

BLOCKCHAIN TRANSACTION SYSTEM

MINOR PROJECT SYNOPSIS

BACHELOR OF TECHNOLOGY

Information Technology

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1 Introduction

In the modern age many of the transaction are ongoing. There are some transaction ongoing as we talk. These transaction are managed by third parties like banks, apps etc. These third parties charges us for managing these transaction. So our project is to make transaction system which are not reliable on these third parties. And make a transaction system self-managable or free from any outside meddling.

For our project to be come in reality we will using blockchain technology. Blockchain is a distributed database that allows direct transaction between two parties without the need of a central authority. Transaction are gonna stored in blocks of a blockchain and transaction exists on blockchain are shared and distributed among a network of peer-to-peer computers. Transaction are encrypted before they stored or shared. Transaction once be tampered and will save us from fraud or stealing of digital money.

2 Objectives

1. Achieve decentralization is the transaction system that no central authority need for managing and verifying transaction.
2. Make a peer-to-peer connection between sender and receiver to make a transaction.
3. To remove the double-spending problem that comes in digital transaction of currency i.e. one cannot send same currency for different things so remove fraudulent in digital transaction.
4. Make all the transaction that are confirmed immutable that once confirmed no one can change the transaction. So this make transaction secure.

3 Feasibility Study

This project need only the sender data and receiver data for making transaction. So collecting data is not a concern. To make this project we will use python language as it easily understandable and compatible to any environment. We will use html in this project. HTML codes can be written in notepads and it is easy to use and acquire. So technical feasibilty is good. As the economic feasibility software used in this project are open source and free to use. So this project is also economic feasible.

4 Need Of Project

- To remove the third parties involving in transaction.
- To remove the double-spending problem arises in digital transaction of currency.
- This project will help us make a secure transaction system.
- It will help us make a decentralized system.

5 Significance Of Project

The importance of this project is that it changes the modern transaction system which has to be reliable on the central authority. By implementing this project we can make a transaction system decentralized and implement a peer-to-peer transaction between sender and receiver. This project gives boom to the blockchain technology and states its importance in upcoming future.

6 Methodology/Planning of work

In the first step of this project, we will implement a basic blockchain and blockchain client using Python. Our blockchain has three features

- Adding multiple nodes to blockchain.
- Proof of work.
- Conflict resolution between nodes.
- Transaction with RSA encryption.

Our blockchain client will have following features :-

- Wallet generation using public/private key encryption(based on RSA algorithm).
- Generation of transaction with RSA encryption.
- Viewing transaction.

We will also implement 2 dashboards using HTML/CSS/JS

- “Blockchain Frontend” for miners.
- “Blockchain Client” for users to generate wallets and make transactions of digital currency.



7 Facilities required for proposed work

1. Pycharm :-

- It is used for making our blockchain and blockchain client.
- Using flask a popular python, web framework, a python library used for developing web application.

2. Notepad/text editors :-

- For creating “Blockchain Fronted” and “Blockchain Client” using HTML, CSS, JS.

3. Bootstrap :-

- Quickly design and customize responsive mobile-first sites with Bootstrap, the worlds most popular front-end open source toolkit, featuring SASS variable and mixing, responsive grid system, extensive prebuilt components and powerful javascript plugins.

4. JQuery :-

- A fast, small and features - rich javascript library. It makes things like HTML document traversal and manipulation, event handling, animation and ajax much simpler with easy-to-use API that works across a multitude at browsers.

5. Data Tables :-

- It is a plug-in for the jquery javascript library.
- It is a highly flexible tool, built upon the foundations of progressive enchantements that adds all of these advanced features to any HTML table.

8 References

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