package Newbank;

import java.util.\*;

class Account {

private String userName, accountType;

private int pin;

private double balance;

public Account(String userName, int pin, String accountType) {

this.userName = userName;

this.pin = pin;

this.balance = 0;

this.accountType = accountType;

}

public boolean authentication(int inputPin) {

return this.pin == inputPin;

}

public double getBalance() {

return this.balance;

}

public String getUserName() {

return this.userName;

}

public String getAccountType() {

return this.accountType;

}

public double getInterest() {

if (this.accountType.equalsIgnoreCase("savings")) {

return this.balance \* 0.1;

}

return this.balance \* 0.15;

}

public String getDetails() {

return "User Name: " + this.getUserName() + "\tBalance: " + this.getBalance() + "\tAccount Type: " + this.getAccountType();

}

public String deposit(double amount) {

if (amount < 0) {

return "Invalid amount";

}

this.balance += amount;

return "Deposited successfully";

}

public String withdraw(double amount) {

if (amount < 0) {

return "Invalid Amount";

}

if (amount > this.balance) {

return "Insufficient funds";

}

this.balance -= amount;

return "Withdrawn successfully";

}

}

class Banking {

private LinkedHashMap<String, Account> accounts = new LinkedHashMap<>();

private Account user = null;

public String createAccount(String userName, int pin, String accountType) {

if (accounts.containsKey(userName)) {

return "Account already exists!";

}

Account a = new Account(userName, pin, accountType);

accounts.put(userName, a);

return "Account is successfully created";

}

public String login(String userName, int pin) {

if (!accounts.containsKey(userName)) {

return "Account doesn't exist";

}

if (accounts.get(userName).authentication(pin)) {

user = accounts.get(userName);

return "Logged in....";

}

return "Wrong pin";

}

public String logout() {

if (user != null) {

user = null;

return "Logged out successfully";

}

return "Account is not yet logged in";

}

public String deposit(double amount) {

if (user != null) {

return user.deposit(amount);

}

return "Login First then Try";

}

public String withdraw(double amount) {

if (user != null) {

return user.withdraw(amount);

}

return "Login First then Try";

}

public String checkBalance() {

if (user != null) {

return "Balance: " + user.getBalance();

}

return "Login First then try";

}

}

public class Newbank {

public static void main(String[] args) {

Scanner sc = new Scanner(System.***in***);

Banking bank = new Banking();

boolean run = true;

while (run) {

System.***out***.println("\n1. Create Account");

System.***out***.println("2. Login");

System.***out***.println("3. Logout");

System.***out***.println("4. Deposit");

System.***out***.println("5. Withdraw");

System.***out***.println("6. Check Balance");

System.***out***.println("7. Exit");

System.***out***.print("Enter your choice: ");

int choice = sc.nextInt();

switch (choice) {

case 1:

System.***out***.println("Enter the Name, Pin, Account Type:");

String username = sc.next();

int pin = sc.nextInt();

String accountType = sc.next();

System.***out***.println(bank.createAccount(username, pin, accountType));

break;

case 2:

System.***out***.println("Enter login credentials:");

username = sc.next();

int loginPin = sc.nextInt();

System.***out***.println(bank.login(username, loginPin));

break;

case 3:

System.***out***.println(bank.logout());

break;

case 4:

System.***out***.println("Enter amount to be deposited:");

double amount = sc.nextDouble();

System.***out***.println(bank.deposit(amount));

break;

case 5:

System.***out***.println("Enter amount to withdraw:");

double withdrawAmount = sc.nextDouble();

System.***out***.println(bank.withdraw(withdrawAmount));

break;

case 6:

System.***out***.println(bank.checkBalance());

break;

case 7:

run = false;

System.***out***.println("Exiting...");

break;

default:

System.***out***.println("Invalid choice.. Choose Again");

}

}

sc.close();

}

}