

Mobile money program using python

Group members:

1. Barezi Julien
2. Gihozo Landelin

This is a mobile application that can help users to do various banking operations without physical movement of cash rather this can be cashless. Our program has four classes called Account and it will have different methods.

Initial operations

- Create an account
- Login into the account

Creating account

The user will have to fill in this info:

Name

ID number

Phone number

Initial money to deposit

Password

Confirm password

logging in

Test: The initial user information that we will declare

The program will check the phone number and the passwords only

After logging in

After the user logs in, s/he can make the following operations:

- Transfer
- Buy
- Pay
- Deposit
- View balance

Some of these operations represent the classes that we are going to have

Classes

Class 1: Account(Main Class)

Instance variables are Name, ID number, phone number, money, password

Methods:

- Deposit: In this method, the user is asked the amount of money s/he wants to deposit, and then s/he is given a confirmation message that the money has been deposited detailing the current balance too.
- View Balance: In this method, the user is shown the amount of money s/he has on their account after inputting their password.

Test:

- Test if the program doesn't show the balance if the user inputs the wrong password.
- Test if the program brings the correct balance after the user deposits money
- Test if the user gets the right amount of money if s/he chooses to view the balance
- Test if the user gets a confirmation message after the transaction is complete
- Test if the program recognizes the right user depositing money by mentioning his/her name in the confirmation message.

Class 2: Transfer inherits Account class

The use of this class is to contain the methods that do these operations:

When the user wishes to transfer the money, s/he will be asked the number s/he will transfer it to, the amount to send, and then confirm if s/he to send.

Instance Variables:

Same as the ones in the Account class

Methods:

- Transaction: In this method, the program asks the user to input the phone number of the recipient of the cash, input the amount(by also checking if the amount doesn't exceed what they have in the account), confirm the transfer by input the password and finally getting the confirmation message that the money has been transferred detailing the remaining amount.

Test:

- Test if the program will bring the right message if the user transfers the money below the account balance
- Test if the program will bring the right message if the user transfers the money above the account balance
- Test if the program will bring the right message if the user transfers the money that is on the account balance
- Test if the program brings the right confirmation message before transferring the money.
- Test if the program tells users to repeat if they put the wrong password.

Class 3: Buy inherits Account class

The use of this class is to contain methods that do these operations

The user can choose to buy cash power or airtime.

Instance variables: This class has the same instance variables as the parent class.

Methods:

- Cash power method: In this method, the user is asked to input their cash power number and the amount of money they want to recharge. After doing this the user gets a message containing the name registered on that cash power and the amount they want to recharge in order to confirm the transaction.
- Airtime: In this method, the user is asked to input their phone number and the amount of money they want to recharge. After doing this the user gets a message containing the number they have inputted and the amount they want to recharge in order to confirm the transaction.

Test:

- Test if the program will bring the right message if the user goes below the money that is in the account
- Test if both phone and cash power numbers meet the standards of the service providers
- Test if the program will bring the right message if the user goes below the money that is in the account.
- Test when the user pays money greater than what they have on the account.
- Test what happens if the user recharges airtime below the standard one.

Class 4: Pay inherits Account class

This class contain a method that performs checking on the codes that the user inputs in and then it returns the name of the seller or the business owner

Instance variables

The class uses the same instance variables as the account class except that the class will have an additional variable called **codes**. We will initialize the codes for the business owners and condition the program to display the names of the businesses once the transaction is complete

Method:

- Make payment: In this method, the user is asked to input the seller's code they want to pay and the amount of money they want to pay. After this the user receives a confirmation message including the name registered on that code and the amount of money being paid.

Test:

- Test if the codes match the ones existing in the codes
- Test if the program will bring the right message if the user goes below the money that is in the account.
- Test when the user pays money greater than what they have on the account.
- Test what happens if the user writes codes that are not registered
- Test if each code brings the right name registered under it