NFT Marketplace

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Abstract: - This project aims to develop a decentralized NFT marketplace and cryptocurrency convertor, where creators and collectors of NFTs can buy, sell, and trade unique digital assets in a secure and transparent manner.also The platform will be built using blockchain technology and will offer advanced search and discovery tools, an intuitive buying and selling experience, and robust security measures to protect both buyers and sellers.

Key-Words: - NFT(Non Fungible Token),cryptocurrency,blockchain,solidity,metamask.

I. Introduction

The rapid growth of the NFT market has led to the need for a decentralized platform where NFT transactions can be conducted in a convenient, secure, and efficient manner. NFT marketplaces have the potential to bring together a large number of NFTs in one place, making it easier for buyers and sellers to discover and transact NFTs. **An NFT marketplace** is a blockchain-based online platform to sell and buy non-fungible tokens (NFTs).

NFTs are stored on a public blockchain and contain the information about:

II. Who and when created an asset.

III. Who and when bought the asset.

IV. At what price the asset was bought.

V. Who owns the asset at the moment.

VI. Problem Formulation

Objective: : The objective of this project is to develop a decentralized NFT marketplace that will bring together creators and collectors of NFTs and provide them with a platform for buying, selling, and trading unique digital assets. and also able to convert their one cryptocurrency into another in INR or USD.

VII. Literature Review

The scope of this project includes the development of a decentralized NFT marketplace that will offer advanced search and discovery tools, an intuitive buying and selling experience, and robust security measures to protect both buyers and sellers. The platform will be built using blockchain technology and will be designed to be user-friendly and accessible. with linking of metaverse wallet. NFT can be anything painting, drawing, art, video, music, audio, or something digital and the benefits attached to it makes it non-fungible. So, that's why NFT's have so much scope and they add a lot of high value to the market.

A case study of at least 5 existing systems should be done and relative comparison with their merits and demerits. This will help in formulation of further objectives that could be addressed within the project.

- OpenSea

  OpenSea is an American online non-fungible token (NFT) marketplace headquartered in New York City. The company was founded by Devin Finzer and Alex Atallah in 2017

OpenSea offers a marketplace allowing for non-fungible tokens to be sold directly at a fixed price, or through an auction.

NFT Categories - Arts, music, collectibles, domain names, and virtual worlds

- **Disadvantages:**
- **.Not have proper management of data**
- **. note have metaverse account linking facility.**

- Axie Infinity Marketplace

Axie Infinity is a non-fungible token-based online video game developed by Vietnamese studio Sky Mavis, known for its in-game economy which uses Ethereum-based cryptocurrencies It has been called 'a pyramid scheme that relies on cheap labor from countries like the Philippines to fuel its growth.

NFT Categories – Gaming

Sales Volume - $4.26billion

Number of Traders – 2,100,000+

- CryptoPunks

CryptoPunks is a non-fungible token (NFT) collection on the Ethereum blockchain. The project was launched in June 2017 by the Larva Labs studio a two-person team consisting of Canadian software developers Matt Hall and John Watkinson.

NFT Categories – Collectibles

Sales Volume - $2.97billion

Number of Traders – 7,200+

VIII. Methodology

We will start our project in pace, distribute base works into the members and make sure to be completed quickly, it will include the design of the website, model, making of classes and then the coding part will get started. We will use Reactjs , solidity,and Database. for our project and will try it to be completed as a dynamic form of website, and be a live working website.

