# Car Rental System

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**Abstract -** *The car rental program is designed for customers to book their cars in any part of the world. This app captures information from customers by filling out their details. The customer registered on the website has the car reservation they need.The proposed system is fully integrated with online systems. It performs a hands-on process efficiently and effectively. It includes the type of car they are trying to rent and location. The purpose of this program is to improve the website of people who can book their cars and the needs of any part of the world.*

*Keywords: DBMS, XAMPP, PHP, PHPMYADMIN, Active and Inactive Requirements, Database*

## 1.INTRODUCTION

We aim to be pioneers in the car rental business by working exclusively with our customers, employees, growth, innovation and efficiency. All those parts will lead the US to success and show us a concert company that can play and offer value for money. when it comes to cable rental services, Cool Service is the most reliable and reliable name in the travel business. the leading mobile operators who provide cable rental and car rental in India, create full use of data technology to maximize our efficiency. However, this is usually only 1 aspect of services. And the project tends to strive to provide the most efficient services - individual and machine, tourist buyers In addition, this project covers a range of cars ranging from luxury resorts to budget cables. While, it offers an online cable rental service in company houses. And the project says it offers the best prices, tailoring based on resources, available and offers intercity and infra-city cab services. All vessels have proper permits and documents so that consumers are not harassed due to lack of documents. However, this project has a strategic support system for whatever happens. Cab drivers are educated, modest, and dependable and trained to deal with severe crashes. The cab service covers all categories of cars from luxury to budget. In addition, the most important thing in this project is quality. Recognizing this, cars are well maintained and tested to deliver good and uninterrupted operation. The management team within the tourism business allows this method of making travel suitable for all any budget and traveler preferences. In addition, hands and drivers and bodybuilders are well-trained to perform their duties with great benefit. trying from a public perspective gives you the opportunity to catch more students Join them in Nursing and accompany them throughout your ride. an android-based app. Requests deleted personal information. As we have integrated the app in depth You need to choose the time you will travel, departure to and from places and a list of people traveling.

## 1.1 Problem Statement

The u-drive system only provides services throughout the hour. Therefore, customers have limited time to make any transaction or book a car. The availability of web car rental programs today has exceeded the business hours limit. The personal car rental system is stressful, the buyer must be physically present or a small decision of the organization's help desk to book a rental car. Records are recorded on paper suggesting that they are paper and pen and therefore data retention is done in person. Fraud of information and statistics is done in person and often accuracy is combined. Deleting and updating information is problematic in some ways and if possible, it ends up being unclean.

## 1.2 Functional Requirements

Needs analysis is a software engineering approach that combines a series of tasks that create demands or conditions to be satisfied with a new or updated product while taking into account the competitiveness and requirements from different users. Operating requirements are those that are used to display the internal operating system status, as well as the system definition and definition of each sub-system. It covers the function that the system has to perform, the processes involved, the data that the system must have, and the user interface.

## 2. LITERATURE SURVEY

System analysis is a complete evaluation of the various systems of the system and their interactions within and outside the system. The key question here is - why are there so many errors in the current system? What steps should be taken to remedy the problem? When a user or administrator initiates a software survey using the current system, the analysis begins. The data is collected from multiple files, decision points, and tasks performed by the current system during the analysis. Example Data Flow
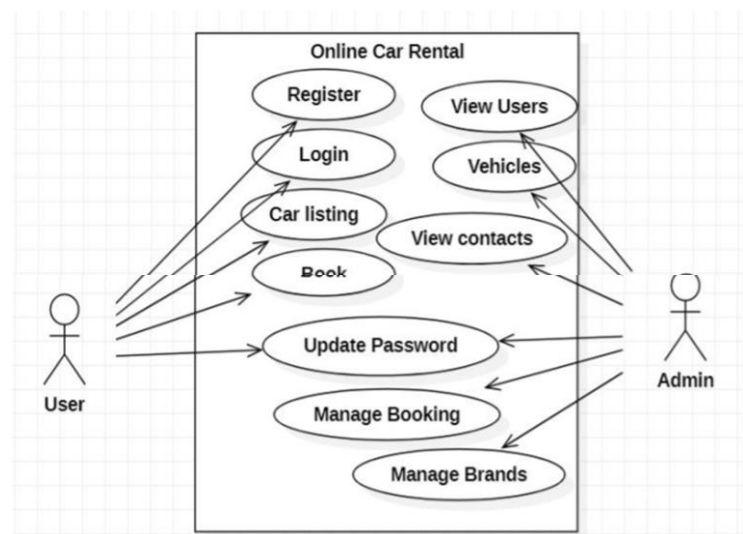
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Drawings, etc. is widely used in the system. In order to gather the important information needed to build a system, training, experience, and common sense are required. System success is largely determined by how the problem is identified, fully read, and appropriately implemented by selecting a solution. A good analytical model should include not only ways to understand the problem, but also a framework for solving it. As a result, more data should be investigated by collecting data about the system. The proposed system should then be thoroughly evaluated in terms of needs. The system analysis is divided into four sections.

1. Initial research and system structure.

2. Using analysis tools to perform systematic analysis.

3. Possibility research.

4. Analyze costs and benefits.

## 3. Justification

The proposed plan could reduce travel costs to the company's car rental center. Customers can apply on their mobile phones and create an account with a company that provides car rental services. Therefore, when creating an account, you only need to enter the details once. After creating an account, you can safely book a car using your phone, cancel the transaction, confirm the transaction and receive an invoice. They have a central database where they can get car rental applications and can book cars at the request of a customer. The system automatically generates a report on the number of vehicles available for rent within a given period, reports how much money has been collected over a given period, and reports the company's cost over time. The system can provide reports on how each customer contributes to the company's annual revenue and predicts how many customers will join the company each year. System users must provide verification details. Access to various menu items is limited, especially for employees. Therefore, each employee can only access the approved content, and each employee is responsible for the tasks they perform.

