



LA CONSOLACION UNIVERSITY PHILIPPINES

Valenzuela St, Capitol View Park, Bulihan, Malolos City, Bulacan



College of Information Technology and Engineering

Vitas: Web Based Car Rental System

A Capstone Project Presented to
the Faculty of the College of Information Technology and
Engineering

In Partial Fulfilment of the Requirements
For Information Technology Capstone Project

Submitted By:

Richmar De Asis
Marc Daniel Dela Cruz
Marteen Job Jundana
Aaron John Sacdalan

Submitted To:

Dr. Joseph D. Espino

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APPROVAL SHEET

In partial fulfillment of the requirements for the Degree of Bachelor of Science in Information Technology, this Capstone Project entitled “**Vitas: Web Based Car Rental System**” has been prepared and submitted by Richmar De Asis, Marc Daniel Dela Cruz, Marteen Job Jundana, and Aaron John Sacdalan who are hereby recommended for oral examination.

Prof. Edna Dayao, MIT

Adviser

May 2022

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

Dr. Joseph D. Espino

Chairman

Prof. Edna Dayao, MIT

Member

Prof. Aileen Habaradas

Member

Prof. Jonilo Mababa

Member

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

DR. JOSEPH D. ESPINO

Dean, College of Information
Technology and Engineering



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CHAPTER I

The Problem and Its Background

INTRODUCTION

Countries around the world are experiencing changes due to the ongoing pandemic caused by Covid-19 which created a few difficulties being experienced by the society. These challenges have been affecting everyone in terms of business closures, job losses, and widespread disruption of educational, religious, cultural, and social activities, with resulting negative impacts to our quality of life. But aside from these aspects, transportations take a heavier blow as the changes caused by the pandemic has resulted in decreased travel through ground, air, and sea because of the fear of people getting sick as they travel and that their government has issued a restriction of travel in their areas. The impact of limited transportations in a city due to restrictions and lesser people requiring travel to get to their workplace has made it hard for people with transportation jobs to earn a living.

As two years have passed since the surge of Covid-19, the society has adjusted to the changes brought upon by the pandemic and cities have started to lessen the restrictions implemented by the government. Public transportation is starting to be used again as a mode of transportation for people but the risk of a virus spreading inside a bus full of people makes it harder for commuters to take public transportation. Public transport companies started asking commuters on what would make them use public transport again and about 70% responded with the desire for more busses to lessen the



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chances of vehicles being uncomfortably full and that vehicles, stations, and stops are to be disinfected regularly. As a part of the society chose to use public transportation, there are also those who proceed to travel through a different method which is by obtaining their own type of transportation. As the transport and mobility industry were hit the hardest due to the pandemic, it has been improving as the year progresses as car dealerships are getting busier as more people are eagerly seeking to acquire their own car in order to travel safely around.

Now, as the economy and society slowly return to its new normal state car buying and servicing is being focused by commuters as it provides lesser risks compared to public transports. As major cities loosen its enforced travel measures due to pandemic induced lockdowns, public transportation workers are forced to look for different ways of income and people are choosing to obtain their own vehicle as it is much safer than using public transportation.

Significance of the Study

The study aims to contribute to the development of a website that is designed to assist commuters through a website, particularly in providing information based on the commuters' needs and interest. The website is an example of a system that accompanies the request of the commuters to acquire a mode of transportation through various selection of cars in an easier way. The website is created to assist the commuters in their desire to obtain a car with easier steps and lesser risks of being exposed by going in person to a dealer. The website would also be beneficial to the following:



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User: The result of the study would provide more efficient and effective processing of data. A system that is very reliable and capable of identifying the interest of commuters and providing information for them.

Researcher: The research will be very useful to the researchers for the improvement of the website's system and encoding of data where they will be able to identify the interests of their commuters (users) which would help them in improving their knowledge through the website.

Theoretical/Conceptual Framework

This study aims to develop a website for commuters, which can be used to acquire cars based on the commuter's interest and help them acquire information regarding the product of their choosing while enjoying an easily accessible and easy-to-use website.

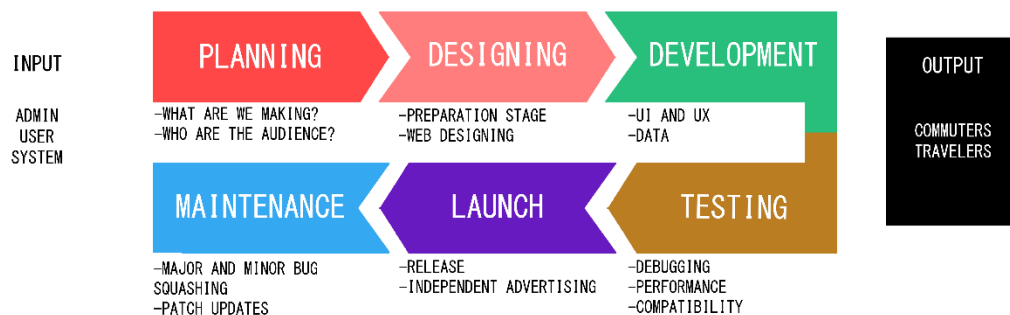


Figure 1. Conceptual Model of the Study

Figure 1 shows a conceptual framework that will serve as a guide for developers and users in identifying the flow of the product and continual progress of the project.



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We've built a theoretical framework that serves to be a guide of the different phases of developing the product, testing, and launch. We use our own different approach of theoretical framework model presents the process in developing the website: planning, designing, development, testing, launch, and maintenance.

Statement of the Problem

The concern of this study is to develop a website designed to help commuters obtain information about the products presented to them. What is the current procedure or system used by the municipality in the library in gathering information, keeping and monitoring of records?

1. How will the website be of use to the different generation of users?
2. How will the website affect the 21st century commuters?
3. How will the website be visually appealing for different generation of users' appeal?
4. How well-developed is the website using these factors?
 - a) Usability
 - b) Reliability
 - c) Credibility
 - d) Accuracy

Definition of Terms

To facilitate the understanding of this study, different terms are defined herein

Web-based. A web-based system is an application that is accessed via HTTP. The term web-based is usually used to describe applications that run in a web browser. It is also



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used to describe applications that have a small component of the solution loaded in the client PC. The host server for a web-based system could be a local server or it could be accessed via the internet. (Kambala 2018)

Sublime Text is a text-editor for windows a tool to use writing code. Sublime includes features for code editing that can help developers keep tracks on changes.

Database. It is a collection of data and information. Database facilitates accessing of data, storing, maintaining, modification and deleting of various data. It can be controlled by a Database Management System (DBMS)

XAMPP An open-source software developed by Apache Friends, XAMPP is acronym for (X) Cross-platform, (A) Apache server, (M) MariaDB, (P) PHP, and (P) Perl. The use of XAMPP is to test the website build by developer.

Scope and Delimitation of the Study

The study is delimited to commuters who are trying to acquire and gain information about cars or means of transportation. In the promotion of the website, commuters could select from various brands and are given the chance to learn more about the car they are planning to acquire. These commuters are expected to login using their username and password to access the website freely without restrictions while access to the website is free, information about certain aspects of the car is limited and can only be accessed fully by registering into the website's database full of users.

This study aims to provide a website that helps the commuters identify their interests and answer their questions by allowing them to access the site's information



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regarding cars and how to inquire. Although the site provides limited access to unregistered users and full access to registered users. The researchers are planning to provide more options in terms of content, accessibility and plans in the future.



CHAPTER II

Review of Related Literature

This chapter displays the different literature that serves as the foundation behind the current research as it consists of studies and literature that is closely related to the present research. Moreover, the information provided in this chapter serves as a reference in creating the game and for the future plans of improvements to be made for the game.

Advantages and Disadvantages of Owning a Private Car

Recent developments in the field of technology have revolutionized our lives tremendously. They have made our work and lifestyles easier and more luxurious than they used to be in the past.

One such invention is the motor car, which has made travelling comfortable as well as time saving. However, some people believe that owning a car has more disadvantages. The following essay looks at both sides of the argument. In recent years, the number of people having a private car has increased drastically. There are plenty of benefits to owning a car.

Travelling by a personal vehicle is much more comfortable and time saving than travelling by local bus and train services. Local services have many specific stops on their way to the destination which discomfort the passengers as well as consume their time. Moreover, when you travel by your own vehicle you can stop whenever you need a



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refreshment break during your journey. Another advantage is that people can carry as much luggage as they want while travelling in a private car.

On the other hand, there are a few drawbacks to owning a private car. Nowadays with the enhanced number of cars on the road there are more traffic jams causing long delays. Also, a continuous increase can be seen in the cost of cars and fuel prices. Smoke released from these cars worsens air pollution and in turn causes plenty of health problems.

