

# GroupAssignment\_Q1

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## Introduction

### Background

- Below R program is aim to solve the group assignment question 1.

### Requirements

- The requirements are as following:
  - Randomly generate 10 accounts with initial deposit and credit balance amount (in SGD).
  - For each account, generate 1-2 deposit transactions per month, and 0 to 60 withdraw or spend transactions from 01-Jul-18 to 30-Sep-18.
  - The withdraw and spend amount could be SGD, USD, or CNY.
  - The withdraw SGD equivalent amount can't be greater than the available deposit balance before the withdraw transaction happen.
  - The Spend amount can't be greater than the available deposit balance + credit balance before the spend transaction happen.
  - Generate the transaction history report and account summary report for each account in each month.

## Design Description

### Step 1 - Initiate data tables

- Load 1-Jul-18 to 30-Sep-18 USDSGD and CNYSGD exchange rate from excel sheet into CurrencyToSGD data table.
- Randomly generate 10 accounts (account number, client name, initial deposit amount, and initial credit amount), and load the account information into Account table.
- Create empty Transaction data frame table.
- Create running sequence number for generating unique transaction number.

### Step 2 - Generate deposit transactions

- Randomly generate 1-2 deposit transactions per month for each account (deposit amount is 3k to 5k). Save the transactions into transaction table.

### Step 3 - Generate withdraw and spend transactions (0 amount)

- Randomly generate 0-60 withdraw and spend transactions with 0 amount within the time period 01-Jul-18 to 30-Sep-18 for each account. Save the transactions into transaction table.

### Step 4 - Assign withdraw/spend amount and adjust balance

- Sort all the deposit, withdraw, and spend transactions by date and transaction number (group by account number). If 2 or more transactions happen in the same date, the transaction number will be used to sort the order of the transactions.
- Process the transactions row by row as below for sorted transactions of each account number:

- Get “begining deposit balance” and “begining credit balance” from the Account table.
- Use the date of the transaction row to query CurrencyToSGD table and get exchange rate for that day. Store the exchange rate into transaction table for the transaction row. If the Currency is SGD then return exchange rate as 1.
- Check transaction type - if the transaction type is “deposit”, then “end deposit balance” = “begining deposit balance” + transaction amount\*exchange rate, and “end deposit balance” = “begining deposit balance”.
- Check transaction type - if the transaction type is “Withdraw”, then generate random withdraw amount (in random currency) between 0.01 and “begining deposit balance”/exchange rate, so that the withdraw SGD equivalent amount can never exceed deposit balance. “end deposit balance” = “begining deposit balance” + transaction amount\*exchange rate, and “end deposit balance” = “begining deposit balance”.
- Check transaction type - if the transaction type is “Spend”, then generate random spend amount (in random currency) between 0.01 and (“begining deposit balance”+“begining credit balance”)/exchange rate, so that the spend SGD equivalent amount can never exceed deposit+credit balance. The spend amount is deducted from credit balance follow by deposit balance.
  - \* If the spend amount is greater than “begining credit balance”, then “end credit balance”=0 and “end desoposite balance”=“begining credit balance” + “begining desoposite balance” + transaction amount\*exchange rate.
  - \* If the spend amount is smaller than “begining credit balance”, then “end credit balance”=“begining credit balance” + transaction amount\*exchange rate, and “end desoposite balance”=“begining deposit balance”.
  - \* Update the “end deposit balance” and “end credit balance” into the Account’s deposit balance and credit balance as well as the transaction’s deposit balance and credit balance. Record the transaction amount (in random currency) and SGD equivalent amount into the transaction row.
- “Withdraw” and “Spend” amount are negative.

## Step 5 - Transaction table cleanup

- Cleanup the Transaction table and remove the trivial rows with amount = 0.

## Step 6 - Generate sample monthly reports

- Generate monthly transaction history report & monthly summary report.

## Code and explanation of result.

### Step 1. Initiate FX table, Account table, and Transaction table.

```
#### Function - initialize data tables
initiateValues <- function(){
  ## Load exchange rate from 1-Jul-18 to 30-Sep-18
  assign("CurrencyToSGD", read_xlsx("ExchangeRate.xlsx", sheet="data", col_types = c("date", "numeric"),

  ## Generate 10 random accounts info
  assign("Account", data.frame("accountNo"=c(sample(c(100000:999999), 10, replace = FALSE)),
                                "name"=c(randomNames(10, sample.with.replacement = FALSE)),
                                "DepositAmount"=c(sample(c(100000:300000), 10, replace = TRUE)),
                                "CreditAmount"=c(sample(c(10000:30000),10,replace = TRUE))),
                                envir = .GlobalEnv)

  ## Generate initial deposit for the 10 random accounts
```

```

assign("Transaction", data.frame(), envir = .GlobalEnv)

## CurrencyList
assign("CurrencyList", data.frame("Currency"=c("SGD","USD","CNY")), envir = .GlobalEnv)

## runningSeqNo is used to ensure transaction number is unique
assign("runningSeqNo", 1, envir = .GlobalEnv)
}
initiateValues()

```

## Result:

- Daily exchange rate is loaded in table "CurrencyToSGD" from excel.
- 10 Random Accounts are generated and loaded into Account table.
- Empty "Transaction" table is created.
- Currency type "SGD", "USD", and "CNY" are loaded CurrencyList" table.
- "runningSeqNo" is initiated starting from 1.

## Step 2. Generate random deposit 1-2 times per month (3k-5k).

```

## Function - Retrieve exchange rate
getExchangeRate <- function(TransactionDate, CurrencyType){
  FXRate <- filter(CurrencyToSGD, Date == as.Date(TransactionDate), Currency == CurrencyType)$Conversion

  if(CurrencyType == "USD")
    return (FXRate)
  else if(CurrencyType == "CNY")
    return (round(1/FXRate,5))
  else
    return(1)
}

## Function - generate Deposit Transactions for each account
generateDepositTransaction <- function(Account){
  TempTransactions <- data.frame()

  ## Generate 1-2 random deposit for each account number
  for(i in 1:nrow(Account)){

    ## Jul-18 Deposit
    noDepositJUL = sample(1:2,1,replace=TRUE)
    for(j in 1:noDepositJUL){

      TransactionDate <- as.Date(sample(seq(as.Date('2018-07-01'), as.Date('2018-07-31'), by="day"), 1))
      AccountNo <- Account[i,]$AccountNo
      TransactionType <- "Deposit"
      CurrencyType <- sample(CurrencyList$Currency, 1,replace=TRUE)
      #Transaction number is unique by using system time + runningSeqNo
      TransactionNo <- as.integer(Sys.time())+runningSeqNo
      assign("runningSeqNo", runningSeqNo+1, envir = .GlobalEnv)

      Amount <- sample(3000:5000,1)
    }
  }
}

