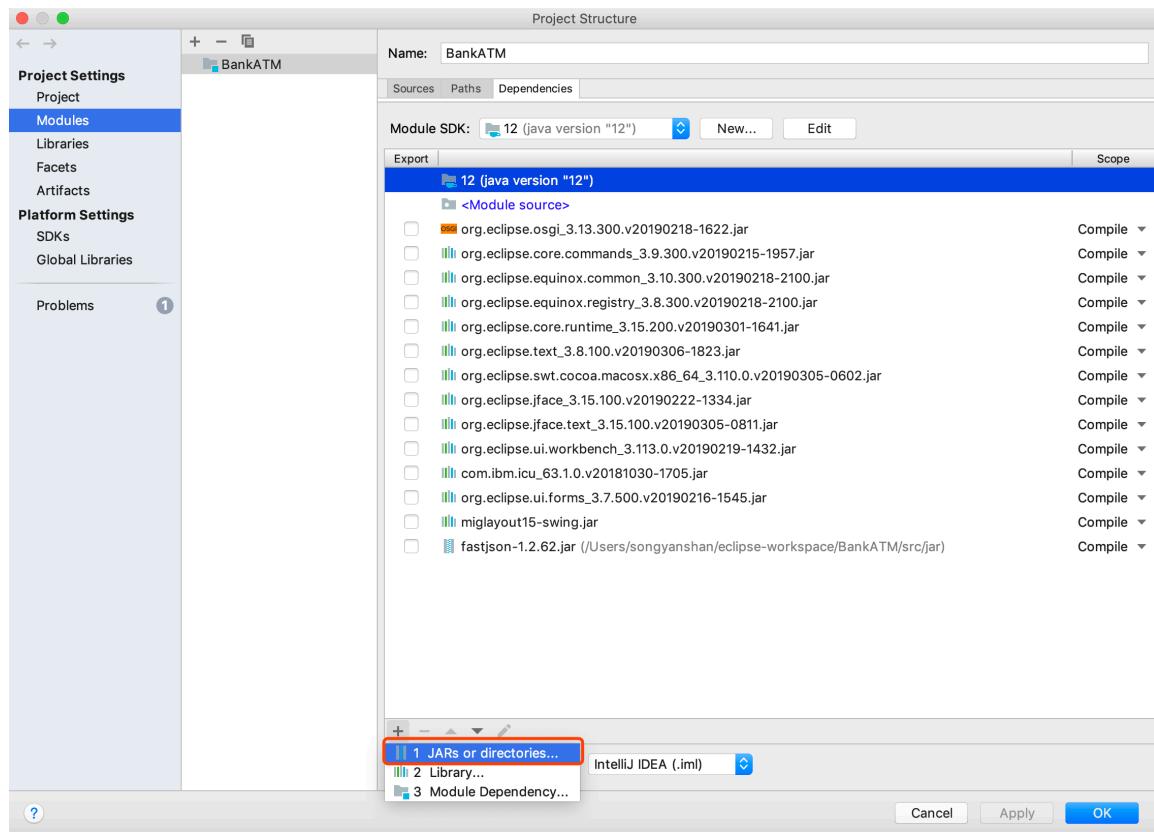
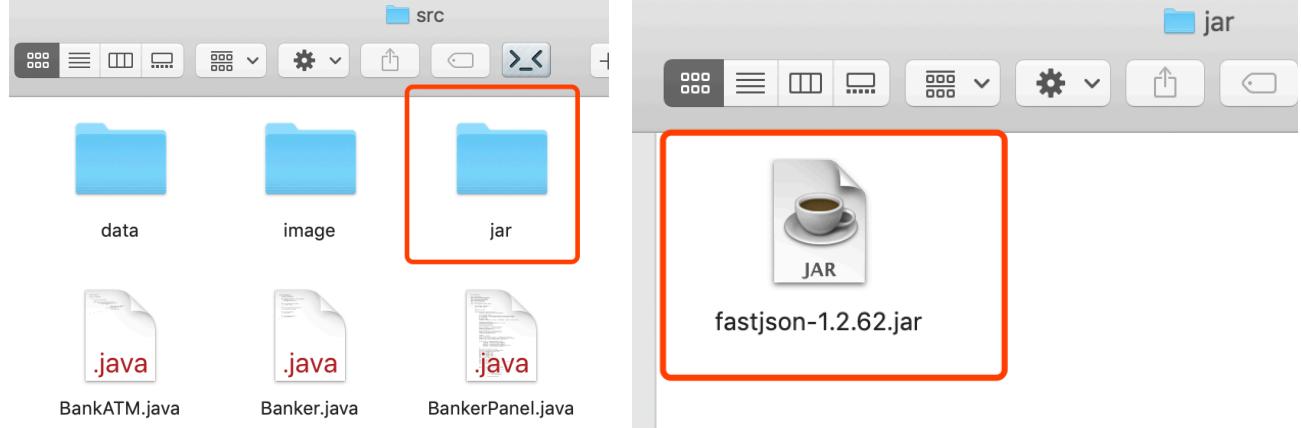


