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U Drive: Your Travel Solution

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Abstract
A major reason for this study is the need to test the growing popularity of web-based system technologies. Used by industries to extend their services to customers this article has described a content-based warning based on notification of vehicle rental programs to reduce usage and time, which favors allowing agencies and consumers. This method is therefore designed to automatically send an alert SMS to the buyer regarding the provision of a restricted vehicle. This developed process supports the Life Cycle (SDLC) system using the waterfall model as a means. User acceptance tests are divided into three sections which include user acceptance design, usability, usage status, inclusive use, and alert system functions. Nowadays, with the improvement of humans' residing standards, the improvement of the auto industry, and the popularization of vehicles, computer systems have been broadly used in enterprise control, but many automobiles rental groups are nonetheless at the extent of manual management, manifestly not acceptable to the development of the times. Managers want a hard and fast handy, automatic management facts system to update their tedious, inefficient traditional guide management, and in the end, realize the total automation of vehicle apartment management. the use of vehicle rental management machines can standardize the control and operation of firms, reduce working charges and improve performance. Automobile condo management gadget is an easy and clean-to-use system for vehicle condo agencies. With the improvement of technological know-how and generation and the modernization of devices and control, a way to enhance work efficiency has grown to be a completely vital difficulty in practical paintings.

Keywords: *Automobiles rental system, e-booking system, web-based system, registration, login.*

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I. INTRODUCTION

Nowadays, with the improvement of human residing standards, the improvement of the auto industry, and the popularization of vehicles, computer systems have been broadly used in enterprise control, but many automobiles rental groups are nonetheless at the extent of manual management, manifestly not acceptable to the development of the times. Managers want a hard and fast handy, automatic management facts system to update their tedious, inefficient traditional guide management. In the end, they realize the total automation of vehicle apartment management. the use of vehicle rental management machines can standardize the control and operation of firms, reduce working charges and improve performance. Automobile condo management gadget is an easy and clean-to-use system for vehicle condo agencies. With the improvement of technological know-how and generation and the modernization of devices and control, a way to enhance work efficiency has grown to be a completely vital difficulty in practical paintings.

1.1 Problem Statements

This web-based system created by the administrator has many useful functions. It contains the vehicles that the owners want to give on rent the main feature that makes this system unique is we can not only rent our cars but also the two-wheelers vehicles i.e., you can rent all types of automobiles whether it is four-wheelers or two-wheelers.

1.2 Objective

The mission's purpose is to automate vehicle rentals and reservations so that customers do not have to waste time calling and waiting for a vehicle. To transform the guide vehicle rental system right into a virtual technique. A customer pride test was used to validate the condominium vehicle system. As a machine improvement reference, create documents inclusive of software Requirement Specification and software layout Description.

1.3 Literature Review

Yang, Y., Jin, W., & Hao, X. in 2009 [1] where aims at proposing a dynamic model for pool segmentation in the car rental organization. I Where The division of the pool is an important step in the asset management process of a large car rental business. Its main function involves inflexible decisions regarding the integration of pool clusters with selected regional resource management centers, the purpose of which is to improve fleet use and improve the efficiency of asset management. According to the evolving nature of car rental companies and the structure of rental properties, a three-stage framework was introduced to define the asset management relationships between each rental domain. Based on logistical operational features and operational management requirements, a flexible model and its algorithm are proposed to classify ponds in the automotive rental industry. Some research suggests that the proposed approach is feasible and effective.

D. Kesrarat, S. Songcharoenkit, and P. Nanthapornpisut 2017 [2] have advanced accurate Matching for rent-a-automobile. the goal of writing is to make such applications that permit users to determine the car steady with their desires and to process the apartment of automobiles each bike and automobile. the occasion technique used is the water method which includes conversation, planning, modeling, construction, and deployment. The outcomes are evaluated with 8 golden rules of interface style and additionally, the consequences of the form show that the equipment may be utilized by users and suppliers to create the approach of condo and renting a car it simply turned into concluded that this software may be used well and can perform the method of the apartment and renting vehicles for vehicles and motorbikes.

