University of Moratuwa Faculty of Engineering Department of Electronic & Telecommunication Engineering



CS2833 - Modular Software Development

Group Project

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Abstract

KeyBay is a model prototype of an Online Market place designed to connect buyers and sellers, providing a platform for easy and secure transactions. We have included options for browsing products, shopping cart, ratings and review systems and options for sellers who are willing to sell their products. With a user friendly interface our KeyBay aims to provide a seamless and efficient e-commerce experience for users.

1 Introduction

We were asked to come up with a solution for problem related for a need of an online marketplace where users can sell and buy their assets. Publicise their advertisements for buyers who are seeking for such similar products. We also need to include features for searching and browsing objects within the system and rate sellers and buyers. Therefore we were came up with a solution KeyBay, and we developed a software prototype including several Graphical User Interfaces and features which replicate a real online marketing system.

2 System Requirement Specification

- Users should be able to create an account login into that account and able to manage their account.
- Sellers should be able to create listings for the products they willing to sell which includes information like title, description, category and price.
- Users should be able to search thorough the available products. And products should be categorized into many fields where users can navigate easily.
- Users should be able to add items to a shopping cart and proceed to checkout to complete their shopping.
- sellers should be able to post their advertisement easily with necessary information.
- Sellers and Buyers should access a rating system where they can rate the products and vendors.

3 Implementation

As I said earlier we were developing a software prototype. Therefore we were mainly focused on the functionalities and necessary features that should be included for our system. Therefore we delegated the work among ourselves to create each features individually and combining them in the last. Each one were supposed to develop features like Login page, Sellers Page, Buyers Page, Shopping cart and a Home page. And according to that we were able to develop the functional parts easily and integrate it in the last run. The whole codes were developed using **Java** and we used **Java swing** for developing the GUI for our prototype.

Each functional block had its unique feature like logic page allows you to login in to the system. And in the Home page you can choose whether are you going to buy some assets or sell some assets. According to that it will direct to the necessary page and there you will be able to buy or sell your desired property. There will be a product description page before adding the product to the shopping cart where you can see the details of a particular product. And also in the sellers page there will be classifications according to the products like electronics products, house hold appliances and others. And for the selling, you can browse over the products, add that to your shopping cart and proceed to the payment. And finally you will be able to rate ther user serivice too.

4 Requirement Analysis

In order to prioritise features effectively, increase efficiency, acquire a competitive advantage, plan for expansion, and improve customer pleasure, KeyBay must conduct a Requirement analysis.

4.1 Functional Requirements

- User should be able to create and login to an account securely along with a suitable authentication method.
- Sellers should be able to create detailed listings with brief product descriptions.
- Users should be able to search for the products using suitable keywords.
- Users should be able to add items to a shopping cart and proceed to checkout for payment.
- Users should be able to leave ratings and reviews for sellers and products.

4.2 Non-Functional Requirements

- Should have fast response times with minimal latency
- Should be designed to handle increasing user traffic
- Should have an intuitive user interface, making it easy for users to navigate and search for products.

4.3 Domain Requirements

- Should have a well organized product categorization scheme to facilitate easy browsing for users.
- Should integrate with various secure payment gateways.
- Should adhere to relevant legal and regulatory requirements like data protection and e-commerce laws.

In addition to the listed requirements, it is important to acknowledge that the design iteration process will further uncover and refine additional functional requirements for KeyBay. This iterative approach allows for continuous exploration and validation of user needs, ensuring that the final design effectively addresses all aspects of the online marketplace. During the design iteration process, techniques such as user research, user interviews, and usability testing can be employed to gather feedback and insights from potential users. This feedback can then be incorporated into the design, leading to the discovery of new functional requirements that may enhance the overall user experience, improve system functionality, or cater to specific user demands. By embracing an iterative approach to design, KeyBay can evolve and adapt to user needs, resulting in a more robust and user-friendly platform.

The facts and specifications listed above act as the main elements that must be carefully taken into account and implemented into the specification and design of our software prototype for KeyBay. These elements serve as the cornerstone for building an effective and user-focused online marketplace. In order to model the structure and behaviour of the system, use case diagrams, class diagrams, and sequence diagrams will be created as part of the design phase going forward. The design process will also include the building of graphical user interfaces (GUIs) that are user-friendly and visually appealing in order to improve the overall user experience. We can make sure that our software prototype complies with the specified requirements and satisfactorily addresses the demands of our users by carefully addressing these elements during the design phase.

5 High-level design/ Use Case Diagram

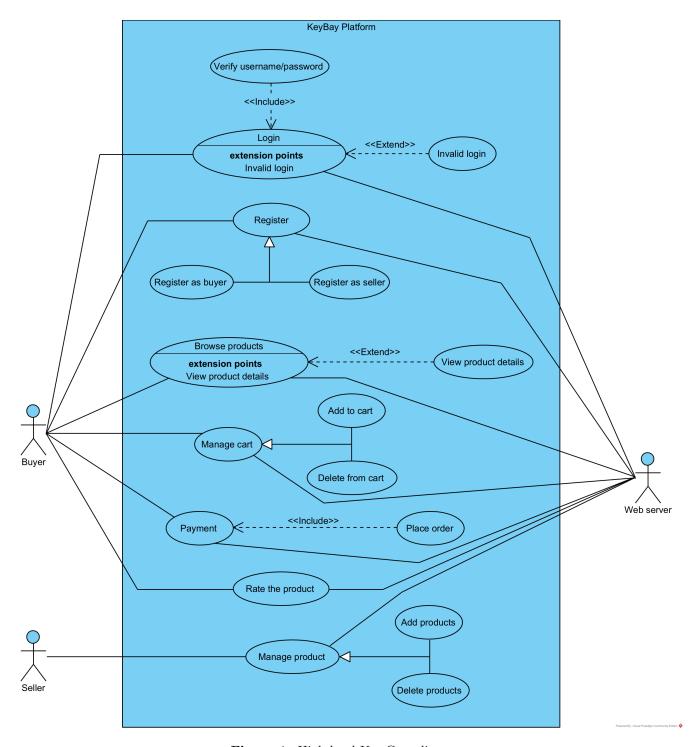


Figure 1: High level-Use Case diagram

6 High-level design/ Class Diagram

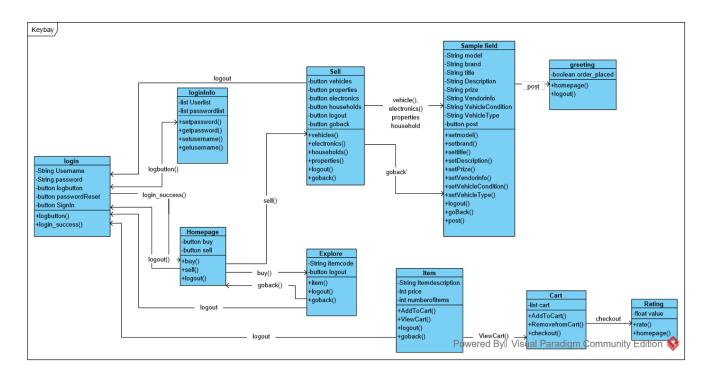


Figure 2: High level-Class diagram

7 Key User Interfaces (Design)

We have followed the design flow, and implemented the following GUIs to complete the given task.

7.1 Login page

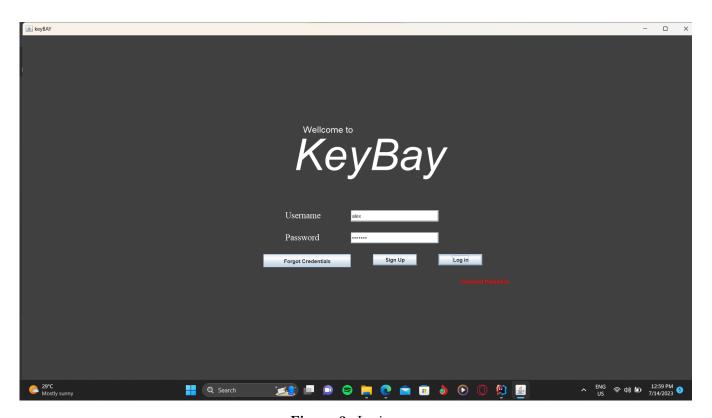


Figure 3: Login page

After inputting a username password combination from the Arraylist, it will go to the homepage. And in most of the upcoming pages will have a "logout" button will bring back to this page.

7.2 Homepage

This page will diverge sellers and buyers into separate pages. By clicking the relevant box.

