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import java.util.*;
import java.lang.*;
import java.text.SimpleDateFormat;
import java.io.*;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.FileWriter;
import java.io.FileReader;
import java.io.IOException;
import java.io.OutputStream;

abstract class abstract_User {
String Name; int Account;
int Password; int myBonus; // 紅利
String Method; int Money;
int Bonus; // 讀取交易紀錄用的紅利
String Dates; String times;
int PXpayWallet; int CreditCardWallet;

class user extends abstract_User {
int login(int gAcc, int gPWD) {
if
(gAcc==this.Account&&gPWD==this.Password){return 1;}return
0}

void welcome() {println("歡迎光臨 {" + super.Name + " } !
");
println("PXpay餘額: " + super.PXpayWallet + ", 帳戶
餘額: " + super.CreditCardWallet + ", 紅利: " +
super.myBonus);}

int getPXpayWallet() {return super.PXpayWallet;}
int getCreditCardWallet() {return
super.CreditCardWallet;}

public static String getNowDate() {
Date currentTime = new Date();
SimpleDateFormat formatter=new SimpleDateFormat("yyyy-MM-
dd");
String dateString=formatter.format(currentTime);
return dateString;} >>time:HH:mm:ss<<}

class aboutFile extends user {

void read(user myuser) {try {
FileReader file = new FileReader("C.txt");
BufferedReader bfile=newBufferedReader(file);
bfile.readLine();
String line = bfile.readLine();
String[] data = line.split(" ");
myuser.Name = data[0];
myuser.Account = Integer.parseInt(data[1]);
myuser.Password = Integer.parseInt(data[2]);
myuser.PXpayWallet = Integer.parseInt(data[3]);
myuser.CreditCardWallet = Integer.parseInt(data[4]);
myuser.myBonus = Integer.parseInt(data[5]);
file.close();
}catch (IOException e)
{System.out.println(e.getMessage());}}

void saveFile(user myuser) {try {
FileWriter file = new FileWriter(".txt");

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BufferedWriter bfile = new BufferedWriter(file);
bfile.write("Name Acc Pwd PXpay CreditCard 紅利");
bfile.newLine();
bfile.write(myuser.Name+" "+myuser.Account + " " +
myuser.Password + " " + myuser.PXpayWallet + " " +
myuser.CreditCardWallet + " " + myuser.myBonus);
bfile.flush();file.close();}
catch (IOException e)
{System.out.println(e.getMessage());}}

void readRecord(user myuser) {try {
FileReader recordFile = new FileReader("txt");
BufferedReader recordBuffer = new
BufferedReader(recordFile);
recordBuffer.readLine();*3
System.out.println("錢包\t金額\t紅利\t日期與時間");
while (recordBuffer.ready()) {
String line = recordBuffer.readLine();
String[] recordData = line.split(" ");
myuser.Method = recordData[0];
myuser.Money = Integer.parseInt(recordData[1]);
myuser.Bonus = Integer.parseInt(recordData[2]);
myuser.Dates = recordData[3];
myuser.times = recordData[4];
if (myuser.Method == null) {
println("目前還沒有交易紀錄喔!");
} else {
System.out.println(myuser.Method + "\t" + myuser.Money +
"\t" + myuser.Bonus + "\t"+myuser.Dates+" "
+myuser.times);}}recordBuffer.close();}
catch (IOException e) {
System.out.println("目前暫無交易紀錄。");}}

void saveRecord(user myuser) {try {
FileWriter file = new FileWriter("txt", true);
BufferedWriter bfile = new BufferedWriter(file);
bfile.newLine();
bfile.write(myuser.Method + " " + myuser.Money + " " +
myuser.Bonus + " " + myuser.Dates + " " + myuser.times);
bfile.flush();file.close();}
catch (IOException e) {
System.out.println(e.getMessage());}}

class pay {
interface withdraw {int withdraw(user myuser, int
gMoney);}
interface deposit {// 存款in deposit(user myuser, int
gMoney);}

PX_pay pxpay = new PX_pay();
CreditCard creditpay = new CreditCard();

int payment(int payType, int gMoney, user myuser) {
int result = 0;String payname = "";
if (payType == 0) {
if (pxpay.deposit(myuser, gMoney) == 1) {
println("成功! PX餘額: "+my.getPXpayWallet());result =
2;}
else if (payType == 1) {
result = pxpay.withdraw(myuser, gMoney);
payname = "PXpay";}
else if (payType == 2) {
result = creditpay.withdraw(myuser, gMoney);payname =