```

```

    if(CurrencyType == "SGD")
      exchangeRate <- 1
    else exchangeRate <- getExchangeRate(TransactionDate,CurrencyType)

    TempTransactions <- rbind(TempTransactions, data.frame("TransactionNo"=TransactionNo, "Date"=TransactionDate, "AccountNo"=AccountNo, "TransactionType"=TransactionType, "Currency"=CurrencyType, "Amount"=Amount, "SGDEquivalent"=round(Amount*exchangeRate, 2)))
  }

## Aug-18 Deposit
noDepositAug = sample(1:2,1,replace=TRUE)
for(j in 1:noDepositAug){

  TransactionDate <- as.Date(sample(seq(as.Date('2018-08-01'), as.Date('2018-08-31'), by="day"), 1))
  AccountNo <- Account[i,]$accountNo
  TransactionType <- "Deposit"
  CurrencyType <- sample(CurrencyList$Currency, 1,replace=TRUE)
  #Transaction number is unique by using system time + runningSeqNo
  TransactionNo <- as.integer(Sys.time())+runningSeqNo
  assign("runningSeqNo", runningSeqNo+1, envir = .GlobalEnv)

  Amount <- sample(3000:5000,1)

  if(CurrencyType == "SGD"){
    exchangeRate <- 1
  }
  else{
    ## get Exchange rate from CurrencyToSGD dataframe
    exchangeRate <- getExchangeRate(TransactionDate,CurrencyType)
  }

  TempTransactions <- rbind(TempTransactions, data.frame("TransactionNo"=TransactionNo, "Date"=TransactionDate, "AccountNo"=AccountNo, "TransactionType"=TransactionType, "Currency"=CurrencyType, "Amount"=Amount, "SGDEquivalent"=round(Amount*exchangeRate, 2)))
}

## Sep-18 Deposit
noDepositSep = sample(1:2,1,replace=TRUE)
for(j in 1:noDepositSep){

  TransactionDate <- as.Date(sample(seq(as.Date('2018-09-01'), as.Date('2018-09-30'), by="day"), 1))
  AccountNo <- Account[i,]$accountNo
  TransactionType <- "Deposit"
  CurrencyType <- sample(CurrencyList$Currency, 1,replace=TRUE)
  #Transaction number is unique by using system time + runningSeqNo
  TransactionNo <- as.integer(Sys.time())+runningSeqNo
  assign("runningSeqNo", runningSeqNo+1, envir = .GlobalEnv)

  Amount <- sample(3000:5000,1)

  if(CurrencyType == "SGD"){

```

```

    exchangeRate <- 1
  }
  else{
    ## get Exchange rate from CurrencyToSGD dataframe
    exchangeRate <- getExchangeRate(TransactionDate,CurrencyType)
  }

  TempTransactions <- rbind(TempTransactions, data.frame("TransactionNo"=TransactionNo, "Date"=TransactionDate,
    "AccountNo"=AccountNo, "TransactionType"=TransactionType,
    "Currency"=CurrencyType, "Amount"=Amount, "SGDEquivalent"=round(Amount*exchangeRate, 2)))
}

return (TempTransactions)
}

Transaction <- rbind(Transaction,generateDepositTransaction(Account))

```

#### Result:

- Random deposit transactions are generate (1-2 deposits per month per account) are created and saved into “Transaction” table.

### Step 3. Generate empty withdraw/spend transactions (0 amount)

```

## Function - generate withdraw and spend transactions
generateWithdrawSpendTransaction <- function(Account){
  TempTransactions <- data.frame()

  for(i in 1:nrow(Account)){

    ## 0-60 random withdraw/spend transaction with 0 amount
    noWithdrawSpend = sample(0:60,1,replace=TRUE)

    if(noWithdrawSpend==0){
      ## do nothing
    }
    else{
      for(j in 1:noWithdrawSpend){

        TransactionDate <- as.Date(sample(seq(as.Date('2018-07-01'), as.Date('2018-09-30'), by="day"), 1))
        AccountNo <- Account[i,]$accountNo
        TransactionType <- sample(c("Spend","Withdraw"), 1,replace=TRUE)
        CurrencyType <- sample(CurrencyList$Currency, 1,replace=TRUE)
        #Transaction number is unique by using system time + runningSeqNo
        TransactionNo <- as.integer(Sys.time()+runningSeqNo)
        assign("runningSeqNo", runningSeqNo+1, envir = .GlobalEnv)

        Amount <- 0

        if(CurrencyType == "SGD"){
          exchangeRate <- 1

```

```

    }
    else{
      ## get Exchange rate from CurrencyToSGD dataframe
      exchangeRate <- getExchangeRate(TransactionDate,CurrencyType)
    }

    TempTransactions <- rbind(TempTransactions, data.frame("TransactionNo"=TransactionNo, "Date"=Tr
                                                         "AccountNo"=AccountNo, "TransactionType"=
                                                         "Currency"=CurrencyType, "Amount"=Amount,
                                                         "SGDEquivalent"=round(Amount*exchangeRate

    }
  }
}

return (TempTransactions)
}
Transaction <- rbind(Transaction,generateWithdrawSpendTransaction(Account))

```

#### Result:

- 0-60 withdraw and spend transactions with amount 0 (per account) are created and saved into "Transaction" table.

**Step 4. Sort the transactions and assign random withdraw/spend amount with the restriction that you can't withdraw more than the deposit, and can't spend more than credit + deposit.**

```

## Function - generate withdraw and spend amount and adjust deposit & credit balance accordingly
assignWithdrawSpendAmount <- function(Account, Transaction){
  TempTransactions <- data.frame()

  for(i in 1:nrow(Account)){
    TempClientTransactions <- data.frame()
    TempClientTransactions <- filter(Transaction, AccountNo == as.numeric(Account[i,]$accountNo)) %>% a

    ## Process each row to assign withdraw/spend amount with restriction, calculate Deposit & Credit bal
    ## and update deposit & credit balance in Account

    for(j in 1:nrow(TempClientTransactions)){

      ## First transaction, initial deposit & credit balance are from the Account itself
      initialDepositBal <- Account[i,]$DepositAmount
      initialCreditBal <- Account[i,]$CreditAmount

      TransactionType <- TempClientTransactions[j,]$TransactionType

      if(TransactionType == "Deposit"){
        endDepositBal <- initialDepositBal + TempClientTransactions[j,]$SGDEquivalent
        endCreditBal <- initialCreditBal

        ## update Account Withdraw & Credit balance info (SGD based)
        Account[i,]$DepositAmount <- round(endDepositBal,2)
        Account[i,]$CreditAmount <- round(endCreditBal,2)
      }
    }
  }
}