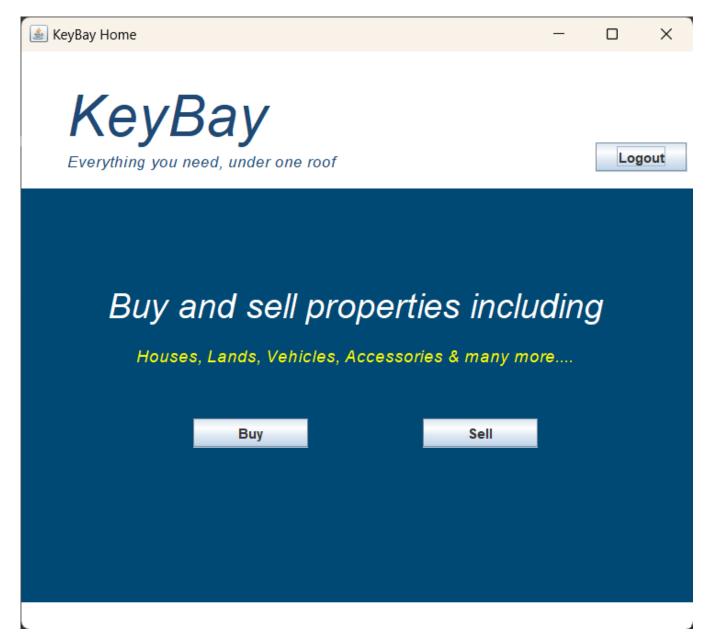


Figure 4: Home page

7.3 Sellpage

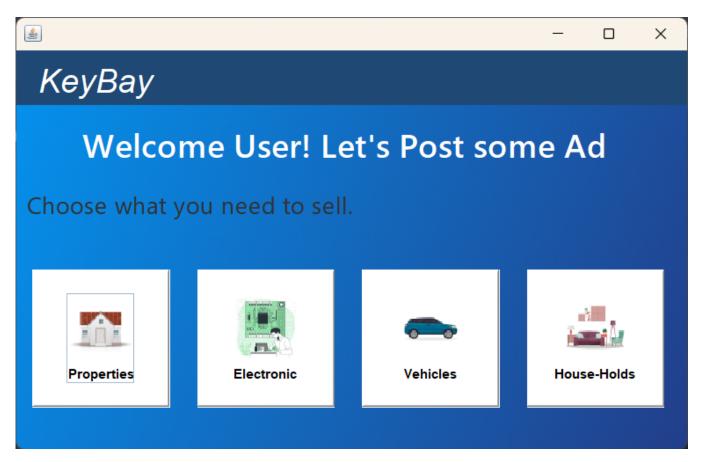


Figure 5: Sell page

Here you can choose the type of item you want to select. by clicking the relevant box sellers will go to a custom form, where sellers can input their details about the item.

7.4 Sample form - sell category

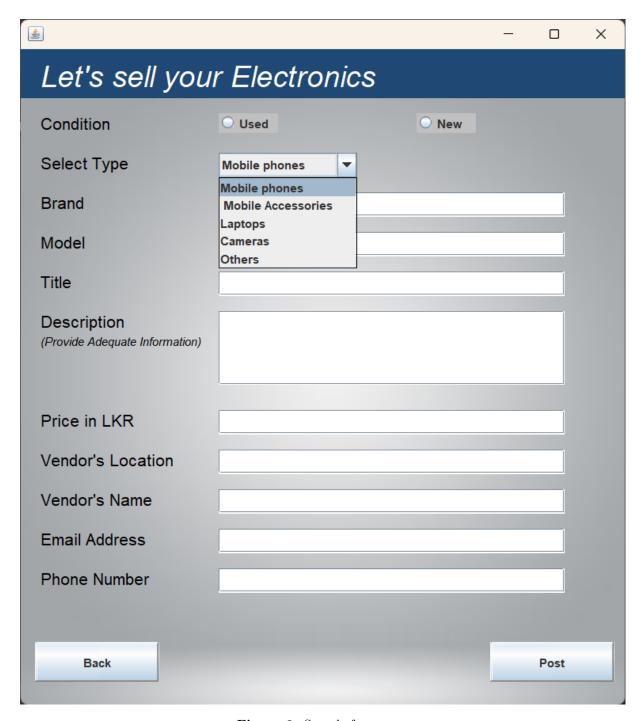


Figure 6: Sample form page

7.5 Sample verification - advertisement posted

This is the page after filling out above information and posting it.

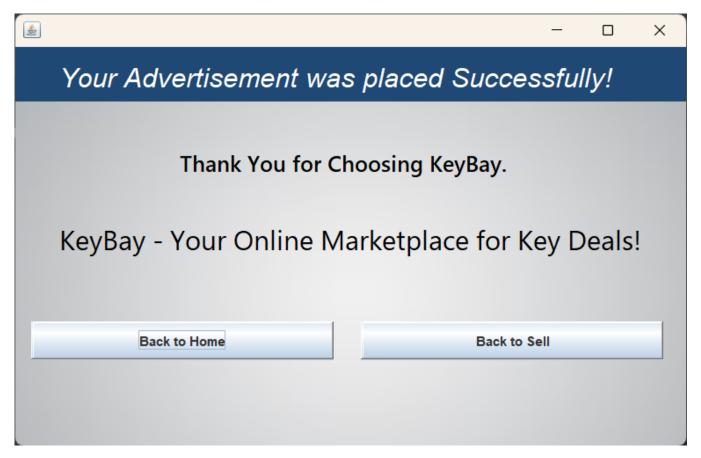


Figure 7: Sample form page

7.6 Explore

This contain various items from which buyers can choose from.

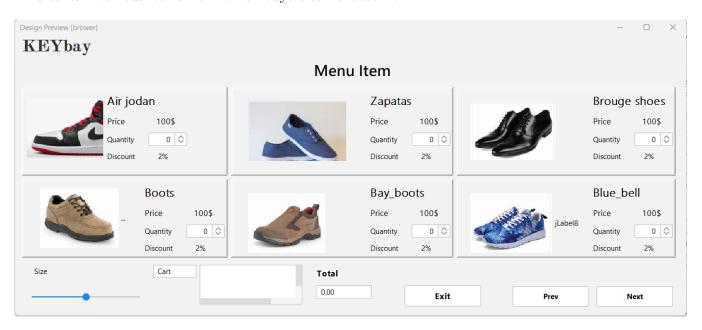


Figure 8: Explore page

7.7 Itempage

After selecting the needed item from the explore page you will come here. Now also buyers cab add their items to the cart.

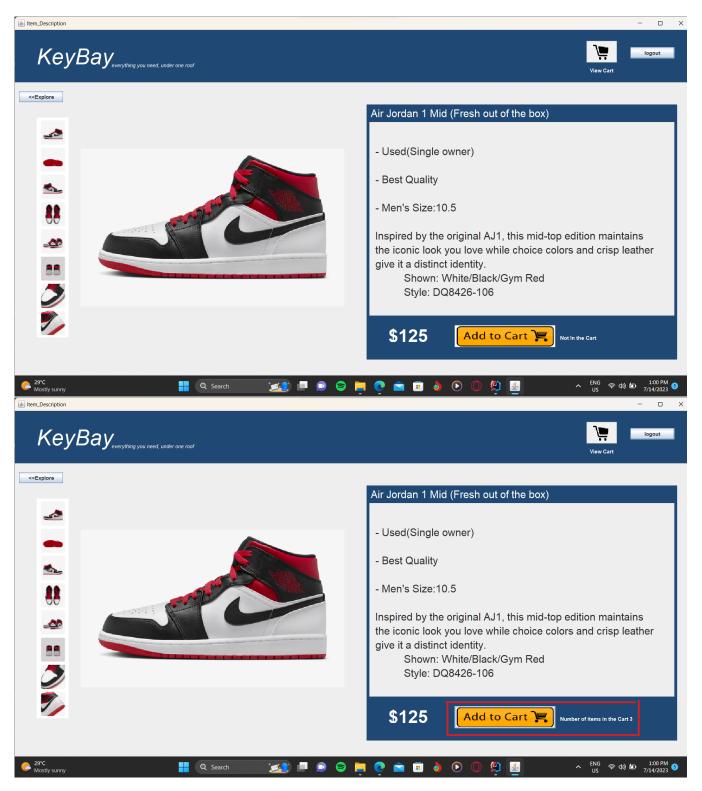


Figure 9: Sample-item page

You can use "view cart" button to view the cart, checkout and "explore" button to go back.

