

Implementation of Smart Agri Goods Transportation with Daily Market Price

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Abstract- India's main source of income is agriculture. Agriculture has the potential to overtake India's economy. Every country's stability is dependent on the well-being of its farmers. Farmers face many problems, the majority of which derive from a lack of cooperation among farmers and the lack of a farmer's union to assist. Technology is a very powerful tool. The message to the farmers isn't getting through. This paper proposes a revolutionary associate degree resolution that proposes Engineers and non-governmental organizations (NGOs) are working together to support farmers and make the job of the government easier. As a consequence of the misdirection, damages have been sustained. This definition means that information, experience, understanding came first. Every village must have data linked to all or some of the Talukas, and every farmer must have data linked to all or some of the Talukas. The Taluka has links to both the districts and the state. Knowledge applications often use this tactic to mistreat software packages A Non-Governmental Organization will help raise awareness by making learning more enjoyable. Seeds, fertilizers, and manures are all necessities for a farmer. This information is shared with decision-

makers, and Materials for the UN NGO agency will be prepared in-house with the support and cooperation of the state and banks. The farmer will supply food to the NGO. Crop yield forecasting is also different depending on the season. The network connects the hamlet to the rest of the country. Non-governmental organizations make this information available to major exporters and buyers. Cash transactions with each farmer are once again performed by a non-governmental organization (NGO). It is reasonable to expect that a farmer would be able to deliver his business to his door using supply chain management quit the application contains agricultural data. In society, the farmer can receive prompt advice and assistance. The system interface is the only way for a grassroots NGO to operate. As a result, we should predict a better quality of life for farmers. Chain management is established in collaboration with engineers and non-governmental organizations.

Keywords- Android Studio, NGO, Farmer.

I. INTRODUCTION

The development and productivity of villages can be used to describe the prosperity of our region. Technology, the manufacturing market, the automobile industry, wireless networking, and so on are all fields rapidly expanding, but agri is one field where technology has not reach every Farmer. they are unaware of the infrastructure of the agriculture sector, as well as any reforms. In the mechanical sector or another industrial area, detailed transparency exists, i.e., for 'X' raw material, 'Y' processing, and 'Z' benefit, but there is none in agriculture because crop yields are not accurately calculated. As a result, farmers are manipulated by officials, business owners, and politicians. Farmers aren't offered federal help directly, which has resulted in shootouts and farmer suicides. This is a critical topic that necessitates a fresh solution. Engineers are in charge of creating apps that can assist in "bringing technology to farmers" to fix many of the issues that farmers face.

II. MOTIVATION

We are introducing this scheme to provide farmers with updated equipment that has not been provided to them to maximize their profits and recover their losses during the famine.

III. LITERATURE SURVEY

1] Paper Name: Android App to Connect Farmers to Retailers and Food Processing Industry

Author: Mr. Pranav Shriram, Mr. Sunil Mhamane.

Abstract: Mobile app will help farmers to sell their products straight to consumers and food processing industries. This paper provides market information to a farmer using its easy interface on the mobile application. The mobile application is intended to be used for a fast and updated information delivery system for farmers. Also, the transaction of food is made easy for farmers as it has native language

support. The mobile applications treat farmers as a seller and a buyer. The intention behind this paper is to help farmers so they buy or sell their agricultural goods and products. Market prices provided by data.gov.in let the system keep the selling and buying prices in control. As there may be amplexness for the user browsing is difficult. To make browsing easy many filters are provided. Farmers face many problems while selling their products and goods, this system promises to provide an easy and recreational way to sell the products. The system lets the farmers sell goods at a reasonable price and makes business even fair and transparent. Consumers are on the opposite side of the same coin. This system lets the consumer select from a wide variety of products, choose the product as per their requirement, and also apply price filters. Location is one of the parameters for consumers and producers while selling or buying their product it will help the user to get the product nearby their location. The basic objective of the system is to consider every one need and full fills their requirement with the transparent and honest agriculture business

2] Paper Name: Big Data analytics in agriculture and distribution channel.

Author: Mukesh Kumar, Prof.Mayura Nagar.

Abstract: In agriculture depends on multiple aspects most important is whether, if weather is positive for the farmer despite the farmer not get that much profit. When the weather is and rain come late or less farming decrees directly I ratio but when farmer produce more crops then our market and storage are not prepared for holding that due to this farmer forced to sell his product in minimum rate and face loss in farming. This paper, discussion on storage of food products, precession farming, and a decision on the problem in the distribution channel. That gives real-time analyzer report about the weather, soil, and current status of market and storage capacity and real-time demand of the market. I am using big data analysis with the Hadoop framework that is widely used for big data analysis this is very fast and reliable. And for reporting and decision making I use Pentaho BI that allows generating the interactive report and a highly

customize dashboard that helps the front end to easily understand and make a decision.