Li, Z. (2013) [3] has made, designed, and realized of vehicle rental management system based on AJAX+ SSH This study proposed a business development plan for the AJAX + SSH-based car rent management system, and this program will be put to good use in responding to the web program plan and impact user experience. increasing the development efficiency of the system but also reducing the complexity, meanwhile, can enhance the performance module and design of the entire structure. Practice proved that the system is not the only one capable of developing this car rental management system. This article presented the implementation of the performance module and the structure of the entire structure. Practice proves that this program can not only greatly increase the efficiency of the system but also reduce the complexity, meanwhile, it can increase the efficiency of the web system response and the impact of the user experience.

Development of Car Rental Management System with Scheduling Algorithm Michael G. Albino1, Victor Acebedo2 [4] This system has regulated car rental activities was the main objective of this research study. With the implementation of the proposed car rental control system with setting up an algorithm, business transactions will be easy and reliable. Progress. The system will allow users to effectively manage transactions, planning, and vehicle assets car rental business. Researchers use Extreme Programming Methodology from this type of software development approach assisted researchers in planning, designing, implementing, and improving system maintenance. Based on collected results from respondents. Research, the app got a good response to the terms Speed and Graphical User Interface. It was noted that respondents were satisfied with the performance of the improved system as well to configure the algorithm used in the system to perform its desired function successfully. Based on information collected by researchers, an advanced application of the car rental business with integration of the editing algorithm into a useful and appropriate solution to the identified problems researchers.

Development of vehicle rental system based on geographic information system and decision support system with AHP (Analytical Hierarchy Process) and SAW (Simple Additive Weighting) method [5] The purpose of this study was to develop a recommended car rental system using AHP and SAW methods in the decision support system. The purpose of the plan was to help the public become aware of the car rental plan and to develop a comprehensive car rental plan and recommendations. The development of this program uses the five-phase ADDIE approach, namely Analysis, Design, Development, Implementation, and Evaluation. There are 3 tests to be done namely the black-box test, the white box, and the user response test. The study was

successful in developing a car rental system after passing a black box test and a white box test. User responsiveness tests performed on this car rental system are best rated with System Usability Scale.

Qurratul, A. (2012). Development Of Car Rental Management Information System (Case Study: Avis Indonesia)[6]. The information system is built very close to administrator requirements and system set up as a mainframe computer application location. Management Information System (MIS) as a computer-based program makes information available users with similar needs . Manager has used output information. Previous research has shown that MIS was accustomed to doing managing car rental, which is expected to be accelerated and archived better and safer customer service, making it easier if required at any time . Online implementation of Management information system provided and supported booking customers, assist managers in knowing car rental number for a specified period, to process the transaction between branches car rental, transportation transactions processing, which supports satisfactory customer service and supporting the company's operational processes. The web-based car rental information system grows customers, and facilitation promotion. The purpose of this study is to solve problems problems occurring in Avis Indonesia; promote development information rental information management system on the web.

A Prototype of a Mobile Car Rental System[7] In this project aims to raise the prototype of the mobile car rental system protected and enabled users to book the car they want. Proposed mobile car the rental system has been replaced by the traditional car rental system. General functions as an add-on, edit and extract information will be added to the mobile app. Other features like login, direct call and email, exact location, check car availability, check car bookings, and more will be added to the mobile app. The application is also approved users view the rental car available, make a payment for the rental car using a credit card which ensures that users do not have to be physically present at the rental company to see it they want to rent any car. Instead, users can browse the car rental list through Mobile Car Rental System, no matter how many times, then decide which car to choose and proceed with the payment process. On the other hand, the app also allowed admin to full control in the app where the controller adds, edits, and removes any vehicle information at any time.

In this Tourism and traveling facility of car rental resource management and information system [8] paper it is designed as a way to be used by car rental specializing in renting Four Wheeler to customers. The primary goal of the task on the vehical rental management is to manage the infomation of Wheeler, supplier, price, reservations. It is an online platform through which customers can view available motors, sign up view profile and e-book Vehical. It is a system design especially for big, premium and small car apartment commercial enterprise. The car lease system offers entire functionality of list and booking Four Wheeler in this device, Tourism and travelling facilities additionally offers. Shows the records and description of the car to the customer. The rental car management system device being evolved for customer in order to e-book their motors from any a part of the world. This Utility takes facts from the clients through filling their information. A consumer being registered in the website has the power to e-book a automobile which he requires manipulate the automobile data. Manipulate the records of provider. Enhancing including and updating of records is progressed which leads to right useful resource control of vehicle information.