```

```

## update Transaction Withdraw & Credit balance info (SGD based)
TempClientTransactions[j,]$DepositBalance <- round(endDepositBal,2)
TempClientTransactions[j,]$CreditBalance <- round(endCreditBal,2)

}

else if(TransactionType == "Withdraw"){
  ## Generate withdraw amount (negative) with the restriction that withdraw less than initial d
  ## additional rule - if the deposit balance is below 0.01 dollor, then withdraw all. Otherwise

  withDrawAmount <- runif(1, min=min(initialDepositBal/TempClientTransactions[j,]$exchangeRate,
                                     max=initialDepositBal/TempClientTransactions[j,]$exchangeRate)*(-1)

  TempClientTransactions[j,]$Amount <- round(withDrawAmount,2)
  TempClientTransactions[j,]$SGDEquivalent <- round(withDrawAmount * TempClientTransactions[j,]

  endDepositBal <- initialDepositBal + TempClientTransactions[j,]$SGDEquivalent
  endCreditBal <- initialCreditBal

  ## update Account Withdraw & Credit balance info (SGD based)
  Account[i,]$DepositAmount <- round(endDepositBal,2)
  Account[i,]$CreditAmount <- round(endCreditBal,2)

  ## update Transaction Withdraw & Credit balance info (SGD based)
  TempClientTransactions[j,]$DepositBalance <- round(endDepositBal,2)
  TempClientTransactions[j,]$CreditBalance <- round(endCreditBal,2)

}

else if(TransactionType == "Spend"){
  ## Generate spend amount (negative) with the restriction that spend less than (initial deposit
  ## additional rule - if the deposit+credit balance is below 0.01 dollor, then spend all. Other

  spendAmount <- runif(1, min=min((initialDepositBal+initialCreditBal)/TempClientTransactions[j,]
                                   max=(initialDepositBal+initialCreditBal)/TempClientTransactions[j,]$exch

  TempClientTransactions[j,]$Amount <- round(spendAmount,2)
  TempClientTransactions[j,]$SGDEquivalent <- round(spendAmount * TempClientTransactions[j,]$ex

  ## deduct the credit balance first, then deposit balance
  if(abs(TempClientTransactions[j,]$SGDEquivalent)>= initialCreditBal){
    endCreditBal <- 0
    endDepositBal <- round(initialDepositBal + initialCreditBal + TempClientTransactions[j,]$SG
  }
  else{
    endCreditBal <- round(initialCreditBal + TempClientTransactions[j,]$SGDEquivalent, 2)
    endDepositBal <- initialDepositBal
  }

  ## update Account Withdraw & Credit balance info (SGD based)
  Account[i,]$DepositAmount <- round(endDepositBal,2)
  Account[i,]$CreditAmount <- round(endCreditBal,2)

  ## update Transaction Withdraw & Credit balance info (SGD based)

```

```

        TempClientTransactions[j,]$DepositBalance <- round(endDepositBal,2)
        TempClientTransactions[j,]$CreditBalance <- round(endCreditBal,2)

    }
    else{}# do nothing
}
assign("Account",Account,envir = .GlobalEnv)

TempTransactions <- rbind(TempTransactions, TempClientTransactions)
}

return (TempTransactions)
}
Transaction <- assignWithdrawSpendAmount(Account, Transaction)

```

#### Result:

- All the transactions are sorted by date then transaction number. Then each row is processed according to their sequence.
- The ending deposit balance and credit balance is adjusted based on the transaction sequence and transaction amount.
- If the row is deposit, then deposit and credit ending balance is adjusted based on the initial deposit and credit balance + deposit amount, and then ending deposit and credit balance are updated into both “Account” & transaction table.
- If the row is withdraw or spend, the withdraw or spend amount is randomly generated based on the predefined rule, and deposit and credit ending balance is adjusted based on the initial deposit and credit balance + withdraw or spend amount. Then the ending deposit and credit balance are updated into both “Account” & transaction table.

#### Step 5. Cleanup the Transaction table and remove the trivial rows with amount = 0.

```

Transaction <- filter(Transaction, Amount != 0) %>% group_by(AccountNo) %>% arrange(AccountNo,Date,TransactionNo)
assign("Transaction", Transaction, envir = .GlobalEnv)

```

#### Result

- As there might be some rows with 0 amount in the “Transaction” table if the withdraw or spend transaction happen after the Account’s deposit and credit balance has been sued up, this step Cleanup these 0 amount trivial rows from “Transaction” table.

#### Step 6 - Generate monthly transaction history report & monthly summary report.

```

for(i in 1:nrow(Account)){

  clientName <- Account[i,]$name
  cat(bold(paste0("Account Name: ",Account[i,]$name,"\n")))
}

```



```

## Jul-18 Report
JulTransMonth <- "Jul-18"

JulDF <- filter(Transaction, Date >=as.Date("2018-07-01") & Date <= as.Date("2018-07-31") & AccountNo)
JulDF <- JulDF %>% select(TransactionNo, AccountNo, Date, TransactionType, Amount, Currency, DepositBalance, CreditBalance)
JulDF <- JulDF[,c("Date", "TransactionType", "Amount", "Currency", "DepositBalance", "CreditBalance")]

JulDepositBalance <- tail(JulDF, 1)$DepositBalance
JulCreditBalance <- tail(JulDF, 1)$CreditBalance

## Generate Jul-18 Summary Report
JulSummary <- filter(Transaction, Date >=as.Date("2018-07-01") & Date <= as.Date("2018-07-31") & AccountNo)
JulSummary <- JulSummary[,c("TransactionType", "Amount")]

cat(paste0("Month: ", JulTransMonth))
print(kable(JulDF))
cat("-----\n")
cat(paste0("Month-End Balance | Deposit ", JulDepositBalance, " | Credit ", JulCreditBalance, " |\n"))
cat("\n")

cat(paste0("#Summary"))
print(kable(JulSummary))
cat("\n")

## Aug-18 Report
AugTransMonth <- "Aug-18"
AugDF <- filter(Transaction, Date >=as.Date("2018-08-01") & Date <= as.Date("2018-08-31") & AccountNo)
AugDF <- AugDF %>% select(TransactionNo, AccountNo, Date, TransactionType, Amount, Currency, DepositBalance, CreditBalance)
AugDF <- AugDF[,c("Date", "TransactionType", "Amount", "Currency", "DepositBalance", "CreditBalance")]

AugDepositBalance <- tail(AugDF, 1)$DepositBalance
AugCreditBalance <- tail(AugDF, 1)$CreditBalance
## Generate Aug-18 Summary Report
AugSummary <- filter(Transaction, Date >=as.Date("2018-08-01") & Date <= as.Date("2018-08-31") & AccountNo)
AugSummary <- AugSummary[,c("TransactionType", "Amount")]

cat(paste0("Month: ", AugTransMonth))
print(kable(AugDF))
cat("-----\n")
cat(paste0("Month-End Balance | Deposit ", AugDepositBalance, " | Credit ", AugCreditBalance, " |\n"))
cat("\n")

cat(paste0("#Summary"))
print(kable(AugSummary))
cat("\n")

## Sep-18 Report
SepTransMonth <- "Sep-18"
SepDF <- filter(Transaction, Date >=as.Date("2018-09-01") & Date <= as.Date("2018-09-30") & AccountNo)
SepDF <- SepDF %>% select(TransactionNo, AccountNo, Date, TransactionType, Amount, Currency, DepositBalance, CreditBalance)
SepDF <- SepDF[,c("Date", "TransactionType", "Amount", "Currency", "DepositBalance", "CreditBalance")]

SepDepositBalance <- tail(SepDF, 1)$DepositBalance

```

```

SepCreditBalance <- tail(SepDF, 1)$CreditBalance

## Generate Aug-18 Summary Report
SepSummary <- filter(Transaction, Date >=as.Date("2018-09-01") & Date <= as.Date("2018-09-30") & AccountID == 1)
SepSummary <- SepSummary[,c("TransactionType", "Amount")]

cat(paste0("Month: ", SepTransMonth))
print(kable(SepDF))
cat("-----\n")
cat(paste0("Month-End Balance | Deposite ", SepDepositBalance, " | Credit ", SepCreditBalance, " |\n"))
cat("\n")

cat(paste0("#Summary"))
print(kable(SepSummary))

cat("\n")
cat("\n")
cat("\n")
}

```

## Result:

- Sample monthly transaction report and monthly summary report for each account will be generated if the above code run.

