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Avoiding Illegal Land Registry using Blockchain

Chandan Kumar T[1] and Chandan M[2]
Students, Department of Information Science and Engineering[1,2]
Global Academy of Technology, Bengaluru, India

Abstract: *The Land Registry system is an essential department for any government system, who maintains the crucial information about the land like ownership, transaction history and many more. There are various escape clauses in existing framework that raise the possibilities of misdirection and questions. To resolve this issue, we have accompanied an answer of carrying out blockchain in the land vault framework. A safe stage for land library framework utilizing Blockchain has been anticipated. Blockchain here is utilized as partner electronic record of computerized records and exchanges that are scrambled utilizing cryptography[1]. This framework targets concocting a model for secure and consistent land enlistment framework upheld blockchain innovation, which can make simple to dispose of the provisos in the ongoing area vault framework. Our framework gives one-of-a-kind character to each land, enlisted and checked for the land proprietor which can't be altered or repeated in this way, this gives secure exchanging of land. The land proprietor will be furnished with the ID when the land is enrolled in our framework and will be moved to the next client once he sells his territory. So, nobody can imitate as other client and there will no opportunities for deceitful or trick.*

Keywords: Land Registry system

I. INTRODUCTION

Overview

Land registry maintenance process is overly complex, primarily due to the cumbersome task of securely storing extensive registers in written form, posing challenges for accessibility and efficient record management.

Purpose

Existing System in undependable since numerous ways as larger part of the cycle isn't straightforward, system is slow, and the exchange of property at least a few times should be recorded precisely. To settle this issue, we are executing blockchain technology, to conquer these issues and experience the issues associated with land vault framework as referenced previously[2]. Blockchain is the dispersed record innovation that keeps verifiable record of all exchanges that have occurred across a distributed organization. Carrying out land vault utilizing blockchain helps motel keeping away from deceitful exercises consequently making the framework safer.

Background

Execution of use utilizing blockchain ensures the nature of computerized information that is being utilized. Protection issues like information security break and data fraud in computerized space are all around tended to. Present day innovation involves secret key based verification for getting to private data.

Our framework utilizes this blockchain innovation and annihilate the issues in the current framework. We give a method for getting exchanging of land and the security isn't compromised anytime. Archives given by every client are confirmed straight via land overview division and on effective verification of reports, the land proprietor will furnish with the remarkable ID which is connected with the land possession document and which will give to the following client in the wake of selling that land. This tries not to exchange of same land. Furthermore, by this being the web-based stage eliminates the requirement for a remarkable ID which is connected with the land possession document and which will give to the following client in the wake of selling that land[3]. This tries not to exchange of same land. Furthermore, by this being the web-based stage eliminates the requirement for a mediator or specialist to sell or purchase the land. This additionally records all the exchange history of every specific land and is secure.

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II. PROBLEM IDENTIFICATION

2.1 Current System

The current system has many flaws in it. There is no transparency between the transactions. There is a lack of secu-rity in the existing model and the time taken to complete thetransaction process is really slow, so this makes the users toget frustrated on this system. Due to lack of awareness of thissystem fraudulent activities like document duplication, thereis a fear of loss of documents[4]. It requires a large storage space and maintenance as they are physical records hence, more man power is required and the cost is really high.

2.2 Study of Problem

A lot of Energy and resources are wasted in maintaining physical records which can lead to difficulty in maintaining the history of land ownership and is a really slow process. According to study, many real estate scams, corruption, du-plication of records takes place and it is really tedious and delayed process which can lead to users getting frustrated.

III. GOALS AND OBJECTIVES

The objective is to give a solid stage to land exchanging.
To digitalize the conventional method of land vault process.
To provide the land registry at minimum cost

- To annihilate the long holding up time of conventional favorable to access of land library.
- To keep report from misfortune by digitalizing documents.
- To make the land library process quicker.
- To make the land vault process simple.
- To stay away from the need of go between or representative[5].
- To diminish the labor supply.
- To make exchanging of land more straightforward.
- To stay away from false exercises.
- To diminish the desk work.
- To make the selling and purchasing process straightforward.
- Guarantee the responsibility for.

IV. METHODOLOGY

User registers themselves to the system/website, on successful registration the user is directed to the dashboard. Here on dashboard the client can add, sell, or purchase the land and furthermore view their past history of exchanges made, on the off chance that client claims property, they need to add their territory subtleties and get the land checked from the land division. Land office at first checks the archives given by the client. What's more, on effective confirmation they will give every client the special ID which will be connected to that land report and at whatever point this property is sold this interesting ID alongside proprietorship will be passed to the purchaser[6]. At the point when a client starts a purchase re-journey this solicitation will be informed to both the vender and the land division and will be additionally handled via land office. After check of the land and installment medium the land possession alongside extraordinary ID will be moved to the purchaser with assent of both purchaser and dealer.