2.1 Proposed Approach

As in regular life, we tend to see individuals combating their daily desires associate degreed vehicles are one in every one of the requirements we tend to need and it's not reasonable for all to shop for a brand new or perhaps second-hand vehicles additionally in today's day to day busy life it's troublesome to even borrow a vehicle in an emergency. So, we've to return up with an inspiration to develop a system like this which can facilitate individuals in associate degree emergency or the UN agency people that folks that those who} need to fancy rides or perhaps those that don't need to use and who don't need to ride their vehicles to their travels.

As a dealer or owner of the car/vehicle, if you wish to rent a vehicle you initially have to be compelled to sign in. If approved by the admin the dealer must log in. The dealer will rent his/her vehicle. Then the one who must rent a vehicle must 1st register by filling in their details. Then by login in and choosing the automotive they require they need to pay the ransom mounted for the vehicle by the service they'll book the vehicle and take the delivery.

2.2 Proposed Architecture

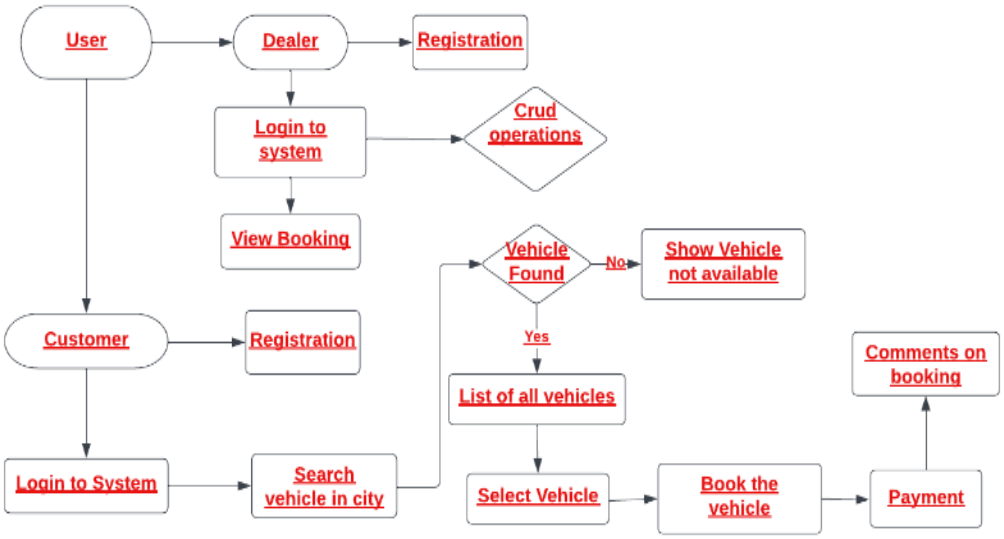

Fig: ER Diagram

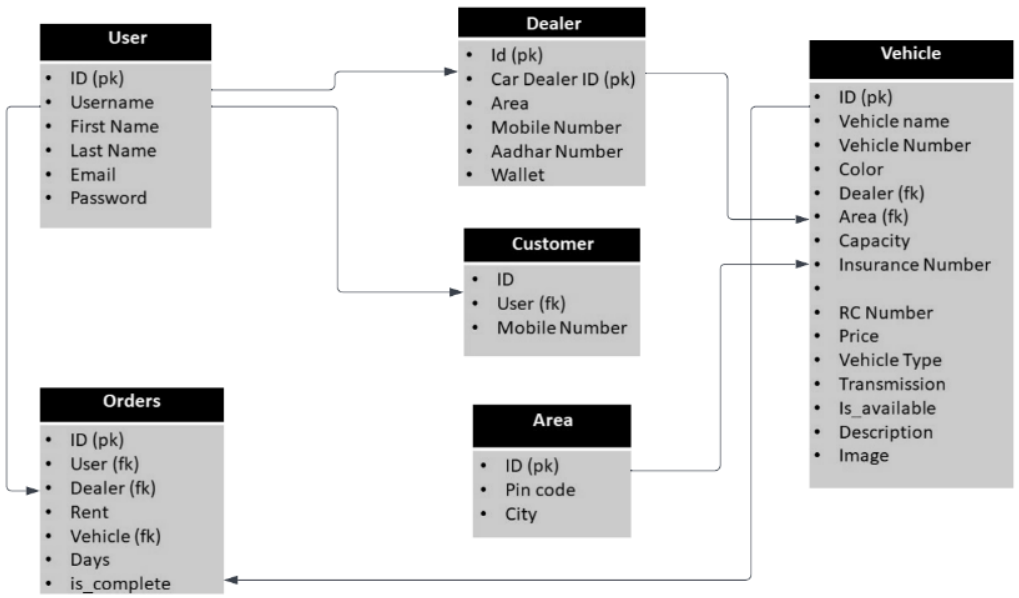

Fig: Database Architecture

3.1 Result

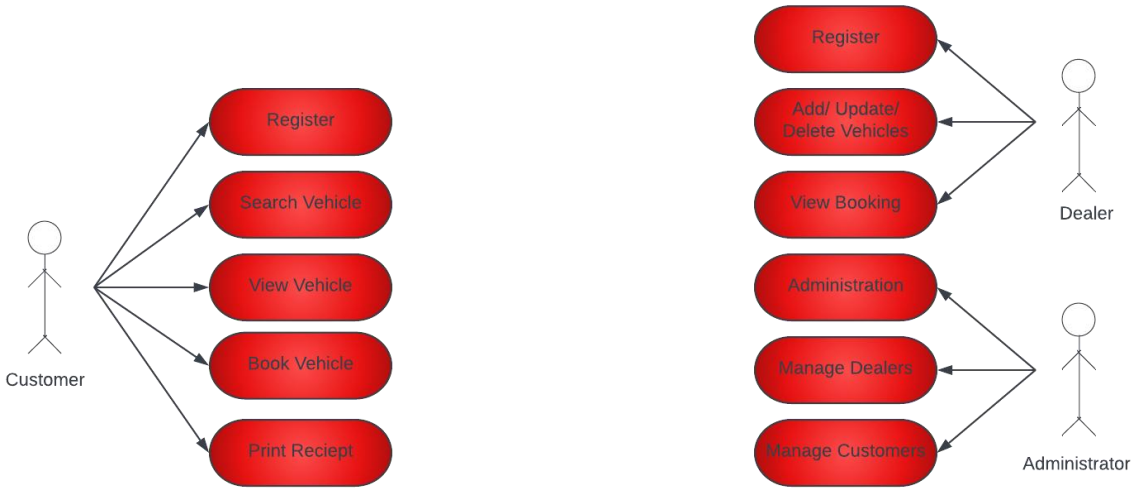

Fig: Use-Case Diagram

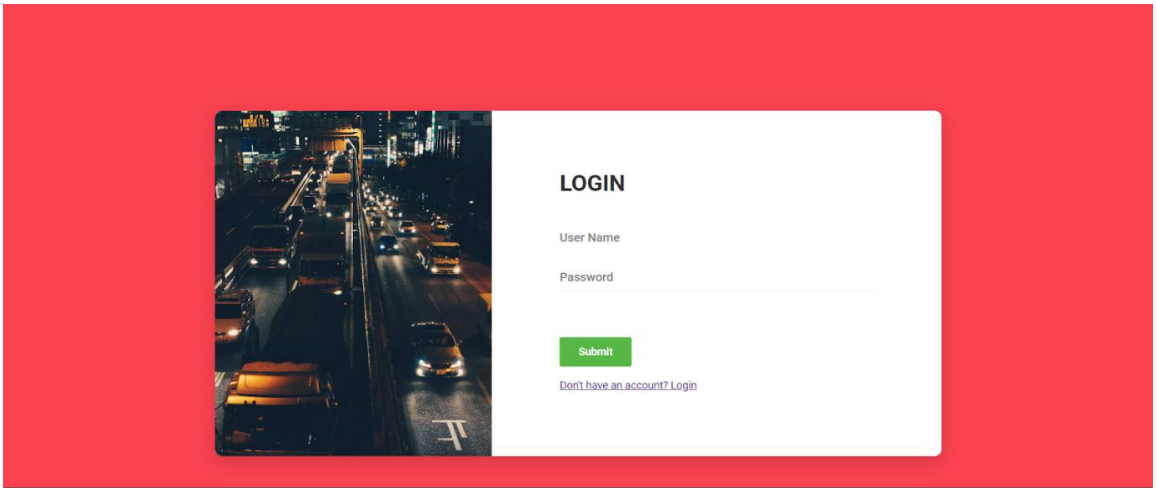

Fig: Login Page

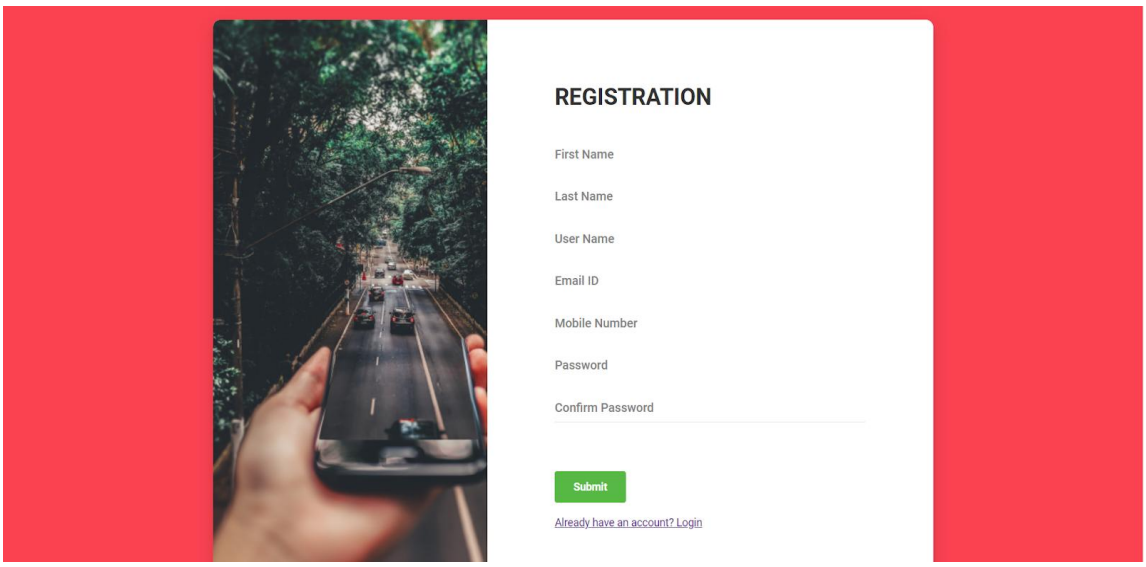

Fig: Registration Form

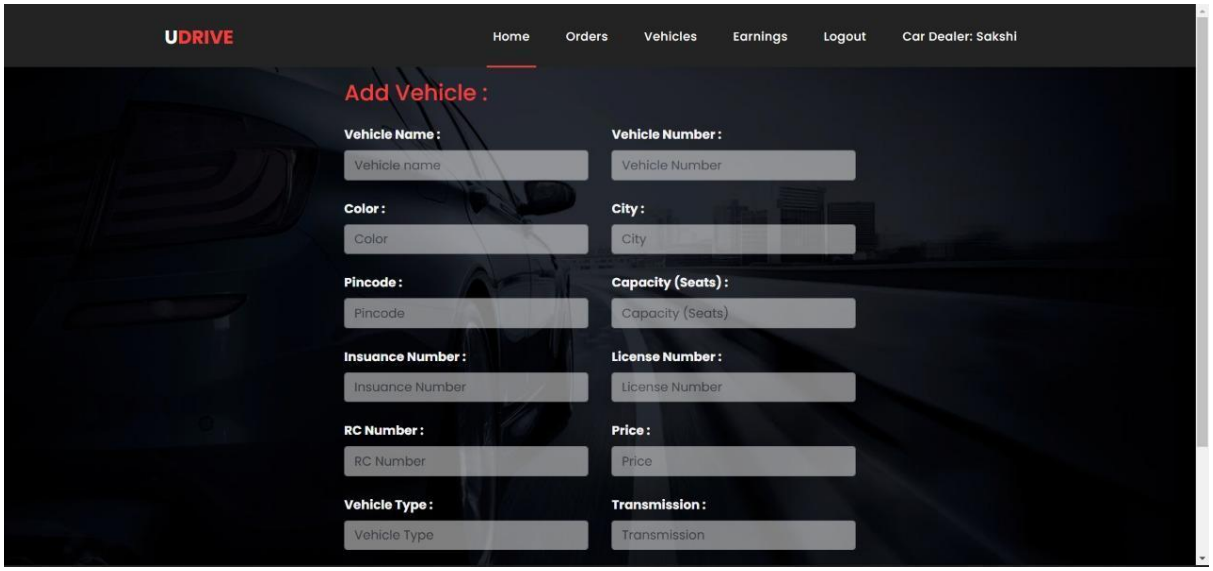

Fig: Vehicle Entry Form

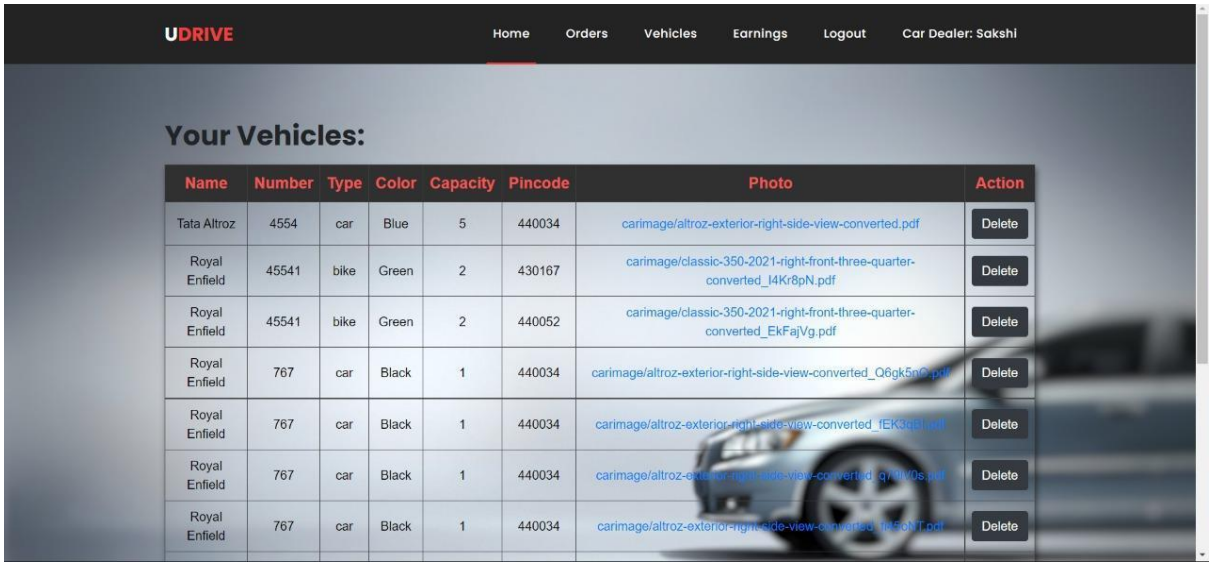

Fig: List of Vehicles

3.2 Conclusion

The vehicle rental system has adscititious a new flavor compared to the experience. "The proven fact that the physical location is not wholly rejected, and