## Example running result

### Example Run

- following is an example of 10 Accounts' monthly transaction history report and monthly summary report generated based on the above R program.

```

## Account Name: el-Fahmy, Kaarim
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-06 Deposit           3417.00  CNY        187488.20        19359
## 2018-07-10 Spend          -23169.40 USD        175385.46           0
## 2018-07-12 Spend          -46162.02 USD        112402.00           0
## 2018-07-13 Withdraw       -357380.44 CNY        39414.19           0
## 2018-07-15 Spend          -133124.48 CNY        12258.13           0
## 2018-07-15 Withdraw       -45935.71 CNY         2887.70           0
## 2018-07-16 Deposit           3069.00  CNY         3512.39           0
## 2018-07-25 Spend          -2878.67  SGD         633.72           0
## 2018-07-26 Withdraw        -955.87  CNY         441.75           0
## 2018-07-28 Withdraw       -1286.93  CNY         184.44           0
## -----
## Month-End Balance | Deposite 184.44 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----

```

```

## Deposit          6486.0
## Withdraw        -405559.0
## Spend           -205334.6
##
## Month: Aug-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-08-03  Deposit           3950.00   SGD         4134.44         0
## 2018-08-20  Spend            -2547.21   USD          647.05         0
## 2018-08-25  Spend            -405.68   USD           93.29         0
## 2018-08-28  Withdraw           -5.99   SGD           87.30         0
## -----
## Month-End Balance | Deposite 87.3 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3950.00
## Withdraw              -5.99
## Spend                -2952.89
##
## Month: Sep-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-09-01  Withdraw          -95.13   CNY          68.19         0
## 2018-09-01  Spend            -28.09   SGD          40.10         0
## 2018-09-03  Withdraw          -30.27   SGD           9.83         0
## 2018-09-06  Spend             -4.50   USD           3.65         0
## 2018-09-08  Spend             -3.29   SGD           0.36         0
## 2018-09-11  Withdraw          -0.25   USD           0.02         0
## 2018-09-20  Spend             -0.02   CNY           0.02         0
## 2018-09-23  Deposit          3710.00   USD         5063.06         0
## 2018-09-26  Deposit          3326.00   CNY         5723.44         0
## 2018-09-28  Spend          -3568.14   SGD         2155.30         0
## -----
## Month-End Balance | Deposite 2155.3 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              7036.00
## Withdraw             -125.65
## Spend               -3604.04
##
##
## Account Name: Rieb, Jose
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance

```

##	-----	-----	-----	-----	-----
##	2018-07-02	Withdraw	-64941.20	SGD	125225.80
##	2018-07-05	Spend	-581392.46	CNY	22320.70
##	2018-07-07	Withdraw	-17293.22	SGD	5027.48
##	2018-07-08	Withdraw	-19958.37	CNY	947.99
##	2018-07-08	Withdraw	-4360.10	CNY	56.79
##	2018-07-12	Spend	-15.24	SGD	41.55
##	2018-07-14	Withdraw	-10.97	USD	26.57
##	2018-07-14	Spend	-4.58	SGD	21.99
##	2018-07-17	Withdraw	-18.95	SGD	3.04
##	2018-07-19	Spend	-7.13	CNY	1.60
##	2018-07-21	Spend	-0.03	USD	1.56
##	2018-07-22	Deposit	3199.00	USD	4359.88
##	2018-07-28	Spend	-396.36	SGD	3963.52

## -----

## Month-End Balance | Deposite 3963.52 | Credit 0 |

##

## #Summary

##

##	TransactionType	Amount
----	-----------------	--------

## -----

##	Deposit	3199.0
----	---------	--------

##	Withdraw	-106582.8
----	----------	-----------

##	Spend	-581815.8
----	-------	-----------

##

## Month: Aug-18

##

##	Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
----	------	-----------------	--------	----------	----------------	---------------

## -----

##	2018-08-06	Spend	-2785.34	USD	150.95	0
----	------------	-------	----------	-----	--------	---

##	2018-08-10	Deposit	4022.00	USD	5673.56	0
----	------------	---------	---------	-----	---------	---

##	2018-08-10	Withdraw	-1789.72	SGD	3883.84	0
----	------------	----------	----------	-----	---------	---

##	2018-08-11	Spend	-728.00	USD	2884.22	0
----	------------	-------	---------	-----	---------	---

##	2018-08-12	Withdraw	-567.78	SGD	2316.44	0
----	------------	----------	---------	-----	---------	---

##	2018-08-15	Spend	-11245.54	CNY	78.69	0
----	------------	-------	-----------	-----	-------	---

##	2018-08-23	Deposit	3994.00	USD	5566.45	0
----	------------	---------	---------	-----	---------	---

## -----

## Month-End Balance | Deposite 5566.45 | Credit 0 |

##

## #Summary

##

##	TransactionType	Amount
----	-----------------	--------

## -----

##	Deposit	8016.00
----	---------	---------

##	Withdraw	-2357.50
----	----------	----------

##	Spend	-14758.88
----	-------	-----------

##

## Month: Sep-18

##

##	Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
----	------	-----------------	--------	----------	----------------	---------------

## -----

##	2018-09-02	Withdraw	-2251.80	USD	2477.21	0
----	------------	----------	----------	-----	---------	---

##	2018-09-03	Withdraw	-946.99	SGD	1530.22	0
----	------------	----------	---------	-----	---------	---

##	2018-09-04	Withdraw	-1262.70	SGD	267.52	0
----	------------	----------	----------	-----	--------	---

```

## 2018-09-05    Deposit            4300.00    CNY            1133.20            0
## 2018-09-11    Spend             -102.86    SGD            1030.34            0
## 2018-09-11    Spend             -819.86    SGD             210.48            0
## 2018-09-11    Withdraw          -141.22    USD             16.20            0
## 2018-09-13    Withdraw           -72.17    CNY              1.75            0
## 2018-09-18    Withdraw           -5.49    CNY              0.65            0
## 2018-09-27    Deposit            4398.00    CNY            874.00            0
## 2018-09-29    Spend          -1071.26    CNY            660.87            0
## -----
## Month-End Balance | Deposite 660.87 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              8698.00
## Withdraw             -4680.37
## Spend                -1993.98
##
##
##
## Account Name: Bennett, Megan
## Month: Jul-18
##
## Date      TransactionType      Amount    Currency    DepositBalance    CreditBalance
## -----
## 2018-07-02    Spend          -153251.26    USD            61872.40            0
## 2018-07-03    Spend          -34414.35    USD            14903.70            0
## 2018-07-05    Withdraw         -2249.00    SGD            12654.70            0
## 2018-07-06    Spend          -12491.74    SGD             162.96            0
## 2018-07-09    Withdraw         -28.02    SGD             134.94            0
## 2018-07-10    Spend           -150.90    CNY             104.02            0
## 2018-07-10    Spend           -64.86    USD              15.95            0
## 2018-07-12    Deposit            3447.00    USD            4719.04            0
## -----
## Month-End Balance | Deposite 4719.04 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3447.00
## Withdraw             -2277.02
## Spend               -200373.11
##
## Month: Aug-18
##
## Date      TransactionType      Amount    Currency    DepositBalance    CreditBalance
## -----
## 2018-08-02    Withdraw         -3049.37    USD             543.84            0
## 2018-08-03    Withdraw         -183.70    SGD             360.14            0
## 2018-08-15    Spend           -505.86    CNY             259.48            0
## 2018-08-16    Spend           -201.26    SGD              58.22            0
## 2018-08-17    Deposit            3089.00    SGD            3147.22            0

