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IOT Based Ration Distribution System Using Aadhar Card

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Abstract: The ration card plays an important role in family hiding, for example, detecting gas connections, related fraud, travel as proof of location, and so on. In the current system of spreading India's divisions, there are many limitations and negligence at various levels, which need to be improved. This view speaks to a limited card framework that uses the Aadhar and IoT cards to prevent misconduct and contamination of the current dividing framework. A limited card framework using Aadhar and IoT cards anticipates negligent actions and downsizing the distribution framework. This framework illustrates the process by which a buyer can purchase goods at the stock market. An ongoing value-for-supply distribution framework is contaminated in an uncommon situation, for example, material capital, large holding time, an incorrect measurement of sales in a segregated store. Further dealing with a group is not easy while distributing the measure.

Keywords: Aadhar (QR code), DC Motor, Internet of things, Raspberry.

1. INTRODUCTION

Distribution of Assignment to a nation like India is not an easy task. India is the second most populous country in the world. The open budget framework is an open and transparent area that distributes basic goods to all Indians below the line of need and some are run by classes, for example, police and soldiers. In a limited store, items, for example, wheat, rice, sugar, dill, kerosene, are provided. Aadhar card contains all related information, for example, name, contact numbers, Address, ledger fraud, biometric data and mathematical information. Instead of a traditional card distribution card all families are given one savvy card (equivalent electronic card). This card is a RFID-based card that contains all the information relating to relatives, for example, name, address, card type, number of relatives, family call, age , sexuality, Aadhar number, mobile number, bank details [8 Savvy Rationing System, as seen over the years our national office has been trying to bring livelihoods and fuel to each side of the national mall that became a store price. But not everyone is in a position to make such a drastic adjustment as a last resort. SRS will therefore be the appropriate structured framework that will be spread across all indigenous peoples as it is their right and SRS is better prepared to keep a check and a value-added store with the Government of India. In this robotic framework the installation of a convectional distribution card with a sharp card where all one of the customer information is provided including their "AADHAR" number which is used for customer verification and voice verification for maximum security [5]. The Common Supply distribution framework in the current situation is facing a host of problems as clusters of questionable issues as illegal.

sales fraud, degradation, and corruption in products occur here in the distribution focusing on the rural fragments of India. At the moment Io day multi is a new growing trend. Therefore with the help of IoT and a framework installed by the PDS, it can formally connect the customer to the government to reveal the problem of pollution with a focus on consistent delivery.

