

ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY AND SCIENCE

(Affiliated to Andhra University)

Sangivalasa, VISAKHAPATNAM-531162



BONAFIDE CERTIFICATE

This is to certify that this project report “**RETAIL STORE BILLING PROJECT**” is the bonafide work is carried out by

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RETAIL STORE BILLING PROJECT

A PROJECT REPORT

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Introduction:

The computer has brought revolution in every sphere of human life. Whether it is business, education field, governance, medical science etc. The computer has reduced the human workload, business is going global and everything is available at the click of mouse. The concept of e-shopping has been introduced and we can buy the products online and make payments through credit or debit cards.

Presently we are proposing the system “Retail Store Billing System”. The Retail Store issued their client handwritten. So the proposed system will computerized their manual bill generation system

As stated above the retail stores presently use manual bills to maintain their product list , quantity bought , price of unit quantity and chance of mistake in choosing items or quantities.

Customers can add their required products to the cart and check the bill there itself and can Buy all the products in the cart when required .



OBJECTIVE:

Retail Store billing System project

- ❑ Products and billing generation- automate the current manual bill generating system and accept the user entries of required items and quantities.
- ❑ To develop a system that will be user friendly in all ways.



JAVA COMPONENTS USED IN THIS PROJECT:

JButton - to add product to the cart and for buy now

TextField - to enter the required quantity of the products from the user

Label - to describe the contents

ComboBox - to select the required product from the category list and product list

List - includes the selected items and its corresponding price

HashMap - to map the products to its cost

Dialog box - to display a message when any invalid entries are entered

SPECIFICATIONS OF THE PROJECT:

PRODUCT MANAGEMENT
Project is able to browse categories and browse products
Project is able to add a new product
User is able to add required products in his cart and he can buy all the products at a time in his cart
Project (User admin) is able to edit the existing product
Validity checking
Checks whether the quantity is entered or not
Checks whether the entered quantity is valid or not
Checks whether the corresponding category of the product is selected or not
BILLING
User can able to see the products added to his and its corresponding prices along with the total bill

Source Code:

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.util.*;
import javax.swing.border.Border;
import javax.swing.event.InternalFrameListener;
public class retail extends JFrame implements ActionListener,ItemListener
{
    HashMap<String, String> product_and_price;
    String a[] = { "Select category", "Dals", "Dairy products", "Snacks","HomeCare","Beverages","Rice and
    Flours" };
    DefaultListModel<String> product_name_bill, product_quantity_bill,product_price_bill;
    JLabel title, category_list, product_name, price_per_unit, quantity_label, price_of_product,
    price_per_unit_label, total, total_amount, bill_product, bill_quantity, bill_price,thanks;
    JComboBox product_list,cat_list;
    JList product_bill, product_quantity, product_price;
    JButton add_product,buy_now;
    JTextField quantity_list=new JTextField();
    JScrollBar s;

    public retail()
    {
        product_and_price = new HashMap<String, String>();

        getContentPane().setBackground(new Color(178,190,181));
        setForeground(Color.WHITE);

        title = new JLabel("(-:A to Z RETAIL STORE:-)",JLabel.CENTER);
        title.setFont(new Font("Serif", Font.BOLD, 30));
        title.setBackground(new Color(247,206,178));
        title.setForeground(new Color(210,4,45));
        title.setOpaque(true);
        title.setBounds(20,20,390,50);
        thanks = new JLabel("");
        thanks.setFont(new Font("Serif", Font.BOLD, 20));
        thanks.setBounds(2,700,370,40);
        category_list = new JLabel("Category list");
        category_list.setBounds(10,80,100,20);
        cat_list = new JComboBox(a);
        cat_list.setBackground(new Color(211,230,216));
        cat_list.setForeground(new Color(0,0,0));
```

```
cat_list.setBounds(10,100,100,20);
cat_list.addItemListener(this);
add(cat_list);
```

```
product_list = new JComboBox();
product_list.setEnabled(false);
product_list.addItemListener(this);
add(product_list);
```

```
product_and_price.put("Redgram", "56");
product_and_price.put("Blackgram", "120");
product_and_price.put("Moong", "78");
product_and_price.put("kova", "140");
product_and_price.put("Paneer", "62");
product_and_price.put("Curd", "57");
product_and_price.put("Lays", "121");
product_and_price.put("kitkat", "79");
product_and_price.put("Cake", "141");
product_and_price.put("Ghee", "600");
product_and_price.put("Cheese", "435");
product_and_price.put("Butter", "460");
product_and_price.put("Rice", "50");
product_and_price.put("Basmati Rice", "92");
product_and_price.put("Tur", "110");
product_and_price.put("Urad", "139");
product_and_price.put("Wheat", "55");
product_and_price.put("Sooji", "43");
product_and_price.put("Besan", "80");
product_and_price.put("Maida", "40");
product_and_price.put("Masoor", "125");
product_and_price.put("Chana", "118");
product_and_price.put("Tea packet", "510");
product_and_price.put("Coffee packet", "150");
product_and_price.put("Boost packet", "160");
product_and_price.put("Horlicks packet", "170");
product_and_price.put("Detergent", "100");
product_and_price.put("Dishwash", "190");
product_and_price.put("Room Freshener", "265");
product_and_price.put("Surface Cleaner", "180");
product_and_price.put("Noodles", "145");
product_and_price.put("Ketchup", "108");
```