```

## 2018-08-18	Spend	-5251.75	CNY	2099.60	0
## 2018-08-19	Deposit	3168.00	USD	6442.93	0
## 2018-08-19	Spend	-23903.34	CNY	1680.19	0
## 2018-08-20	Spend	-1298.02	SGD	382.17	0
## 2018-08-22	Withdraw	-1146.56	CNY	153.20	0
## 2018-08-23	Spend	-55.38	SGD	97.82	0
## 2018-08-26	Withdraw	-30.86	SGD	66.96	0
## 2018-08-31	Withdraw	-32.01	USD	23.03	0

## -----  
 ## Month-End Balance | Deposite 23.03 | Credit 0 |  
 ##

## #Summary

## TransactionType	Amount
## -----	-----
## Deposit	6257.00
## Withdraw	-4442.50
## Spend	-31215.61

## Month: Sep-18

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
## -----	-----	-----	-----	-----	-----
## 2018-09-01	Spend	-8.50	USD	11.37	0
## 2018-09-02	Spend	-36.32	CNY	4.08	0
## 2018-09-03	Withdraw	-1.86	USD	1.54	0
## 2018-09-04	Spend	-1.77	CNY	1.19	0
## 2018-09-05	Withdraw	-0.54	SGD	0.65	0
## 2018-09-09	Spend	-0.41	USD	0.08	0
## 2018-09-09	Withdraw	-0.01	USD	0.06	0
## 2018-09-10	Spend	-0.02	SGD	0.04	0
## 2018-09-11	Withdraw	-0.03	SGD	0.01	0
## 2018-09-11	Spend	-0.01	CNY	0.01	0
## 2018-09-22	Deposit	3184.00	SGD	3184.01	0
## 2018-09-25	Withdraw	-182.76	SGD	3001.25	0
## 2018-09-27	Spend	-479.45	USD	2345.23	0
## 2018-09-30	Withdraw	-336.38	USD	1885.24	0

## -----  
 ## Month-End Balance | Deposite 1885.24 | Credit 0 |  
 ##

## #Summary

## TransactionType	Amount
## -----	-----
## Deposit	3184.00
## Withdraw	-521.58
## Spend	-526.48

##

##

##

## Account Name: Shrestha, Gavriel

## Month: Jul-18

##

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
---------	-----------------	--------	----------	----------------	---------------

```

## -----
## 2018-07-01 Spend -14077.33 USD 150205.19 0
## 2018-07-01 Spend -133710.53 SGD 16494.66 0
## 2018-07-03 Withdraw -41612.36 CNY 7944.57 0
## 2018-07-03 Spend -20600.86 CNY 3711.71 0
## 2018-07-05 Withdraw -172.68 SGD 3539.03 0
## 2018-07-13 Spend -976.27 USD 2205.54 0
## 2018-07-15 Spend -656.50 USD 1309.15 0
## 2018-07-16 Withdraw -367.20 SGD 941.95 0
## 2018-07-17 Withdraw -71.26 SGD 870.69 0
## 2018-07-17 Spend -3195.52 CNY 220.34 0
## 2018-07-18 Withdraw -178.83 SGD 41.51 0
## 2018-07-18 Spend -24.14 USD 8.56 0
## 2018-07-20 Spend -2.65 SGD 5.91 0
## 2018-07-20 Withdraw -1.10 USD 4.42 0
## 2018-07-22 Withdraw -0.54 USD 3.68 0
## 2018-07-29 Spend -7.23 CNY 2.23 0
## 2018-07-30 Spend -0.08 USD 2.12 0
## 2018-07-31 Deposit 3865.00 USD 5264.32 0
## -----
## Month-End Balance | Deposite 5264.32 | Credit 0 |
##
## #Summary
##
## TransactionType Amount
## -----
## Deposit 3865.00
## Withdraw -42403.97
## Spend -173251.11
##
## Month: Aug-18
##
## Date TransactionType Amount Currency DepositBalance CreditBalance
## -----
## 2018-08-01 Withdraw -8941.79 CNY 3479.27 0
## 2018-08-02 Spend -290.46 USD 3081.58 0
## 2018-08-02 Withdraw -729.92 USD 2082.17 0
## 2018-08-04 Withdraw -1830.15 SGD 252.02 0
## 2018-08-04 Spend -21.80 SGD 230.22 0
## 2018-08-04 Spend -762.08 CNY 77.78 0
## 2018-08-05 Spend -19.12 CNY 73.95 0
## 2018-08-10 Withdraw -45.90 SGD 28.05 0
## 2018-08-12 Spend -6.81 USD 18.69 0
## 2018-08-12 Withdraw -17.14 SGD 1.55 0
## 2018-08-18 Spend -0.40 USD 1.00 0
## 2018-08-21 Withdraw -0.12 SGD 0.88 0
## 2018-08-21 Spend -0.48 SGD 0.40 0
## 2018-08-22 Spend -0.17 USD 0.17 0
## 2018-08-28 Deposit 4917.00 SGD 4917.17 0
## 2018-08-28 Spend -2773.52 USD 1132.71 0
## 2018-08-29 Deposit 3851.00 SGD 4983.71 0
## 2018-08-29 Withdraw -2779.78 SGD 2203.93 0
## 2018-08-30 Spend -2180.94 SGD 22.99 0
## 2018-08-30 Spend -79.49 CNY 7.11 0

```

```

## -----
## Month-End Balance | Deposit 7.11 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              8768.00
## Withdraw             -14344.80
## Spend                -6135.27
##
## Month: Sep-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-09-03  Withdraw           -0.85   USD        5.94          0
## 2018-09-05  Spend             -15.02  CNY        2.92          0
## 2018-09-07  Deposit            4821.00 SGD       4823.92        0
## 2018-09-07  Spend            -14797.96 CNY       1842.58        0
## 2018-09-10  Withdraw          -1040.94 SGD        801.64        0
## 2018-09-11  Withdraw           -78.64  SGD        723.00        0
## 2018-09-16  Spend             -244.02 CNY        674.18        0
## 2018-09-18  Spend            -2199.99 CNY        235.00        0
## 2018-09-19  Spend             -963.47 CNY         42.34        0
## 2018-09-20  Withdraw          -22.47  SGD         19.87        0
## 2018-09-20  Withdraw          -30.50  CNY         13.79        0
## 2018-09-21  Spend             -12.10  SGD          1.69        0
## 2018-09-22  Spend              -6.65  CNY           0.37        0
## 2018-09-23  Withdraw          -0.11  SGD           0.26        0
## 2018-09-23  Spend             -0.04  USD           0.21        0
## 2018-09-23  Withdraw          -0.03  SGD           0.18        0
## 2018-09-24  Spend             -0.01  USD           0.16        0
## 2018-09-26  Withdraw          -0.12  USD           0.00        0
## -----
## Month-End Balance | Deposit 0 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              4821.00
## Withdraw             -1173.66
## Spend                -18239.26
##
##
##
## Account Name: Montoya, Karen
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-21  Withdraw          -41883.64 SGD      118801.4      27440.00
## 2018-07-22  Spend            -38282.08 CNY      118801.4      19729.22
## 2018-07-29  Deposit            4238.00  SGD      123039.4      19729.22

