



ISSN: 2454-9940



**INTERNATIONAL JOURNAL OF APPLIED
SCIENCE ENGINEERING AND MANAGEMENT**

**E-Mail :
editor.ijasem@gmail.com
editor@ijasem.org**

www.ijasem.org

FOOD TECH BLOCK CHAIN USING PYTHON

E. PAVITHRA¹, MOTADI SAI VAMSHI REDDY², KOTIPALLI DURGA SRAVANTHI³,
NAREDDY PAVAN KUMAR REDDY⁴

ABSTRACT:

Now-a-days maximum peoples are ordering food by using online services and this online services are dependent on single centralized server and if this server crashed due to overload request or if hacker hack this server then online food services will stop working. To overcome from this problem we are migrating food deliver application to Blockchain server which will maintain data in decentralized (multiple nodes/servers will maintain data) manner and Blockchain store each data as block/transaction and associate each transaction with unique hash code and this hash code will get verified upon storing new block and this block cannot be modified and due to hash code verification no hackers can attack the server and if one Blockchain server down then application will use services from other working nodes, so by migrating application to Blockchain server we can get services from any working node and can prevent servers from getting hacked.

Keywords: Block chain, data base, food wastage, food deliver.

1. INTRODUCTION:

The entry to a person's heart is through his stomach they say. We would always like to consume good quality food, which will give us great food value, meaning nutrition. The question is how will we get to know this? How will we understand that the food is good, after consumption it will give us good nutrition? A big question in front of all. The proposal idea will actually try to help humans analyze and understand what they eat without much trouble. When we say we should get nutrition what do we exactly say? Nutrition means which will give us energy when we

consume it. There are 13 types of vitamins our body needs. If there is an imbalance in the consumption, it creates a problem in our body. Body gives signals but if it doesn't it may cause a serious issue. We cannot ignore the fact that less food is available and the population is growing. To meet the demands, we need to save food wastage. There are 13 types of vitamins our body needs. If there is an imbalance in the consumption, it creates a problem in our body. Body gives signals but if it doesn't it may cause a serious issue.

1Assistant Professor, Department of CSE-DS, Malla Reddy College of Engineering Hyderabad, TS, India.
2,3,4 UG students, Department of CSE-DS, Malla Reddy College of Engineering Hyderabad, TS, India.

We cannot ignore the fact that less food is available and the population is growing. To meet the demands, we need to save food wastage.

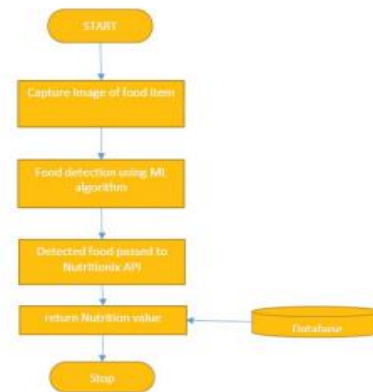
Future scope will be to develop a complete nutrition tester. We will start with one parameter at a time say for example ph value, that too for a particular food item only for example apple. We can go on adding a lot of parameters gradually and increase or scale it to other food items. The device will be a small hand held one which will give us food analysis and attendant us.

2. EXICITING SYSTEM:

Android application for detection of food and it's nutrition value :

There is a simple solution to the problem of calorie mapping. For the purpose of mapping calories they have used the Clarified API in the Android environment. Procedure for this is simple, users just have to take a photo of the food item or drink they want to eat. Then that food item is detected which is then handled by their Nutritionix API in order to give the nutrition count of the given item. For detecting food items machine learning algorithms are used. Their application is using the Mifflin-St Jeor method to determine the daily calorie consumption. They have also discussed

computer image processing algorithms like SURF, SIFT and ORB. So the main motive behind this application is to provide a user friendly, easy to use android application which will help users to keep track of their daily food intake for calorie management.



PROPOSED SYSTEM:

The non-destructive electronic nose system is described for identification of food rotting. Designed Electronic nose use an array of sensors for this purpose. Different factors like humidity, temperature, oxygen which affect the process of food rotting are discussed in this paper. The odours coming from spoiled food will have different flavours depending on the food type. Their proposed system works in different stages like odour handling, odour detection and pattern recognition. Different kinds of sensors are used in this system like gas

sensors, humidity sensors and temperature sensors. There are five gas sensors, each one of a temperature and humidity sensor is used. As the whole process is automatic this system. Can be used by anyone and it is also cost effective.

