



The Development of a Hotel Locator App for Dagupan City

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***Abstract** – This project was aimed to design and develop Hotel Locator Application for Dagupan City to automate the process of locating hotels. The project sought to identify the manual process of locating hotels, the hardware and software requirements needed, the features of the Application and usability of the Application. This study used the basic software methodology known as the Agile Methodology, which the following phases; Requirements Phase, Architecture and Design Phase, Development Phase and the Test & Feedback Phase. Also various techniques were used to define the requirements. These includes library and internet research. The tools used for data analysis are use-case diagram, flowchart, database schema and entity relationship diagram (ERD). The developer found out that there were still hotel seekers that uses the traditional process in finding hotels for their stay. The developer conducted some interview and ask some question to the application's future users which helped the developer to come up with the results.*

***Keywords** – Hotel Locator App, Hotel Locator, Android-based Hotel Finder*

INTRODUCTION

Hotel industry is an ever blooming business. Travel and tourism keeps on growing every year. Travelers always look for the perfect accommodation. In the crowded travel spots, you can see hotels at each and every locality. (Bookon4D, 2016)

Similarly, Duza (2015), stated that hotel industry is the way to provide the travelers from all over the world shelters, food and home like services. And as a result the hotels get lots of customers both foreign and local as well as earn good revenue.

But the COVID-19 pandemic has had an impact on every industry in the world, and the hotel sector was forced to change drastically in order to survive and eventually begin to thrive in the new normal. (Nieves, 2020)

For some countries such as Italy and Spain, the hospitality industry represents as much as 15% of GDP and thus is key to their economic recovery. The sector as such faces many significant challenges both near term and longer term. (Martin, 2020) Similarly, with the US hotel industry facing group business cancellation rates of 40 percent in the next 90 to 120 days, the hospitality industry is at the forefront of the pandemic's economic effects. (Kapner, O'Neill, Skillman and Marotta, 2020)

Travel restrictions and measures in other countries, have started as early as January of this year, and have impacted the Philippine international tourist arrivals. And on March 20, the Philippine government closed the airports in Luzon as part of the Enhanced Community Quarantine (ECQ) that started in the island on March 16.



Domestic tourists, also limited their travel for fear of contracting COVID-19. The Department of Tourism reported that international tourist receipts in the first quarter of the year declined to PHP85bn, 36% lower than the revenues in the same period last year. (PwC, 2020)

In Pangasinan, hotels and resorts have taken pains to assure potential guests that their places are safe. In Bolinao town, El Pescador Resort was allowed to operate but still could not open because its employees were undergoing retraining from the Department of Labor and Employment. While in Lingayen, El Puerto is among the province's 300 hotels and resorts allowed to take in tourists who are participating in the "Ridge and Reef" travel corridor that should start the revival of the leisure business in northern Luzon. But public reception to the reopening of popular destinations has been "sluggish," said Malu Amor-Elduayan, provincial tourism officer. (Sotelo, 2020)

As a result of the outbreak of COVID, hotel marketing trends have also changed. Hotel marketing is essential, as it is the way hotels are able to promote their property, highlight its unique features, ensure it stands out from rivals, and establish the benefits of staying there. Ultimately, keeping up with the latest hotel marketing trends and engaging customers through marketing can help hotel owners to maximize the number of bookings they generate, and the revenue they bring in. (Revfine.com, n.d.)

Innovative use of technology that benefits customers and not just hotel operations, helps hotel chains to stand out from the competition and attract new customers. The Oracle Hotel 2025 survey, conducted in February 2017, discovered that guests are willing to engage brands that

offer new technologies if they feel they're in control of their experience. (Lyons, 2019)

In 2020 and the years to come, contactless technologies will become the norm across the hotel industry, hotels have had to adopt design changes along with digital technologies and solutions to facilitate social distancing, elevate property-wide hygiene, and ensure the safety of their guests. (Nieves, 2020)

