| The system can be used by people with the widest range of characteristics and capabilities. | | | | | |
| RELIABILITY | | | | | |
| The system meets needs for reliability under normal operation. | | | | | |
| The system is operational and accessible when required for use. | | | | | |

| | | | | |
|--|--|--|--|--|
| The system operates as intended despite the presence of hardware or software faults. | | | | |
| The system can recover affected data and re-establish the desired state. | | | | |
| SECURITY | | | | |
| The system ensures that data are accessible only to those authorized to have access. | | | | |
| The system prevents unauthorized access to, or modification of, computer programs or data. | | | | |
| The actions or events can be proven to have taken place and cannot be rejected later. | | | | |
| The actions of users can be traced. | | | | |
| The identity of a user can be authenticated and proved to be the one claimed. | | | | |
| MAINTAINABILITY | | | | |
| The system is composed of modules such that a change to one component has minimal impact on other components. | | | | |
| A system component can be used in more than one system, or in building other components. | | | | |
| The system can be assessed and diagnosed for deficiencies or errors. | | | | |
| The system can be effectively and efficiently modified without introducing defects or degrading quality. | | | | |
| The system can be tested to determine whether test criteria have been met. | | | | |
| PORTABILITY | | | | |
| The system can effectively and efficiently be adapted for different or evolving hardware or software environments. | | | | |
| The system can be successfully installed and/or uninstalled in a specified environment. | | | | |
| The system can replace another specified software product for the same purpose in the same environment. | | | | |

Are you in favor in implementing the Samgyeopsal Restaurant Management Portal with 2D Mapping

YES NO

Comments and Suggestions: _____

Proponents:

Magtaan, Jay-r P.
 Manansala, Kirk Steven B.
 Lampano, Gen-lyn B.
 Molina, Jhairra Mae C.
 Pedrosa, Harvie Mariez A.

APPENDIX I

SUMMARY OF

EVALUATION

RESULT

| SUMMARY OF EVALUATION RESULTS | | | | | | | | | | |
|---------------------------------|----|----|---|---|---|-------------------|--------------------|----------------|----------------------------|--|
| CRITERIA | 5 | 4 | 3 | 2 | 1 | TOTAL RESPONDENTS | SUB CRITERION MEAN | CRITERION MEAN | DESCRIPTIVE INTERPRETATION | |
| Functional Suitability | | | | | | | | | | |
| Functional Completeness | 27 | 13 | 0 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Functional Correctness | 23 | 15 | 2 | 0 | 0 | 40 | 4.53 | | Excellent | |
| Functional Appropriateness | 25 | 13 | 2 | 0 | 0 | 40 | 4.58 | | Excellent | |
| | | | | | | | | 4.60 | Excellent | |
| Reliability | | | | | | | | | | |
| Maturity | 27 | 12 | 1 | 0 | 0 | 40 | 4.65 | | Excellent | |
| Availability | 25 | 15 | 0 | 0 | 0 | 40 | 4.63 | | Excellent | |
| Fault Tolerance | 24 | 16 | 0 | 0 | 0 | 40 | 4.60 | | Excellent | |
| Recoverability | 24 | 16 | 0 | 0 | 0 | 40 | 4.60 | | Excellent | |
| | | | | | | | | 4.62 | Excellent | |
| Compatibility | | | | | | | | | | |
| Co-existence | 27 | 13 | 0 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Interoperability | 26 | 13 | 1 | 0 | 0 | 40 | 4.63 | | Excellent | |
| | | | | | | | | 4.66 | Excellent | |
| Usability | | | | | | | | | | |
| Appropriateness Recognizability | 27 | 12 | 1 | 0 | 0 | 40 | 4.65 | | Excellent | |
| Learnability | 24 | 15 | 1 | 0 | 0 | 40 | 4.58 | | Excellent | |
| Operability | 27 | 10 | 3 | 0 | 0 | 40 | 4.60 | | Excellent | |
| User Error Protection | 24 | 14 | 2 | 0 | 0 | 40 | 4.55 | | Excellent | |
| User Interface Aesthetics | 28 | 11 | 1 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Accessibility | 27 | 12 | 1 | 0 | 0 | 40 | 4.65 | | Excellent | |
| | | | | | | | | 4.62 | Excellent | |
| Performance Efficiency | | | | | | | | | | |
| Time Behaviour | 26 | 14 | 0 | 0 | 0 | 40 | 4.65 | | Excellent | |
| Resource Utilization | 26 | 14 | 0 | 0 | 0 | 40 | 4.65 | | Excellent | |
| Capacity | 28 | 11 | 1 | 0 | 0 | 40 | 4.68 | | Excellent | |
| | | | | | | | | 4.66 | Excellent | |
| Security | | | | | | | | | | |
| Confidentiality | 29 | 10 | 1 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Integrity | 30 | 10 | 0 | 0 | 0 | 40 | 4.75 | | Excellent | |
| Non-repudiation | 21 | 19 | 0 | 0 | 0 | 40 | 4.53 | | Excellent | |
| Accountability | 23 | 16 | 1 | 0 | 0 | 40 | 4.55 | | Excellent | |
| Authenticity | 26 | 13 | 1 | 0 | 0 | 40 | 4.60 | | Excellent | |
| | | | | | | | | 4.63 | Excellent | |
| Maintainability | | | | | | | | | | |
| Modularity | 25 | 14 | 1 | 0 | 0 | 40 | 4.60 | | Excellent | |
| Reusability | 25 | 14 | 1 | 0 | 0 | 40 | 4.60 | | Excellent | |
| Analysability | 28 | 11 | 1 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Modifiability | 29 | 10 | 1 | 0 | 0 | 40 | 4.70 | | Excellent | |
| Testability | 29 | 11 | 0 | 0 | 0 | 40 | 4.73 | | Excellent | |
| | | | | | | | | 4.66 | Excellent | |
| Portability | | | | | | | | | | |
| Adaptability | 27 | 13 | 0 | 0 | 0 | 40 | 4.68 | | Excellent | |
| Installability | 29 | 11 | 0 | 0 | 0 | 40 | 4.73 | | Excellent | |
| Replaceability | 27 | 12 | 1 | 0 | 0 | 40 | 4.60 | | Excellent | |
| | | | | | | | | 4.67 | Excellent | |
| Overall Result | | | | | | | | 4.63 | Excellent | |

