Review on Smart Ration Card System

Prof. Bharati Kale[1,] Mane Deepak B.[2,] Pawar Vishal S.[3,] HajareAkshay R.[4,] Yawalkar Ganesh S.[5]

Professor, Dept. of Computer Engg, Dhole Patil COE, Wagholi, Pune, India[1]

Student, Dept. of Computer Engg, Dhole Patil COE, Wagholi, Pune, India [2,3,4,5]

ABSTRACT: Now a days Ration card is very important for required and need homes. Generally ration card is used for family member details for gas connection and also ration card is act as an address proof etc. All the needed people who are having ration card can buy various material from the ration shop like (sugar, rice, oil, dals) in less rates that from other shops.

But this ration card system faces two drawbacks:-first the shopkeeper who weighted the material can be inaccurate because of his mistake. Second is if the material is not buy at the end of the month they will send to others without permission of the government.

To overcome this drawback we have proposed in this paper "**Automatic Ration Card Using RFID and GSM".RFID is (Radio Frequency Identification) and GSM (Global System for Mobile)** technology instead of ration card.

KEYWORDS: smart ration card system, Automation of ration shop, web enabled ration shop

I. INTRODUCTION

Public Distribution System (PDS) is an Indian sustenance security framework. It is built up by the Government of India under Ministry of Consumer Affairs, Food, and Public Distribution and oversaw mutually with state governments in India. The customary PDS is utilized to circulate basic supply things to India's poor who are legitimate proportion card holders. The legitimacy and the designation of the apportion cards is observed by the state governments. A proportion card holder ought to be given 35 kg of nourishment grain according to the standards of PDS. In any case, there are worries about the effectiveness of the dissemination procedure. With a specific end goal to make it productive and enhance the present arrangement of PDS we are actualizing SMART RATION CARD MOBILE APPLICATION. Utilizing this App the card holder can get his/her basic need things from the Fair Price Shop's (FPS).The fundamental explanation behind utilizing this App is to stay away from the issues like duplication of cards, Forgery in Supplying sustenance materials. Issuing items in light of apportion card. The fundamental downside in the present framework is that th e PDS has been condemned for its urban predisposition offers ascend to much defilement during the time spent and its inability to serve the poorer segments of the populace viably.

The focused on PDS is immoderate and removing the poor from the individuals who are less destitute. Too numerous retail businesspeople have vast number of fake cards to offer nourishment grains in the open business sector. Numerous FPS merchants resort to negligence since they get less compensation. More often than not clients don't get their legitimate privilege in terms of amount. What's implied for them or the homestead produce obtained by the FPS's is occupied to the open business sector. So with a specific end goal to stay away from every one of these disadvantages we are going to utilize the Smart proportion card which will help us to maintain a strategic distance from the defilement in PDS if not destroy it.

To overcome this types of mistakes the present work is replaced by automatic system based on RFID and GSM system. This system works as: - RFID has a unique identification number.

First consumer scan the card on RFID reader which is interfaced with the microcontroller. This system is kept in ration shop. Once the consumer enter with the valid password then system will ask the consumer to enter the necessary material whenever they want they will enter with the help of keypad. According to consumer request appropriate circularity will be activated and consumer will get required material.The GSM interfaced with information microcontroller sends in the form of SMS to related and authorized people. The RFID based automatic system would bring transparency within the people and prevent from other malpractices.

II. LITERATURE SURVEY

Vikramet. al. [1] has proposed Smart Ration Card System. The smart card is modified as a smart ration card by coding Microprocessor chip present in it according to the requirement. The smart card contains unique barcode.

P. B. Borole [2] "Automatic Rationing for Public Distribution System (PDS) using RFID and GSM Module to Prevent Irregularities", In this automated system conventional ration card is replaced by smartcard in which all the details about users are provided including their AADHAR (social security) number which is used for user authentication.

Sharma et. al. [3] has proposed new ration distribution system using biometrics, face recognition and voice recognition system.

