Commercial Rental Management System

Mr. Saravanan B¹, Girinath SG², Bhuvanesh Kumar J³, Balasugumar K⁴, Gobinath R⁵

¹Assistant Professor, Dept of Computer Science and Engineering ^{2, 3, 4, 5}Dept of Computer Science and Engineering ^{1, 2, 3, 4, 5} Sri Eshwar College of Engineering, Coimbatore, TamilNadu, India.

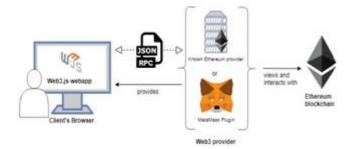
Abstract- A majority of unpleasant issues faced by owners and tenants seem to grow due to lack of communication. Late rental payments turns into an eviction. A non-functional AC or a broken window becomes a reason to break a lease. Fortunately, building a positive relationship doesn't take much effort and it all starts with one basic idea: communication. Commercial Rental Management System provides the solution by offering the ability to share issues between tenants and owners which leads to rapid issue resolution and fewer misunderstanding. The goal of the application is to create a better relationship between tenants and owners . The Commercial Rental Management System is designed to support both tenants and owners by enabling them to document and communicate repair issues, send automatic rent reminders, package notifications and emergency information. It helps the tenant with making Payments and it also helps the owners to keep track of issues posted by tenants. Effectively resolving the apartment issues is important to the tenant's long- term future and the Commercial Rental Management System will be an important tool for creating rental housing stability by helping tenants speak with greater credibility through initiating and documenting communications and building productive relationships with owners.

Keywords- Blockchain, Ethereum, Smart Contract, Dapp [decentralized application], Lease/ Rental Agreement, estate.

I. INTRODUCTION

Online Commercial Rental Management system is a webpage which works with the key concept of Blockchain technology. The Blockchain is a FINTECH disruptive technology based on cryptography. In 2008 who Proposed white Paper about this technology can become the major core component to maintain transactions of the digital currency namely bitcoin. With this introduction of Blockchain applied, many fields such as Banking, Education, Finance Sector, and Clayming Insurance sector, Health Sector, accounting, and real estate will receive a positive impact using the benefits of this technology. On Interesting area in which blockchain technology could play a vital role in estate for Leasing a Properties like lands, Houses, Agriculture acres, Buildings, farms, etc without Third party services or avoiding middleman. It is anticipated that the evolution of technology,

not only improves life also maintain time Management, for example The tenants or The office workers, but also enhances building performance and sustainable energy. The Blockchain is known to be the distributed peer-to-peer (P2P) public ledger for all transactions, eliminating the need of trust between the users and the central authority and Governance, so control is distributed among different computers/nodes in the P2P network. The trust between the users and the central authority and Governance, so control is distributed among different computers/nodes in the P2P network. Andwhere owners, clients, can exchange information effectively and inexpensively. This project is the Rent Roll page, which means entering tenant payments, emailing statements and documents, viewing tenant note And where owners, clients, can exchange



information effectively and inexpensively. This project is the Rent Roll page, which meanss entering tenant payments, emailing statements and documents, viewing tenant notes. And highlighting any tenant for tracking purposes, moving tenants in or out. This module is operated by the user who is the owner of the property and wants to give it for rent. The owner should register with an application that will be authorized by the client. The owner can upload room details, pictures, location, rent, etc. Which comes under the owner module. The owner can view the house and add a house form his module. This module is operated by a client who is an admin to this application who will look after users registering with the application (owners and customers) and active and deactivate them. The customer is activated by the client and customers can search based on specifications and get results about rent details.

Page | 684 www.ijsart.com

II. METHODOLOGIES IN COMMERCIAL RENTAL MANAGEMENT SYSTEM

A.EXISTING METHODS

The Current System is a computerized system but which is maintained at individual databases. The system doesn't provide complete online services like online reports, and centralized database. In the current all the data is maintained mostly manual and in Excel Sheets. The data security and data accessing is very slow. The current system takes time in retrieving a single record from the data base. vendors face problems managing the and storing the datas. Physically maintaining data is tiresome and at times hard for back-up or retrieval of data. To maintain the huge stocks in a notebook is out of time and more importantly are prone to various damages. Inventory costs have a significant effect on the firm's profitability and success. The identification of key success factors and making the right choices at the right time are essential for commercial rental management system and optimised decisions.



B. Proposed System

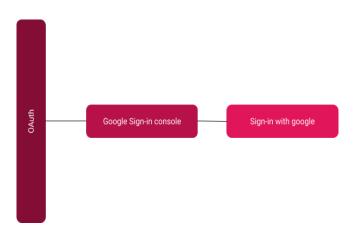
The Proposed system is a browser which is completely related to online system, which provides the centralized database. The web enabled designed to automate the entire operation. The system providing Property Management to commercial or property Management Company. This helps customer to save time & get right business solution for your business. Hard copies of data are vulnerable to physical harm, and restoring them is a timeconsuming operation. To address this issue, we introduced a cloud backup solution, which allows us to access data from any device at any time. Due to the integration of cloud computing technologies into our framework, multiple workers can access and update data in real time. The system provides the faster data accessing when compared to previous one. Since it's a web application, you can keep track of your business from anywhere.



