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A Decentralized Cryptocurrency Exchange Application

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ABSTRACT:

The Decentralized Cryptocurrency Exchange Application explores the design and implementation of a secure and transparent trading platform. Leveraging blockchain, smart contracts, and peer-to-peer networking, the project establishes a decentralized ecosystem, eliminating the need for centralized intermediaries. The application prioritizes user experience with an intuitive interface, real-time market data, and interactive trading tools. Robust security measures, including cryptographic techniques and anti-fraud mechanisms, ensure the safeguarding of user assets. Smart contracts govern various aspects, enhancing transparency and efficiency. The project addresses regulatory compliance challenges, navigating the legal frameworks of decentralized financial platforms. Insights into challenges faced during development and future improvements contribute to the dynamic landscape of decentralized finance and blockchain- based exchanges.

Keywords: Cryptocurrency, Currency Exchange system

1. INTRODUCTION

This project is aimed at developing a Crypto Blockchain Application. This Blockchain Application System is an Internet based application that can be accessed throughout the Net and can be accessed by anyone who has a net connection. This application will help the client for sending and receiving Ethereum through the blockchain network, A blockchain is a distributed, verifiable data store. It works by marrying public-key cryptography with the Nobel concept of proof-of-work.

Each transaction in the blockchain is signed by the rightful owner of the resource being traded in the transaction. When new coins (resources) are created they are assigned to an owner. This owner, in turn, can prepare new transactions that send those coins to others by simply embedding the new owner's public key in the transaction and then signing the transaction with the owner's private-key. In this way, a verifiable link of transactions is created; each new transaction, with a new owner, pointing to the previous transaction, with the previous owner

Decentralization offers several key benefits. Firstly, it enhances security by eliminating single points of failure that centralized systems are vulnerable to. Secondly, it fosters trust among users as transactions are verified and recorded by consensus rather than by a central authority. Thirdly, it enables greater privacy and autonomy for individuals, as they have direct control over their funds without reliance on intermediateries of the bank.

Moreover, decentralization promotes financial inclusion by providing access to banking services for the unbanked populations worldwide. It also facilitates innovation by allowing developers to build decentralized applications (D Apps) on top of blockchain platforms, creating new economic opportunities and disrupting traditional industries Decentralization in cryptocurrency refers to its lack of central authority or control, distinguishing it from traditional financial systems. Instead of being governed by a central entity like a bank or government, cryptocurrencies operate on a distributed ledger technology called blockchain. This ledger is maintained by a network of nodes, each containing a copy of the entire transaction history. Decentralization ensures transparency, security, and resistance to censorship or manipulation. It empowers users with direct control over their funds and eliminates the need for intermediaries, fostering trust in a peer-to-peer ecosystem. Bitcoin,

Ethereum, and many other cryptocurrencies embody this

To order these transactions and prevent the double-spending problem, blockchain uses proof-of-work. The proof-of-work is a procedure that establishes a cost for grouping transactions in a certain order and adding them to the blockchain.

These groups of transactions are called blocks. Each block points to a previous block in the chain, thus the name blockchain. This is why cryptocurrencies, like Bitcoin, are built on blockchain technology. Blockchain gives cryptocurrencies the platform and security they need to work.

2. PROBLEM STATEMENT

Centralized and decentralized exchanges both exist to enable users to trade digital assets. A centralized crypto exchange isa platform that relies on a third party or intermediary account to monitor and confirm that all transactions are safe. A centralized exchange also requires traders to submit their personal information for verification before transacting. A decentralized crypto exchange is a platform that allows crypto traders to buy and sell digital assets like cryptocurrencies without intermediaries, which means tradersdo not have to deposit their funds into a third-party account when transacting. With a decentralized exchange (DEX), traders rely on smart contracts and self-custody wallets to carry out exchanges.

3. PROJECT OVERVIEW AND SUMMARY

Purpose Of Project

[1]. The main purpose of this project is to provide our customers with fast and secure way to buy send and receives Ethereum over blockchain; you can easily saw your last transaction detail easily. In fact, there is similar system on the internet, but they are less secure found in the existing system.

