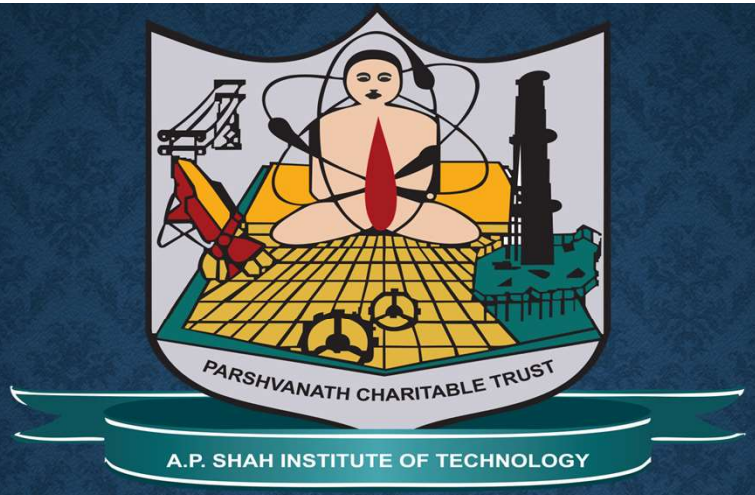

Department of Computer Science &Engineering
Artificial Intelligence & Machine Learning

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UNIVERSITY OF MUMBAI

Academic Year 2022-2023

CAR PARKING SYSTEM

Computer Science & Engineering
Artificial Intelligence and Machine Learning
By
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Under the Guidance of
Prof. Mahesh Pawaskar

Introduction

- As the number of vehicles running on the road is increasing day by day, it is becoming hectic to manage all the records of the cars parked in your parking area.
- Thus to overcome this problem, a parking management system is the best solution.
- Parking Management System is a website used to easily manage your parking .
- Parking Management System is a modern and safer way of keeping the all records.

OBJECTIVE

- To build a fully functional locally Hosted Website .
- To create the following features:
    - Sign-In and Sign-Out options.
    - To create a Dashboard which shows empty slots, occupied slots , total number of slots, slots available.
    - To create a side bar to easily navigate between profile , records ,settings, logout, rates, parking slot,etc.

FEATURES

- Login – Logout.
- Friendly UI.
- Automatically calculates fare.
- Completely Responsive.

Literature Survey

Sr. No	Title	Author Name	Description
1.	Vehicle Parking Management System (IEEE EXPLORE 2020) [1]	Srinivas Vishwanath; Saurab Sharma; Kirna Deshpande; Sneha Kanchan.	Proposed parking system integrating the Wireless Sensor Technology with the Android Application so that the user can book or pre-book a slot. The vehicle owner will be able to reserve a slot for his/her vehicle from anywhere and will be provided with a QR code which will be scanned on the entry of the parking area. Another feature of system is providing information about the near-by parking areas which comes handy when the current parking area is full.
2.	Smart Parking System using IoT Technology (IEEE EXPLORE 2020) [2]	Denis Ashok, Akshat Tiwari, Vipul Jirge	System proposes implementation of state-of-the-art Internet of Things (IoT) technology to mold with advanced Honeywell sensors and controllers to obtain a systematic parking system for users. Unoccupied vehicle parking spaces are indicated using lamps and users are guided to an empty parking space,

Literature Survey

Sr. No	Title	Author Name	Description
3.	Smart Car Parking System for Cars (IEEE EXPLORE 2020)	Balwant K. Patil ; Avinash Deshpande ; Sonal Suryavanshi ; Rudesh Magdum	System propose the centralized system ,where the car driver is directed to select the closest traffic free path to reach the parking slot identifying the free slots
4.	Vehicle Auto Parking System (IEEE EXPLORE 2017)	Adnan Al-Smadi ; Mofeed Msallam.	Automatic car parking is an autonomous car maneuvering system that takes the car from a traffic lane to a parking space. The system uses ultrasound sensors and Arduino microcontroller to detect the parking place automatically, then moves the car to park in the accurate position. The system uses a four-wheel drive miniature vehicle to simulate the mechanism of a real car.

Literature Survey

Sr. No	Title	Author Name	Description
5.	IoT Based Economic Smart Vehicle Parking System (IEEE EXPLORE 2020) [3]	Minal Patil ; Vijay Chakole ; Krushna Chetepawad	The proposed system is implemented with the help of Arduino Uno board for car parking and Node MCU to connect parking area with web or internet. The proposed system incorporated with an infrared sensor in each slot for getting information about vacancy position of parking slot. The user book parking slot well in advance, all the necessary information is available on server.