```



## 2018-07-29 Deposit 4772.00 CNY 123993.3 19729.22

## -----

## Month-End Balance | Deposite 123993.33 | Credit 19729.22 |

##

## #Summary

##

## TransactionType Amount

## -----

## Deposit 9010.00

## Withdraw -41883.64

## Spend -38282.08

##

## Month: Aug-18

##

## Date TransactionType Amount Currency DepositBalance CreditBalance

## -----

## 2018-08-07 Spend -6634.20 SGD 123993.33 13095.02

## 2018-08-09 Withdraw -90085.70 USD 738.07 13095.02

## 2018-08-17 Withdraw -101.91 SGD 636.16 13095.02

## 2018-08-19 Deposit 3806.00 USD 5854.19 13095.02

## 2018-08-20 Withdraw -1351.87 SGD 4502.32 13095.02

## 2018-08-26 Withdraw -367.91 USD 3999.98 13095.02

## 2018-08-27 Spend -65653.00 CNY 3970.96 0.00

## -----

## Month-End Balance | Deposite 3970.96 | Credit 0 |

##

## #Summary

##

## TransactionType Amount

## -----

## Deposit 3806.00

## Withdraw -91907.39

## Spend -72287.20

##

## Month: Sep-18

##

## Date TransactionType Amount Currency DepositBalance CreditBalance

## -----

## 2018-09-07 Spend -3144.35 SGD 826.61 0

## 2018-09-09 Withdraw -480.95 USD 163.67 0

## 2018-09-10 Deposit 3700.00 CNY 907.92 0

## 2018-09-13 Withdraw -573.44 USD 122.19 0

## 2018-09-16 Withdraw -0.58 SGD 121.61 0

## 2018-09-18 Withdraw -593.49 CNY 3.13 0

## 2018-09-19 Spend -1.02 CNY 2.93 0

## 2018-09-23 Deposit 3419.00 CNY 684.82 0

## 2018-09-24 Spend -2268.65 CNY 232.65 0

## -----

## Month-End Balance | Deposite 232.65 | Credit 0 |

##

## #Summary

##

## TransactionType Amount

## -----

```
## Deposit          7119.00
## Withdraw         -1648.46
## Spend            -5414.02
```

```
##
##
##
```

```
## Account Name: Chaffin, Jacob
## Month: Jul-18
```

```
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-03 Spend            -145350.96 SGD             27030.04           0
## 2018-07-04 Deposit             3506.00 CNY             27751.57           0
## 2018-07-08 Spend            -10722.11 SGD             17029.46           0
## 2018-07-13 Spend             -136.68 USD             16842.77           0
## 2018-07-14 Withdraw         -6511.23 USD              7951.69           0
## 2018-07-16 Withdraw        -23857.58 CNY              3095.48           0
## 2018-07-18 Withdraw         -782.34 USD              2027.35           0
## 2018-07-18 Spend            -215.97 USD              1732.48           0
## 2018-07-19 Spend            -521.15 USD              1018.60           0
## 2018-07-19 Withdraw        -1742.87 CNY               666.21           0
## 2018-07-22 Withdraw         -405.63 USD               113.58           0
## 2018-07-24 Withdraw         -104.30 SGD                9.28           0
## 2018-07-27 Spend             -8.26 SGD                 1.02           0
## 2018-07-29 Deposit             3983.00 SGD              3984.02           0
## 2018-07-29 Withdraw         -146.69 USD              3784.24           0
## 2018-07-29 Withdraw        -266.56 SGD              3517.68           0
## 2018-07-31 Spend            -2401.60 USD               247.90           0
```

```
## -----
## Month-End Balance | Deposite 247.9 | Credit 0 |
```

```
##
## #Summary
```

```
## TransactionType      Amount
## -----
## Deposit              7489.0
## Withdraw            -33817.2
## Spend              -159356.7
```

```
##
## Month: Aug-18
```

```
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-08-02 Withdraw         -22.93 CNY             243.31           0
## 2018-08-03 Spend            -60.37 USD             160.84           0
## 2018-08-07 Deposit             3398.00 USD            4796.39           0
## 2018-08-08 Withdraw         -497.75 USD            4118.01           0
## 2018-08-09 Spend           -1514.06 USD            2046.47           0
## 2018-08-10 Withdraw        -316.81 SGD            1729.66           0
## 2018-08-20 Withdraw        -5348.75 CNY             661.78           0
## 2018-08-29 Spend           -903.45 CNY             481.02           0
## 2018-08-31 Spend           -959.44 CNY             288.28           0
```

```
## -----
## Month-End Balance | Deposite 288.28 | Credit 0 |
```

```

##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3398.00
## Withdraw             -6186.24
## Spend                -3437.32
##
## Month: Sep-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-09-10  Spend              -137.92  SGD              150.36              0
## 2018-09-13  Spend               -1.51  USD              148.29              0
## 2018-09-17  Spend              -28.33  USD              109.38              0
## 2018-09-19  Withdraw            -55.42  CNY               98.30              0
## 2018-09-20  Withdraw            -13.93  SGD               84.37              0
## 2018-09-21  Deposit             4214.00  SGD             4298.37              0
## 2018-09-21  Spend              -782.27  USD             3231.43              0
## 2018-09-22  Withdraw           -8547.17  CNY             1531.57              0
## 2018-09-25  Withdraw           -1195.91  SGD              335.66              0
## 2018-09-28  Spend              -168.02  CNY               302.23              0
## -----
## Month-End Balance | Deposite 302.23 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              4214.00
## Withdraw             -9812.43
## Spend                -1118.05
##
##
##
## Account Name: Hamilton, Danielle
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-08  Deposit             3010.00  USD             179353.77             11669
## 2018-07-12  Withdraw           -96122.13  USD             48204.73             11669
## 2018-07-21  Spend            -53245.53  SGD              6628.20              0
## 2018-07-26  Spend            -5763.09  SGD               865.11              0
## 2018-07-31  Spend            -188.67  SGD               676.44              0
## -----
## Month-End Balance | Deposite 676.44 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3010.00

```

```
## Withdraw          -96122.13
## Spend             -59197.29
##
```

```
## Month: Aug-18
```

```
##
```

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
## -----	-----	-----	-----	-----	-----
## 2018-08-02	Withdraw	-499.17	SGD	177.27	0
## 2018-08-04	Deposit	3988.00	USD	5625.68	0
## 2018-08-04	Withdraw	-4635.30	SGD	990.38	0
## 2018-08-06	Spend	-418.28	USD	417.84	0
## 2018-08-12	Withdraw	-895.03	CNY	238.44	0
## 2018-08-13	Spend	-44.90	USD	176.67	0
## 2018-08-15	Withdraw	-114.01	USD	19.35	0
## 2018-08-16	Spend	-0.84	USD	18.19	0
## 2018-08-20	Withdraw	-43.02	CNY	9.60	0
## 2018-08-23	Withdraw	-2.48	USD	6.19	0
## 2018-08-24	Spend	-4.81	SGD	1.38	0
## 2018-08-26	Spend	-6.39	CNY	0.10	0
## 2018-08-30	Spend	-0.03	USD	0.06	0

```
## -----
```

```
## Month-End Balance | Deposite 0.06 | Credit 0 |
```

```
##
```

```
## #Summary
```

```
##
```

