

银行模拟程序

- 客户可以开立账户
- 客户可以从账户存入/取出资金
- 客户可以请求显示其每个帐户的交易和总计的报表
- 不同的账户以不同的方式计算利息
- 支票账户的固定利率为 0.1%
- 储蓄账户的前 1000 美元的利率为 0.1%，然后为 0.2%
- Maxi-Savings 账户的前 1000 美元的费率为 2%，接下来的 1,000 美元的费率为 5%，然后是 10%
- 银行经理可以获得一份报告，显示客户列表以及他们拥有的帐户数量
- 银行经理可以获得一份报告，显示银行在所有账户上支付的利息总额
- getStatement 不需要考虑 MAXI_SAVINGS 类型账户

输入命令说明

| | |
|------------------------------|--|
| createAccount type | type 取值 0,1,2 创建对应类型的银行账号 |
| createCustomer name | name 是字符串，创建户名为 name 的银行用户 |
| addToCustomer index name | index 是根据 account 的创建次序索引到银行账号，将对应的银行账号挂在名为 name 的用户名下 |
| accountDeposit index amount | 在指定的银行账号下存入 amount 数量的钱 |
| accountWithdraw index amount | 在指定的银行账号下去除 amount 数量的钱 |
| sumTransactions index | 获取指定银行账号的余额 |
| numberOfAccount name | 获取指定用户名下的账号数量 |
| totalInterestEarned name | 获取指定用户的利息收入 |
| getStatement name | 获取指定用户的所有交易信息 |
| banktotalInserstPaid | 获取银行需要支付的利息总额 |
| customsum | 获取用户统计 |
| end | 输入结束标志 |

| |
|---|
| 1_account |
| createCustomer Bill createAccount 0 addToCustomer 0 Bill accountWithdraw 0 -100.0 end |
| amount must be greater than zero |

| |
|--|
| 2_account |
| createCustomer Bill createAccount 0 addToCustomer 0 Bill |

| |
|--------------------------------|
| accountWithdraw 0 100.0 end |
|--------------------------------|

| |
|---|
| sumTransactions must be greater than zero |
|---|

| |
|-----------|
| 3_account |
|-----------|

| |
|--|
| createCustomer Bill createAccount 0 addToCustomer 0 Bill accountDeposit 0 -100.0 end |
|--|

| |
|----------------------------------|
| amount must be greater than zero |
|----------------------------------|

| |
|-----------|
| 4_account |
|-----------|

| |
|--|
| createCustomer Bill createAccount 2 addToCustomer 0 Bill accountDeposit 0 1400.0 accountWithdraw 0 700.0 sumTransactions 0 end |
|--|

| |
|-------|
| 700.0 |
|-------|

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| 5_bank |
|--------|

| |
|--|
| createCustomer John createAccount 0 addToCustomer 0 John customsum end |
|--|

| |
|--|
| Customer Summary - John (1 account) |
|--|

| |
|--------|
| 6_bank |
|--------|

| |
|---|
| createAccount 0 createAccount 1 createCustomer Bill createCustomer Tim |
|---|

| |
|---|
| addToCustomer 0 Bill addToCustomer 1 Tim accountDeposit 0 100.0 accountDeposit 0 1000.0 banktotalInserstPaid end |
| 1.1 |

| |
|--|
| 7_bank |
| createAccount 1 createCustomer Bill addToCustomer 0 Bill accountDeposit 0 1500.0 banktotalInserstPaid end |
| 2.0 |

| |
|--|
| 8_bank |
| createAccount 2 createCustomer Bill addToCustomer 0 Bill accountDeposit 0 3000.0 banktotalInserstPaid end |
| 170.0 |

| |
|---|
| 9_bank |
| createCustomer John createCustomer Jack createAccount 0 createAccount 1 addToCustomer 0 John addToCustomer 1 John createAccount 2 addToCustomer 2 Jack customsum end |

Customer Summary

- John (2 accounts)
- Jack (1 account)

10_customer

```
createAccount 0
createAccount 1
createCustomer Henry
addToCustomer 0 Henry
addToCustomer 1 Henry
accountDeposit 0 100.0
accountDeposit 1 4000.0
accountWithdraw 1 200.0
getStatement Henry
end
```

Statement for Henry

Checking Account
 deposit \$100.00
Total \$100.00

Savings Account
 deposit \$4000.00
 withdrawal \$200.00
Total \$3800.00

Total In All Accounts \$3900.00

11_customer

```
createAccount 2
createAccount 1
createCustomer Bill
addToCustomer 0 Bill
addToCustomer 1 Bill
accountDeposit 0 3000.0
accountDeposit 1 1000.0
totalInterestEarned Bill
end
```

171.0

