package guiacctest;

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.\*;

class GuiAccTest extends Frame implements ActionListener

{

Label lab=new Label(" ");

Label lab1=new Label(" ");

TextField t[]=new TextField [4];

Label l[]=new Label [4];

Button but=new Button("Create Account");

Button but1=new Button("Test Account");

BankAccount b;

GuiAccTest()

{

addWindowListener(new NewWindowAdapter());

setLayout(new GridLayout(2,0));

Panel p=new Panel();

Panel p1=new Panel();

but.addActionListener(this);

but1.addActionListener(this);

p.setLayout(new GridLayout(5,2));

p1.add(lab1);

p1.add(lab);

l[0]=new Label("Account Number");

l[1]=new Label("Initial Balance");

l[2]=new Label("Deposit Amount");

l[3]=new Label("Withdraw Amount");

for(int i=0;i<4;i++)

{

t[i]=new TextField(10);

p.add(l[i]);

p.add(t[i]);

}

p.add(but);

p.add(but1);

but1.setVisible(false);

l[2].setVisible(false);

l[3].setVisible(false);

t[2].setVisible(false);

t[3].setVisible(false);

add(p);

add(p1);

}

String testAccount(int d\_amt,int w\_amt)

{

String msg;

b.deposit(d\_amt);

msg="Transaction Succesful";

try

{

b.withdraw(w\_amt);

}catch(FundsInsufficientException fe)

{

fe=new FundsInsufficientException(b.amount,w\_amt);

msg=String.valueOf(fe);

}

return msg;

}

public void actionPerformed(ActionEvent ae)

{

String str=ae.getActionCommand();

if(str.equals("Create Account"))

{

b=new BankAccount(Integer.parseInt(t[0].getText()),Integer.parseInt(t[1].getText()));

but1.setVisible(true);

l[2].setVisible(true);

l[3].setVisible(true);

t[2].setVisible(true);

t[3].setVisible(true);

but.setVisible(false);

l[0].setVisible(false);

l[1].setVisible(false);

t[0].setVisible(false);

t[1].setVisible(false);

lab1.setText("Account : "+b.accnum+", Current Balance : "+b.amount);

return;

}

else

{

lab.setText(testAccount(Integer.parseInt(t[2].getText()),Integer.parseInt(t[3].getText())));

lab1.setText("Account : "+b.accnum+", Current Balance : "+b.amount);

}

}

public static void main(String arg[])

{

GuiAccTest at=new GuiAccTest();

at.setTitle("Bank Account Tester");

at.setSize(600,200);

at.setVisible(true);

}

}

class NewWindowAdapter extends WindowAdapter

{

public void windowClosing(WindowEvent we)

{

System.exit(0);

}

}

class BankAccount

{

int accnum;

int amount;

BankAccount(int num,int amt)

{

accnum=num;

amount=amt;

}

public void deposit(int amt)

{

amount=amount+amt;

}

public void withdraw(int amt) throws FundsInsufficientException

{

if(amt>amount)

throw new FundsInsufficientException(amount,amt);

else

amount=amount-amt;

}

}

class FundsInsufficientException extends Exception

{

int balance;

int withdraw\_amount;

FundsInsufficientException(int bal,int w\_amt)

{

balance=bal;

withdraw\_amount=w\_amt;

}

public String toString()

{

return "Your withdraw amount ("+withdraw\_amount+") is less than the balance ("+balance+"). No withdrawal was recorded.";

}

}