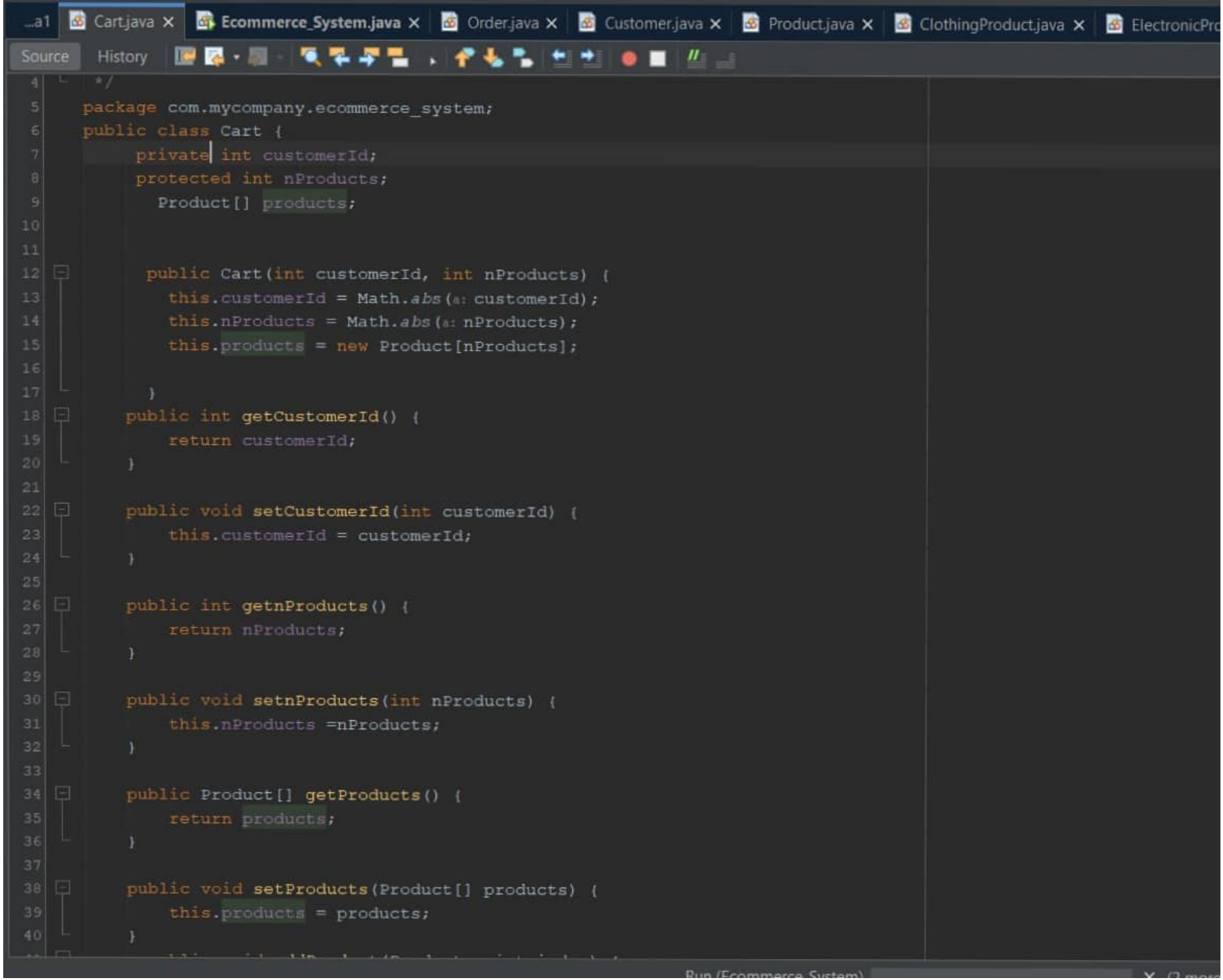
```java
package com.mycompany.ecommerce_system;
import javax.swing.JOptionPane;
public class Ecommerce_System {

    public static void main(String[] args) {
        JOptionPane.showMessageDialog(parentComponent: null,message: "welcom to the E_commerse system");

       ElectronicProduct e1=new ElectronicProduct(productId:1,name: "smartphone",price: 599.9f,brand: "Samsung",warrantyPeriod: 1);


        ClothingProduct c1=new ClothingProduct(size: "Medium",fabric:"Cotton",productId:2,name: "T-shirt",price: 19.99f);

        BookProduct p1=new BookProduct(author:"O'Reilly",publisher:"X Publications",productId:3,name: "OOP",price: 39.99f);


        int customerId= Integer.parseInt(s: JOptionPane.showInputDialog(message: "please enter your id:"));
        String name=JOptionPane.showInputDialog(message: "please enter your name:");
          String address=JOptionPane.showInputDialog(message: "please enter your address:");
           Customer c=new Customer(customerId,name,address);
          int nProducts=Integer.parseInt(s: JOptionPane.showInputDialog(message: "How many products you want to add to your cart ?"));
          System.out.println(x: nProducts);
         Cart c2=new Cart(customerId,nProducts);
         Order o1=new Order(customerId,orderId: 1, nproduct: nProducts);

              for(int i=0;i<nProducts;i++){
                int producttype= Integer.parseInt(s: JOptionPane.showInputDialog("which product would you like to add ?"
                        +"1-"+e1.getName() +"  2-"+c1.getName()+"  3-"+p1.getName()));

            switch (producttype) {
                    case 1:

                     c2.addProduct(p: e1, index: i);
                      break;

                     case 2:
```

```
            switch (producttype) {
                case 1:

                    c2.addProduct(p: e1, index: i);
                    break;

                    case 2:

                     c2.addProduct(p: c1,index: i);
                     break;

                    case 3:
                     c2.addProduct(p: p1,index: i);
                     break;
                    default:
                        JOptionPane.showMessageDialog(parentComponent: null,message: "Invalid product type. Skipping...");
                }

            }
            int num= Integer.parseInt(s: JOptionPane.showInputDialog("would you like to place the order?"+"1- yes 2- no"));

            switch(num){
                case 1:

                    c2.placeOrder();
                    o1.setProducts(products: c2.getProducts());
                    o1. printOrderInfo();
                    break;

                case 2:
                  JOptionPane.showMessageDialog(parentComponent: null,message: "Order not placed.");

                    break;

            }
        }
    }
```