A hotel's location, as well as the way it is connected with the various activities in the area, is undoubtedly one of the most important factors for choosing a hotel. After all, the hotel is the reference point for every traveler, since this is where each day begins and ends. Nearly all activities of the travelers are linked to the hotel's location, and almost their entire journey planning is made based on the location and accessibility of the hotel. (Morantishow, 2017)

Consumer satisfaction is the primary concern when it comes to hospitality. With such demands, the industry must react appropriately to see the demand satisfied. The use of electronic check-in is the latest technology being embraced by the industry. Some hotels have already implemented the innovation.. (Linchpin, 2020)

Mobile computing has grown drastically over the past decade. Despite the rapid pace of advancements, mobile device understanding, benchmarking, and evaluation are still in their infancies, both in industry and academia. (Reddi et.al. 2018)

However, over the next few years it is expected that mobile Internet usage will outpace desktop usage worldwide. With changing times, the mobile technology has changed a lot in the last few years we have seen the arrival of various new kinds of gadgets in the form of smartphone, camera-phone, Android and tablet phones. Today's device is almost everything – it is



fashionable, innovative, appealing, high-performing, durable, stylish and multi-tasking. Latest gadgets can be used for various purposes like browsing mobile, internet, playing games, emailing, blogging, messaging and accessing all popular social networking sites like YouTube, Google search, Gmail and more. (Reddy, 2011)

In addition, new hybrid products include smart phones that are turning into tiny computers and smart handhelds that are taking more and more functions of desktop computers. New handheld devices are small, light with a color screen. They have one or more expansion slots to create multiple expansion capabilities. You can insert a game card, wireless modem, GPS receiver, digital cameras, you can use Excel and Word, read eBooks, view video clips and photos, and browse the Web. The newest features in portable technology devices include Internet and email access, video and music transmission. Some of these features have been around for a while but the trend is that everything is getting smaller, smarter and faster (Jane, n.d)

One of the growing technologies today is the Android Operating System which is one of the leading OS for mobile devices such as smart phones and tablet computers. Android is a Linux based operating system developed using C and C++ programming languages with a User Interface in Java. Google acquired the initial developer of Android Inc. in 2005 and released Android as an Open source under the Apache License. A prominent feature of Android is its open-source nature. With the right software development tools, Android app developer can do whatever they want with the OS. The iPhone offers a suite of useful development tools, but it doesn't offer the same amount of freedom as the Android platform (Appiction, 2010).

As technology improves in the area of wireless facilities and mobile computers, mobile computing has become feasible. As of today, a variety of advanced mobile devices, some mobile wireless systems and mobile computing applications exist already. For example, people can send and receive emails and access Internet web sites using mobile computers via wireless networks. The future trend of telecommunication is to extend the telecom and computing services to mobile users, to break the restriction of user locations, to allow people access to computing resources anywhere and anytime at will. However, this is not a trivial task. Compared to static systems, mobile computing systems are constrained in important ways. These constraints are intrinsic to mobility, and are not just artifacts of current technology (SATY). Mobile elements are resource-poor relative to static elements. Wireless links have low bandwidth and are unstable. Mobile elements must operate under a much broader range of networking conditions. The nature of wireless communication media and the mobility of computers combine to create fundamental new problems in networking, operating systems, and information systems. (Liu, n.d).

Global Positioning System, popular and commonly known as GPS, is a kind of space based navigation technology providing us with the exact location and time details no matter where we are. It's not affected by bad weather or any other obstruction in the navigation process (Reddy, 2011).

In theory, the GPS technology works in this model. A GPS Data Logger that tracks the exact location of a vehicle, or a device, and then the tracking information would be acquired through the connection of



the GPS data Logger with a computer via local or global Internet.

Internet is the first place to look for hotel and travel information for majority of the travelers today. The popularity of review websites providing all the information and photos can be easily accessed today via various devices easily. Today's traveler directly search for hotels on a review site instead of directly checking the website of the hotel or even calling the property. (Technosys, 2015).