3] Paper Name: AGRI SUCCOR: Mobile Application for Agriculture

Author: Mrs. J. Jayachitra, M. Madhu, S.D.Shaik Mohammed Faruk.

Abstract: India is an agricultural country with the primary food being rice and wheat. The farmers are a very essential part of our country. but the income of the agriculturists is at stake. Their heavy losses due to natural calamities and crop failure. The emerging technology has provided many features to upgrade their lifestyle, but still, there are challenges. Our main motive is to design a farmer usable application Agri Succor to sell their commodities directly to the customers at a reasonable market value without any negotiator with the help of volunteers. For the efficient utilization of our mobile application by the farmers, we have incorporated features like the information in regional language, crop-disease identification, and sell their products directly. This application will emerge out as an essential productivity tool for the farmers if implemented in the future.

4] Paper Name: An Agricultural food Supply Chain Traceability System for China Based on RFID & Block-chain Technology.

Author: Feng Tian

Abstract: In recent years, food safety has set off an outstanding problem in China. Since customary agricultural-food logistics patterns can't go with the demands of the market anymore, building an agri-food supply chain traceability system is becoming crucial. In this paper, we research the development situation and utilization of Radio-Frequency Identification (RFID) and blockchain technology, and then examine the advantages and disadvantages of using RFID and blockchain technology in building the agri-food supply chain traceability system; finally, demonstrate the building process of this systems. It can understand the traceability with faith in information in the entire agricultural-food supply chain, which would effectively guarantee the transferring, safety of food, by gathering, and sharing the authentic data of agri-food in

production, distribution, processing, and selling links, warehousing.

5] Paper Name: Agriculture 4.0: How Use Traceability Data to Tell Food Product to the Consumers

Author: Maria Elena Latino, Marta Menegoli Angelo Corallo

Abstract: In these years, the world assists in the Fourth Industrial Revolution, also called Industry 4.0, which leads to the highest level of connectivity, efficiency, and automation. That expansion concerns, first of all, arriving, the manufacturing sector only in the last years, within the agri-food industry. To increase the own transparency/accountability, the food industry starts to consider traceability principles as guaranty and marketing tools. A traceability system, based on Industry 4.0 technologies, could support the food companies to maneuver in the complex network of the supply chain. The presence of different activities and actors, supply a huge number of data that not are showed to the final consumer or that are shown in an unintelligible mode. monitoring the supply chain, recovering all essential data regarding products and processes, expansion data supplying to consumers intelligible information could be a master proposal. The work proposes a logical model to collect food traceability data along the supply chain and to transform it into intelligible information useful to reach modern consumers. The logical model was applied in a case study: olive production. Food companies can apply this strategy by performing the real Agriculture 4.0 evolution, leveraging on the Industry 4.0 paradigm.

A) PROBLEM DEFINITION

Farmers nowadays face a slew of issues in their daily lives. Farmers have always had trouble seeking the right demand for their goods, with transportation being the main issue. To fix these issues, we proposed and created a framework called "Smart

Agri Goods Transportation with Daily Market Price (Farmer Assistant)."

B) Stakeholder

1. Farmer

- To enable farmers to get the best possible returns.
- To provide facilities to sell the product at the best price.
- To reduce the price difference between the producer and consumer.
- To make available all products of farm origin to consumers at a reasonable price and within a reasonable time.

2. End-User

- Send a request to the customer regarding buying this product.
- Buy product at suitable price.
- Any other person who is not the involved path is the only farmer to consumer

3. NGO

- In case product quantity is more than product requirement then extra food goes to NGO.
- For that farmer notify to NGO then they will accept request then Extra food goes to NGO.

B) SYSTEM ARCHITECTURE

We develop an android application. In this System, there are three modules Farmer, End User, and NGO.

Farmer uploads all the vegetable data daily and notification will be generated automatically. The notifications which are generated are received by the End User and the End User sends the request to buy vegetables and the extra food which is made by the User and the remaining vegetables of farmers will send to NGO.

