Banking System using Blockchain Technology

Under the supervision

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Department of Computer Science & Engineering

Minor Project First Defence Report Format- Literature Review

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Project Title: Banking System using Blockchain Technology

Group Number: 01

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S.No.	Paper Title	Dataset Used	Algorithm /Methodology/Model	Limitation of the Model	Summary in your words	Future Scope	Cite in APA style
1	**The Implementation of Blockchain in Banking System using Ethereum**	NA	Leading decentralised Cloud Storage platform, P2P connections	Not beginner and user friendly .	The authors introduce Sia, a platform for redistributed storage. Sia allows the formation of storage contracts between peers. Contracts area unit agreements between a storage supplier and their consumer, shaping what knowledge are going to be keep and at what worth. They need the storage supplier to prove, at	This paper has introduced with decentralised cloud storage platform that	Bakaul, Masum & Das, Nipa & Moni, Madhabi Akter. (2020). The Implementation of Blockchain in Banking System using Ethereum. International Journal of Computer Applications. 177. 50-54. 10.5120/ijca2020919895.

					regular intervals, that they're still storing their client's knowledge. Contracts area unit keep in an exceedingly blockchain, creating them in public auditable. during this respect, Sia are often viewed as a Bitcoin by-product that features support for such contracts. Sia can at the start be enforced as associate altcoin, and later financially connected to Bitcoin via a two-way peg.	can be scalable in future with better plans and is open source .	
2	**Protocols for Public Key Cryptosystems**	NA	Different types of cryptographic protocols	None of these protocols are fully proofed. Every protocol has its own limitation and drawbacks.	New scientific discipline protocols that take full advantage of the distinctive properties of public key cryptosystems area unit currently evolving. many protocols for public key distribution and for digtal signatures area unit in short compared with one another and with the traditional different.	This paper has briefly described a number of cryptographic protocols. Certainly, these are not the only ones possible; however, they are valuable tools	R. C. Merkle, "Protocols for Public Key Cryptosystems," 1980 IEEE Symposium on Security and Privacy, 1980, pp. 122-122, doi: 10.1109/SP.1980.10006.

						to the system designer: they illustrate what can be achieved and provide feasible solutions to problems of recuring interest. Further constructive work in this area is very much needed.	
3	**A Blockchain-Enabled Decentralized**	NA	Blockchain implementation using metamask	other users can view the services requested	Blockchain technology is reshaping the the standard economies. individuals could have additional trust than ever before because the dealings is immutable and clear. Success in crypto-		X. Lin, R. Xu, Y. Chen and J. K. Lum, "A Blockchain-Enabled Decentralized Time Banking for a New Social Value System," 2019 IEEE Conference on

	Time Banking for a New Social Value System			by others	currency and different technical areas highlights several engaging options of the blockchain technology that may profit additional aspects of recent society. Time Banking may be a generalized exchange economy not supported cash, however values everyone's contribution on identical scale, the time exhausted. Time banking may be a noble plan with nice potential, however the safety and trust problems don't seem to be well self-addressed. during this paper a BLockchain-ENabled localized Time banking industry (BlendTBS) is projected to make a trusting, dynamic and respectful community. individuals during this community area unit inspired to be engaged in mutual serving relationships. For this purpose, the BlendTBS is intended to reward the residents United Nations agency commit in socially useful activities. associate initial example is enforced on a permissioned blockchain network and atiny low scale study is planned to look at the utility of BlendTBS to a standard community on the island of		Communications and Network Security (CNS), 2019, pp. 1-5, doi: 10.1109/CNS.2019.8802734.

					Aneityum, Republic of land. inside a specific community within the village of Analgahuat, deeper insights are explored by observant the trust enabled by Blockchain technology that enables peer to look service exchanges between any 2 people. Authors hope this position paper could inspire additional interests within the roles that blockchain technology will play in trendy society.		
4	**Blockchain - A Financial Technology for Future Sustainable Development**	NA	Benifits of using blockchain in financial and banking sector	Using old banking practices , affects majorly on customer experience .	After the world money crisis 2008, the globe has been swing a lot of effort in alteration banking and money activities with stricter rules. However, the effectiveness of this policy has remained polemical as many of us believe that policy manufacturers ought to promote freedom and transparency by empowering the general public to directly interfere and alter the system for public interest. this text makes an attempt to synthesize and analyze offered data with a spotlight on the role of blockchain, a money tool that may probably play a vital role within the property development of the world economy. The new technology is anticipated to bring large	This paper explains the history of banking systems and how blockchain can help banking systems providing transparency and security to the	Q. K. Nguyen, "Blockchain - A Financial Technology for Future Sustainable Development," 2016 3rd International Conference on Green Technology and Sustainable Development (GTSD), 2016, pp. 51-54, doi: 10.1109/GTSD.2016.22.