Cars are one of the greatest inventions of human as it is the one of the most used and well-known invention made by a man, Cars can be use in various ways a personal vehicle, can be use in businesses or can be a public transport. It is one of essential for a travel as they travel with ease and comfort they can stop whenever they want, they can carry much luggage as they want. But we are all aware the traffic jams, the pollution and many more downside of having a car as the article says there are an advantage and disadvantages of having a car and it will be forever in the road. Nambiar (2018)

Pandemic-hit transport workers struggle to make both ends meet

With tighter travel measures being enforced in Metro Manila and other major cities due to pandemic-induced lockdowns has forced public transportation workers to look for alternative means of income to make ends meet. While allowed to hit the roads even under the most stringent enhanced community quarantine (ECQ), transport workers



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are faced another setback when the government has limited the number of passengers allowed to be accommodated in a certain public transportation vehicle thus bringing shorter income gained by public transportation workers. The Pandemic is a problem for the Public Vehicle Operator/Driver as they are struggling with the income they can make, but they are not the only one struggling as worker from different cities trying to reach their destination as rules are implemented on how to get a ride for public transportation and this show the importance of a private vehicle in these hard times where it is better to have comfort and safety as they travel. Rosario (2021)

Advantages of Renting a Car

Car leasing is an option for travelers in this time and era. Nowadays, low-cost airlines will enable you to travel to a place of your choice around the world. Also, you can move from location to location with less money.

It will be easier for you to save money through making your reservation on a hotel which is far from the center of the city using a rented car. You can also use the money you saved on the car rental price and enjoy the freedom of movement.

Renting a car will enable you to visit remote areas like hidden restaurants, and hidden rails which would otherwise be difficult to reach with a bus or taxi. It feels good when you don't have to carry your luggage to the bus or pay for taxi charges since renting a car will be more flexible.



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For those living in big cities and don't use cars regularly, you won't need to pay for insurance, tires, or mechanical repairs during your trip. If you're going on a specific occasion, you can rent a car and pay less instead of buying a new one. There are few advantages of renting a car especially if you are a travel, they said it will bring the traveler comfort and freedom as renting car is one of the most common to do if they want to enjoy traveling with ease. And not only for travelers it can also have good effect to those people who don't need to use cars often as they don't need to pay insurance and maintenance if they just rent a car to use if needed. Silva (2019)

4 Advantages of Renting a Car

Regardless of your traveling needs, you can't deny the importance of car rental as one of the most comfortable means of travel. In this article, we are going to talk about a few advantages of car rental.

First, hiring a car is a low cost and affordable option. You don't need to worry about depreciation loss and maintenance cost. When you are traveling a remote part of the world, hiring a car can help you get the most out of the views of waterfalls, hilltops, and mountain restaurants. In other words, you will have more freedom to do the exploration.

Hiring a vehicle gives you the freedom to go at your own pace. You don't need to follow the schedules of public transport. Also, if things don't seem to go as planned, waiting for public transport can still be a lot of hassle.

Based on your specific needs, car rentals can meet all your needs. It's the same whether you are traveling with your family or a group of close friends. Similarly, if you are on a



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business tour, you can still hire a car as it allows you to plan your trip and discuss important business matters with complete privacy. Article says that car is very important in means of comfort and freedom to move, renting is one of the best option and time it also convenient for travelers as they don't need to wait for travel schedule and to maximize your time exploring and having freedom to travel. Shalini (2021)

Car Rental Companies Are Losing Customers to Rideshares

Car rental companies are quickly losing customers to rideshare services, according to a new report from digital marketing firm Epsilon-Conversant. As in an analysis of \$140 billion of travel transactions over the past two years, only 63% of previous car rental customers reduced their spending on car rentals— which shows a \$3.2 billion loss. Moreover, 56% stopped using car rental services altogether, with most of these customers moving to rideshare services being that rideshare services proves to be more versatile when it comes to travel with much less expenses to be used.

These services, including Lyft and Uber, made up just 2% of all travel spending (which included hotels, airfare, cruise lines, casinos, travel services, rideshares, and car rentals). This small portion covered 30% of all transactions analyzed, however, meaning these services are low-cost but frequently used. Rideshare is a budget friendly way to use transportation in 2019 but when pandemic hits it's not even possible to have a rideshare that's why we see the importance of car rental now this time when we are suffering in pandemic. (Reints 2019)

Here's why car prices are so high, and why that matters



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New and used car prices normally account for about 7% of the CPI, but they generally don't move the headline number very much because they don't experience wild swings in prices, said Jonathan Smoke, chief economist for Cox Automotive. "Used car prices typically rise about 1% annually," he said. "It's definitely contributing far more to inflation right now."

With the pandemic still ongoing the rising price of new and used cars plays an important part of the inflation reading, given how much Americans spend every year on cars -- more than \$600 billion annually, Smoke said.

If you bought a car last year, it could now be worth more than you paid for it. He and other economists believe this is a temporary spike, and that as prices plateau the cost of used cars will start to decline later this year.

"I'm not saying there is going to be a correction," he said. "But we seem to be moving past the imbalance that created the frenzy this spring." Inflation affecting the cost of buying new or used cars that's why rental is a best option if you want a private transportation and if you barely used to travel and will help you save money caused by inflation. Isidore (2021)

What to Know About Renting a Car During the COVID-19 Pandemic

Road tripping is already a popular summer pastime but combined with the sharp decline in air travel, it's become the go-to mode of travel for most people in 2020. In March and April, practically all forms of travel came to a halt. Searches on Kayak for rental cars in the U.S. were down 73.6 percent in April from the same month in 2019. And to add to the slump, those who had travel already booked were canceling—data from



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Rhino Car Hire, a U.K.-based car rental company that also operates in the U.S., showed an 89 percent cancellation rate of cars booked for April use. In response, Avis Budget reduced its fleet by 35,000 cars and canceled 80 percent of incoming vehicle orders for the U.S. in 2020. Hertz also sold 41,000 cars in March, and then filed for bankruptcy in late May. Surplus cars were being stored in unused lots of sports stadiums.

As summer began, though, and people were eager to travel again, demand for cars increased in June and July. “Rental companies are responding by trying to move vehicles from lower demand areas to high-demand areas, but this has proven challenging as well since they have all had to cut staffing,” said Jonathan Weinberg, founder and CEO of AutoSlash.com, a price-tracking website for rental cars. Pandemic affects so many especially traveling in airlines as you travel with other person is might not be the safest option for now so that’s why when the travel season begins the article surveys results shows at that rental is more convenient, safest and comfortable way to go for travel in this time. (Hergenrader 2020)

Terminal: The constant agony of commuting amid the pandemic

“Commuting” is synonymous with the word “agony” for 13 million residents of Metro Manila, the nation’s capital region. Going to the workplace from home and back has been a constant source of distress for millions of Filipinos in one of Asia's most congested metropolitan areas.

Filipinos are no stranger to the apocalyptic scenes of commuters struggling to get a ride on Metro Manila’s main thoroughfares. This includes enduring long hours of



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queues for public utility vehicles and trains that last well into the night, and the exhausting travel time in cramped buses and jeepneys crawling through heavy traffic.

In 2019, a well-known navigation app, Waze, named Metro Manila as one of the cities with the worst traffic in the world. A study conducted in 2017 by the Boston Consulting Group, commissioned by ride-hailing app Uber, showed that a commuter in Metro Manila spent 66 minutes in traffic every day, the third longest in Asia.

The heavy traffic has taken its toll on the physical and mental health of commuters as many are used to sacrificing hours of sleep to wake up very early to beat the rush hour “carmageddon.” Others must walk long distances in unsafe areas to come to work on time or be home safe with their families. These are just a few of the typical ordeals a regular commuter has to endure every single day. The Covid-19 pandemic has made the daily agony even worse.

One of the busiest City in Asia is suffering in the road passengers having nightmares and suffering due to transportation it shows the importance and advantage of those people who could use a private vehicle that they have comfort and safety while traveling. (Piojo 2021)

If You Think Flying Sucks, Try Renting a Car

For about two decades, Troy Ford spent three weeks out of every month on the road. He’s a salesman, now pitching construction chemicals, but he used to sell cell-phone towers, so he’d have to rent cars to go to remote places. While most travelers may have a hard time distinguishing one rental company from another, Ford preferred Hertz and had been a member for more than 20 years. “They were always the best,” he said.



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“You get out of your flight, you walk up, there’s a big board there, they tell you your number, you walk over and get in your car.”

So, at the beginning of the year, Ford, 52, booked a car for four days from Newark Airport with the company. He and his family were flying up from Miami, where they live, to drop off their son at West Point at the end of June. The weekend rental cost \$425 for a midsize car — “a little high, but reasonable,” he said. As it got closer to the drop-off date, Ford changed their flight to arrive on Saturday, a day later. He also canceled the rental. When he tried to rebook it, the prices had shot up substantially: \$1,100 altogether. As a member, he tried to talk with a representative to get a better deal, but an automated message told him Hertz would tack on a 5 percent surcharge to speak with a human being. “That was the final straw,” he said. (A Hertz spokesperson defended the 5 percent surcharge as common among airlines and hotels.) Frustrated, he canceled the reservation and went to Budget, one of Hertz’s biggest competitors. In the end, though, he still ended up paying about \$500 for the two-day rental — and had to wait in a line of more than 30 people for more than an hour just to get his sedan.

To rent a car right now is to live through an expensive, frustrating American nightmare. Garages normally full-up with cars are these days sitting practically empty. Prices online are routinely over \$100 a day for midsize cars— and that’s before insurance and other dubious add-ons. With fewer vehicles and plenty of eager travelers still wary of public transportation and airports, customers are coming up against rental-car companies that seemingly act with impunity, jacking up prices for some and denying others for what can appear to be arbitrary reasons. Renting a car must be hassle free situation to those in



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need this article shows that even well-known rental company struggles in their services and customers find it intimidating so as users you must select and find or try different companies to expand your experience and variety of choices for your next rental. Dugan (2021)

Renting a Car vs. Driving Your Own

One of the enduring challenges of travel is trying to save money while still having a great time. A great way to travel for less is to drive rather than fly to your destination. Of course, if you choose to drive rather than fly, you will need to build in more travel time. If you've decided that's OK, you may think you're all set. But you still have another car decision to make: Do you drive your own car or rent one?