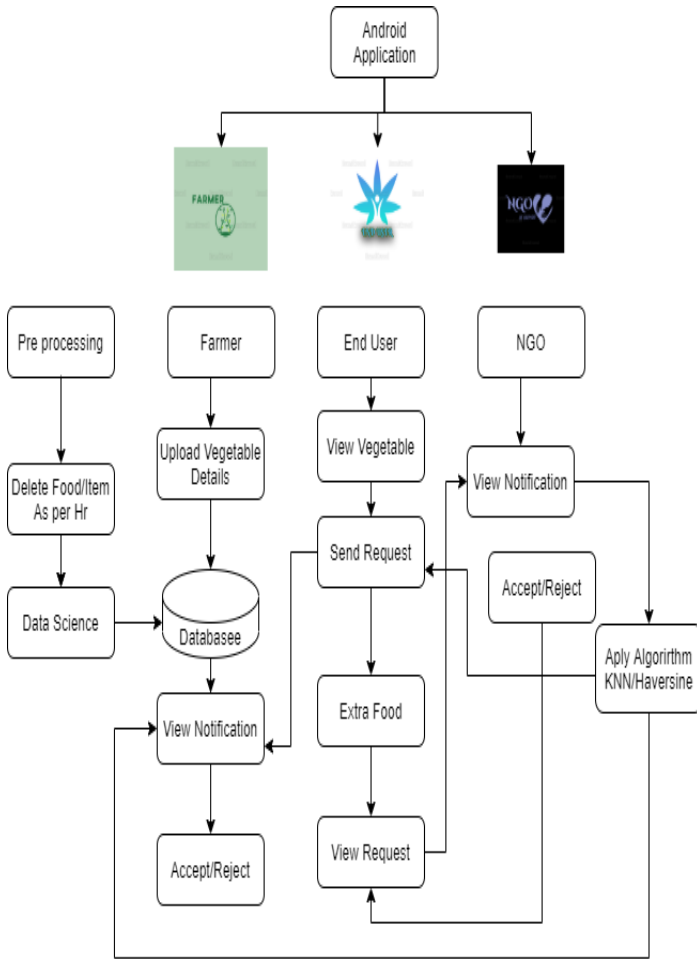


Fig. System Architecture

V. Algorithm Description:

K Nearest Neighbour (KNN)

The k-nearest neighbors (KNN) algorithm is a supervised Machine Learning algorithm that can be used to solve both classification and regression prediction problems. However, in industry, it is mostly used to solve classification and prediction problems. The following two characteristics would be a good way to describe KNN.

KNN is a lazy learning algorithm since it does not have a specialized training process and instead uses all of the data for training when classification.

Non-parametric learning algorithm Since it makes no assumptions about the underlying results, KNN is also a non-parametric learning algorithm.

Working of KNN Algorithm:

K-nearest neighbors (KNN) algorithm uses ‘feature similarity’ to foretell the values of new data points which means that the new data point will be assigned a value based on how exactly this point is matched in the training set. Let’s we can understand its working of the algorithm with the help of the following steps –

Step 1 – For implementing any algorithm. we need a dataset So in the first step of KNN, we can load the training as well as test data.

Step 2 – then next, choose the value of K that is the nearest data points. K can be any integer value.

Step 3 – For every point in the test data –

3.1 – With the help of any of the methods namely: Manhattan, Euclidean, or Hamming distance it calculates the distance between test data and each row of training data. For distance calculation, Euclidean is most commonly used.

3.2 – Now, sort them in ascending order, based on the distance value.

3.3 – Next, it chooses the top K rows from the sorted array.

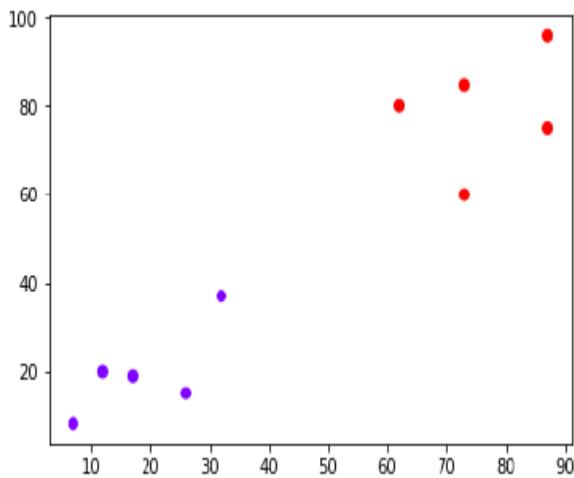
3.4 – based on the most frequent class, it assigns a class to the test point of these horizontal rows.

