

Course II:

DeFi Primitives

1. The Mechanics of Modern Decentralized Finance

(iii) Non-Fungible Tokens

Non-fungible tokens

ERC-721

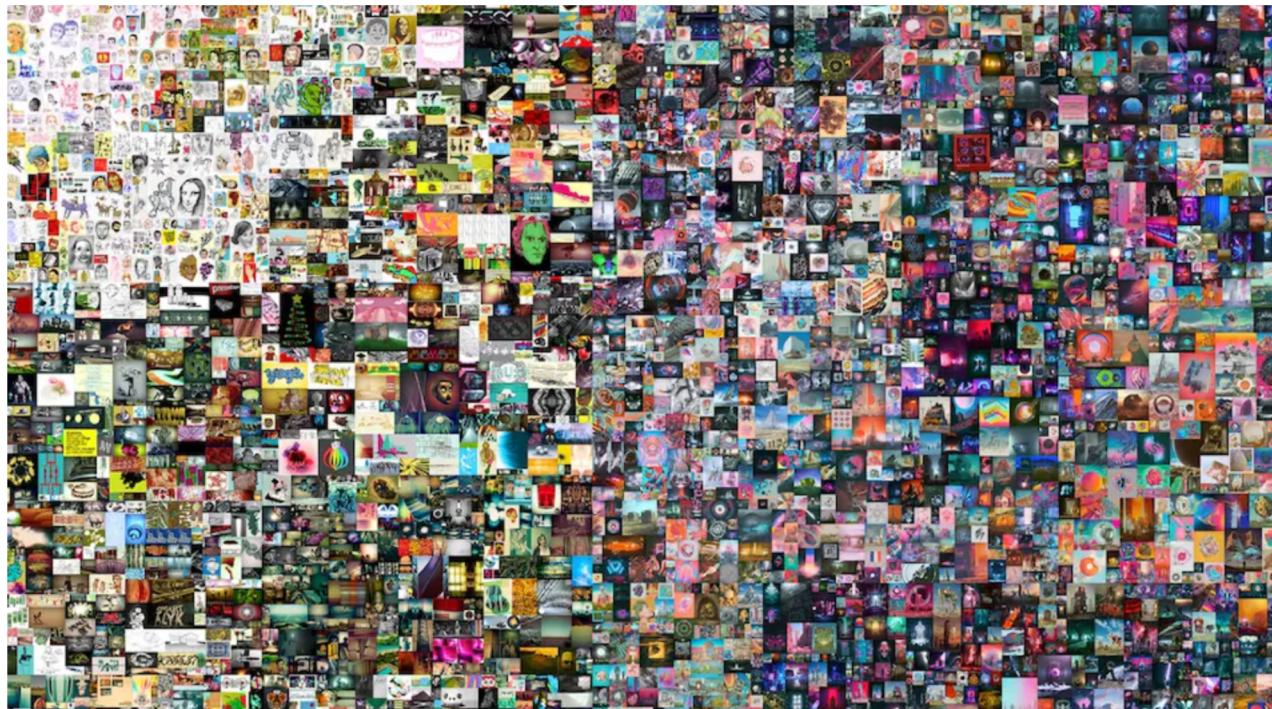
- ERC-721 defines the non-fungible standard.
- It is similar to ERC-20 except that each unit has its own unique ID
- Their alternate name, *deeds*, implies their use case as representing unique ownership of unitary assets; an example could be ownership of a particular P2P loan with its own rates and terms.
- Lottery tickets are nonfungible because only one or a limited number will be winning tickets and the remainder are worthless.
- NFTs can represent *collectibles* (e.g., ownership in a piece of art).

Non-fungible tokens

NFT Sells for \$69.3 million,
most expensive ever

ERC-721

- NFT's have reenergized
the art market



Non-fungible tokens

ERC-1155

- ERC-20 and ERC-721 tokens require an individual contract and address deployed to the blockchain.
- These requirements can be cumbersome for systems that have many tokens, which are closely related, possibly even a mix of fungible and nonfungible token types.

Non-fungible tokens

ERC-1155

- ERC-20 and ERC-721 tokens require an individual contract and address deployed to the blockchain.
- These requirements can be cumbersome for systems that have many tokens, which are closely related, possibly even a mix of fungible and nonfungible token types.
- ERC-1155 resolves this complexity by defining a multi-token model in which the contract holds balances for a variable number of tokens, which can be fungible or nonfungible.

I. DeFi Infrastructure

Modules

1. Mechanics
2. Supply and Ownership
 - i. Custody
 - ii. Supply Adjustment
 - iii. Incentives
3. Swaps and Loans
4. Joining the World of DeFi