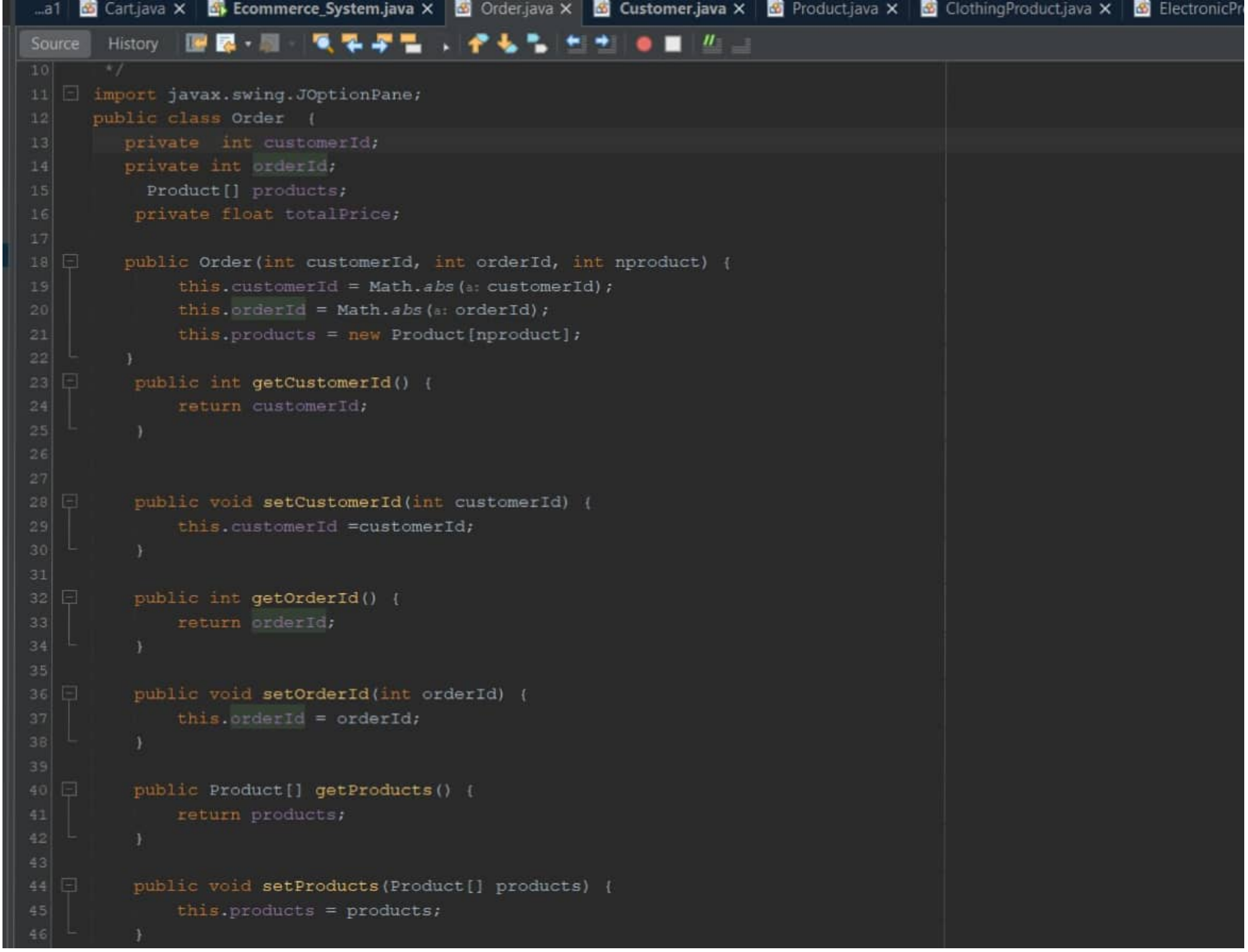
```java
/**
 *
 * @author nour
 */
public class ElectronicProduct extends Product {
private  String brand;
 private int warrantyPeriod;

    public ElectronicProduct(int productId, String name,Float price,String bran
        super( productId,name ,price);
        this.brand = brand;
        this.warrantyPeriod = warrantyPeriod;
    }

    public String getBrand() {
        return brand;
    }

    public void setBrand(String brand) {
        this.brand = brand;
    }

    public int getWarrantyPeriod() {
        return warrantyPeriod;
    }

    public void setWarrantyPeriod(int warrantyPeriod) {
        this.warrantyPeriod = Math.abs(a: warrantyPeriod);
    }
}
```

```java
package com.mycompany.ecommerce_system;

/**
 *
 * @author nour
 */
public class BookProduct extends Product {
   private  String author;
    private String publisher;
     public String getAuthor() {
        return author;
    }
  public BookProduct(String author, String publisher,int productId, String name, Float price) {
        super(productId, name, price);
        this.author = author;
        this.publisher = publisher;
    }

    public void setAuthor(String author) {
        this.author = author;
    }

    public String getPublisher() {
        return publisher;
    }

    public void setPublisher(String publisher) {
        this.publisher = publisher;
    }
}
```

```java
package com.mycompany.ecommerce_system;

/**
 *
 * @author nour
 */
public class ClothingProduct extends Product {
    private  String size;
    private String fabric;
      public String getSize() {
          return size;
      }


     public ClothingProduct(String size, String fabric, int productId, String name, Float price) {
         super(productId, name, price);
         this.size = size;
         this.fabric = fabric;
     }

     public void setSize(String size) {
         this.size = size;
     }

     public String getFabric() {
         return fabric;
     }

     public void setFabric(String fabric) {
         this.fabric = fabric;
     }
}
```



```
    }

    public void setProducts(Product[] products) {
        this.products = products;
    }
      public void addProduct(Product p,int index) {
          if(index>=0 && index< products.length){
              this.products[index]=p;
          }else{
              System.out.println(x: "out of bounds");
          }

      }

       public void removeProduct(int index) {
        if (index >= 0 && index < nProducts) {
            products[index] = null;
        } else {
            System.out.println(x: "Invalid index for removing product from cart.");
        }
    }
        public float calculatePrice() {
        float totalPrice = 0;
       for (int i=0;i<products.length;i++) {
         totalPrice += products[i].getPrice();
        }
        return totalPrice;
    }
         public void placeOrder() {
        System.out.println(x: "Here's your order's summary:");

    }
}