Money expert Clark Howard says that you could save money in the long run if you rent a car for travel rather than driving your own. "Instead of driving your own vehicle on your vacation, rent one," Clark says. "Particularly if you're going in a seven-day block, renting a vehicle could be a lot cheaper than effectively putting all those additional miles on your own vehicle." "Car rental companies are feeling pressure from people not renting cars like they used to. They're using Uber or Lyft instead of renting a car. That has softened up demand for the car rental industry. It has made the deals the best they've been in a long while on car rentals," he says. You still need to shop around and see if renting makes financial sense based on how far you'll drive and how many days you'll be away. Do your homework when looking for a car rental. As for travelers that want to try renting out a car for travels or commute, they must also study what car to use how many will occupy the car and the route that traveler will select so they can



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prefer what are the best cars suits for them. A ready traveler or commuter would find comfort if they prepared for their plan. Johnson (2021)

CHAPTER III

Methodology of the Study

This chapter discusses the details of the research from the research design being used, the design features of the game, the target users, and the development process involved (in creating the game itself.)

Methods and Techniques

The study uses an Experimental type of research method. The reason for using this research method is since it allows the researcher to thoroughly identify the measure of the cognitive abilities of a person through the game as it gives the user various tests to dive into. The components of the game design involve the different difficulty levels to be given to users, developing the game system based on findings, testing the effectiveness of the game to the user's cognitive thinking.

Target Clientele

The developments of Vitas: Web Based Car Rental System was designed for the use of the different commuters and for their own benefit in strengthening their knowledge about a certain product through the website that supposedly helps the users in identifying their needs and how they could easily acquire it with the help of the system. This is an



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effective way of keeping the users updated of the new prices of vehicles due to the pandemic as the system continuously updates its information on the vehicles based on reliable sources to help the users and help them choose the optimal vehicle for them.

Software Development Process

The Vitas: Web Based Car Rental System is developed using the (Waterfall Model) as show in Figure 2, that includes 6 levels; Planning, Designing, Development,

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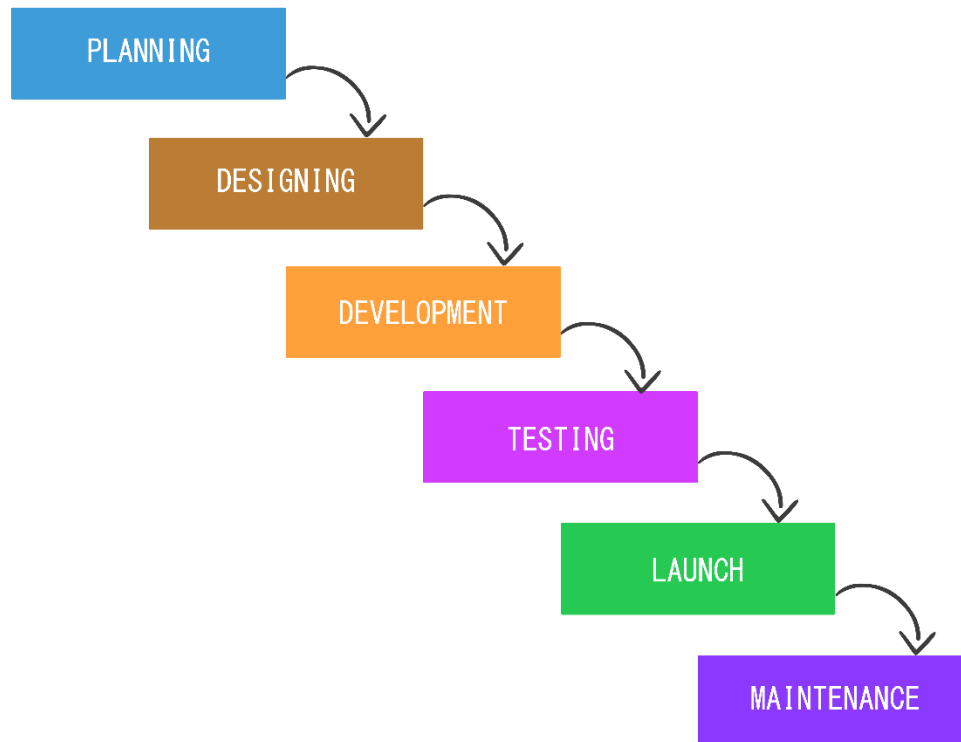
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Figure 2. Water Fall Model

Phase 1 – Planning. The requirements of the system are determined at this stage.

Discussions of the goal to be achieved are being identified here such as: What are we building? Who are the targeted audience? Will it run? What kind of outcome is to be expected?

Phase 2 – Designing. This is where the preparations are executed based on the gathered study on the first phase. The designing phase focuses on the sequences the researchers are tasked to follow in the preparation of the system and how it would appeal to the users.

Phase 3 - Development. In this phase, the actual coding is done, and the development of the system is on process. This phase focuses on the aspects of the system to be developed such as models, UI & UX design, and the information of the products being laid out. This is considered as the longest phase in the model.

Phase 4 - Testing. After developing the code for the website, it is tested to see if it meets all the necessary requirements (the researchers/we) identified in the first phase. This phase is divided into three tests which are: debugging of the system, performance test to see if the system runs smoothly on heavy traffic, and compatibility tests which checks if the website is executable to chosen devices.

Phase 5 - Launch. After the testing of the website, it is then advertised and deployed in a customer environment to be used by various users.

Phase 6 - Maintenance. This is considered as the final phase which provides services to the system. The real problems of the system are identified once it has been tested by



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various users and this requires continual monitoring and updates in order to ensure it remains relevant and useful. This phase consists of bug squashing and maintenance for further improvements

Software Requirements

System Software Requirements

- Sublime Text 3
- XAMPP
- PHP

The following are the Laptop Specifications:

- Processor: AMD Ryzen 5 pro 4650g
- Installed RAM: 8.00 GB

Instrument of the Study

After the finishing touches of the system of the website, the researcher's next goal is to ask for consultations from three different IT professionals or professors in order to assess our system and ask for their opinion about the system's UI and functionality.



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Data Processing and Statistical Treatment

The researcher developed an evaluation instrument based on the five-point Likert scale. One of the essential aspects that needed to be factored in was functionality, reliability, and usability.

Scales Equivalent	Weighted Mean	Descriptive Equivalent
5	4.50 - 5.00	Very Good
4	3.50 – 4.49	Good
3	2.50 – 2.49	Fair
2	1.50 – 2.49	Poor
1	1.00 – 1.49	Very Poor

earcher used legend to get the total mean of every parameter and its descriptive evaluation.



CHAPTER IV

Presentation, Analysis and Interpretation of Data

This chapter presents the data gathered, the results of the statistical analysis, the interpretation of the data and the development of Vitas: Web Based Car Rental System. These are presented into two parts for clarity and consistency of the study.

Part 1. It presents the Vitas: Web Based Car Rental System in the development process and structurization of the system.

Part 2. It contains the presentation of the developed Vitas: Web Based Car Rental System

Vitas: Web-Based Car Rental System

Vitas: Web Based Car Rental System was developed using the Waterfall model shown in Figure 2, which includes the following six (6) phases: 1.) Planning phase, 2.) Designing phase, 3.) Development phase, 4.) Testing phase, 5.) Launch phase and 6.) Maintenance phase.

Developmental Model Used

Phase 1 - Planning phase. This phase is for gathering the information needed to understand the system process. We collected the information through various sources to structuralize the foundation of the plan of creating a car rental system.



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Phase 2 - Designing phase. This phase is for the design of the software or system being prepared from the Planning phase. The software requirements used to meet the expectations of the system are PHP/C++ for coding and Xampp for the database. The hardware requirements in the system are a 64bit operating system architecture.

Phase 3 - Development phase. This phase is for the actual coding of the system itself. This phase focuses on the structure of the system on the inside and the outside which mainly prioritizes the UI and UX of the system to achieve readiness and ease of use for upcoming users. We will implement the system in selected car rental companies

Phase 4 - Testing phase. After the third phase, coding of the system, the system that was recently developed will be put to test to make sure that the product will meet the expectations and needs of a user. The user will see the output of the system and will have the chance to test it.

Phase 5 - Launch phase. After the successful testing phase, the system will be deployed into different environments for it to be used by various people.

Phase 6 - Maintenance phase. This phase is for receiving feedback from the users and using it to possibly fix errors or bugs in the system and to improve the system for future usage. This phase will allow the developers to come up with possible fixes to bugs and errors and possibly create new features to add for the system in the future.



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Acceptability of the Web-Based Car Rental System

The acceptability of the Vitas: Web-Based Car Rental System was tested in terms of the following indicators: usability, reliability, credibility, and accuracy. The system was evaluated by professional and competent people: 1.) Four IT Graduates (1) professor and 2.) Two (2) Computer Engineering. Using the evaluation survey, the expert evaluation was obtained using the five-point Likert Scale interpreted as it follows: 5 – very good; 4 – good; 3 – fair; 2 – poor; 1 – very poor.

