



# Decentralised application for Independent NFTs (DAIN)

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## Abstract

This is the marketplace to buy and sell independent non-fungible token (NFT) units using the technology Blockchain. The main purpose is to sell the NFT's unit independently and securely. Blockchain is way more secure than the old traditional method which we are using for a long time. blockchain take care for the privacy of the users in the system. Multiple users with different identifications, which will have rights to sell their independent NFT's unit to the present users. Each and every user can sell their NFT's by doing some transaction over the network in a secure manner. NFT's are getting publicity nowadays. Problem stand when only main brand gets the fame publicly. Therefore we have come with the idea, the NFT's which are not in mainframe or not getting noticed publicly will get same public value by selling over the web application. NFT's unit on blockchain will boom the new artists which are deserving.

**Keywords:** Non-Fungible Token (NFT), InterPlanetary File System (IPFS), Polygon.

## 1. Introduction

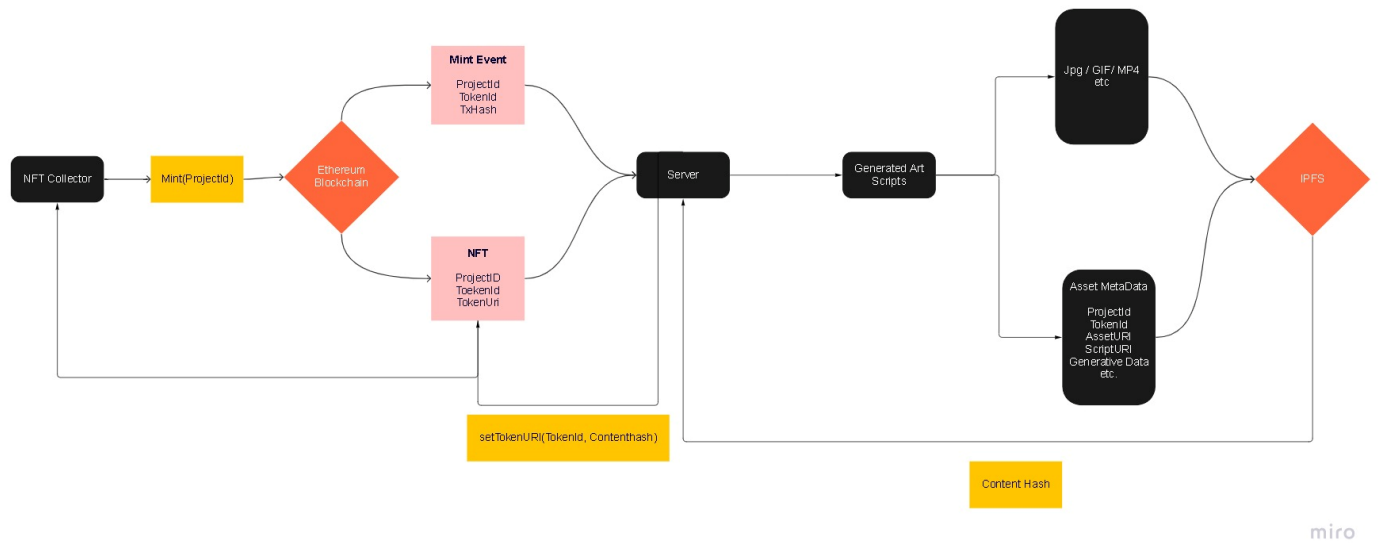
When a user in the present system can list the NFT for sale or for buying, the holds of the item will be transferred from the user who listed to the buyer in the system. The user can buy NFT, the purchasing value listed with the NFT can transferred from buyer to the seller of the user present in the system. The system user owner will need to set a listing fee to the system. The little amount of fee will be reduced from the seller after changing the ownership between the buyer and seller in the system. The fee is transferred the owner of the system.

The marketplace logic will consist of just one smart contract:

**Contract :** This contract gives the platform the users to list their NFT to the platform which is also called as the marketplace. The contract deals with the backend part of the system and handles all the transaction between the users present in the system.

## 2. System Architecture

As till now we were using a traditional base architecture scheme where the data and users where centralised to the one of scheme. Where it acts as central hub to the all the nodes or the users present in the system. The old system was not more secured in the manner to the decentralised system which we have being implemented. The new system does not have any kind of centralised pattern to the nodes. Each node in the system acts independently and can coordinate with each other. This decentralised manner leads to more secureness during the transaction between the nodes. The hash value is unique to the every transaction between the nodes of the token number of the NFT.



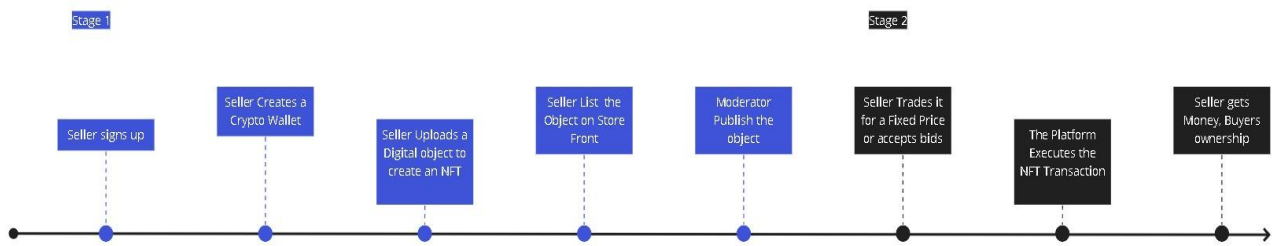
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### 3. Model Overview

The user will directly connect with the web page. The user need to login in the system with the InterPlanetary File System (IPFS) which is also called the Meta-mask valet. Meta-mask will confirm the user in the system is verified or not. Once the user gets login he directly list his NFT and by putting the amount of that NFT. NFT gets its own NFT token as per the user. The token number is different for the different user present in the system and also different from each NFT token in the system.