III. RELATED WORK

In these, RFID built up programmed apportion shop is novel methodology in space allotment plan(PDS) deliberate for extra viable, exact, and programmed method of apportion dispersion. Space distribution game plan also shouted dividing course of action is one in all the broadly troublesome subjects that Vol-2 Issue-2 2016 IJARIIE-ISSN (O)- 2395-4396 1785 www.ijariie.com 732 include misbehaviors. This proportion portion course of action has downsides like wrong assortment of items, low process speed, substantial staying sum, physical stealing in proportion look. The embraced course of action replaces the manual include proportion seek. the most objective of the anticipated game plan is that the robotization of proportion inquiry to outfit straightforwardness. The embraced programmed proportion purchase space allotment course of action is built up on Wireless Recurrence Identification (RFID) data that replaces ordinary proportion cards. The RFID labels zone unit contributed as opposed to typical proportion cards. Client's data is kept in microcontroller that is contributed by Power Authority. Buyer needs to examine tag to RFID peruser, and next microcontroller checks client's alternatives on board keep to allot physical in proportion seek. Later prosperous confirmation, purchaser needs to go into very physical also as assortment of physical utilizing input gadget. Later conveying right physical to customer, the microcontroller sends the data to purchaser so also as PDS forces utilizing Globe Arrangement for Mobile (GSM) innovation. Programmed Ration Dispensing System given here is an entangled framework supportive for the computerized & extra practical methodology of apportion distribution.[9] This task is proposed to constrict the manual mediation inside the technique for proportion appropriation, all together that extra straightforwardness & power will be kept up Our task concentrates on style and usage of Automation of Ration inquiry. In late circumstance, all the overall population and individual parts pick mechanization in their technique. Common gives Corporation is that the significant open part that oversees and appropriates the key items to all or any the voters. In this framework fluctuated item like Rice, sugar and coal oil zone unit conveyed exploitation standard apportion look framework. a number of the requirements of standard proportion look framework range unit owing to the manual estimations inside the standard framework, the client can't prepared to get the right measure of fabric. Also, conjointly there's an open door for the illicit utilization of our item inside the standard framework. i.e. the materials region unit victimized by making incorrectly passages inside the register while not the dat an of the personality card holder. Inferable from that gigantic amount of money given by government gets squandered. The Ration retailers can't prepared to meet the needs of the client inferable from the over populace of our nation. In this manner the procedure pace is low therefore, there's constantly horde of people inside the proportion look. E-government is logically usual enhance straightforwardness inside the administration division and to battle against defilement. [8] E-government is being upheld in extra regions of administration organization for each the local and national levels around the world. E-government framework created to downsize debasement. The point of this paper is to plan and outline existing hypothetical and exact work on defilement with read trademark open doors for extra investigation. Automation will encourage in modernizing the PDS. The southern states as was basic have intersection rectifier the strategy on a few changes intended to handle the issues higher than, and logically considerably poorer states have presented changes in approaches and usage instruments to handle the issues of PDS. This paper examines technique hand crafted in exploitation ICT to oversee preoccupation and release inside the conveyance instrument and its thundering application in automation of nourishment item offer chain. As Partner in Nursing result of the venture,

0.78 Million agriculturists have gotten portable PC created checks with none defer. Subject inclusion inside the framework has been duplicated in watching PDS. In this examination paper, the anticipated thought is to trade the manual include open circulation framework. The proportion circulation framework is programmed by exploitation PLC, which is similar to the ATM. This programmed proportion framework replaces the standard personality card framework by open-end credit. Also, the unique mark indicator is put inside the machine in order to imagine the right client access. On the off chance that the client is right client, future strategy happens and accordingly the info will be given inside the bit screen. As in no time on the grounds that the info is given, the item square measure got from the programmed apportion look and along these lines the amount is taken from the financial records of the real individual. The installed controller is pre-customized in such some approach to perform the comparable operations. Amid this programmed apportion look government have administration over all dealings that happens in proportion look. In order to include government inside the technique, the anticipated apportion look framework is associated with the govt. data by means of GSM modules, that any sends the up - to-date information to the govt. also, accordingly the customer. For the practical operation and monetary requirements of the framework, the office gives unit is completely made interchange to sun oriented vitality. This paper proposes the temporary procedure of actualizing great card. The most destinations of great card are giving nourishment grains and diverse crucial things to defenseless areas of the general public at moderate (financed) costs and to annihilate unskillfulness inside the focusing of recipients furthermore the resulting outpouring of sponsorships that will be that the fundamental disservice of the present PDS (Public Distribution System). These targets is accomplished by making a solitary data of occupants in Bharat and can put along the best innovations and procedures for this reason. This can bring about data while not copy sections and apparition cards which can encourage to stay away from banned and charlatan cases and misrepresentation in dissemination of proportion.