APPENDIX J

Progress

Reports

Weekly Progress Report

DATE : September 27, 2021

FROM : Group 4

BSIT – NW4C

Samgyeopsal Restaurant Management Portal with 2D Mapping

RE : Ms. Cherry Collera

SOFTWARE: (50%)

Date: September 20, 2021

Finished Activity: User Interface for both users

Description: User interface is crucial for the project because it is the interface that users can see and will be able to interact with using buttons, comment boxes, text box, and so on,

Date: September 27, 2021

Next Activity:Start of 2D Mapping and QR Code implementation

Description: The programmer can now start to focus on integrating these two technologies that will be used in the system for better user experience.

DOCUMENTATION: (21%)

Date: September 20, 2021

Finished Activity: Chapter 3

Description: Consists of processes and methods that will be used in developing the proposed title project.

Date: September 27, 2021

Next Activity: Chapter 4 (Making of questionnaires)

Description: Consists of results and discussions gained by letting the possible users to test the current state of the system by implementing the ISO 25010 for evaluation of the system.

Weekly Progress Report

DATE : October 6, 2021

FROM : **Group 4**

BSIT – NW4C

**Samgyeopsal Restaurant Management Portal with 2D
Mapping**

RE : **Ms. Cherry Collera**

SOFTWARE: (34%)

Date: September 27, 2021

Finished Activity: User Interface for both users

Description: User interface is crucial for the project because it is the interface that users can see and will be able to interact with using buttons, comment boxes, text box, and so on,

Date: October 6, 2021

Next Activity: Start of 2D Mapping and QR Code implementation

Description: The programmer can now start to focus on integrating these two technologies that will be used in the system for better user experience.

DOCUMENTATION: (25%)

Date: September 27, 2021

Finished Activity: Preliminary Pages

Description: Consists of abstract, table of contents, dedications, list of tables and figures of the proposed title project.

Date: October 6, 2021

Next Activity: Chapter 4 (Making of questionnaires)

Description: Consists of results and discussions gained by letting the possible users to test the current state of the system by implementing the ISO 25010 for evaluation of the system.

Weekly Progress Report

DATE : October 13, 2021

FROM : Group 4

BSIT – NW4C

Samgyeopsal Restaurant Management Portal with 2D
Mapping

RE : Ms. Cherry Collera

SOFTWARE: (36.67%)

Date: October 6, 2021

Finished Activity: Start of 2D Mapping and QR
Code implementation

Description: The programmer can now start to
focus on integrating these two technologies that
will be used in the system for better user
experience.

Date: October 13, 2021

Next Activity: Finishing the SMS Notifications and
pinning of restaurant locations in the map

Description: The programmer will finish the coding
of pinning the restaurants' locations on the map
and also the SMS notifications for the customers.

DOCUMENTATION: (29%)

Date: October 6, 2021

Finished Activity: Preliminary Pages

Description: Consists of abstract, table of
contents, dedications, list of tables and figures of
the proposed project.

Date: October 13, 2021

Next Activity: Bibliography

Description: Consists of citations from different
sources where the articles, authors, dates, titles,
and url of the websites are stated.

Weekly Progress Report

DATE : October 20, 2021

FROM : Group 4

BSIT – NW4C

Samgyeopsal Restaurant Management Portal with 2D
Mapping

RE : Ms. Cherry Collera

SOFTWARE: (36.67%)

Date: October 13, 2021

Finished Activity: Finishing the SMS Notifications

Description: The programmer will finish the coding of pinning the restaurants' locations on the map and also the SMS notifications for the customers.

Date: October 20, 2021

Next Activity: Finishing the pinning of restaurant locations in the map

Description: The programmer will finish the coding of pinning the restaurants' locations on the map.

DOCUMENTATION: (29%)

Date: October 13, 2021

Finished Activity: Bibliography

Description: Consists of citations from different sources where the articles, authors, dates, titles, and url of the websites are stated.

Date: October 20, 2021

Next Activity: Chapter 4 (Draft)

Description: Consists of project description, project structure, capabilities and limitations, test results, and project evaluation.

Weekly Progress Report

DATE : October 27, 2021

FROM : Group 4

BSIT – NW4C

Samgyeopsal Restaurant Management Portal with 2D
Mapping

RE : Ms. Cherry Collera

SOFTWARE: (53.33%)

Date: October 20, 2021

Finished Activity: Finishing the SMS Notifications

Description: The programmer will finish the coding
of pinning the restaurants' locations on the map
and also the SMS notifications for the customers.

Date: October 27, 2021

Next Activity: Finishing the pinning of restaurant
locations in the map

Description: The programmer will finish the coding
of pinning the restaurants' locations on the map.

DOCUMENTATION: (58%)

Date: October 20, 2021

Finished Activity: Chapter 4(draft)

Description: Consists of project description,
project structure, capabilities and limitations, test
results, and project evaluation.

Date: October 27, 2021

Next Activity: Chapter 4 (v2) and Evaluation Form

Description: Revisions of project description,
project structure, capabilities and limitations, test
results, and project evaluation.

Weekly Progress Report

DATE : November 3, 2021

FROM : **Group 4**

BSIT – NW4C

**Samgyeopsal Restaurant Management Portal with 2D
Mapping**

RE : **Ms. Cherry Collera**

SOFTWARE: (53.33%)

Date: October 27, 2021

Finished Activity: Finishing the SMS Notifications

Description: The programmer will finish the coding
of pinning the restaurants' locations on the map
and also the SMS notifications for the customers.

Date: November 3, 2021

Next Activity: Finishing the pinning of restaurant
locations in the map

Description: The programmer will finish the coding
of pinning the restaurants' locations on the map.

