

```
AmrAssignment/src/CLOTHINGPRODUCT.java
1 public class order {
2     public int customerId;
3     public int orderId;
4     public order(int customerId,int orderId,product []products2,float totalprice) {
5         this.customerId=Math.abs(customerId);
6         this.orderId=Math.abs(orderId);
7         this.products2=products2;
8         this.totalprice=Math.abs(totalprice);
9     }private product []products2;public void printOrderInfo() {
10         System.out.println("Customer ID: " + customerId);
11         System.out.println("Order ID: " + orderId);
12         System.out.println("Products:");
13         for(int i =0; i< products2.length;i++) {
14             if (products2[i]!=null) {
15                 System.out.println(" "+ products2[i].getname()+ "$"+products2[i].getprice());
16             }}
17         System.out.println("Total price : "+(float)totalprice+"$");
18     }public float totalprice;}
19
```

```
1 public class product {
2     public int productId;
3     public String name;
4     public float price; public int getproductId() {
5         return productId;
6     } public String getname() {
7         return name;
8     } public float getprice() {
9         return price; } public void setproductId(int productId) {
10        this.productId=Math.abs(productId); } public void setname(String name) {
11        this.name=name; }
12    public void setprice(float price) {
13        this.price=Math.abs(price); }
14    public product (int productId,String name,double d) {
15        this.productId=Math.abs(productId);
16        this.name=name;
17        this.price=(float) Math.abs(d);
18    }
19 }
20 |
```

```

1 public class CART {
2     public int customerID;
3     public static int nproducts;
4     private static product []products;
5     public int getcustomerID() {
6         return customerID; } public int getnproducts() {
7         return nproducts; }
8     public product[] getproducts() {
9         return products; } public void setcustomerID(int customerID) {
10        this.customerID= Math.abs(customerID); }
11    public CART(int customerID, int nproducts) {
12        this.customerID = Math.abs(customerID);
13        this.nproducts = Math.abs(nproducts);
14        this.products = new product[nproducts];
15    }
16    public void setnproducts(int nproducts) {
17        this.nproducts = Math.abs(nproducts);
18        products = new product[nproducts]; }
19    public static void addproduct(product product11, int index) {
20        if (index >= 0 && index < nproducts) {
21            products[index]=product11;
22        } else {
23            System.out.println("you cant add product here");
24        } }
25
26    public static float calcprice() {
27        float totalprice = 0;
28        for(int i=0;i < nproducts;i++) {
29            if(products[i]!=null) {
30                totalprice+=products[i].getprice();
31            }
32        }
33        return totalprice;
34    } public void removeproduct(int index) {
35        if ( index >= 0 && index<nproducts) {
36            products[index]=null;
37        } else {
38            System.out.println("there is no product to remove. ");
39        }
40    }
41    public void placeorder() {
42        System.out.println("your order is placed, and being shipped already!");
43    }
44 }

