A Review on Online Parking Booking System via Android application

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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 less 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.

Keyword: - *Android Application, Smart Parking, Reservation of Parking, and Parking Guidance.*

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1. 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 faced by all 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.Space availability for parking.

2.Parking places available near destination.

3.Cost for parking space allotted.

4.Legalized approval of booking.

5.Parking facility in advance should also be available.

During the application development phase developers should keep these points in mind. Application should also be a user-friendly application, so that a user can conveniently book a place for parking. According to user point of view, here we are trying to develop an application 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. Our application will make the parking process much more simple and efficient as well as time saving. This will also help in saving fuel as we all know most of the todays population are living in cities, so the urban areas have reached full of its occupancy as people use their personal vehicles for transportation as per their convenience. Most of the time it is an agony for people to find parking space spend to park their vehicles. 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.

1.1. 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.

2. LITERATURE SURVEY:

Parking lots have become inessential and requires lot of manual work to handle and maintain it. These types of parking lot do not provide data regarding availability of free spaces. Many researchers have contributed to this issue and gave shape with various methods to better optimize the parking lot to fulfill the need. The project proposed smart parking reservation system using mobile application [2]. The system provides direction towards the allocated slots, thus making it simple to use. This system is used to designate parking space. 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 perpendicular parking positioning for the vehicles [4]. The user can find various parking places available at sole spot, find the suitable according to them and book a place.

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.

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.

3. System Architecture:
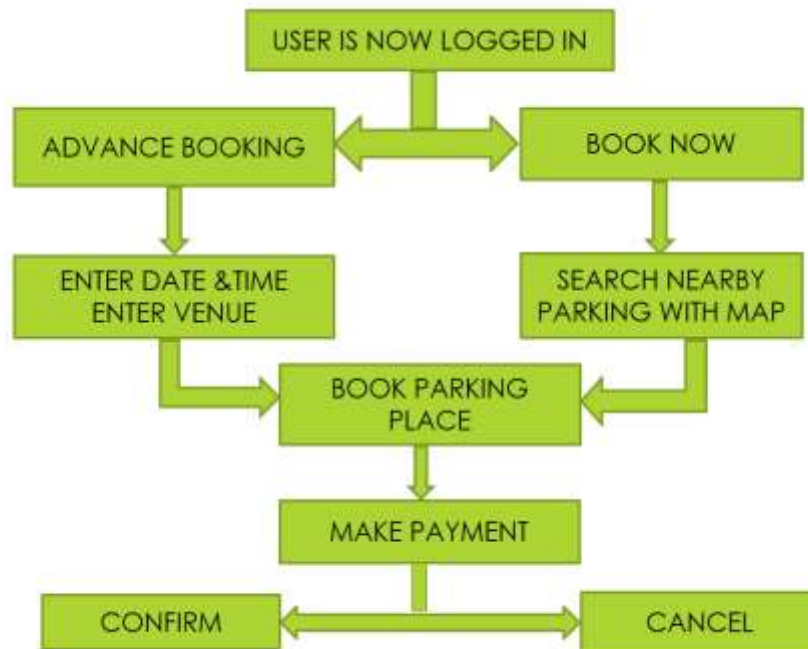
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