DOCUMENTATION: (58%)

Date: October 27, 2021

Finished Activity: Chapter 4 (v2)

Description: Consists of project description,
project structure, capabilities and limitations, test
results, and project evaluation.

Date: November 3, 2021

Next Activity: Chapter 4 (revised) and Evaluation Form (final)

Description: Revisions of project description,
project structure, capabilities and limitations, test
results, and project evaluation.

Weekly Progress Report

DATE : November 17, 2021

FROM : Group 4

BSIT – NW4C

Samgyeopsal Restaurant Management Portal with 2D
Mapping

RE : Ms. Cherry Collera

SOFTWARE: (53.33%)

Date: November 10, 2021

Finished Activity: Finishing the SMS Notifications

Description: The programmer will finish the coding of pinning the restaurants' locations on the map and also the SMS notifications for the customers.

Date: November 17, 2021

Next Activity: Finishing the pinning of restaurant locations in the map

Description: The programmer will finish the coding of pinning the restaurants' locations on the map.

DOCUMENTATION: (58%)

Date: November 10, 2021

Finished Activity: Chapter 4 (v2)

Description: Consists of project description, project structure, capabilities and limitations, test results, and project evaluation.

Date: November 17, 2021

Next Activity: Chapter 4 (revised) and Evaluation Form (final)

Description: Revisions of project description, project structure, capabilities and limitations, test results, and project evaluation.

APPENDIX K

Waivers

WAIVER

THESIS DEFENSE

To the Board of Examiners:

We, Gen-lyn B. Lampano and Evelyn B. Lampano
(Student Name) (Parent/Guardian Name)

understand that some of the objectives we have set on our Thesis Project entitled:

Samgyeopsal Restaurant Management Portal with 2D Mapping

was not met as evaluated by the Initial Panel of Examiners held during the Pre-Final Defense.

We promise to do our best to resolve the findings of the panel before the scheduled defense and we understand that not doing so may result to failing.



Student Signature



Parent/Guardian Signature

Date Signed: JANUARY 09, 2022

Acknowledged by:

Signature of the Panel over Printed Name

Signature of the Panel over Printed Name

Signature of the Thesis Writing Instructor over Printed Name

Cristina G. Rivera, MSCS
Dean, CICT

WAIVER

THESIS DEFENSE

To the Board of Examiners:

We, Kirk Steven B. Manansala and Monette B. Manansala
(Student Name) (Parent/Guardian Name)

understand that some of the objectives we have set on our Thesis Project entitled:

Samgyeopsal Restaurant Management Portal with 2D Mapping

was not met as evaluated by the Initial Panel of Examiners held during the Pre-Final Defense.

We promise to do our best to resolve the findings of the panel before the scheduled defense and we understand that not doing so may result to failing.



Student Signature



Parent/Guardian Signature

Date Signed: JANUARY 09, 2022

Acknowledged by:

Signature of the Panel over Printed Name

Signature of the Panel over Printed Name

Signature of the Thesis Writing Instructor over Printed Name

Cristina G. Rivera, MSCS
Dean, CICT

WAIVER

THESIS DEFENSE

To the Board of Examiners:

We, Jay-r P. Magtaan and Teresita P. Magtaan
(Student Name) (Parent/Guardian Name)

understand that some of the objectives we have set on our Thesis Project entitled:

Samgyeopsal Restaurant Management Portal with 2D Mapping

was not met as evaluated by the Initial Panel of Examiners held during the Pre-Final Defense.

We promise to do our best to resolve the findings of the panel before the scheduled defense and we understand that not doing so may result to failing.

J. Magtaan

Student Signature

Teresita P. Magtaan

Parent/Guardian Signature

Date Signed: JANUARY 09, 2022

Acknowledged by:

Signature of the Panel over Printed Name

Signature of the Panel over Printed Name

Signature of the Thesis Writing Instructor over Printed Name

Cristina G. Rivera, MSCS
Dean, CICT

WAIVER

THESIS DEFENSE

To the Board of Examiners:

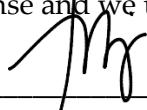
We, Jhairra Mae C. Molina and Alona C. Molina
(Student Name) (Parent/Guardian Name)

understand that some of the objectives we have set on our Thesis Project entitled:

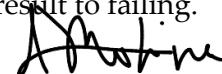
Samgyeopsal Restaurant Management Portal with 2D Mapping

was not met as evaluated by the Initial Panel of Examiners held during the Pre-Final Defense.

We promise to do our best to resolve the findings of the panel before the scheduled defense and we understand that not doing so may result to failing.



Student Signature



Parent/Guardian Signature

Date Signed: JANUARY 09, 2022

Acknowledged by:

Signature of the Panel over Printed Name

Signature of the Panel over Printed Name

Signature of the Thesis Writing Instructor over Printed Name

Cristina G. Rivera, MSCS
Dean, CICT

WAIVER

THESIS DEFENSE

To the Board of Examiners:

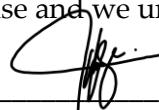
We, Pedrosa, Harvie Mariez Amistad and Pedrosa, Cristy Serrano
(Student Name) (Parent/Guardian Name)

understand that some of the objectives we have set on our Thesis Project entitled:

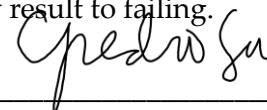
Samgyeopsal Restaurant Management Portal with 2D Mapping

was not met as evaluated by the Initial Panel of Examiners held during the Pre-Final Defense.

We promise to do our best to resolve the findings of the panel before the scheduled defense and we understand that not doing so may result to failing.



