

## PUBLIC REMINDER AND TASK MANAGEMENT SYSTEM

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### ABSTRACT:

Shopping and purchase is the integral part of our day to day life. We are aware of the long queues on the billing counter of the shopping malls. The present billing system is dependent on the manual entries and connected to the printers for printing the bills. The prints are taken with the low cost ink to make it economical. It involves the wastage of paper and it is also difficult to handle the bill as the ink vanishes after few days. Most of the malls have arranged the payments through debit and credit cards but the online payment options are not often present. We have identified the need of a smart system to send the bill online to the customer, send the SMS collect, feedback, and to make a payment with online options. The implementation of the same system is discussed in this paper in detail. The system is compatible with android and windows.

**KEYWORDS:** SMS Gateway, API, Android device.

### INTRODUCTION:

The Project of service application management system, bargain with the automation of the market. It provides billing facilities. It is developed with the objective of making the system reliable, easier, fast, and more effective. There is lots of reason for the introduction of this project. In the manual system, there are number of difficulties that a shop faces while our system reduces the paper work. On the other hand, there are many implicit problems that exist in any manual system. Usually, they lack efficiency. Less efficiency has a great impact on the productivity of any human being keeping the data up-to-date. And also include system reminder.

We have developed a service application with android. Service provider sends a bill to customers from what's app, mail or text medium they pay it quickly. Also we have proposed a reminder system, as part of an assisted living application. The system exploits an Android device and a web application that communicate via SMS gateway interface, what's app and mail.

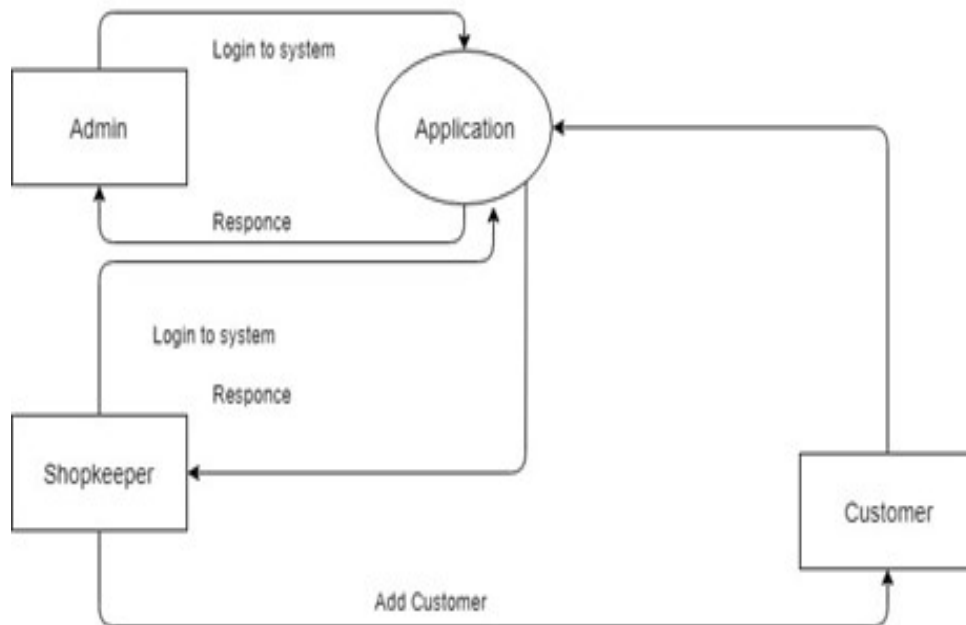


Fig.1: Public Reminder System Block Diagram

The basic blocks are shown above in the diagram, for reminder system. The system to remind customers about servicing of any machine purchased or any offer, expiring royalty points is also incorporated in the implemented system.

