

Nov 10, 15 15:06

AssEx1.java

Page 1/1

```

import javax.swing.JOptionPane;

public class AssEx1 {

    public static void main(String arg[]){
        double n = 0; //this variable is to convert initial amount from
string to double
        boolean a = false;//this variable is to make sure initial amount
is a number

        //to take customer's name
        String name = JOptionPane.showInputDialog(null, "Please enter customer n
ame.");

        //checks if user clicked 'cancel'
        if(name == null)
            System.exit(0);

        //checks if input is empty and terminates program if so
        if(name.trim().isEmpty())
            System.exit(0);

        //to take initial balance
        while(!a)
        {
            String init_balance = JOptionPane.showInputDialog(null,
"What's the initial balance?");

            //checks if user clicked 'cancel'
            if(init_balance == null)
                System.exit(0);

            //if user didn't click cancel, it'll change entered stri
ng to double or ask again if value is not a number
            try
            {
                n = Double.parseDouble(init_balance.trim());
                a = true;
            }

            catch(NumberFormatException x)
            {
                JOptionPane.showMessageDialog(null, "Sorry you have
to enter a number", "Initial Balance Entry Error", JOptionPane.ERROR_MESSAGE);
            }
        }//end of while

        //creates an object with the name and initial balance
        CustomerAccount ca = new CustomerAccount(name, n);

        LWMGUI lw = new LWMGUI(ca);//creates the main GUI object
        lw.setTitle("Lillybank Wine Merchants: " + name); //sets title

    }//end of main
}
//end of AssEx1

```

Nov 12, 15 12:05

CustomerAccount.java

Page 1/1

```

public class CustomerAccount {

    private String cName; //customer name
    private int balance; // balance amount
    final double serviceCharge = .20; //fixed service charge

    public CustomerAccount(String n, double b)
    {
        cName = n;
        b=Math.round(b*100);
        balance = (int) (b);
    }

    //get methods
    public String getName(){return cName;}
    public int getBalance(){return balance;}

    //method to handle sale
    public double sales_trans(int numBottles, double costBottle)
    {
        double trans = numBottles * costBottle;
        String s = String.format("%.02f", trans);
        trans = Double.parseDouble(s);//to ensure number is roun
ded

        //update balance
        balance += (int)Math.round(trans*100);

        //return transaction amount
        return trans;
    }

    //method to handle return
    public double return_trans(int numBottles, double costBottle)
    {
        double trans = numBottles * costBottle *(1-serviceCharge);
        String s = String.format("%.02f", trans);
        trans = Double.parseDouble(s);//to ensure number is rounded

        //update balance
        balance -= (int)Math.round(trans*100);

        //return transaction amount
        return trans;
    }
}

```

Nov 12, 15 12:13

LWMGUI.java

Page 1/5

```

import javax.swing.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
public class LWMGUI extends JFrame implements ActionListener{

    private JButton bsale, breturn;
    private JTextField tname, tquantity, tprice, ttrans, tbalance;
    private JLabel lname, lquantity, lprice, lwine, ltrans, lbalance;
    private JPanel pan, pan2, pan3;
    String inputname;
    int quant;
    double price;
    CustomerAccount cus;

    public LWMGUI(CustomerAccount x)
    {
        cus=x;

        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        //size and location
        setSize(550, 180);
        setLocation(100, 200);

        //name label and text field and listener
        lname = new JLabel("Name:");
        tname = new JTextField(15);
        tname.addActionListener(this);

        //quantity label and text field and action listener
        lquantity = new JLabel("Quantity:");
        tquantity = new JTextField(6);
        tquantity.addActionListener(this);

        //price label and text field
        lprice = new JLabel("Price:£");
        tprice = new JTextField(6);
        tprice.addActionListener(this);

        //adding panel to the north for text fields
        pan = new JPanel();

        pan.add(lname);
        pan.add(tname);

        pan.add(lquantity);
        pan.add(tquantity);

        pan.add(lprice);
        pan.add(tprice);

        add(pan, "North");

        //BUTTONS + action listeners

        bsale = new JButton("Process Sale");
        breturn = new JButton("Process return");

        bsale.addActionListener(this);
        breturn.addActionListener(this);

```

Nov 12, 15 12:13

LWMGUI.java

Page 2/5

```

        //adding sale and return buttons to a panel in the center

        pan2 = new JPanel();
        pan2.add(bsale);
        pan2.add(breturn);
        add(pan2, "Center");

        //wine type label
        lwine = new JLabel(); //
        add(lwine, "West");

        //transaction amount
        ltrans = new JLabel("Amount of Transaction: £");
        ttrans = new JTextField(10);
        ttrans.setEditable(false);

        //balance
        lbalance = new JLabel("Current balance: £");
        tbalance = new JTextField(10);
        tbalance.setEditable(false);

        //shows balance + checks if balance is negative and adds negative sign to the front (otherwise it'll show '-' two times)
        if(cus.getBalance()<0)
            tbalance.setText(String.format("%d.%2d CR", cus.getBalance()/100*-1, cus.getBalance()%100*-1));
        else
            tbalance.setText(String.format("%d.%2d", cus.getBalance()/100, cus.getBalance()%100));

        //add transaction and balance to a panel in the south
        pan3 = new JPanel();

        pan3.add(ltrans);
        pan3.add(ttrans);
        pan3.add(lbalance);
        pan3.add(tbalance);

        add(pan3, "South");
        setVisible(true);
    } //end of LWMGUI constructor

    public void actionPerformed(ActionEvent e)
    {

        //wine name is entered
        inputname = tname.getText();

        //error if wine name is not entered
        if(inputname.trim().isEmpty())
            JOptionPane.showMessageDialog(null, "Sorry you have to enter the wine's name", "Wine Name Entry Error", JOptionPane.ERROR_MESSAGE);

        //quantity is entered.
        String inputquant = tquantity.getText();

```


Nov 12, 15 12:13

LWMGUI.java

Page 5/5

```
//if balance < 0 --> remove negative sign and add CR
if(cus.getBalance()<0)
    tbalance.setText(String.format("%d.%02d CR", cus.getBalance()/100*-1, cus.getBalance()%100*-1));
    else
        tbalance.setText(String.format("%d.%20d", cus.getBalance()/100, cus.getBalance()%100));

//show wine name label
lwine.setText("Wine returned: "+this.createWine().getWineName());
}
```

Nov 10, 15 14:45

Wine.java

Page 1/1

```
public class Wine {

    private String wineName;
    private double bottPrice;
    private int bottQuant;

    //constructor
    public Wine(String name, double price, int quant)
    {
        wineName = name;
        bottPrice = price;
        bottQuant = quant;
    }

    //get methods
    public String getWineName(){return wineName;}
    public double getBottPrice(){return bottPrice;}
    public int getBottQuant(){return bottQuant;}
}
```