Student Signature



Parent/Guardian Signature

Date Signed: JANUARY 09, 2022

Acknowledged by:

Signature of the Panel over Printed Name

Signature of the Panel over Printed Name

Signature of the Thesis Writing Instructor over Printed Name

Cristina G. Rivera, MSCS
Dean, CICT

APPENDIX L

User's

Manual

samgyeopreservation.epizy.com

Login Page

The screenshot shows a web browser window with the URL <https://samgyeopreservation.epizy.com/login.php>. The title bar says "Samgyeopsal Restaurant Table Booking". The main content is titled "Log In Our Site". It features two input fields: "Your Email" and "Your Password", each with a "Password Visibility" icon (an eye symbol). Below the password field is a "Login" button. To the right of the password field is a link "For Register Click Here". A callout box on the left points to the email input field with the text: "This textbox allows the user to input the required data in the field". A callout box on the right points to the password visibility icon with the text: "Password Visibility Toggle Using this Icon, We can able Using and disable password visibility in a password Input field". A callout box at the bottom points to the "Login" button with the text: "This "Click Here" button will trigger when clicked. It will proceed to login in the website when the information of the user does exist."

The screenshot shows a web browser window with the URL <https://samgyeopreservation.epizy.com/>. The title bar says "Samgyeopsal Restaurant Table Booking". The main content is titled "Register In Our Site". It has two radio button options: "As Customer" (selected) and "As Restaurant". There are five input fields: "Name", "Email Address", "Phone Number", "Complete Address", and "Password". Below these is a file upload field labeled "Please Upload your file" with a placeholder "Choose File... No file chosen". A "Register" button is at the bottom. A red arrow from the bottom of the previous screenshot points to this registration form.

Input your valid information

Provide a strong password, and do not reveal it to anybody.

Provide a valid email

Provide a valid ID.

This message will pop up if you already submitted all the information that are need.

https://samgyeopreservation.epizy.com/manage-insert.php

samgyeopreservation.epizy.com says
You Register successfully

OK

SIGN UP PAGE

Customer's Profile

The screenshot shows a web browser displaying the URL <https://samgyeopreservation.epizy.com/index.php>. The page title is "Samgyeopsal Restaurant Table Booking". The main content area features a "Make a Reservation" form with dropdown menus for "Province" (set to "Bataan") and "Town" (with a placeholder "Select..."). Below the form is a map of the Philippines with a callout pointing to Bataan. A modal window from Google Maps says "This page can't load Google Maps correctly." and asks "Do you own this website?". The bottom right corner of the map has a "Find" button. To the left of the map, there is a sidebar with the heading "Appointments" and a table of appointment details.

System already provided the available Province.

This dropdown shows what town of Bataan has

This “Find” button will trigger when it clicked. It will find the nearest restaurant of what the user choose.

Main

| Restaurant Name | Address | Rating | Action Buttons |
|-----------------|---|-----------------|----------------------|
| Romantic Baboy | Capital Square, Capital Drive | ★★★★★ | Book Table Pick-Up |
| Mr. Kimchi | Capital Drive, San Jose | No feedback yet | Book Table Pick-Up |
| Super Boink | A. Bonzon Street, Remboville Subdivision, Iboyo | No feedback yet | Book Table Pick-Up |

Book Table

Choose a Reservation Date and Time

Name: Kirk Steven Manansala

Phone: 09301226407

Date: dd/mm/yyyy

Time: 10:00am

This "submit" button will trigger when it clicked.

Input your full name

Input what time you prefer.

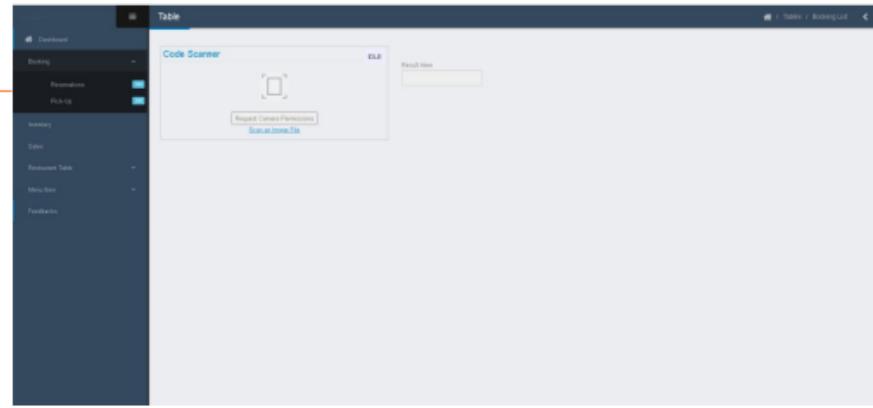
Input the information/data that are needed.

Choose Your Table

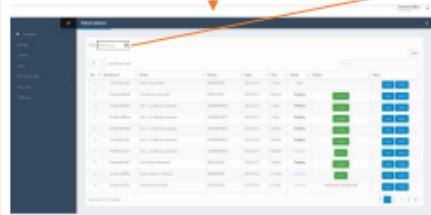
If the table has been already picked by someone, the table cannot be pick twice.

This “Confirm” button will trigger when it clicked.

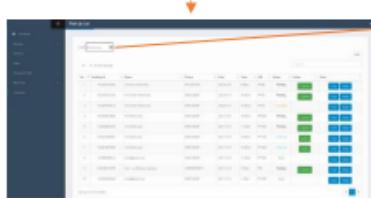
When you click the “Book” button a message will pop up.



When you click the “reservation” button, another form will pop up.

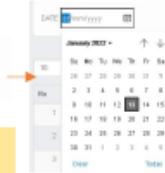


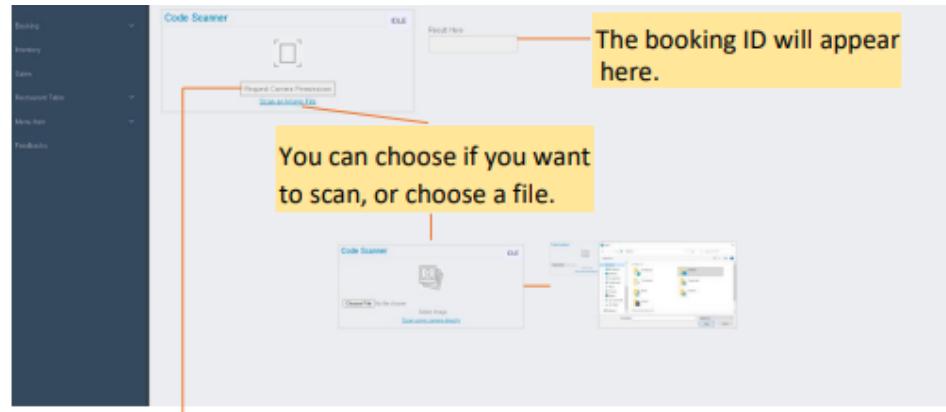
When you click the “Pick-Up” button, another form will pop