[2]. The goals of our system are:

- To provide anytime anyplace service for the customer.
- To promote cryptocurrency .
- To increase the profit.
- To obtain statistic information from the transactions record

4. SCOPE OF PROJECT

[3]. Ethereum is also the cryptocurrency of the Future because of its scope. The world progressively is moving to digital platforms. Most industries and Future companies will be based online. This means that a suitable infrastructure is needed to match the demand of future organizations. Ethereum will be able to address these needs through its inventive tools. Smart contracts will, for instance, be used for fulfilling agreements made between two parties.

[4]. Smart contracts are much more efficient than ordinary contracts because the terms of the agreement are made using code. The flexibility of smart contracts also means that they can bedesigned to serve a plethora of purposes. With a range of conditions being put in place to ensure that the contracts are foolproof, it is almost expectedthat Ethereum will be a go-to platform for businesses.

[5]. Ethereum proposed to utilize blockchain technology not only for maintaining a decentralized payment network but also for storing computer code that can be used to power tamper-proof decentralized financial contracts and applications.

Overview Of Project :

Krypt is a decentralized blockchain platform that establishes a peer-to-peer network that securely executes and verifies application code, called smart contracts. Smart contracts allow participants to transact with each other without a trusted central authority. Transaction records are immutable, verifiable, and securely distributed across the network, giving participants full ownership and visibility into transaction data. Transactions are sent from and received by user-created Ethereum accounts. A sender must sign transactions and spend Ether, Ethereum native cryptocurrency, as a cost of processing transactions on the network.

5. FEATURES

BLOCKCHAIN WALLET:-A blockchain wallet is a cryptocurrency wallet that allows users to manage different kinds of cryptocurrencies—for example, Bitcoin or Ethereum. A blockchain wallet helps someone exchange funds easily. Transactions are secure, as they are cryptographically signed. The wallet is accessible from web devices, including mobile ones, and the privacy and identity of the user are maintained. So a blockchain wallet provides all the features that are necessary for safe and secure transfersand exchanges of funds between different parties.

- Easy to use. It's just like any other software or a wallet that you use for your day-to-day transactions.
- Highly secure. It is just a matter of securing your private key.
- Allows instant transactions across geographies. And these are barrier-free, without intermediaries.
- Low transaction fees. The cost of transferring funds is much lower than with traditional banks.
- Allows transactions across Ethereum. This helps you do easy currency conversions.
- Every node on the network has a copy of the digital ledger. To add a transaction every node needs to check its validity. If the majority thinks it's valid, then it's added to the ledger. This promotes transparency and makes it corruption-proof

HARDHAT: - HardHat is a development environment to compile, deploy, test, and debug your Ethereum software. It helps developers manage and automate the recurring tasks that are inherent to the process of building smart contractsand Apps, as well as easily introducing more functionality around this workflow. This means compiling, running and testing smart contracts at the very core. HardHat comes built- in with HardHat Network, a local Ethereum networkdesigned for development. Its functionality focuses around Solidity debugging, featuring stack traces, console.log () and explicit error messages when transactions fail. A lot of Hardhat'sfunctionality comes from plugins, and, as adeveloper, you're free to choose which ones you want to use.

HardHat is unopinionated in terms of what tools you end up using, but it does come with some built- in defaults. All of which can be overridden.

It runs as either an in-process or stand-alone daemon, servicing JSON-RPC and Web Socket requests.

By default, it mines a block with each transaction that it receives, in order and with no delay. It's backed by the @ethereumjs/vm EVM implementation, the same one used by ganache, Remix and Ethereum Studio

TAILWIND:- Tailwind CSS is as told in its documentation is a utility-first CSS framework. With this it means that it

doesn't have those predesigned elements and components.All you get with tailwind CSS is a bunch of classes whichyou can use in combination to create a beautiful UI. Tailwind CSS doesn't have these inbuilt pre-styled components. It will give you the classes and you can style it yourselves for example the container in the tailwind just gives you a width with no padding and no margin. Tailwind also offers the best UI components but they are paid but still here are some of thebest libraries or websites that offer pre built tailwind blocks. And the best part about them is first they all are responsive and secondly you don't have to add or install anything.

