

```
package
e.commerce.system;
public class
BookProduct extends
Product {
    private String
author;
    private String
publisher;

    public
BookProduct(String
author, String
publisher, int
productId, String
name, double 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;
}

}
```

```
package
e.commerce.system;

public class
ElectronicProduct
extends Product{
    private String
brand;
    private int
warrantyPeriod;

    public
ElectronicProduct(Str
ing brand, int
warrantyPeriod, int
productId, String
name, double price)
{

    super(productId,
name, price);
    this.brand =
brand;

    this.warrantyPeriod
=
Math.abs(warrantyPer
iod);
}

    public String
getBrand() {
    return
brand;
}

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

    public int
getWarrantyPeriod()
{
    return
warrantyPeriod;
}

    public void
setWarrantyPeriod(in
t warrantyPeriod) {

    this.warrantyPeriod
= warrantyPeriod;
}

}
```

```
package
e.commerce.system;
public class
ClothingProduct
extends Product{
private String size
;
private String
fabric;

    public
ClothingProduct(Stri
ng size, String
fabric, int
productId, String
name, double 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;
    }
}
```

```
package e.commerce.system;
public class Product {
    int productId;
    String name;
    double price;

    public Product(int
productId, String name, double
price) {
        this.productId =
Math.abs(productId);
        this.name = name;
        this.price =
Math.abs(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 double getPrice() {
        return price;
    }

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

}
```

```

package
e.commerce.system;

import
javax.swing.JOptionPane;

public class Order{
    private int
    customerId;
    private int
    orderId;
    private double
    totalPrice;
    Product []Cart;

    public Order(int
    customerId, int
    orderId, Product[]
    Cart, double
    totalPrice) {

        this.customerId =
        Math.abs(customerId)
        ;
        this.orderId
        = Math.abs(orderId);
        this.totalPrice=Math
        .abs(totalPrice);
        this.Cart =
        Cart;
    }
    public void
    printOrderInfo(){

        System.out.println(
        "here is your orders
        summary :");

        System.out.println(
        "orderId:"+orderId);

        System.out.println(
        "customer
        ID:"+customerId);

        System.out.println(
        "products:");

        for(int
        i=0;i<Cart.length;i+
        +){

            System.out.println(
            Cart[i].getName()+"
            ~
            "+Cart[i].getPrice()
            );

            totalPrice=totalPric
            e+Cart[i].getPrice()
            ;
        }

        System.out.println(
        "Total price
        :"+totalPrice);

    }
    //for GUI
    public void
    printInfo(){
        String
        list="";
        for(int
        i=0;i<Cart.length &&
        Cart[i]!=null;i++){

            list+=Cart[i].getNa
            me()+":"+Cart[i].get
            Price()+"$"+"\n";

            totalPrice=totalPri
            ce+Cart[i].getPrice(
            );
        }

        JOptionPane.showMess
        ageDialog(null,"Cust
        omer ID:
        "+customerId+"\n"+"O
        rder ID:
        "+orderId+"\n"+list+
        "Total Price:
        "+totalPrice+"$");
    }
}

```

```

package e.commerce.system;
public class Cart {
    Product []Cart;
    int customerId;
    int NProducts;

    public Cart(int customerId, int NProducts) {
        this.customerId = Math.abs(customerId);
        this.NProducts = Math.abs(NProducts);
        this.setNProducts(NProducts);
    }
    String[]products=new String[NProducts];

    public int getCustomerId() {
        return customerId;
    }

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

    public int getNProducts() {
        return NProducts;
    }

    public void setNProducts(int NProducts) {
        this.NProducts = Math.abs(NProducts);
        Cart=new Product[this.NProducts];
    }
    int x=0;
    public void addproduct(Product prod){
        Cart[x]=prod;
        x++;
    }
    public void removeproduct(Product p2){
        for(int i=0;i<Cart.length;i++){
            if(Cart[i].equals(p2)){
                for(int j=i;j+1<Cart.length;j++){
                    Cart[j]=Cart[j+1];
                }
                Cart[(Cart.length)-1]=null;
                x--;
                NProducts--;
                break;
            }
        }
    }
    double total=0;
    public void calculateprice(){
        for(int i=0;i<NProducts;i++){
            total+=Cart[i].getPrice();
        }
    }
    public void placeorder(){
        Order o=new Order( customerId,1,Cart,total);
    }

}

