File - D:\Project\CryptocurrencyPublicLedger.py

```
#source code for crypto management
print("¥t----------------------------------------------------------------")
print("¥t---------------Welcome to Cryptocurrency ledger----------------")
print("¥t----------------------------------------------------------------")
#modules
import mysql.connector
import random
import datetime
from tabulate import tabulate
#connector
CC=mysql.connector.connect(host="localhost",user="root",passwd="root")
C=CC.cursor()
#C is mycursor CC is connect = my database
#creating table
C.execute("create database if not exists Cryptocurrency")
C.execute("use Cryptocurrency")
C.execute("create table if not exists Login(USID int not null, password varchar(25) not null)")
C.execute("create table if not exists User(USID int not null, Name varchar(25) not null, Address varchar(25) not null,
Numberoftokens int, balance int)")
C.execute("create table if not exists Ledger(Date date, TransactionNumber int not null, SendersAddress varchar(25) not null,
ReciversAddress varchar(25) not null, Numberoftokens int, SendersBalance int not null, ReciversBalance int not null)")
C.execute("create table if not exists assign(USID int not null, Address varchar(25))")
#Addind new things to table
C=CC.cursor(buffered=True)
CC.commit()
j=0
C.execute("select * from login")
for i in C:
    j=1
if j==0:
    C.execute("insert into login values('0001','password')")
    CC.commit()
k=0
C.execute("select * from assign")
for i in C:
    k=1
if k==0:
    C.execute("insert into assign values('0001','amk182makik')")
    CC.commit()
l=0
C.execute("select * from user")
for i in C:
    l=1
if l==0:
    C.execute("insert into user values('0001','test','amk182makik','0','0')")
    CC.commit()
m=0
C.execute("select * from ledger")
for i in C:
    m=1
if m==0:
    tday= datetime.date.today()
    C.execute("insert into ledger values('"+str(tday)+"',00001,'amk182makik','amk182makik','0','0','0')")
    CC.commit()
#Interface
while True :
    print("¥t-------------------------1-Create Account-1---------------------")
    print("¥t----------------------------2-Login-2--------------------------")
    print("¥t----------------------------3-Exit-3---------------------------")
    print("¥t----------------------------4-Ledger-4-------------------------")
    print("¥t-----------------------------Choice---------------------------")
    ch=int(input())
    if ch ==1:
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        print("¥t-------------------------------------------------------------")
        print("¥t----------------------------Create---------------------------")
        print("¥t-------------------------------------------------------------")
        name=input("¥t----------------------------Enter your name--------------")
        print("¥t-------------------------------------------------------------")
        pasd=input("¥t----------------------------Create your password--------------")
        print("¥t-------------------------------------------------------------")
        C.execute("select * from assign")
        for i in C:
            (nid,adr)=i
            l=[]
            l.append(adr)
        nid+=1
        rl=[random.randint(65,122) for _ in range(10)]
        rsl=list(map(chr,rl))
        rs=''.join(rsl)
        if rs in l:
            rl=[random.randint(65,122) for _ in range(10)]
            rsl=list(map(chr,rl))
            rs=''.join(rsl)
        else:
            pass

        nt=0
        bal=0
        print("¥t-------------------------User id-------------------------------",nid)
        print("¥t-------------------------------------------------------------")
        print("¥t-------------------------Address-------------------------------",rs)
        C=CC.cursor(buffered=True)
        C.execute("insert into login values('"+str(nid)+"','"+str(pasd)+"')")
        CC.commit()
        C.execute("insert into assign values('"+str(nid)+"','"+str(rs)+"')")
        CC.commit()
        C.execute("insert into user values('"+str(nid)+"','"+name+"','"+str(rs)+"','"+str(nt)+"','"+str(bal)+"')")
        CC.commit()
        print("¥t-------------------------------------------------------------")
        print("¥t-----------------------------Created---------------------------")
        print("¥t-------------------------------------------------------------")
    if (ch == 2):
        print("¥t-------------------------------------------------------------")
        print("¥t-----------------------------Login-----------------------------")
        print("¥t-------------------------------------------------------------")
        us=int(input("Enter USID"))
        print("¥t-------------------------------------------------------------")
        print("¥t----------------------Enter the password----------------------")
        print("¥t-------------------------------------------------------------")
        pasd=input("Enter Password")
        C.execute("select * from login")
        for i in C:
            ad,pas=i
            if us==ad and pasd==pas :
                while True:
                    print("¥t-------------------------------------------------------------")
                    print("¥t----------------------Successfully Login----------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t---------------------5-Deposit-5-----------------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t---------------------6-Transact-6----------------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t-------------------------------------------------------------")
                    print("¥t---------------------7-Display Account-7----------------------")
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125                 print("¥t-----------------------------------------------------------------")
126                 print("¥t---------------------8-Log-Out-8-------------------------------")
127                 print("¥t-----------------------------------------------------------------")
128                 print("¥t-------------------------------Choice-----------------------------")
129                 ch=int(input())
130                 if ch == 5:
131                     C=CC.cursor(buffered=True)
132                     C.execute("select balance from user WHERE USID = '"+str(us)+"'")
133                     for i in C:
134                         (bale,)=i
135                     nt=int(input("-----------------------------Enter the N.O of tokens----------------------------"))
136                     bale=nt+bale
137                     C.execute("update user set Numberoftokens = '"+str(bale)+"', balance = '"+str(bale)+"' WHERE USID = '"+str
    (us)+"'  ")
138                     CC.commit()
139                     print("Balance - ",bale)
140                     print("¥t-----------------------------------------------------------------")
141                     print("¥t-----------------------------deposited------------------------")
142                     print("¥t-----------------------------------------------------------------")
143                 if ch == 6:
144                     C=CC.cursor(buffered=True)
145                     recadd=input("Enter the Address to send tokens")
146                     nots=int(input("Enter the number of tokens to be transacted!"))
