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DIGITAL BANKING USING BLOCKCHAIN

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Abstract : Digital Banking is the website made by using the Blockchain technology. The project "Digital Banking Using Blockchain" is itself tells that it is the banking system used for the transaction of money between different Banks and Costumers of Banks. This paper aims at explaining the architecture of Digital Banking Using Blockchain Technology as well as how it works. Besides various features of the Blockchain, the benefits derived from it are also discussed. The use cases and Blockchain fit assessment has also been performed for few banking transactions.

Keywords **– Digital Banking,Blockchain,Transaction,Encryption,P2P(peer to peer).**

I. INTRODUCTION

Digital Banking Using Blockchain Technology offers a secure and cheap way of sending payments that cuts down on the needfor verification from third parties and beats processing times for traditional bank transfers. The best thing about this is that it is a decentralised database. It is not like the centralised banking database, the data in the blockchain is saved. Digital Banking Using Blockchain is a technology that provides a secure and distributed mechanism to record transactions. The benefits are made possible by the use of public key encryption and P2P architecture, using public or private blockchain networks.

Blockchain, mostly known as the backbone technology behind Bitcoin, is one of the emerging technologies currently in the market attracting lot of attentions from enterprises, start-ups and media. Blockchain has the potential to transform multiple industries and make processes more democratic, secure, transparent, and efficient.

This website enables the right security, where you could keep all our transaction very secure without any outside threats. Blockchain technology is an open, distributed ledger that records transactions between two parties. A blockchain is made up of individual data blocks that include a sequence of connected transactions that are linked in a certain order.

II. LITERATURE REVIEW

Mannheim University, Department of Information Systems A Comprehensive Literature Review On The Blockchain As A Technological Enabler For Innovation, Stefan K. Johansen, Nov 2017, Researchers agree that the Blockchain technology has certain features that is well applied within the financial industry, but still lacks to find the appropriate use of large scale Blockchain usage within modern society. By looking at the main concepts, we find that New innovation, Decentralization and Digital Innovation is amongst the most common concepts found in the literature. Research also points towards the technological features as becoming drivers for disruption and innovation for the technology. One of the main issues of Blockchain technology is scalability which is furthermore backed by researchers who argues that for assuring the theoretically achievable security of the Blockchain, a large number of full nodes are required.

New European, Application Of Blockchain Technology In Crowdfunding: A Case Study Of The Eu ,Dr. Michael Gebert, March 2017,Traditional crowdfunding in EU has been thwarted by concerns of malpractices such as money laundering, information asymmetry, and fraud that prompts legislative restrictions on the fundraising activities. Nevertheless, the blockchain technology is a tool that provides immense hope for a revival of crowdfunding across the world. The technology is a revolutionary and disruptive innovation targeting the reduction of bureaucracy and regulation without compromising legal provisions on business conduct. The blockchain technology provides a distributed public ledger that enhances transparency such that participants can conduct affairs without concerns of imposition over the internet. Most importantly, blockchain technology eliminates information asymmetry in its entirety thus suiting every stakeholder's needs for proof of authenticity.

White paper-Gerogetown University, Chamber of Digital Commerce, Block Chain & Financial Inclusion, Prof. Reena Aggrawal, 2017,A world bank report, 2014 said that around 2 billion individuals who don't have access to banking services. From which 20.6% unbanked individual are form India. In the paper, they discussed that block chain can play significant role in the financial Inclusion process. They said that FI using block chain for internal and cross border payments can lower

costs, shorten settlement time, and provide better user experience. They concluded that regulators should engage, intervene at early stage and shape the innovation.

Guo and Liang Financial Innovation, Blockchain application and outlook in the banking industry ,ye Guo and Chen Liang,2016,In this paper Ye Guo and Chen Liang, had presented their idea by examining Chinese Banking sector. They said that Blockchains could revolutionize the underlying technology of the payment clearing and credit information systems in banks, thus upgrading and transforming them. Blockchain applications also promote the formation of "multi-centre, weakly intermediate scenarios, which will enhance the efficiency of the banking industry. It is worth noting that the problems of regulation, efficiency, and security have always sparked extensive debate in the process of each new financial innovation. However, history is not stopped by current obstacles, as the technical, regulatory, and other problems of blockchain technology will ultimately be resolved. Hence, the prospect of integrating blockchain technology into the banking industry will most likely occur in the near future.

III. PROPOSED WORK

In the presented work, we worked on the Digital Banking System Using Blockchain Technology to overcome the limitationsof other banking systems. We made a website for secure transaction of money. In that system we used a main function called Blockchain to keep it very secure and standard. We can also do the transactions of Cryptocurrency through the blockchain technology.

3.1 User Classes

There are three basic users as

a. User
b. Admin
c. Minner

User: The user of he system can be any one he can use the system as for money transactions as there requirement.All users have their own profiles in blockchain banking system. User can create new account, log-in to their existing accounts which will give them the authority to use the services provided by the system. The User can check their account on fund transfer history. The data of all transaction is stored in the format of block chain that is immutable due to which no one can make fraud with government regarding there the fund.