```

```
package
e.commerce.system;
public class
Customer {
    private int
    customerId;
    private String
    name;
    private String
    address;

    public
    Customer(int
    customerId, String
    name, String
    address) {

        this.customerId =
        Math.abs(customerId)
        ;
        this.name =
        name;
        this.address
        = address;
    }

    public int
    getCustomerId() {
        return
        customerId;
    }

    public void
    setCustomerId(int
    customerId) {

        this.customerId =
        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;
    }
}
```



```

package e.commerce.system;
import java.util.Scanner;
import javax.swing.ImageIcon;
import javax.swing.JOptionPane;

public class ECommerceSystem {
    public static void main(String[] args) {
        Scanner input=new Scanner(System.in);
        Product p1=new BookProduct("O'Reilly","X Publications",3,"OOP",39.99);
        Product p2=new ClothingProduct("medium","cotton",2,"T-shirt",19.99);
        Product p3=new ElectronicProduct("Samsung",1,1,"smartphone",599.9);
        //without GUI
        Customer c1 = new Customer(23012112,"kirollos_kamil_kamel","address");
        System.out.println("welcome to the E-commerce system! ");
        System.out.println("please enter your name");
        String n=input.nextLine();
        System.out.println("please enter your id");
        int i=input.nextInt();
        System.out.println("please enter your address");
        String address =input.next();
        System.out.println("how many products you want to add to your cart ?");
        int y=input.nextInt();
        Cart c1=new Cart(i,y);
        for(int j=0;j<y;j++){
            System.out.println("which product would you like to add? 1- smartphone 2- T-shirt 3-oop");
            int l=input.nextInt();
            if(l==1){
                c1.addproduct(p3);
            }else if(l==2){
                c1.addproduct(p2);
            }else {
                c1.addproduct(p1);
            }
        }
        Order o1=new Order(i,1,c1.Cart,c1.total);
        c1.calculateprice();
        System.out.println("your total is $" +c1.total+" would you like to place the order ? 1- YES 2- NO");
        int z=input.nextInt();
        if(z==1){
            c1.placeorder();
            o1.printOrderInfo();
        }else if(z==2){
            System.out.println("thank you ");
        }else{
            System.out.println("invalid choice");
        }
    }

    //GUI
    //int x= Integer.parseInt( JOptionPane.showInputDialog("welcome to the E-commerce System! \n please enter your ID"));
    // String y= JOptionPane.showInputDialog("please enter your name");
    // String z=JOptionPane.showInputDialog("please enter your address");
    // int f=Integer.parseInt(JOptionPane.showInputDialog("how many products you want to add to your cart ?"));
    // Cart c1=new Cart(x,f);
    // for(int j=0;j<f;j++){
    //     String[] answers={"smartphone ", "T-shirt","oop"};
    //     int d= JOptionPane.showOptionDialog(null,"which product would you like to add?" ,null,
    // JOptionPane.YES_NO_CANCEL_OPTION, 0, null, answers, 0);
    //     if(d==0){
    //         c1.addproduct(p3);
    //     }else if(d==1){
    //         c1.addproduct(p2);
    //     }else {
    //         c1.addproduct(p1);
    //     }
    // }
    // Order o1=new Order(x,1,c1.Cart,c1.total);
    // c1.calculateprice();
    // int k= JOptionPane.showConfirmDialog(null, "your total is $" +c1.total+
    // "would you like to place the order ? 1- YES 2- NO", null, JOptionPane.YES_NO_OPTION);
    // if(k==0){
    //     c1.placeorder();
    //     o1.printinfo();
    // }
    // else if(k==1){
    //     JOptionPane.showMessageDialog(null,"Thank you", null, JOptionPane.PLAIN_MESSAGE);
    // }
    // else{
    //     JOptionPane.showMessageDialog(null,"invalid", null, JOptionPane.PLAIN_MESSAGE);
    // }
    // }
}

```



```
run:
welcome to the E-commerce system!
please enter your name
kirollos kamil
please enter your id
23012112
please enter your address
address
how many products you want to add to your cart ?
4
which product would you like to add? 1- smartphone 2- T-shirt 3-oop
1
which product would you like to add? 1- smartphone 2- T-shirt 3-oop
1
which product would you like to add? 1- smartphone 2- T-shirt 3-oop
2
which product would you like to add? 1- smartphone 2- T-shirt 3-oop
3
your total is $1259.78 would you like to place the order ? 1- YES 2- NO
1
here is your orders summary :
orderId:1
customer ID:23012112
products:
smartphone - 599.9
smartphone - 599.9
T_shirt - 19.99
OOP - 39.99
Total price :1259.78
BUILD SUCCESSFUL (total time: 36 seconds)
```

Input



welcome to the E-commerce System!
please enter your ID

OK

Cancel

Input



please enter your name

kirollos kamil

OK

Cancel

Input



please enter your address

address

OK

Cancel

Input



how many products you want to add to your cart ?

OK

Cancel



which product would you like to add?

smartphone

T-shirt

oop

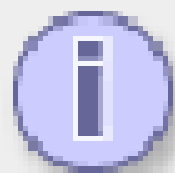


your total is \$99.97would you like to place the order ? 1- YES 2- NO

Yes

No

Message



Customr ID: 23012112

Order ID: 1

T_shirt:19.99\$

OOP:39.99\$

OOP:39.99\$

Total Price: 99.97\$