Related work

B. Chilad et al, [1] suggested that the Smart ration distribution system uses RFID. An upgraded system that incorporates manual work into the allotment distribution system and the default system. The RFID tag contains a unique ID that has been issued to all BPL holders. To ensure they use RFID and biometrics but this system does not provide the correct card details whether it is duplicate or original. Gaikwad Priya B et al, [2] proposed an E-system for public distribution using smart card technology and GSM technology. all customer details. The customer needs to scan the smart card and then the microcontroller looking at the customer details stored to distribute the goods at the grocery store. After successful verification, customers need to enter the item type and quantity of items using the keypad the item is automatically sent without manual translation. After delivering the appropriate goods to the consumer, the microcontroller sends the information to customers and officials of the GSM technology distribution system. This program did not provide voice authentication so this will improve the system by upgrading it. Ch. Harisri et al, [3] proposed a system for automatic measurement using a DC motor with RFID. The project introduces a RFID (Radio frequency identification) system based on a smart rationing system that will overcome the challenges of a standard measurement system. This will provide RFID tags to customers instead of share cards. One has to show the card in front of the scanner and it communicates with the microcontroller there through the PC, which shows the full details. The microcontroller is attached with a dc motor and a dedicated pump under the kerosene liquid. The combination of machinery and engine helps to pour the required amount of rice into a person automatically and similarly paraffin is drawn by a submerged pump below and poured into the consumer's container. Padmavathi.R et al, [4] suggested that Digitalized Aadhar Ration Distribution Allowed Using a smart card. This paper suggests automation in distribution distribution using a smart card based on Aadhar card technology. In this program, we use an ATM model-based model. By using this technology, we can achieve a secure and collaborative approach to atomization of distributed distribution. Aadhar card contains all related information such as a person's name, personal contact number, address, bank account details, biometric details and demographic data. Customer details are stored in the data center provided by a government official. The use of the AADHAR number in the system reduces government allocation management. Noor Adibha, et al, [7] suggested that the Automated Ration Distribution system uses RFID and IoT efficient, efficient and automated distribution system using RFID-based technology (Radio Frequency Identification), a new PDS process. (Public Distribution Program). The public distribution system is also called the rating system, which is one of the most controversial issues involving inefficiency. The current share distribution system has high levels of corruption such as improper grain rationing, long waiting times, stock theft and distribution distribution which is not easy to manage in the crowd. In this paper, the proposed system replaces manual labor into a public distribution system. Subscriber Shukla et al, [8] proposed A Step towards Smart Ration Card System Using RFID and IO. In this program the user's identity will be verified by a microcontroller connected to the Amazon Web Services (AWS) database. For added protection One Time Password (OTP) is also sent to the user's registered mobile number that needs to be installed on the system. If the user is found to be genuine the monthly allotment of the user's share will be displayed. After a successful transaction the database will be updated to specify the share content submitted by the user. This system will require less human effort to operate and this is very secure but this system
did not provide aadhar data validation so this will improve the system by upgrading it. Chaitali Chandan khede et al, [9] suggested that the Automating Public Distribution System. In this program the Public Service Scheme is a network of government stores responsible for
distributing basic food and non-food items to the poorest sections of the community at very low prices. A large number of poor and needy community members have been left out and many false cards have been issued. This leads to more corruption. Our project proposes an improved process for using a smart ration card system. It also introduces the default version of the Public Delivery System. During lunch, for diagnostic purposes, we provide a unique QR code (Quick Response) to each customer. This will help keep track of their accounts. Customers will also receive an SMS notification of their successful subscription and stock allocated to them but the program did not send an email message. Dr. M. Pallikonda Rajesekaran et al, [10] proposed an Automatic Smart Ration Distribution System for the Prevention of Civil Supplies Hoarding in India. in the rural and urban parts of India. These arguments include the unconventional asset valuation, duplicate entries in the handwritten register of entities containing false information of goods delivered to consumers, sometimes goods provided by the government for distribution do not reach the poor, as well as information or information about goods acquired by the grocery store and their availability in store for distribution, can be changed by access to a manual data record. Sneha Ingale et al, [11] suggested that Smart Ration Card and Automatic Ration Material Distribution System Using IoT. RFID-based, automated and efficient RFID-based technology used for distribution using the AADHAR card number which is the highest standard in the PDS. The public distribution system is also called the distribution system, which is one of the most frequently debated issues involved in malpractice. Now in the distribution system, there is a lot of corruption like material theft, a lot of waiting time, and the wrong amount of goods in the grocery store. And managing the crowd is not easy while the assignment is being distributed. In this paper, we replace the handicrafts made at a grocery store by measuring a smart automated electronic device with the help of an ARM microcontroller that accurately weighs goods and updates them on a data basis from time to time.

Methodology

In the proposed system the Raspberry pi acts as the main control unit, the camera includes a controller and an engine. Data is stored in Raspberry pi. The camera is used to scan the QR code for Aadhar card, the QR code for each Aadhar customer card is already stored in the database. When the Aadhar card is scanned in front of the camera, the system opens the data of that person containing the quantity of goods that a particular customer has to offer. The main purpose of this project is to create a solution using an Aadhar card with an IoT based on proper management of allotment items. In this program the store owner will scan the Aadhar card and the scanner will check the Aadhar to see if it is a duplicate or a real one. If the Aadhar card is real the system will look at the individual details and will also check whether the details are the same as the database or not. If the data is matched with stored information then the machine will provide grains such as sugar, rice etc. Any grain assigned to a customer is displayed on the screen and the store owner cannot change this data as he does when it is stored manually. After all transactions have been completed and the message will be received by the customer on his or her mobile number, the same data will be updated on the embedded web server that can be used by both the public servant and the customer for the customer to have access to.