The system is more and more getting used to boost transparency within the government sector and tocombat corruption. A well-planned e-government strategy will build a lot of economical, responsible and cleargovernment. We tend to 1st analyze the theoretical background of anti-corruption strategy that illustrates thebenefits of e-government services. Here efforts from our facet area unit done to beat one among the corruptiondownside involve in ration distribution system through a sort of electrodynamics internet template whereverdistribution of fuel, rice, wheat etc. at rural and concrete areas, are checked, monitored and controlled with filteringthe matter of corruption and adulteration .In addition, let us discuss the e-government as an anti-corruption strategyin India and point out the urgent tasks for good e-government in India. Finally, let us analyze some challenges to thedevelopment of the e-government system and its existing problems

IV. PROPOSED ALGORITHM
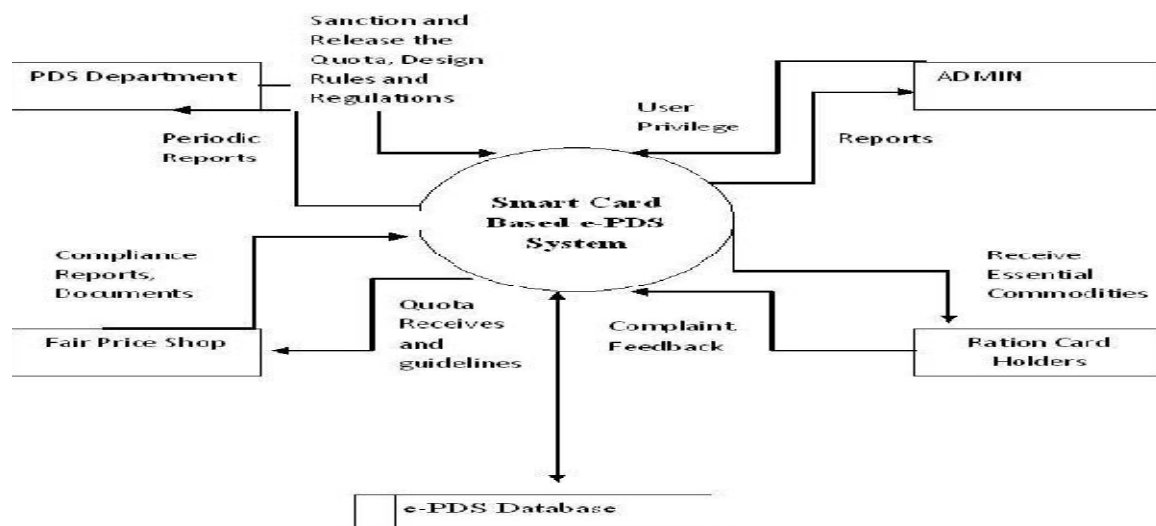
In the proposed system we will develop the Online Smart Ration Management System based on the BIOMETRICS, in which the higher authority user can fill their data online. And also the manual working is not there. When user wants a ration, he/she comes, then the card will be swap and check whether the user is valid or not. After the user checking, allocated ration is distribute to that particular user, changes of adding and issuing of ration is done automatically in the government database.

RFID'S:- Basically RFID'S is radio frequency identification. The radio frequency identification is small electronic device consist of a small chip and antenna. This chip can carry 2000 bytes of the data or less than this.
The RFID device can work within few feet that is 20 feet for high frequency device.