					advantages to customers, to current banking industry and to the entire society normally.	customers.	
5	**Research of a Possibility of Using Blockchain Technology without Tokens to Protect Banking Transactions**	NA	Public and private token used for transactions	The server is not secured for transactions in blockchain without token authentication	This paper discusses the utilization of Blockchain technology while not tokens to guard info regarding banking transactions, namely, transfer amounts, card details, names of participants, etc. this subject has relevancy, since the digital economy is changing into associate degree integral a part of fashionable life. The processed info passes through the info of banks and payment systems, that doubtless makes it offered to the assaulter. The article analyzes the protection mechanisms of distributed databases, proposes an answer to the matter of maintaining the individuality of data in them supported Blockchain technology while not tokens and offers recommendations on the introduction of Blockchain technology into fashionable banking		N. A. Popova and N. G. Butakova, "Research of a Possibility of Using Blockchain Technology without Tokens to Protect Banking Transactions," 2019 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (EIConRus), 2019, pp. 1764-1768, doi: 10.1109/EIConRus.2019.8657279.
6	**Expeditious banking using**		Cryto-currency used to enchance security	Failure of cryto-currency lead to	Block chain has a stimulating support of bit coin, the digital crypto currency with Associate in Nursing ever increasing sphere of users worldwide. But, block chain	In future, Security can be	V. Naik, R. Pejawar, R. Singh, A. Aher and S. Kanchan, "Expeditious banking using Blockchain Technology," 2020

	Blockchain Technology			complete breakdown of server chain	in itself is far over simply bit coin, it's the new generation security system encapsulating processes nonparallel of blocks to produce a secure method of recording transactions and it's circulated among signatories, or any target cluster being the participants within the method. It attracts its charm out of the very fact that it achieves this while not the requirement of any central authority. Current banking design is basically centralized and so at risk of load defaults and frauds just like the PNB scam, Videocon case, coraciiform bird scam and lots of a lot of. Banking everywhere the planet has adopted block chain technologies and it's the requirement of the hour for regulation and shunning of such scams. Thus, we have a tendency to square measure exploitation block chain technology for the decentralised operating of banks and therefore the complete removal of authoritarian interception. The model that we have a tendency to square measure proposing includes block chain encapsulated within the method of NEFT	enchanced to prevent server chain from ethical attacks	International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE), 2020, pp. 1-6, doi: 10.1109/CISPSSE49931.2020.9212253.

					(National Electronic Fund Transfer) exploitation IFSC (Indian national economy Code) incorporating the protocols set down by tally for secure and decentralised fund transfer. Our blocks can contains the method computed in java small services. The ledger are interconnected among themselves exploitation agreement algorithms.		
7	**Improving Banking Transactions Using Blockchain Technology**		Usage of 3rd party application to make blockchain transaction easy	Using 3rd party applications , apply some restrictions, and security issues which are faced while international transactions, Which takes time as well.	Today, the bulk of banks provide many alternative on-line services to their customers and our study case can focus specifically on domestic and international banking transactions. By doing these services, these banks use enough time to conduct bank transactions from one checking account to a different, a number of that take over per week, below a security that doesn't absolutely respect the privacy of operators and below the mercy of bound third party's services. sadly, these banks face the restrictions of payment systems (such as SWIFT, SEPA, and union pay) for international transactions and different banking exchange services. To remedy these issues of third-party trust, exaggerated	Improving transaction speeds , from issuing cheque to paying directly online with security following payment protocols ,eliminating 3rd party role	S. Sakho, Z. Jianbiao, F. Essaf and K. Badiss, "Improving Banking Transactions Using Blockchain Technology," 2019 IEEE 5th International Conference on Computer and Communications (ICCC), 2019, pp. 1258-1263, doi: 10.1109/ICCC47050.2019.9064344.

					latency, payment of high dealings fees, issues of thieving and falsification of banking info, we are going to started a storage and bank exchange platform, supported a non-public and confidential blockchain. during this platform, variety of approved users are ready to hold and operate the nodes which will support the network. obscurity within the world is there a system that directly connects banks, currencies and money establishments while not a sure third party. In our case, these sworn users are banks. This platform can eliminate the presence of the sure third party that is that the third entity through that the assorted transactions and banking info should pass. to start with, our platform can eliminate third-party trust, promote user-user dealingss so store bank transaction info within the blockchain. Our blockchain platform can enable users to create secure and confidential transactions at a lower price and while not a far off exchange ban because of a most quantity to not exceed like the	in transactions which makes payments slower.	