# My Fancy Bank README

Yanshan Song  
U93089867

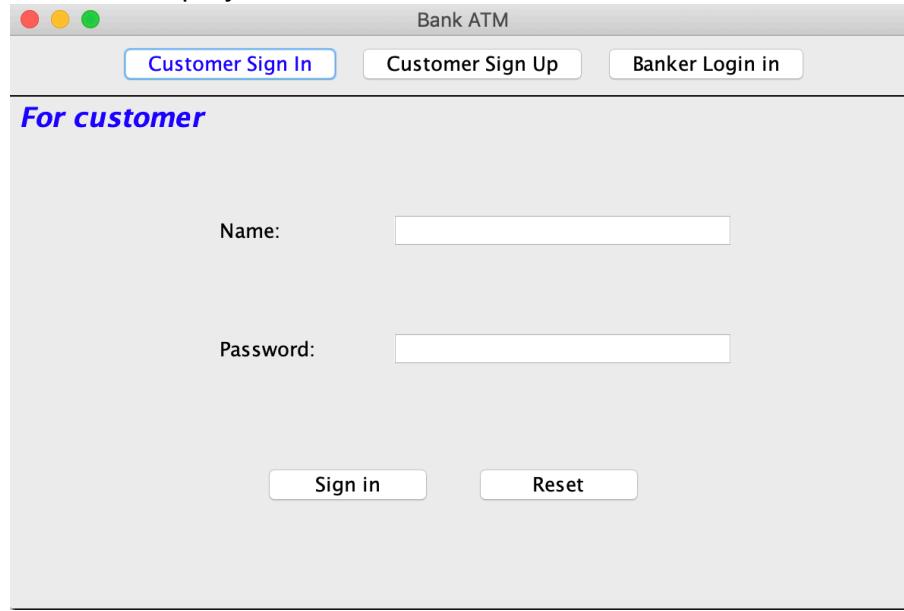
## Preliminary

Import “fastjson-1.2.62.jar” in the “src/jar” directory to the project, like this:



## How to run the project?

The entrance of the project is “src/BankATM.java”, running the “static main” method in this class will start the project.



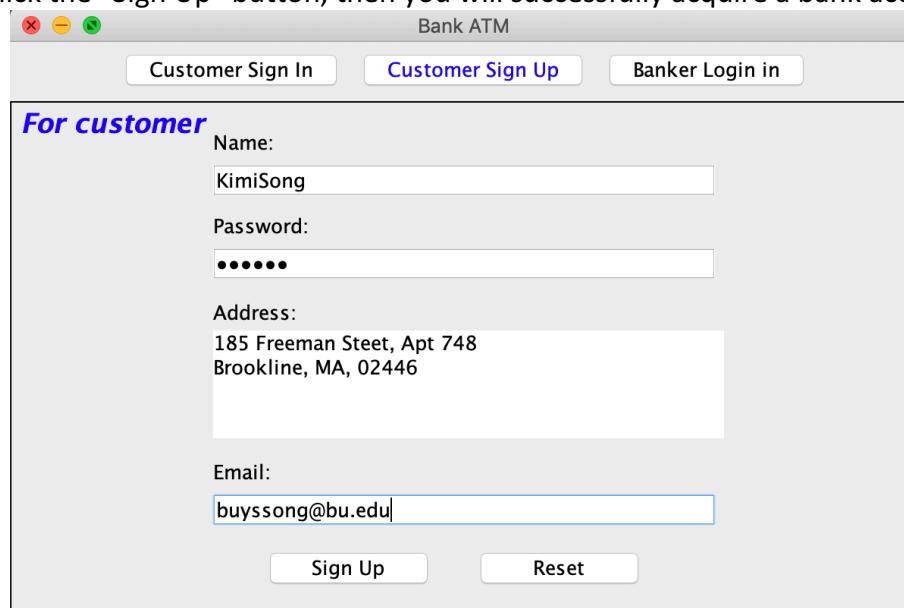
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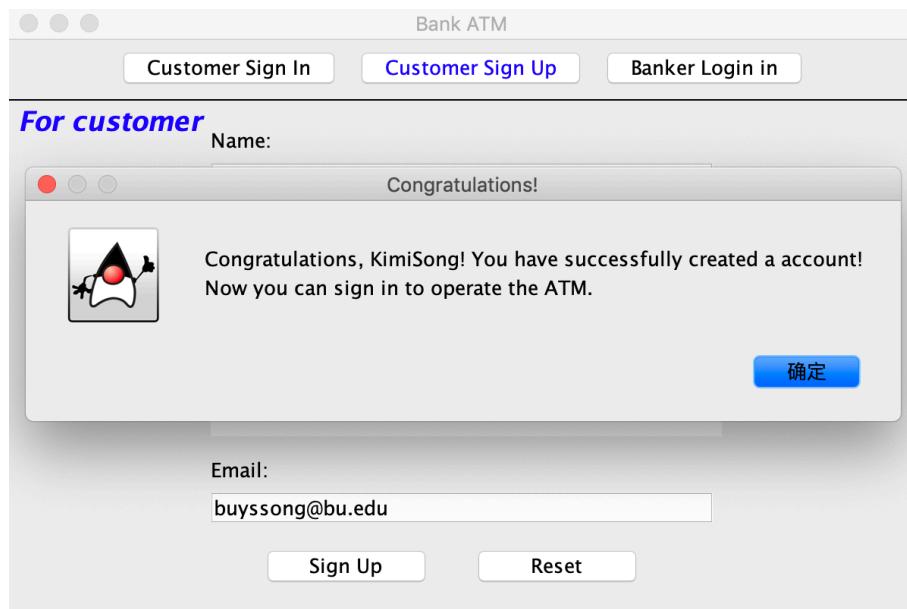
## Introduction

