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# Track Money and GST: Integration of Cash Transaction and GST Billing Monitoring System using NFC & Blockchain

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**Abstract:** To track the black money rotation as well as to track the GST payers with Taxation process. We add NFC Hardware to the high value currency from Rs. 500 to Rs. 2000 and also we include Expiry date for all the notes implicitly in the server. During any process vender has to scan the NFC so that received amount is recorded to the main Government server. GST is automatically collected from the vendor. Taxation is also verified with GST from both purchaser and the vendor. Both the accounts are monitored so that malpractice is totally avoided. This system will ensure 100 % genuine Transaction.

## I. INTRODUCTION

Blockchain is that the backbone Technology of Digital Crypto Currency BitCoin. The blockchain could be a distributed info of records of all transactions or digital event that are dead and shared among taking part parties. every dealings verified by the bulk of participants of the system. It contains each single record of every dealings. BitCoin is that the preferred cryptocurrency associate example of the blockchain. Blockchain Technology initial came to light-weight once an individual or cluster of people name 'Satoshi Nakamoto' revealed a study on "BitCoin: A peer to see electronic money system" in 2008. Blockchain Technology Records dealings in Digital Ledger that is distributed over the Network so creating it incorrupt. something useful like Land Assets, Cars, etc. are often recorded on Blockchain as a dealings

The blockchain is an evidently quick creation – the brainchild of an individual or gathering of individuals known by the pen name, Nakamoto. Yet, from that point forward, it has advanced into something more noteworthy, and the principle question everyone is asking is: What is Blockchain? By enabling advanced data to be disseminated yet not duplicated, blockchain innovation made the foundation of another kind of web. Initially conceived for the digital currency, Bitcoin, (BuyBitcoin) the tech network is presently finding other potential uses for the innovation. Bitcoin has been classified "advanced gold," and for a valid justification. To date, the complete estimation of the cash is near \$112 billion US. Furthermore, blockchains can make different sorts of computerized esteem. Like the web (or your vehicle), you don't have to know how the blockchain attempts to utilize it. In this way, we trust you appreciate this, What Is Blockchain Guide. Also, on the off chance that you definitely realize what blockchain is and need to end up a blockchain engineer (2018 – at present in extreme interest!) it would be ideal if you look at our top to bottom blockchain instructional exercise

## II. EXISTING SYSTEM

To destroy the black money is not possible. Because of the people are not pay the correct tax amounts. More number of moneys are hold on single person in a shape of black money. But tracking is impossible.

### A. Disadvantages

- 1) There is no automatic tracking system
- 2) More number vendors are making fraud while paying GST
- 3) There is no tracking system for GST

## III. PROPOSED SYSTEM

It provides all the valid data about Blockchain and its implementation concepts. It is only survey like paper which explains briefly Blockchain concept. We aim to track the black money rotation as well as to track the GST payers with Taxation process. We add NFC Hardware to the high value currency from Rs. 500 to Rs. 2000 and also we include Expiry date for all the notes implicitly in the server. This gets tracks if the money get holds on same place for so long time. It notifies people via SMS to registered mobile numbers. The main aim in this is to track the black money.

#### IV. MODULE LIST

##### A. Currency Enrolment

In this module, we can design and implementation of currency enrolment. In this every currency having tag number, currency value and serial number. Here first the User wants to create an account and then only they are allowed to access the Network. Once the User creates an account, they are to login into their account and request the Job from the Service Provider. Based on the User's request, the Service Provider will process the User requested Job and respond to them. All the User details will be stored in the Database of the Service Provider. In this Project, we will design the User Interface Frame to Communicate with the Server through Network Coding using the programming Languages like Java. By sending the request to Server Provider, the User can access the requested data if they authenticated by the Service Provider.

##### B. RBI Bank Server

Bank Service Provider will contain information about the user in their Data Storage. Also the Bank Service provider will maintain the all the User information to authenticate when they want to login into their account. The User information will be stored in the Database of the Bank Service Provider. To communicate with the Client and with the other modules of the Company server, the Bank Server will establish connection between them. For this Purpose we are going to create a User Interface Frame.

##### C. Blockchain Deployment

A block is a container data structure. The average size of a block seems to be 1MB (source). Here every certificates number will be created as a block. For every block an hash code will generate for security. Here we store all transaction information like land purchase, gold purchase and all other purchasing details will stored on block chain. For every transaction we a block will create with hash code to refer the other block. Transaction detail will be more secure on block chain.