Appendix I: Code

Main - Class

```
public class Main {
  public static void main(String[] args) {
     //Gui for the description page
     new login();
  }
}
```

Login class

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.util.ArrayList;
public class login implements ActionListener {
    //to store userames and passwords
    private ArrayList users = new ArrayList(100);
    private ArrayList pass = new ArrayList(100);
    //for gui
    private JFrame frame;
    private JPanel panel;
    private JLabel label1;
    private JTextField userText1;
    private JLabel label2;
    private JLabel wellcome;
    private JLabel Title;
    private JPasswordField userText2;
    private JButton signup;
    private JButton button;
    private JButton forgot;
    private JLabel success;
    private JLabel busy;
    private JLabel forgotpass;
    public boolean log = false;
    public login(){
        //adding sample of login credentials
        users.add("alex");
        pass.add("123");
        panel = new JPanel();
        panel.setLayout(null);
        //setting up title
        wellcome = new JLabel("Wellcome to");
        wellcome.setForeground(Color.WHITE);
        wellcome.setFont(new Font(null, Font.PLAIN, 20));
        wellcome.setBounds(640,200,600,30);
        panel.add(wellcome);
        Title = new JLabel("KeyBay");
        Title.setBounds(620,210,600,120);
        Title.setFont(new Font(null, Font.ITALIC, 100));
        Title.setForeground(Color.WHITE);
        panel.add(Title);
        //setting up username
        label1 = new JLabel("Username");
        label1.setFont(new Font("Times New Roman", Font.PLAIN, 20));
        label1.setBounds(600,400,800,25);
        label1.setForeground(Color.WHITE);
```

```
panel.add(label1);
    userText1= new JTextField(20);
    userText1.setBounds(750,400,200,25);
    panel.add(userText1);
    //setting up password
    label2 = new JLabel("Password");
    label2.setFont(new Font("Times New Roman", Font.PLAIN, 20));
    label2.setForeground(Color.WHITE);
   label2.setBounds(600,450,800,25);
   panel.add(label2);
    userText2= new JPasswordField(20);
    userText2.setBounds(750,450,200,25);
   panel.add(userText2);
    //setting up bottons to login
    //button 1
    signup = new JButton("Sign Up");
    signup.setBounds(800,500,100,25);
   panel.add(signup);
    signup.addActionListener(this);
    //button2
    button = new JButton("Log in");
    button.setBounds (950,500,100,25);
    panel.add(button);
    button.addActionListener(this);
    //button3
    forgot = new JButton("Forgot Credentials");
    forgot.setBounds(550,500,200,30);
    panel.add(forgot);
    forgot.addActionListener(this);
    //messages to display after clicking the buttons
    success = new JLabel();
    success.setBounds(1000,550,200,25);
   panel.add(success);
    busy = new JLabel();
    busy.setBounds(800,550,200,25);
    busy.setForeground(Color.RED);
   panel.add(busy);
    forgotpass = new JLabel();
    forgotpass.setBounds(600,550,200,25);
    forgotpass.setForeground(Color.RED);
    panel.add(forgotpass);
   panel.setBackground(Color.darkGray);
    frame = new JFrame("Keybay");
    frame.setTitle("keyBAY");
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setSize(1920,1080);
    frame.setVisible(true);
    frame.add(panel,BorderLayout.CENTER);
@Override
public void actionPerformed(ActionEvent e) {
    if (e.getSource() == button)
        {
            String user = userText1.getText();
            String password = userText2.getText();
            if (users.contains(user)){
                if (pass.contains(password)) {
                    success.setText("login Successful");
                    success.setForeground(Color.GREEN);
                    frame.setVisible(false);
                    new item(); // nextpage
```

```
} else {
                success.setText("Incorrect Password");
                success.setForeground(Color.RED);
            }
        } else {
            success.setText("Incorrect Username or Password");
            success.setForeground(Color.RED);
        busy.setVisible(false);
        forgotpass.setVisible(false);
        success.setVisible(true);
else if (e.getSource() == signup)
        busy.setText("Server Busy. Try again later");
        success.setVisible(false);
        forgotpass.setVisible(false);
        busy.setVisible(true);
else if (e.getSource() == forgot)
    {
        forgotpass.setText("Try Harder");
        busy.setVisible(false);
        success.setVisible(false);
        forgotpass.setVisible(true);
    }
}
```

Homepage

```
import javax.swing.*;
import java.awt.*;
public class Home extends JFrame {
   //Gui for the home page
   private JFrame frame;
   private JPanel panel;
   private JPanel titlebar;
   private JLabel Title;
   private JLabel Title2;
   private JLabel description1;
   private JButton logout;
   private JButton buy;
   private JButton sell;
   private JLabel description2;
   private JButton helpSupport;
   public Home(){
       //creating the frame
        frame = new JFrame(" KeyBay Home");
       //creating the panel
        panel = new JPanel();
       panel.setLayout(null);
       titlebar = new JPanel();
       titlebar.setLayout(null);
        titlebar.setBounds(0, 0, 600, 120);
        titlebar.setBackground(Color.WHITE);
        frame.add(titlebar);
        //title
       Title = new JLabel("KeyBay");
       Title.setBounds(40,5,250,100);
       Title.setFont(new Font(null, Font.ITALIC, 50));
       Title.setForeground(new Color(31,73,116));
```

```
titlebar.add(Title):
    Title2 = new JLabel("Everything you need, under one roof");
    Title2.setBounds(40,45,500,100);
    Title2.setFont(new Font(null, Font.ITALIC, 14));
    Title2.setForeground(new Color(31,73,116));
    titlebar.add(Title2);
    // Add logout button
    logout = new JButton("Logout");
    logout.setBounds(500,80,80,25);
    titlebar.add(logout);
    //creating a panel
    JPanel panel2 = new JPanel();
    panel2.setBounds(0,120,600,360);
    panel2.setLayout(null);
    panel2.setBackground(new Color(0,73,116));
   panel.add(panel2);
    //creating a panel
    JPanel panel3 = new JPanel();
    panel3.setBounds(0,480,600,40);
    panel3.setLayout(null);
    panel3.setBackground(Color.WHITE);
   panel.add(panel3);
    // Add description to a panel
    description1 = new JLabel("Buy and sell properties including");
    description1.setBounds(40,50,500,100);
    description1.setHorizontalAlignment(SwingConstants.CENTER);
    description1.setFont(new Font(null, Font.ITALIC, 30));
    description1.setForeground(Color.WHITE);
    panel2.add(description1);
   description2 = new JLabel("Houses, Lands, Vehicles, Accessories & many more....")
    description2.setBounds(40,120,500,50);
    description2.setHorizontalAlignment(SwingConstants.CENTER);
    description2.setFont(new Font(null, Font.ITALIC, 15));
    description2.setForeground(Color.YELLOW);
    panel2.add(description2);
    // Buy button
    buy = new JButton("Buy");
    buy.setPreferredSize(new Dimension(100,25));
    buy.setBounds(150,200,100,25);
    panel2.add(buy);
    // Sell button
    sell = new JButton("Sell");
    sell.setPreferredSize(new Dimension(100,25));
    sell.setBounds(350,200,100,25);
   panel2.add(sell);
    //adding the panel to the frame
   frame.add(panel, BorderLayout.CENTER);
   frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
   frame.setTitle("KeyBay Home");
   frame.pack();
   frame.setSize(600,540);
   frame.setVisible(true);
}
```

Sellpage

```
import javax.swing.*;
```

```
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.geom.Point2D;
public class SellPage extends JFrame implements ActionListener {
    JButton propertiesButton = new JButton("Properties");
   JButton electronicButton = new JButton("Electronic");
   JButton vehiclesButton = new JButton("Vehicles");
   JButton houseHoldButton = new JButton("House-Holds");
   JLabel welcomeLabel = new JLabel("Welcome User! Let's Post some Ad");
   JLabel chooseLabel = new JLabel("Choose what you need to sell.");
   JPanel keyBayHead = new JPanel();
   JLabel keyBayTitle = new JLabel("KeyBay");
   ImageIcon gradient = new ImageIcon("Dribbble _ Shot HD.jpg");
   JLabel backGround = new JLabel(gradient);
   int iconWidth = 60;
   int iconHeight= 60;
   ImageIcon propertyIcon = new ImageIcon("41870.jpg");
   ImageIcon electronicIcon = new ImageIcon("4968074.jpg");
    ImageIcon vehicleIcon = new ImageIcon("205.jpg");
    ImageIcon houseHoldIcon = new ImageIcon("Living_room_001.jpg");
   Image resizedPropertyImage = propertyIcon.getImage().getScaledInstance(
    iconWidth,iconHeight,Image.SCALE_SMOOTH);
   Image resizedElectronicImage = electronicIcon.getImage().getScaledInstance(
   iconWidth,iconHeight,Image.SCALE_SMOOTH);
   Image resizedVehicleImage = vehicleIcon.getImage().getScaledInstance(
   iconWidth,iconHeight,Image.SCALE_SMOOTH);
   Image resizedHouseHoldImage = houseHoldIcon.getImage().getScaledInstance(
   iconWidth,iconHeight,Image.SCALE_SMOOTH);
   ImageIcon resizedPropertyIcon = new ImageIcon(resizedPropertyImage);
   ImageIcon resizedElectronicIcon = new ImageIcon(resizedElectronicImage);
   ImageIcon resizedVehicleIcon = new ImageIcon(resizedVehicleImage);
   ImageIcon resizedHouseHoldIcon = new ImageIcon(resizedHouseHoldImage);
   public SellPage(){
        this.setLayout(null);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        this.setSize(625,400);
        this.setVisible(true);
        propertiesButton.setBounds(15,200,125,125);
        electronicButton.setBounds(165,200,125,125);
        vehiclesButton.setBounds(315,200,125,125);
       houseHoldButton.setBounds(465,200,125,125);
       this.add(propertiesButton);
       this.add(electronicButton);
       this.add(vehiclesButton);
       this.add(houseHoldButton);
       propertiesButton.addActionListener(this);
        electronicButton.addActionListener(this);
        vehiclesButton.addActionListener(this);
       houseHoldButton.addActionListener(this);
        propertiesButton.setIcon(resizedPropertyIcon);
        electronicButton.setIcon(resizedElectronicIcon);
        vehiclesButton.setIcon(resizedVehicleIcon);
       houseHoldButton.setIcon(resizedHouseHoldIcon);
       propertiesButton.setHorizontalTextPosition(propertiesButton.CENTER);
```

