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Android Based Classic Parkade System

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Abstract: As we all can Notice that world's population is increasing day by day and due to increase in the number of populations, the number of vehicles are also increasing and their uses. This has been created a problem for parking the vehicles. Now in Metropolitan cities also, the areas are very less for parking and to deal with all this we required a good plan and major steps which can reduce the parking problem. The entrance into parking slot is also managed by an android based application. To overcome this problem we need to take a certain steps. In this research paper, is shown for Classic Parked Systems. Autonomous vehicle is a hot research area now.

I. INTRODUCTION

This research Paper focuses on Autonomous Parking Based on Android Technology for avoiding the parking problems and provides process of pre-Booking the slots available through the simple and interactive android application. This Application is expected to provide an efficient and cost-effective solution to the parking problems.

The user must have an android supported device so that he/she install the app and utilize the benefit of this application. After the installation of this app user need to register first through the Gmail id and move further and set a special character and words for Password. Then he/she login to our application through the resister Gmail id. Now user can book for the available slots for his vehicles parking. Booking of the slot need to be done at a user location. Payment service has also been made on the basis of time duration for the vehicle parking. Penalty may be also included for the extra use of parking hours. Charges for the parking has been done on the basis of hours.

During the booking time the user need to give his vehicle id and contact number for complete registration of slot Booking. According to the requirements of the user we have given contact number of several drivers so that the user may contact them and park their vehicles in given parking slot.

II. LITERATURE SURVEY

In this paper, we mainly focus on designing a new smart parking management system that assists users to find parking spaces in a specific parking area by using the android application. In addition, an important goal of the system is to reduce the traffic searching for parking, hence reduce energy consumption and air pollution. This paper mainly focuses on simplifying car management system at both ends i.e. users and parking owners.

The application will be a middleware for connecting user to the owners. This greatly facilitates the owner as his parking space is put on a spot on an area increasing his functionality. Amongst the suggested area the user gets the choice to select which enhances the usability of the app.

1) This paper describes the indoor parking facility for the daily customers in need of parking space. It gives the idea about how the process for the parking vehicle will be carried out. Also, it gives the technological feasibility and effectiveness of a novel parking facility. After parking the vehicle by customer, it gives the location of the vehicle that where it was being parked.
2) This article gives the idea about the various types of parking schemes such as on street parking vs. off street parking. The different types of apps makes the process of choosing customer much easier and convenient.
3) It provides the suggestions, queries and FAQ's from and for the customers. It also provides the booking process for the new customers. It has monthly paid facility. It also provides the car washing and servicing facilities for the customers.
4) It gives the idea of the payment schemes and type of payments for the booking. In this, the "clever alert" facility makes alert to the customer via smartphone for the time to go.

III. PROPOSED METHODOLOGY

The application is for online car parking booking which will be sophisticated and implemented for the customer's reliability. The customer can book the parking space for car at different zones. The whole system is divided into the three modules.. This application presents the design and implementation of Online Car Parking. The application provides the design of data program and the approach of automatically producing allocated and free spaces for parking.

1) *Firebase:* Firebase is a technology that permits you to make web applications with no server-side programming so that development turns out to be quicker and easier. With Firebase, we don't have to stress over-provisioning servers or building REST APIs with just a little bit of configuration; we can give Firebase a chance to take every necessary step: storing data, verifying users, and implementing access rules. It supports the web, iOS, OS X, and Android clients. Applications using Firebase can just use and control data, without having to think about how data would be stored, and synchronized across various examples of the application in real time. There is no need to write server side code, or to deploy a complex server framework to get an app started with Firebase.