147                     C.execute("select TransactionNumber from ledger ")
148                     for i in C:
149                         (txno,)=i
150                     txno+=1
151                     CC.commit()
152                     C.execute("select Name, Address, Numberoftokens, balance from user WHERE USID = '"+str(us)+"'")
153                     sedadd='dewsed'
154                     for i in C:
155                         (name,sedadd,notis,balis)=i
156                     CC.commit()
157                     C.execute("select USID, Numberoftokens, balance from user WHERE Address = '"+str(recadd)+"'")
158                     for i in C:
159                         (usr,notir,balir)=i
160                     CC.commit()
161                     balis=balis-nots
162                     notis=notis-nots
163                     C.execute("update user set Numberoftokens = '"+str(notis)+"', balance = '"+str(balis)+"' WHERE USID = '"+
    str(us)+"'  ")
164                     CC.commit()
165                     notir=notir+nots
166                     balir=balir+nots
167                     daot=datetime.date.today()
168                     C.execute("update user set Numberoftokens = '"+str(notir)+"', balance = '"+str(balir)+"' WHERE USID = '"+
    str(usr)+"'  ")
169                     CC.commit()
170                     C.execute("insert into ledger values('"+str(daot)+"','"+str(txno)+"','"+sedadd+"','"+recadd+"','"+str(nots)+"','"
    +str(balis)+"','"+str(balir)+"')")
171                     CC.commit()
172                     print("¥t-----------------------------------------------------------------")
173                     print("¥t-----------------------------Transacted------------------------")
174                     print("¥t-----------------------------------------------------------------")
175                 if ch ==7:
176                     C=CC.cursor(buffered=True)
177                     print("¥t-------------------------------Account--------------------------")
178                     C.execute("select * from user WHERE USID = '"+str(us)+"'  ")
179                     for i in C:
180                         l=[]
181                         i1=list(i)
182                         i2=["USID","Name","Address","Numberoftokens","balance"]
183                         l.append(i2)
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                    l.append(i1)
                    print(tabulate(l))
                if (ch == 8):
                    C=CC.cursor(buffered=True)
                    print("¥t----------------------------------------------------------------")
                    print("¥t----------------------------Log-Out---------------------------")
                    print("¥t----------------------------------------------------------------")
                    break
            elif us==ad and pasd!=pas :
                print("¥t----------------------------------------------------------------")
                print("¥t----------------------Incorrect Password---------------------")
                print("¥t----------------------------------------------------------------")
            elif us!=ad and pasd==pas :
                print("¥t----------------------------------------------------------------")
                print("¥t----------------------Incorrect USID ------------------------")
                print("¥t----------------------------------------------------------------")
            else:
                pass
        if (ch == 3):
            print("¥t----------------------------------------------------------------")
            print("¥t-----------------------------Exit-------------------------------")
            print("¥t----------------------------------------------------------------")
            break
        if (ch == 4):
            print("¥t----------------------------------------------------------------")
            print("¥t----------------------------LEDGER----------------------------")
            print("¥t----------------------------------------------------------------")
            C.execute("select * from Ledger")
            for i in C:
                l=[]
                i1=list(i)
                i2=["Date","TransactionNumber","SendersAddress","ReciversAddress","Numberoftokens","SendersBalance","
ReciversBalance"]
                l.append(i2)
                l.append(i1)
                print(tabulate(l))
        if ch == 5 or ch==6 or ch==7 :
            break
```