In **Table 1** based on the computations, it shows that the Vitas: Web Based Car Rental System is rated as Good

Table 1

Weighted Mean and Level of Acceptability in terms of the Usability of Vitas:
Web Based Car Rental System

Feature	Rating	Rating
System functions are correct and accurate	5	Very Good
Responsiveness of the system	5	Very Good
Maintain consistency of system	3	Fair



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User-centered system interface	4	Good
-----------------------------------	---	------

Table 1 AVERAGE: 4.25 | Good

In **Table 2** based on the computations, it shows that the Vitas: Web Based Car Rental System is rated as Good

Table 2

Weighted Mean and Level of Acceptability in terms of the Reliability of Vitas:
Web Based Car Rental System

Feature	Rating	Rating
System UI is easily accessible	4	Good
Is the System easy to operate/use	4	Good
Can be use by different generation of users	5	Very Good

Table 2 AVERAGE 4.33 | Good



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In **Table 3** based on the computations, it shows that the Vitas: Web Based Car Rental System is rated as Good

Table 3

Weighted Mean and Level of Acceptability in terms of the Credibility of Vitas:
Web Based Car Rental System

Feature	Rating	Rating
Accuracy of data displayed on the system	4	Good
Diligent data handling	4	Good
Respondent validation to support system dependability	4	Good

Table 3 AVERAGE 4 | Good

In **Table 4** based on the computations, it shows that the Vitas: Web Based Car Rental System is rated as Good

Table 4

Weighted Mean and Level of Acceptability in terms of the Accuracy of Vitas:
Web Based Car Rental System



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Feature	Rating	Rating
Data that been input/gathered are accurate	4	Good
Easy to Understand the function of the system	4	Good
Relevance of data to actual products to ensure confirmability	5	Very Good

Table 4 AVERAGE 4.33 | Good

In **Table 5** based on the total computations, it shows that the Vitas: Web Based Car Rental System is rated as Good in the following criteria's: Usability, Reliability, Credibility, and Accuracy.

Table 5

Combination of the general mean in terms of Testing indicators of Vitas: Web-Based Car Rental System.

Criteria	Overall Rating	Rating
Table 1: Usability	4.25	Good
Table 2: Reliability	4.33	Good
Table 3: Credibility	4	Good
Table 4: Accuracy	4.33	Good

Total Average: 4.22 | Good



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Web-Based Car Rental System

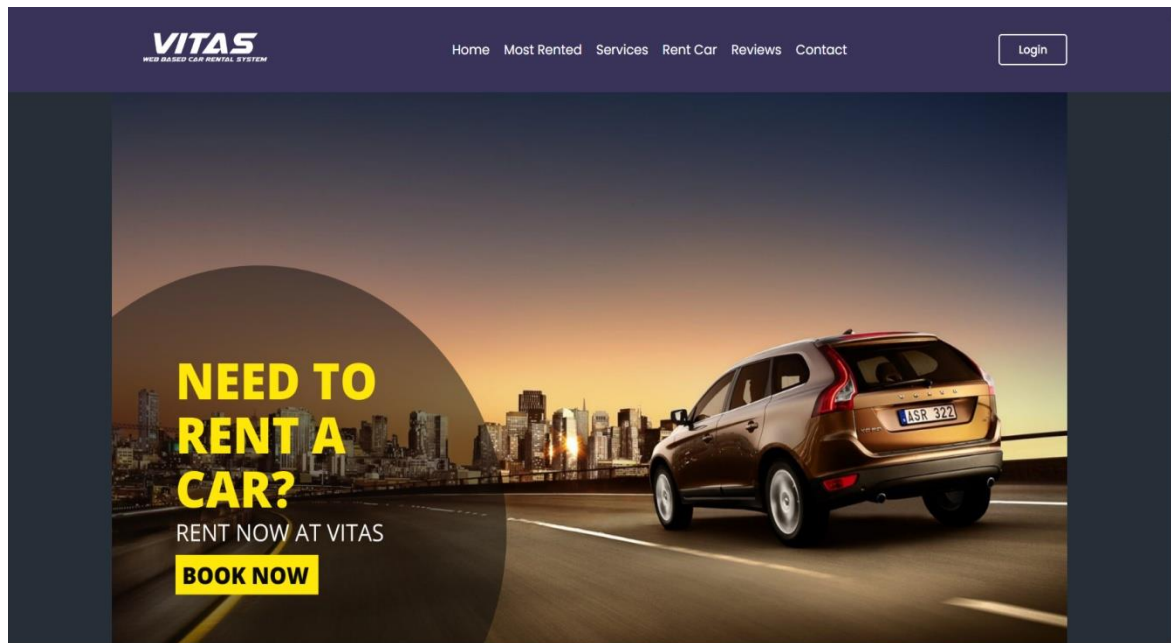
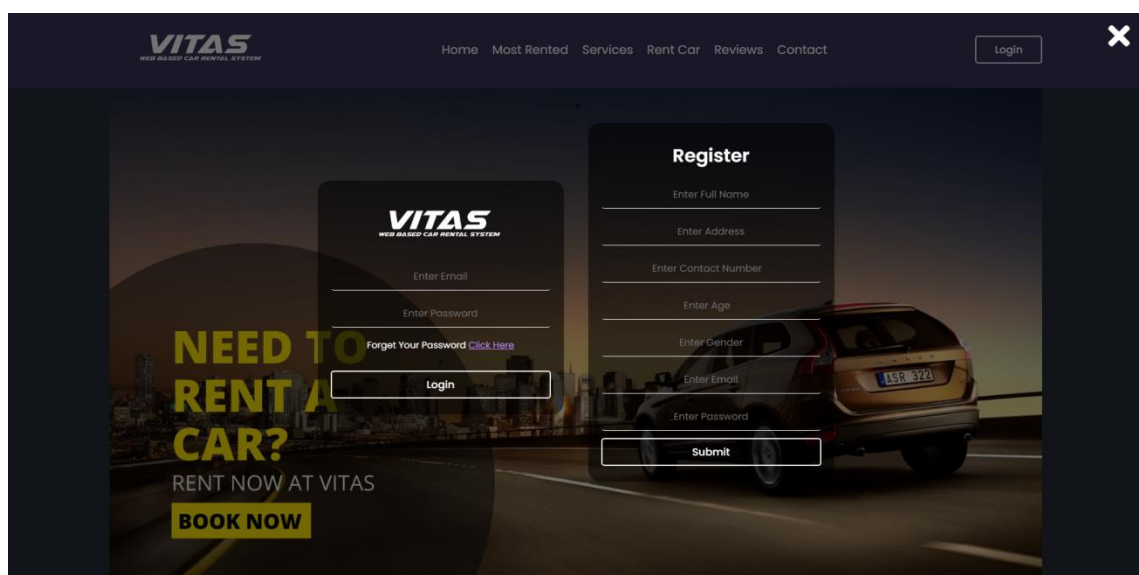


Figure 3

Log-in/Register Page User.