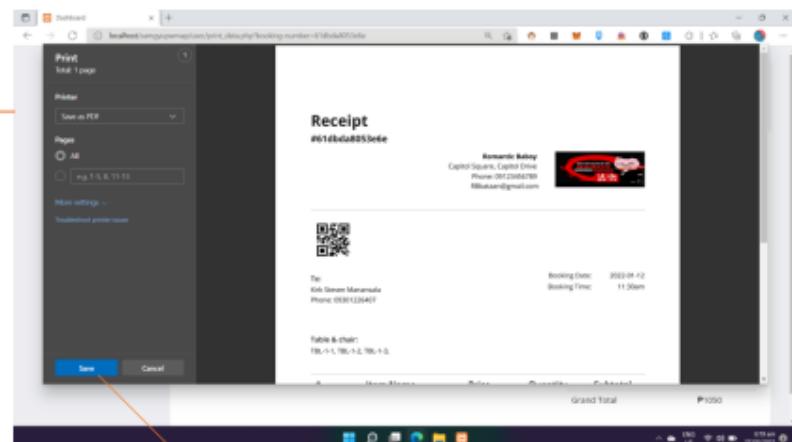
DATE dd/mm/yyyy

You can use this Date function to find the day that you want to check



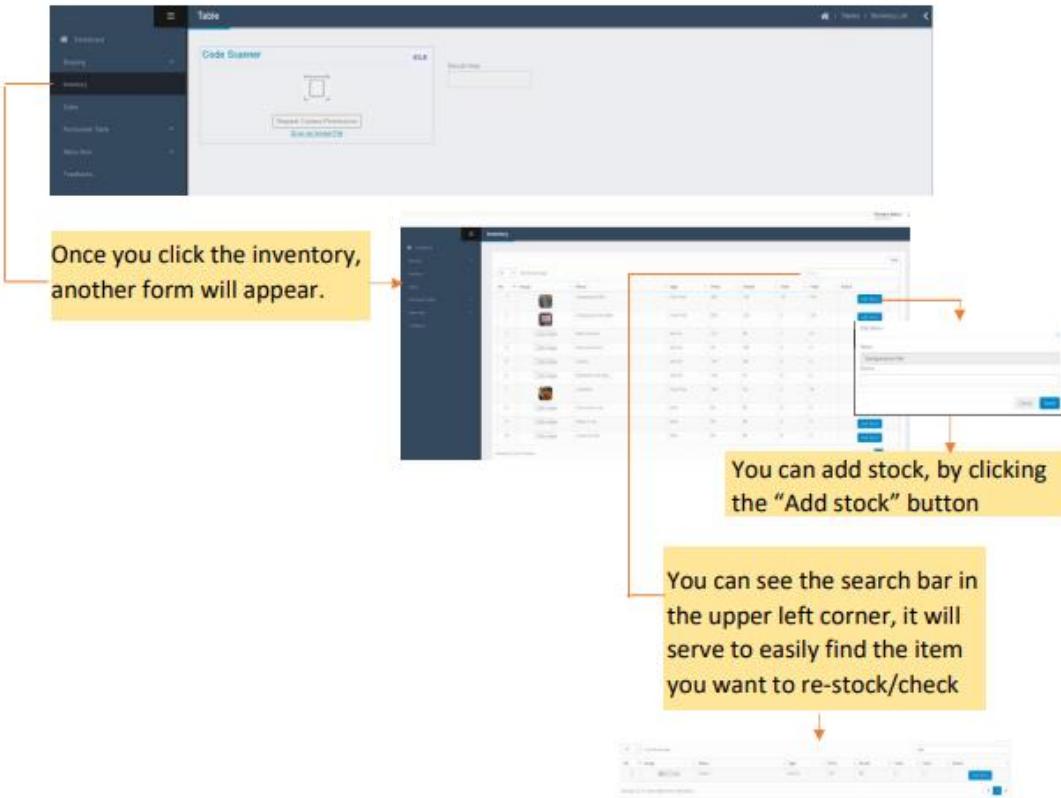


This function, will serve to easily attach or scan your gcash.



Invoice module, the user can choose between save as pdf or print.

When you click this button, it will be save.



This will serve as a Total Sales.

| No | Booking ID | Name | Phone | Date | Time | Bill | Status |
|----|-------------|----------------------------|------------|------------|---------|--------|--------|
| 1 | 01234567890 | Jane Doe | 0987654321 | 2023-12-10 | 11:00am | ₹ 1000 | Done |
| 2 | 01234567891 | John Doe & Partner | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |
| 3 | 01234567892 | client@gmail.com | 0987654321 | 2023-12-10 | 11:30am | ₹ 1000 | Done |
| 4 | 01234567893 | client@gmail.com | 0987654320 | 2023-12-10 | 12:30pm | ₹ 1000 | Done |
| 5 | 01234567894 | John - Lyc Disease Lampara | 0987654321 | 2023-12-10 | 10:00am | ₹ 1000 | Done |
| 6 | 01234567895 | Kate Stevens Maronado | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |
| 7 | 01234567896 | client@gmail.com | 0987654321 | 2023-12-10 | 11:00pm | ₹ 1000 | Done |
| 8 | 01234567897 | client@gmail.com | 0987654320 | 2023-12-10 | 11:30pm | ₹ 1000 | Done |
| 9 | 01234567898 | client@gmail.com | 0987654321 | 2023-12-10 | 10:00pm | ₹ 1000 | Done |
| 10 | 01234567899 | client@gmail.com | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |

You can use this Date function to find the day that you want to check

DATE dd/mm/yyyy



You can see the search bar in the upper left corner, it will serve to easily find the item you want to Check.