### 1. Sign up and Sign in

#### 1.1 Customer sign up

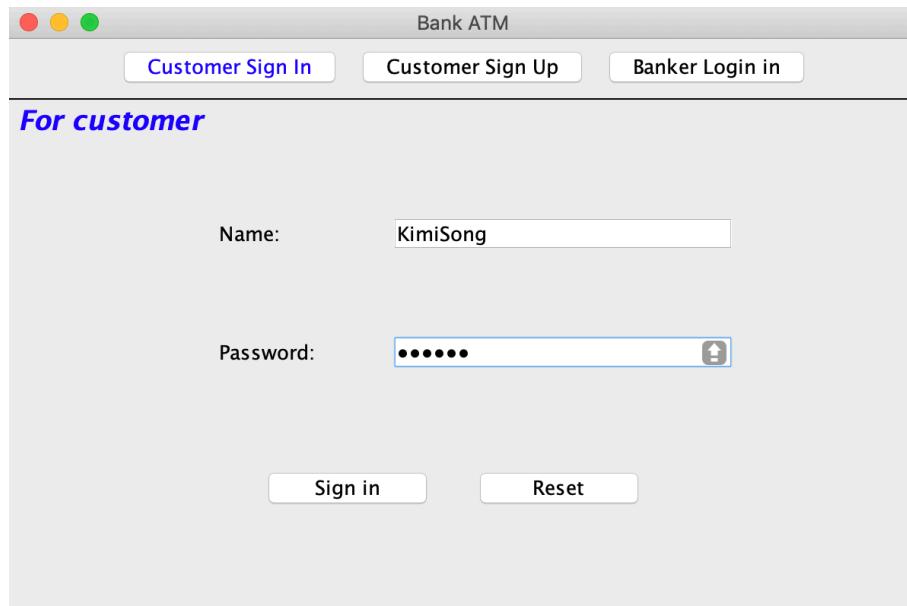
Click the “Customer Sign Up” button on the top panel, then the interface for customers to sign up a bank account will be displayed. Fill in all the required information for signing up and click the “Sign Up” button, then you will successfully acquire a bank account.



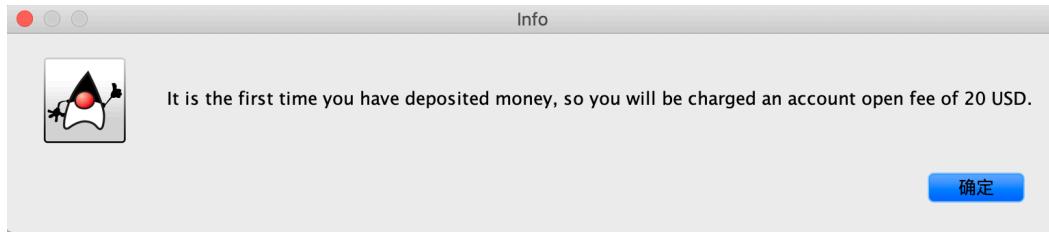


## 1.2 Customer Sign in

Click the “Customer Sign In” button in the top panel, then the interface for customers to sign in will be displayed. Type your name and password to the corresponding field, then click the “Sign In” button, you will successfully sign in and enter the customer operating interface.

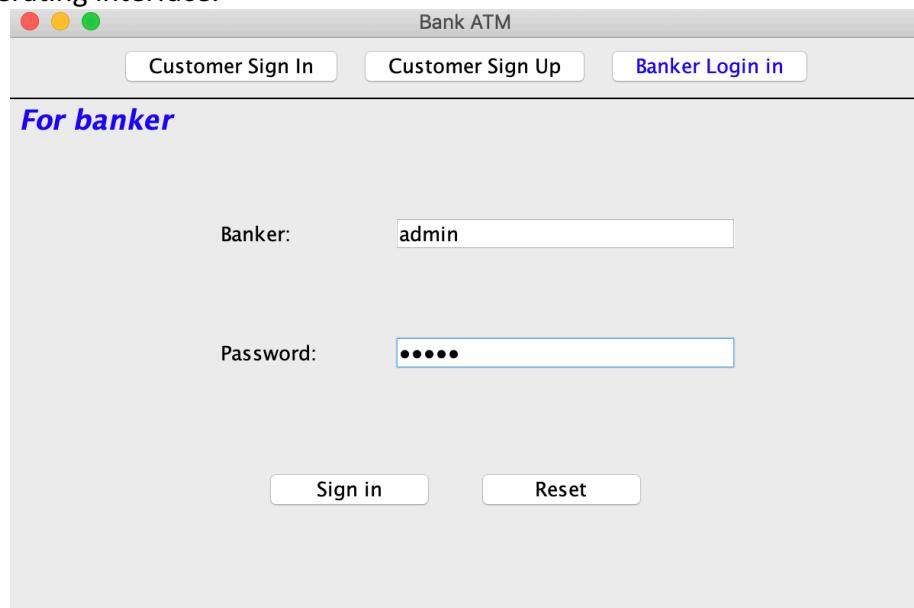


Specifically, when you first enter the affair operating interface, you will be charged an open account fee of 20 USD.