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Figure 4

‘Most Rented’ Feature

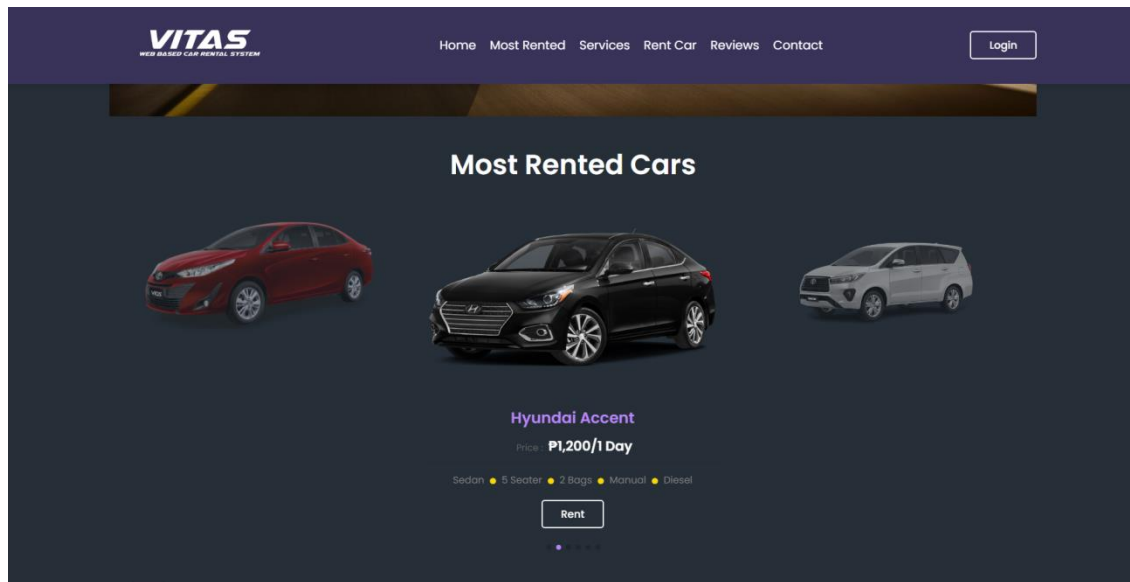


Figure 5

‘Our Services’ Feature



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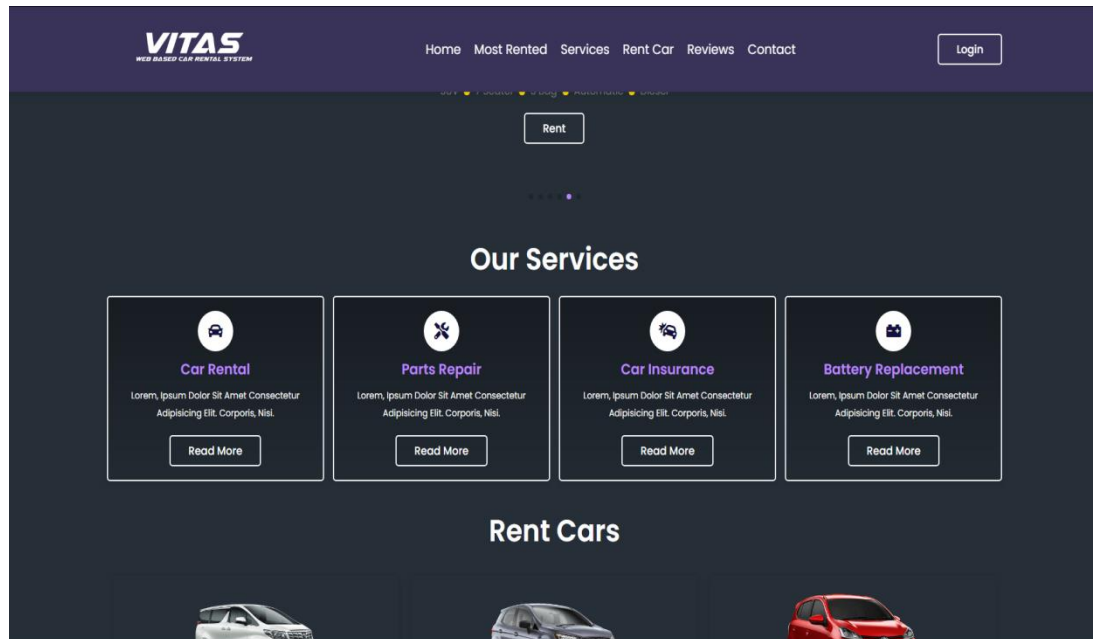


Figure 6

'Rent Cars' Feature

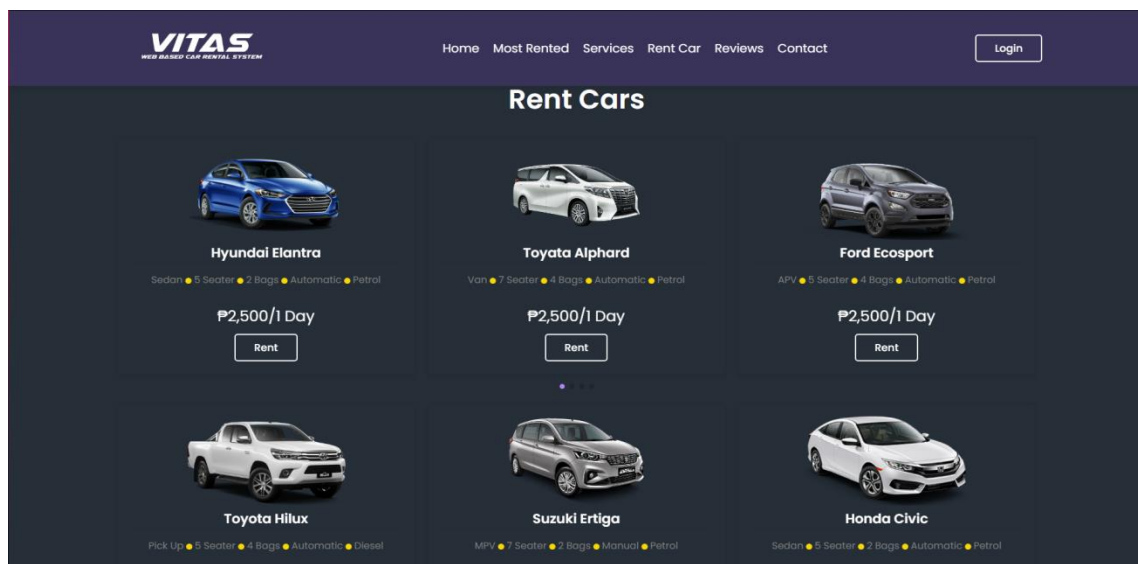


Figure 7



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‘Subscription’ Feature

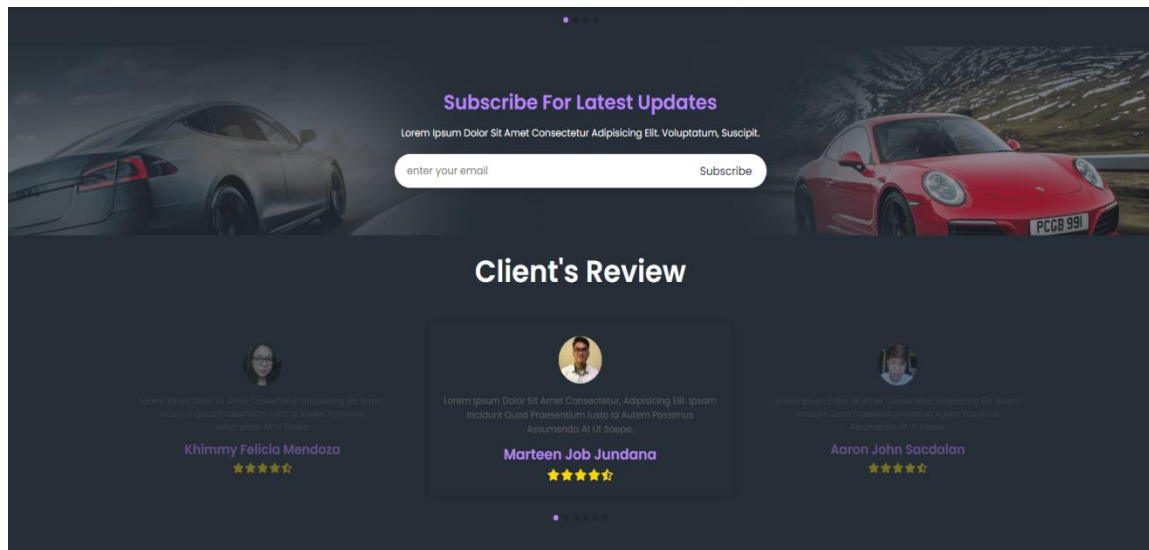


Figure 8

‘Client Reviews’ Feature

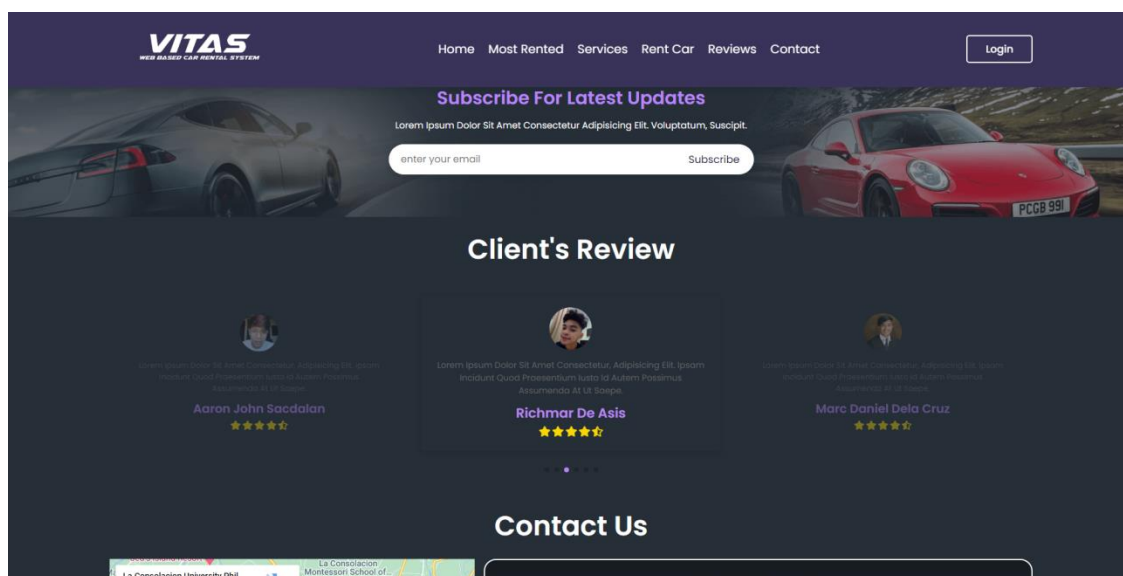


Figure 9



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Contact Us Feature

VITAS
WEB BASED CAR RENTAL SYSTEM

Home Most Rented Services Rent Car Reviews Contact Login

Contact Us

Get In Touch

Your name

Your email

Subject

Message

Send Message

Our Branches Quick Links Contact Info

Figure 10

Error Message when clicking “Rent” while not logged-in

VITAS
WEB BASED CAR RENTAL SYSTEM

localhost says
Please Login and try again!