This will serve to easily compute the total sales.

| No | Booking ID | Name | Phone | Date | Time | Bill | Status |
|----|-------------|----------------------------|------------|------------|---------|--------|--------|
| 1 | 01234567890 | Jane Doe | 0987654321 | 2023-12-10 | 11:00am | ₹ 1000 | Done |
| 2 | 01234567891 | John Doe & Partner | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |
| 3 | 01234567892 | client@gmail.com | 0987654321 | 2023-12-10 | 11:30am | ₹ 1000 | Done |
| 4 | 01234567893 | client@gmail.com | 0987654320 | 2023-12-10 | 12:30pm | ₹ 1000 | Done |
| 5 | 01234567894 | John - Lyc Disease Lampara | 0987654321 | 2023-12-10 | 10:00am | ₹ 1000 | Done |
| 6 | 01234567895 | Kate Stevens Maronado | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |
| 7 | 01234567896 | client@gmail.com | 0987654321 | 2023-12-10 | 11:00pm | ₹ 1000 | Done |
| 8 | 01234567897 | client@gmail.com | 0987654320 | 2023-12-10 | 11:30pm | ₹ 1000 | Done |
| 9 | 01234567898 | client@gmail.com | 0987654321 | 2023-12-10 | 10:00pm | ₹ 1000 | Done |
| 10 | 01234567899 | client@gmail.com | 0987654320 | 2023-12-10 | 12:00pm | ₹ 1000 | Done |

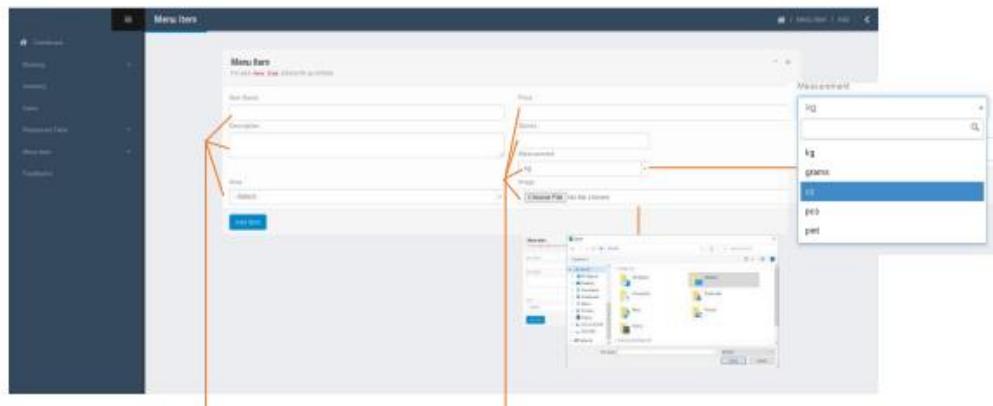
You can use this Date function to find the day that you want to check

DATE dd/mm/yyyy



A screenshot of the Table module interface. On the left is a dark sidebar with navigation links: Dashboard, Billing, Inventory, Sales, Reviewed Table, Menus, and Feedbacks. The main area is titled "Tables" and shows a table titled "All Tables". The table has four columns: "Name" (with entries "TBL_1", "TBL_2", and "TBL_3"), "Table Name" (empty), "Email" (empty), and "Actions" (with "Edit" and "Delete" buttons). An orange bracket on the left side of the table indicates where the "menu" button is located.

Once you click the “menu” button another form will appear.



You need to input the information
needed. Input the data that is required.

A screenshot of the Feedbacks module. The sidebar shows links: Dashboard, Billing, Inventory, Sales, Reviewed Table, Menus, and Feedbacks. The main area is titled "Feedbacks" and lists customer reviews. One review is highlighted with a red oval: "steve@gmail.com" with 5 stars and the text "Kish Masooma". An orange bracket on the left side of the list indicates where the "Feedbacks" link is located.

These records shows the
feedbacks of the customers.

Once you click the “Feedbacks” in
the dashboard, another form will
appear

Researchers

Profile

LAMPANO, GEN-LYN B.

Purok 1, Pandatung, Hermosa, Bataan

0909 474 6073

genlampano31@gmail.com/gblampano@bpsu.edu.ph



PERSONAL DATA

Civil Status : Single

Sex : Female

Date of Birth : October 31, 1999

Place of Birth : Marikina City

Religion: Roman Catholic

Nationality : Filipino

EDUCATIONAL BACKGROUND

Tertiary : Bataan Peninsula State University

Capitol Compound City of Balanga, Bataan

S.Y 2018-2022

Secondary

Senior : Hermosa National High School

Culis, Hermosa, Bataan

S.Y 2016-2018

Junior : Hermosa National High School

Culis, Hermosa, Bataan

S.Y 2012-2016

Elementary : Pandatung Elementary School

Pandatung, Hermosa, Bataan

S.Y 2006-2012

Work Experience

- DPWH Orani Bataan
Work Immersion (2018)
-

SEMINARS/TRAININGS ATTENDED

- Series of Seminar 2k21 "The Compendium of Digital Arts & Magic for the New Normal" Online Platform via Google Meet" January 25, 2022
 - Series of Seminar 2k21 "Maximizing ICT for the New Normal" Online Platform via Google Meet January 24, 2022
 - Regional Assembly on Information Technology Education 2021 "Digital Economy and Cryptocurrency through Gamification: An Emerging Platform in the New Normal" Online Platform via Zoom November 12, 2021
 - Cognizant Ignite Event Online Platform via Zoom October 20, 2021
 - Adobe Photoshop CC Fundamentals and Essentials Training April 3, 2021
-

SKILLS

- Basic knowledge in Data Base Access
 - Basic knowledge in SQL Data Base and Database Access
 - Basic knowledge in Visual Basic, Java, C++
 - Basic knowledge in Photoshop and Graphics Design
 - Basic knowledge in Microsoft Offices
-