2.1 Proposed solution for the system

Blockchain and Web3 Blockchain technology works by using a peer-to-peer net- work to create an immutable ledgerof transactions. These transactions are then verified and stored by an ever-growing network of computers. Every hub (PC) in the organization stores a duplicate of the record, and the record is refreshed at whatever point an exchange is made. This makes it basically unimaginable for programmers to alter the information. Moreover, the innovation is likewise used to make smart contracts, self-executing arrangements between two standard ties that are upheld without requiring an outsider. This makes the innovation ideal for different applications, like in the monetary administrations, medical care, government, and sup-utilize chain enterprises. Web 3.0: It is an Internet highlight for public blockchain, It consolidates blockchain

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wordings[7]. It can likewise be expressed as a decentralized web-based biological system in view of blockchain. It gives highlights like scale-capacity, security and different functionalities.

2.2 Implementation Details

Initially, the end users of the land registry system i.e. Land proprietors, Land Purchasers utilize our web stage to trade a land. We use blockchain to securely deal with the exchanges associated with this cycle. The Land Office assesses the solicitations raised by the merchants and purchasers, checks the clients and supports the legitimate exchanges[8].
If the client has any desire to add the land in their dashboard the client sends an add solicitation to the land division by sharing the records and on effective confirmation from the land office the land division gives an Extraordinary symbolic which exceptionally recognizes each land and keep away from report altering and duplication.

V. APPLICATION

- There will be straightforwardness in the exchange.
- Gives security.
- To give speedy handling.
- No go between
- Nitty gritty documentation of framework will be given.
- To forestall cheats and tricks.
- Records are digitalized and liberated from dread of misfortune.
- To keep away from enormous extra room for actual records.
- To diminish labor supply.
- To kill paper work.
- To decrease land library cost and make it cost productive.
- Careful use of assets.
- To keep public from land cheats.
- To make the course of land enrollment simple and basic.
- Safely keeps up with the land possession history

VI. LITERATURE SURVEY

Projects	Proposed Works	Review
A Novel Framework for implementation land registration and ownership management by Md Sakibul Islam, Fahmid Shahriar Iqbal	Framework developed for land registration ownership and management using blockchain	Easy to use
Chain of Ownership by Hannah Natasha Hariharan, Abarnah Kirupananda	A Solution to reduce land forgery through a transparent land ownership portal	helps to avoid the tampering of documents
Blockchain enabled digitization of land registration by RC Suganthe, N Shanthi, RS	Digitalization of the present registry system	Makes the registration process faster
From Internet of Things to Decentralized IoT Blockchains by Atzori, M., Iera, A., & Morabito, G.	Decentralized IoT blockchains.	Enhanced Scalability for IoT Blockchains
The Use of Blockchain in Land-Administration: A Research Framework. By Meier, A., Klein, L. A., & Riedl, C.	Community Engagement and Awareness:	To educate stakeholders, including government officials,
Blockchain in Land Administration – Is Another Hype Justified?" by Schoof, U., Bock, J., & Kortuem, G., Latha	Carbon Footprint Reduction Strategies	Its proof-of-work (PoW) form, has faced scrutiny due to its energy-intensive nature.

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In current well-functioning Land registry systems transactions are physical in natures. The normal system indirectly affects the cost, paper resources, storage for huge record keeping, security problems with the records. Land proprietor transport is perhaps of the most disputable and contentious issue in India today. India has numerous provincial and regional questions. There are many questions going on in view of the responsibility for land.

The income branch of Haryana gained some headway in digitalizing the land enrollment by creating HARIS for enlisting property and HALRIS for dealing with the land records. Regardless of these advances, land vault process is as yet intricate[10]. For enlistment of records, the approved signatories of dealers and purchasers should be available, alongside two observers.

Blockchain gives straightforwardness of the records, exchanges. Over beyond five years, states have conveyed blockchain globally to further develop administration and guarantee the uprightness of freely available reports[11]. The Unified Countries advancement program was especially keen on fostering an answer that would further develop land library in India. Block scale arrangements worked in a joint effort with the state government to working model of a blockchain empowered library[12].

Our project mainly aims at providing the secure transactions, transparency of records. Digitalizing of documents prevent the loss of records. We are mainly focusing on digital service delivery and to invest in re-engineering processes to boost efficiency. Our system is incredibly economical, asit involves fewer human resources[13]. This system is more reliable as compared to the traditional system.

VII. CONTRIBUTION TO SOCIETY AND ENVI-RONMENT

- To make the process land registry quick, easy and simple.
- To prevent people from fraud and scam.
- Careful utilization of asset like paper, labor by digitalizing the interaction[15].
- Decrease crafted by land division by digitalizing it and lessening the expense of support of record.
- To keep up with the past history of land in digitalize structure so that record is liberated from dread of misfortune.
- To make the course of land library straightforward.
- To make the course of land library accessible to each one at the tip of their finger.
- To give secure exchange to client.
- Effective utilization of energy and assets.
- Decrease the holding up season of the client by digitizing the interaction

VIII. CONCLUSION

Our Proposed System achieves specification regarding the details of land records and the ownership details in a digitized format and provides security audit and privacy features.

For further enhancements, we aim to provide a public repository for land registry system where the users can a raise the query in case of any inconsistency.

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