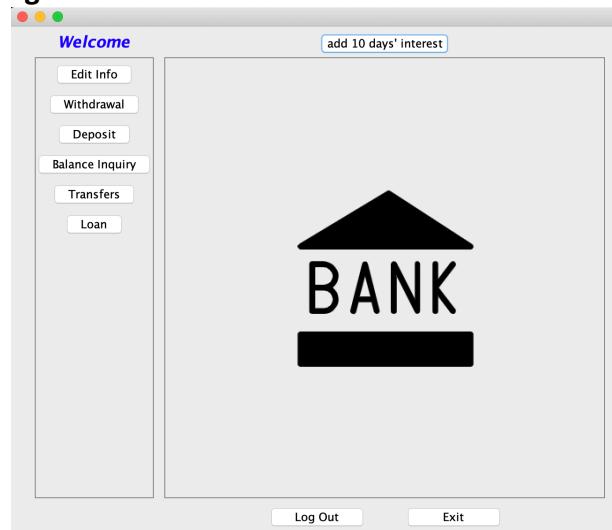


### 1.3 Banker Sign In

Click the “Banker Login In” button on the top panel, then the interface for the banker to sign in will be displayed. Please be advised that the “name” and “password” of the banker in the project are fix, they are both “admin”. Next, type the name and the password to the corresponding field, a banker will successfully sign in and enter the bank operating interface.



### 2. Customer operating interface



## 2.1 Edit

Click the “Edit Info” button on the left panel, you will see the interface for editing your personal information on the right panel. You can modify your personal information including password, address and e-mail here.

The screenshot shows a window titled "Welcome" with a status bar at the top right that says "add 10 days' interest". On the left, there is a vertical menu with buttons: "Edit Info" (highlighted in blue), "Withdrawal", "Deposit", "Balance Inquiry", "Transfers", and "Loan". The main panel is titled "Edit" and contains the following fields:

- Name: KimiSong
- New Password: (empty input field)
- Address: 185 Freeman Street, Apt 748  
Brookline, MA, 02446
- Email: buyssong@bu.edu

At the bottom of the main panel are two buttons: "Edit" and "Reset". At the very bottom of the window are "Log Out" and "Exit" buttons.

## 2.2 Deposit

Click the “Deposit” button on the left panel, you will see the interface for depositing on the right panel. You can deposit money in the interface.

The screenshot shows a window titled "Welcome" with a status bar at the top right that says "add 10 days' interest". On the left, there is a vertical menu with buttons: "Edit Info", "Withdrawal", "Deposit" (highlighted in blue), "Balance Inquiry", "Transfers", and "Loan". The main panel is titled "Deposit" and contains the following instructions and fields:

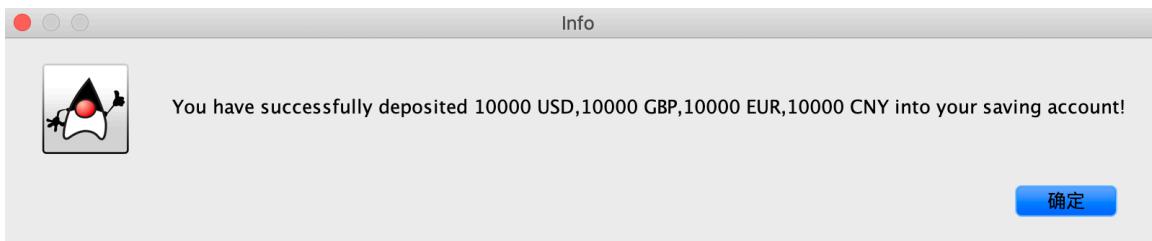
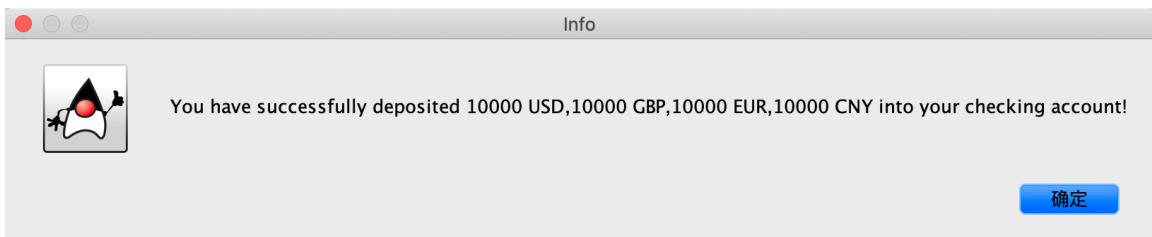
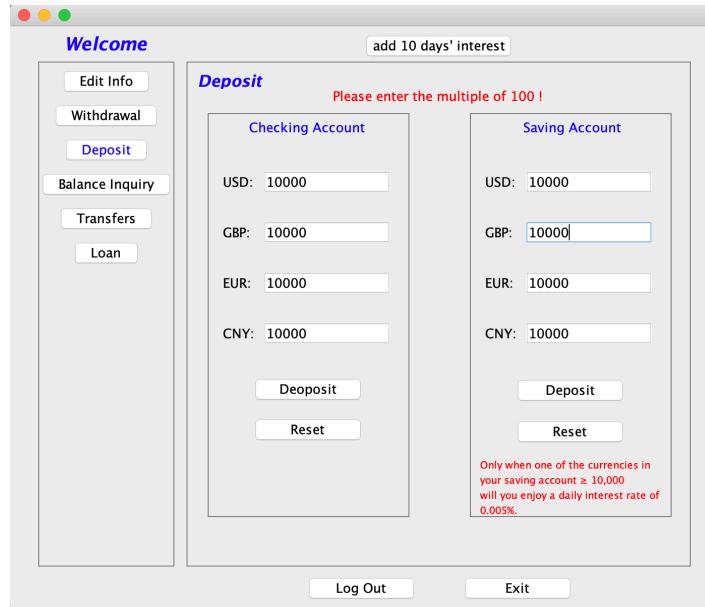
Please enter the multiple of 100 !