Step 4 – End

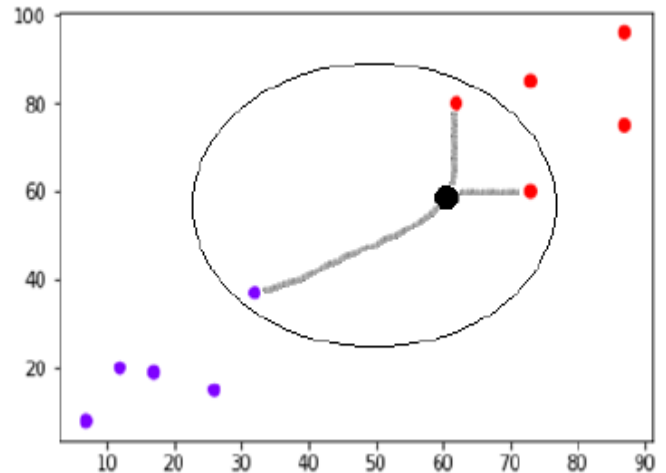
Ex:

The following example for a better understanding of the KNN algorithm.

Let's plot the dataset as follows –



Now, we need to analyze a new data point with a black dot at point (60,60) into a red or blue class. We are assuming that $K = 3$ that is find three nearest data points. It is shown in the next diagram –

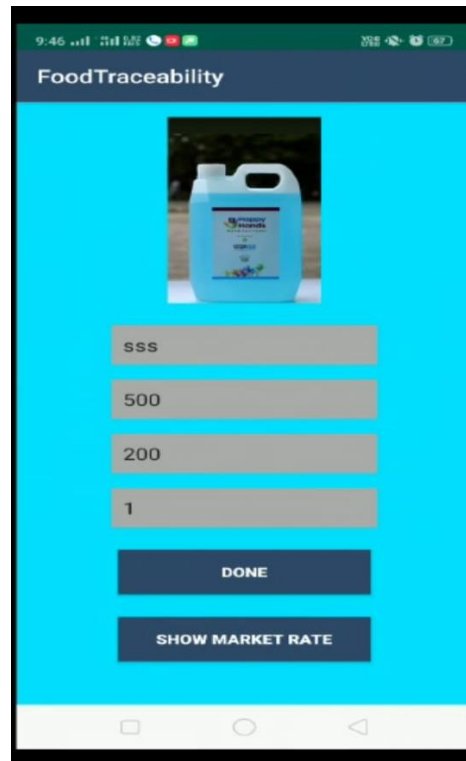
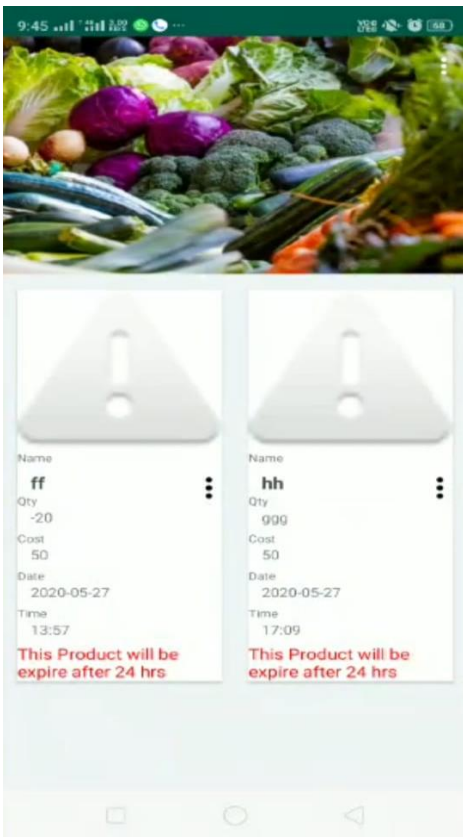
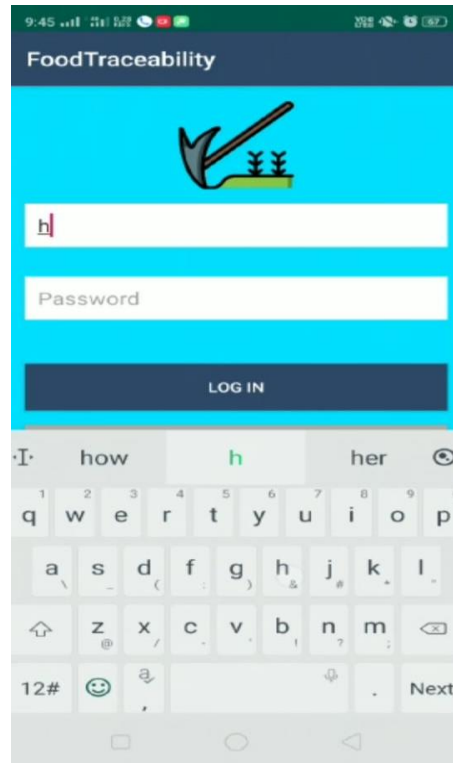
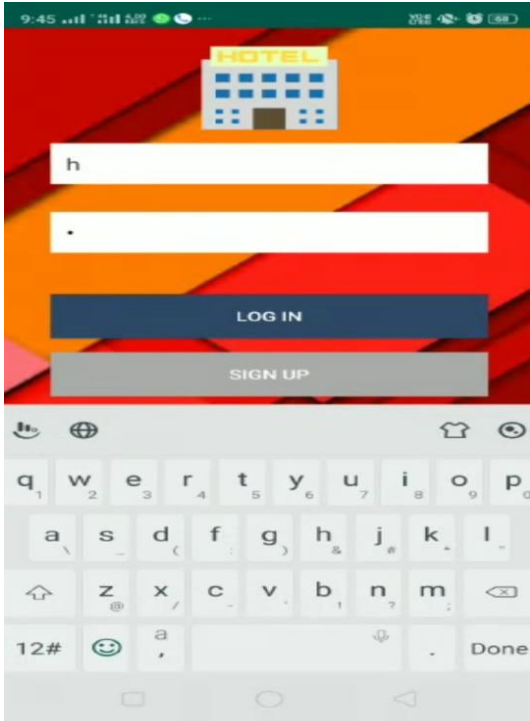