- Utility-first framework
- Easily customizable
- Faster styling process
- Responsiveness
- Small file size:
- Don't have to name classes:

METAMASK:- Metamask is a popular crypto currency wallet, surpassing 10 million monthly active users. It is a crypto wallet that you can use while browsing the web to interact with decentralized applications. It can store multiple private keys and can work on multiple networks, such as the Ethereum network and the Binance Smart Chain network. If you've been hearing news about Axie Infinity and other blockchain games, at one point you've probably heard of MetaMask too. It allows you to do transactions between decentralized applications like UniSwap, Pancake Swap, ShibaSwap, and so on, with just a few clicks. You can also useMetaMask to register on marketplaces. Imagine going to the mall to buy groceries, would you have to memorize your banking credentials to have access to your funds inside it? No, you have your credit/debit card for that. It's automatic, you will just need to swipe your card, type your PIN (if they require it), and voila! MetaMask works like that, makingyour life much easier.

- Its amazing technological abilities make transactions fast and easy.
- It also has Built-in Token purchasing which allows you to buy the token that you want with just a few clicks.
- And of course, the fact that it's free!

VITE: - "Vite (French word for "fast", pronounced /vit/) is a build tool that aims to provide a faster and leaner developmentexperience for modern web projects. It consists of two major parts:

- A dev server that provides rich feature enhancements over native ES modules, for example extremely fast Hot Module Replacement (HMR).
- A build command that bundles your code with Rollup, pre-configured to output highly optimized static assets for production.

Vite is opinionated and comes with sensible defaults out of thebox, but is also highly extensible via its Plug-in API and JavaScript API with full typing support."

6. SYSTEM REQUIREMENTS

[6]. Hardware Requirements:

- Pentium-IV (Processor) or more.
- 512 MB Ram
- 512 KB Cache Memory
- Hard disk 100 GB(for full node)
- Microsoft Compatible 101 or more KeyBoard

[7]. Software Requirements:

- Operating System: Windows 10 Pro
- Programming language: Solidity code
- Smart Contracts
- Cryptocurrency Wallet: Metamask pairing
- Front-End: html, CSS, React.js
- Back-End: MySQL

7. SYSTEM ANALYSIS

Existing System:

Although distributed ledgers or distributed file systems already existed before the term blockchain was coined (for example distributed file systems and Bit Torrent), Bitcoinwas the first blockchain.

Proposed System:

In this project, we will create a full-fledged web 3.0 application that allows users to send transactions through blockchain. Each transaction will then be paired with a gift and it will be forever stored on blockchain. We will also deploy the application.

To send an amount, we'll copy the address of the account to which the amount is to be sent, and send it along with a message. Metamask is used to conduct transactions. After sending the amount, we can check if the address is real by clicking on it, and it will open etherscan to check if the transaction is real through blockchain. We can see the date and time of the transaction too.

Once the front-end is done, we are able to write the address we want to send the ethereum to, write the amount of ethereum and the message. We'll connect this to the blockchain and then we're going to write a solidity smart contract that keeps track of all the transactions that wentthrough the blockchain.

Solidity:

Solidity is a programming language used for ethereum blockchain. It is a combination of a few languages like JavaScript, Java, C++, Rust and many other languages therefore making solidity more versatile and more intuitive.

Smart Contracts:

Smart contracts are simply programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the

outcome, without any intermediary's involvement or time loss.

A smart contract is a self-executing program based on if-then logic. For example, vending machines are a ubiquitous presence in everyday life. It's also a simple model of a smart contract: For eg. If someone inserts $2 and then presses B4, then the machine dispenses the package of cookies held in the B4 slot.

MetaMask:

MetaMask is an extension for accessing Ethereum enabled distributed applications, or 'DApps' in your browser. The extension injects the Ethereum web3 API into every website's javascript context, so that DApps can read from the blockchain.

MetaMask also lets the user create and manage their own identities (via private keys, local client wallet and hardware wallets like Trezor™), so when a Dapp wants to perform a transaction and write to the blockchain, the user gets a secure interface to review the transaction, before approving or rejecting it.

MetaMask also helps warn you when you navigate to sites that are known to have engaged in phishing, or that have names that are suspiciously similar to popular phishing targets.

