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CITY PARKING MONITORING AND MANAGEMENT SYSTEM : MY CITY PARKING APP

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ABSTRACT - Nowadays finding parking spaces is a difficult one. The common method of finding a parking space is manual where the driver usually finds a space on the street through luck and experience [1]. In the case of private parking areas, when we want to park our vehicles they provide the parking space if any vacant parking spot is available. Using this system the drivers can easily identify the nearest public parking spot and vacant private parking spot. The drivers can also reserve the vacant private parking spot.

KEYWORDS – QR code

1. INTRODUCTION

In major cities parking has become an important problem. It is very difficult to find a parking space in cities. Since we don't know the parking space it needs to search for a sufficient space. It takes more time and there is much wastage of fuel. Since we don't know the parking space we may park the vehicles in road sides. It may create accidents or traffic blocks. Also if we know the parking space we may not be sure that the parking space is free or not.

So there is a need for a perfect parking space searching system. The proposed system aims at finding the nearest public parking spot and vacant private parking

spot. The system can be used to book the vacant private parking space in advance. The users have to specify the location using map, vehicle type and distance while booking. So a list of spots will be displayed for parking according to the specified details. The parking spot will be also displayed on the map. The users can select the private parking spot from the list and can book the required parking spot. The users need to pay online for booking the parking slot. A QR code is generated according to the details specified by the user. This QR code is used for verification of the user and if verified allocates the parking space and also the user is checked out using this QR code. If we reach a parking place and if any parking slot is available we can park in that slot by paying at that time. There is no need to book for that. The additional parking time will be charged. The proposed system is very useful in the present scenario. It helps to park the vehicles in sufficient space and it reduces the traffic blocks.

II. EXISTING SYSTEM

The common method of finding a parking space is manual where the driver usually finds a space on the street through luck and experience[1]. In the case of private parking areas , when we want to park our vehicles they provide the parking space if any vacant parking spot is available.

III. PROPOSED SYSTEM

The proposed system aims at finding the nearest public parking spot and vacant private parking spot. The system can be used to book the vacant private parking space in advance. The users have to specify the location using map, vehicle type and distance while booking. So a list of spots will be displayed for parking according to the specified details. The parking spot will be also displayed on the map. The users can select the parking spot from the list and can book the required parking spot. The users need to pay online for booking the parking slot. A QR code is generated according to the details specified by the user. This QR code is used for verification of the user and if verified allocates the parking space and also the user is checked out using this QR code. If we reach a parking place and if any parking slot is available we can park in that slot by paying at that time. There is no need to book for that. The additional parking time will be charged

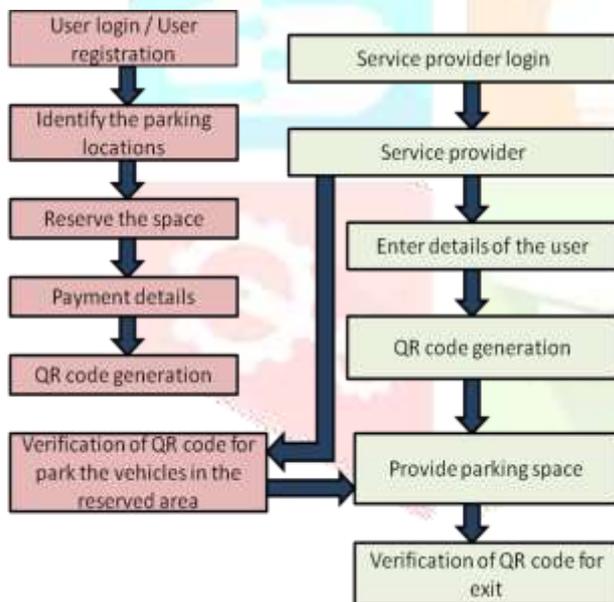


Figure 1. System Architecture

IV. METHODOLOGY

- The user has to specify the location using map, vehicle type and distance for finding the nearest parking place. A list of places will be displayed for parking according to the specified details. The parking spot will be also displayed on the map.



Figure 2. Identify the nearest parking places using map

- The users can select the private parking spot from the list and can book the required parking spot. The users need to pay online for booking the parking slot. A QR code is generated according to the details specified by the user. QR or Quick Response Codes are a type of two-dimensional barcode that can be read using smart phones and dedicated QR reading devices [2].



Figure 3. System Architecture

- This QR code is used for verification of the user and if verified allocates the parking space and also the user is checked out using this QR code.



Figure 4. QR code scanning

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- If we reach a parking place and if any parking slot is available we can park in that slot by paying at that time. There is no need to book for that. The additional parking time will be charged.

V. SCOPE

Our proposed system is designed to provide the perfect parking place for the vehicles . Accidents can be reduced by this system because we can easily identify the parking place and does not need to park the vehicles in the road side. Time and fuel can be saved through this system. It also reduce the traffic blocks .This system can help the strangers in a place to find the nearest vacant parking spot.

VI. CONCLUSION

Using this system the drivers can easily identify the nearest public parking spot and vacant private parking spot. The drivers can also reserve the vacant private parking spot. Accidents can be reduced by this system because we can easily identify the parking place and does not need to park the vehicles in the road side. Time and fuel can be saved through this system. It also reduce the traffic blocks .This system can help the strangers in a place to find the nearest vacant parking spot

