

Android Based Parking Allotment, Pre-Booking & Management System

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Abstract— Android Based Parking Allotment, Pre-Booking and Management System aims to give the clients an intuitive application to give ease in stopping. In this application the client can see different stopping openings and check for the accessibility of slots. Prior to his normal landing, the client can pre-book a space in the region he wants in the event that it is accessible. The opening administration is finished by an administrator who is in charge of room designation and fine gathering.

Key words: Android Based Parking Allotment, Pre-Booking and Management System

I. INTRODUCTION

We present another savvy vehicle leaving framework, named iParker, with static asset booking, dynamic asset allotment and valuing models, to upgrade the leaving framework for both leaving chiefs and drivers. The commitments of our work include:

- 1) Increasing stopping asset usage,
- 2) Increasing stopping income,
- 3) Improving stopping knowledge of drivers by bringing down cost, parking space looking and strolling times

II. PROPOSED SYSTEM

The framework we propose comprises of three modules

A. User enlistment

Client data and vehicle data.

B. Administrator

Access client data and allot stopping to client

C. Super Admin

Provide week by week subtleties of no. of vehicles left, income created, and so on

The client can choose any of the parking spot and apportion the ideal opportunity for which he needs that space. Framework helps the client to remember begin and end time of his booking. Though our model enables a driver to save a parking spot for whenever in future, the income is considered and new evaluating models are presented. Proposed framework additionally gives week after week subtleties of no. of vehicles left, income generated. We consolidate leaving reservation and estimating models to conquer the leaving issues.

III. MATHEMATICAL MODEL

Give S a chance to be the Whole framework which comprises:

$S = \{IP, Pro, OP\}$.

Where,

- IP is the contribution of the framework.
- Pro is the technique connected to the framework to process the given information.
- OP is the yield of the framework.

A. Information

$IP = \{LOC, DI, RT\}$.

Where,

- LOC is client current area.
- DI is Destination data.
- RT is Request time.

B. Process

$PRO = \{FL, RP, GOTP, OTPV\}$

FL is get LOC.

RP is Request for stopping.

GOTP is produce OTP

OTPV is OTP check

C. Yield

$OP = \{DN, AP, CF, RRI\}$

DN is Display close-by stopping spaces.

AP is Allocate stopping.

RRI is report income data. To government.

IV. SYSTEM SPECIFICATION

A. Equipment Requirements

- 1) Speed: 1.1 GHz.
- 2) Hard Disk 20 GB.
- 3) Monitor: 15VGA Color.
- 4) Mouse: Logitech.
- 5) Ram: 4 GB

B. Programming Requirements

- 1) Operating system: Windows 7 or more.
- 2) Toolkit: Android 2.3 or more
- 3) Coding Language: JAVA 1.8
- 4) Database: MySQL, SQLite
- 5) IDE: Android Studio

V. SYSTEM ARCHITECTURE

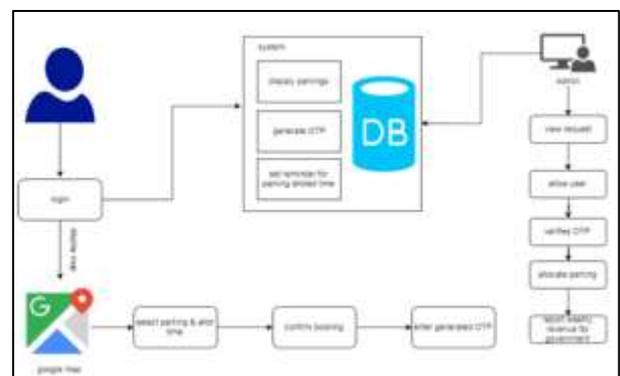


Fig. 1: System Architecture of Proposed System
In propose framework client enlist into framework by giving individual subtleties and vehicle subtleties. At that point client can seek closest stopping space. Accessible closest stopping opening will be show on the google delineate. Client

will choose the stopping and designate time for stopping, client affirms stopping then framework produce an OTP. Framework set update for the client stopping time and remind him/her at end time of his booking. Administrator will check the subtleties and confirms client OTP then favor the demand. Administrator gives week after week subtleties of no. of vehicles left, income created, and so on.