#### **OBJECTIVES OF THE WORK:**

- Designing a system for calculating and updating bills of customers.
- Providing facility of tracking and checking the bill.
- Providing platform for paying bills online.
- Developing a system for reminding the customers about servicing to be done or to be availed.

#### **MOTIVATION FOR THE WORK:**

General observation in malls and shops in India is waiting queue for billing, bills are printed on the papers and no further way to give feedback of services unless the owner of the shop asks you to do so. On other hand, the system for reminding about the servicing is not available for effective care taking of the customers. We have designed a solution to address this problem with our system.

#### **IMPLEMENTED SYSTEM:**

The main purpose of a billing system is make life easier for a customer. The management of services helps the business owners and customers to get connected to each other. The papers wasted on the bills in retail market are huge in amount and has no significance than just keeping it for some time and dispose it off.

The reminder can make the system advantageous for customers in order to get services in time and for businesses also in order to know who the potential customer in need is. The system exploits an Android device and a web application that communicate via SMS gateway interface, what's app and mail. Gateway also we add recharge SMS auto prediction system. Also upload any excel data in application communicate via SMS gateway interface, what's app and mail.

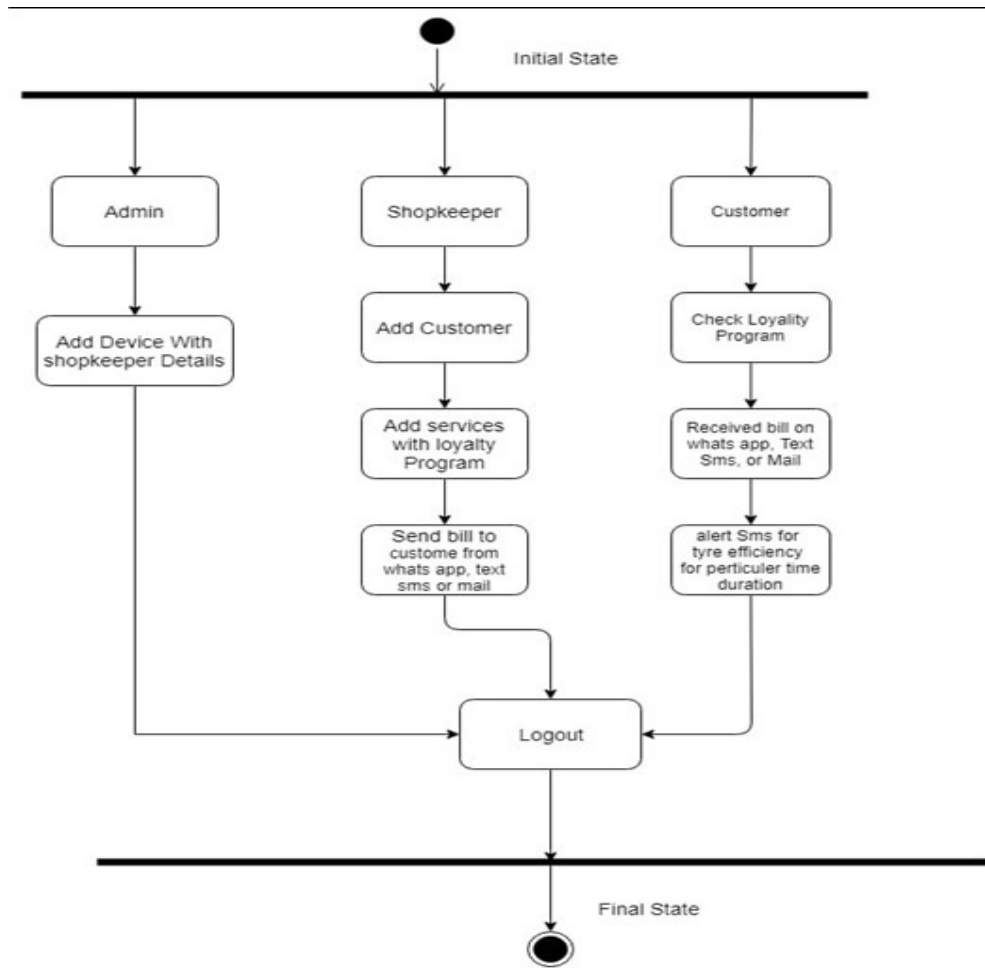


Fig.2: Activity Diagram

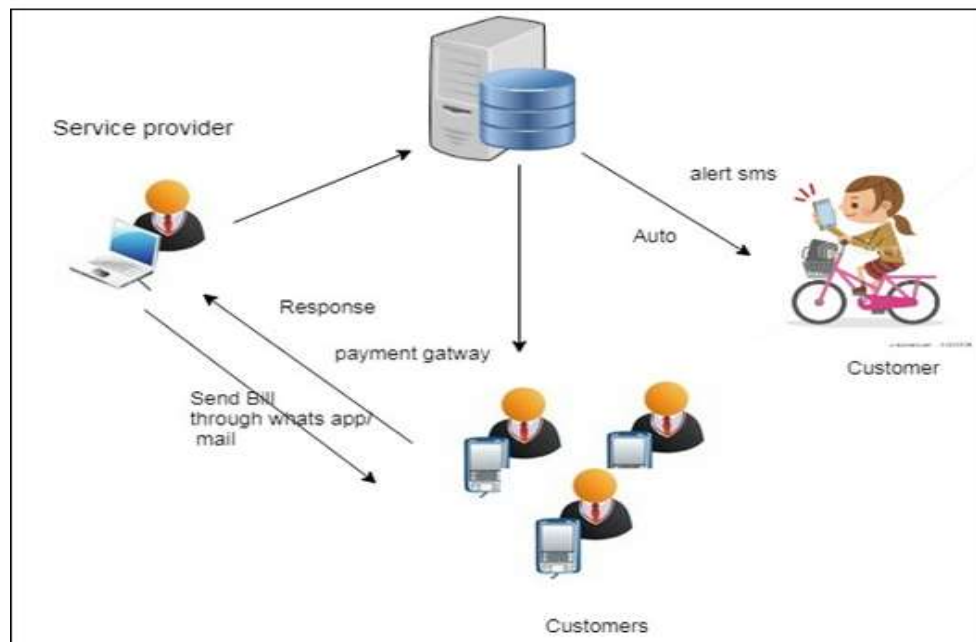


Fig.3: Architecture Diagram

### MATHEMATICAL MODELING:

The modeling is done mathematically, for the example of tyre replacement servicing.

>Let S is the System

S= {I, O, F, DD, NDD, Success, Failure}

>Input to the system

I = {Username, Password, Add\_shop\_details,}

>O output of system

O= {View shop, view bill, view tyre efficiency}

>F Set of functions

F = {F1, F2, F3, F4, F5, F6, F7}

F1: Register

F2: Login

F3: Add customer

F4: View shop

F5: View bill

F6: view tyre efficiency DD = {Null}

NDD=Non Deterministic Data

NDD= {Username, Password, User Detail, Shop Details, View Bill, View Tyre Efficiency}

