Review on Efficient Online Vehicle Parking

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Abstract- **The world is aware of the current scenario, the population is increasing day by day hence number of vehicles are also increasing. Thus, everyone is facing the problem of parking, as there are fewer options available for legitimate parking. This problem leads to congestion, accidents, lack of space availability etc. Annual survey which is carried out has figured out that there is consistent growth in the ratio of traffic jam and accidents. Illegal parking plays a vital role in increasing the chances of traffic jams for hours. Due to increase in the number of vehicles. Moreover, it is much more time consuming as well. In this world of fast growing technologies, we should be able to save our time for the thing which is essential rather than searching space to park our vehicle. A car user must be able to book car before starting the journey and heading to the destination. The main objective behind developing such applications is to overcome such problems. An application will be developed according to the user point of view, which will be user friendly, so that a user can easily make use of it and could be able to book their parking space. The user will be able to book parking space in advance.**

Index Terms- **Android Application, Smart Parking, Reservation of Parking, and Parking Guidance.**

I. INTRODUCTION

As the name "online parking booking "reflects that the proposed research will help in booking a parking space for vehicle. The problem with the traditional method is that it is more time consuming hence less efficient. The proposed research will provide an ease to such problems. Practically conventional methods that are available for booking a vehicle are not more efficient. A large number of human support is required to maintain the data of the user who had booked parking space. The whole concept is hectic as car drivers park their car on roadside. This results in a large traffic jam or congestion. Therefore, there is a need of a smart parking application. The main objective of the application is to resolve all such problems which we are facing in our day to day life. The application need to be designed in a simple way so the user can make use of it. The user is not restricted for parking their vehicles which makes this manual technique inefficient. A smart parking is one which allows user to perform the task such as:

1. To know about the space availability for parking.
2. To know about parking places available near destination.
3. To know about the cost for parking space allotted.
4. User should get a legalized approval of booking.
5. Advance parking facility should also be available

These points need to be kept in mind by developer during the application development phase. After adding all this points application should also be a user-friendly application, so that a user can easily get to know how to book a place for parking. We are developing a smart and simple application according to user point of view, that is by keeping the needs of user in mind. The smart parking application will help user to book a parking space in advance, so that user should be able to make their plan accordingly.

This feature of our application will make the parking process much more simple and efficient as well as time saving. This will also help in saving fuel which makes it more effective, more than half of the world's people are living in cities, so the cities have reached full of its occupancy as people uses vehicles for transportation as per their convenience. Most of the time people spend their precise time on searching parking lots to park their vehicles.

Thus, congestion occurs in the traffic it leads to a hectic job to find the parking space to park their vehicle. Most traffic occurs only because of vehicle congestion in the urban areas thus people are wasting time in searching the parking area abnormally to park their vehicles.

II. MODULES

There are two modules: -
1. Admin login
2. User login

Admin login will manage all the booking which will be made by the user. Admin can check how many bookings are made by the user. Admin will also be notified about the space availability as the updates will be made after each booking.

Users have to first register themselves to login into the system. After logging in application, the user can book their parking place in advance. Along with advance booking the user can also check the availability of parking place near their current location.

III.LITERATURE SURVEY

In today's world parking lots have become redundant and needs lot of manpower to handle and maintain it. These parking lots are not user friendly and do not provide data regarding availability of free spaces. Many researchers have contributed to this issue and formalized with various methods to better optimize the parking lot to serve the needs. This project proposed smart parking reservation system using mobile application. The system provides guidance images towards the assigned slots, thus making it simple to use. This system is used to assign parking space to the incoming user. The system checks the unique registration number stored in the database to check if the new vehicle needs to be parked. This system is a vertical parking arrangement for the vehicles with sensors that confirm placement of the car. The user can find various parking places available at single spot, find the appropriate according to him and book place for parking.

A. Parking Management: -
Searching for comparison between different transport parking guidance policy. Many parking guidance systems has been developed in the last decade. This sub-section we have studied the methods of guidance for many of the existing parking and explain their limitations. Moreover, we simulate realistic traffic and parking in various parking management policy or situation.
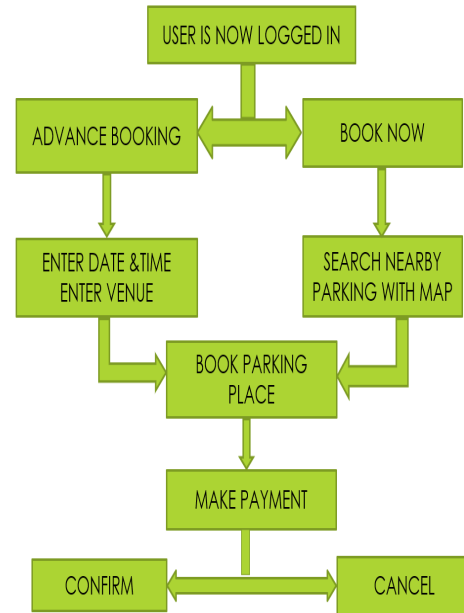
IV. SYSTEM ARCHITECTURE

Fig.1 System Architecture

B. Traffic volume: -
In our proposed model, the traffic volume is defined as the amount of traffic generated especially for parking. This component is not negligible and traffic congestion and related pollution.

V. CONCLUSION

It is hereby concluded that an application can be developed according to the user point of view, which will be user friendly, so that a user can easily make use of it and could be able to book his parking space. The user will be able to book parking space in advance.

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