



e-ISSN:2582-7219



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 5, Issue 6, June 2022



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.54



6381 907 438



6381 907 438



ijmrset@gmail.com



www.ijmrset.com



Fake Product Detection Using Block Chain

Mr. R.Raja, Anusha S, Kinchitha Bhat A R, Tamilmani V

Associate Professor, Department of CSE, Velammal Institute of Technology, Chennai, Tamil Nadu, India

U.G Scholar, Department of CSE, Velammal Institute of Technology, Chennai, Tamil Nadu, India

U.G Scholar, Department of CSE, Velammal Institute of Technology, Chennai, Tamil Nadu, India

U.G Scholar, Department of CSE, Velammal Institute of Technology, Chennai, Tamil Nadu, India

ABSTRACT: In recent years, block chain has received increasing attention and numerous applications have emerged from this technology. In our Project uses the decentralized Block chain technology approach to ensure that consumers do not fully rely on the merchants to determine if products are genuine. We describe a decentralized Block chain system with products anti-counterfeiting, in that way manufacturers can use this system to provide genuine products without having to manage direct-operated stores, which can significantly reduce the cost of product quality assurance.

KEYWORDS: fake reviews, fake reviews detection, opinion mining, sentiment analysis, text mining.

I. INTRODUCTION

There are many fake products exist in supply chain and to ensure genuineness of products system is needed. To check genuineness of product Ownership history of the product need to be maintain. IPFS(Inter Planetary File System) is useful to maintain ownership of products. IPFS is peer to peer distributed file system it stores huge volume of data in either object or block or in the file form, it is similar to the Blockchain protocol. Also it is better than http as http downloads file from single device and with help of IPFS network it is possible to distribute huge volume of data efficiently. One more important feature of IPFS is that it doesn't allow duplication. Once the product is stored on network hash code is generated of that product and it is possible to maintain all transaction history of the product and its current owner as chain will be generated for that product transactions. In proposed system we are assigning a QR code to a particular product and end customer can scan that QR code to get all information about that product.

II. LITERATURE SURVEY

A Survey of Counterfeit Product Detection by Prabhu Shankar, R. Jayavadivel. Counterfeit products are growing exponentially with the enormous amount of online and black-market. So, there is a strong need to address the challenges of detecting counterfeit products and designing appropriate technology to improve detection accuracy. This is one of the active research areas to be explored in the current world. This paper discusses various techniques for identifying counterfeit products.

Smart Tags for Brand protection and anti-counterfeiting in the wine industry by steven, Marko. This paper describes a brand protection and anticounterfeiting solution for the wine industry based on smart tags and Cloudenabled technologies. The main idea behind smart tags is to utilize quick response codes and functional inks supported by the Cloud system and two-way communication between the winemaker and end-user.

A Blockchain-based Supply Chain Quality Management Framework by Si Chen, Rui Shi. In this paper, we propose a blockchain-based framework. This framework will provide a theoretical basis for intelligent quality management of the supply chain based on blockchain technology. Furthermore, it provides a foundation to develop theories about information resource management in distributed, virtual organizations.

III. EXISTING SYSTEM

Existing system have use the current tracking system for Product delivery. In this method the admin can take all the control, so they can modify the data and also we need go for the third party for trust and making a security. This system has a lot possibility to change the real product when it's going to customer.



DISADVANTAGE:

- ◆ This system based on centralised system.
- ◆ It has a less security
- ◆ Data base handler can change the data

IV. PROPOSED SYSTEM

Based on existing problems we propose the emerging technology is block chain. In our system has enable the communication between the customer and all other departments. Will make for this trusted system we generate the script Block chain. Also introduced the Decentralised application for making user friendly GUI for the customer to see their details.

ADVANTAGE:

- ◆ Improve the security
- ◆ Make a trusted chain for privacy

Modules:

1. User Interface
2. Database
3. Authentication Module
4. Block chain creating and mining

Block chain creating and mining:

On startup, create the genesis block then server initiates creation of newblock and send the required data Create a new block with the scan data. Mine the block.

User Interface:

The Block chain transactions and blocks can be visualized in a userinterface. Creating web interface for scanning and transactions history on user interface.

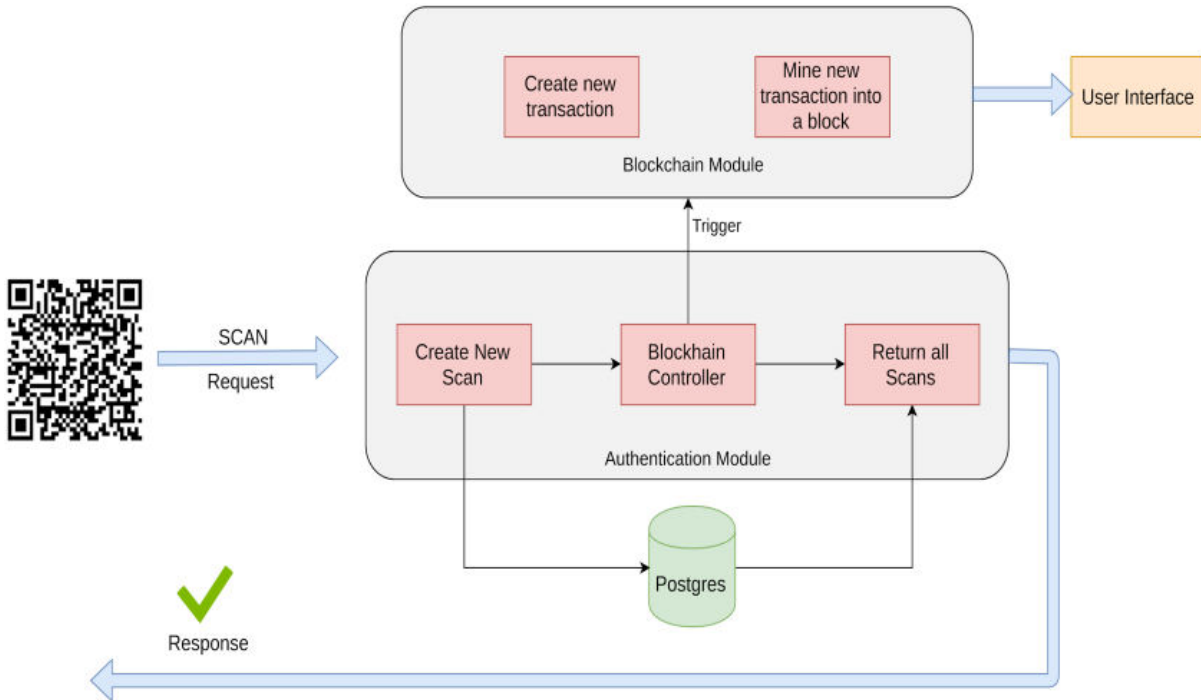
Database:

For storing the meta details about the products we can use the SQL data base. Scans QR Code encoded data within them, which point to theproduct.

Authentication Module:

Allow addition of new products and items. Creates Unique QR Code for each item. Every time the code is scanned. Trigger New Scan and save details in MYSQL Database. Trigger a creation of new transaction in Block chain. After a while Trigger a mining action to Block chain. Block chain mines recent transactions into a new Block.

ARCHITECTURE DIAGRAM



V. CONCLUSION

With this system, the products journey from manufacturing to customer can be recorded, and the customer is assured that the scans weren't faked. Manufacture is able to prove their product is authentic and is also able to track their product's pathway. The setup is easy to implement and requires less operation cost.

REFERENCES

[1] J. A. Konstan and J. Riedl, "Recommender systems: From algorithms to user experience," *User Model. User-Adapted Interact.*, vol. 22, nos. 1_2, pp. 101_123, Apr. 2012, doi: [10.1007/s11257-011-9112-x](https://doi.org/10.1007/s11257-011-9112-x).

[2] J. B. Schafer, D. Frankowski, J. Herlocker, and S. Sen, "Collaborative filtering recommender systems," in *The Adaptive Web (Lecture Notes in Computer Science)*, vol. 4321, P. Brusilovsky, A. Kobsa, and W. Nejdl, Eds. Cham, Switzerland: Springer, 2007.

[3] M. J. Pazzani and D. Billsus, "Content-based recommendation systems," in *The Adaptive Web (Lecture Notes in Computer Science)*, vol. 4321, P. Brusilovsky, A. Kobsa, and W. Nejdl, Eds. Berlin, Germany: pringer, 2007.

[4] S.-T. Li, T.-T. Pham, and H.-C. Chuang, "Do reviewers' words affect predicting their helpfulness ratings? Locating helpful reviewers by linguistics styles," *Inf. Manage.*, vol. 56, no. 1, pp. 28_38, 2019.

[5] V. Srivastava and A. D. Kalro, "Enhancing the helpfulness of online consumer reviews: The role of latent (content) factors," *J. Interact. Marketing*, vol. 48, pp. 33_50, Nov. 2019.

[6] K. Xu, X. Zheng, Y. Cai, H. Min, Z. Gao, B. Zhu, H. Xie, and T.-L. Wong, "Improving user recommendation by extracting social topics and interest topics of users in uni-directional social networks," *Knowl.- Based Syst.*, vol. 140, pp. 120-133, Jan. 2018. [Online].

[7] R. Logesh, V. Subramaniaswamy, V. Vijayakumar, and X. Li, "Efficient User Profiling Based Intelligent Travel Recommender System for Individual and Group of Users," *Mobile Netw. Appl.*, vol. 24, no. 3, pp. 1018-1033, Jun. 2019, doi: [10.1007/s11036-018-1059-2](https://doi.org/10.1007/s11036-018-1059-2).

[8] J. Li, W. Xu, W. Wan, and J. Sun, "Movie recommendation based on bridging movie feature and user interest," *J. Comput. Sci.*, vol. 26, pp. 128-134, May 2018. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S1877750318300012>



- [9] H. Tahmasbi, M. Jalali, and H. Shakeri, “Modeling Temporal Dynamics of User Preferences in Movie Recommendation,” in Proc. 8th Int. Conf. Comput. Knowl. Eng. (ICCKE), Oct. 2018, pp. 194–199.
- [10] S. E. Middleton, D. C. De Roure, and N. R. Shadbolt, “Capturing knowledge of user preferences: Ontologies in recommender systems,” in Proc. 1st Int. Conf. Knowl. Capture, New York, NY, USA, 2001, pp. 100–107,

BIOGRAPHY

Mr.R.Raja, Associate Professor of Computer Science and Engineering Department in Velammal Institute of Technology, Panchetti

Anusha S is a B.E. final year student in the department of Computer Science and Engineering from Velammal Institute of Technology, Panchetti. Her current research focuses on kidney stone detection.

Kinchitha Bhat A R is a B.E. final year student in the department of Computer Science and Engineering from Velammal Institute of Technology, Panchetti. Her current research focuses on kidney stone detection.

Tamilmani V is a B.E. final year student in the department of Computer Science and Engineering from Velammal Institute of Technology, Panchetti. Her current research focuses on kidney stone detection.



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor
7.54

ISSN

INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com