```
propertiesButton.setVerticalTextPosition(propertiesButton.BOTTOM);
    electronicButton.setHorizontalTextPosition(electronicButton.CENTER);
    electronicButton.setVerticalTextPosition(electronicButton.BOTTOM);
    vehiclesButton.setHorizontalTextPosition(vehiclesButton.CENTER);
    vehiclesButton.setVerticalTextPosition(vehiclesButton.BOTTOM);
    houseHoldButton.setHorizontalTextPosition(houseHoldButton.CENTER);
    \verb|houseHoldButton.setVerticalTextPosition(houseHoldButton.BOTTOM)|;\\
    propertiesButton.setForeground(Color.BLACK);
    propertiesButton.setBackground(Color.WHITE);
    propertiesButton.setBorder(BorderFactory.createBevelBorder(0));
    electronicButton.setForeground(Color.BLACK);
    electronicButton.setBackground(Color.WHITE);
    electronicButton.setBorder(BorderFactory.createBevelBorder(0));
    vehiclesButton.setForeground(Color.BLACK);
    vehiclesButton.setBackground(Color.WHITE);
    vehiclesButton.setBorder(BorderFactory.createBevelBorder(0));
    houseHoldButton.setForeground(Color.BLACK);
    houseHoldButton.setBackground(Color.WHITE);
    houseHoldButton.setBorder(BorderFactory.createBevelBorder(0));
    welcomeLabel.setBounds(60,60,600,50);
    welcomeLabel.setFont(new Font("Segoe UI Semibold", Font.PLAIN, 30));
    welcomeLabel.setForeground(Color.WHITE);
    this.add(welcomeLabel);
    chooseLabel.setBounds(10,125,600,30);
    chooseLabel.setFont(new Font("Segoe UI", Font.PLAIN, 22));
    this.add(chooseLabel);
    keyBayTitle.setBounds(20,2,600,50);
    keyBayTitle.setFont(new Font(null, Font.ITALIC, 30));
    keyBayTitle.setForeground(Color.WHITE);
    this.add(keyBayTitle);
    keyBayHead.setBackground(new Color(31, 73, 116));
    keyBayHead.setBounds(0,0,625,50);
    keyBayHead.setPreferredSize(new Dimension(625,50));
    this.add(keyBayHead);
    backGround.setBounds(0,0,625,500);
    backGround.setPreferredSize(new Dimension(625,500));
    this.add(backGround);
}
@Override
public void actionPerformed(ActionEvent e) {
    if (e.getSource() == propertiesButton){
        this.dispose();
        PropertiesPage property = new PropertiesPage();
        System.out.println("Properties Button Pressed!!");
    } if (e.getSource() == electronicButton){
        this.dispose();
        ElectronicPage electronic = new ElectronicPage();
        System.out.println("Electronic Product Button Pressed!!");
    } if (e.getSource() == vehiclesButton){
        this.dispose();
        VehiclePage vehicle = new VehiclePage();
        System.out.println("Vehicles Button Pressed!!");
    } if (e.getSource() == houseHoldButton){
        this.dispose();
        HouseHoldPage houseHold = new HouseHoldPage();
        System.out.println("House-hold Button Pressed!!");
```

```
}
}
}
```

Sample form - sell category

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.util.concurrent.locks.Condition;
public class VehiclePage extends JFrame implements ActionListener {
    JButton backButton = new JButton("Back");
    JButton postButton = new JButton("Post");
    JPanel infoHead = new JPanel();
    JLabel infoTitle = new JLabel("Let's sell your Vehicles");
    ImageIcon greyGradient = new ImageIcon("greybg.jpg");
   Image resizedGradientImage = greyGradient.getImage().getScaledInstance(625,700,
   Image.SCALE_SMOOTH);
   ImageIcon resizedGreyGradientIcon = new ImageIcon(resizedGradientImage);
   JLabel backGround = new JLabel(resizedGreyGradientIcon);
   JLabel condition = new JLabel("Condition");
   JRadioButton used = new JRadioButton("Used");
   JRadioButton newed = new JRadioButton("New");
   JLabel typeTitle = new JLabel("Select Type");
   String[] type = {"Car", "Motor Bike", "Pickup", "Cycle", "Others"};
   JComboBox selectType = new JComboBox(type);
   JLabel brand = new JLabel("Brand");
    JLabel model = new JLabel("Model");
    JLabel title = new JLabel("Title");
    JLabel description = new JLabel("Description");
    JLabel descriptionInfo = new JLabel("(Provide Adequate Information)");
    JLabel price = new JLabel("Price in LKR");
    JLabel location = new JLabel("Vendor's Location");
    JLabel details = new JLabel("Contact Details");
    JLabel name = new JLabel("Vendor's Name");
    JLabel mail = new JLabel("Email Address");
    JLabel number = new JLabel("Phone Number");
   JTextField brandField = new JTextField();
   JTextField modelField = new JTextField();
   JTextField titleField = new JTextField();
   JTextField descriptionField = new JTextField();
   JTextField priceField = new JTextField();
    JTextField locationField = new JTextField();
    JTextField nameField = new JTextField();
    JTextField mailField = new JTextField();
   JTextField numberField = new JTextField();
   public VehiclePage() {
       this.setLayout(null);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        this.setSize(625,700);
        this.setVisible(true);
        backButton.setBounds(15,600,125,40);
        this.add(backButton);
        backButton.addActionListener(this);
        backButton.setBorder(BorderFactory.createBevelBorder(0));
        postButton.setBounds(475,600,125,40);
```

```
this.add(postButton);
postButton.addActionListener(this);
postButton.setBorder(BorderFactory.createBevelBorder(0));
infoTitle.setBounds(20,2,600,50);
infoTitle.setFont(new Font(null, Font.ITALIC, 30));
infoTitle.setForeground(Color.WHITE);
this.add(infoTitle);
infoHead.setBackground(new Color(31, 73, 116));
infoHead.setBounds(0,0,625,50);
infoHead.setPreferredSize(new Dimension(625,50));
this.add(infoHead);
condition.setBounds(20,50,100,50);
condition.setFont(new Font(null, Font.PLAIN, 17));
condition.setForeground(Color.BLACK);
this.add(condition);
used.setBounds(200,65,60,20);
used.setBackground(Color.LIGHT_GRAY);
this.add(used);
newed.setBounds(400,65,60,20);
newed.setBackground(Color.LIGHT_GRAY);
this.add(newed);
typeTitle.setBounds(20,90,100,50);
typeTitle.setFont(new Font(null, Font.PLAIN, 17));
typeTitle.setForeground(Color.BLACK);
this.add(typeTitle);
selectType.setBounds(200,105,140,25);
this.add(selectType);
brand.setBounds(20,130,100,50);
brand.setFont(new Font(null, Font.PLAIN, 17));
brand.setForeground(Color.BLACK);
this.add(brand);
model.setBounds(20,170,100,50);
model.setFont(new Font(null, Font.PLAIN, 17));
model.setForeground(Color.BLACK);
this.add(model);
title.setBounds(20,210,100,50);
title.setFont(new Font(null, Font.PLAIN, 17));
title.setForeground(Color.BLACK);
this.add(title);
description.setBounds(20,250,100,50);
description.setFont(new Font(null, Font.PLAIN, 17));
description.setForeground(Color.BLACK);
this.add(description);
descriptionInfo.setBounds(20,270,200,50);
descriptionInfo.setFont(new Font(null, Font.ITALIC, 12));
descriptionInfo.setForeground(Color.BLACK);
this.add(descriptionInfo);
price.setBounds(20,350,100,50);
price.setFont(new Font(null, Font.PLAIN, 17));
price.setForeground(Color.BLACK);
this.add(price);
location.setBounds(20,390,300,50);
location.setFont(new Font(null, Font.PLAIN, 17));
location.setForeground(Color.BLACK);
```

```
this.add(location);
        name.setBounds(20,430,300,50);
        name.setFont(new Font(null, Font.PLAIN, 17));
        name.setForeground(Color.BLACK);
        this.add(name);
        mail.setBounds(20,470,300,50);
        mail.setFont(new Font(null, Font.PLAIN, 17));
        mail.setForeground(Color.BLACK);
        this.add(mail);
        number.setBounds(20,510,300,50);
        number.setFont(new Font(null, Font.PLAIN, 17));
        number.setForeground(Color.BLACK);
        this.add(number);
        brandField.setBounds(200,145,350,25);
        this.add(brandField);
        modelField.setBounds(200,185,350,25);
        this.add(modelField);
        titleField.setBounds(200,225,350,25);
        this.add(titleField);
        descriptionField.setBounds(200,265,350,75);
        this.add(descriptionField);
        priceField.setBounds(200,365,350,25);
        this.add(priceField);
        locationField.setBounds(200,405,350,25);
        this.add(locationField);
        nameField.setBounds(200,445,350,25);
        this.add(nameField);
        mailField.setBounds(200,485,350,25);
        this.add(mailField);
        numberField.setBounds(200,525,350,25);
        this.add(numberField);
        backGround.setBounds(0,0,625,700);
        backGround.setPreferredSize(new Dimension(625,700));
        this.add(backGround);
    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == backButton){
            this.dispose();
            SellPage property = new SellPage();
            System.out.println("Back Button Pressed!!");
        } else if (e.getSource() == postButton){
            this.dispose();
            AddPostedVehicles property = new AddPostedVehicles();
            System.out.println("Post Button Pressed!!");
        }
    }
}
```

