import random

class Account:

# Construct an Account object

def \_\_init\_\_(self, id, balance = 0, annualInterestRate = 3.4):

self.id = id

self.balance = balance

self.annualInterestRate = annualInterestRate

def getId(self):

return self.id

def getBalance(self):

return self.balance

def getAnnualInterestRate(self):

return self.annualInterestRate

def getMonthlyInterestRate(self):

return self.annualInterestRate / 12

def withdraw(self, amount):

self.balance -= amount

def deposit(self, amount):

self.balance += amount

def getMonthlyInterest(self):

return self.balance \* self.getMonthlyInterestRate()

def main():

# Creating accounts

accounts = []

for i in range(1000, 9999):

account = Account(i, 0)

accounts.append(account)

# ATM Processes

while True:

# Reading id from user

id = int(input("\nEnter account pin: "))

# Loop till id is valid

while id < 1000 or id > 9999:

id = int(input("\nInvalid Id.. Re-enter: "))

# Iterating over account session

while True:

# Printing menu

print("\n1 - View Balance \t 2 - Withdraw \t 3 - Deposit \t 4 - Exit ")

# Reading selection

selection = int(input("\nEnter your selection: "))

# Getting account object

for acc in accounts:

# Comparing account id

if acc.getId() == id:

accountObj = acc

break

# View Balance

if selection == 1:

# Printing balance

print(accountObj.getBalance())

# Withdraw

elif selection == 2:

# Reading amount

amt = float(input("\nEnter amount to withdraw: "))

ver\_withdraw = input("Is this the correct amount, Yes or No ? " + str(amt) + " ")

if ver\_withdraw == "Yes":

print("Verify withdraw")

else:

break

if amt < accountObj.getBalance():

# Calling withdraw method

accountObj.withdraw(amt)

# Printing updated balance

print("\nUpdated Balance: " + str(accountObj.getBalance()) + " \n")

else:

print("\nYou're balance is less than withdrawl amount: " + str(accountObj.getBalance()) + " \n")

print("\nPlease make a deposit.");

# Deposit

elif selection == 3:

# Reading amount

amt = float(input("\nEnter amount to deposit: "))

ver\_deposit = input("Is this the correct amount, Yes, or No ? " + str(amt) + " ")

if ver\_deposit == "Yes":

# Calling deposit method

accountObj.deposit(amt);

# Printing updated balance

print("\nUpdated Balance: " + str(accountObj.getBalance()) + " \n")

else:

break

elif selection == 4:

print("\nTransaction is now complete.")

print("Transaction number: ", random.randint(10000, 1000000))

print("Current Interest Rate: ", accountObj.annualInterestRate)

print("Monthly Interest Rate: ", accountObj.annualInterestRate / 12)

print("Thanks for choosing us as your bank")

exit()

# Any other choice

else:

print("\nThat's an invalid choice.")

# Main function

main()