```java
package ECommerceSystem;
import java.util.Scanner;
import javax.swing.JOptionPane;
/**
 *
 * @author Dell
 */
public class EcommerceSystem {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
       Scanner input=new Scanner(source:System.in);

        ElectronicProduct e1= new ElectronicProduct(brand: "Samsung",warrantyPeriod:1,productId:1,name: "smartphone", (float) 599.9);
        ClothingProduct c1= new ClothingProduct(size: "Medium",fabric:"Cotton",productId:2,name: "T-shirt", (float) 19.99);
        BookProduct b1 = new BookProduct(author:"O Reilly",publisher:"X Publications",productId:3,name: "OOP", (float) 39.99);

        System.out.println(x: "Welcome to E-commerce system!");
        System.out.println(x: "Please enter your id");
        int customerId = input.nextInt();
        System.out.println(x: "Please enter your name");
        String name=input.next();
        System.out.println(x: "Please enter your address");
        String address= input.next();

        Customer me = new Customer(customerId,name,address);


        System.out.println(x: "How many products you want to add to your cart?");
        int num= input.nextInt();
        Cart cart = new Cart(customerId: me.getcustomerid(),nProducts:num);
        Product [] arr = new Product[num];
        for(int i =0 ;i<cart.getnProducts();i++){
        System.out.println("Which product you want to add? 1-" +e1.getname() + " 2-" +c1.getname() + " 3-" +b1.getname());
```

```
System.out.println(x: "How many products you want to add to your cart?");
int num= input.nextInt();
Cart cart = new Cart(customerId: me.getcustomerid(),nProducts:num);
Product [] arr = new Product[num];
for(int i =0 ;i<cart.getnProducts();i++){
System.out.println("Which product you want to add? 1-" +e1.getname() + " 2-" +c1.getname() + " 3-" +b1.getname());
int choice = input.nextInt();
Product product=null;
switch(choice){
    case 1:
        product=e1;
        break;
    case 2:
        product=c1;
        break;
    case 3:
        product=b1;
        break;
    default:
        System.out.println(x: "invalid choice");
        continue;
}
cart.addProduct(product);
}
System.out.println("Your total is " +cart.calculatePrice() + "$");
cart.PlaceOrder(orderid: 1);
```

```java
public class BookProduct extends Product {
    private String author;
    private String publisher;

    public BookProduct(String author, String publisher, int productId, String name, float price) {
        super(productId, name, price);
        this.author = author;
        this.publisher = publisher;
    }



    public String getAuthor() {
        return author;
    }

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

    public String getPublisher() {
        return publisher;
    }

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


}
```

```java
public class Order {
    int customerId;
    int orderId;
    Product [] arr;
    float TotalPrice;

     public Order(int customerId, int orderId, Product [] arr) {
        this.customerId = Math.abs(a: customerId);
        this.orderId = Math.abs(a: orderId);
        this.arr=arr;
        TotalPrice = 0.0f;
        for (Product product : arr){
            TotalPrice += product.getprice();
    }


     }


    public void printOrderInfo() {
        System.out.println("Order ID: " + orderId);
        System.out.println("Customer ID: " + customerId);
        System.out.println(x: "Products:");
        for (Product product : arr) {
                System.out.println(product.getname() + ": $ " + product.getprice());
        }
        System.out.println("Total Price: $" + TotalPrice);
```

```java
public class Product {
    private int productId;
    private String name;
    private float price;

    public Product(int productId, String name, float price) {
        this.productId = productId;
        this.name = name;
        this.price = price;
    }




    public void setproductid(int id){
        if(id>0){
            this.productId=id;
        }
        else{
            int z=Math.abs(a: id);
            this.productId=z;
        }
    }

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

    public void setprice( float p){
        if(p>0){
            this.price=p;
        }
        else{
            float z = Math.abs(a: p) ;
            this.price=z;
```

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

    public void setprice( float p){
        if(p>0){
            this.price=p;
        }
        else{
            float z = Math.abs(a: p) ;
            this.price=z;
        }
    }

    public int getproductid(){
        return productId;
    }
    public String getname(){
        return name;
    }

    public float getprice(){
        return price;
    }
}
```

```java
public class ClothingProduct extends Product {
    private String size;
    private String fabric;