People today are more looking for information on the go. This is one area of mobile phone technology enhancement that allows developer and programmers to offer users just what they seek under their preferred area of interest. Google's Android is one of the latest and unique innovations, which instantly has taken over the mobile market. It is an open source mobile platform which allows developer from around the world to develop applications for Android supported mobile devices. Android supports to develop a location-aware application utilizing Global Positioning System (GPS) and Android's Network Location Provider to acquire the user location. Although GPS is most accurate, it only works outdoors; it quickly consumes battery power, and doesn't return the location as quickly as users want. Android's Network Location Provider (NLP) determines user location using cell tower and Wi-Fi signals, providing location information in a way that works indoors and outdoors, responds faster, and uses less battery power. To obtain the user location in the application, both GPS and the Network Location Provider can be used or just one.

Mobile phones are much convenient to use nowadays, almost every one of us has it and we are using this kind of devices in our daily needs. There are millions of

applications are available on the market and it is still growing because many developer choose to create applications that will satisfy the needs of its users. Trivago, Kayak, and TripAdvisor are some examples of application that helps us to find, book, contact, and review hotels in many parts of the world. Because of its unique features many users are keep on using it because in the first place it is user friendly and also the application helps them save time and save money on finding for the hotel they want.

The developed Hotel Locator Android Application will help a lot in the part of tourist and visitors who will be visiting Dagupan City. Today, the use of technology has been an effective tool on helping us in many different ways. This application will be able to lessen the time of visitors to look for their accommodation during their stay, as well as, help the user on to the right direction to be able to reach the hotel they want.

METHODS

The study is a descriptive-developmental research. Descriptive research describes data and characteristics about population or phenomenon being studied. However, it does not answer questions about how, when, and why the characteristics occurred, which is done under analytic research. Although the data description is factual, accurate and systematic, the research cannot describe what caused a situation. (Shields, 2014). Descriptive research can be either quantitative or qualitative. It can involve collections of quantitative information that can be tabulated along a continuum in numerical form, such as scores on a test or the number of times a person chooses to use



a certain feature of a multimedia program, or it can describe categories of information such as gender or patterns of interaction when using technology in a group situation. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describe the data collection (Hopkins, 2014). Developmental research on the other hand is one that, among other key characteristics, “involves intensive collaboration among researchers and practitioners” and “maintains a commitment to theory construction and explanation while solving real-world problems” (Herrington, 2014). This approach is also known as design or action research. (Whitehead, 2014). Akker and Plomp (2015) defined ‘developmental research’ by its twofold purpose: (i) supporting the development of prototypical products (including providing empirical evidence for their effectiveness), and (ii) generating methodological directions for the design and evaluation of such products. In this approach, the scientific contribution (knowledge growth) is seen as equally important as the practical contribution (product improvement).

The development of the Hotel Locator Application employed the Agile Methodology which is a method to project management, classically used in software development. This methodology helps developer retort to the changeability of building software through incremental, iterative work cadences, known as sprints. Agile development methodology endeavors to supply many opportunities to consider the direction of a project throughout the development lifecycle. Through regular cadences of job is achieved, known as the iterations, at the end of which teams must present a shippable augmentation of work. Consequently by concentrating on the

repetition of shortened work cycles as well as the useful and functional product that was yielded, agile methodology could be illustrated as iterative and incremental. In waterfall; development teams only have one chance to get each aspect of a project right. In an agile paradigm, every aspect of development requirements, design, and is continually revisited throughout the lifecycle. When a team stops and re-evaluates the direction of a project every two weeks, there’s always time to steer it in another direction. 2014 Danube Technologies, Agile Methodology Organization Reference (2014)

Agile methods represent a relatively new approach to software development, becoming wide-spread in the last decade. The ideas behind these methods originate from the principles of Lean Manufacturing (in the 1940s) and Agile Manufacturing (1990s), which emphasized the adaptability of enterprises to a dynamic environment (Salo, 2015). The unique features of agile methods derive from the list of principles found in the “Agile Manifesto”: individuals and interactions are more important than processes and tools, working software is more valuable than comprehensive documentation, customer collaboration is preferred over contract negotiation, and adaptability is valued higher than creating and following a plan. (McLin, 2014)