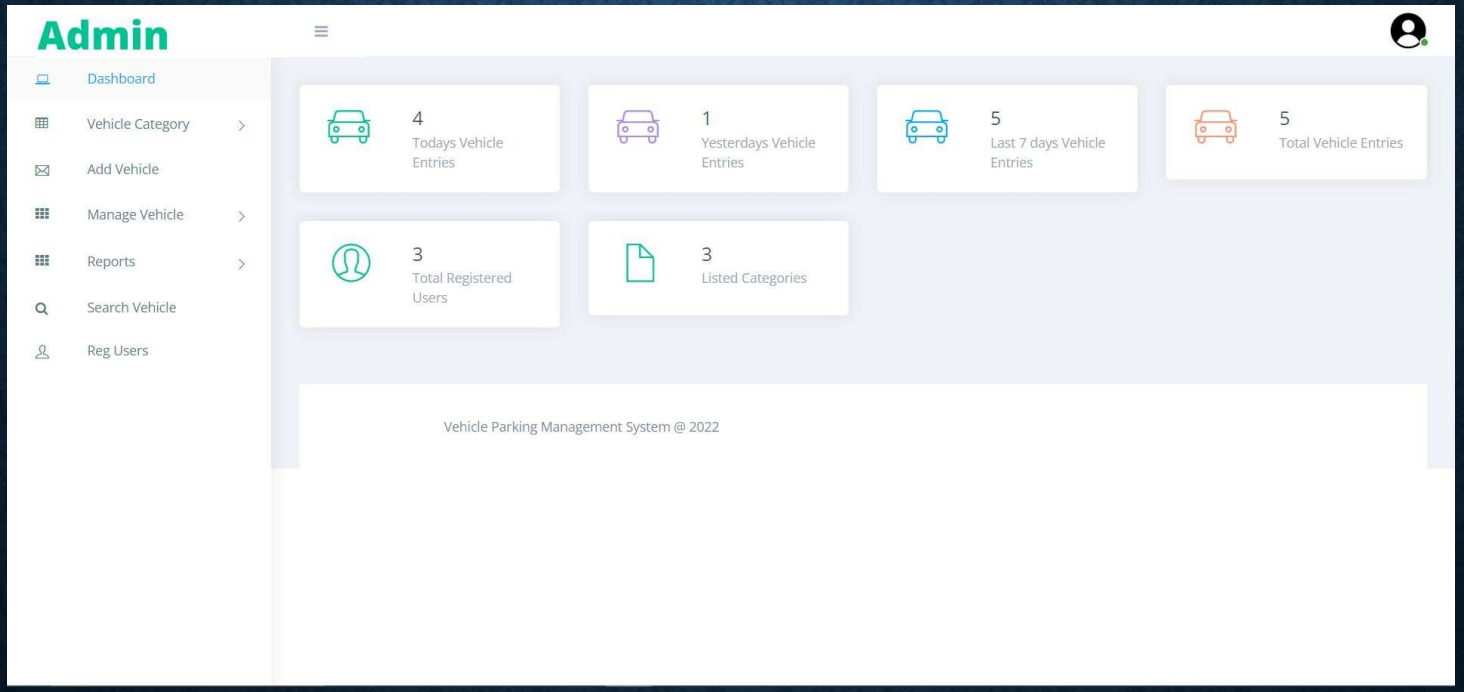
SCOPE

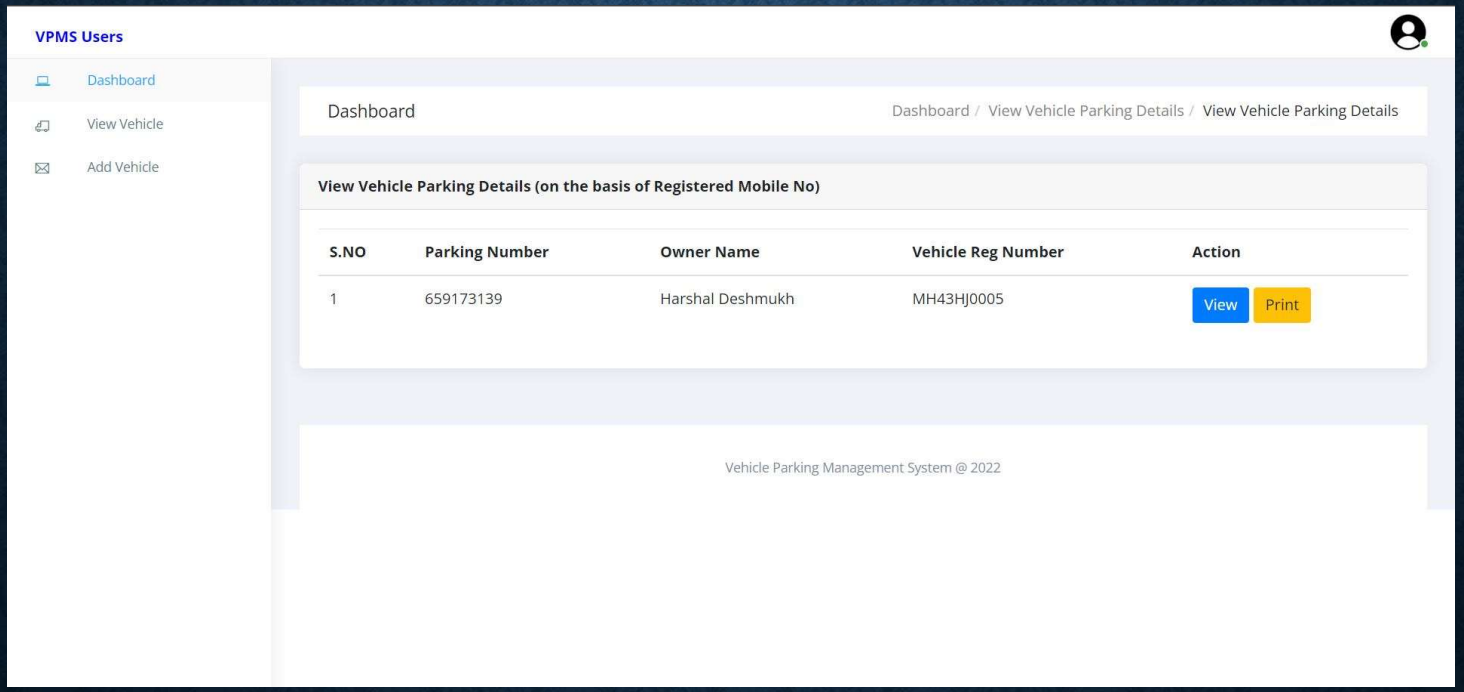
- In the modern age Vehicle is now a basic need. Everyplace is under the process of urbanization. There are many corporate offices, shopping centers etc. So, all these places need a parking space where people can park their vehicles safely and easily.
- Every parking area needs a system that records the detail of vehicles to give it to the facility.
- With the help of computerized system we can deliver a good service to customer who wants to park their vehicle into any organization's premises.
- Parking is a growing need of the time. Development of this system is very useful in this area of field.
- By using our system they can maintain records very easily. Our system covers the every area of parking management. In coming future there will be excessive need of Vehicle parking management system.

Tools/softwares, Languages used

- VISUAL STUDIO
- HTML
- CSS
- JAVASCRIPT
- SQL
- PHP

IMPLEMENTATION


Admin
Dashboard
Vehicle Category
Add Vehicle
Manage Vehicle
Reports
Search Vehicle
Reg Users
4
Todays Vehicle Entries
1
Yesterdays Vehicle Entries
5
Last 7 days Vehicle Entries
5
Total Vehicle Entries
3
Total Registered Users
3
Listed Categories