## TransactionType	Amount
## -----	-----
## Deposit	3988.00
## Withdraw	-6189.01
## Spend	-475.25

```
##
```

```
## Month: Sep-18
```

```
##
```

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
## -----	-----	-----	-----	-----	-----
## 2018-09-01	Spend	-0.01	SGD	0.05	0
## 2018-09-05	Withdraw	-0.03	USD	0.01	0
## 2018-09-06	Withdraw	-0.01	USD	0.00	0
## 2018-09-18	Deposit	4916.00	USD	6732.95	0
## 2018-09-18	Spend	-1915.87	USD	4108.97	0
## 2018-09-18	Withdraw	-18366.31	CNY	442.50	0
## 2018-09-21	Withdraw	-41.24	USD	386.25	0
## 2018-09-25	Spend	-1591.11	CNY	69.76	0
## 2018-09-26	Spend	-121.77	CNY	45.58	0

```
## -----
```

```
## Month-End Balance | Deposite 45.58 | Credit 0 |
```

```
##
```

```
## #Summary
```

```
##
```

## TransactionType	Amount
## -----	-----
## Deposit	4916.00
## Withdraw	-18407.59
## Spend	-3628.76

```

##
##
##
## Account Name: al-Alli, Imraan
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-02 Withdraw      -1154441.10  CNY          25928.53        13646.00
## 2018-07-05 Withdraw      -16225.00   USD          3786.28         13646.00
## 2018-07-05 Withdraw      -15100.37   CNY          681.49          13646.00
## 2018-07-12 Spend        -65745.02   CNY          681.49          191.94
## 2018-07-12 Spend         -528.52    USD          152.32           0.00
## 2018-07-16 Spend         -38.80     USD           99.47           0.00
## 2018-07-16 Withdraw       -3.01      USD           95.37           0.00
## 2018-07-17 Withdraw      -80.94     CNY           78.90           0.00
## 2018-07-22 Withdraw      -27.01     SGD           51.89           0.00
## 2018-07-22 Spend         -3.17      SGD           48.72           0.00
## 2018-07-22 Spend       -167.42     CNY           15.00           0.00
## 2018-07-24 Withdraw       -7.21      USD            5.16           0.00
## 2018-07-27 Spend         -2.85      SGD            2.31           0.00
## 2018-07-27 Withdraw      -1.64      USD            0.08           0.00
## 2018-07-27 Withdraw      -0.03      SGD            0.05           0.00
## 2018-07-28 Spend         -0.19      CNY            0.01           0.00
## 2018-07-30 Deposit       3879.00     CNY          774.72           0.00
## -----
## Month-End Balance | Deposite 774.72 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3879.00
## Withdraw            -1185886.31
## Spend               -66485.97
##
## Month: Aug-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-08-01 Spend        -175.29   USD          535.99           0
## 2018-08-01 Spend        -16.19   SGD          519.80           0
## 2018-08-02 Spend       -365.98   USD           18.70           0
## 2018-08-04 Spend       -15.41   SGD            3.29           0
## 2018-08-07 Spend        -2.40   SGD            0.89           0
## 2018-08-11 Withdraw     -0.80   SGD            0.09           0
## 2018-08-11 Withdraw     -0.01   USD            0.07           0
## 2018-08-13 Spend        -0.03   USD            0.03           0
## 2018-08-14 Spend        -0.03   SGD            0.00           0
## 2018-08-18 Deposit      4657.00   SGD          4657.00           0
## 2018-08-21 Spend     -22575.13  CNY          154.84           0
## 2018-08-22 Withdraw     -89.49   USD           32.59           0
## 2018-08-23 Deposit      3237.00   SGD          3269.59           0
## 2018-08-24 Withdraw    -7414.60  CNY          1782.59           0

```

## 2018-08-24	Spend	-348.11	SGD	1434.48	0
## 2018-08-25	Withdraw	-369.29	USD	930.40	0
## 2018-08-26	Withdraw	-547.18	SGD	383.22	0
## 2018-08-28	Withdraw	-77.12	USD	277.99	0

## -----  
## Month-End Balance | Deposit 277.99 | Credit 0 |

##  
## #Summary  
##  
## TransactionType      Amount  
## -----  
## Deposit              7894.00  
## Withdraw            -8498.49  
## Spend                -23498.57

##  
## Month: Sep-18  
##  
## Date              TransactionType      Amount      Currency      DepositBalance      CreditBalance  
## -----  
## 2018-09-02      Spend              -19.51      SGD              258.48              0  
## 2018-09-04      Withdraw           -570.12      CNY              143.94              0  
## 2018-09-05      Spend              -91.90      USD              17.57              0  
## 2018-09-06      Withdraw           -11.45      CNY              15.27              0  
## 2018-09-06      Spend              -2.35      SGD              12.92              0  
## 2018-09-08      Spend              -5.80      CNY              11.75              0  
## 2018-09-09      Spend              -15.49      CNY              8.63              0  
## 2018-09-09      Spend              -1.45      USD              6.63              0  
## 2018-09-11      Spend              -1.73      USD              4.25              0  
## 2018-09-13      Spend              -2.72      USD              0.52              0  
## 2018-09-14      Spend              -0.27      USD              0.15              0  
## 2018-09-14      Withdraw           -0.07      USD              0.06              0  
## 2018-09-18      Withdraw           -0.03      USD              0.01              0  
## 2018-09-19      Deposit            3605.00      CNY              720.87              0  
## 2018-09-19      Withdraw           -444.38      USD              112.38              0  
## 2018-09-20      Withdraw           -77.78      CNY              96.88              0  
## 2018-09-21      Spend              -32.56      CNY              90.40              0  
## 2018-09-22      Withdraw           -56.87      SGD              33.53              0  
## 2018-09-23      Withdraw           -7.24      SGD              26.29              0  
## 2018-09-28      Deposit            3544.00      CNY              731.37              0

## -----  
## Month-End Balance | Deposit 731.37 | Credit 0 |

##  
## #Summary  
##  
## TransactionType      Amount  
## -----  
## Deposit              7149.00  
## Withdraw            -1167.94  
## Spend                -173.78

