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Department of Computer Science and Engineering
Database Design Laboratory (18CS53)

Synopsis

TITLE:- Smart Parking System		
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1. Introduction

The problem of traffic and parking is becoming more and more tedious nowadays. Many researches say that a considerable amount of the traffic is caused by people who are searching for a parking slot to park their vehicle. Smart Parking System tries to eliminate this problem by providing an online parking website that the users can use to track and figure out which parking slot could be free and also book a slot so that they can easily park their vehicle eliminating the search for a parking slot.

2. Existing System

The traditional parking systems that are in existence suffer from major drawbacks. They are fully manual, depend on guards and are simply chaotic at times. In addition, they also pose security concerns and no proper record of vehicle movement is maintained. Ineffective management of visitors and long waiting time further aggravate the problems.

3. Proposed System

The proposed system consists of an online platform that allows users to easily find parking spots near their location and book them. The owners of the parking facility can add the details of the parking lot like the no. of slots, cost etc, which can then be seen by the users who want to book it. This way the user doesn't have to go in search of parking spots and can readily find the available ones with this system. The users can pay online for the exact duration that they used the parking spot for.

4. Relational Database Structure

Owner - The owner of multiple parking facilities. The owner must first register himself and then can add the parking facilities owned by him. Some attributes are (Name, phone, id of parking facility etc.)

Parking Area - The details of the parking area. Some of the attributes are location, no of slots,

starting time and ending time.

User - The user who wants to book a parking space at a particular time. Some attributes are (User id, name, phone,etc).

Orders - This table contains the orders that are booked by the user. It contains attributes like parking area, slot number, vehicle number, start time, duration.

5. Societal Concern

In this modern era of digitalisation, accuracy, accessibility and security are vital aspects. Minimal utilisation of both time and energy, while not compromising on security and precision, is an important aspect covered under this project. The current pandemic situation clearly highlights the necessity of efficient online systems not only to prevent physical interactions, but also to ease the transition into a digital economy. In addition to ensuring the safety of users involved in the process, the proposed smart parking system provides a reliable, convenient and user-friendly environment that amplifies productivity.