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



    public String getSize() {
        return size;
    }

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

    public String getFabric() {
        return fabric;
    }

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

```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 void setcustomerId(int id){
        if(id>0){
            this.customerId=id;
        }
        else{
            int z= Math.abs(a: id);
            this.customerId=z;
        }
    }
    public int getcustomerid(){
        return customerId;
    }

    public String getName() {
        return name;
    }

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

    public String getAddress() {
```

```java
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;
}
```

```java
public class ElectronicProduct extends Product {
    private String brand;
    private int warantyPeriod;

    public ElectronicProduct(String brand, int warantyPeriod, int productId, String name, float price) {
        super(productId, name, price);
        this.brand = brand;
        this.warantyPeriod = warantyPeriod;
    }




    public void setbrand(String brand){
        this.brand=brand;
    }
    public void setwarantyperiod( int p){
        if(p>0){
            this.warantyPeriod=p;
        }
        else{
            int z =Math.abs( a: p);
            this.warantyPeriod=z;
        }
    }
    public String getbrand(){
        return brand;
    }

    public int getwarantyperiod(){
        return warantyPeriod;
    }
}
```

```java
public class ClothingProduct extends Product {
    private String size;
    private String fabric;

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



    public String getSize() {
        return size;
    }

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

    public String getFabric() {
        return fabric;
    }

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

```java
public class Cart {

    private int customerId;
    private int nProducts;
    private Product [] arr;

    public Cart(int customerId, int nProducts) {
        this.customerId = customerId;
        this.nProducts = nProducts;
        this.arr = new Product[nProducts];
    }




    Scanner input=new Scanner(source:System.in);
    public void setcustomerid(int id){
        if(id>0){
            this.customerId=id;
        }
        else{
            int z = Math.abs(a: id);
            this.customerId=z;
        }
    }

    public void setnProducts(int n){
        if(n>0){
            this.nProducts=n;
        }
        else{
            int z = Math.abs(a: n);
            this.nProducts=z;
        }
```

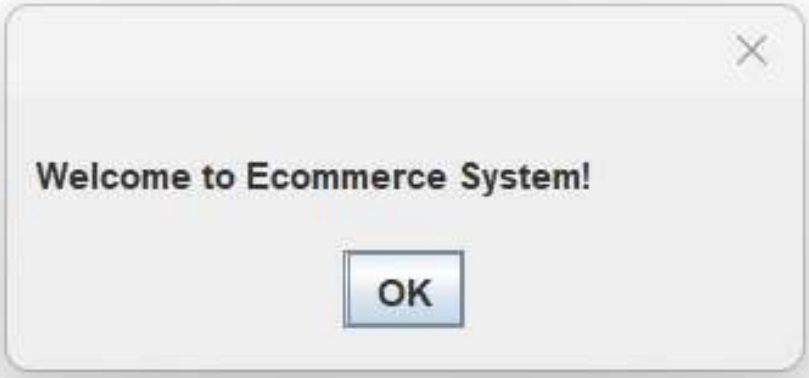
```
public void setnProducts(int n){
    if(n>0){
        this.nProducts=n;
    }
    else{
        int z = Math.abs(a: n);
        this.nProducts=z;
    }
}
public int getCustomerId() {
    return customerId;
}

public int getnProducts() {
    return nProducts;
}
```

```
int i = 0;
public void addProduct(Product product){
        arr[i]= product;
        i++;
}
public void removeProduct(Product product){
    for(int i = 0; i< arr.length ; i++)
        if(arr[i]== product){
           nProducts--;
        }
        else{
            System.out.println(x: "Product not found");
        }
}

public float calculatePrice() {
     float totalPrice = 0.0f;
     for (Product product : arr){
         totalPrice += product.getprice();
     }
     return totalPrice;
}

public Order PlaceOrder(int orderid){
    Order order = new Order(customerId, orderId: 1,arr);           //gui
    System.out.println(x: "Would you like to place your order ");
    System.out.println(x: "1- Yes 2- No");
    int choice=input.nextInt();
    if(choice==1){
        System.out.println(x: "Here is your order summary : ");
```

```
public Order PlaceOrder(int orderid){
    Order order = new Order(customerId, orderId: 1,arr);           //gui
    System.out.println(x: "Would you like to place your order ");
    System.out.println(x: "1- Yes 2- No");
    int choice=input.nextInt();
    if(choice==1){
        System.out.println(x: "Here is your order summary : ");

        order.printOrderInfo();
        System.out.println(x: "Thank you for your shopping :)");
    }
    else{
        System.out.println(x: "Order is cancelled. Thank you for your shopping.");
    }
    return order;                                                  //gui
}
```

Output - EcommerceSystem (run)