Agile methods have gained popularity, as companies have come under increasing pressure to accelerate delivery in the face of changing requirements and rapidly evolving technology. Applicable to a broad spectrum of today’s software projects, these agile approaches have gained tremendous industry momentum due to their overall simplicity and discipline. (Holler, 2016)



The developer used Agile Methodology because it can adapt to change, as at the end of each stage, the logical program, designed to cope and adapt to new ideas from the outset, allows changes to be made easily. With Agile, changes can be made if necessary without getting the entire program rewritten. This approach not only reduces overheads, it also helps in the upgrading of programs. Figure 3.1 illustrates the phases of the Agile Methodology.

Sources of Data

The data is being gathered in this project is classified as the primary and secondary resources. The developer primarily acquired the information through interview. The developer had an actual interview with the Office Manager of One Stop Business Center and studied the traditional process being used, as further basis for the framework of the developed system.

The secondary sources of data for this study is observation, wherein the developer observed and studied the process. Internet research was conducted in order to gather significant information about the system. Finally, library research was undertaken for studies similar to the developed system and for other important details that could help in the improvement of the system.

Instrumentation and Data Collection

The following tools are used for data collection in this study.

Interview. The developer use the interview to gather data. It refers to structured or unstructured verbal communication between the researcher and the participants, in which information is

presented to the researcher. Is a two-person conversation, initiated by the interviewer for the specific purpose of obtaining research-relevant information and focused by him on the content specified by the research objectives of description and explanation (Gardner, 2014). Interviewing is one of the most common methods of collecting information from individuals. There are various types of interviews that are used to collect data. These include structured, semi-structured and unstructured interviews (Gill, 2011)

The developer conducted interview in the Municipality of Dagupan and gathered some data that will help in the development of the system. The developer had undergone some process before we've been given the authorization to interview the Office Manager.

Observation. Observation research techniques solely involve the developer or developer making observations. There are many positive aspects of the observational research approach namely, observation are usually flexible and do not necessarily need to be structured around a hypothesis (remember a hypothesis is a statement about what you expect to observe). For instance, before undertaking more structured research a researcher may conduct observations in order to form a research question ("Collecting Data Trough Observation", Web Centre Social Research Methods. The developer had observed and studied existing process implemented in the institution, as further basis for the framework of the proposed system.

The Developer have observed and studied the traditional process of locating hotels here in Dagupan City. In this way we've collected some information through the process that we can use it through the development.



Library Research. The developer use the technique library research to gather information. Library research was the gathering of information from library materials such as journals, books, magazines, thesis and dissertations. The Library holds an in-depth collection of material one or several subjects and it will generally include primary sources as well as secondary sources. This helps the developer in finding similar studies and thesis that can be used as references in the process of studying the system.

The Developer have conducted library research to be able to gather information and data about our system. We've browse some books and documents to acquire information. There is a wide range of reference materials you can get in the library.

Internet Research. The developer use the internet to gather data. Internet research is the practice of using Internet information, especially free information on the World Wide Web, or Internet-based resources (like Internet discussion forum) in research. According to Brock (2015), it is the practice of using Internet information, especially free information on the World Wide Web, or Internet-based resources (like Internet discussion forum) in research. Internet research has had a profound impact on the way ideas are formed and knowledge is created.

The developer used internet research since it is a great tool for finding resources because many articles, research paper, essays and other class project were published. Internet research is not a primary source but it is useful.

Tools for Data Analysis

For better organization of the data in the study, the developer used different tools in analyzing the data collected. Use Case Diagrams, Entity Relationship Diagrams, and Database Schema, were the tools used in this study.

Flowchart. It was used for clarifying and documenting the complex relationships between people, processes and sets of data by breaking them down to their component parts and expressing them visually. (Gliffy, 2017). Flowcharts can provide a step-by-step diagram for mapping out complex situations, such as programming code or troubleshooting problems with a computer. (Computer Hope, 2017).