Success {All Functionality Working Successfully}

Failure {Internet Connection Unavailable or Any problem in Computer Hardware}

### RESULT AND DISCUSSION:

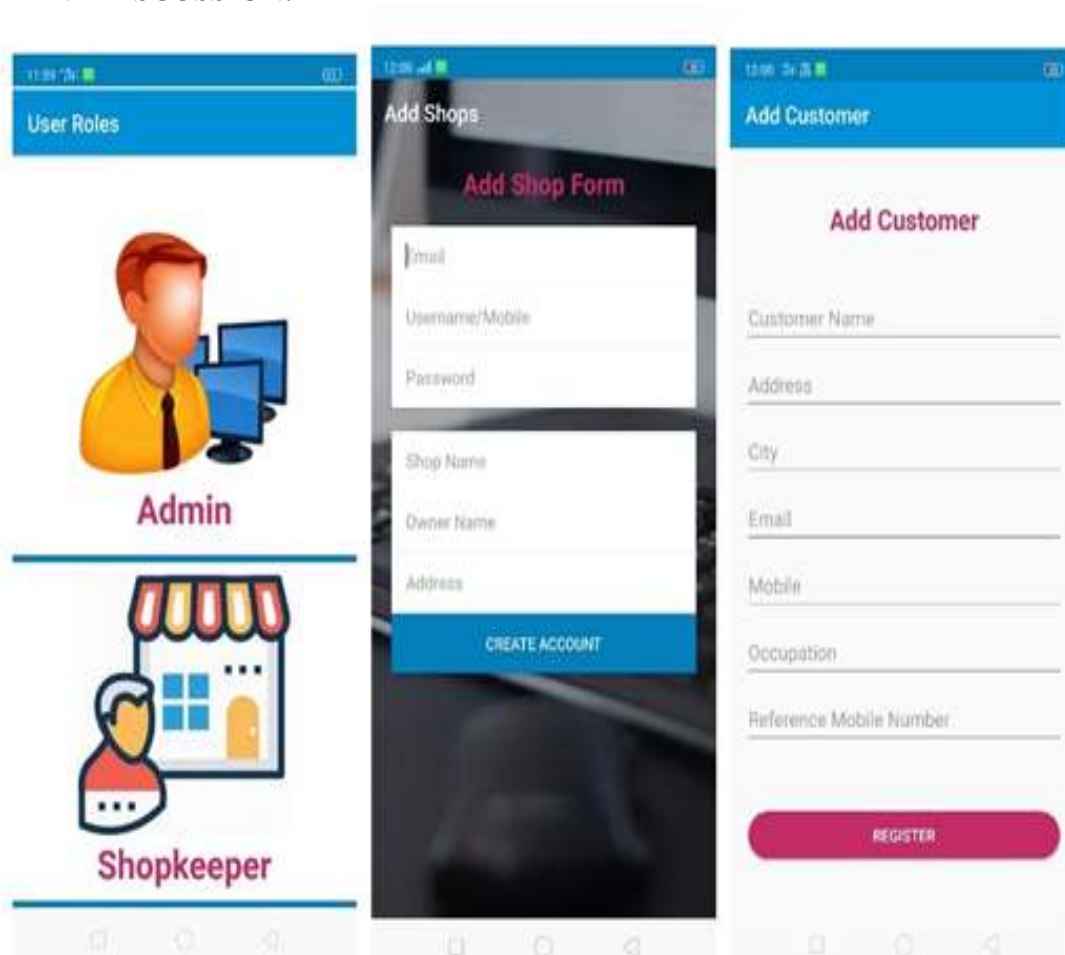


Fig.3: Result-1

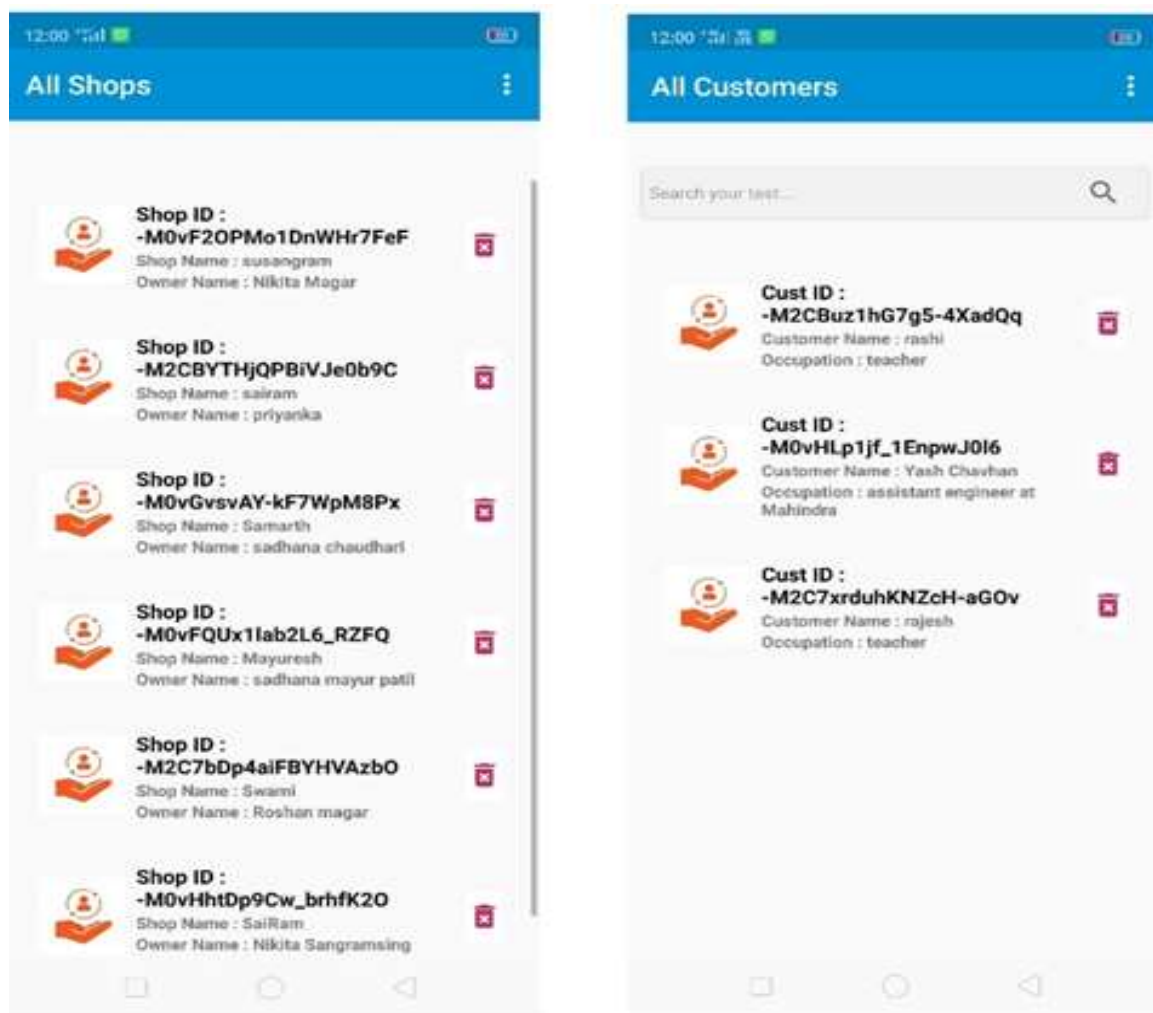


Fig.4: Result-2

This models that were trained by using K-means clustering algorithm was 89.5 % with it not correctly predicting 10.5 % times. But the model that was trained by using the decision tree was 92.17 % with it not correctly predicting 7.83 % times. The model was trained on 460 instances and only took 4 features in consideration. The model can be improved more provide more data is used which is also more relevant that the one that is being used for these models. With a better dataset we can reduce to the recall where the point. The purpose of a billing system is to make life easier for a customer.

## CONCLUSION:

Customer satisfaction is one of the most important aspects of any business. The scope for enhancement of customer's experience in the retail shopping malls and shops was attained by us. We have developed a platform useful for all businesses dealing with customers directly in retail market. The paper presents system useful for billing, feedback, service reminders, promotional notifications and payment gateway option at a glance on one platform. In the current system that we have implemented there are improvisations that can be made in future. New features can be integrated as technology advances. It can be used to solve real world problems and make task easy.

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