<b>Checking Account</b>	<b>Saving Account</b>
USD: <input type="text"/>	USD: <input type="text"/>
GBP: <input type="text"/>	GBP: <input type="text"/>
EUR: <input type="text"/>	EUR: <input type="text"/>
CNY: <input type="text"/>	CNY: <input type="text"/>

At the bottom of the main panel are three buttons: "Deposit", "Reset", and a small note in red text: "Only when one of the currencies in your saving account ≥ 10,000 will you enjoy a daily interest rate of 0.005%". At the very bottom of the window are "Log Out" and "Exit" buttons.

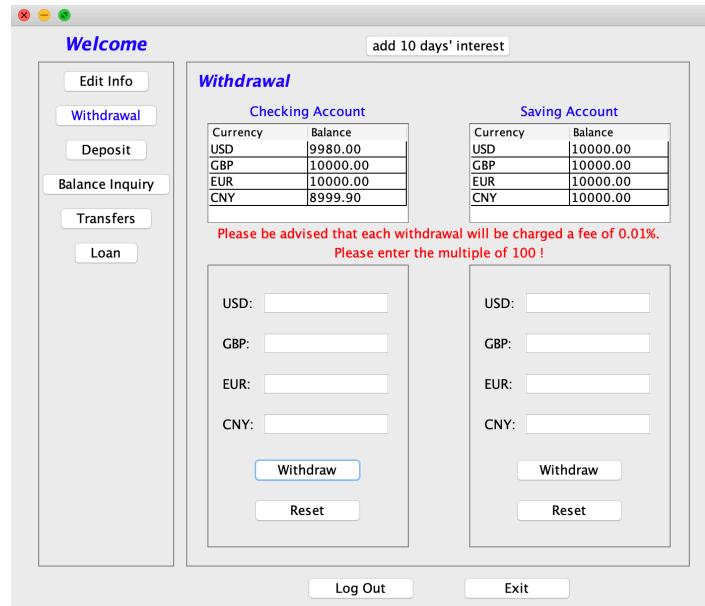
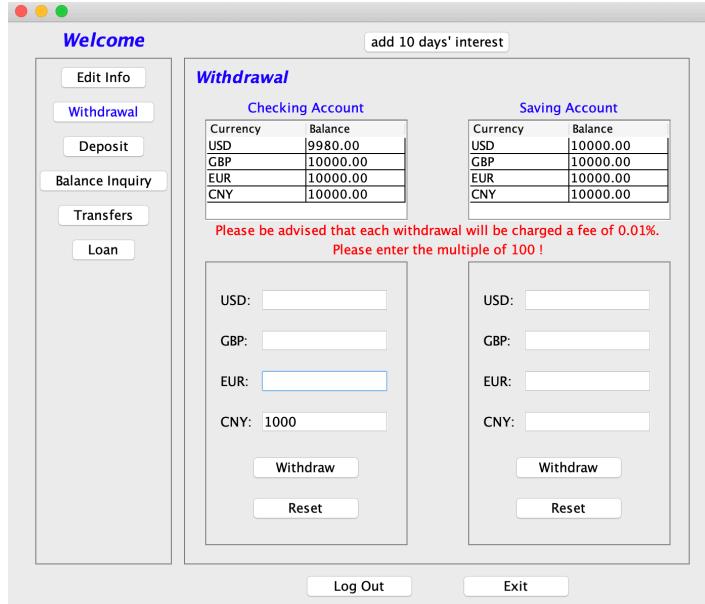
For the following demonstration, now deposit 10000 USD, 10000 GBP, 10000 EUR, 10000 CNY respectively to the checking and saving account.

Only when one of the currencies in a customer's saving account is up to 10000 will it have a daily interest rate of 0.005%.



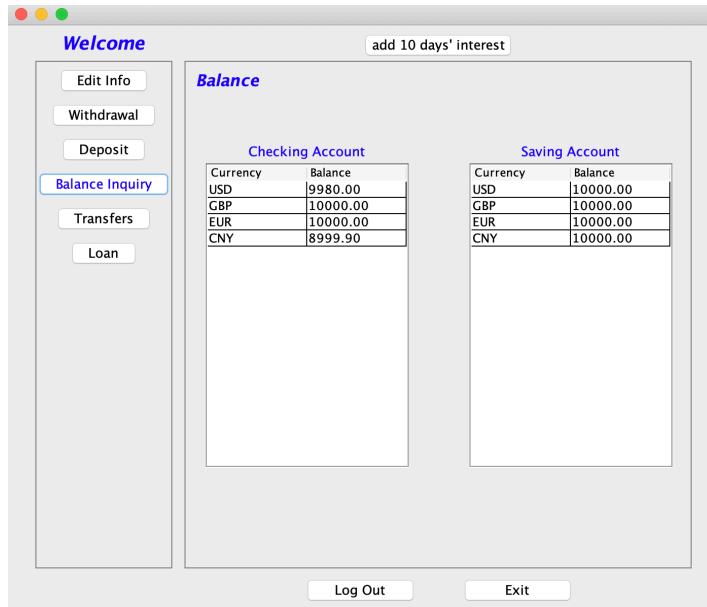
### 2.3 Withdrawal

Click the “Withdrawal” button on the left panel, you will see the interface for withdrawal on the right panel, and you can deposit money in the interface. Each withdrawal will be charged a fee of 0.01% of the amount of the withdrawal. Now, I withdraw 1000 CNY from my checking account, the fee of this withdrawal is 0.01% \* 1000 = 0.1 CNY, so the remaining balance of CNY in my checking account is 8999.90.