3. METHODOLOGY

MODULES:

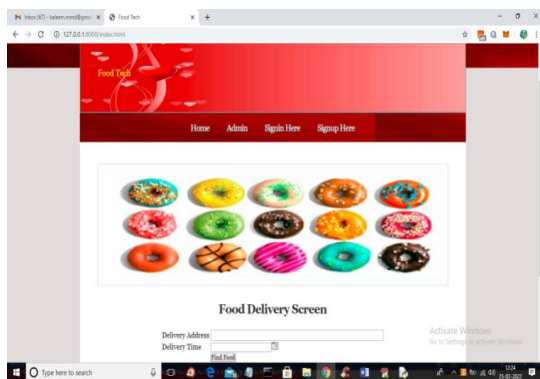
1) Admin:

Admin can login to application by using username and password as admin and then can add new food details and store in Blockchain and can view orders from customers

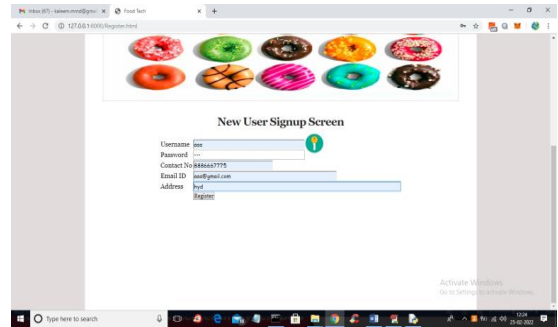
2) User:

User can signup with the application and can browse food and book the food for delivery

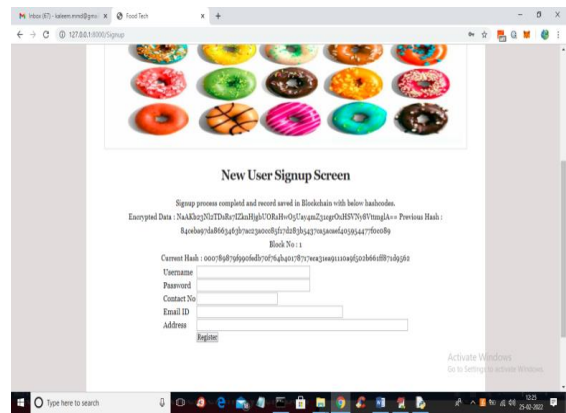
OPERATION:



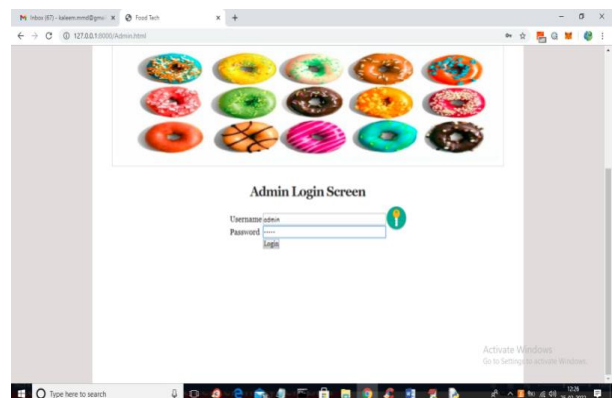
In above screen click on 'Signup Here' link to register with the application



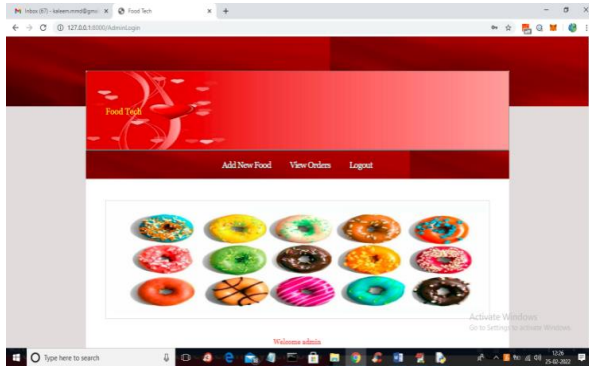
In above screen user is entering signup details and then press button to get below output



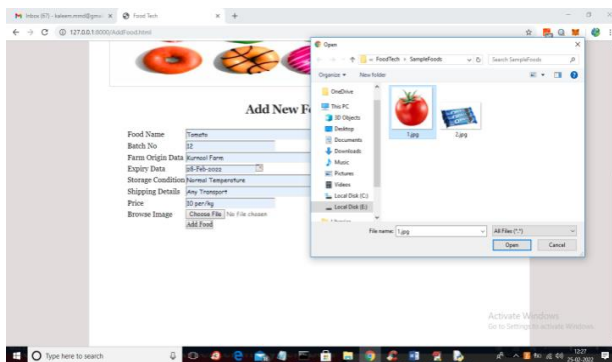
In above screen we can see signup details completed and we can see Blockchain hashcode and block number where this data is stored. Now in above screen click on 'Admin' link to login as admin