Flowchart is a visual representation of the sequence of steps and decisions needed to perform a process. (SmartDraw, 2016). The developer used a flowchart because they are easy to understand. They provide a graphical representation of actions to be taken. Flowcharts are better way of communicating the logic of a system to all the users concerned.

Use Case Diagram. This is a set of scenarios that describing an interaction between a user and a system. , a "system" is something being developed or operated, such as a web site. The "actors" are people or entities operating under defined roles within the system Rouse (2016). Use case diagrams are usually referred to as behavior diagrams used to describe a set of actions (use cases) that some system or systems (subject) should or can perform in collaboration with one or more external users of the system (actors) (Denney, 2010). The developer used the Use case diagram to show the activities done by the different end users of the system.

Entity Relationship Diagram (ERD). An entity –relationship (ER) Diagram is a specialized graphic that

illustrates the interrelationship between entities in a database. An entity is a piece of data-an object or concept about which data is stored (Beal, 2015). An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD is a conceptual and representational model of data used to represent the entity framework infrastructure. (Techopedia, 2017). The developer used this tool because it represented the flow of the system from which it can be understood by the reader. This tool gave the developer views on how the process of the system works. Its pattern helped show the developer on how the database actually works with all of the iteration and data flows.

Database Schema. A database schema is described in a formal language supported by the database management system. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data (Nair, 2016). A database schema defines its entities and the relationship among them. It's the database designers who design the schema to help programmers understand the database and make it useful (Walker, 2016). The developer made use of the database schema to represent the collection of meta-data that describes the relations in the database. This tool is also very useful because it provides the overall description of database.

Weighted Mean. Grades are standardized measurements of varying level of comprehension within a subject area. Grades can be assigned in letters (Legend: 5 - Strongly Agree (SA), 4 - Moderately Agree (MA), 3 - Undecided (U), 2 - Moderately Disagree (MD), 1 - Strongly

Disagree (SD)). The developer used weighted mean to examine the different perceptions about the acceptability of the developed system.

Likert Scale. This tool for data analysis will provide the responses when collecting data from respondents of the system that will be developed.

The following 5 – point Likert Scale will be used to interpret the result of the Usability Test.

Table 1. Five-Point Likert Scale

Scale Value	Range	Description	Interpretation
5	4.23 – 5.00	SA	Strongly Agree
4	3.42 – 4.22	A	Agree
3	2.61 – 3.41	N	Neutral
2	1.81 – 2.60	D	Disagree
1	1.00 – 1.80	SD	Strongly Disagree

RESULTS AND DISCUSSIONS

Traditional Process of Locating Hotels

Many hotel seekers nowadays still uses traditional process of finding hotel wherein they do not know how to use and operate these kind of application that will provide them lots of information, reviews and even see a photo of this hotel they want to stay in.

Figure 1, shows the flowchart of the traditional process of Locating Hotels.

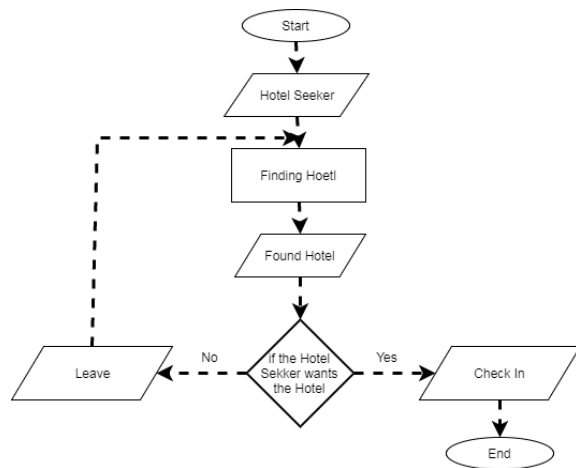


Figure 1. The Traditional Process of Locating Hotels

The flowchart shows the traditional process of Locating Hotels wherein the hotel seeker will find hotel manually without any knowledge or idea where it is located. After they located the hotel the hotel seeker of course will check the place and its service, after then the hotel seeker will decide if he wants it or not, then if no the hotel seeker will travel again to find another.