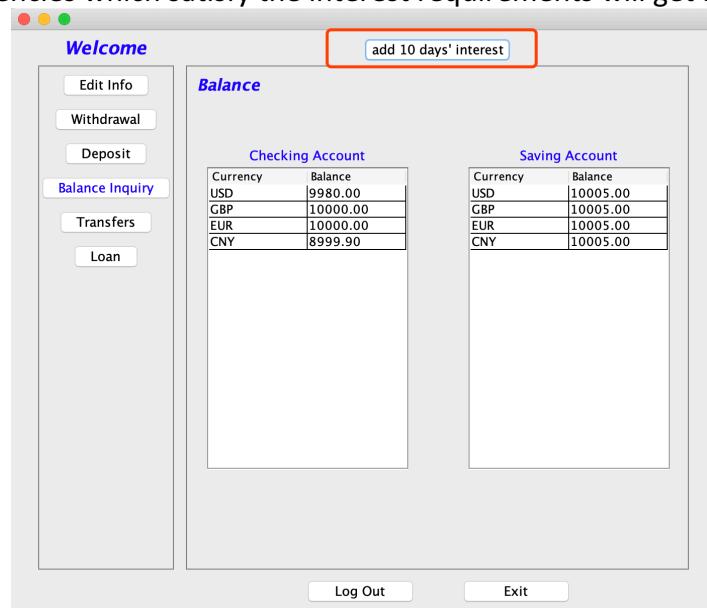


## 2.4 Balance Inquiry

Click the "Balance Inquiry" button on the left panel, you will see the interface for balance inquiry on the right panel where balance status of the checking account and saving account will be displayed.



The interest will automatically be calculated according to the day span between the last operating date and today. To test the “Interest” function, click the “add 10 day’s interest” button, the currencies which satisfy the interest requirements will get 10 day’s interest.



## 2.5 Transfers

Click the “Transfers” button on the left panel, you will see the interface for transfers on the right panel where you can transfer money from your checking account to your saving account, transfer money from your saving account to your checking account and transfer money from your checking account to another customer’s checking account.

### 2.5.1 Transfers from your checking account to your saving account

It is free for each transfer of this type. Now I transfer 1000 USD from my checking account to my saving account.

The screenshot shows the 'Transfers' section of the mobile banking application. On the left, there's a sidebar with 'Edit Info', 'Withdrawal', 'Deposit', 'Balance Inquiry', 'Transfers' (which is selected and highlighted in blue), and 'Loan'. The main area has two tables: 'Checking Account' and 'Saving Account'. Both tables show currency and balance for USD, GBP, EUR, and CNY. In the 'Transfers' section, a red box highlights the 'USD: 1000' input field. Below it are fields for GBP, EUR, and CNY. To the right, another set of fields shows the transfer amount in USD, GBP, EUR, and CNY, along with 'Transfer' and 'Reset' buttons. A note at the top right says: 'from Saving to Checking Each month 3 free chances. After free chances, you will be charged a fee of 10 USD each transfer. Remaining(3)'.

This screenshot shows the result of the transfer. The 'Transfers' section now displays updated balances: the 'Checking Account' shows USD 8980.00 and the 'Saving Account' shows USD 11005.00. A message at the bottom left says 'You have successfully transferred 1000 USD from your checking account to your saving account'. A small cartoon character icon is also present. At the top right, there's a '确定' (Confirm) button. The bottom features 'Log Out' and 'Exit' buttons.

### 2.5.2 Transfers from your saving account to your checking account

Each month, a customer has 3 free chances to transfer money from his saving account to his checking account. If he used up all free chances and still needs to do transfers, he will be charged a fee of 10 USD per transfer.

**Welcome** add 10 days' interest

Edit Info	
Withdrawal	
Deposit	
Balance Inquiry	
<b>Transfers</b>	
Loan	

**Transfers**

Checking Account	
Currency	Balance
USD	11980.00
GBP	10000.00
EUR	10000.00
CNY	8999.90

Saving Account	
Currency	Balance
USD	8005.00
GBP	10005.00
EUR	10005.00
CNY	10005.00

from Checking to Saving free  
from Saving to Checking  
Each month 3 free chances.  
After free chances, you will  
be charged a fee of 10 USD  
each transfer. Remaining(0)

from Person to Person  
Each transfer will be charged  
a fee of 10 USD.

USD:  Name:

USD:  GBP:   
EUR:  CNY:

Transfer Reset Transfer Reset Transfer Reset

Log Out Exit

**Welcome** add 10 days' interest

Edit Info	
Withdrawal	
Deposit	
Balance Inquiry	
<b>Transfers</b>	
Info	

Checking Account	
Currency	Balance
USD	11980.00
GBP	10000.00
EUR	10000.00
CNY	8999.90

Saving Account	
Currency	Balance
USD	8005.00
GBP	10005.00
FUR	10005.00
CNY	10005.00