Admin: Admin has authority to add/delete users, he arranges overall management of website but he has no authority to change the transaction happens during purchasing or selling because the data is form of hash code which is immutable and the transaction details store in block chain.

Minner: It a system which manages all transaction done by user. It is the system in the website.

3.2 Modules

Admin Module:

In this Module admin will have full control over this web application. Various fields available on this screen will be:

- Admin Username
- Admin Password

Registration Module:

In this Module the user has to enter certain details and choose from an option whether he wants to register as an owneror a tenant. The various fields available on this screen will be:-

- Username
- Password
- Email
- Contact
- Address
- User id

Login Moule:

This is the Module where the user can to fill up some details to login to his/her profile page. The various fieldsavailable on this screen will be:

- User ID
- Password
- Key

Hardware Interfaces:

Screen resolution of at least 800X600 is required for proper and complete viewing of screens. Higher resolution will be accepted.

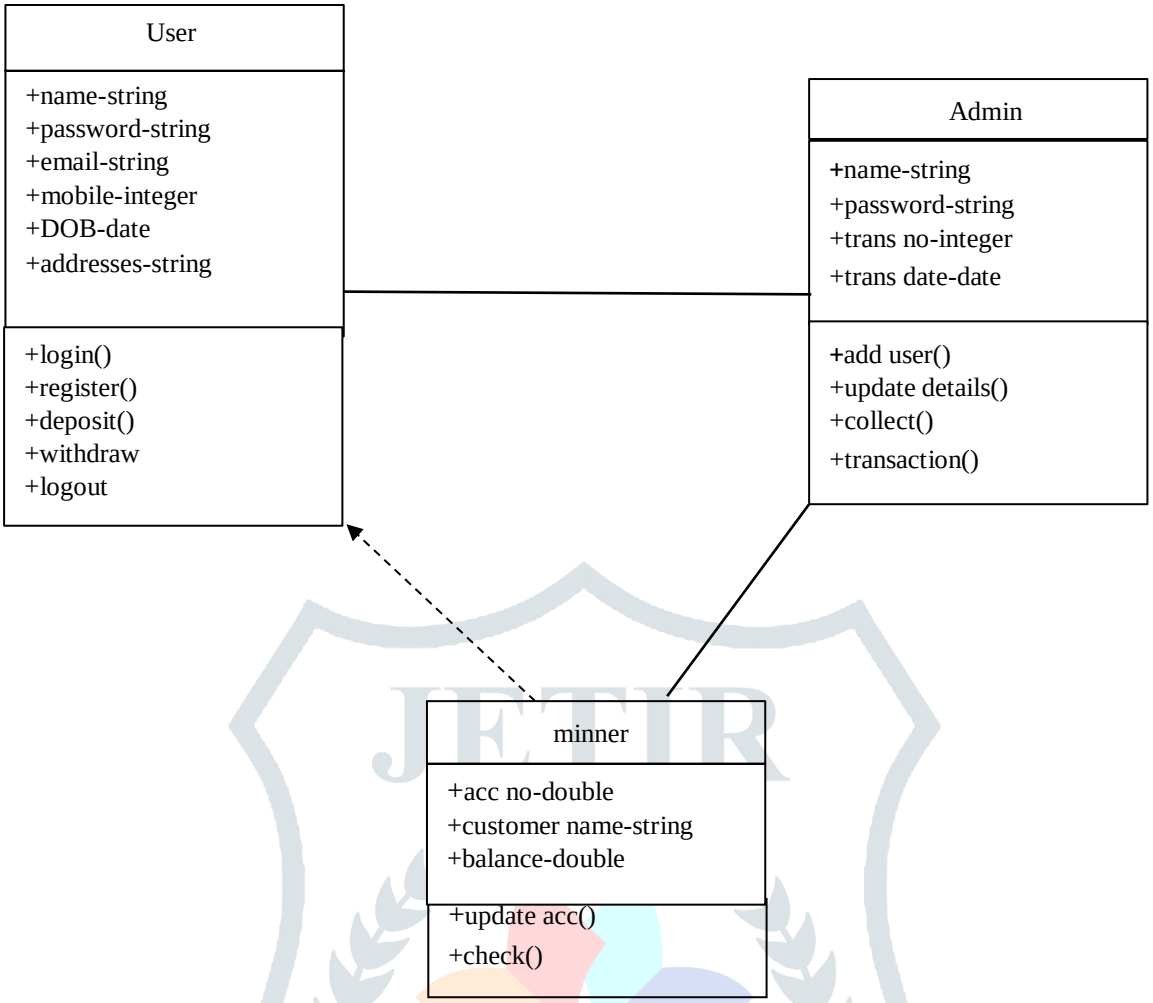


Figure 1. UML Diagram

Database Requirements:

Computers used to access online banking must meet the following minimum requirements:

- Standard PC with at least 1-GHz processor and 1 GB of RAM.
- Available browser updates applied for improved security.
- greater anti-virus and spyware protection.
- Internet connectivity.