					case of banks.		
8	**Blockchain Application in Banking System**		Blockhain usecases in banking sector	NA	This review and discussion are planned for the legitimate comprehension of the blockchain innovation's effect on financial framework. Blockchain innovation offers the banking industry numerous interesting chances. For observable effects to happen in the financial industry, certain difficulties should be overcome. In any case, notice that new protection laws should be trailed by the financial business for utilizing this innovation. Security laws should be followed for the wellbeing of both people and associations. The financial business is inseparable from tremendous information. Thus, the applicable specialists need to control and direct the entire cycle for the wellbeing of this gigantic measure of information. Blockchain innovation is still developing and numerous new highlights of the blockchain have arisen in the long term. Presently, it may be seen very well that market is overwhelmed by a gathering of huge organizations uncommon in the tech area, where the big four, Amazon, Facebook, Google and Apple overwhelm. In any case, the truth is that nobody owns the rights to the blockchain. Along these lines,	NA	Chowdhury, M. , Suchana, K. , Alam, S. and Khan, M. (2021) Blockchain Application in Banking System. *Journal of Software Engineering and Applications*,**14**, 298-311. doi:10.4236/jsea.2021.147018.

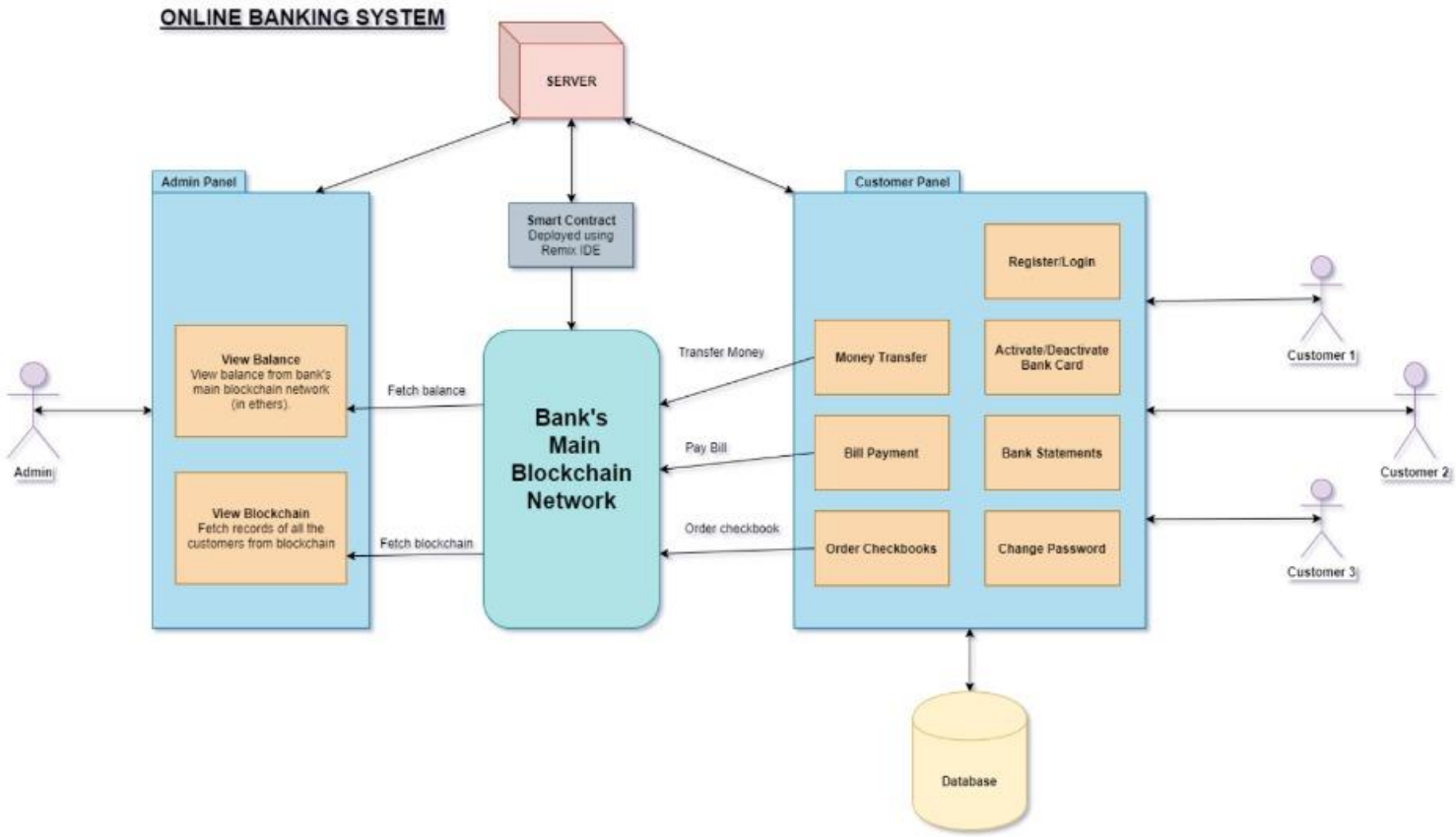
					if any new start-up needs to utilize the blockchain in their plan of action, they can do so easily and without any problem. Despite the fact that at first blockchain was planned as a data set stage for cryptographic forms of money, yet now this innovation has been demonstrated as quite possibly the most troublesome innovation to the financial business. It is sure that if banking industry doesn't begin to utilize this innovation appropriately, it will deliver them outdated.		
9	**Use of Blockchain for the Internet of Things**	NA	Different use cases of blockchain in real world	NA	The paradigm of net of Things (IoT) is paving the means for a world, wherever several of our daily objects are interconnected and can move with their setting so as to gather data and modify sure tasks. Such a vision needs, among alternative things, seamless authentication, knowledge privacy, security, lustiness against attacks, straightforward readying, and self-maintenance. Such options is brought by blockchain, a technology born with a cryptocurrency known as Bitcoin. during this paper, an intensive review on the way to adapt blockchain to the particular desires of IoT so as to develop Blockchain-based IoT (BIoT)	NA	T. M. Fernández-Caramés and P. Fraga-Lamas, "A Review on the Use of Blockchain for the Internet of Things," in IEEE Access, vol. 6, pp. 32979-33001, 2018, doi: 10.1109/ACCESS.2018.2842685.