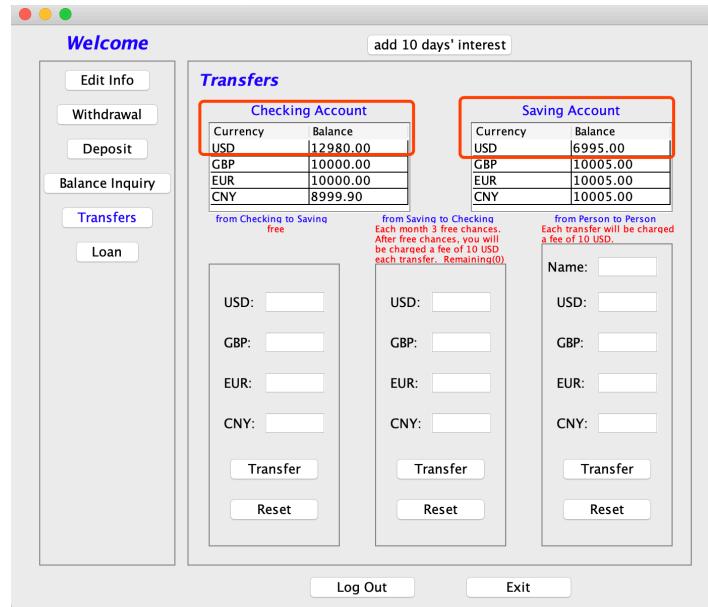
The free chances for transfers from the saving account to the checking account have been used up  
so you will be charged a fee of 10 USD.

确定

EUR:  EUR:  EUR:   
CNY:  CNY:  CNY:

Transfer Reset Transfer Reset Transfer Reset

Log Out Exit



### 2.5.3 Transfers from your checking account to another customer's checking account

Each transfer of this type will be charged a fee of 10 USD.

To demonstrate the function, now I sign up another customer 'cpk'.

**For customer**

Name: cpk

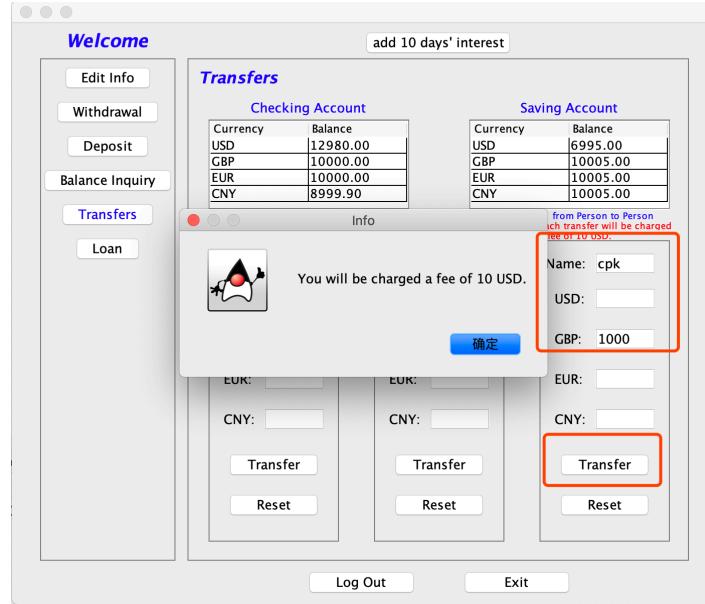
Password: \*\*\*\*\*

Address: bu

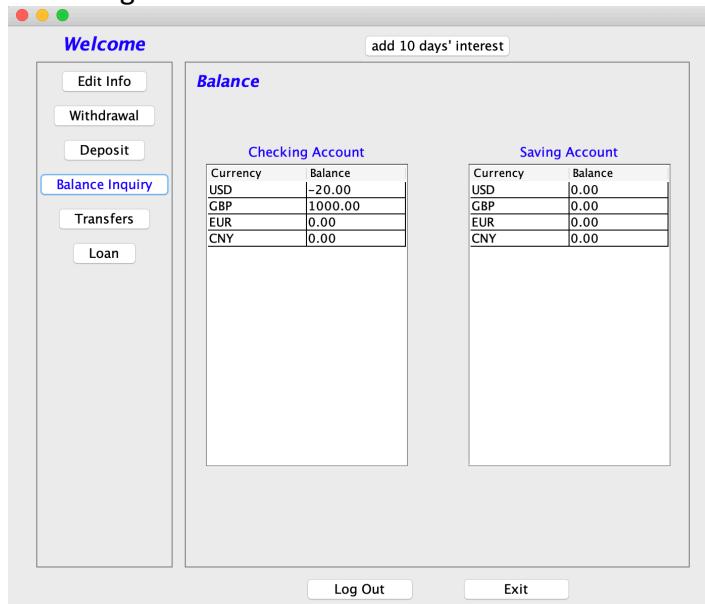
Email: cpk@bu.edu

Sign Up      Reset

Then I transfer 1000 GBP from my checking account to cpk's checking account.



Then, check cpk's checking account.



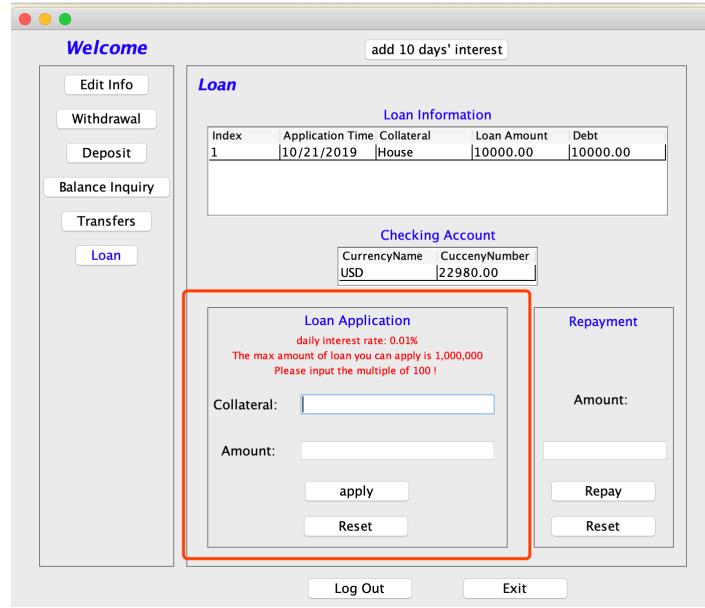
The 1000 GBP has been successfully transferred.