```

```
1 public class CLOTHINGPRODUCT extends product {
2     public String size;
3     public String fabric; public String getsize() {
4         return size;
5     }
6     public String getfabric() {
7         return fabric;
8     }
9     public CLOTHINGPRODUCT( String name, int productID, double d, String size, String fabric) {
10         super(productID, name, d);
11         this.size=size;
12         this.fabric=fabric;
13     }
14     public void setsize(String size) {
15         this.size= size;
16     }
17     public void setfabric(String fabric) {
18         this.fabric=fabric;
19     }
20 }
```

```
public class BookProduct extends Product {  
    public String author;  
    public String publisher;  
    public String getauthor() {  
        return author;  
    }  
    public String getpublisher() {  
        return publisher;  
    }  
    public void setauthor(String author) {  
        this.author= author;  
    }  
    public void setpublisher(String publisher) {  
        this.publisher=publisher;  
    }  
    public BOOKPRODUCT(String name,int productID, double d,String author,String publisher) {  
        super(productID, name, d);  
        this.author=author;  
        this.publisher=publisher;  
    }  
}
```

```
1 public class ELECTRONICPRODUCT extends product {
2     public String brand;
3     public String getbrand() {
4         return brand;}
5     public ELECTRONICPRODUCT(String name,int productID, double d, String brand,int warrantyPeriod) {
6         super(productID, name,d);
7         this.brand=brand;
8         this.warrantyPeriod=warrantyPeriod;}
9     public int warrantyPeriod;
10    public int getwarrantyPeriod() {
11        return warrantyPeriod;}
12    public void setbrand(String brand) {
13        this.brand= brand;}
14    public void setwarrantyPeriod(int warrantyPeriod) {
15        this.warrantyPeriod=warrantyPeriod;
16    }
17 }
```



```

1 import java.util.Scanner;
2 public class ECOMMERCESYSTEM {
3     public static void main(String[] args) {
4         ELECTRONICPRODUCT electronic= new ELECTRONICPRODUCT("Smartphone",1, 599.99,"Samsung",1);
5         CLOTHINGPRODUCT clothing= new CLOTHINGPRODUCT("tshirt",2, 19.99,"medium","Cotton");
6         BOOKPRODUCT book= new BOOKPRODUCT("Object oriented programming",3, 39.99,"O'reilly","X publicatoions");
7         Scanner input= new Scanner(System.in);
8         System.out.println("Please Enter your ID:");
9         int customerID = input.nextInt();
10        System.out.println("Please Enter your name:");
11        String custname=input.next();
12        System.out.println("Enter your address:");
13        String address=input.next();
14        CUSTOMER cust1 = new CUSTOMER(customerID,custname,address);
15        System.out.println("How many products you want to add to your cart?");
16        int nproducts=input.nextInt();
17        CART cart1= new CART(cust1.getcustomerID(),nproducts);
18        for ( int i = 0 ; i<nproducts ;i++) {
19            System.out.println("Which product would you like to add? 1- Smartphone 2- T-shirt 3-Book");
20            int choice = input.nextInt();
21            switch (choice) {
22                case 1:
23                    CART.addproduct(new ELECTRONICPRODUCT("Smartphone",1,599.9,"Samsung",1),i);
24                    break;
25                case 2:
26                    CART.addproduct( new CLOTHINGPRODUCT("tshirt",2,19.99,"medium","Cotton"),i);
27                    break;
28                case 3:
29                    CART.addproduct(new BOOKPRODUCT ("OOP",3,39.99,"BOOK", "X publicatoions"),i);
30                    break;
31                default :
32                    System.out.println("invalid input, please choose 1 or 2 or 3 ");
33            }
34        }
35        float totalprice = CART.calcprice();
36        System.out.println("Your total is "+(float)totalprice+"$.");
37        System.out.println("Would you like to place order ? 1- Yes, 2-No");
38        int choicetoplace=input.nextInt();
39        if (choicetoplace ==1) {
40            order order1 = new order (cust1.getcustomerID(),1, cart1.getproducts(),totalprice);
41            System.out.println("Here is your order's summary:");
42            order1.printOrderInfo();
43        }else {
44            System.out.println("order not placed");
45        }
46    }
47 }

```

```
1 public class CUSTOMER {
2     public int customerID;
3     public String custname;
4     public String address;
5     public int getcustomerID() {
6         return customerID;
7     } public String getcustname() {
8         return custname;
9     } public void setcustomerID(int customerID) {
10         this.customerID= Math.abs(customerID);
11     } public String getaddress() {
12         return address;
13     } public void setcustname(String custname) {
14         this.custname= custname;
15     } public CUSTOMER(int customerID , String custname , String address) {
16         this.customerID=Math.abs(customerID);
17         this.custname=custname;
18         this.address=address;
19     } public void setaddress(String address) {
20         this.address= address;
21     }
22
23 |
```


Please Enter your ID:

23012126

Please Enter your name:

AmrKhalidAbdelaziz

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-Book

2

Which product would you like to add? 1- Smartphone 2- T-shirt 3-Book

3

Which product would you like to add? 1- Smartphone 2- T-shirt 3-Book

2

Which product would you like to add? 1- Smartphone 2- T-shirt 3-Book

1

Your total is 679.87\$.

Would you like to place order ? 1- Yes, 2-No

1

Here is your order's summary:

Customer ID: 23012126

Order ID: 1

Products:

tshirt\$19.99

OOP\$39.99

tshirt\$19.99

Smartphone\$599.9

Total price : 679.87\$