3.3 Software Requirements

Browser:

- Google Chrome.
- Mozilla Firefox.
- Microsoft Internet Explorer.

3.4 Hardware Requirements

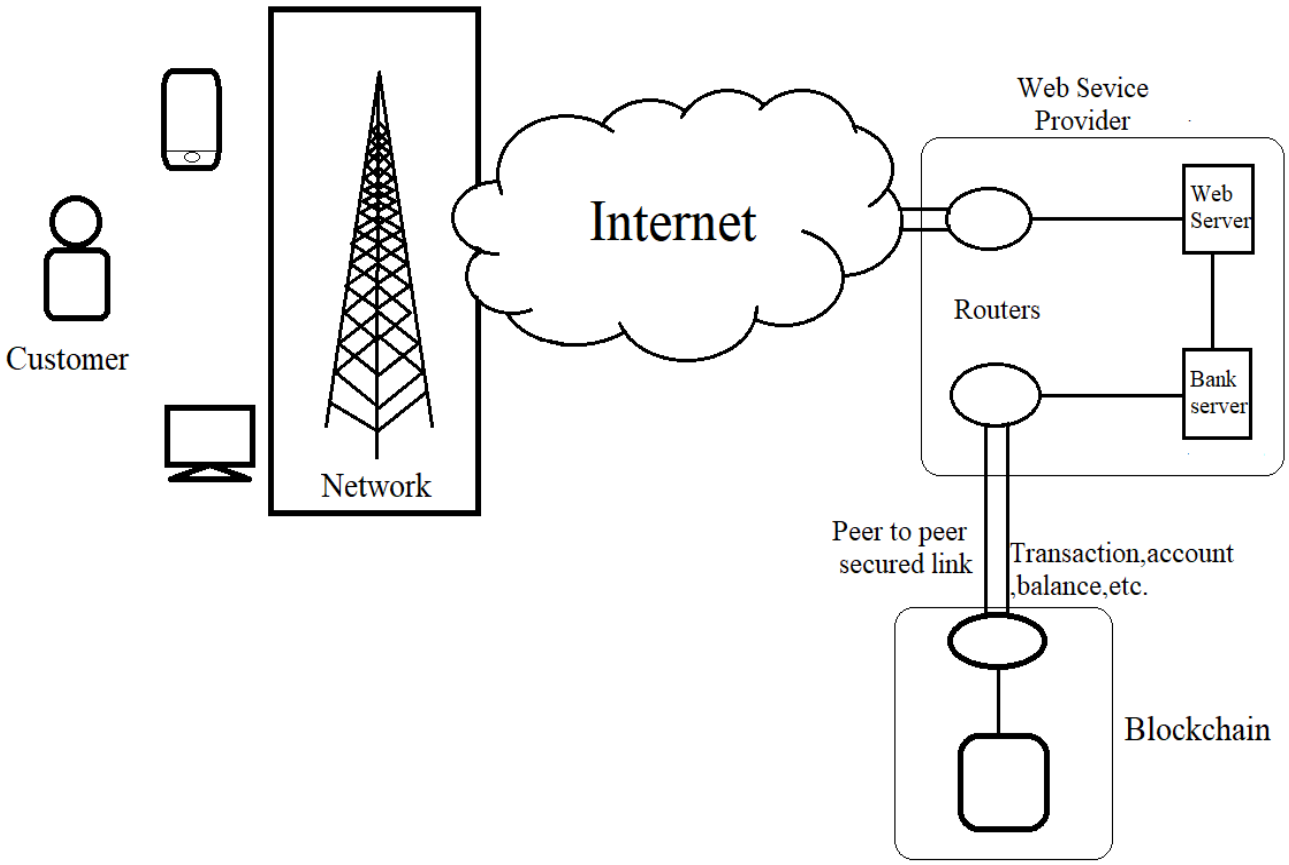
Server Side:

- Operating System: Windows.
- Processor: 3 GHz or more.
- Ram: 256 MB or more.
- Hard Drive: 10GB or more.

Client Side

- Operating System: Windows.
- Processor: 2GHz or more.
- RAM: 256MB or more.

IV. SYSTEM ARCHITECTURE



V. CONCLUSION

We tried to demonstrate all the features of our Digital Banking System and tried to overcome the limitations of other similar systems. We conclude that this Banking system is very secure and easy to use. In above points we tried to tell people about our website that we have created. Digital Banking Using Blockchain it's a website by which we can transfer money from one person to another. Financial companies and banks can use blockchain to create a centralized joint register of transactions that is extremely secure. This means there would be no data redundancies and chances of forging would also be reduced as all the transactions are available centrally.

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