```
product_name_bill = new DefaultListModel<>();
product_price_bill = new DefaultListModel<>();
product_quantity_bill = new DefaultListModel<>();
```

```
product_name = new JLabel("Product Name");
quantity_label = new JLabel("Unit Quantity");
```



```
price_per_unit = new JLabel("Unit Price");
price_per_unit_label = new JLabel();

product_list = new JComboBox();
bill_product = new JLabel("Item");
bill_quantity = new JLabel("Unit Quantity");
bill_price = new JLabel("Cost in Rupees");

product_bill = new JList(product_name_bill);
product_price = new JList(product_price_bill);
product_quantity = new JList(product_quantity_bill);
Icon icon = new ImageIcon("C:\\Users\\Yateesh Tangudu\\Downloads\\25486-3-add-to-cart-button.jpeg");
add_product = new JButton(icon);
buy_now = new JButton("BUY NOW");
buy_now.addActionListener(this);
buy_now.setBounds(140,665,100,40);
total = new JLabel("      Total Amount : Rupees ");
total_amount = new JLabel();
product_name.setBounds(160, 80, 100, 20);
price_per_unit.setBounds(15, 140, 100, 20);
quantity_label.setBounds(310, 80, 100, 20);
price_per_unit_label.setBounds(15, 155, 100, 20);

quantity_list.setBounds(310, 100, 100, 20);
add_product.setBounds(310, 140, 100, 40);

bill_product.setBounds(10, 200, 150, 20);
bill_quantity.setBounds(170, 200, 90, 20);
bill_price.setBounds(270, 200, 140, 20);

product_bill.setBounds(10, 225, 150, 400);
product_bill.setBackground(new Color(204,204,255));
product_quantity.setBounds(170, 225, 90, 400);
product_quantity.setBackground(new Color(204,255,204));
product_price.setBounds(270, 225, 140, 400);
product_price.setBackground(new Color(204,255,204));

total.setBounds(140, 635, 170, 20);
total_amount.setBounds(300, 635, 90, 20);

product_list.setBounds(160,100,100,20);

add(title);
add(category_list);
add(product_name);
add(price_per_unit);
add(quantity_label);
add(buy_now);
add(price_per_unit_label);
```

```

add(product_list);
add(quantity_list);

add(add_product);

add(bill_product);
add(bill_quantity);
add(bill_price);

add(product_bill);
add(product_quantity);
add(product_price);
add(thanks);
add(total);
add(total_amount);
product_list.addActionListener(this);
add_product.addActionListener(this);
setSize(450,1200);
setLayout(null);
setLocationRelativeTo(null);
setVisible(true);

setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
}
public void itemStateChanged(ItemEvent e) {

String b[] = { "select Dals", "Redgram", "Blackgram", "Moong" };
String c[] = {"select Dairies", "kova", "Paneer", "Curd"};
String d[] = {"select Snacks", "Lays", "kitkat", "Cake" };
String v[] = {"select HomeCare", "Detergent", "Dishwash", "Room Freshener", "Surface Cleaner"};
String f[] = {"select Beverages", "Tea packet", "Coffee packet", "Boost packet", "Horlicks packet"};
String g[] = {"select Rice and Flours", "Rice", "Basmati Rice", "Sooji", "Maida", "Wheat", "Besan"};
if (e.getSource() == cat_list) {
    if (cat_list.getSelectedItem().equals("Select category")) {
        product_list.setEnabled(false);
    } else if (cat_list.getSelectedItem().equals("Dals")) {
        product_list.setEnabled(true);
        product_list.removeAllItems();
        for (int i = 0; i < b.length; i++) {
            product_list.addItem(b[i]);
        }
    } else if (cat_list.getSelectedItem().equals("Dairy products")) {
        product_list.setEnabled(true);
        product_list.removeAllItems();
        for (int i = 0; i < c.length; i++) {
            product_list.removeItem(c[i]);
            product_list.addItem(c[i]);
        }
    } else if (cat_list.getSelectedItem().equals("Snacks")) {

```

```

        product_list.setEnabled(true);
        product_list.removeAllItems();
        for (int i = 0; i < d.length; i++) {
            product_list.addItem(d[i]);
        }
    }
else if (cat_list.getSelectedItem().equals("HomeCare")) {
    product_list.setEnabled(true);
    product_list.removeAllItems();
    for (int i = 0; i < v.length; i++) {
        product_list.addItem(v[i]);
    }
}
else if (cat_list.getSelectedItem().equals("Beverages")) {
    product_list.setEnabled(true);
    product_list.removeAllItems();
    for (int i = 0; i < f.length; i++) {
        product_list.addItem(ff[i]);
    }
}
else if (cat_list.getSelectedItem().equals("Rice and Flours")) {
    product_list.setEnabled(true);
    product_list.removeAllItems();
    for (int i = 0; i < g.length; i++) {
        product_list.addItem(g[i]);
    }
}
}

