



Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE
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Department of Information Technology



Implementing Comprehensive Blockchain Based Framework for Transparent Real Estate Transactions

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Project Guide and Co-guide

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Introduction

- Problem Identified :
 - The Involvement of middlemen and brokers.
 - The increasing number of fraud cases.
 - Time Delays and lack of digital protection.
 - Tax and registration charges.
- Solution Proposed :
 - Blockchain based Platform using Ethereum Blockchain.
 - Migrate existing data to smart contract.
 - Storing sensitive data and documents' hash in Smart Contract (and decentralized storage).
 - Charges in the form of transaction fees for each operation and Direct buying and selling, without middleman.

Objectives

- To make process faster and bring transparency with use of blockchain.
- To Reduce the fraud cases.
- To reduce extra charges.
- To develop a Web Application, which will directly connect user to the blockchain.

Review Suggestions

- To add a Government Entity in the process.
- To implement security for the stored files.

Technological Stack

- Backend – Ethereum, NodeJS
- Frontend - React.js, CSS, JavaScript
- Database - MongoDB (Future scope - IPFS Storage)
- Server Side Frameworks - Express.js
- Smart Contract (Deployment and Testing) - Ganache ,Truffle

Proposed System Architecture

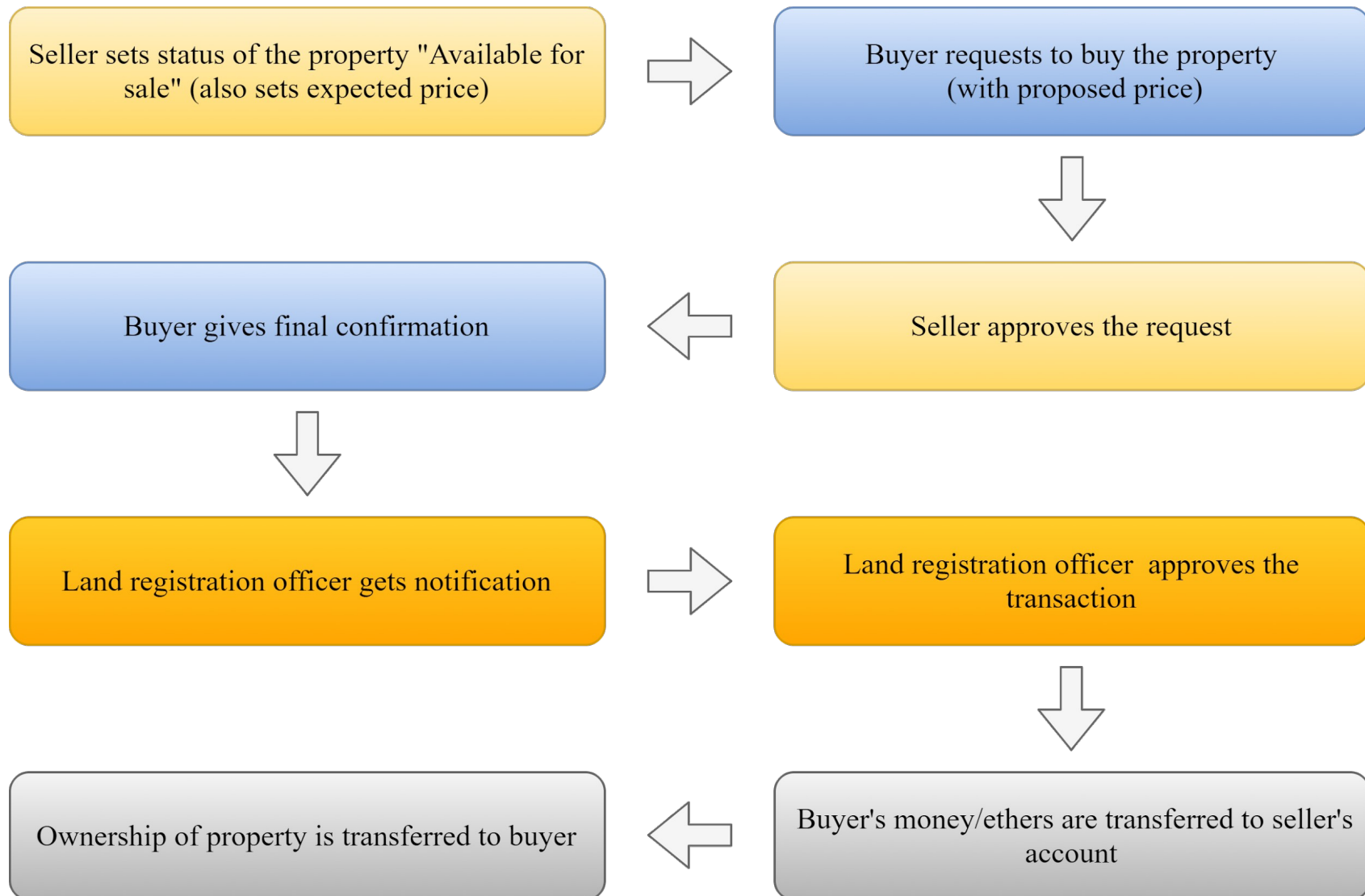


Figure : New system (After migration), each step is function of smart contract.

Implementation Status

- Basic functionalities of smart contract are done
- Working on remaining functionalities
- Frontend and Backend connection is done
- Ethereum network is been deployed on Ganache Blockchain.
- Improvement of frontend is ongoing.

Status of Paper Draft & Targeted Conference

- Targeted Conferences
 - IEEE 2021 International Conference on Advances in Computing, Communication and Control, 3rd and 4th December 2021
 - IEEE International Conference on Computational Intelligence and Computing Applications, 26th and 27th November 2021
- Status of Paper Draft
 - Implementation and conclusion remaining along with Literature

Thank You...!!