The traditional process of Locating Hotels waste lot of time and money on finding hotels for the hotel seeker's stay. The allotted time for having fun or bonding with family will be use to find and search for hotels for their vacation. This application will help them save a lot of time and money for the vacation of the user.

Some Hotel Seekers are still using the traditional process of Locating Hotels. At this kind of operation, the developer transformed the traditional process of Locating Hotel into a much easier and convenient way for them to save time and money on finding hotels for their stay by developing an application which is capable of locating hotels around the city.

Hardware and Software Requirements of the Application

To be able to run and use the developed application there must be a hardware and software requirements for the Hotel Locator Application for Dagupan City. The following are the software requirement and the hardware requirement needed for the application to manage effectively. Minimum hardware and software requirements were presented to emphasize that the application is feasible in terms of technical aspects.

Hardware. Refers to any physical component of a computer system that contains a circuit board, ICs, or other electronics. The most common set of requirements defined by any operating system of software application is the physical resources, also known as hardware.

Table 2 shows the hardware specification of the mobile device to deploy the application.

Table 2. Hardware Specifications

Hardware	Specification
RAM	1GB RAM
Internal Memory	1GB ROM
Processor Speed	832MHz
Screen Size	3.0 inches
Display Type	TFT capacitive touchscreen
Display Resolution	240 x 320 pixels

Table 2, above shows the hardware specification that can be used in implementing the system. The RAM should have at least of 1GB RAM and at least 1GB ROM for the internal memory. At least 832MHz of the processor speed to run the system effectively. The screen should have a minimum size of 3.0 inches, TFT capacitive



touchscreen display type and a minimum display resolution of 240 x 320 pixels.

Software. Refers to a general term for the various kinds of programs used to operate computers and related devices. Software requirements deal with defining software resource requirements that need on a mobile to provide optimal functioning of a system or application.

Table 3 shows the software specification of the mobile use to deploy the system.

Table 3. *Software Specifications*

Software	Specification
Operating System	Android OS
OS Version	v4.1

Table 3 shows the software specification that can be used in implementing the system. Only Android OS and a minimum version of 4.1(jellybean) and above to be able to run and use the system on mobile.

Features of the Developed Application

Security. This may serves as the protection of the application from unauthorized user to secure the application. The application requires username and password for the user, hotel owner and also the admin. The password is encrypted. The login page of the Hotel Locator Application for Dagupan City is the security of the whole Application to secure the data in it.

Filtering of hotels and inns. The application includes filtering between hotels and inns. The developed application provides graphical user interface that shall speed up on finding hotels or inn.

Writing Review. The developed Application allows you to leave a review about the hotel or inn where you've stay. The hotel owner will see you're review as soon as you entered it. The developed application allows communication between the user and the hotel through reviews.

Providing Way. The Developed Hotel Locator Application for Dagupan City includes providing way to the hotel or inn the user want. Having this feature, the application will help the user reach the hotel or inn the user want. This requires internet and gps to be able to work but it will save time for many hotel seekers.

Login Form. A login form was provided to ensure the security of data to be processed. The user is required to enter the correct username and password to access the application. The Hotel Locator Application for Dagupan City has multiple users including the hotel seekers, hotel owners and the admin. Modification of the username and password was provided as an option for variability in order to further enhance the security aspects of the application.

Hotel Seeker Registration Form. In this form, the hotel seeker will fill up all the necessary information the application needs to be able to register on the application and use the application. On this form the user will provide its name, email, password, contact no. and address. The collected information will be saved in the database of the application.

Main Form. The main form shows two radio button, search bar, and a button. The first radio button named "Hotel" was to show all the hotels listed below. While the second radio button named "Inn" will show all the Inns listed and registered below. These two options provides the user to manage whether they want to find hotel or



inn. The search bar and the button is used for searching for the name of the hotel or inn.

Hotel Information Form. The main form shows two radio button, search bar, and a button. The first radio button named “Hotel” was to show all the hotels listed below. While the second radio button named “Inn” will show all the Inns listed and registered below. These two options provides the user to manage whether they want to find hotel or inn. The search bar and the button is used for searching for the name of the hotel or inn.