2) *Android:* Android is a Linux-based operating system which primarily designed for mobile devices such as smart phones and tablet computers utilizing ARM processors. As the Android consists of a kernel based on the Linux kernel with middleware, libraries and APIs written in C and application software running on an application framework which includes Java-compatible libraries based on Apache Harmony. By using Android Software Development new applications are created for the Android operating system
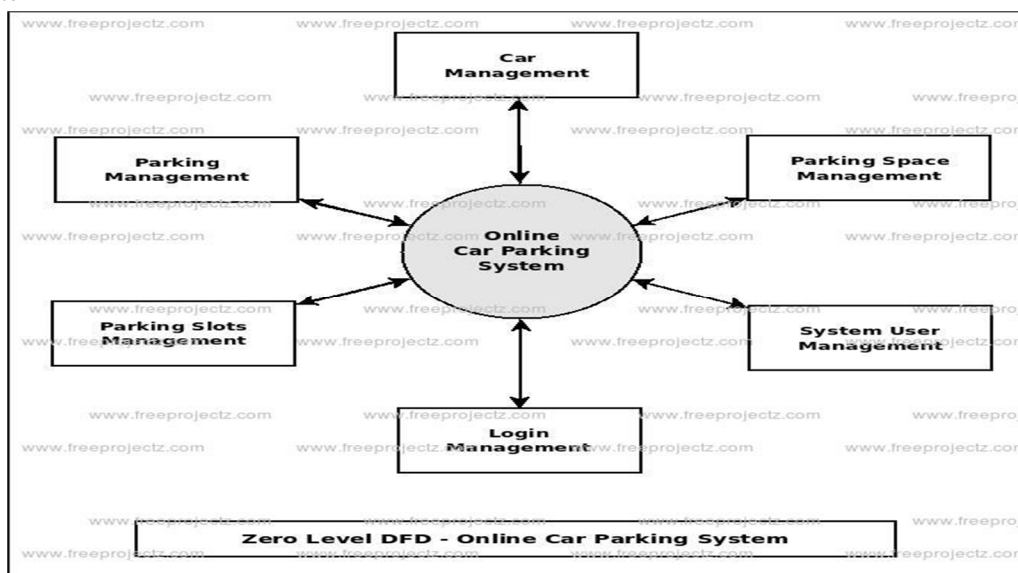
IV. RESULTS AND DISCUSSIONS
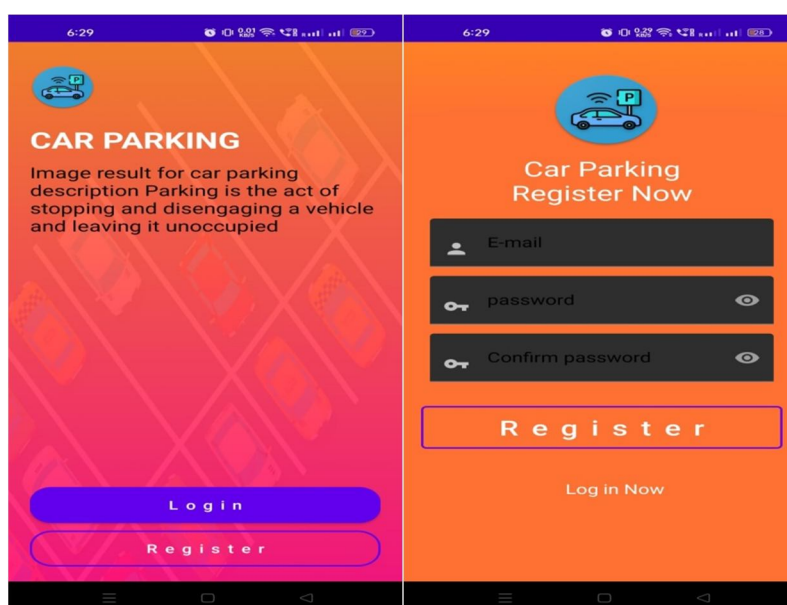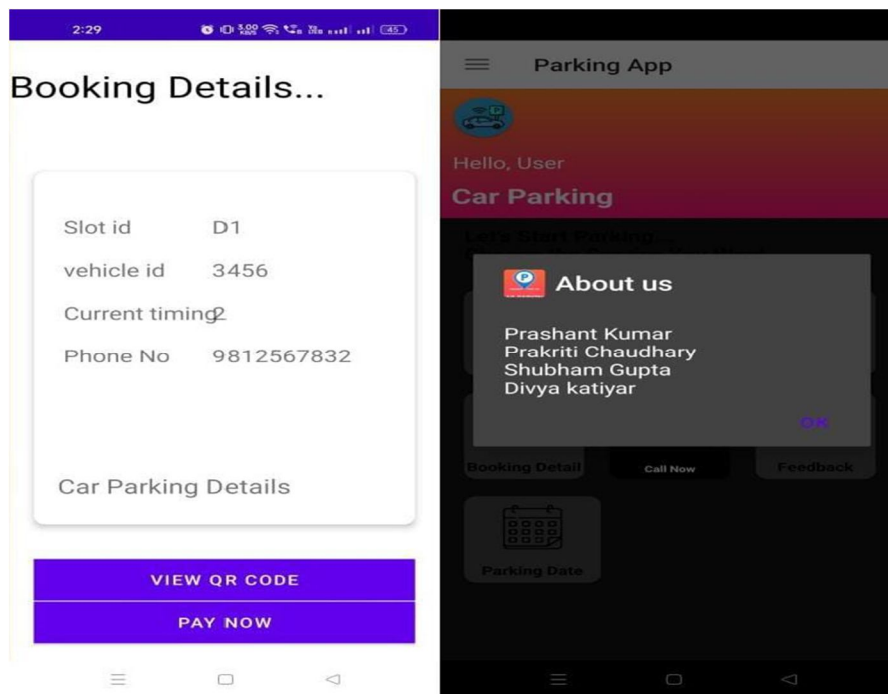
V. CONCLUSION

In this paper, the development of reservation for parking slots commanded by android application, number plate recognition, parking slot status and electronic billing system is implemented. The proposed system reduces the drivers effort and time to search parking space. Also the payment transaction is handled online which makes the system less human dependent.

Study of parking facilities are very complex process as it involves numerous activities depending on execution of each activity in accordance with parking specifications and proper survey.

Parkings and will remain an issue that affects everyone in the community, from traffic management and law enforcement. This survey helps in building the system for Online Parking System. It also focuses on the analysis of the parking space and managing the traffic control and generates the performance graph, based on previous and current traffic records. With this study, we have proposed an efficient Performance Analysis System to perform online parking facility for everyone. The Performance Analysis System realizes the management of the parking slots, the transactions, authenticated users and some other functions.

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