Sample verification - advertisement posted

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
```

```
public class AddPostedVehicles extends JFrame implements ActionListener {
    JButton backButton = new JButton("Back to Home");
    JButton backButtonSell = new JButton("Back to Sell");
    JPanel infoHead = new JPanel();
    JLabel okTitle = new JLabel("Your Advertisement was placed Successfully!");
    JLabel thankTitle = new JLabel("Thank You for Choosing KeyBay.");
   JLabel keyTitle = new JLabel("KeyBay - Your Online Marketplace for Key Deals!");
   ImageIcon greyGradient = new ImageIcon("greybg.jpg");
   JLabel backGround = new JLabel(greyGradient);
   public AddPostedVehicles() {
        this.setLayout(null);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
       this.setSize(625,400);
       this.setVisible(true);
        backButton.setBounds(15,250,275,35);
        this.add(backButton);
        backButton.addActionListener(this);
        backButtonSell.setBounds(315,250,275,35);
        this.add(backButtonSell);
        backButtonSell.addActionListener(this);
        backButton.setBorder(BorderFactory.createBevelBorder(0));
        backButtonSell.setBorder(BorderFactory.createBevelBorder(0));
        okTitle.setBounds(40,2,600,50);
        okTitle.setFont(new Font(null, Font.ITALIC, 25));
        okTitle.setForeground(Color.WHITE);
        this.add(okTitle);
        thankTitle.setBounds(150,80,600,50);
        thankTitle.setFont(new Font("Segoe UI Semibold",Font.PLAIN,20));
        thankTitle.setForeground(Color.BLACK);
        this.add(thankTitle);
       keyTitle.setBounds(40,150,600,50);
       keyTitle.setFont(new Font("Segoe UI",Font.PLAIN,25));
        keyTitle.setForeground(Color.BLACK);
        this.add(keyTitle);
        infoHead.setBackground(new Color(31, 73, 116));
        infoHead.setBounds(0,0,625,50);
        infoHead.setPreferredSize(new Dimension(625,50));
        this.add(infoHead);
        backGround.setBounds(0,0,625,500);
        backGround.setPreferredSize(new Dimension(625,500));
        this.add(backGround);
    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == backButton){
            this.dispose();
            SellPage property = new SellPage();
            System.out.println("Back Button Pressed!!");
        } else if (e.getSource() == backButtonSell){
            this.dispose();
            VehiclePage property = new VehiclePage();
            System.out.println("Back Button Pressed!!");
```

}

Itempage

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.util.ArrayList;
public class item implements ActionListener {
    //Gui for the description page
    private int count;
    private JFrame frame;
    private JPanel panel;
    private JPanel titlebar;
    private JButton button;
    private JLabel label;
    private JLabel Title;
    private JLabel Title2;
    private ImageIcon image1;
    private ImageIcon image2;
    private JButton logout;
    private JButton cart;
    private JButton explore;
    public ArrayList cartlist;
    public item(){
        //creating the frame
        frame = new JFrame(" Item Description");
        //creating the panel
        panel = new JPanel();
        panel.setLayout(null);
        titlebar = new JPanel();
        titlebar.setLayout(null);
        titlebar.setBounds(0, 0, 1920, 120);
        titlebar.setBackground(new Color(31,73,116));
        frame.add(titlebar);
        //title
        Title = new JLabel("KeyBay");
        Title.setBounds(50,10,300,100);
        Title.setFont(new Font(null, Font.ITALIC, 50));
        Title.setForeground(Color.WHITE);
        titlebar.add(Title);
        Title2 = new JLabel("everything you need, under one roof");
        Title2.setBounds(220,30,500,100);
        Title2.setFont(new Font(null, Font.ITALIC, 12));
        Title2.setForeground(Color.WHITE);
        titlebar.add(Title2);
        logout = new JButton("logout");
        logout.setBounds(1400,40,100,25);
        titlebar.add(logout);
        logout.addActionListener(this);
        image2 = new ImageIcon("download.png");
        Image scaled2 = image2.getImage().getScaledInstance(70,50,Image.
        SCALE_DEFAULT);
        ImageIcon scaledcart2 = new ImageIcon(scaled2);
        cart = new JButton(scaledcart2);
        cart.setBounds(1300,25,70,50);
        titlebar.add(cart);
        cart.addActionListener(this);
        JLabel label2 = new JLabel("View Cart");
        label2.setBounds(1308,80,100,25);
        label2.setForeground(Color.WHITE);
```

```
titlebar.add(label2);
//Creating Button Add to cart
image1 = new ImageIcon("1.png");
Image scaled = image1.getImage().getScaledInstance(230,50,Image.
SCALE_SMOOTH);
ImageIcon scaledcart = new ImageIcon(scaled);
button = new JButton(scaledcart);
button.setPreferredSize(new Dimension(230,50));
button.setBounds(200,22,230,50);
button.addActionListener(this);
label = new JLabel("Not In the Cart");//Sets the image to be
displayed as an icon
label.setForeground(Color.WHITE);
label.setBounds(440, 30, 300, 40);
ImageIcon image3 = new ImageIcon("2.png");
Image scaled3 = image3.getImage().getScaledInstance(600,358,
Image.SCALE_SMOOTH);
ImageIcon sc3 = new ImageIcon(scaled3);
JLabel label3 = new JLabel(sc3);
label3.setBounds(150,150,600,600);
panel.add(label3);
ImageIcon image4 = new ImageIcon("3.png");
Image scaled4 = image4.getImage().getScaledInstance(73,500,
Image.SCALE_SMOOTH);
ImageIcon sc4 = new ImageIcon(scaled4);
JLabel label4 = new JLabel(sc4);
label4.setBounds(50,200,73,500);
panel.add(label4);
//creating a frame
JPanel right = new JPanel();
JPanel left = new JPanel();
JPanel top = new JPanel();
JPanel bottom = new JPanel();
left.setBounds(800,210,7,440);
left.setLayout(null);
left.setBackground(new Color(31,73,116));
panel.add(left);
right.setBounds(1500,210,7,440);
right.setLayout(null);
right.setBackground(new Color(31,73,116));
panel.add(right);
top.setBounds(800,170,707,40);
top.setLayout(null);
top.setBackground(new Color(31,73,116));
panel.add(top);
bottom.setBounds(800,650,707,100);
bottom.setLayout(null);
bottom.setBackground(new Color(31,73,116));
panel.add(bottom);
//description
JLabel t1 = new JLabel("Air Jordan 1 Mid (Fresh out of the box)");
t1.setForeground(Color.WHITE);
t1.setFont(new Font("TimesNewRoman", Font.PLAIN, 24));
t1.setBounds(10,5,500,30);
top.add(t1);
JLabel t2 = new JLabel("<html>- Used(Single owner)<br><br> -
Best Quality <br> - Men's Size:10.5 <br> Inspired by the
```

```
original AJ1, this mid-top edition maintains <br/> the iconic
    look you love while choice colors and crisp leather <br/> <br/>br>give
    it a distinct identity.<br>Shown:
    White/Black/Gym Red <br >
                                    Style: DQ8426-106</html>");
    t2.setFont(new Font("TimesNewRoman", Font.PLAIN, 24));
    t2.setBounds(820,220,750,430);
    panel.add(t2);
    explore = new JButton("<<Explore");</pre>
    explore.setPreferredSize(new Dimension(100,25));
    explore.setBounds(10,140,100,25);
    explore.addActionListener(this);
    panel.add(explore);
    JLabel t3 = new JLabel("$125");
   t3.setForeground(Color.WHITE);
    t3.setFont(new Font("TimesNewRoman",Font.BOLD,40));
    t3.setBounds(50,30,500,30);
   bottom.add(t3);
   //putting everything in the panel
    bottom.add(button);
    bottom.add(label);
    //adding the panel to the frame
    frame.add(panel, BorderLayout.CENTER);
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setTitle("Item_Description");
    frame.pack();
    frame.setSize(1920,1080);
    frame.setVisible(true);
}
@Override
public void actionPerformed(ActionEvent e) {
    if (e.getSource() == button) {
        count++;
        label.setText("Number of items in the Cart " + count);
   } else if (e.getSource()==logout) {
       new login();
   } else if (e.getSource() == explore) {
        //new explore();
    } else{
        count = 0;
        label.setText("Not In the Cart");
   }
}
```