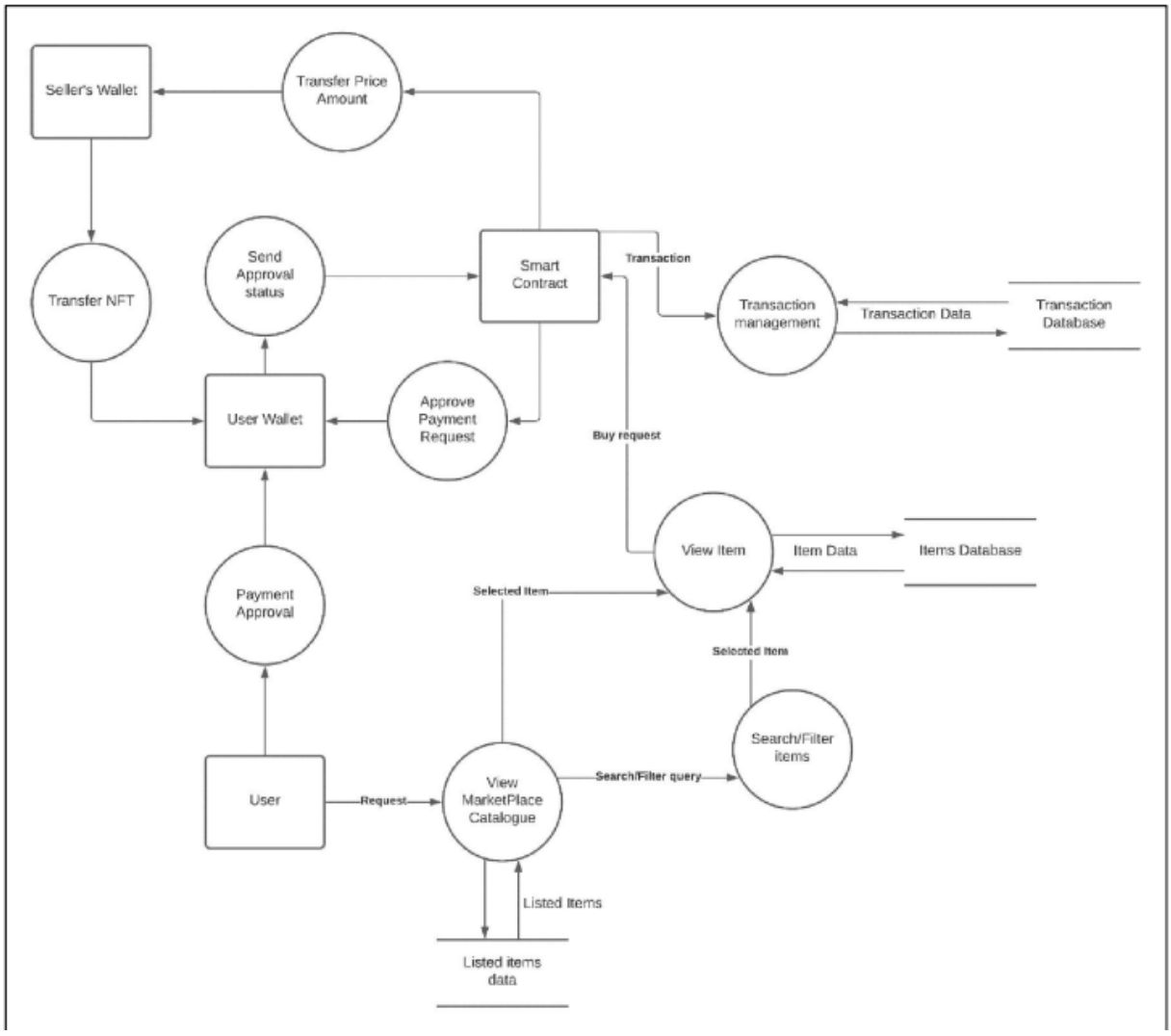
Our website will contain a login password interface. We will make sure to learn new easy privacy techniques or use some Google APIs to easily verify individuals and help login to there accounts.

- The platform will be build on two part front-end and backend

  the front-end or a user interface is designed through React.
- The back-end will be handled by solidity which provides good security.
- A smart contract are also there between terms of buys and sellers.
- first user have have to link their metaverse account to application

- users can upload or delete their NFT on site.
- users will also experience Cryptocurrency converters.
- Data storage is also a decentralized
- An NFT marketplace platform should support tagging and category management to allow users to search collectibles. Use a search bar on the site and add categories.
- A user should be able to create and submit collectibles. Using this feature, a user should upload files and fill in the token information such as name, tags, description.
- The NFT marketplace platform should have a feature that allows users to buy and bid for NFTs listed on the platform. The bidding feature should include a bid expiration date and allow users to view details about the bids' current status.

the website will take a lot a new NFTs . with buy and sell facilities .we use real time APIs to convert the price of cryptocurrency.
storage - IPFS is a peer-to-peer hypermedia protocol designed to store media content in a decentralized way. As the media file related to NFTs cannot be stored directly on the blockchain, IPFS can store all that data.