AWARDS/RECOGNITION

- Microsoft Technology Associate – Security Fundamentals June 04, 2021
- Remote Work and Virtual Collaboration Professional Certificate May 8, 2021
- Scrum Foundation Professional Certificate May 9, 2021
- Cyber Security Foundation Professional Certificate

March 31, 2021

- National Service Training Program – Basic Reserve Officer Training Corps (ROTC)
April 27, 2019
 - Salutatorian - Pandatung Elementary School
 - With Honor - Hermosa National High School
-

AFFILIATIONS

- UNBOUND Foundation - 2009-2021
 - Iskolar ng Bataan - 2018-2021
-

CHARACTER REFERENCES

Mr. Gregorio L. Landicho
Barangay Captain
Pandatung Hermosa Bataan
Hermosa Bataan
09301779090

Mr. Geraldo C. Lampano
Barangay Counselor
Pandatung Hermosa Bataan
Hermosa Bataan
09183758622

Mrs. Fely L. Vivas
Barangay Secretary
Pandatung Hermosa Bataan
09308536308

I hereby certify that information above is true and correct to the best of my knowledge and belief.



GEN-LYN B. LAMPANO

MAGTAAN, JAY-R P.

Maite, Hermosa, Bataan

0951 784 7025

Jayrmagtaan26@gmail.com / jrpmagtaan@bpsu.edu.ph



PERSONAL DATA

| | | |
|----------------|---|---------------------|
| Civil Status | : | Single |
| Sex | : | Male |
| Date of Birth | : | January 26, 2000 |
| Place of Birth | : | Dinalupihan, Bataan |
| Religion | : | Roman Catholic |
| Nationality | : | Filipino |
| Height | : | 165 cm |
| Weight | : | 70 kg |

EDUCATIONAL BACKGROUND

| | | |
|-----------|---|--|
| TERTIARY | : | Bataan Peninsula State University – Main Campus Bachelor of Science in Information Technology Major in Network and Web Application Tenejero, Balanga City, Bataan |
| SECONDARY | : | Luakan National High School Dinalupihan, Bataan |
| PRIMARY | : | Luakan Elementary School Luakan, Dinalupihan, Bataan |

SEMINARS/TRAININGS ATTENDED

- Series of Seminar 2k21 "The Compendium of Digital Arts & Magic for the New Normal" Online Platform via Google Meet" January 25, 2022
 - Series of Seminar 2k21 "Maximizing ICT for the New Normal" Online Platform via Google Meet January 24, 2022
 - Regional Assembly on Information Technology Education 2021 "Digital Economy and Cryptocurrency through Gamification: An Emerging Platform in the New Normal" Online Platform via Zoom November 12, 2021
 - Cognizant Ignite Event Online Platform via Zoom October 20, 2021
-

COMPUTER SKILLS

- Basic Knowledge in Adobe Photoshop
 - Basic Knowledge in Microsoft Office
 - Basic Knowledge in Database Access and SQL Database
 - Basic Knowledge in Java, Visual Basic, C# and C++
-

AWARDS/RECOGNITION

- Microsoft Technology Associate – Security Fundamentals June 04, 2021

I hereby certify that information above is true and correct to the best of my knowledge and belief.

J. Magtaan
JAY-R P. MAGTAAN

MANANSALA, KIRK STEVEN B.

Balut 1, Pilar Bataan

0930-122-6407

kirkbernabe@gmail.com



PERSONAL DATA

Civil Status : Single
Sex : Male
Date of Birth : March 25,2000
Place of Birth : Pilar, Bataan
Religion : Christian
Nationality : Filipino
Height : 165 cm.
Weight : 72 kg.

EDUCATIONAL BACKGROUND

TERTIARY : Bataan Peninsula State University
Bachelor of Science in Information and Technology
Major in Web and Network Application

SECONDARY : Pablo Roman National High School
Panilao, Pilar, Bataan

PRIMARY : Balut Elementary School
Balut 1, Pilar, Bataan

SEMINARS/TRAININGS ATTENDED

RAITE 2021 (“Digital Economy and Cryptocurrency through Gamification: An Emerging Platform in the Now Normal”)
Online Platform (Zoom)
November 12, 2021

WORK EXPERIENCE

Pilar Elementary School (Work Immersion)
Encoder
January 2018 - March 2018

Balut 1 Barangay Office (SPES)
Encoder
April 2018 - May 2018

COMPUTER SKILLS

- Basic Knowledge in Adobe Photoshop
 - Microsoft Office
-

AWARDS/RECOGNITION

- ISO/IEC 27001 INFORMATION SECURITY ASSOCIATE
- CERTIFIED ASSOCIATE IN SCRUM FUNDAMENTALS (CASF)
- ISO/IEC 20000 IT SERVICE MANAGEMENT ASSOCIATE™
- MTA for Security Fundamentals

I hereby certify that the above-stated information is true and correct to the best of my knowledge and belief.



MANANSALA, KIRK STEVEN

MOLINA, JHAIRRA MAE C.

Upper Bliss, Bagong Silang, Balanga City, Bataan

0921 231 1243

jcalmamolina@gmail.com / jmcmolina@bpsu.edu.ph

PERSONAL DATA

| | | |
|----------------|---|----------------------|
| Civil Status | : | Single |
| Sex | : | Female |
| Date of Birth | : | May 24, 2000 |
| Place of Birth | : | Balanga City, Bataan |
| Religion | : | Roman Catholic |
| Nationality | : | Filipino |
| Height | : | 149 cm |
| Weight | : | 73 kg |

EDUCATIONAL BACKGROUND

| | | |
|-----------|---|--|
| TERTIARY | : | Bataan Peninsula State University – Main Campus Bachelor of Science in Information Technology Major in Network and Web Application Tenejero, Balanga City, Bataan |
| SECONDARY | : | Bataan National Senior High School Science, Technology, Engineering, and Mathematics Tenejero, Balanga City, Bataan Bataan National High School Science, Technology, and Engineering Program Tenejero, Balanga City, Bataan |
| PRIMARY | : | Tenejero Elementary School Tenejero, Balanga City, Bataan |