A. User Interface

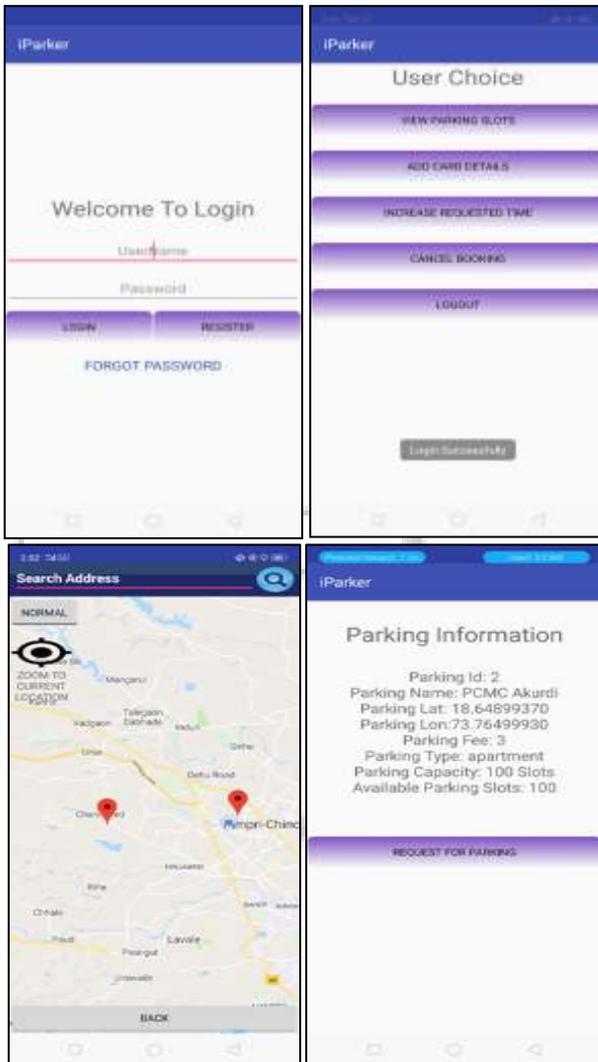


Fig. 2: User Interface

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REFERENCES

- [1] R. E. Skill, "Pay as you park," *Planning*, vol. 71, no. 5, pp. 4– 8, May 2005.
- [2] National Travel Survey England, Department for Transport, London, U.K., Sep. 2, 2015. [Online]. Accessible: https://www.gov.uk/government/transfers/framework/transfers/attachment_data/record/457752/nts2014-01.pdf.
- [3] D. C. Shoup, "Cruising for stopping," *Transp. Strategy*, vol. 13, no. 6, pp. 479– 486, Nov. 2006.
- [4] le Fauconnier and E. Gantelet, "The time searching for a stopping space: Strategies, related aggravations and stakes of stopping the executives infrance," in *Proc. And so on*, Sep. 2006, pp. 1– 7.
- [5] IBM Global Parking Survey: Drivers Share Worldwide Parking Woes, IBM, Armonk, NY, USA, Sep. 28, 2011. [Online]. Accessible: <https://www-03.ibm.com/squeeze/us/en/pressrelease/35515.wss>.
- [6] D. C. Shoup, "The mind-boggling expense of free stopping," *J. Plann. Educ. Res.*, vol. 17, no. 1, pp. 3– 20, Fall 1997.
- [7] K. Mouskos, J. Tsvantzis, D. Bernstein, and A. Sansil, "Mathematical formulation of a deterministic Parking Reservation System (PRS) with fixed costs," in *Proc. tenth MELECON*, 2000, vol. 2, pp. 648– 651.
- [8] Y. Geng and C. Cassandras, "New brilliant stopping framework dependent on resource allocation and reservations," *IEEE Trans. Intell. Transp. Syst.*, vol. 14, no. 3, pp. 1129– 1139, Sep. 2013.
- [9] SFpark, 2015. Gotten to on: Feb. 30, 2015. [Online]. Accessible: <http://sfpark.org/>.
- [10] Y. Ji, W. Guo, P. Blythe, D. Tang, and W. Wang, "Understanding drivers' perspective on stopping direction data," *IET Intell. Transp. Syst.*, vol. 8, no. 4, pp. 398– 406, Jun. 2014.