Map Ways Form. In this form, the application will provide a way for the hotel seeker on where the hotel is. This form will display a route where the shortest route is. Before proceeding on this form the hotel seeker will just simply need Internet and switch on their GPS so that the application will track their exact location and find a way to the hotel or inn they pick.

Profile Form. On this form, the user’s information is displayed. It is where the collected information will be displayed. As you can see you can upload also a picture of you for further identification of the user. On this form the Name, E-mail, Contact no. and the Address will be displayed.

Hotel Owner Registration Form. On this form, the hotel owner will fill up the form. First the hotel owner will provide his First Name and then followed by Last Name and E-mail Lastly the Password. The second part was the Hotel’s Information where the Hotel Owner will provide its Name, Contact no. Address, and Information. And on the last part the Hotel Owner will choose whether it is a hotel or inn then click the “Register” Button then the application will save the data.

Hotel Owner Main Form. In this form, the collected information on the hotel

owner registration form will be displayed here. This form contains the picture of the hotel and the name and also the other information provided by the hotel owner. Also the hotel owner can view the hotel seeker’s reviews. And on the last part the hotel owner can set the coordinates of the hotel on the map. Lastly the hotel owner can edit the hotel information just by clicking the “Edit Hotel Info”.

Set Coordinates Form. In this form, the hotel owner will just simply set the coordinates of the hotel or inn they owned on the map. After setting the coordinates of the hotel or inn the data will be saved on the database. And on that case, anyone can see where the hotel or inn is located.

Edit Hotel Information Form. In this form, the hotel owner can manage and change the hotel information. Also in this form you can change the picture of the hotel. The hotel owner can quickly update whether there is promo going on in their hotel. The updated information will be seen by the hotel seekers.

Add Hotel Form. In this form, the admin can add a hotel or inn. For example there is a newly constructed and established inn or hotel around the city, they can contact the admin to just simply add their hotel. The admin will provide information about hotel like Name, Contact No, Address and Information about hotel. Also the admin will pick whether it is hotel or inn and click the “Register” button.

Usability of the Application

To test the usability of the developed application, the developer conducted a survey to 20 peoples compose of students, tourist, and some locals.

Usability Test. This is an irreplaceable usability practice, since it gives direct input on how real users use the application. It focuses on measuring a human-made capacity to meet its intended purpose.

Table 4 shows the evaluated test according to usability.

Table 4. *System Evaluation According to Usability*

Usability	MEAN	DESC
1. I think I would like to use the application frequently.	5	SA
2. I found the application unnecessarily complex.	4	MA
3. I found the application easy to use.	5	SA
4. The various functions of this application are well integrated.	4	MA
5. There is a consistency in this application.	4	MA
6. I learned to use the application quickly.	5	SA
7. I felt very confident using the application.	5	SA
Average Weighted Mean (AWM)	4.57	SA

Legend: 5-Strongly Agree, 4-Moderately Agree, 3-Undecided, 2-Moderately Disagree, 1-Strongly Disagree

They rated the usability of the application to Strongly Acceptable. AWM

of 4.57 suggests “Strongly Agree” (SA) when it comes to the integration of the various functions of the application. The User experience of the application is becoming the key differentiator for the application owners in an increasingly competitive market, which mean to say that for an application to be more appealing, the designer should take into consideration experiences of target user.

Attractiveness Test. This is an irreplaceable interface, since it shows that design of the application. It focuses on how the application looks like, the colors layouts, etc.

Table 5 shows the evaluated test according to interface.

Table 5. *System Evaluation According to Attractiveness*

Attractiveness	MEAN	DESC
1. The overall application is attractive.	4	MA
2. The application’s interface is pleasing.	4	MA
3. The application has a good lay outing.	4	MA
4. The color used has a good balance.	4	MA
5. The typography is attractive.	4	MA
Average Weighted Mean (AWM)	4.00	MA

Legend: 5-Strongly Agree, 4-Moderately Agree, 3-

Undecided, 2-Moderately Disagree, 1-Strongly Disagree

The study revealed that the Developed Application has a rating of AWM=4.00 which means “Moderately Agree” (MA) based on the rating of the respondents. Based on the given feedback the respondents are moderately agree that the application is attractive. But respondents are willing to explore more about the application and suggested that the developer shall enhance the User Interface of the application.