```

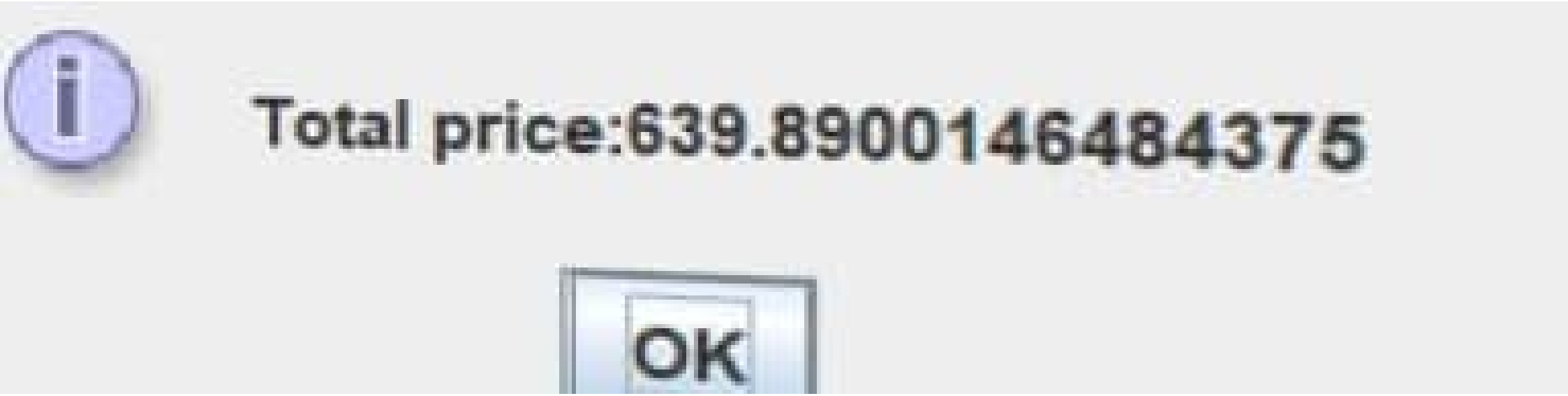


...a1 | Cart.java | Ecommerce_System.java | Order.java | Customer.java | Product.java | ClothingProduct.java | ElectronicProduct.java | BookProduct.jav...

Source | History

```
45          this.products = products;
46      }
47
48      public float getTotalPrice() {
49          return totalPrice;
50      }
51
52      public void setTotalPrice(float totalPrice) {
53          this.totalPrice = totalPrice;
54      }
55
56        private double calculateTotalPrice() {
57           this.totalPrice = 0;
58          for (int i=0;i<products.length;i++) {
59              if ( products!= null) {
60                  totalPrice += products[i].getPrice();
61              }
62          }
63          return totalPrice;
64      }
65
66        public void printOrderInfo() {
67            JOptionPane.showMessageDialog(parentComponent: null,"Order ID: " + orderId);
68             JOptionPane.showMessageDialog(parentComponent: null,"Customer ID: " +getCustomerId());
69              JOptionPane.showMessageDialog(parentComponent: null,message: "Products:");
70
71          for (int i=0;i<products.length;i++) {
72              if (products != null) {
73                   JOptionPane.showMessageDialog(parentComponent: null,"- " + products[i].getName() + ", $" + products[i].getPrice());
74              }
75
76          }
77           JOptionPane.showMessageDialog(parentComponent: null,"Total price:"+this.calculateTotalPrice());
78
79      }
80  }
```

```java
 * @author nour
 */
public class Product {

    protected int productId;
    protected String name;
    protected Float price;
     public Product(int productId, String name,Float  price) {
         this.productId = Math.abs(a: productId);
         this.name = name;
         this.price = Math.abs(a: price);
     }
     public int getProductId() {
         return productId;
     }

     public void setProductId(int productId) {
         this.productId =productId;
     }

     public String getName() {
         return name;
     }

     public void setName(String name) {
         this.name = name;
     }

     public Float getPrice() {
         return price;
     }

     public void setPrice(Float price) {
         this.price =price;
     }
}

```



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Source | History

```java
public class Customer{
  private  int customerId;
   private  String name;
   private  String address;
      public Customer(int customerId, String name, String address) {
        this.customerId = customerId;
        this.name = name;
        this.address = address;
    }




    public int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customerId) {
        this.customerId = Math.abs(a: customerId);
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getAddress() {
        return address;
    }

    public void setAddress(String address) {
        this.address = address;
    }
```