**Digital Wallet**

A digital wallet is a system that securely stores users' payment information. The users can deposit and withdraw currencies from the wallet. Your task is to write a Python program to simulate a digital wallet with the following features.

1. Deposit a certain currency into the wallet.
2. Withdraw a certain amount from the wallet.
3. Convert one currency to another.

Your wallet must support multiple currencies including a fiat currency and crypto currencies such as Bitcoin and Ethereum. You must write the program using the object-oriented program methods. The wallet data including each transaction must be stored on disk.

Extra credit:

1. Use MySQL database to store your wallet.
2. Connect to the Internet to retrieve current values of each currency

Class transaction

Date,currencies,amount,status,balance

Class wallet

Transaction

Show transaction

<https://www.cryptonator.com/rates/#ETH>

<https://api.cryptonator.com/api/ticker/eth-jpy>

<https://www.cryptonator.com/rates/>

<https://developers.coinbase.com/api/v2#exchange-rates>

<https://docs.gdax.com/>

https://www.programmableweb.com/news/70-exchange-apis-bitcoin-status-hashrack-and-kraken/2013/11/12

https://www.programmableweb.com/category/cryptocurrency/api

|  |  |  |
| --- | --- | --- |
| MENU | Description | Function name |
| 0 | Show Wallet menu | show\_menu |
| 1 | Show Balance | show\_balance |
| 2 | Deposit to Wallet | deposit |
| 3 | Withdraw from Wallet | withdraw |
| 4 | Show Transaction history | show\_transaction\_history |
| 5 | Show Exchange rate from Internet | show\_exchange\_rate |
| 6 | Covert Currency In Wallet | convert\_currency\_in\_wallet |
| exit | Exit program | exit |



SQL:

[INSERT](http://192.168.230.128/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/insert.html) INTO `wallet` (`tansaction\_id`, `date`, `currency`, `amount`, `status`) [VALUES](http://192.168.230.128/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/miscellaneous-functions.html#function_values) (NULL, [CURRENT\_TIMESTAMP](http://192.168.230.128/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/date-and-time-functions.html#function_current_timestamp), 'USD', '100', 'deposit');

https://api.cryptonator.com/api/

[kronprom.thira@stu.nida.ac.th](mailto:kronprom.thira@stu.nida.ac.th)

testtest

<https://min-api.cryptocompare.com/data/price?fsym=ETH&tsyms=ETH,EUR>

def load\_currency\_from\_database(currency1,conn):