##### D. Hardware Implementation

In this module we are going to interface the Embedded Kit, by which NFC values can be observed. And NFC is communication network is interfaced with the Microcontroller. So that the device can obtain the values. In every shop, office or any place, we install money counting device which would read the currency. Once the device reads the currency means it directly transmits to the RBI server. This system will identify the total money transferred using device by the company. RBI server can also easily track the transaction details.

##### E. Cashless Transaction

In this module, we will create and implementation of cash less transaction. As per the government policy, we are implementing cashless transaction using card. As we are known card transaction is activated in the bank.

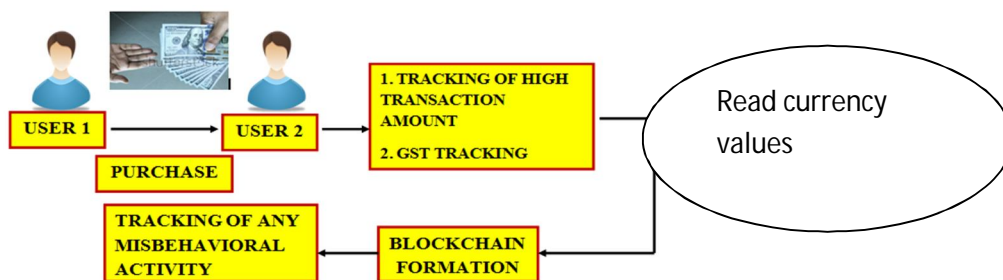
##### F. Black Money Detection

In this module, we will create and implementation of black money detection. Using the entire above four methodologies RBI server can easily track all of the transactions (Income & Expenditure) made by every individual users, merchants or vendors. This is directly compared with the total audit report provided by these people. This system will strongly detect the black money process.

##### G. Expiry SMS Alert

In this module, we will create and implementation of sms alert for expiry date of currency. Every currency note having expiry date. In case currency is expiry means automatic sms alert to corresponding user. This system will totally eradicate the black money.

#### V. ARCHITECTURE





The Overall architecture explain about the entire process of project. User will register their basic information with their aadhar number and they made transaction on their bank account , purchase gold and land using their account. Those transaction information is stored on blockchain and cloud, but in cloud it will stored in three folder like gold, land and bank. Big data will analyze the those information using MapReduce and send those information to RBI what are the transaction are having more than 20K .

## VI. CONCLUSION

This paper conclude that using NFC card we track the money as well we check the GST payment while making transaction .

## REFERENCES

- [1] S. Nakamoto, "Bitcoin: A peer-to-peer electronic cash system," 2008.
- [2] Q. Lin, P. Chang, G. Chen, B. C. Ooi, K. Tan, and Z. Wang, "Towards a non-2pc transaction management in distributed database systems," in Proceedings of ACM International Conference on Management of Data (SIGMOD), San Francisco, CA, USA, 2016, pp. 1659– 1674.
- [3] A. Thomson, T. Diamond, S. Weng, K. Ren, P. Shao, and D. J. Abadi, "Calvin: fast distributed transactions for partitioned database systems," in Proceedings of ACM International Conference on Management of Data (SIGMOD), Scottsdale, AZ, USA, 2012, pp. 1–12.
- [4] P. Bailis, A. Fekete, M. J. Franklin, A. Ghodsi, J. M. Hellerstein, and I. Stoica, "Coordination avoidance in database systems," PVLDB, vol. 8, no. 3, pp. 185–196, 2014.
- [5] "Ethereum blockchain app platform," <https://www.ethereum.org/>.
- [6] Ripple, "Ripple," <https://ripple.com>
- [7] Melonport, "Blockchain software for asset management," <http://melonport.com>.
- [8] J. Morgan and O. Wyman, "Unlocking economic advantage with blockchain. a guide for asset managers." 2016.
- [9] G. S. Group, "Blockchain: putting theory into practice," 2016.
- [10] T. T. A. Dinh, J. Wang, G. Chen, L. Rui, K.-L. Tan, and B. C. Ooi, "Blockbench: a benchmarking framework for analyzing private blockchains," in SIGMOD, 2017.



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