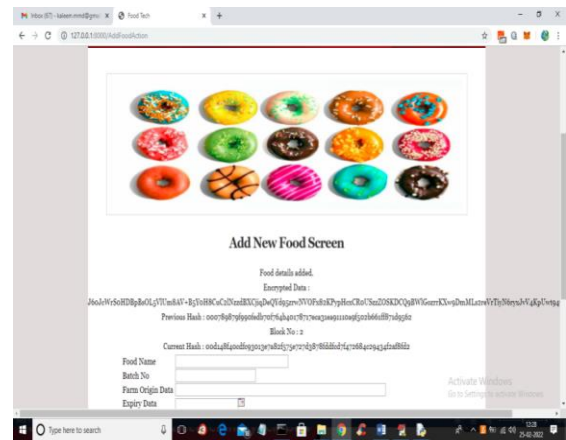
In above screen admin is login and after login will get below screen



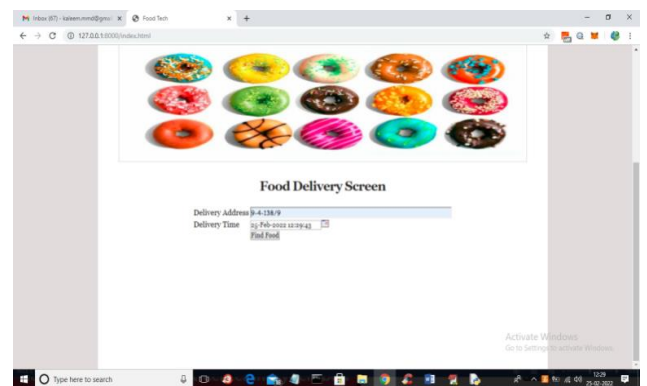
In above screen admin can click on 'Add New Food' link to add new food details



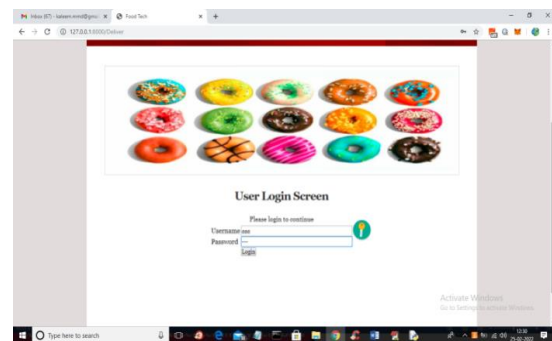
In above screen admin can new food details and upload food image and then click on 'Add Food' button to get below output



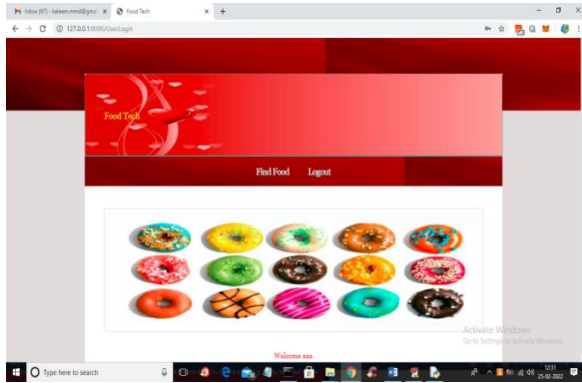
In above screen we can see hash code and block number where this details are stored and similarly you can add any number of foods and now logout and book food



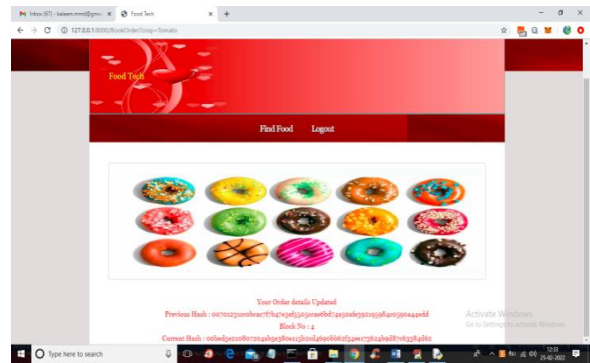
In above screen user can enter delivery address and time and then click on 'Find Food' button to get below screen



In above screen application asking user to get login first in order to continue and then press 'Login' button to get below screen

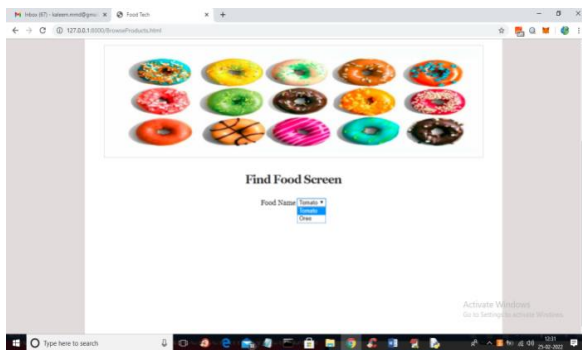


In above screen user can view all details related to food and can view QR code image also and now click on 'Click Here' link to confirm order and get below screen



In above screen user can click on 'Find Food' link to get below screen

In above screen we can see order is confirmed and we can see hash code and block number where this details are stored in Blockchain and now admin can view this order to complete delivery.