## 2.6 Loan

Click the “Loans” button on the left panel, you will see the interface for loans on the right panel.

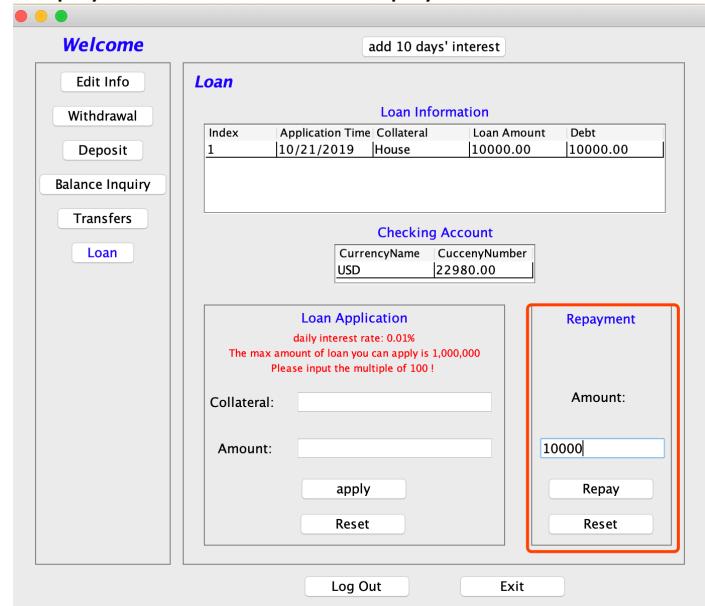
### 2.6.1 Application

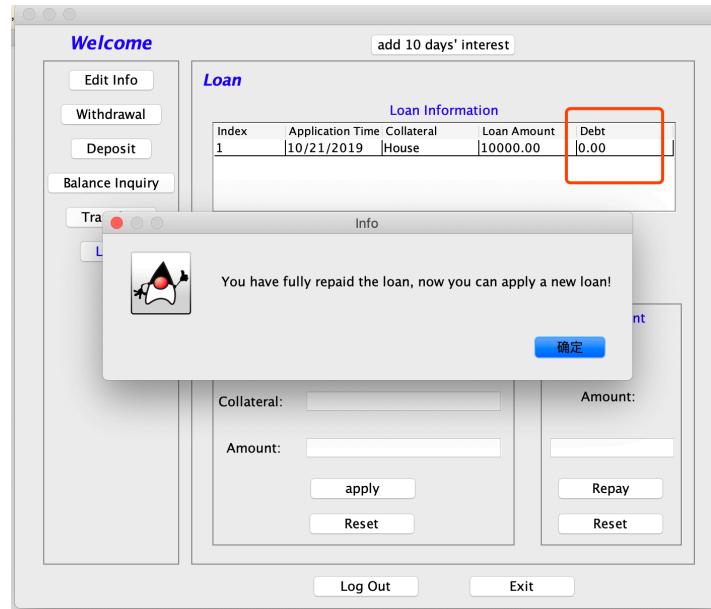
Type in the collateral and the amount of loan, then click the “apply” button. The amount of loan will be directly added to your checking account.



## 2.6.2 Repayment

Set the amount of repayment and click the “repay” button.





### 3. Banker operating interface

The screenshot shows a software application window titled "Bank ATM". The top menu bar includes "Customer Sign In", "Customer Sign Up", and "Banker Login in" (which is highlighted in blue). The main area is titled "For banker". It contains two input fields: "Banker:" with the value "admin" and "Password:" with the value "\*\*\*\*\*". Below these fields are "Sign in" and "Reset" buttons.

You will get a report of all transactions:

**Report**

Date	Name	Type	Detailed Content	Fee
10/21/2019	KimiSong	Open Acco...	Open an account	20 USD
10/21/2019	KimiSong	Deposit	Deposit 10000 USD,10000 GBP,10000 EUR,10000 CN...	/
10/21/2019	KimiSong	Deposit	Deposit 10000 USD,10000 GBP,10000 EUR,10000 CN...	/
10/21/2019	KimiSong	Withdrawal	Withdraw 1000 CNY from the checking account.	0.10 CNY
10/21/2019	KimiSong	Transfer	Transfer 1000 USD from the checking account to the sa...	/
10/21/2019	KimiSong	Transfer	Transfer 1000 USD from the saving account to the chec...	/
10/21/2019	KimiSong	Transfer	Transfer 1000 USD from the saving account to the chec...	/
10/21/2019	KimiSong	Transfer	Transfer 1000 USD from the saving account to the chec...	/
10/21/2019	KimiSong	Transfer	Transfer 1000 USD from the saving account to the chec...	10 USD
10/21/2019	KimiSong	Transfer	Transfer 1000 GBP from the KimiSong's checking accou...	10 USD
10/21/2019	KimiSong	Loan	Get a loan of 10000 USD.	/
10/21/2019	KimiSong	Repayment	Repay 10000 USD.	/

[Log Out](#) [Exit](#)