

# Department of Computer Science & Engineering Artificial Intelligence & Machine Learning

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CARRENT (ALGOS)

SYSTEM

Under the Guidance of Prof. Shraddha Shinde

#### **Contents**

- Introduction
- Objectives Function Coefficient
- Block-Diagram
- Literacy Survey
- Tools & Languages used
- Projects ScreenShots
- Conclusion
- References

## Introduction

#### Introduction

- Car rental systems provide a convenient and flexible way for customers to rent a vehicle for personal or business use, without the hassle and commitment of owning a car.
- With a variety of rental options available, including hourly, daily, weekly, and monthly rates, customers can choose the rental period that best suits their needs and budget.
- Car rental systems typically offer a range of vehicle models, sizes, and styles, allowing customers to select the right car for their specific needs, whether it's a compact car for a quick trip, a larger vehicle for a family vacation, or a luxury car for a special occasion.
- Renting a car through a car rental system can be more cost-effective than traditional car ownership, as
  customers only pay for the time they need the vehicle, without worrying about ongoing expenses like
  maintenance, repairs, and insurance.
- By utilizing the latest web and mobile technology, car rental systems can provide a seamless and efficient rental experience, from browsing and booking to pickup and drop-off, making it easier than ever for customers to get on the road and enjoy their travels.

# **Objectives**

#### **Objectives**

- Provide customers with a convenient and efficient way to rent a car for personal or business use.
- Offer a range of vehicles for customers to choose from, including different models, sizes, and styles.
- Ensure that the rental process is easy and straightforward, with clear instructions and transparent pricing.
- Maintain a fleet of well-maintained and clean vehicles that are safe and reliable to drive.
- Develop a strong online presence, including a user-friendly website to attract and retain customers.
- Offer competitive pricing and promotions to attract customers and maintain profitability.
- Continuously gather and analyze customer feedback to improve the rental process and better meet customer needs.

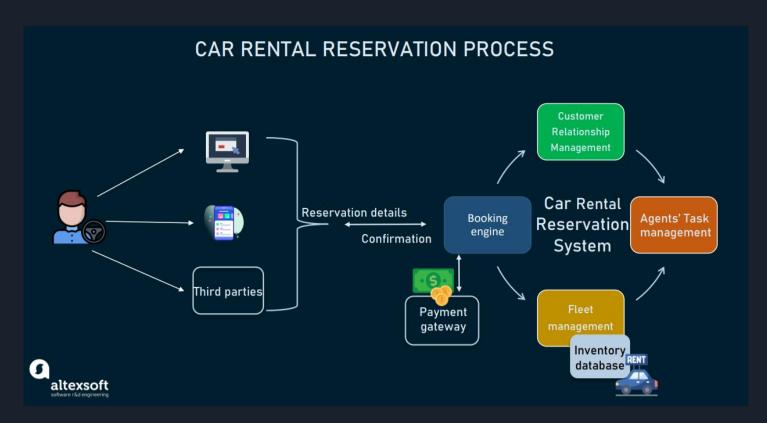
SR NO	TITLE	AUTHOR	DESCRIPTION
1	[1] Ahmed, Falah YH, Eizwan Bin Hazlan, and Muhammad Irsyad Abdulla. "Enhancement of Mobile- Based Application for Vehicle Rental." In 2021 IEEE 11th IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE), pp. 163- 168. IEEE, 2021	Ahmed, Falah YH, Eizwan Bin Hazlan, and Muhammad Irsyad Abdulla.	The main objective of Ahmed, Hazlan, and Abdulla's "Enhancement of Mobile-Based Application for Vehicle Rental" as described in the article is to improve functionality of the rental process more efficient, convenient, and secure for customers while also benefiting the car rental company by streamlining operations and enhancing customer satisfaction
2	[2] Thakur, Amey. "Car Rental System." International Journal for Research in Applied Science and Engineering Technology 9, no. 7 (2021): 402-412.	Thakur, Amey.	The main objective of Thakur's "Car Rental System" as described in the article is to develop a web-based platform that streamlines the process of renting vehicles for customers while also providing benefits to car rental companies such as improved management of their fleet and better customer service.