Explore page

This code has been created automatically with NetBeans IDE

```
public class brower extends javax.swing.JFrame {

/**
   * Creates new form brower
   */
public brower() {
    initComponents();
}
```

```
/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:
initComponents
private void initComponents() {
    jPanel1 = new javax.swing.JPanel();
    jLabel1 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jPanel6 = new javax.swing.JPanel();
    jLabel13 = new javax.swing.JLabel();
    jLabel14 = new javax.swing.JLabel();
    jLabel15 = new javax.swing.JLabel();
    jLabel16 = new javax.swing.JLabel();
    jLabel17 = new javax.swing.JLabel();
    jSpinner3 = new javax.swing.JSpinner();
    jPanel7 = new javax.swing.JPanel();
    jLabel18 = new javax.swing.JLabel();
    jLabel19 = new javax.swing.JLabel();
    jLabel20 = new javax.swing.JLabel();
    jLabel21 = new javax.swing.JLabel();
    jLabel22 = new javax.swing.JLabel();
    jSpinner4 = new javax.swing.JSpinner();
    jPanel8 = new javax.swing.JPanel();
    jLabel23 = new javax.swing.JLabel();
    jLabel24 = new javax.swing.JLabel();
    jLabel25 = new javax.swing.JLabel();
    jLabel26 = new javax.swing.JLabel();
    jLabel27 = new javax.swing.JLabel();
    jSpinner5 = new javax.swing.JSpinner();
    jPanel9 = new javax.swing.JPanel();
    jLabel28 = new javax.swing.JLabel();
    jLabel29 = new javax.swing.JLabel();
    jLabel30 = new javax.swing.JLabel();
    jLabel31 = new javax.swing.JLabel();
    jLabel32 = new javax.swing.JLabel();
    jSpinner6 = new javax.swing.JSpinner();
    jPanel10 = new javax.swing.JPanel();
    jLabel33 = new javax.swing.JLabel();
    jLabel34 = new javax.swing.JLabel();
    jLabel35 = new javax.swing.JLabel();
    jLabel36 = new javax.swing.JLabel();
    jLabel37 = new javax.swing.JLabel();
    jSpinner7 = new javax.swing.JSpinner();
    jPanel11 = new javax.swing.JPanel();
    jLabel38 = new javax.swing.JLabel();
    jLabel39 = new javax.swing.JLabel();
    jLabel40 = new javax.swing.JLabel();
    jLabel41 = new javax.swing.JLabel();
    jLabel42 = new javax.swing.JLabel();
    jSpinner8 = new javax.swing.JSpinner();
    jPanel12 = new javax.swing.JPanel();
    jLabel43 = new javax.swing.JLabel();
    jSlider1 = new javax.swing.JSlider();
    jButton2 = new javax.swing.JButton();
    jButton3 = new javax.swing.JButton();
    jTextField1 = new javax.swing.JTextField();
    jScrollPane1 = new javax.swing.JScrollPane();
    jTextArea1 = new javax.swing.JTextArea();
    jLabel2 = new javax.swing.JLabel();
    jScrollPane2 = new javax.swing.JScrollPane();
    jTextPane1 = new javax.swing.JTextPane();
    jButton4 = new javax.swing.JButton();
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    jLabel1.setFont(new java.awt.Font("Modern No. 20", 1, 30)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(51, 51, 51));
    jLabel1.setText("KEYbay");
    jLabel3.setFont(new java.awt.Font("Microsoft JhengHei", 1, 24)); // NOI18N
    jLabel3.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    jLabel3.setText("Menu Item");
    jPanel6.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.
BevelBorder.RAISED)):
    jLabel13.setIcon(new javax.swing.ImageIcon(getClass().getResource("Screenshot
2023-07-14 095848.png"))); // NOI18N
    jLabel13.setText("jLabel8");
    jLabel14.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel14.setText("Yogurt");
    jLabel15.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
    jLabel15.setText("Price
                                        100$"):
    ¡Label16.setText("Quantity");
    jLabel17.setText("Discount
                                           2%");
    javax.swing.GroupLayout jPanel6Layout = new javax.swing.GroupLayout(jPanel6);
    jPanel6.setLayout(jPanel6Layout);
    jPanel6Layout.setHorizontalGroup(
        jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel6Layout.createSequentialGroup()
             .addContainerGap()
             .addComponent(jLabel13, javax.swing.GroupLayout.PREFERRED_SIZE, 127,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
             .addGroup(jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addGroup(jPanel6Layout.createSequentialGroup()
                     .addComponent(jLabel14, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                     .addGap(32, 32, 32))
                 .addGroup(jPanel6Layout.createSequentialGroup()
                     . \verb| addComponent(jLabel15, javax.swing.GroupLayout.DEFAULT\_SIZE, \\
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                     .addContainerGap())
                 .addGroup(jPanel6Layout.createSequentialGroup()
                     .addGroup(jPanel6Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.LEADING)
                         .addGroup(jPanel6Layout.createSequentialGroup()
                             .addComponent(jLabel16, javax.swing.GroupLayout.
PREFERRED_SIZE, 51, javax.swing.GroupLayout.PREFERRED_SIZE)
                             .addGap(18, 18, 18)
                             .addComponent(jSpinner3, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                         .addComponent(jLabel17, javax.swing.GroupLayout.
PREFERRED_SIZE, 114, javax.swing.GroupLayout.PREFERRED_SIZE))
                     .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.
MAX_VALUE))))
    );
    jPanel6Layout.setVerticalGroup(
        jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel6Layout.createSequentialGroup()
             .addContainerGap()
             .addGroup(jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addGroup(jPanel6Layout.createSequentialGroup()
```

```
.addComponent(jLabel14, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
                     .addComponent(jLabel15)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addGroup(jPanel6Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel16, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jSpinner3, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                    .addComponent(jLabel17))
                .addComponent(jLabel13, javax.swing.GroupLayout.PREFERRED_SIZE, 119,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addContainerGap(17, Short.MAX_VALUE))
    );
    jPanel7.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.
BevelBorder.RAISED));
    jLabel18.setIcon(new javax.swing.ImageIcon(getClass().getResource("/com/mycompany
/brower/1.png"))); // NOI18N
    jLabel18.setText("jLabel8");
    jLabel19.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel19.setText("Banana");
    jLabel20.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
    jLabel20.setText("Price
                                        100$");
    jLabel21.setText("Quantity");
    jLabel22.setText("Discount
                                          2%");
    javax.swing.GroupLayout jPanel7Layout = new javax.swing.GroupLayout(jPanel7);
    jPanel7.setLayout(jPanel7Layout);
    jPanel7Layout.setHorizontalGroup(
        jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel7Layout.createSequentialGroup()
            .addContainerGap(26, Short.MAX_VALUE)
            .addComponent(jLabel18, javax.swing.GroupLayout.PREFERRED_SIZE, 163,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(40, 40, 40)
            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                    .addGroup(jPanel7Layout.createSequentialGroup()
                         .addComponent(jLabel21, javax.swing.GroupLayout.
PREFERRED_SIZE, 51, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)
                        .addComponent(jSpinner4, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                    .addComponent(jLabel22, javax.swing.GroupLayout.PREFERRED_SIZE,
114, javax.swing.GroupLayout.PREFERRED_SIZE))
                 .addComponent(jLabel20, javax.swing.GroupLayout.DEFAULT_SIZE, 136,
Short.MAX_VALUE)
                 .addComponent(jLabel19, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    );
    jPanel7Layout.setVerticalGroup(
        jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
.addGroup(jPanel7Layout.createSequentialGroup()
             .addContainerGap()
             .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.TRAILING)
                 .addComponent(jLabel18, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addGroup(jPanel7Layout.createSequentialGroup()
                     .addComponent(jLabel19, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
                     .addComponent(jLabel20)
                     . \verb| addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.|\\
RELATED)
                     .addGroup(jPane17Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel21, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                         .addComponent(jSpinner4, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                     . \, add \texttt{PreferredGap} \, (\, \texttt{javax} \, . \, \texttt{swing} \, . \, \texttt{LayoutStyle} \, . \, \texttt{ComponentPlacement} \, .
RELATED)
                     .addComponent(jLabel22)))
             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    jPanel8.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.
BevelBorder.RAISED));
    jLabel23.setIcon(new javax.swing.ImageIcon(getClass().getResource("/com/mycompany
/brower/2.png"))); // NOI18N
    jLabel23.setText("jLabel8");
    jLabel24.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel24.setText("Apple");
    jLabel25.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
    jLabel25.setText("Price
                                         100$");
    jLabel26.setText("Quantity");
                                            2%");
    jLabel27.setText("Discount
    javax.swing.GroupLayout jPanel8Layout = new javax.swing.GroupLayout(jPanel8);
    ¡Panel8.setLayout(jPanel8Layout);
    jPanel8Layout.setHorizontalGroup(
         jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(jPanel8Layout.createSequentialGroup()
             .addContainerGap(28, Short.MAX_VALUE)
             .addComponent(jLabel23, javax.swing.GroupLayout.PREFERRED_SIZE, 142,
javax.swing.GroupLayout.PREFERRED_SIZE)
             .addGap(31, 31, 31)
             .addGroup(jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                 .addGroup(jPanel8Layout.createSequentialGroup()
                     .addComponent(jLabel26, javax.swing.GroupLayout.PREFERRED_SIZE,
51, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addGap(18, 18, 18)
