SURVEY ON NFT MINT, BUY AND SELL WEB APPLICATION

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ABSTRACT

Non-fungible tokens (NFTs) are rights that can be transferred to digital objects like photos, movies, or music. Since early 2021, the phenomena and its markets have experienced tremendous growth. Since a few years ago, the number of NFT marketplaces has been steadily increasing. Most of them use centralised systems for digital asset storage (files). This goes against the idea of decentralised systems. In this project, we suggest a safe exchange for trading non-fungible tokens, which represent digital assets. It will give users the ability to produce new digital assets and exchange them for Ethereum-based coinage. In addition, we want to investigate the technical viability of a decentralised file system that uses the IPFS protocol to store digital assets more securely. This is how we try to solve the file storage problem. Additionally, this project aims to promote the usage of blockchain technology.

Keywords: Blockchain, Decentralised Application, Smart Contract, Ethereum.

I. INTRODUCTION

Blockchain is most frequently mentioned along with Bitcoin and cryptocurrencies. But its use extends far beyond the realm of digital assets. In actuality, blockchain is unquestionably one of the most revolutionary and disruptive technologies of our time. Additionally, practically all industrial sectors want to use blockchain technology and gain from it.

Non-fungible tokens (NFTs) are exclusive cryptographic tokens that are only available on blockchains and cannot be copied. Real- world objects like artwork and real estate can be represented by NFTs. These physical assets can be "tokenized," which improves the efficiency of trading while lowering the risk of fraud. Minting is the process of making digital artwork available to the public as a record on the Ethereum blockchain.

The ability to possess virtual products in the form of real-estate, including objects like automobiles, boats, or even accessories and paintings, is made feasible through NFTs, which play a major role in the metaverse ecology. NFT minting is the process of adding your physical asset to the blockchain as a special file. Most NFT markets let you do this directly.

The goal of NFT marketplaces is to make it as easy as possible for users to buy, sell, and exchange their digital artefacts and assets. The NFT marketplace is developed with a few elements that are widely acknowledged and advised in order to make sure this occurs. The most crucial feature of NFTs is that nobody's approval is required for them to gain value. By spending some time working on the code behind it and producing something fresh out of thin air, anyone can make their own NFT. This enables the production of innumerable new assets that are dispersed instantly among all users using smart contracts and are not under the jurisdiction of any one central authority.

II. LITERATURE REVIEW

The huge transformation started in 2008 when blockchain technology first entered our daily lives. Clearly, this new technology is now present on a worldwide scale, and as a result, the blockchain concept develops over time. Improvements to the bitcoin programme have propelled it into the mainstream; as a result, bitcoin may soon be recognised as legal tender in countries like Russia and Japan. By producing a transparent paper trail that anybody can access but nobody can change, blockchain's extraordinary properties—apart from bitcoin and currencies—are briefly shown. Immutability, native assets, and decentralisation or shared control have positive effects on already-developed technologies like artificial intelligence and the Internet of Things. Decoupling bitcoin from blockchain is therefore essential because bitcoin is only one application of numerous others that

might be used in a variety of fields, including healthcare, security, elections, games, the arts, science, intellectual property, and copyrights.

These technologies will radically alter the near future and make many science fictions a reality when paired with the blockchain platform. Generally speaking, a blockchain might be used to provide a set of characteristics to enable current and future applications to be as useful as possible anyplace that a database can be used as a means of storing information.

Digital art is added to the Ethereum Blockchain through the process of minting NFT . Similar to how metal coins are "minted" and put into circulation, NFTs are tokens that are "minted" once they have been created. The digital art is represented by an NFT, enabling it to be purchased and sold on the market and to be tracked digitally throughout the entire process. In the second half of 2020, the NFT market experienced a significant upswing thanks to the sale of an NFT artwork for USD 69 million.

Additionally, the total sales of NFTs in the first half of 2021 exceeded USD 10.7 billion while the entire sales of NFTs in 2020 were USD 2.5 billion. This suggests a substantial shift in NFT growth over a brief period of time [11]. The NFT market's normal 24-hour trading volume is $4 billion, whereas the total 24-hour trading volume of the cryptographic money market is $341 billion.

Different online markets can offer a platform for buying and selling NFTs, but as indicated in Table I, some of them are more popular than others. But not every market offers the same antiques or works of art. As a result, the type of market determines the type of collectible. Although most of these marketplaces offer a wide variety of NFTs, each platform has its own unique features.

TABLE I.   TOP NFT MARKETPLACES

Market	Traders	Volumes
OpenSea	46,067	$ 73.45m
Axie Infinity	40,429	$ 19.44m
CryptoPunks	12	$ 2.45m
AtomicMarket	7103	$ 1.03m
PancakeSwap	1342	$ 783.74k

* Statistics up to October 2021[3]

NFT marketplaces like Nifty Gateway and OpenSea recorded the highest trading volumes in the first quarter of 2021, indicating a significant increase in interest in NFTs in 2021. Table II is a list of the most expensive NFTs.

Digital art is any creative work that lives on a virtual or digital platform and includes things like music, movies, paintings, and other media. Similar to its cousin, tangible art, it can be purchased by art fans and collectors as well as sold by artists. It could, however, also be stolen or faked. Each work of art may be distinguished thanks to the usage of NFTs, which associate a special hash with each one. The digital tokens might contain the signatures of the creators of creative works, enhancing the legitimacy of the content that is produced.