OK

Home Most Rented Services Rent Car Reviews Contact Login

Most Rented Cars

Toyota Innova

Price : **P2,000/1 Day**

MPV ● 8 Seater ● 3 Bags ● Manual ● Diesel

Rent

Our Services

Figure 11



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Registering an account (After successful registration, user will be redirected back to main page)

Figure 12

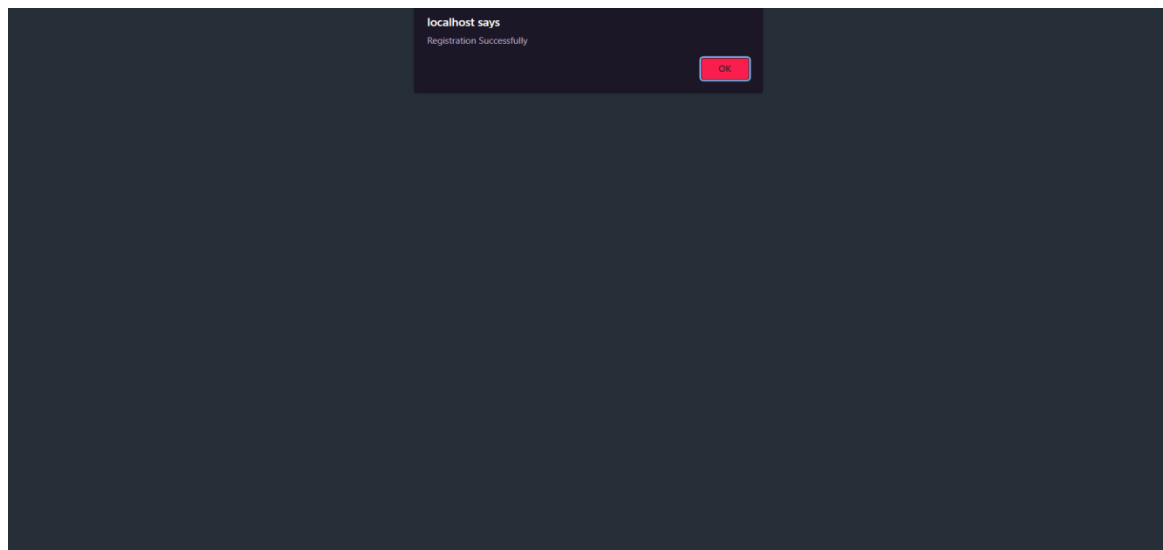


Figure 13



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Logging in (Login Failed)

Figure 14

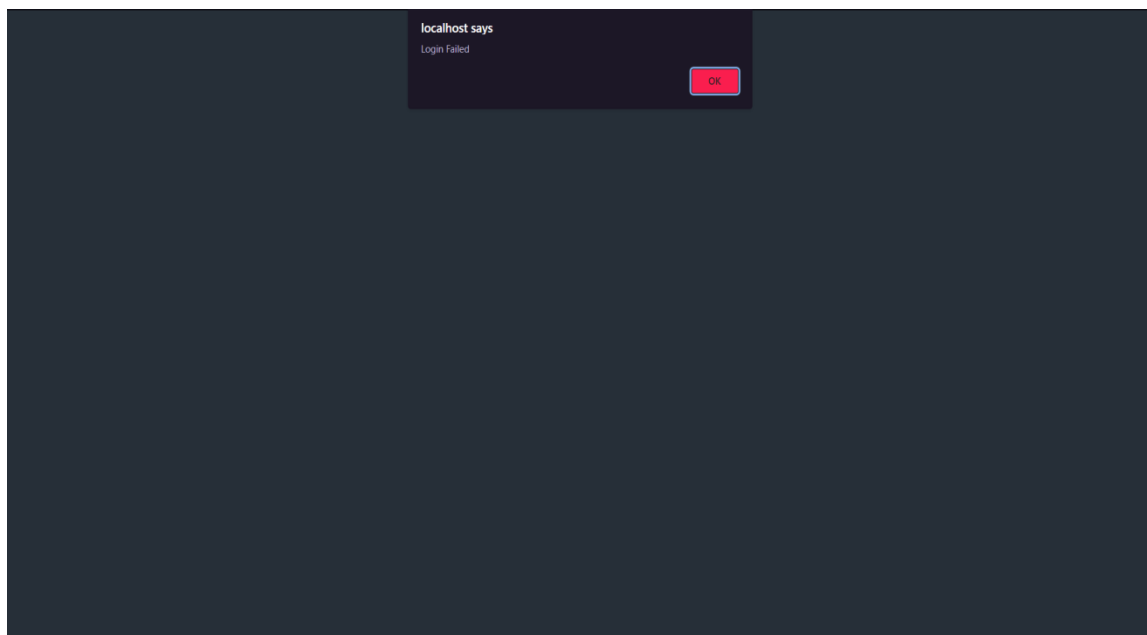


Figure 15



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Logging in (Login Successful)

localhost/Capstone Project/main.html

Figure 16

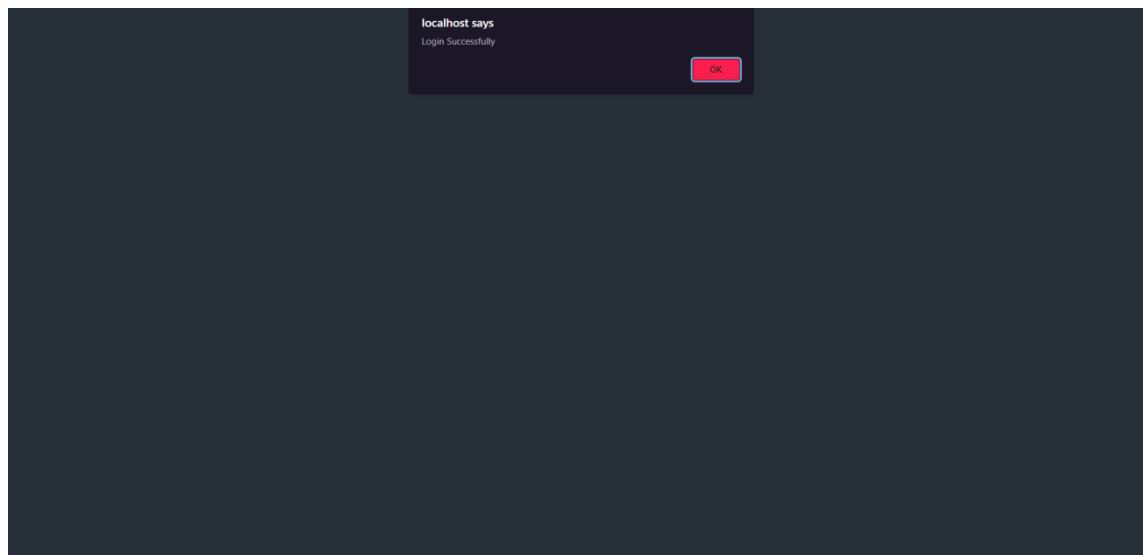


Figure 17



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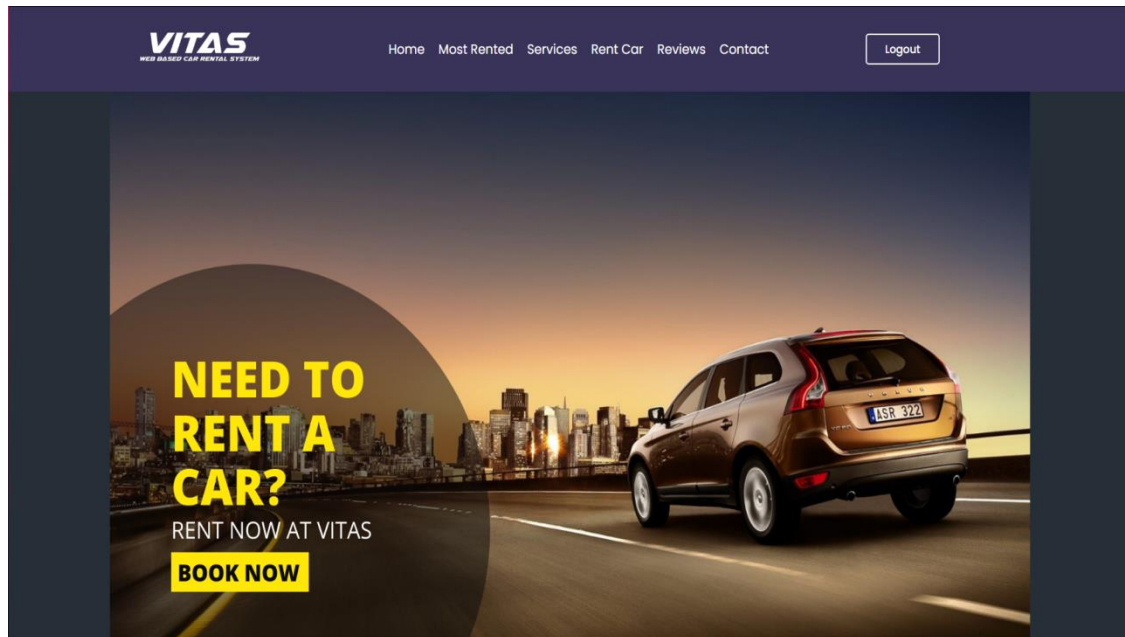


Figure 18

'Renting a car' form

The screenshot displays the 'Renting a car' form overlay on the VITAS website. The form is a dark modal box with the following elements:

- Car:** A dropdown menu showing 'Hyundai Accent'.
- Name:** A text input field with the placeholder 'Enter Name'.
- Contact:** A text input field with the placeholder 'Enter Contact Information'.
- Email:** A text input field with the placeholder 'Enter Email Address'.
- Pick-up Date:** A date input field with the placeholder 'dd/mm/yyyy' and a calendar icon.
- Return Date:** A date input field with the placeholder 'dd/mm/yyyy' and a calendar icon.
- Buttons:** 'Book' and 'Close' buttons at the bottom.