//product_list.setForeground(Color.white);//new Color(230,230,250));
product_list.setBackground(new Color(211,230,216));
product_list.setForeground(new Color(0,0,0));
}

```

```

public void actionPerformed(ActionEvent e)
{

    if(e.getSource()==add_product)
    {
        thanks.setText("");
        if(quantity_list.getText().isEmpty())
        {
            JOptionPane.showMessageDialog(null,"Please Select The Quantity");
        }
        else {
            float total_for_product=0;
            float total_cost = 0;
            try
            {

```

```

int unit_price = Integer.parseInt(product_and_price.get(product_list.getSelectedItemId()));

float product_quantity = Float.parseFloat((String)quantity_list.getText());
if(product_quantity<=0)
{
    throw new NumberFormatException();
}

total_for_product = unit_price*product_quantity;

product_price_bill.addElement(Float.toString(total_for_product));
product_name_bill.addElement((String) product_list.getSelectedItemId());

product_quantity_bill.addElement((String)quantity_list.getText());
}
catch(Exception ae)
{
    JOptionPane.showMessageDialog(null,"Please Select The valid Quantity");
}

for(int i=0;i<product_price_bill.getSize();i++)
{
    total_cost += Float.parseFloat(product_price_bill.elementAt(i));
}

total_amount.setText(Float.toString(total_cost));
}
}
else if(e.getSource()==product_list)
{
    price_per_unit_label.setText(product_and_price.get(product_list.getSelectedItemId()));
}
if(e.getSource()==buy_now)
{
    thanks.setText("          THANK YOU...VISIT AGAIN!");
}

}

public static void main(String[] args)
{
    new retail();
}
}

```

Sample outputs:

The screenshot shows a window titled "(-:A to Z RETAIL STORE:-)". It features three input fields at the top: "Category list" with a dropdown menu showing "Select cate...", "Product Name" with a dropdown menu, and "Unit Quantity" with a text input field. Below these is a "Unit Price" label and an "Add to Cart" button with a shopping cart icon. At the bottom, there is a table with three columns: "Item", "Unit Quantity", and "Cost in Rupees". The table body is currently empty. Below the table, there is a label "Total Amount : Rupees" and a "BUY NOW" button.

a) User Interface

The screenshot shows the same window as the previous one, but with the "Category list" dropdown set to "Dalls". The "Product Name" dropdown now shows a list of products: "select Dalls", "Redgram", "Blackgram", and "Moong". The "Unit Quantity" input field is still empty. The "Add to Cart" button is still present. The table at the bottom now has three columns: "Item", "Unit Quantity", and "Cost in Rupees". The table body is currently empty. Below the table, there is a label "Total Amount : Rupees" and a "BUY NOW" button.

b) showing product list after selecting category

(-:A to Z RETAIL STORE:-)

Category list: **HomeCare** Product Name: **Detergent** Unit Quantity:

Unit Price: 100 **Add to Cart**

Item	Unit Quantity	Cost in Rupees
Basmati Rice	4	368.0

Message: Please Select The Quantity **OK**

Total Amount : Rupees 368.0 **BUY NOW**

(-:A to Z RETAIL STORE:-)

Category list: **Snacks** Product Name: **kitkat** Unit Quantity: **abc**

Unit Price: 79 **Add to Cart**

Item	Unit Quantity	Cost in Rupees
Basmati Rice	4	368.0

Message: Please Select The valid Quantity **OK**

Total Amount : Rupees 368.0 **BUY NOW**

c) Dialog Box of select quantity gets Displayed when the quantity is not entered

d) Dialog Box of enter valid quantity is displayed when invalid quantity is Entered

(-:A to Z RETAIL STORE:-)

Category list: **Rice and Fl...** Product Name: **Basmati Rice** Unit Quantity: **4**

Unit Price: **92** **Add to Cart**

Item	Unit Quantity	Cost in Rupees
Basmati Rice	4	368.0

Total Amount : Rupees 368.0

BUY NOW

(-:A to Z RETAIL STORE:-)

Category list: **Rice and Fl...** Product Name: **Maida** Unit Quantity: **5.5**

Unit Price: **40** **Add to Cart**

Item	Unit Quantity	Cost in Rupees
Maida	5.5	220.0

Total Amount : Rupees 220.0

BUY NOW

e) Product added to cart for all valid entries

f) When floating point quantity is entered

(-:A to Z RETAIL STORE:-)

Category list

Beverages
▼

Product Name

Coffee pac...
▼

Unit Quantity

2

Unit Price
150

Add to Cart

Item	Unit Quantity	Cost in Rupees
Basmati Rice	4	368.0
Dishwash	3	570.0
kova	1	140.0
Coffee packet	2	300.0

Total Amount : Rupees 1378.0

BUY NOW

THANK YOU...VISIT AGAIN!

Final Output