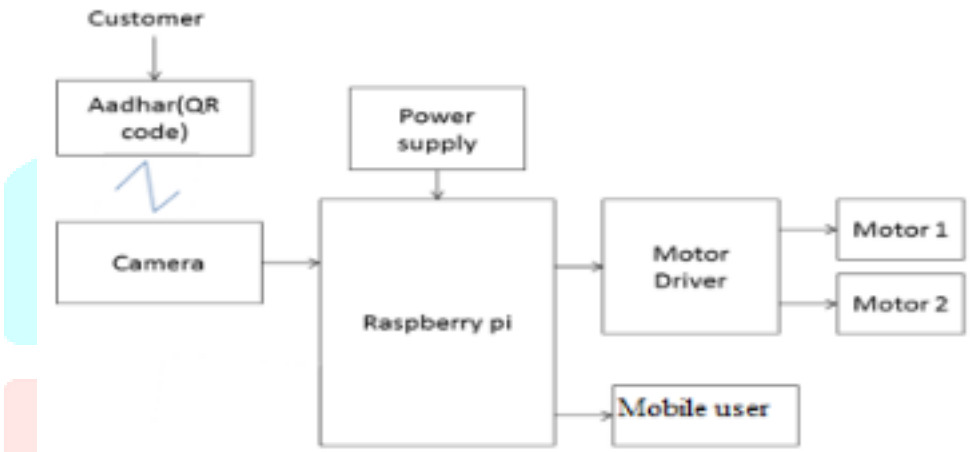

***Fig.1**. Block Diagram of Ration Distribution system*

all the backup money in his customer account and the store owner cannot lie to customers. Every time a customer makes a specific assignment, the system transmits this information to customers via SMS. The processor and block diagram of the proposed route are given in Figure 1.

4. RESULTS

1. **Hardware model**

Figure .3. We show the actual computer hardware model of the proposed system containing the Raspberry pi as the main controller that determines whether Aadhar card scanning is valid or not and if applicable then according to the data (quantity of seeds / seeds), Send signals to the car (with motor driver IC) and solenoid valve (with relay) transfer the opening time.

Fig. 3. *Hardware model of the system.*

2**.Web page**

Figure 4. Displays the Aadhar based smart ration card system login page.
After all transactions are completed the customer will receive a message via email or SMS. Any grain assigned to a customer is displayed on the screen and the store owner is unable to modify the data in the way it was used when stored. GSM is used to send messages to transfer customers about shares remaining in his account when they submit others.

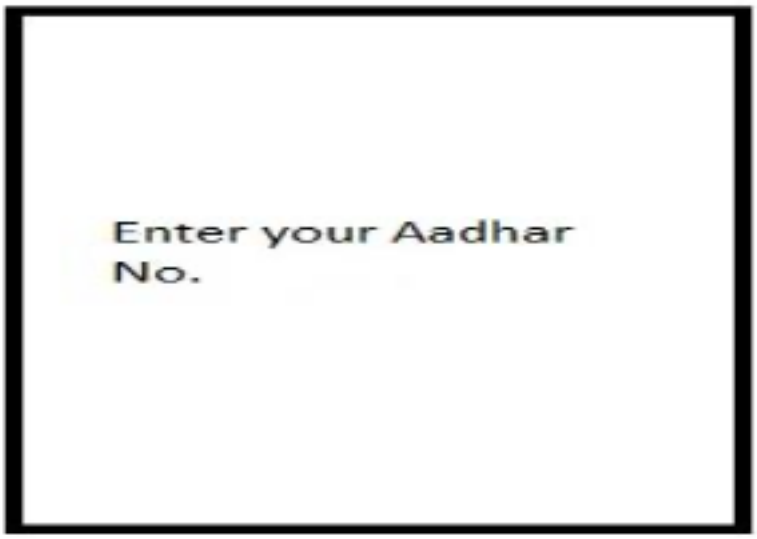

Fig .4. *Login page.*

Fig.5.Final message related to quantity and type.

5. CONCLUSION

This framework is very secure and continues to be directly in line with the existing standard framework. The impact of the use of the fraudulent information category on the equity database can be maintained using this smart distribution card framework. Only authorized person (businessman, trader) can work in the database. The client can be verified using the Aadhar card filter via the webcam and get the shared value after the scanner tag verification. If a client does not have to worry about distributed distribution, then it is given to a client who needs a measure of that. The customer will receive an SMS acknowledgment and the database will be updated continuously.

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