                     .addComponent(jSpinner5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                 .addComponent(jLabel27, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addComponent(jLabel25, javax.swing.GroupLayout.DEFAULT_SIZE, 136,
Short.MAX_VALUE)
                 .addComponent(jLabel24, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    );
```

```
¡Panel8Layout.setVerticalGroup(
        jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel8Layout.createSequentialGroup()
             .addGroup(jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addGroup(jPanel8Layout.createSequentialGroup()
                     .addContainerGap()
                     .addComponent(jLabel24, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                     . \verb| addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.|\\
UNRELATED)
                     .addComponent(jLabel25)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                    .addGroup(jPanel8Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel26, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                         . \verb| addComponent(jSpinner5, javax.swing.GroupLayout.|\\
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addComponent(jLabel27))
                 .addGroup(jPanel8Layout.createSequentialGroup()
                     .addGap(14, 14, 14)
                     .addComponent(jLabel23, javax.swing.GroupLayout.PREFERRED_SIZE,
98, javax.swing.GroupLayout.PREFERRED_SIZE)))
             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    jPanel9.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.
BevelBorder.RAISED));
    jLabel28.setIcon(new javax.swing.ImageIcon(getClass().getResource("/com/mycompany
/brower/3.png"))); // NOI18N
    jLabel28.setText("jLabel8");
    jLabel29.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel29.setText("Papaya");
    jLabel30.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
                                         100$");
    jLabel30.setText("Price
    jLabel31.setText("Quantity");
    jLabel32.setText("Discount
                                           2%");
    javax.swing.GroupLayout jPanel9Layout = new javax.swing.GroupLayout(jPanel9);
    jPanel9.setLayout(jPanel9Layout);
    jPanel9Layout.setHorizontalGroup(
        jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel9Layout.createSequentialGroup()
             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
             .addComponent(jLabel28, javax.swing.GroupLayout.PREFERRED_SIZE, 130,
javax.swing.GroupLayout.PREFERRED_SIZE)
             .addGap(73, 73, 73)
             .addGroup(jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                 .addGroup(jPanel9Layout.createSequentialGroup()
                     .addComponent(jLabel31, javax.swing.GroupLayout.PREFERRED_SIZE,
51, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addGap(18, 18, 18)
                     .addComponent(jSpinner6, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                 .addComponent(jLabel32, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jLabel30, javax.swing.GroupLayout.DEFAULT_SIZE, 136,
Short.MAX VALUE)
                 .addComponent(jLabel29, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    );
    jPanel9Layout.setVerticalGroup(
        jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(jPanel9Layout.createSequentialGroup()
             .addContainerGap()
             .addGroup(jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.TRAILING)
                 .addComponent(jLabel28, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addGroup(jPanel9Layout.createSequentialGroup()
                     .addComponent(jLabel29, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
                     .addComponent(jLabel30)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addGroup(jPanel9Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel31, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                         . \, add \, Component \, (\, j \, Spinner 6 \, , \, \, j \, avax \, . \, swing \, . \, Group Layout \, .
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addComponent(jLabel32)))
             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    jPanel10.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border
.BevelBorder.RAISED));
    jLabel33.setIcon(new javax.swing.ImageIcon(getClass().getResource("/com/mycompany
/brower/4.png"))); // NOI18N
    jLabel33.setText("jLabel8");
    jLabel34.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel34.setText("Wood apple");
    jLabel35.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
    jLabel35.setText("Price
                                         100$");
    jLabel36.setText("Quantity");
                                           2%");
    jLabel37.setText("Discount
    javax.swing.GroupLayout jPanel10Layout = new javax.swing.GroupLayout(jPanel10);
    jPanel10.setLayout(jPanel10Layout);
    jPanel10Layout.setHorizontalGroup(
        jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel10Layout.createSequentialGroup()
             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
             .addComponent(jLabel33, javax.swing.GroupLayout.PREFERRED_SIZE, 164,
javax.swing.GroupLayout.PREFERRED_SIZE)
             .addGap(39, 39, 39)
             .addGroup(jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                 .addGroup(jPanel10Layout.createSequentialGroup()
                     .addComponent(jLabel36, javax.swing.GroupLayout.PREFERRED_SIZE,
51, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addGap(18, 18, 18)
                     .addComponent(jSpinner7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addComponent(jLabel37, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addComponent(jLabel35, javax.swing.GroupLayout.DEFAULT_SIZE, 136,
Short.MAX_VALUE)
                 .addComponent(jLabel34, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    );
    jPanel10Layout.setVerticalGroup(
        jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel10Layout.createSequentialGroup()
            .addContainerGap()
            .addGroup(jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.TRAILING)
                .addComponent(jLabel33, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGroup(jPanel10Layout.createSequentialGroup()
                     .addComponent(jLabel34, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
                    .addComponent(jLabel35)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                    .addGroup(jPanel10Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel36, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                         .addComponent(jSpinner7, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                    .addComponent(jLabel37)))
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    jPanel11.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border
.BevelBorder.RAISED));
    jLabel38.setIcon(new javax.swing.ImageIcon(getClass().getResource("/com/mycompany
/brower/5.png"))); // NOI18N
    jLabel38.setText("jLabel8");
    jLabel39.setFont(new java.awt.Font("Microsoft JhengHei Light", 1, 18)); // NOI18N
    jLabel39.setText("Papaya");
    jLabel40.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
                                         100$");
    jLabel40.setText("Price
    jLabel41.setText("Quantity");
    jLabel42.setText("Discount
                                          2%");
    javax.swing.GroupLayout jPanel11Layout = new javax.swing.GroupLayout(jPanel11);
    jPanel11.setLayout(jPanel11Layout);
    ¡Panel11Layout.setHorizontalGroup(
        jPanel11Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel11Layout.createSequentialGroup()
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 185,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addGroup(jPanel11Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                .addGroup(jPanel11Layout.createSequentialGroup()
                     . \verb| addComponent(jLabel41, javax.swing.GroupLayout.PREFERRED_SIZE, \\
51, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)
```

```
.addComponent(jSpinner8, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                 .addComponent(jLabel42, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addComponent(jLabel40, javax.swing.GroupLayout.DEFAULT_SIZE, 136,
Short.MAX_VALUE)
                 .addComponent(jLabel39, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
    );
    jPanel11Layout.setVerticalGroup(
        jPanel11Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel11Layout.createSequentialGroup()
             .addContainerGap()
            .addGroup(jPanel11Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.TRAILING)
                .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGroup(jPanel11Layout.createSequentialGroup()
                     .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE,
26, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
                     .addComponent(jLabel40)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                    .addGroup(jPanel11Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                         .addComponent(jLabel41, javax.swing.GroupLayout.
PREFERRED_SIZE, 28, javax.swing.GroupLayout.PREFERRED_SIZE)
                         . \verb| addComponent(jSpinner8, javax.swing.GroupLayout.|\\
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addComponent(jLabel42)))
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    ):
    jLabel43.setText("Size");
    jButton2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
    jButton2.setText("Exit");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton2ActionPerformed(evt);
    });
    jButton3.setFont(new java.awt.Font("Segoe UI", 1, 12)); // NOI18N
    jButton3.setText("Next");
    jTextField1.setText("Cart");
    jTextField1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jTextField1ActionPerformed(evt);
    });
    jTextArea1.setColumns(20);
    jTextArea1.setRows(5);
    jScrollPane1.setViewportView(jTextArea1);
    jLabel2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
    jLabel2.setText("Total");
    jTextPane1.setText("0.00");
    jScrollPane2.setViewportView(jTextPane1);
```

```
jButton4.setFont(new java.awt.Font("Segoe UI", 1, 12)); // NOI18N
    ¡Button4.setText("Prev");