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        "CreditCard");}
if (result == 1) {
    println("交易成功!" + payname + "錢包餘額為:" +
        myuser.getPXpayWallet());
    println("本次交易新增紅利點數為:" + myuser.Bonus);
    println("本次交易過後紅利點數為:" + myuser.myBonus);
} else if (result == 0) {System.out.println("交易失敗。");
}
return 0;}return 0;}}

class PX_pay extends user {
int deposit(user myuser, int gMoney) {
if (gMoney > 0) {
    myuser.PXpayWallet += gMoney;
    myuser.CreditCardWallet -= gMoney;
    myuser.Money = gMoney;
    myuser.Bonus = 0;
    myuser.Dates = getNowDate();
    myuser.times = getNowtimes();
    myuser.Method = "儲值";return 1;}return 0;}

int withdraw(user myuser, int gMoney) {
if (gMoney < myuser.PXpayWallet) {
    myuser.PXpayWallet -= gMoney;
    myuser.myBonus += gMoney / 100;
    myuser.Bonus = gMoney / 100;
    myuser.Money = gMoney;
    myuser.Dates = getNowDate();
    myuser.times = getNowtimes();
    myuser.Method = "PXpay";return 1;} else {return
0;}}}

class CreditCard extends user {
int withdraw(user myuser, int gMoney) {
if (gMoney < myuser.CreditCardWallet) {
    myuser.CreditCardWallet -= gMoney;
    myuser.myBonus += gMoney / 100;
    myuser.Bonus = gMoney / 100;
    myuser.Money = gMoney;
    myuser.Dates = getNowDate();
    myuser.times = getNowtimes();
    myuser.Method = "Cardpay";return 1;} else {return
0;}}}

public class finaltest {
public static void main(String[] args) {
Scanner in = new Scanner(System.in);
String yn = "N";
// new
user myuser = new user();
aboutFile myfile = new aboutFile();
pay mypay = new pay();
// 讀取個人資料
myfile.read(myuser);
// 輸入帳號密碼
System.out.println("請輸入帳號:");
int acc = in.nextInt();
System.out.println("請輸入密碼:");
int pwd = in.nextInt();
if (myuser.login(acc, pwd) == 1) {
    while(yn.equals("Y") == false||yn.equals("n") ==

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false) {
    System.out.println("\n");
    myuser.welcome();
    println("=====");
    println("歡迎光臨PX Pay! 今天想使用什麼功能呢???");
    println("當前紅利點數 => 消費金額滿百即可獲得一點!");
    println("[1.查詢]、[2.儲值]、[3.付款]、[4.離
開]\n=>");
    // 選擇
int choice = in.nextInt();
if (choice == 1) {
// 讀取交易紀錄
    myfile.readRecord(myuser);
} else if (choice == 2) {// PX錢包儲值
    try {
        System.out.println("請輸入PX錢包儲值金額=>");
        int savemoney = in.nextInt();
        mypay.payment(0, savemoney, myuser);
    } catch (Exception e) {
        System.out.println("交易失敗ㄌ，請輸入(正)整數!");
        break;
    }
} else if (choice == 3) {// 電子支付
    try {
        System.out.println("請選擇付款方式[1.PX錢包][2.信用
卡]=>");
        int option = in.nextInt();
        System.out.println("請輸入付款金額=>");
        int paymoney = in.nextInt();
        if (option == 1) {// PX錢包
            mypay.payment(option, paymoney, myuser);
            myfile.saveRecord(myuser);
        }else if (option == 2) { // CreditCard支付
            mypay.payment(option, paymoney, myuser);
            myfile.saveRecord(myuser);
        }
    } else {// 輸入非1和2
        System.out.println("無此交易方式，輸入錯誤ㄝ！");
    }
    catch (Exception e) {System.out.println("交
易失敗ㄌ，請輸入(正)整數!");break; }
} else if (choice == 4) {// 離開
    System.out.println("您真的要離開嗎? [Y/N]=>");
    yn = in.next();
    if (yn.equals("Y") || yn.equals("y")) {
        myfile.saveFile(myuser);
        System.out.println("88!");
        System.exit(choice);
    }
} else {
    System.out.println("輸入錯誤！請重新輸入!");
}
}
}
}

{System.out.println("帳號或密碼錯誤！再見！");
}
}
}
}

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