SR NO	TITLE	AUTHOR	DESCRIPTION
3	[3] Sathya, R., G. Srujan Reddy, Grandhi Ram Teja, Vedantham PS Srinivasa Iyengar, and Prabhat Kumar. "Car Hiring System using Web Technology." In 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), pp. 1- 6. IEEE, 2023	Sathya, R., G. Srujan Reddy, Grandhi Ram Teja, Vedantham PS Srinivasa Iyengar, and Prabhat Kumar	The main objective of the "Car Hiring System using Web Technology" described in Sathya et al.'s article is to develop a user-friendly web-based platform that allows customers to easily search, book, and manage their car rental reservations online while also providing car rental companies with an efficient management system to track their fleet, reservations, and customer data
4	[4] Reddy, Chaganti Sandeep, and Dr Preeti Savant. "Car Service Slot Booking System." International Journal for Research in Applied Science & Engineering 10 (2022): 1836-1839.	Reddy, Chaganti Sandeep, and Dr Preeti Savant.	The main objective of the "Car Service Slot Booking System" described in Reddy and Savant's article is to provide a web-based platform for customers to conveniently book and manage their car servicing appointments, while also improving the efficiency and organization of the car service center's scheduling and operations.

SR NO	TITLE	AUTHOR	DESCRIPTION
5	[5] Shelar, Sanjeev, Wasim Sheikh, and Pratik Shinde. "Vehicle information system." Int. J. Comput. Sci. Inf. Technol 6, no. 2 (2015).	Shelar, Sanjeev, Wasim Sheikh, and Pratik Shinde.	According to the article "Vehicle Information System" by Shelar, Sheikh, and Shinde, the main objective of the system is to provide real- time information about vehicles to their owners or authorized personnel.

