QR CODE BASED PUBLIC RATION DISTRIBUTION SYSTEM

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Abstract - *PDS stands for Public Distribution System. The public distribution system is a government-sponsored chain of shops which have the responsibility of distributing basic food and non-food commodities to the poor families of India at very low prices. Major commodities in ration like rice, wheat, sugar. Now in this system QR code is provided instead of current biometric ration system. The QR code must be scanned by the dealer at shop and it shows the details of customer which is stored in database provided by Government.*

***Key Words*: Public Distribution system, QR code, Fair price shop, Automation, etc.**

1. INTRODUCTION

India's Public Distribution System (PDS) with a network of 4.78 Lakh Fair Price Shops (FPS) is perhaps the largest retail system of its type in the world. One of the main problems with this system is the inefficiency in the targeting of beneficiaries and the resulting leakage of subsidies. The TPDS system today supports over 40 crore Indians below the poverty line with monthly supply of subsidized food grains. The system also provides gainful employment for 4.78 Lakh. Fair Price Shops Owners, their employees and hired labor who work at the FCI and state warehousing god owns. The basic food items provided by government are rice, sugar, wheat. Ration Card is one of the most important documents which acts as identity proof for any individual. The network of the ration shops is spread all over in India to provide food security to the people. This distribution of food and fuel is fully controlled by the government. But it has so many limitations. Most of the ration shopkeepers keep fake ration cards with them and allocate it to the non-beneficiary people. Due to availability of all ration items these items are present with the ration shop dealer so he can falsify the records and use the items to sell in the market loosely for making personal profit. Therefore, it does not get to the benefice's who really needs this food items. So many a times public are not aware that the items have arrived in the ration shop. The dealer then sells these items in increased rates in the market. In this way, in the current situation we are facing problem due to lack in transparency. To stop this system Government has to take strong stand against this cheater and has to make strict rules.

1.1 LITERATURE SURVEY

Dhanashri Pingale [1] et al in her paper has described a Centralized Web Enabled Ration Distribution and Corruption Controlling System is the project that will allow a smooth and easy ration distribution. The paper explains the concept of ration distribution and controlling. This system enabled the distribution of food equally among poor people. The commodities are stored in storage tank, when goods are inserted in the FPS, then that quantity of goods is updated in web server. That website can be accessed by the collector whenever he requires the ration from respective ration shop. Shivabhakt [2] et al described the concept to automate the PDS, a Government of India initiative process in which a fixed amount of ration is provided monthly to the people by the PDS stores. The increased corruption in the market sector can be prevented if the system becomes automated, increase in adulteration can be prevented as well, the hoarding done by the officials and laborers of government. Public distribution system (PDS) is an Indian system food security established by the Government of India under Ministry of Consumer Affairs, Food, and Public Distribution and managed jointly with state governments in India, it distributes subsidized food and non-food items to India's poor. Major commodities distributed include staple food grains, such as wheat, rice, salt, and cooking oil, through a network of public distribution shops (also known as ration shops) established in several states across the country. Food Corporation of India, a government owned corporation, procures and maintains the PDS.

1.2 EXISTING SYSTEM

Public distribution system also called ration distribution system is one of the widely controversial issues that involve malpractices. In the existing system, works which include product distribution, ration card entry, product weighing, and product delivery are done manually by FPS (Fair Price Shop) commission agent. The present ration distribution system has drawbacks like inaccurate quantity of goods, low processing speed, large waiting time, material theft in ration shop. The fingerprint scanning system has two processing steps. Firstly, it enrolls the fingerprint, where it gets an image of the thumb, and finally performs matching, later it needs to determine whether the pattern of ridges and valleys in the image matches the pattern of ridges and valleys in pre-scanned images. The scanning process starts when you place your finger on a glass plate. The charge coupled device (CCD) system actually generates an inverted image of the finger, with darker areas representing more reflected light (the ridges of the finger) and lighter areas representing less reflected light (the valleys between the ridges). After

verifying the valid beneficiaries, the system will provide access to their ration account.

2. PURPOSED SYSTEM

2.1 PURPOSE

Nowadays we know that Ration is allocated to every citizen in our country by offline as well as fingerprint method and there is lot of corruption is happening due to lack of loopholes in this system. Generally, dealer's do such type of corruption by showing false record for their personal benefits. Many of the dealers who are appointed by government sale ration items to the poor people at maximum rates or at rate which they want. Considering illiteracy of poor people these dealers do not maintain transparency in the system and due to this poor people do not get ration items as per rates specify by government. Also, there is no any complaint system which consumer can used to avoid such type of incidents and to minimize corruption of the system. To avoid such problems of the existing system we would like to introduce QR based Public Ration management system which will not only stop such type of problems of existing system but also New system would be beneficial to every citizen of country.