The background of the website shows a red car on the left and a white car on the right.

Figure 19



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The screenshot displays the VITAS Web Based Car Rental System interface. The header includes the VITAS logo and navigation links: Home, Most Rented, Services, Rent Car, Reviews, and Contact. A Logout button is located in the top right corner. The main content area features a dark background with two car images: a silver hatchback on the left and a white van on the right. A central modal form is open, titled "Car", with a dropdown menu showing "Hyundai Accent". The form contains the following fields: Name (basty), Contact (98765), Email (basty@gma), Pick-up Date (28/05/2022), and Return Date (11/06/2022). At the bottom of the form are "Book" and "Close" buttons.

Figure 20

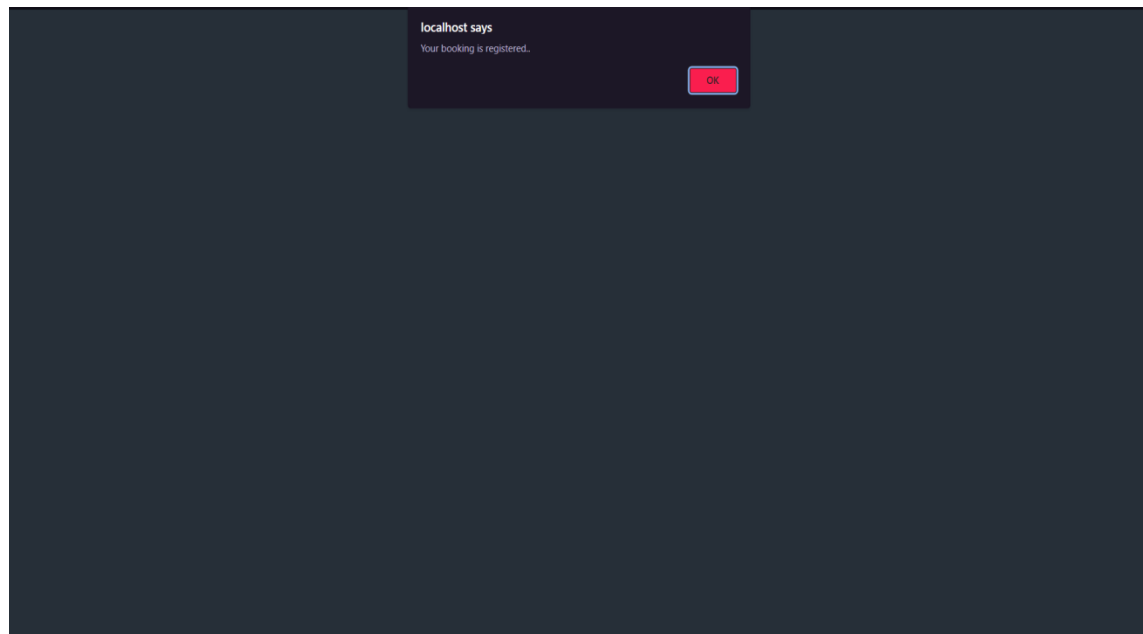


Figure 21



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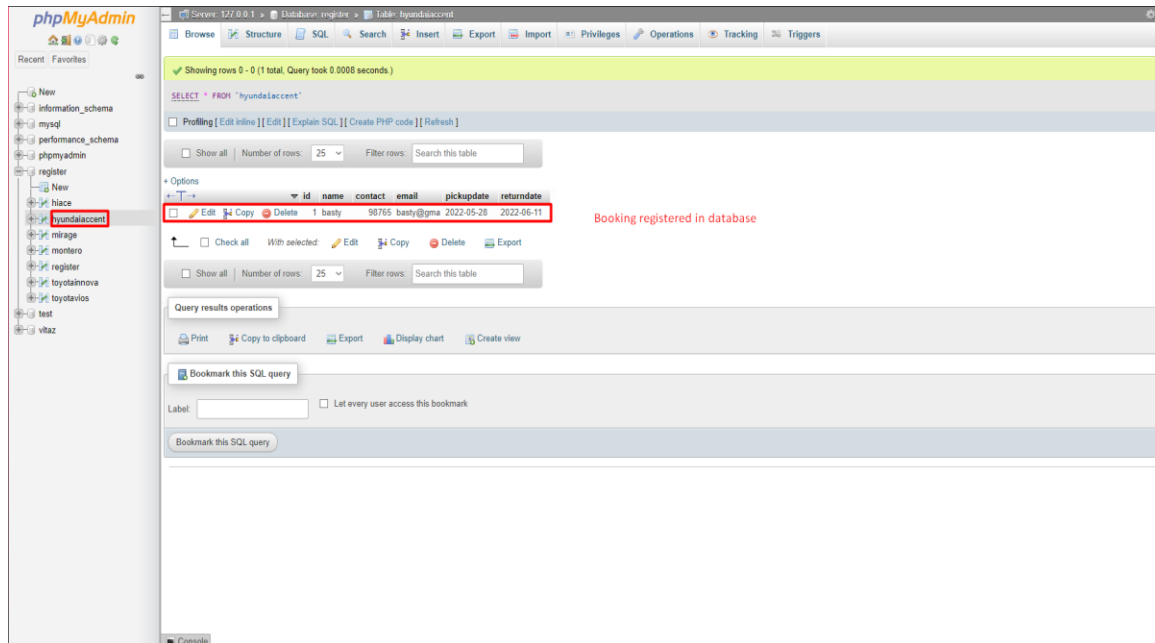


Figure 22

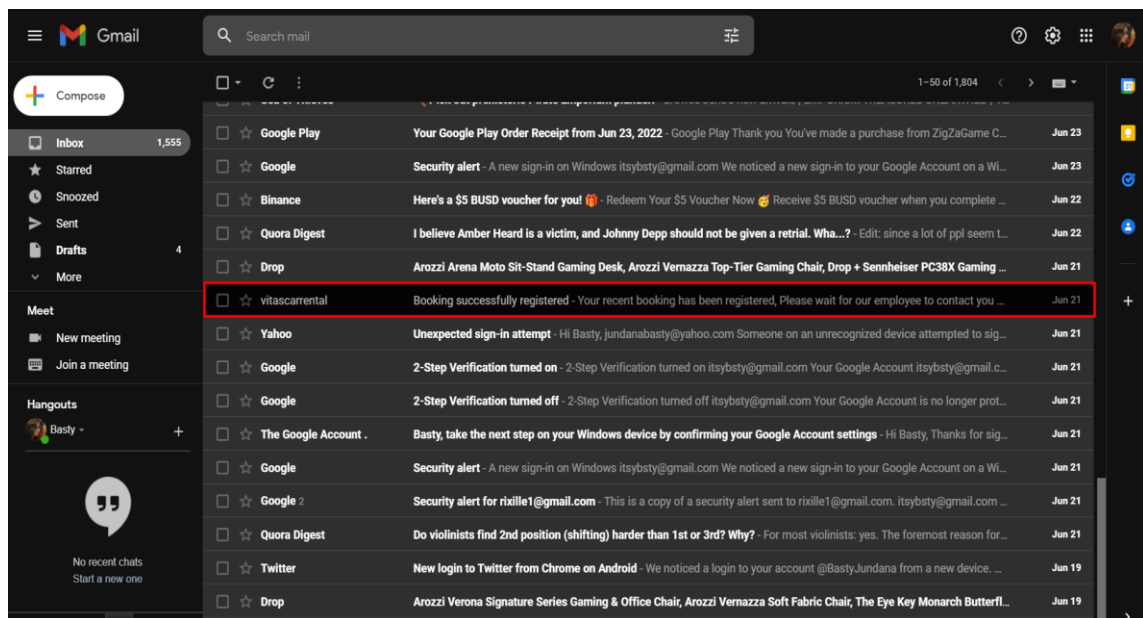


Figure 23



Chapter 5

Summary, Conclusions and Recommendations

There are three sections in this chapter: the summary of findings, conclusions, and recommendations in relation of the development of Vitas: Web-based Car Rental System. The study makes use of the Descriptive Developmental Research Method which associated with the collecting, evaluating, and categorizing of data about the succeeding process. The component of the design involved the inspection of the current manual, implementation of the system based on the findings, evaluating the impact of the change and revising the program. With the help of this method, researchers were able to find a solution to the problem by using this technique and it also provides information to enhance the quality and to have a complete understanding of the problems. There are experts and professionals in the field of Information Technology who evaluated to assess the systems acceptability in terms of five criteria. The following is a summary of the research study's findings:

Struggles of Commuting

Commuting has always been a challenge for the society as you have to deal with crowds, the heat, traffic and the hassle it brings to an individual every day. This has been made worse by the pandemic as you deal with the same things but with the risk of getting infected by Covid-19 and for a person who uses public transportation, that is not recommendable as you go through your day with the thought that there is a pandemic currently going on not leaving your head. Our society has been adjusting to the pandemic



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as most companies decided to make their employees work from home which helps lessen the people that go outside everyday just to work, but what about those people who cannot consider doing work from home in their line of work? Or wouldn't consider using public transportation? This makes car dealerships businesses popular as people would rather own a car to travel than risk their safety by using public transportation, but what about those who want to consider buying a car or rent one? With the modernization of technologies that have adjusted well to the pandemic, it has made work for others easier as there are technologies made to assist them.