5. DETAIL DESIGN

[8]. ER Diagram of The Proposed System:
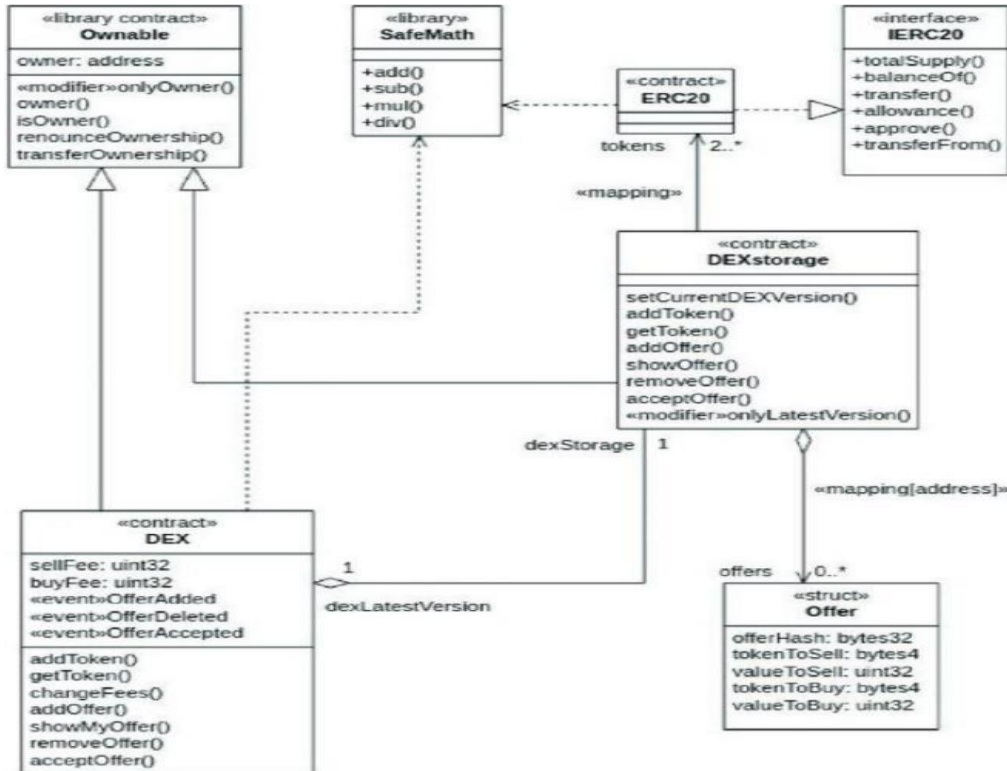
FRONT-END DESIGN:

6. LITERATURE SURVEY
Crypto-Trading: blockchain-oriented energy market

This paper presents the Crypto-Trading project and its characteristics. In particular it has highlighted the key role of the blockchain technology and smart contracts in the management and control of an innovative typology of Energy Market. This Crypto-Trading project is able to serve the needs in promoting the transformation of an energy model characterized by a centralized production toward a decentralized and intelligent production and distribution, tailored to the needs of proximity and aimed at satisfying local consumption .

Crypto-Trading project aims to apply and extend the knowledge of the proponent consortium about the financial trading and blockchain technology in the field of energy trading by exploiting the cryptocurrency technology. The main goals will be two: i) to introduce a European Energy Market trading system by using "token" and smart contracts that will simplify the trade of electricity distributed by intelligent networks; ii) to develop a platform for the optimal allocation of a cryptocurrencies portfolio.

This Crypto-Trading project aims to bring this solution to the world of the Energy Market, by taking advantage of the cryptocurrency and blockchain technologies. In the project, three development steps will be identified: 1) to include Bitcoin and other cryptocurrency in the trading platform; 2) to develop a new algorithm and a platform to manage the cryptocurrency in the system; 3) to implement an energy trading system for the european community and to develop the related platform

The Crypto-Trading project will be carried out in three stages:

1) analysis and design of the general architecture for the local management of a energy distribution network; 2) integration and development of Smart Contracts for the Energy Market;

3) development of the prototype of Crypto-Trading system
From the analysis, the design of the Energy Market will be carried out, integrating it into the market with the aim of allowing payments and quotations of electronic exchanges in cryptocurrencies and reusing prediction and risk control algorithms