PDS: - India's Public Distribution System is the largest distribution system is in the world. Public distribution system provides ration card issues under an authority of the state government for purchasing necessary material from ration shop. According to home's family income state government has decided and allocated three cards that are **Saffron card, Yellow card and white card.**

PSEUDO CODE

This system can be implemented at the bottom level of PDS network that is at one Fair Price Shop (FPS). We need to collect the data from all the valid ration card holders by registration process. After the complete data has been collected a database is created. It contains separate record for each family which includes details like number of members in the family, name of the members, head of the family, permanent address, present living address, phone number, CREDITS, etc. These credits are like units or points that are issued to each family every month by the respective state governments. Here we will be having two databases for two different categories i.e. one for the card holder information and the other one to store the details of the items (products) that are being distributed.

V. ALGORITHM

1.   Every   consumer   is   provided   by   the   RFID   card.
2.   Each   RFID   card   has   its   own   unique   id.
3.   Once   the   RFID   card   is   swapped   by   consumer.
4. It will ask for the consumer user id and password given by the state government.
5. If consumer successfully cleared through this then he can enter the material whatever he want with the help of keypad.
6.   After   successful   entered   material   all   the   data   is   stored   in   the   database.
7. After storing database with the help of GSM(Global System for Mobile) the SMS is sended to related people and authorized people.

VI. SIMULATION RESULTS

Figure below shows two cover images used in our tests.

These are the accompanying strides that give the data on how the preparing of client's exchange

happens:

1. Enlistment process must be finished.

i. Enter legitimate points of interest.

ii. It will be cross checked with the database data and login id and secret word is produced.

iii. After enlistment the card holder need to enter the App utilizing their login id and watchword.

2. The card holders can see their stock points of interest.

3. The card holders can obstruct the required nourishment grains.

4. A message will be gotten through portable (message: 3kg sugar is blocked. Its cost is Rs.20)

5. The cardholder can purchase the items by demonstrating the affirmation message to the apportion customer.

6. Subsequent to purchasing the stock points of interest will be upgraded.

7. The message is substantial for a month, on the grounds that the following month stock points of interest must be overhauled.

VII. CONCLUSION AND FUTURE WORK

In this paper general conclusion is furnishing straightforwardness with the buyer and give required to the required individuals with the assistance of programmed and safe framework without acts of neglect further more conquer the disadvantages of old arrangement of proportion card framework.

REFERENCES

[1]. C. K. Chow, On Optimum Recognition Error And Reject Tradeoff, IEEE Transactions On Information Theory, Vol. It-16, No. 1, January 1970 .

[2]. Gyanendra K Verma, PawanTripathi, "A Digital Security System with Door Lock System Using RFID Technology", International Journal of Computer Applications (IJCA) (0975 – 8887), Volume 5– No.11, August 2010 [3] Kumar Chaturvedula .U.P, "RFID Based Embedded System for Vehicle Tracking and Prevention of Road Accidents", Vol. 1 Issue 6, August – 2012, ISSN: 2278-0181.

[4] R.Ramani ,S. Selvaraju, S.Valarmathy, P.Niranjan, "Bank Locker security System Based on RFID and GSM Technology", Volume 57– No.18, November 2012

[5].Security Analysis of India's Electronic Voting Machines Hari K. Prasad, J. Alex Halderma, RopGonggrijp, Scott Wolchok, Eric Wustrow, ArunKankipati, Netindia, (P) Ltd., Hyderabad

[6]. Vikram Singh et. al. "Smart ration card", Volume 4, No. 4, April 2013 Journal of Global Research in Computer Science.

[7]. S.Valarmathyet. al. "Automatic ration material distribution based on GSM and RFID technology", I.J. Intelligent Systems and Applications, 2013, 11, 47-54 published Online October 2013 in MECS.

[8] Nehaet. al. "Web-Enabled Ration Distribution and Controlling." March2012 International Journal of Electronics, Communication and Soft Computing Science and Engineering.