DNA PROJECT

Crypto Base

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Commands:

INSERT

- **INSERT_CRYPTO_USERS**: After registration of a new user, creates a row for the crypto-user and inserts the details into the database
- **NEW_WALLET**: creates a new wallet & adds to the wallet list of the user who has requested this.
- **NEW_MINING_MACHINE**: Creates a new row for a minning_machine. (Machine ID as key attr.)

DELETE

- **DELETE CRYPTO_USERS**: When there is a request to delete a user from the database (based on userid), delete the row of the given USERID(key) from the table. (after cleaning out all the necessary)

- **DELETE WALLET**: When the user is deleted or a request from the user comes to delete the wallet, delete the row of the given wallet address, and username.

UPDATE
- **UPDATE COIN_PRICE**: Upon request, updates the coin price
- **UPDATE USERNAME**: Upon request, update the crypto-user's username / email.

SELECTION
- **MINING_DETIALS_OF_USERS**: Returns the details of all the MINING MACHINE HANDLED BY A GIVEN USER
- **TRANSACTIONS_OF_USERS**: Returns all the transactions of a user given a particular cryptocurrency to another user

PROJECTION
- **HARAM_MINING**: Returns Machine IDs / coordinates of Mining Machines whose energy consumptions exceed a given threshold.
- **RISH_COINS**: returns the list of abbreviations of crypto-coins whose current price is greater than a given price.

AGGREGATE
- **TOTAL_TRANSACTED_CRYPTO**: returns the SUM of amount in each block in the Blockchain
- **ROYALTY_RULES**: returns the NFT with maximum royalty for the creator

SEARCH

- **PARTIAL_TEXT_SEARCH**: Search for entries in an entity, matching for sub-parts of the entries. (ex. Searching for a username in USERS, Searching for a cryptocurrency exchange with its name / website URL)

ANALYSIS

- **MOST_USED_CRYPTO**: Given the username, returns the most used crypto of the user (by calculating count of each cryptocoin the user uses, in the transactions where the user's wallet is the sender. And finding the MAX of all counts)

- **EXCHANGE_RATES**: Returns the exchange ID, exchange rates / conversion_fees from all the crypto-exchanges given two cryptocurrencies (BTC = 'x' DOGE + conversion_fee)