Crypto-Trading aims to facilitate the creation of a decentralised Energy Market, enabling the final user to self manage the supply of energy and the sale of the excess energy

The new business opportunity will help to overcome barriers that slow the growth of the adoption of state-of-the-art technologies in the field of smart grids. In particular,Crypto-Trading will provide a robot-advisor which will help the users to optimize energy trading. The proposed system may facilitate the transformation of the energetic model in the direction of a decentralized and smart production of electricity

A Study of Current Cryptocurrency Systems

Cryptocurrencies have transpired as one of the trending financial software systems. They depend on a secure and consigned ledger data structure; mining being an indispensable part of such systems. Mining reconciliation records of past transactions to the distributed register known as the Blockchain, that allows users to reach secure, robust and concord for each transaction. Mining also introduces wealth in the form of new units of currency named as "bitcoins' '. Cryptocurrencies lack a central delegate or authority to mediate transactions because they were designed as peer-to- peer end sub-systems. They rely on miners to validate and scrutinize their transactions. Hence Cryptocurrencies require strong, secure mining algorithms.

In this article we survey, compare and contrast the current mining techniques as used by major Cryptocurrencies. We scrutinize the strengths, weaknesses, and possible threats to mining strategy. Overall, a perspective on how Cryptocurrencies mine the datasets, where they have comparable performance and assurance, and where they have unique threats and strengths are outlined. Blockchain is a disseminated public ledger of Cryptocurrency transactions. Each verified transaction is stored in a block . Each block consists of a variable number of verified transactions and logs of the data sets. The maximum size of a block is fixed in each Cryptocurrency system, providing an upper frontier, bound to the number of transactions included. For instance, the maximum size of a Bitcoin block is 1MB .

A Bitcoin Block consists of five fields namely: Magic number–a fixed number , Block Header–that consists of the hash of the previous block, the time stamp, the block version number, the hash based on all the transactions in the block, and the nonce. Transaction counter–which denotes the number of transactions included in the block. Transactions–the itemized set of verified transactions added by the block.

The first block also termed as the "genesis block" contains the first transactions of a given Cryptocurrency. The hash of the first block , and so on. Thus, an austere chronological link, or chain, is created from the genesis block to the current block through the inclusion of hashes. There is a single,distinct path from the most recent block to that first block.

This relationship makes it extremely difficult for an attacker to fiddle with the information in a block, because all subsequent blocks would have to be regenerated, which would be detected, since the final hash wouldn't match . Cryptocurrencies work functionally as enlisted below:

The user has a wallet with a generated address. This address acts as a public key . The wallet might also contain a generated private key, which is used to sign transactions, proving ownership for the miner. The payer sends money to the payee's address, and signs it using the owner's private key.

The transaction is verified by various mining algorithms. A transaction is created when a payer sends some currency to a payee. Mining validates transactions and adds them to this public ledger.

When a new transaction takes place, the miner checks if the currency or the particular bitcoin belongs to the payer, or if the payer is trying to spend twice.The ownership of the currency is available in the Blockchain,thus enabling security against many fraudulent This article surveyed popular cryptocurrencies, their mining methods as well as the properties and features. Most of these cryptocurrency employs a CPU intensive hash function whereas the memory intensive hash algorithms have found to be more faster hence it will be compatible with regular computers and we believe that memory intensive hash function such as argon 2d is going to play a big part in the future of cryptocurrencies

Crypto Wallet Development: Top Challenges and How to Resolve them

Bitcoin, the world"s most common and well known cryptocurrency, has been increasing in popularity. It has the same basic structure as it did when created in 2008, butrepeat instances of the world market changing has created a new demand for cryptocurrencies much greater than its initial showing. By using a cryptocurrency, users are able to exchange value digitally without third party oversight. Cryptocurrency works on the theory of solving encryption

algorithms to create unique hashes that are finite in number. Combined with a network of computers verifying transactions, users are able to exchange hashes as ifexchanging physical currency