    javax.swing.GroupLayout jPanel12Layout = new javax.swing.GroupLayout(jPanel12);
    jPanel12.setLayout(jPanel12Layout);
    jPanel12Layout.setHorizontalGroup(
        jPanel12Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(jPanel12Layout.createSequentialGroup()
             .addGroup(jPanel12Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
                 .addGroup(jPanel12Layout.createSequentialGroup()
                     .addContainerGap()
                     .addComponent(jSlider1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                 .addGroup(jPanel12Layout.createSequentialGroup()
                     .addGap(20, 20, 20)
                     .addComponent(jLabe143, javax.swing.GroupLayout.PREFERRED_SIZE,
43, javax.swing.GroupLayout.PREFERRED_SIZE)
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED, 155, Short.MAX_VALUE)
                     .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE
, 71, javax.swing.GroupLayout.PREFERRED_SIZE)))
             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
             .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 170,
javax.swing.GroupLayout.PREFERRED_SIZE)
             .addGap(24, 24, 24)
             .addGroup(jPanel12Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED_SIZE,
91, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(94, 94, 94)
             .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 127,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(42, 42, 42)
             .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 127,
javax.swing.GroupLayout.PREFERRED_SIZE)
             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
             .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 127,
javax.swing.GroupLayout.PREFERRED_SIZE))
    jPanel12Layout.setVerticalGroup(
        jPanel12Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel12Layout.createSequentialGroup()
             .addContainerGap()
             .addGroup(jPanel12Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
66, javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addGroup(jPanel12Layout.createSequentialGroup()
                     .addGroup(jPanel12Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.LEADING, false)
                         .addGroup(jPanel12Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
                             .addComponent(jLabel43)
                             .addComponent(jTextField1, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))
                         .addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT_SIZE,
28, Short.MAX_VALUE))
                     .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addGroup(jPanel12Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.LEADING)
                         .addGroup(jPanel12Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.BASELINE)
```

```
.addComponent(jSlider1, javax.swing.GroupLayout.
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE)
                              . \verb| addComponent(jButton2, javax.swing.GroupLayout.|\\
PREFERRED_SIZE, 35, javax.swing.GroupLayout.PREFERRED_SIZE)
                              .addComponent(jButton3, javax.swing.GroupLayout.
PREFERRED_SIZE, 35, javax.swing.GroupLayout.PREFERRED_SIZE)
                              .addComponent(jButton4, javax.swing.GroupLayout.
PREFERRED_SIZE, 35, javax.swing.GroupLayout.PREFERRED_SIZE))
                          . \, {\tt addComponent} \, (\, {\tt jScrollPane2} \, , \, \, \, {\tt javax.swing.GroupLayout} \, .
PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.
PREFERRED_SIZE))))
             .addContainerGap(26, Short.MAX_VALUE))
    );
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    ¡Panel1Layout.setHorizontalGroup(
         jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(jPanel1Layout.createSequentialGroup()
             .addContainerGap()
             .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addComponent(jLabel3, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                 .addGroup(jPanel1Layout.createSequentialGroup()
                      .addGroup(jPanel1Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.TRAILING, false)
                          .addComponent(jPanel8, javax.swing.GroupLayout.Alignment.
LEADING, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
                          .addComponent(jPanel6, javax.swing.GroupLayout.Alignment.
LEADING, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
                      .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
RELATED)
                     .addGroup(jPanel1Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.LEADING, false)
                          .addComponent(jPanel7, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                          .addComponent(jPanel9, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                      . \, add \texttt{PreferredGap} \, (\, \texttt{javax} \, . \, \texttt{swing} \, . \, \texttt{LayoutStyle} \, . \, \texttt{ComponentPlacement} \, .
RELATED)
                      .addGroup(jPanel1Layout.createParallelGroup(javax.swing.
GroupLayout.Alignment.LEADING)
                          .addComponent(jPanel10, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(jPanel11, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)))
                 .addComponent(jPanel12, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                 .addGroup(jPanel1Layout.createSequentialGroup()
                      .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE,
1097, javax.swing.GroupLayout.PREFERRED_SIZE)
                      .addGap(0, 43, Short.MAX_VALUE)))
             .addContainerGap())
    jPanel1Layout.setVerticalGroup(
         jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(jPanel1Layout.createSequentialGroup()
             .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 33, javax.
swing.GroupLayout.PREFERRED_SIZE)
             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
             .addComponent(jLabel3)
             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
             .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING, false)
```

```
.addComponent(jPanel6, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                 .addComponent(jPanel7, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                 .addComponent(jPanel10, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
                 .addComponent(jPanel8, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jPanel9, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jPanel11, javax.swing.GroupLayout.DEFAULT_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jPanel12, javax.swing.GroupLayout.PREFERRED_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(197, 197, 197))
    );
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.
swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, 462, javax
.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(0, 0, Short.MAX_VALUE))
    );
    pack();
}// </editor-fold>//GEN-END:initComponents
private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:
event_jTextField1ActionPerformed
    // TODO add your handling code here:
}//GEN-LAST:event_jTextField1ActionPerformed
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:
event_jButton2ActionPerformed
    // TODO add your handling code here:
}//GEN-LAST:event_jButton2ActionPerformed
/**
 * Oparam args the command line arguments
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (
optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default
look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel
/plaf.html
     */
        for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.
getInstalledLookAndFeels()) {
```

```
if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break:
            }
        }
    } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(brower.class.getName()).log(java.util.
logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(brower.class.getName()).log(java.util.
logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(brower.class.getName()).log(java.util.
logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(brower.class.getName()).log(java.util.
logging.Level.SEVERE, null, ex);
    //</editor-fold>
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new brower().setVisible(true);
    });
}
// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel13;
private javax.swing.JLabel jLabel14;
private javax.swing.JLabel jLabel15;
private javax.swing.JLabel jLabel16;
private javax.swing.JLabel jLabel17;
private javax.swing.JLabel jLabel18;
private javax.swing.JLabel jLabel19;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel20;
private javax.swing.JLabel jLabel21;
private javax.swing.JLabel jLabel22;
private javax.swing.JLabel jLabel23;
private javax.swing.JLabel jLabel24;
private javax.swing.JLabel jLabel25;
private javax.swing.JLabel jLabel26;
private javax.swing.JLabel jLabel27;
private javax.swing.JLabel jLabel28;
private javax.swing.JLabel jLabel29;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel30;
private javax.swing.JLabel jLabel31;
private javax.swing.JLabel jLabel32;
private javax.swing.JLabel jLabel33;
private javax.swing.JLabel jLabel34;
private javax.swing.JLabel jLabel35;
private javax.swing.JLabel jLabel36;
private javax.swing.JLabel jLabel37;
private javax.swing.JLabel jLabel38;
private javax.swing.JLabel jLabel39;
private javax.swing.JLabel jLabel40;
private javax.swing.JLabel jLabel41;
private javax.swing.JLabel jLabel42;
private javax.swing.JLabel jLabel43;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel10;
```

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private javax.swing.JPanel jPanel11;
private javax.swing.JPanel jPanel12;
private javax.swing.JPanel jPanel6;
private javax.swing.JPanel jPanel7;
private javax.swing.JPanel jPanel8;
private javax.swing.JPanel jPanel9;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.JSlider jSlider1;
private javax.swing.JSpinner jSpinner3;
private javax.swing.JSpinner jSpinner4;
private javax.swing.JSpinner jSpinner5;
private javax.swing.JSpinner jSpinner6;
private javax.swing.JSpinner jSpinner7;
private javax.swing.JSpinner jSpinner8;
private javax.swing.JTextArea jTextArea1;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextPane jTextPane1;
// End of variables declaration//GEN-END:variables
```