## 4. User Case Diagram



With pictures user interactions and various types of user interaction design are examples of UI design.

## 5.1 Data Flow Diagram

The Data Flow diagram shown below shows the typical structure of the system. Indicates what types of services the customer chooses, as well as the amount of management interaction.
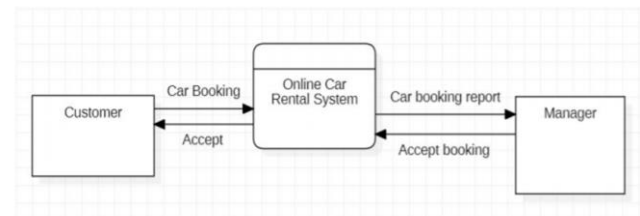


**Fig-5.1:** Data Flow Diagram

## 5.2 Sequence Diagram

Sequential diagram is compared to a sequence diagram because it describes how a group of objects come together and in what order. Sequence diagram focuses on life lines or processes and objects at the same time, as well as the messages that are transmitted between them to complete the task before the life line ends.
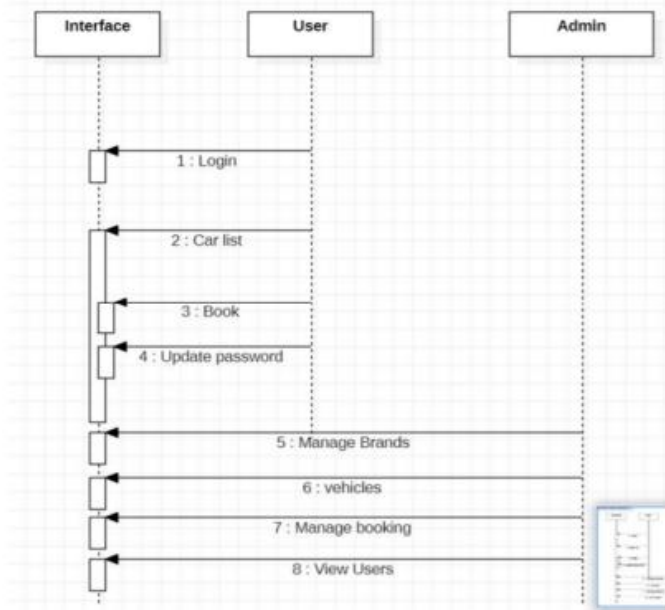
**Fig -5.2**: Sequence Diagram

The diagram above shows a Project Sequence diagram, which is a type of interaction diagram as it describes how — and in what order a set of objects interacts independently. Sequence diagram focuses on life lines or processes and objects, as well as the messages that are transmitted between them to complete the task before the life line ends.

## 6. CONCLUSION

Compared with previous experience, where all activities related to the car rental business are limited to a virtual reality area, the car rental industry has come up with new delicacies. Even if the physical environment has not yet been completely eradicated, the power of the internet has changed the nature of jobs and the way these jobs are done. Customers can now book cars online, rent cars online, and bring the car to their home if they are a registered member, or they can go to the office to pick up the car.

## REFERENCES

[1] Thakur, A., & Dhiman, K. (2021). Chat Room Using HTML, PHP, CSS, JS, AJAX. International Research Journal of Engineering and Technology (IRJET), 08(June), 1948–1951.https://doi.org/https://doi.org/10.6084/m9.figshare.14869167

[2] Thakur, Amey and Karan Dhiman. "Chat Room Using HTML, PHP, CSS, JS, AJAX." ArXiv abs/2106.14704 (2021): n. pag.

[3] Waspodo, Bayu, Qurrotul Aini, and Syamsuri Nur. "Development of car rental management information system." In Proceeding International Conference on Information Systems For Business Competitiveness (ICISBC), pp. 101-105. 2011.

[4] Osman, Mohd Nizam, Nurzaid Md Zain, Zulfikri Paidi, Khairul Anwar Sedek, Mohamad NajmuddinYusoff, and Mushahadah Maghribi. "Online Car Rental System Using Web-Based and SMS Technology." Computing Research & Innovation (CRINN) 2 (2017): 277.

[5] Fink, Andreas, and Torsten Reiners. "Modeling and solving the short-term car rental logistics problem." Transportation Research Part E: Logistics and

Transportation Review 42, no. 4 (2006): 272-292.

[6] Khaled, Mr Shah Mostafa, Shamsil Arefin, Datta Sree Rajib Kumar, and Ariful Hossain Tuhin. "Software Requirements Specification for Online Car Rental System." (2015).

[7] Harwani, Bintu. "Installing XAMPP and Joomla." In Foundations of Joomla, pp. 9-51. Apress, Berkeley, CA, 2015.

[8] Friends, Apache. "XAMPP Apache+ MariaDB+ PHP+ Perl." Apache Friends (2017).

[9] Soares, Hécio A., and Raimundo S. Moura. "A methodology to guide writing Software Requirements Specification document." In 2015 Latin American Computing Conference (CLEI), pp. 1-11. IEEE, 2015.

[10] Carroll, William J., and Richard C. Grimes. "Evolutionary change in product management: Experiences in the car rental industry." Interfaces 25, no. 5 (1995): 84-104.

[11] Beck, Kent, Mike Beedle, Arie Van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, James Grenning et al. "Manifesto for agile software development." (2001): 2006.

[12] Abrahamsson, Pekka, Outi Salo, Jussi Ronkainen, and Juhani Warsta. "Agile software development methods: Review and analysis." arXiv preprint arXiv:1709.08439 (2017).