Bitcoin has strength by design to make it a viable currency that has elevated it in status over the years, more notably the fixed limit of bitcoin that will exist. Bitcoin will be mined with diminishing returns every four years until the maximum number of bitcoins are reached: a total of 21 million (King, 2013). This aspect of Bitcoin is important for its value. Due to the limited amount of bitcoins, it will never become inflated from an overabundance of bitcoins. Also, bitcoin and other cryptocurrencies are generally regarded as being protected from inflation originating from national government changes or restrictions (Magro, 2016). This creates a "safe haven" for investors to put their wealth into,as it generally does not lose value based on inflation. Bitcoin is quickly showing its strength as a refuge against inflating national currencies

South America has seen a huge increase in bitcoin transactions, increasing 510% from 2014 to 2015 (Bitcoin: A New Global Economy, 2015). Argentina is a hotbed for increased cryptocurrency usage due to its extremely high inflation rate and high population of unbanked citizens (Magro, 2016). In the past, Argentinians would convert their currency into US dollars to preserve their value. However, Argentina has recently put restrictions on how many US dollars its citizens can convert.

Weakness:

Bitcoin has quite a few internal weaknesses that are part of its design and cannot easily be modified. The public ledger, or block chain, means that every user can see every transaction. There is semi-anonymity, in that the owners of bitcoin wallets cannot be identified outright, but it is slightly nerve- wracking for some potential adopters. The public block chainis shared with all users, which means that it is susceptible to attacks due to easy access (King, 2013). So far, the Bitcoin network has been subjected to multiple "stress tests" thatwere essentially DDoS attacks (Hileman, 2016). These "tests" were launched by exchanges and miners to attempt to prove a point about Bitcoin"s design: that the network cannot handle high load transaction rates. The mere fact that the participants of Bitcoin"s operation can bring the networkdown to prove a point is an unfortunate design feature of the code. These two aspects of Bitcoin"s design are integral to operation, and cannot be changed. Adoption by reluctant users must be in spite of these attributes. Bitcoin has developed a questionable reputation through recent events. Stories like Silk Road can portray a negative image of digital currency in general, not just Bitcoin. Silk Road was an onlinemarketplace buried in the dark-net, which allowed thousands of drug dealers and nearly a million customers to make illegal drug deals. Bitcoin was their primary means of transaction, due to the lack of government tracking and semi-anonymity. It ran from 2011 to 2013, and racked up nearly one billion USD in sales (Bearman, 2015)

Opportunities:

Cryptocurrency is in a unique position as a forerunner in a possibly transformative technology to long standing financial systems. By its very nature, it is able to fill gaps in current financial technologies and be able to help solve traditional banking problems by being a peer-to-peer system. Napster, another peer-to-peer system, transformed the music industry by cutting out the middle man (Kelly, 2014). Transformative technologies start by solving a specific problem in an industry.

For instance, cryptocurrencies are poised to help remediate the problems related to unbanked consumers. Significant portions of the population in developing countries are unbanked. In Latin America, 60% of 600 million inhabitants have no access to bank accounts (Magro, 2016). Bitcoin"s technology allows for individuals to exchange currency without needing a third trusted party, like a bank, to oversee the transaction.

Threats:

Bitcoin has quite a few hurdles to clear for user acceptance to become widespread. The value fluctuations that plague cryptocurrencies puts doubt in users, as well as investors. Ultimately a limiting factor in cryptocurrency is general acceptance. [PWC]. The lack of central ownership of cryptocurrencies means that any attempt to remediate this marketing problem using advertisements could theoretically help the investing company"s competition. This is not anideal situation for a marketing plan. Cryptocurrencies have also seen fraud and theft, generally due to faulty system setups by exchange companies. These hacks generally make the news, and can easily convince the layman that they are unsafe locations to put their money. There is also a large gap in laws that cover the use of cryptocurrency. As long as cryptocurrencies remain in an area not generally covered by law, user acceptance will be limited.

Cryptocurrency seems to have moved past the early adoption phase that new technologies experience. Even motor vehicles experienced this phenomenon. Bitcoin has begun to carve itself a niche market, which could help advance cryptocurrencies further into becoming mainstream; or be the main cause of it failing

Cryptocurrencies are still in their infancy, and it is difficult to see if they will ever find true mainstream presence in world market

Cryptocurrency as the currency of the future: a case study among Algebra University College students

The European Banking Authority has divided the benefits of using virtual currencies into two categories. Those are economic and individual benefits . The economic benefits under the EBA relate to more facts. First, they relate to transaction costs. In principle, costs should not exist because there are no intermediaries in the transaction. However, there are transaction costs, but they are much less compared to other forms of payment. The reason is the costs incurred in regulation, internal control, and similar. Secondly, approximately every ten minutes new blockchain entries are added. The geographic distance of the participants in the transaction does not matter. Regardless of their distance, the same timeline is required to complete the transaction. This characteristic is considered an exceptional advantage in opposition to other payment methods.