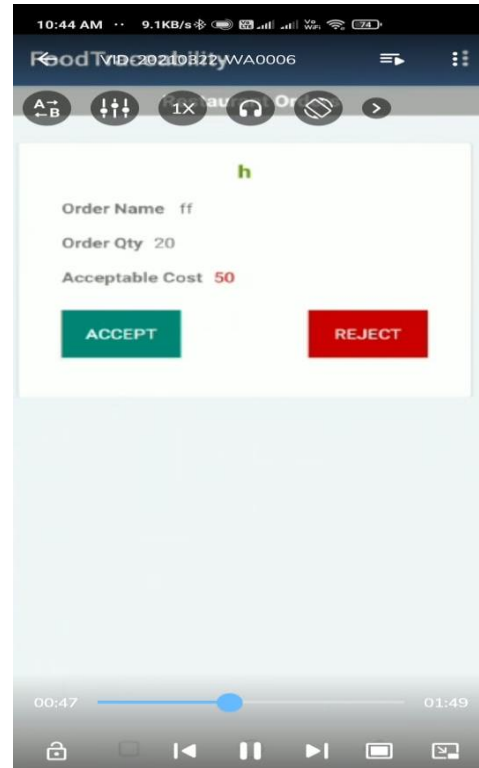
In the above diagram the three nearest neighbors of the data point with a black dot. Among those three, two of them lie in the Red class hence the black dot will also be assigned in red.

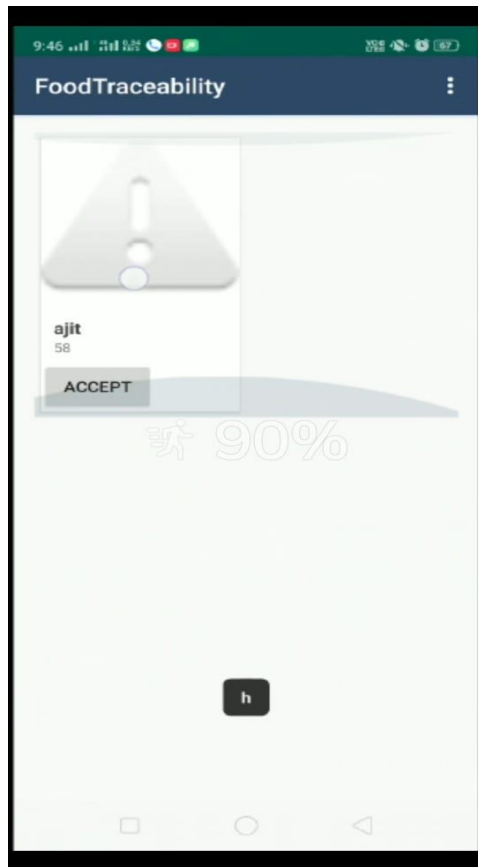
VI. CONCLUSION

Agriculture is an important part of the Indian economy. they are the pillar of our country. farmer has to face very difficulties due to change in the climatic conditions. They are harvester and feeder of the Indian population. farmer has to suffer a lot. one of the big challenges for farmer food transportation. with their preferable price. we can provide a medium between farmer and end-user.in our project, we help farmers do the transportation directly and we removing the middle mediator from this process. Throughout the case study we got that to know about different challenges that farmer has to face and trying to provide effective approaches for selling their goods, and in case quantity of our product is more than buying then extra food goes to NGO.

VII RESULT







VIII. REFERENCES

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