2.2 SCOPE

In today's digital World we need to be updated all the time and this project is taking step towards Digital India. The main aim of our project is to developing a well-organized and superior QR code technology for Ration system. Therefore, Dealers can't cheat with their customers & a healthy environment maintained between government & consumer.

2.3 PROBLEM STATEMENT

QR Authenticate is the best solution on Aadhar update problem because there are many benefices whose ageare between 15 -25 & they can't purchase food grains because of abolish of Biometric Fingerprint Lastly, in the wake of COVID-19, it is important to ensurecustomer safety and hygiene. And with QR Codes, you can make contactless verification of customer's details feasible. That is, you simply need to scan the QRCode using a dedicated app with no physical contact with the ration card.

3. SYSTEM DESIGN

The ration allocation system has been in use for many years. Its main purpose is distribution of basic commodities like rice, kerosene, sugar, wheat at affordable prices. This system is a boon for the Indian society however with the increasing population, there is a need for an automation of the rationing system. The current ration system also lacks security in some regard. As a result, corruption is rampant. There is lack of transparency between the consumer and dealers, often

ending in the consumer not receiving his dues. Unfair means like offering bribes are often employed by the consumer which sets a vicious cycle of corruption into play. The main focus of this project is to bring order to the current system by eliminating all these problems and providing a secure environment for transactions to take place. It is also a prospect for Digital India. The automation of the current ration system will also speed up the process and thus help cope with increasing population Defineabbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable. The primary design constraint is the Desktop platform. Since the application is designated for Desktop Systems, effective GUI and well user friendliness will be the major design considerations. Creating a user interface which is both effective and easily navigable is important. We are utilizing the database to store the variousinformation of the users as well as their biometrics so storage space needs to be considered for smooth functioning of system. Other constraints such as memory and processing power are also worth considering. Efficiency needs to be considered since it is one of the major reasons of having an automated system for ration. The input and output generated and their individual working efficiency and its contribution to the overall software application must also be considered. Thesoftware will give the desired results only if the specified software requirements are satisfied.
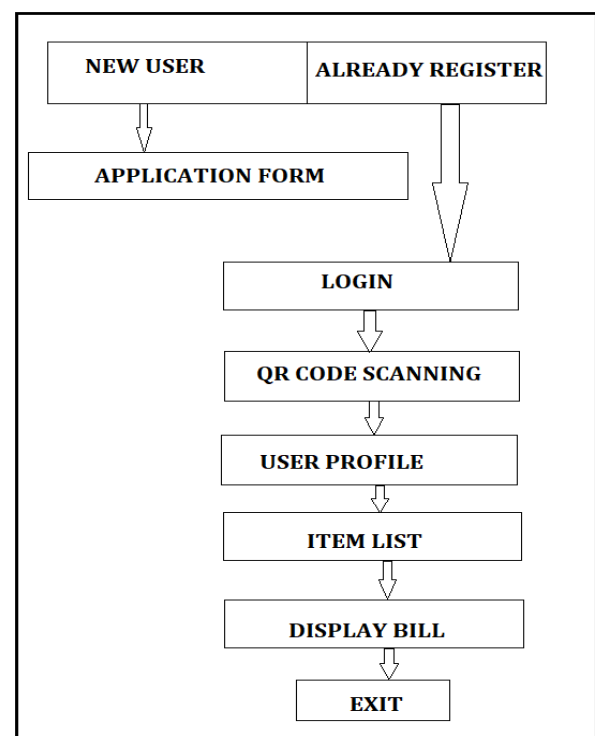

FIG-1: System Flow

4. CONCLUSION

In the existing system there are some draw backs, first one is so many aged customers cannot purchase this ration because of their absence and the other one is there is no zero contactless service which is most required in today's COVID-19 pandemic situation. The above drawbacks are removed by this new system which is generating bill and that is directly connected to database of government. So that the actual benefits get to real customer and dealer cannot sell these items to other people without any proof of government. All the information is sent to government office regarding materials. Ration is available by software through automatic mechanism without any help of humans. This system is very useful in today's situation and also used for the real time applications. Now we came to a conclusion that the proposed system will help the government to maintain digitize world and also the less man power.

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