also the approach these choices are achieved, however, these choices are achieved, and it has been changed to the flexibility of information superhighway. The consumer presently reserves a vehicle online and rents it online, Membership, or outbound from the geographic point to select the vehicle.
The Internet-based Vehicle Rental System has provided blessings to our customers in addition as a result the Renter Company has been able to effectively manage their business expeditiously and satisfy customers, at merely the press of the button.

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References

[1]. Yang, Y., Jin, W., & Hao, X. (2009). The rule is used within the vehicle rental system. Journal of Computers, 4(12), 1202–1208.
[2]. D. Kesrarat, S. Songcharoenkit, and P. Nanthapornpisut in 2017.
[3]. Li, Z. (2013). vogue and realization of car rental management system supported AJAX+ SSH. knowledge Technology Journal, 12(14), 2756–2761.
[4]. Development of rental Management System with programming rule archangel G. Albino, Victor Acebedo.
[5]. Development of car rental system supported geographic system and decision internet with AHP (Analytical Hierarchy Process) and SAW (Simple Additive Weighting) methodology.
[6]. Qurratul, A. (2012). Development Of u-drive Management information System (Case Study: Avis Indonesia). In proceedings intl config. information system business fight (pp. 104–105).
[7]. A Prototype of a Mobile Car Rental System Chit Su Mon1, Tan Khee Tee1 and Amir 'Aatieff Amir Hussin1 1 Faculty of Business and Information Science, UCSI University, Jalan Menara Gading, 56000 Cheras, Kuala Lumpur, Malaysi. Vol . 1529, Iss.3, (2020 April).
[8]. Tourism And Traveling Facility Of Car Rental Resource Management And Information System.Vol.8 Issue.9, September - 2019