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 |

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| --- |
| 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 |

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| 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 |

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| 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) |

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| 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 |

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| 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 |