Vehicle Parking Management System @ 2022


VPMS Users
Dashboard
View Vehicle
Add Vehicle
Dashboard
Dashboard / View Vehicle Parking Details / View Vehicle Parking Details
View Vehicle Parking Details (on the basis of Registered Mobile No)
S.NO
Parking Number
Owner Name
Vehicle Reg Number
Action
1
659173139
Harshal Deshmukh
MH43HJ0005
View
Print
Vehicle Parking Management System @ 2022

Conclusion

- Created Sign-in & Sign-up page.
- Created Dashboard .
- Created sidebar.
- Created database named ‘parking manage’ and create tables like admin, user , category, register user, vehicle, etc.
- Connected Front end with database using php.

References

- [1] Vishwanath, Srinivas, Saurabh Sharma, Kiran Deshpande, and Sneha Kanchan. "Vehicle Parking Management System." In *2020 International Conference on Convergence to Digital World-Quo Vadis (ICCDW)*, pp. 1-6. IEEE, 2020.
- [2] Ashok, Denis, Akshat Tiwari, and Vipul Jirge. "Smart parking system using IoT technology." In *2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE)*, pp. 1-7. IEEE, 2020.
- [3] Patil, Minal, Vijay Chakole, and Krushna Chetepawad. "IoT based economic smart vehicle parking system." In *2020 3rd International Conference on Intelligent Sustainable Systems (ICISS)*, pp. 1337-1340. IEEE, 2020.