##  
##  
##  
## Account Name: Truong, Faith  
## Month: Jul-18

```

##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-01 Spend                -54395.83 USD                125669.04          0
## 2018-07-02 Withdraw            -102520.71 SGD                23148.33          0
## 2018-07-03 Spend                -17077.28 SGD                6071.05          0
## 2018-07-03 Spend                -2583.13 USD                2545.60          0
## 2018-07-05 Deposit              3707.00 CNY                3307.80          0
## 2018-07-05 Withdraw            -1274.01 USD                1569.16          0
## 2018-07-07 Withdraw            -1184.01 SGD                385.15          0
## 2018-07-11 Withdraw            -1740.56 CNY                29.71          0
## 2018-07-12 Withdraw             -56.86 CNY                18.07          0
## 2018-07-14 Withdraw             -0.69 USD                17.13          0
## 2018-07-14 Spend                -6.09 SGD                11.04          0
## 2018-07-17 Withdraw             -8.85 SGD                 2.19          0
## 2018-07-24 Deposit             4960.00 CNY                998.16          0
## 2018-07-28 Withdraw            -681.24 USD                70.38          0
## 2018-07-30 Withdraw            -61.97 SGD                 8.41          0
## 2018-07-30 Withdraw             -3.65 USD                 3.44          0
## 2018-07-30 Spend               -2.16 USD                 0.50          0
## -----
## Month-End Balance | Deposite 0.5 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              8667.00
## Withdraw            -107532.55
## Spend               -74064.49
##
## Month: Aug-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-08-03 Deposit              4542.00 USD                6205.78          0
## 2018-08-03 Withdraw            -2528.55 USD                2751.27          0
## 2018-08-04 Withdraw            -3973.78 CNY                1956.39          0
## 2018-08-04 Withdraw            -1310.30 SGD                646.09          0
## 2018-08-08 Spend                -29.76 USD                605.53          0
## 2018-08-11 Spend               -489.42 CNY                507.36          0
## 2018-08-11 Withdraw            -324.64 SGD                182.72          0
## 2018-08-15 Spend               -12.21 USD                165.88          0
## 2018-08-16 Spend              -101.82 USD                 25.83          0
## 2018-08-19 Withdraw            -111.02 CNY                 3.71          0
## 2018-08-20 Spend               -1.81 SGD                 1.90          0
## 2018-08-20 Spend               -2.03 CNY                 1.49          0
## 2018-08-23 Deposit             3773.00 CNY                755.37          0
## 2018-08-23 Withdraw            -447.16 USD                140.98          0
## 2018-08-25 Spend              -350.34 CNY                70.72          0
## 2018-08-27 Spend               -36.95 USD                20.38          0
## 2018-08-28 Withdraw             -2.52 USD                 16.94          0
## 2018-08-29 Withdraw            -11.54 USD                 1.19          0
## 2018-08-30 Spend               -0.52 CNY                 1.09          0

```

```

## -----
## Month-End Balance | Deposite 1.09 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              8315.00
## Withdraw             -8709.51
## Spend               -1024.86
##
## Month: Sep-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-09-01  Spend              -5.33   CNY        0.02          0
## 2018-09-01  Spend              -0.01   SGD        0.01          0
## 2018-09-05  Spend              -0.01   USD        0.00          0
## 2018-09-18  Deposit            3531.00  CNY       704.89        0
## 2018-09-23  Withdraw           -480.10  USD        49.70         0
## 2018-09-24  Withdraw           -4.39   USD        43.69         0
## 2018-09-24  Spend             -12.20  USD        27.02         0
## -----
## Month-End Balance | Deposite 27.02 | Credit 0 |
##
## #Summary
##
## TransactionType      Amount
## -----
## Deposit              3531.00
## Withdraw             -484.49
## Spend               -17.55
##
##
##
## Account Name: Gutierrez, Adrianna
## Month: Jul-18
##
## Date      TransactionType      Amount  Currency  DepositBalance  CreditBalance
## -----
## 2018-07-01  Spend          -140315.04  SGD      24396.96        0
## 2018-07-04  Deposit           3331.00   USD      28943.77        0
## 2018-07-04  Withdraw        -121304.12  CNY      3979.38         0
## 2018-07-07  Withdraw         -1125.35   USD      2452.05         0
## 2018-07-07  Withdraw         -1412.57  CNY      2163.45         0
## 2018-07-08  Withdraw         -3272.87  CNY      1494.47         0
## 2018-07-08  Spend           -596.22   SGD       898.25         0
## 2018-07-10  Spend           -627.03   USD        46.80         0
## 2018-07-11  Spend           -58.87   CNY        34.78         0
## 2018-07-12  Spend            -6.68   USD        25.66         0
## 2018-07-13  Withdraw         -21.72   SGD         3.94         0
## 2018-07-18  Deposit           4731.00   SGD      4734.94         0
## 2018-07-19  Spend          -3657.81   SGD      1077.13         0
## 2018-07-19  Spend           -908.27   SGD       168.86         0

```



## 2018-07-19	Spend	-387.89	CNY	90.43	0
## 2018-07-21	Spend	-16.84	USD	67.49	0
## 2018-07-25	Spend	-33.42	USD	22.09	0
## 2018-07-26	Spend	-17.47	SGD	4.62	0
## 2018-07-26	Withdraw	-2.04	SGD	2.58	0
## 2018-07-28	Spend	-0.13	USD	2.41	0
## 2018-07-30	Withdraw	-1.95	SGD	0.46	0
## 2018-07-30	Spend	-1.52	CNY	0.16	0
## 2018-07-30	Spend	-0.44	CNY	0.07	0
## 2018-07-31	Spend	-0.01	SGD	0.06	0

## -----

## Month-End Balance | Deposit 0.06 | Credit 0 |

##

## #Summary

##

## TransactionType	Amount
--------------------	--------

## -----

## Deposit	8062.0
------------	--------

## Withdraw	-127140.6
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## Spend	-146627.6
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##

## Month: Aug-18

##

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
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## -----

## 2018-08-01	Withdraw	-0.04	USD	0.00	0
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## 2018-08-21	Deposit	4794.00	USD	6546.21	0
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## 2018-08-22	Withdraw	-840.73	USD	5397.60	0
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## 2018-08-22	Withdraw	-570.50	USD	4618.19	0
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## 2018-08-24	Spend	-2690.74	USD	945.33	0
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## 2018-08-28	Withdraw	-657.43	USD	48.26	0
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## 2018-08-29	Spend	-121.51	CNY	23.95	0
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## 2018-08-31	Withdraw	-1.19	SGD	22.76	0
---------------	----------	-------	-----	-------	---

## 2018-08-31	Spend	-7.80	USD	12.06	0
---------------	-------	-------	-----	-------	---

## 2018-08-31	Withdraw	-1.16	SGD	10.90	0
---------------	----------	-------	-----	-------	---

## 2018-08-31	Spend	-8.32	SGD	2.58	0
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## -----

## Month-End Balance | Deposit 2.58 | Credit 0 |

##

## #Summary

##

## TransactionType	Amount
--------------------	--------

## -----

## Deposit	4794.00
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## Withdraw	-2071.05
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## Spend	-2828.37
----------	----------

##

## Month: Sep-18

##

## Date	TransactionType	Amount	Currency	DepositBalance	CreditBalance
---------	-----------------	--------	----------	----------------	---------------

## -----

## 2018-09-03	Spend	-1.33	SGD	1.25	0
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## 2018-09-03	Withdraw	-0.40	SGD	0.85	0
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## 2018-09-05	Withdraw	-1.35	CNY	0.58	0
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## 2018-09-06	Spend	-0.19	SGD	0.39	0
## 2018-09-09	Spend	-0.73	CNY	0.24	0
## 2018-09-18	Spend	-0.14	USD	0.04	0
## 2018-09-18	Spend	-0.02	SGD	0.02	0
## 2018-09-19	Deposit	3421.00	CNY	684.08	0
## 2018-09-23	Spend	-293.49	SGD	390.59	0
## 2018-09-23	Withdraw	-146.24	SGD	244.35	0
## 2018-09-26	Spend	-182.84	SGD	61.51	0
## 2018-09-27	Withdraw	-3.85	USD	56.24	0
## 2018-09-28	Withdraw	-3.28	SGD	52.96	0
## 2018-09-30	Spend	-31.72	USD	9.58	0

## -----

## Month-End Balance | Deposite 9.58 | Credit 0 |

##

## #Summary

##

## TransactionType	Amount
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## -----

## Deposit	3421.00
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## Withdraw	-155.12
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## Spend	-510.46
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