```
run:
Welcome to E-commerce system!
Please enter your id
23011160
Please enter your name
malak
Please enter your address
alex
How many products you want to add to your cart?
4
Which product you want to add? 1-smartphone 2-T-shirt 3-OOP
1
Which product you want to add? 1-smartphone 2-T-shirt 3-OOP
2
Which product you want to add? 1-smartphone 2-T-shirt 3-OOP
3
Which product you want to add? 1-smartphone 2-T-shirt 3-OOP
2
Your total is 679.87$
Would you like to place your order
1- Yes 2- No
1
Here is your order summary :
Order ID: 1
Customer ID: 23011160
Products:
smartphone: $ 599.9
T-shirt: $ 19.99
OOP: $ 39.99
T-shirt: $ 19.99
Total Price: $679.87
Thank you for your shopping :)
BUILD SUCCESSFUL (total time: 11 seconds)
```

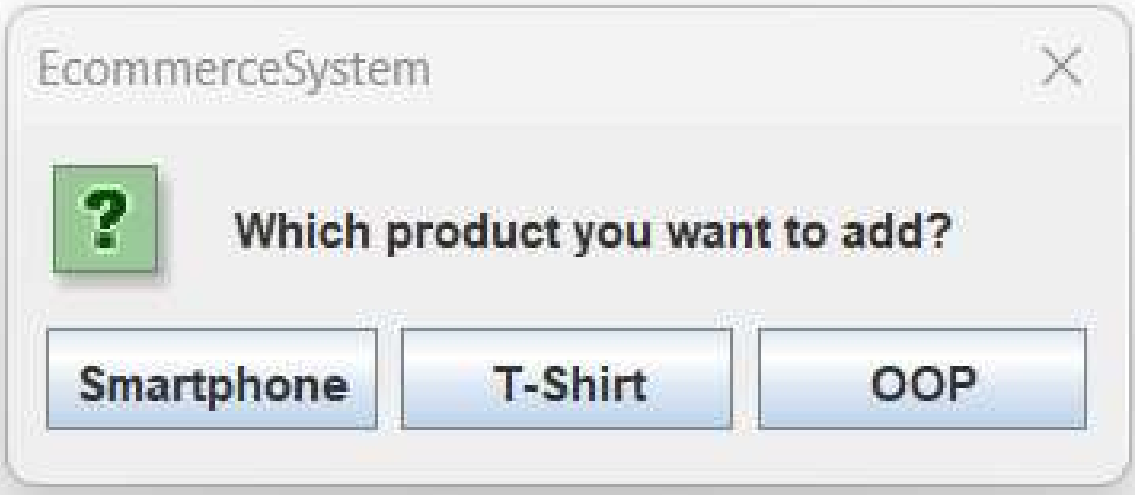

Welcome to Ecommerce System!
OK


Input
Please enter your Id
23011160
OK
Cancel

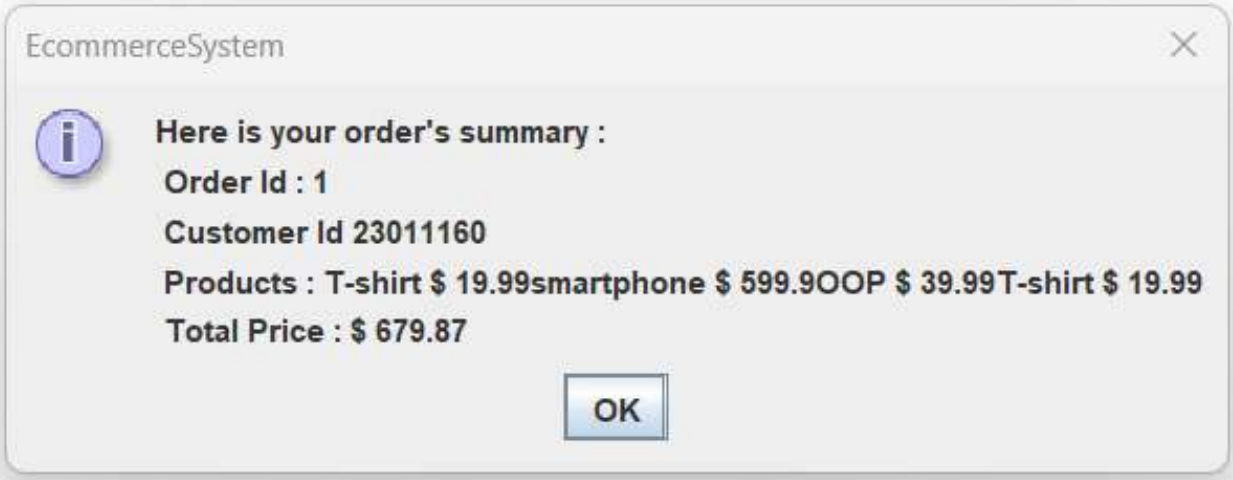

Input
Please enter your name
malak
OK
Cancel


Input
Please enter your address
alex
OK
Cancel


Input
How many products you want to add to your cart?
4
OK
Cancel


EcommerceSystem
Which product you want to add?
Smartphone
T-Shirt
OOP


EcommerceSystem
Your total is 679.87$ Do you want to place your order?
Yes
No


EcommerceSystem
Here is your order's summary :
Order Id : 1
Customer Id 23011160
Products : T-shirt $ 19.99smartphone $ 599.9OOP $ 39.99T-shirt $ 19.99
Total Price : $ 679.87
OK