DFD(Data Flow Diagram)

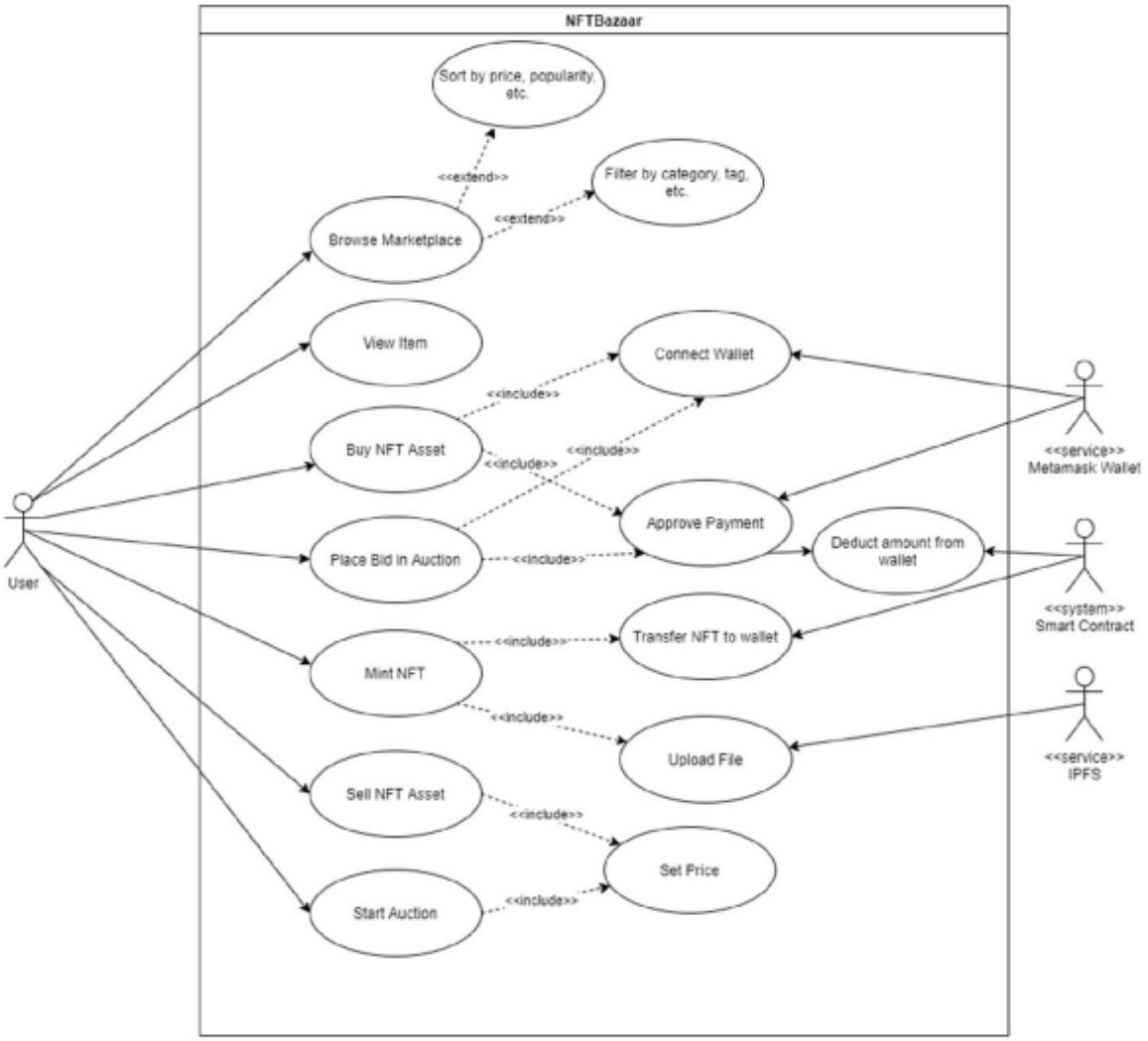


Figure 1: System UML Diagram

IX. Result Discussions

The expected outcome of the project is to be explained below:

X. The expected outcome of this project is a fully functional decentralized NFT marketplace

XI. It will make be easier to use and understand

XII. The platform are more secure and more efficient to trade NFTs and other unique digital assets.

XIII. The platform will bring together a large number of NFTs in one place

XIV. Making it easier for buyers and sellers to discover and transact NFTs.

XV. There is a convertor of currencies to any other currencies.

XVI. There will be links provided for selling or buying the NFT.

XVII. Conclusion

This project will contribute to the development of a decentralized NFT marketplace that will make it easier, more secure, and more efficient to trade NFTs and other unique digital assets. The platform has the potential to bring together a large number of NFTs in one place and make it easier for buyers and sellers to discover and transact NFTs. The successful completion of this project will provide valuable experience and knowledge in the development of decentralized platforms and the use of blockchain technology.

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