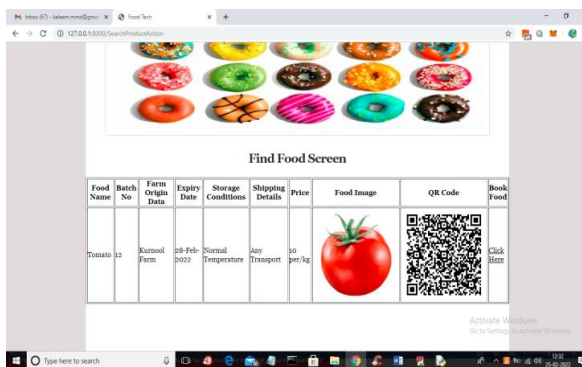


Similarly admin can add any number of new foods and users can browse and book those foods

CONCLUSION

In above screen user can select desired food and then press search button to get below output

Prosperity and health are one of the growing stresses of human life. There is no question that wealth and sustenance are one of the best parts of life. As such, it is important to make mechanical progress in order to help refurbish and even improve prosperity treatment. In this paper, we presented a look at different systems based on a couple of previous evaluation work carried out by important scientists. We can orchestrate the right food through the techniques for that, as shown by our lifestyle. In addition, it is also important to consider the stability and durability of the sensing



bimolecular under field conditions, e.g., is the sensor affected by temperature ranges, the presence of other chemicals and particles? In sensor technology, simpler sample preparation procedures and separation techniques for selective fractionation of bacteria are also a limiting factor.

REFERENCES

- [1] M. Sivakumar, K. Pandi, S.-M. Chen, S. Yadav, T.-W. Chen, and V. Veeramani, "Highly sensitive detection of gallic acid in food samples by using robust NiAl₂O₄ nano composite materials." *J. Electrochem. Soc.*, 166, B29 (2019).
- [2] A Review of Non-destructive Detection for Fruit Quality Haisheng Gao, Fengmei Zhu, and Jinxing Cai Department of Food Engineering, Hebei Normal University of Science and Technology, Changli, Qinhuangdao, Hebei Province, P.R. China 066600 (2010)
- [3] A. B. Ocaj, J. M. Fernandez and T. D. Palaoag, "NutriTrack: Android-based food recognition app for nutrition awareness," 2017 3rd IEEE International Conference on Computer and Communications (ICCC), Chengdu, 2017, pp. 2099-2104, doi: 10.1109/CompComm.2017.8322907.
- [4] N. Benabdellah, M. Bourhaleb, M. Nasri, N. Benazzi and S. Dahbi, "Design of temperature and humidity sensors for an electronic nose used in rotten food," 2016 International Conference on Electrical and Information Technologies (ICEIT), Tangiers, 2016, pp. 505-509, doi: 10.1109/EITech.2016.751965
- [5] R. Rewane and P. M. Chouragade, "Food Recognition and Health Monitoring System for Recommending Daily Calorie Intake," 2019 IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), Coimbatore, India, 2019, pp. 1-5, doi: 10.1109/ICECCT.2019.8869088.
- [6] Atkare Prajwal, Patil Vaishali, zade payal, Dhapudkar Sumit, "Food quality detection and monitoring system." 2020 IEEE International Student's Conference on Electrical, Electronics and Computer Science.
- [7] Natnicha Suthumchai, Sirin Thongsukh, Pacharamai Yusuksataporn, Songsri Tangsripairoj, "FoodForCare: An Android Application for Self-Care with Healthy Food".
- [8] Krithika Jayasankar, Karthika B, Jeyashree T, Deepalakshmi R, Karthika G., "Fruit freshness detection using raspberry pi", *International Journal of Pure and Applied Mathematics Volume 119 No. 15 2018*, 1685- 1691.
- [9] R. Kohila and Prof. R. Meenakumari, "Predicting Calorific Value for Mixed Food Using Image Processing", 2017 International Conference

on Innovations in Information Embedded and Communication Systems (ICIIECS).

[10] “Food Texture Classification Using Magnetic Sensor and Principal Component Analysis.” Hiroyuki Nakamoto, Daisuke Nishikubo, Shuhei Okada, Futoshi Kobayashi and Fumio Kojima.

[11] M. Abbatangelo, E. N. Carmona, V. Sberveglieri, E. Comini and G. Sberveglieri, "Overview of Iot Mox Chemical Sensors Arrays for AgriFood Applications," 2019 IEEE International Symposium on Olfaction and Electronic Nose (ISOEN), Fukuoka, Japan, 2019, pp. 1-3, doi: 10.1109/ISOEN.2019.8823259.