III.   PROBLEM STATEMENT

In NFT marketplace following problems are observed:

1. Cyberthreats and Online Fraud Risks in Smart Contracts and NFT Maintenance.
2. Limited Methods of Payment.
3. Absence of UI/UX considerations.
4. User experience is poor.

IV.   OBJECTIVES

➢ **Uniqueness of objects:** The primary objective is to offer a genuine and distinctive digital product.

➢ **Digital piece of art:** Users can showcase their artwork such as photos, digital drawings etc.

➢ **Peer to peer network:** The system is a decentralised peer-to-peer exchange that lets users conduct direct, trustless transactions with one another.

➢ **One of a kind:** Will Make sure your NFTs are original works of digital art that are not reproduced elsewhere.

V.   SYSTEM ARCHITECTURE
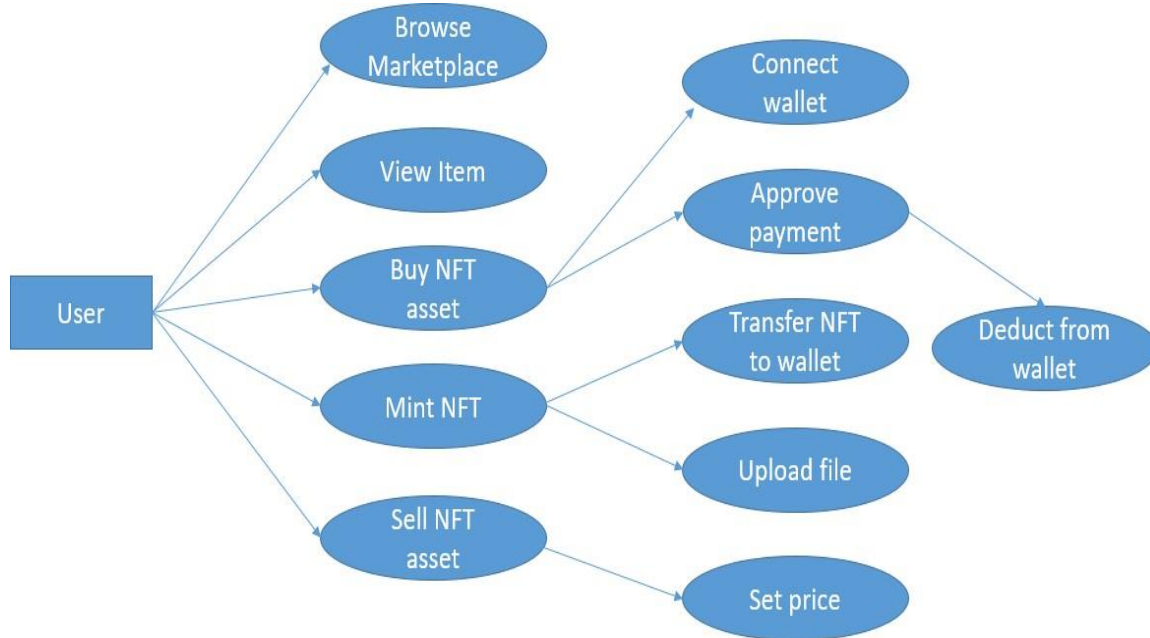
5.1. System Overview

Fig.1. Overview of the Proposed Architecture

As shown in Fig.1, the proposed system consists of four entities like a user and payment gateway connected to the admin of the system. Each of the above entities of the system has its significance. The specific roles and functionalities of each are discussed below:

1. User
a. Create a new account to login into the system.
b. Enter the NFT information as per his/her needs.
c. Make payment to buy NFT's .
2. Payment
a. Getting all information about the NFT transaction.
b. User gets connected to wallet.
c. Payment gets approved.
d. Amount gets deducted from the wallet

VI.   PROPOSED OUTCOME

➢ Has to create wallet account by filling required information.
➢ User can mint the NFT's.
➢ User can wishlist NFT's.
➢ Can set the price of NFT's.
➢ Can display NFT's on marketplace.
➢ Can sell NFT's according to price.
➢ Amount will be credited after successfully selling of NFT's.

VII.   CONCLUSION

In order to prevent consumers from running the danger of losing tens of thousands of dollars to fraud, we want to offer a secure and trustworthy alternative for them to acquire and sell the digital assets they desire. This method can be used by individuals to create, acquire, and trade NFTs. Customers can view profiles and browse available NFTs using this online method. In this paper, we examine cutting-edge NFT solutions that have the potential to transform the market for digital and virtual assets in the future.

VIII.   FUTURE SCOPE

On platforms known as NFT Marketplaces, one can mint, store, display, and exchange NFTs. These have been crucial to the NFT market cap's rapid expansion. One of the top NFT markets, OpenSea, just broke its $1.5 billion sales threshold. In 2021, NFTs will be huge. They will still be the biggest trend in 2022. It is now conceivable to create the Metaverse, a digital future, thanks to the phenomenal growth of NFTs. Users of Metaverse can enter a virtual environment by making their own avatars.

IX.   REFERENCES

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