					applications is conferred. when describing the fundamentals of blockchain, the foremost relevant BIoT applications square measure delineates with the target of accentuation however blockchain will impact ancient cloud-centered IoT applications. Then, this challenges and attainable optimizations square measure careful concerning several aspects that have an effect on the planning, development, and readying of a BIoT application. Finally, some recommendations square measure enumerated with the aim of guiding future BIoT researchers and developers on a number of the problems which will need to be tackled before deploying subsequent generation of BIoT applications.		
10	**Impact of Blockchain Technology Platform in**				blockchain technology platform on the financial sector through cryptocurrency, and an impact on other industries.. The subject of research is not only this technology but also its commercial exploita- tion. In order to understand the		Knezevic, Dusko. (2018). Impact of Blockchain Technology Platform in Changing the Financial Sector and Other Industries. Montenegrin Journal of Economics. 14. 109-120. 10.14254/1800-5845/2018.14-1.8.

	Changing the Financial Sector and Other Industries				platform, the starting point of this research is an analysis of how the technology functions, after that the advantages for business and economic transaction are identified, and finally the paper deals with an impact of new technology on business, above all on financial operations. The basic hypothesis is that blockchain has achieved a great impact on financial sector, also it has the potential to radically change only the financial sector but also the way we buy and sell, our interaction with the authorities as a way of verifying the ownership from the authorship and the organic food production. Using the available data and synthesis of knowledge from the fields of technology, economics, finance, and politics, 4 scenarios were set up for the future of underlying technology. The scenario approach combined with trend analysis in order to prove the starting hypothesis with high reliability. The research results show that the		

					technology being investigated already has a profound impact on the financial sector, that it is in the initial phase of changing many industries, with the likelihood that they will change them significantly in the next five to ten years. Businesses increasingly discover the power of this technology to exploit the benefits of the Fourth Technological Revolution.		

Chapter -2


ONLINE BANKING SYSTEM
SERVER
Admin Panel
Smart Contract
Deployed using
Remix IDE
Customer Panel
Register/Login
View Balance
View balance from bank's
main blockchain network
(in ethers).
Fetch balance
Bank's
Main
Blockchain
Network
Transfer Money
Money Transfer
Activate/Deactivate
Bank Card
Customer 1
Admin
Pay Bill
Bill Payment
Bank Statements
Customer 2
View Blockchain
Fetch records of all the
customers from blockchain
Fetch blockchain
Order checkbook
Order Checkbooks
Change Password
Customer 3
Database