III. MODULES IN COMMERCIAL RENTAL MANAGEMENT SYSTEM

A. AUTHORIZATION MODULE

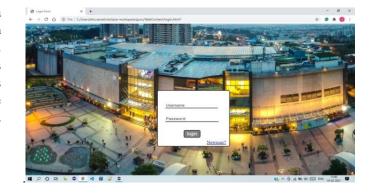
The authorization module is in charge of user login and account registration. Through using Google Login, all of our application's login operations are managed by Google Cloud Console, which also provides a security token.



B.LOGIN MODULE

Input activity comes under login module.

login module handles all the data entered by the user and saves it in the database



Page | 685 www.ijsart.com

C.OUT MODULE

Output activity comes under OUT MODULE. The Out module handles displaying all the saved data to the user through Out activity.



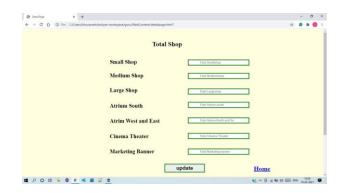
D. GRIEVANCE

The tenets or owners who needs to sort the query this can be done through Grievance.



IV. RESULT AND DISCUSSION

The Commercial Rental management system is a web application that uses Oauth for authentication, cloud computing for real-time updates, and cloud storage for data backup and recovery. It's a simple web application that connects to the cloud so that information can be refreshed in the store for confirmation. It's a safe programme that ensures no details from the owners and tenants leaks out. Furthermore, it gives the clear listing of space in an organised appearance so that we know what is sold at the end of the month .This usually entails adding of freshly space and lease space for commercial purpose .The current study's next step would be to put the results of demand forecasts safety , and reorder points into simulation software to get more accurate results.



V. CONCLUSION

To summarise, This paper has presented an overview of the Blockchain technology as a Fintech technology in rental management industry. This study on smart contract was deliberate and determines various components in rental agreement with owners and Tenants. Property management is Future development process to avoid middle-man, Brokerage chargers and Trust anyone can assess with Blockchain. our Commercial Rental management system programme is a web application that assists in keeping track of owner and tenants data, storing data digitally, securely backing up and retrieving data from the cloud, and real-time multi-user access for Commercial Rental management system using only a web. The web-based rental system has offered an advantage to both Tenants as well as owners to efficiently and effectively manage the business and satisfies customers' need at the click of a button. We have also planned to develop a mobile application that will enable users to access and manage data from any device. with an internet connection. As a mobile application, we hope that our software can support more economically capped vendors, especially in developing countries such as India.

REFERENCES

- [1] Satoshi Nakamoto. (2018) "Bitcoin: A Peer-to-Peer Electronic Cash System" https://bitcoin.org/bitcoin.pdf
- [2] **Deloitte.** (2016)What is Blockchain?https://www2.deloitte.com/content/dam/Deloi tte/uk/Documents/Inn ovation/deloitt e-uk- what-is-blockchain-2016.pdf
- [3] Zhao, J.L., Fan, S. and Yan, J. (2016) Overview of Business Innovations and Research Opportunities in Blockchain and Introduction to the Special Issue. Financial Innovation, 2, 28. https://doi.org/10.1186/s40854-016-0049-2
- [4] Deloitte. (2017) A New Game Changer for the Media Industry? https://www2.deloitte.com/content/dam/Deloitte/tr/Docu

Page | 686 www.ijsart.com

- ments/tec hnology-mediatelecommunications/deloitte-PoV-blockchain- media.pdf.
- [5] X. Xu, C. Pautasso, L. Zhu, V. Gramoli, A. Ponomarev, A. B. Tran, and S. Chen, "The blockchain as a software connector," in 2016 13th Working IEEE/IFIP Conference on Software Architecture (WICSA), pp. 182-191, IEEE, 2016.
- [6] V.Buterin, "On public and private blockchains," Available online at: https://blog.ethereum.org/2015/08/07/on-public-and-private-blockchains/[Accessed 1/03/2017].
- [7] Morris, David Z. (21 January 2014). "Bitcoin is not just digital currency. It's Napster for finance". Fortune. Retrieved 7 November 2018.
- [8] Cachin, Christian. "Architecture of the Hyperledger Blockchain Fabric". ibm.com.
- [9] Chapter 9: Building a Secure Future, One blockchain at a time, US Senate Joint Economic Committee, March 2018.
- [10] "Belarus Enacts Unique Legal Framework for Crypto Economy Stakeholders" (PDF). Deloitte. December 27, 2017.
- [11] W. Banasik, S. Dziembowski, and D. Malinowski, "Efficient zero- knowledge contingent payments in cryptocurrencies without scripts," in European Symposium on Research in Computer Security, pp. 261-280, Springer, 2016.
- [12] W. Egbertsen, G. Hardeman, M. van den Hoven, G. van der Kolk, and A. van Rijsewijk, "Replacing paper contracts with ethereum smart contracts," 2016.
- [13] Implementation of Lease Agreement" code available in shankermjj Repository with proper Guidelines. https://github.com/shankermjj/Rental-Agreement.

Page | 687 www.ijsart.com