Navigation Test. It is use to evaluate the navigation for the user interface. This is an irreplaceable interface. It focuses on measuring a human – made product capacity to meet its intended purpose.

Table 6 shows the respondent’s evaluation in terms of the systems navigation.

Table 6. *System Evaluation According to Navigation*

Navigation	MEAN	DESC
1. It is easy to find my way around the application.	5	SA
2. I can get information quickly.	5	SA
3. It is fun to explore the application.	4	MA
4. It is easy to remember where to find things.	5	SA
5. Information is layered effectively on different screens.	4	MA
Average Weighted	4.60	SA

Mean (AWM)

Legend: 5-Strongly Agree, 4-Moderately Agree,3-

Undecided,2-Moderately Disagree,1-Strongly Disagree

The study revealed that Hotel Locator Application for Dagupan City has a clear navigation based on the AWM=4.60. Based on the given feedback, the respondents “Strongly Agree” (SA) that the application is easy to navigate, fun to explore, and the respondents can quickly get the information.

Information Test. It is used to evaluate the information for the users. This is an irreplaceable interface.

Table 7 shows the evaluated test according to the system’s information.

Table 7. *System Evaluation According to Information*

Information	MEAN	DESC
1. Information is easy to read.	5	SA
2. Information is written in a style that suits me.	5	SA
3. Screens have the correct amount of information.	5	SA
4. The application content interests me.	4	MA
5. The application content would keep me coming back.	4	MA
Average Weighted Mean (AWM)	4.60	SA

Legend: 5-Strongly Agree, 4-Moderately Agree,3-



Undecided,2-Moderately Disagree,1-Strongly Disagree

The study revealed that the Hotel Locator Application for Dagupan City has sufficient information based on the AWM=4.60 of the respondents which means “Strongly Agree” (SA). Based on the given feedback the respondents strongly agree that the application has the right amount of information.

User-Friendliness Test. Use to evaluate the user-friendliness for the user. This is to test if the application is easy to use and easy to understand.

Table 8 shows the respondent’s evaluation in terms of the application user-friendliness.

Table 8. *System Evaluation According to User-Friendliness*

User-Friendliness	MEAN	DESC
1. The application is exciting.	4	MA
2. The application has a clear purpose.	5	SA
3. I always knew on what to do/where to go next.	5	SA
4. It is clear on how screens elements work.	5	SA
Average Weighted Mean (AWM)	4.75	SA

Legend: 5-Strongly Agree, 4-Moderately Agree,3-

Undecided,2-Moderately Disagree,1-Strongly Disagree

The study revealed that the Hotel Locator Application for Dagupan City is User-Friendly based on the rating of the respondents with AWM=4.75 which means “Strongly Agree” (SA). Based on the given feedback the respondents strongly agree that the application is user-friendly and exciting and that the respondents will explore the system further because of its functions.

Table 9 shows the summary of the evaluated test.

Table 9. *Summary of the Evaluated Test*

Evaluated Test	MEAN	DESC
1. Usability	5.00	SA
2. Attractiveness	4.00	MA
3. Navigation	4.60	SA
4. Information	4.60	SA
5. User-Friendliness	4.75	SA
Average Weighted Mean (AWM)	4.50	SA

Legend: 5-Strongly Agree, 4-Moderately Agree,3-

Undecided,2-Moderately Disagree,1-Strongly

Disagree

The application entitled “Hotel Locator Application for Dagupan City” has been approved by the respondents with AWM=4.50 as “Strongly Agree” (SA). Although there are lot of things that need to be fixed to be a better one. The developer gained some ideas and knowledge on how to enhance the said application to be able to achieve a higher feedback in the future.



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