## **Block Diagram**

#### **Block Diagram**

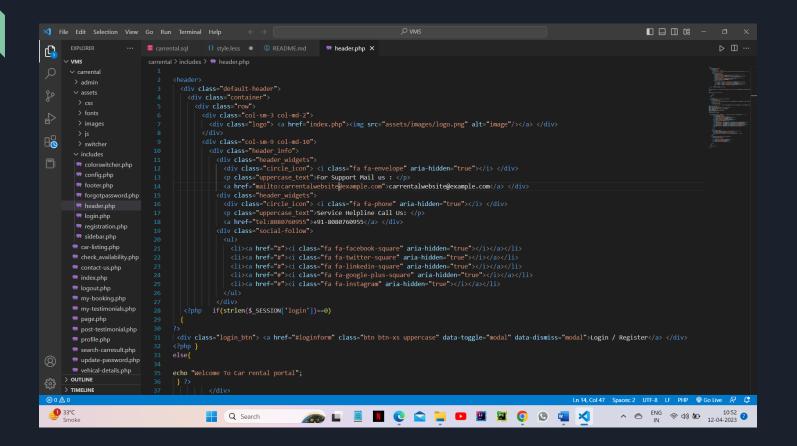


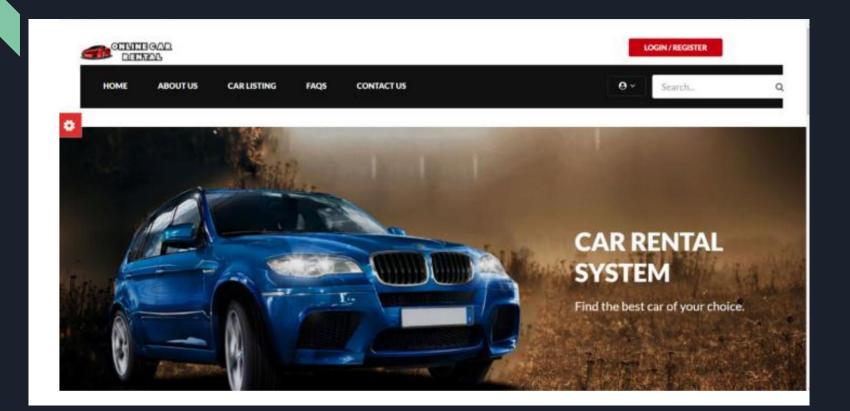
## Tools & Languages used

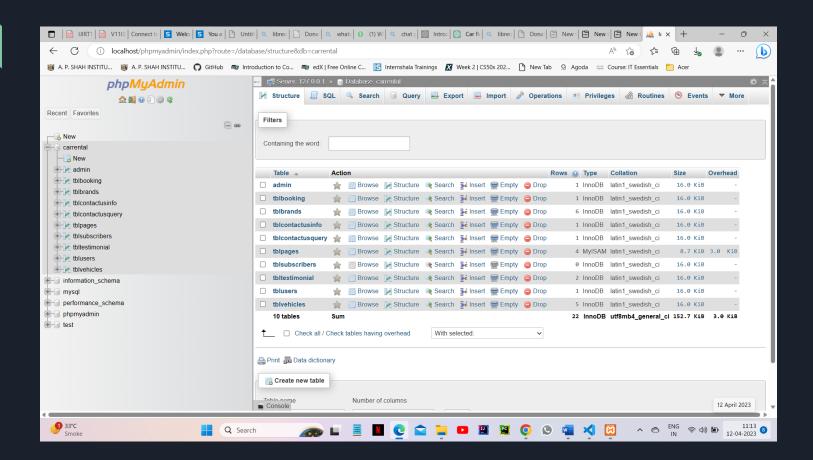
#### **Tools & Languages used**

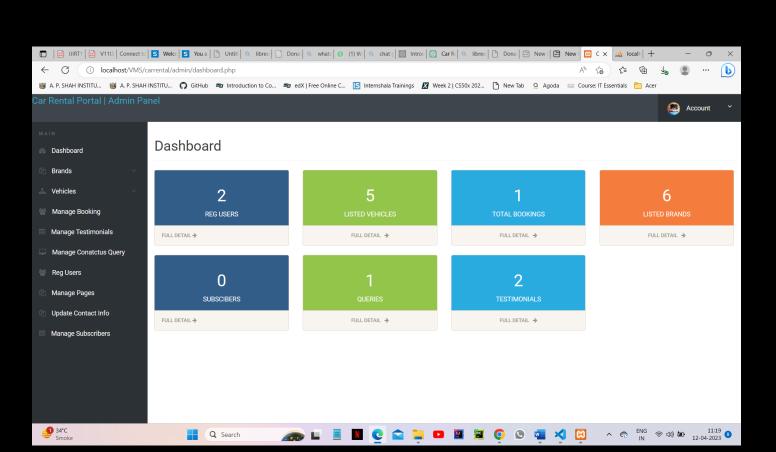
- Web Server: A web server such as Apache or Nginx is required to host phpMyAdmin and to serve web pages.
- PHP: PHP is required to run phpMyAdmin. You will need a PHP version of at least 5.5 or later. It is recommended to use the latest version of PHP.
- MySQL: MySQL is required to store and manage databases. You will need MySQL version 5.5 or later.
- Operating System: You can install phpMyAdmin and MySQL on various operating systems, including Windows, Linux, and macOS.
- A web browser is needed to access phpMyAdmin's web-based user interface. You can use any
  modern web browser such as Google Chrome, Mozilla Firefox, or Microsoft Edge

