Database And Management Systems

Project: NFT (Non-Fungible Tokens) Marketplace

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**Introduction**

Our project is to implement an NFT marketplace. Non-fungible tokens are a kind of digital entity when can either be a digital artwork, video or an audio etcetera. It has the unique feature that every NFT is one of a kind, meaning it is unique and cannot be copied, substituted, or subdivided. Additionally, at any given point in time, it has only one owner in the entire world. This is implemented using hashing and blockchain technology.

Our project will manage and store NFT and deal with its transactions along with maintaining user accounts. Each NFT will have some details about it stored. User account will store user information which can then be used to buy and sell NFTs.

Creators can upload their new NFTs and

**Requirements:**

The main entity of this project is an NFT. It has attributes such as ID, Name, Type, Description, creation date, URL of the NFT and its owner ID.

It will contain an entity type called ACCOUNT having attributes as ID, Name, date of Birth, email, password, number of NFTs owned, credit card number and Credit (currency owned).

Additionally, it will contain an entity type called SALES which has the attributes sale ID, NFT ID(s), total price, quantity, auction, Seller ID, Buyer ID and sale date.

Another entity type stored will be the COLLECTION entity which will have attributes such as ID, Name, Total NFTs and URL of collection.

**Assertions:**

Some of the assertions in out project will be the uniqueness of NFT and the right of their owner to sell the NFTs or change its details. Moreover, once the NFTs hashes have been set, they can not be changed since it is fixed in blockchain world.

**Triggers:**

Transactions in crypto generate triggers in the blockchain and each new block is entirely a new object so for triggers we will use transactions and hash generation formula.