SEMINARS/TRAININGS ATTENDED

- Series of Seminar 2k21 "The Compendium of Digital Arts & Magic for the New Normal" Online Platform via Google Meet
January 25, 2022
 - Series of Seminar 2k21 "Maximizing ICT for the New Normal" Online Platform via Google Meet
January 24, 2022
 - Regional Assembly on Information Technology Education 2021 "Digital Economy and Cryptocurrency through Gamification: An Emerging Platform in the New Normal" Online Platform via Zoom
November 12, 2021
 - Cognizant Ignite Event
Online Platform via Zoom
October 20, 2021
-

COMPUTER SKILLS

- Basic Knowledge in Adobe Photoshop and Illustration
 - Basic Knowledge in Graphics Design
 - Basic Knowledge in Microsoft Office
 - Basic Knowledge in Database Access and SQL Database
 - Basic Knowledge in Java, Visual Basic, C# and C++
-

AWARDS/RECOGNITION

- Microsoft Technology Associate – Security Fundamentals
June 04, 2021
 - Cyber Security Foundation Professional Certificate
April 01, 2021
 - First Honor (Kindergarten) - Tenejero Elementary School
 - First Honorable Mention (Grade 6) - Tenejero Elementary School
 - With Honor (Grade 11) - Bataan National Senior High School
 - With Honor (Grade 12) - Bataan National Senior High School
-

AFFILIATIONS

- Iskolar ng Bataan
2018 - 2022
- Iskolar ng Bataan - Tenejero
Secretary
June 2019 - March 2021

CHARACTER REFERENCES

Name: Mrs. Romalyn Crisostomo

Bataan National Senior High School, Former English Adviser

Balanga City, Bataan

0995 214 8051

Name: Ms. Giselle Castro

Iskolar ng Bataan - Tenejero, President

Tenejero, Balanga City, Bataan

0915 892 6390

Name: Mrs. Jhoana M. Yu

Pinoy Happy Mobile - Taiwan, Branch Manager

Taoyuan, Taiwan

0950 332 5186

I hereby certify that information above is true and correct to the best of my knowledge and belief.



JHAIRRA MAE C. MOLINA

PEDROSA, HARVIE MARIEZ A.

990 Purok VI Upper, Ipag, Mariveles, Bataan

0945 587 8455

pedrosaharvie@gmail.com / hmapedrosa@bpsu.edu.ph



PERSONAL DATA

| | | |
|----------------|---|-------------------|
| Civil Status | : | Single |
| Sex | : | Female |
| Date of Birth | : | October 20, 1999 |
| Place of Birth | : | Mariveles, Bataan |
| Religion | : | Roman Catholic |
| Nationality | : | Filipino |
| Height | : | 148 cm |
| Weight | : | 45 kg |

EDUCATIONAL BACKGROUND

| | | |
|-----------|---|--|
| TERTIARY | : | Bataan Peninsula State University – Main Campus Bachelor of Science in Information Technology Major in Network and Web Application San Jose, Balanga City, Bataan |
| SECONDARY | : | Philippine Women's University – CDCEC Bataan Technical-Vocational/Information and Communication Technology Computer Programming San Jose, Balanga City, Bataan St. Nicholas Catholic School of Mariveles Poblacion, Mariveles, Bataan |
| PRIMARY | : | Antonio G. Llamas Elementary School Poblacion, Mariveles, Bataan |

SEMINARS/TRAININGS ATTENDED

- Series of Seminar 2k21 "The Compendium of Digital Arts & Magic for the New Normal" Online Platform via Google Meet
January 25, 2022
 - Series of Seminar 2k21 "Maximizing ICT for the New Normal" Online Platform via Google Meet
January 24, 2022
 - Regional Assembly on Information Technology Education 2021 "Digital Economy and Cryptocurrency through Gamification: An Emerging Platform in the New Normal" Online Platform via Zoom
November 12, 2021
 - Cognizant Ignite Event
Online Platform via Zoom
October 20, 2021
-

WORK EXPERIENCE

- Mountaineering Instruments Corporation
Helper
June 22, 2019 - August 10, 2019
 - Philippine Red Cross
Career Assessment Course
November 17, 2017 - November 21, 2017
 - Isaac and Catalina Medical Center
Work Immersion Program
November 24, 2017 - November 28, 2017
-

COMPUTER SKILLS

- Basic Knowledge in Graphics Design
 - Basic Knowledge in Microsoft Office
 - Basic Knowledge in Database Access and SQL Database
 - Basic Knowledge in Java, Visual Basic, and C++
-

AWARDS/RECOGNITION

- Microsoft Technology Associate – Security Fundamentals
June 04, 2021
- Cyber Security Foundation Professional Certificate
April 01, 2021
- National Service Training Program – Basic Reserve Officer Training Corps (ROTC) Component

April 27, 2019

- National Certificate II – Computer System Servicing (CSS)
April 12, 2018
 - Fourth Honor (Kindergarten) - Antonio G. Llamas Elementary School
 - Third Honor (Grade 7) - St. Nicholas Catholic School of Mariveles
 - With Honor (Grade 11) Philippine Women's University - CDCEC Bataan
 - Third Honor (With High Honor) - Philippine Women's University - CDCEC Bataan
-

AFFILIATIONS

- Iskolar ng Bataan
2018 - 2022
-

CHARACTER REFERENCES

Name: Mrs. Amor P. Junio

Administrative Aide

Alas-asin, Mariveles, Bataan

0910 548 5893

Name: Ms. Glaiza Mae Belamide

Research and Development Designer

San Isidro, Mariveles, Bataan

0906 035 2941

Name: Ms. Nicka Llowi Harris

Work Force Management, Reports Analyst

St. Francis II, Limay, Bataan

0915 893 7831

I hereby certify that information above is true and correct to the best of my knowledge and belief.



HARVIE MARIEZ A. PEDROSA