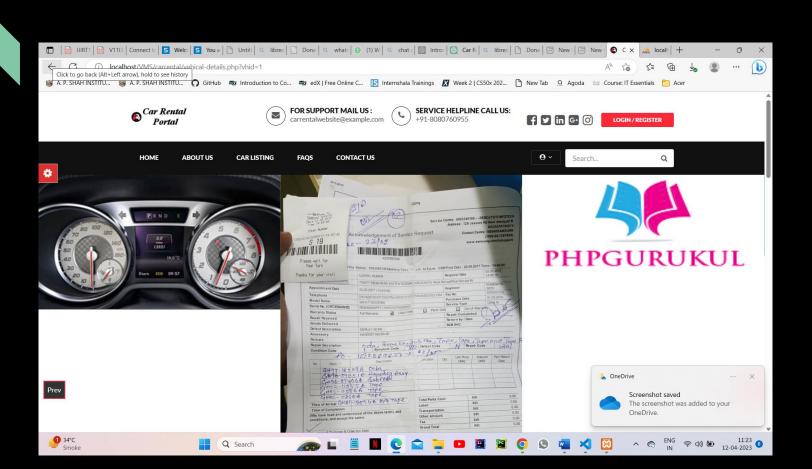
## Results Of Our Website

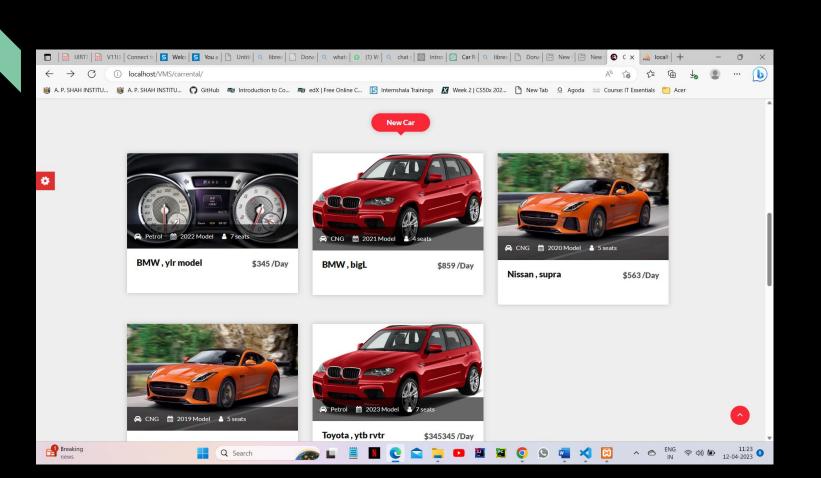


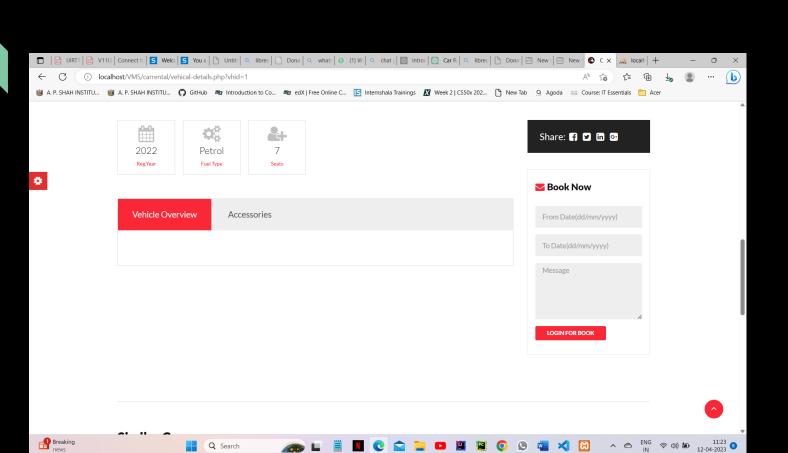




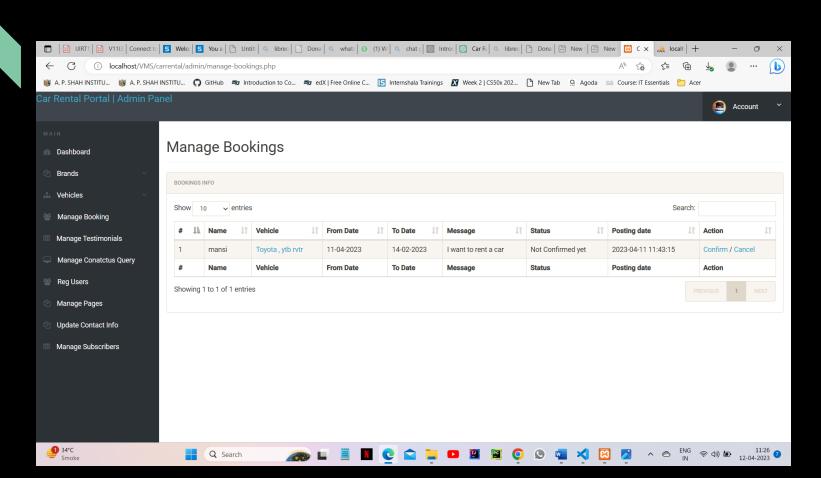


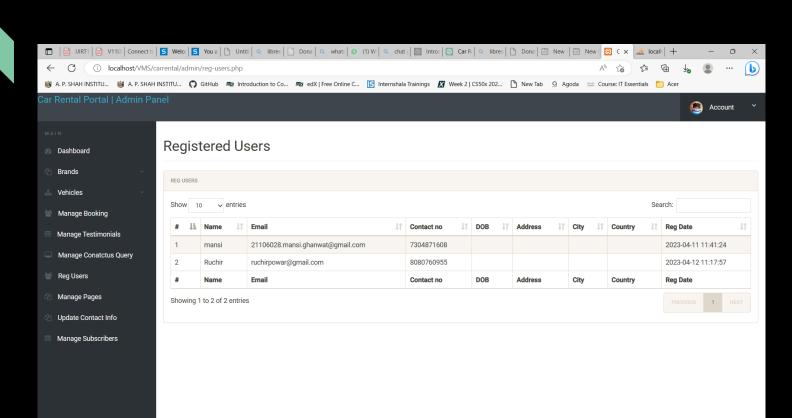






Q Search





localhost/VMS/carrental/admin/manage-pages.php

Q Search

● 34°C Smoke

## Conclusion

#### Conclusion

- Generally speaking, a well-designed car rental system can offer several benefits to both customers and rental companies.
- Rental companies can benefit from increased customer loyalty, improved operational efficiency, and better insights into their business performance through data analytics.
- However, implementing a car rental system also comes with challenges such as managing inventory, ensuring vehicle maintenance and safety, handling customer complaints and disputes, and complying with legal and regulatory requirements.
- Therefore, careful planning, execution, and continuous monitoring and improvement are necessary to ensure the success and sustainability of a car rental system.
- In conclusion, a car rental system can be a valuable asset for both customers and rental companies, but it requires a well-thought-out strategy and robust technology and processes to deliver a seamless and satisfying experience for all stakeholders.

## References

#### References

#### **Journal Papers**

- [1] Ahmed, Falah YH, Eizwan Bin Hazlan, and Muhammad Irsyad Abdulla. "Enhancement of Mobile-Based Application for Vehicle Rental." In 2021 IEEE 11th IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE), pp. 163-168. IEEE, 2021
- [2] Thakur, Amey. "Car Rental System." International Journal for Research in Applied Science and Engineering Technology 9, no. 7 (2021): 402-412.
- [3] Sathya, R., G. Srujan Reddy, Grandhi Ram Teja, Vedantham PS Srinivasa Iyengar, and Prabhat Kumar. "Car Hiring System using Web Technology." In 2023 IEEE International Students' Conference on Electrical, Electronics and Computer
- [4] Reddy, Chaganti Sandeep, and Dr Preeti Savant. "Car Service Slot Booking System." International Journal for Research in Applied Science & Engineering 10 (2022): 1836-1839.
- [5] Shelar, Sanjeev, Wasim Sheikh, and Pratik Shinde. "Vehicle information system." Int. J. Comput. Sci. Inf. Technol 6, no. 2 (2015).

#### **Useful Links**

[6] https://www.youtube.com/watch?v=R1djM9B0ay0

Thank You