The basic individual benefit of cryptocurrencies is online transactions. The use of cryptocurrencies is beneficial to both buyer and seller. Because they are autonomous they have no issuer and no institution to control their circulation, which means the seller is granted full anonymity, which buyers mainly benefit from. A return possibility in a virtual currency transaction is not deductible. Chen makes a payment for a selected product or we cannot get the virtual currency unit back on request. This is where the EBA highlighted the advantage by sellers because, with traditional forms of payment in the case of fraudulent defect reports, funds often would have to be refunded. A survey conducted in the United States of America showed that cryptocurrencies were used at a high rate among young people (millennials). Testing that theory, the purpose of research conducted among students of Algebra University College was to explore their opinions and ways of using blockchain technologies in the present and their attitudes toward using cryptocurrencies in the future.

The research objective: Do students from Algebra

University College use cryptocurrencies? To answer the main research objective, the following research sub-questions were defined:

- Are students familiar with the concept and technology of cryptocurrency?
- What characteristics of cryptocurrency do students consider to be their advantages?
- What characteristics of cryptocurrency do students consider to be their disadvantages?

7. SIGNIFICANCE AND NOVELTY OF THE PROBLEM

There are a host of advantages DEXs offer with their innovative model of facilitating trading without intermediaries:

Non-Custodial

On a DEX, users are in control of their funds at all times. They connect to a DEX with their crypto wallet and any transaction has to be signed and confirmed before it's executed. This means users never give up custody, which aligns with the idea of crypto self- sovereignty.

Permissionless

Anyone with an internet connection can access DEX. They do not discriminate by trader location.

Transparency

When trading on a DEX, traders can audit all transactions. This offers a whole new level of insight into a tokens trading history and ways to measure success.

Censorship Resistance

As decentralised protocols, no parties can censor transactions.

8. FUNCTIONALITIES OF THIS SYSTEM

A person should be able to:

- Connect his crypto wallet using metamask.
- The address of the wallet has been visible to the Ethereum card.
- Check the amount of ether in his wallet.
- Able to send Ethereum to different wallets.
- Able to send GIFs with the ether as a gift.
- Able to send messages with ether.
- Able to check all the Transaction details.

- Able to interact with solidity Ethereum with smart contracts.

9. PROJECT MODULE

Since the users are the main target group of our software, we will only concern about some important functions for the user. The user can send the Ethereum by typing account address of the receiver.

Sending Ethereum:

Sending Ethereum is the most important part of our system. We will describe this process in details:-

- Firstly, we need to connect the user's wallet to our website. He/she can do it by clicking on connect wallet button.
- This will immediately going to trigger metamask connection, which going to choose the account which we want to connect to.
- After choosing the account click on next and click on connect.
- Instantly the address of your account is visible on the Ethereum card.
- Now write the address of the account where you want to send Ethereum.
- After that, write the amount of Ethereum you want to send.
- Now you can write a specific keyword that youwant to attach with your transaction. This keyword is saved as data in the blockchain.
- Now you can also pass additional pieces of data or messages in the message box.
- Now click on the send button.
- Metamask will ask you to confirm the transaction.
- By Clicking on the confirm button the transaction has been executed successfully.
- The Ethereum will be visible on the receiver wallet.
- Users can also check the latest transaction details by

scrolling down to the application.

10. CONCLUSION

The project was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project:

- We can provide users with the Customer Support System.
- We can also create a sign in, sign up, sign out function into our system.
- Can also make Customers Post their View on Websites.
- The System has adequate scope for modification in future if it is necessary.
- In the future we are going to add a crypto market into our system.
- We will also add a crypto exchange feature into our system.
- In future users will be able to send different crypto's from their account.
- We are also going to add tutorials of the functionality of our system.

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