By implementing and using Vitas which is a Web-Based Car Rental System, the issue of having to do lengthy processes to rent a car and having to risk your health to do that is made easy with just a few steps and a few clicks. With the system's hassle-free procedures, It allows users to rent a car online and help them do the process in a much quicker and simpler way. Without having to commute to acquire a car which is a tedious and time-consuming way, People can now rent a car with less time and effort with the help of Vitas: A Web-Based Car Rental System.

Features of Web-Based Car Rental System

The System developed have the following features:

Vehicle List. In the system homepage there are the list of different vehicles that may be rented for different renting company containing different information related to the car.



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User-Friendly. Vitas: Web Based Car Rental System UI is very simple and very friendly to use the homepage contains everything you need. When needed an account before you rent the system can redirect you to the registration page so new user can easily locate and register so they can use the system.

Developmental Model used to build the Vitas: Web-Based Car Rental System

The Waterfall Model was utilized in developing Profiling Management System consisting of the six phases:

Planning. This phase involves the laying of the foundation by knowing the perspective of individuals affected by the issue, it helps determine whether the requirements are misleading, incomplete, or incompatible. Laying the groundwork is one of the basic steps in improving the system's process development.

Designing. The design of the software is based on the information gathered in the first phase. The design stage specifies the hardware and system requirements, as well as the overall structure of the system to be developed.

Development. This is the lengthy stage of the software development process. The code is created based on the second phase's concept. The coding of the system is created in this step by the programmers.



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Testing. After the development of the code, the system is then tested. It emphasizes several tests to ensure that the system fits all the requirements we've identified in the first phase.

Launch. This is the stage in which the product has been thoroughly tested and is ready for distribution to the right market or target clients. It's possible to test the system in a real-world setting before releasing it in a small section. The system may be implemented or proposed with more enhancements based on received feedback.

Maintenance. In this phase where the real issues are discovered once the users have started using the device. To keep the system useful to the users, it should be evaluated and maintained.

Acceptability of the System developed

The acceptability of Vitas: Web-Based Car Rental System is rated 4.22 which is considered Good in the following aspects: Usability, Reliability, Credibility, and Accuracy. The Vitas: Web-Based Car Rental System is then labeled as an acceptable system.

Conclusions

Based on researcher's findings, the conclusions were drawn:

1. Online Car Rental Systems are providing users with a hassle-free type of renting procedure that enables them to rent a car with just a few clicks.



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2. The Car Rental Systems was developed with the help of six following phases:
1) Planning, 2) Designing, 3) Development, 4) Testing, 5) Launch, and 6) Maintenance.
3. The system was able to accumulate a rating of 4.22 which corresponds to a good rating in different indicators: 1) Usability, 2) Reliability, 3) Credibility, and 4) Accuracy.

Recommendations

Based on the findings and conclusion of the study, the following recommendations are as a result of this presented:

1. The Vitas: Web- Based Car Rental System is designed to help companies and to improve their rental process.
2. The system is meant to help commuters have hassle-free and straightforward rental procedure as they inquire for a vehicle.
3. The end-users of this proposed system must be knowledgeable in computers to handle the system.
4. To the Future researchers who needs further information for the study of system functionality

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Instrument of the study

Name:

School/College/University (Graduated):

Year Graduated:

Course:

Please evaluate the Vitas: Web Based Car Rental System on each of the following indicators



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By checking the box of the corresponding number.

Scales Equivalent	Weighted Mean	Descriptive Equivalent
5	4.50 - 5.00	Very Good
4	3.50 – 4.49	Good
3	2.50 – 2.49	Fair
2	1.50 – 2.49	Poor
1	1.00 – 1.49	Very Poor

Indicators in Usability	5	4	3	2	1
System functions are correct and accurate					
Responsiveness of the system					
Maintain consistency of system					
User-centered system interface					

Indicators in	5	4	3	2	1
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Reliability					
System UI is easily accessible					
Is the System easy to operate/use					
Can be use by different generation of users					

Indicators in Credibility	5	4	3	2	1
Accuracy of data displayed on the system					
Diligent data handling					
Respondent validation to support system dependability					

Indicators in Accuracy	5	4	3	2	1
Data that been input/gathered are accurate					
Easy to Understand the function of the system					



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Relevance of data to actual products to ensure confirmability					
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College of Information Technology and Engineering



**Marc Daniel
Hernandez
Dela Cruz**

INFORMATION TECHNOLOGY

Contact

📍 808 Cordero Subdivision
Lambakin Marilao Bulacan
✉️ marc11.ddc@gmail.com
📞 09129958793

Skills

Strong Work Ethics

Creativity

Computer Hardware Knowledge

Microsoft Office

Objective

Looking for a challenging role in a reputable company to utilize my web design and programming skills for the growth of the company as well as to enhance my knowledge about new and emerging trends in the IT Field.

Education History

Primary 2006–2012
Lambakin Elementary School–Annex

Secondary 2012–2018
STI College Meycauayan

- IT in Mobile App & Web Development
- Senior High School Work Immersion (2018)

College 2018–Present
La Consolacion University Philippines

- BSIT
- Organizations: JPSSITE
- GWA 1.59

Certification

MOS December 17, 2018
Microsoft Office Specialist Excel 2016

MOS December 12, 2020
Microsoft Office Specialist: Access 2016

MARC DANIEL H. DELA CRUZ



LA CONSOLACION UNIVERSITY PHILIPPINES
Valenzuela St, Capitol View Park, Bulihan, Malolos City, Bulacan



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Richmar De Asis



SOFTWARE DEVELOPER

PROFILE

Seeking a position in life where I can put my skills and abilities to use and grow professionally while remaining resourceful, innovative, and adaptable. As an active member, I will bring valuable assets to your esteemed organization.

EDUCATION

La Consolacion University Philippines

Bachelor of Science: Information
Technology
2018 - 2022

College of Saint Lawrence, Inc.

Junior High - Senior High
2012 - 2018

College of Saint Lawrence, Inc.

Primary
2006 - 2012

RICHMAR DE ASIS

CONTACT

09276228151

richmardeasis@gmail.com

WORK EXPERIENCE

Intern - Xentra Info Tech Solutions

Software Development
March 2, 2022 - June 3, 2022

SKILLS

E[Java, PHP, C#, JavaScript]
Software Skills
Ionic
[HTML, CSS] Web
MS Office
Self-Motivated
Active Listening
Teamwork and
Collaboration
Attention to Detail

REFERENCES

Mrs. Edna Dayao
College Instructor
edna.dayao@email.lcup.edu.ph



Marteen Job Jundana



Objective

Hardworking college student currently taking Bachelor of Science in Information Technology aspiring to apply my knowledge, skill and learning experience in different work areas such as coding, software management, and programming aspiring to work at an organization to learn and acquire more knowledge related to my program.

Experience

December 12, 2018–May 26, 2018
STEM Work Immersion Program • pH Tester • Geoscience Testing Laboratory
March 28, 2022–June 30, 2022
On the Job Training • QA intern • InnoVantage Inc.

Education


United International Private School, Dubai, UAE
Elementary • Junior High • Senior High
2008 - 2018
La Consolacion University Philippines, Malolos, Bulacan
BS Information Technology
GWA – 1.42
College
2018 - Present

Skills

• Curious • Cooperative • Reliable
• Creative • Flexible • multi-tasker

Certification

Microsoft Office Specialist Excel 2016 • December 17, 2018
Microsoft Office Specialist: Access 2016 • December 12, 2020


Marteen Job P. Jundana

Contact

1441 Hulo, Bayanihan
Subd. Caingin, Bocaue
Bulacan, 3018

0961 271 2787

itsvbsty@gmail.com



College of Information Technology and Engineering

SACDALAN AARON JOHN

aaronjohnsacdalana@gmail.com - 09611196014
309 San Isidro Hagonoy, Bulacan



Career Objective

To be part of reputable Company/Organization that will help for personal growth and being ready for the professional world. To perform in the maximum of my capacity for skills development that will enhance my learnings that will help in my work. Intending to apply my knowledge and learning experience in different areas as an graduate of Information Technology

Additional Skills

- Computer and Internet literate
- Team Player
- Honest and Trustworthy
- Verbal and Written Communication skills
- Self-Motivated
- Leadership
- Reliable

Work Experience

March 2022-Present

Xentra Info Tech Solution

Software Development

- Intern for Xentra Info Tech Solution

Education

2018-2022
La Consolacion
University
Philippines

Bachelor of Science in Information Technology

2012-2018
St Mary's Academy
Of Hagonoy

Junior and Senior High School

2006-2012
St Mary's Academy
Of Hagonoy

Primary

Certifications

2020

Microsoft Office Specialist (MOS)
MS EXCEL & MS ACCESS

La Consolacion University Philippines

References

Mrs. Edna Dayao
College Instructor
edna.dayao@email.lcup.edu.ph

I hereby certify that the above information are true and correct in the best of my knowledge and belief