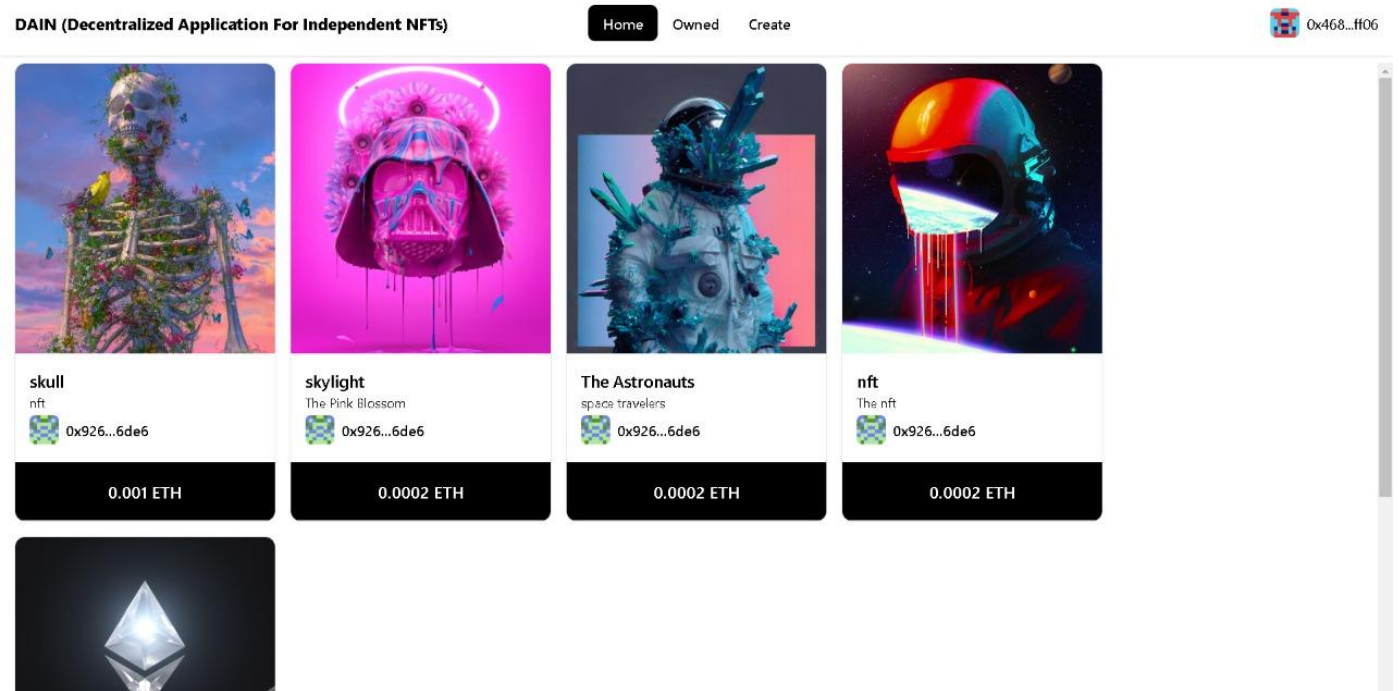
Once the NFT is listed, it will reflect all the users present in the system and can directly connect to the owner of that NFT. The transaction of the amount will be done within the system between the users. Once the transaction is committed the ownership of the NFT will be changed and the new owner will be the buyer of the NFT.

### 4. Working



### 5. Result

On DAIN(Decentralized Application for Independent Nfts), user can do a lot of cool stuff. The most popular part is trading, Selling, or purchasing various types of NFTs. It provides easy method to make NFTs and create an NFT collection. Their various supported formats for uploading NFTs. Finally, Dain NFT project will be made publicly.



## 6. Output

The image displays two screenshots related to the DAIN application. The left screenshot shows the web interface for creating an NFT. It features a navigation bar with 'Home', 'Owned', and 'Create' buttons. The main area has an 'Upload' button with an upward arrow icon, a form with 'name' and 'description...' input fields, and a 'Create' button at the bottom. The right screenshot shows a mobile wallet interface for 'Account 2' on the Rinkby Test Network. The account balance is 0.0772 ETH, equivalent to \$231.89 USD. Below the balance are buttons for 'Buy', 'Send', and 'Swap'. The 'Activity' section lists transactions: 'Buy N FT' for -0.022 ETH (\$66.04 USD) on Apr 22, and 'List N FT' for -0 ETH (\$0.00 USD) on Apr 18.

## 7. Conclusion

The traditional method since we are using for a long time does not have any kind of transparency between transactions. We have make sure to overcome from it. Also the main thing which is about the decentralised system is to take care of your about the privacy and the security in the system and an unique id or key will be allocated to the users-nodes throughout the blocks.

## 8. Reference

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