

```

1 import java.util.Scanner;
2 public class EcommerceSystem{
3     public static void main(String[] args){
4
5         Scanner input = new Scanner(System.in);
6
7         ElectronicProduct elc = new ElectronicProduct( productId: 1, name: "smartphone", price: 599.9f, brand: "Samsung", warrantyPeriod: 1);
8         ClothingProduct clo = new ClothingProduct( productId: 2, name: "T-shirt", price: 19.99f, size: "Medium", fabric: "Cotton");
9         BookProduct book = new BookProduct( productId: 3, name: "OOP", price: 39.99f, author: "O'Reilly", publisher: "X Publications");
10
11         System.out.println("Welcome to the E-commerce System!");
12         System.out.println("Entre your ID");
13         int id = input.nextInt();
14         input.nextLine();
15         System.out.println("Entre your name");
16         String name = input.nextLine();
17         System.out.println("Entre your address");
18         String address = input.nextLine();
19         Customer customer = new Customer(id,name,address);
20
21         System.out.println("How many Products do you want to add to your cart");
22         int size = input.nextInt();
23         Cart cart = new Cart(customer.getCustomerId(),size);
24         for (int i = 0; i <size;i++) {
25             System.out.println("Which product do you want to add? 1- Smartphone 2- T-shirt 3- OOP");
26             int productId = input.nextInt();
27             Product product;
28             switch(productId){

```

```

28     switch(productId){
29         case 1:
30             product = new ElectronicProduct(productId: 1, name: "Smartphone", price: 599.9f, brand: "Samsung", warrantyPeriod: 1);
31             break;
32         case 2:
33             product = new ClothingProduct(productId: 2, name: "T-shirt", price: 19.99f, size: "Medium", fabric: "Cotton");
34             break;
35         case 3:
36             product = new BookProduct(productId: 3, name: "OOP", price: 39.99f, author: "O'Reilly", publisher: "X Publications");
37             break;
38         default:
39             System.out.println("error, try again");
40             i--;
41             continue;
42     } cart.addProduct(product,i);
43 }
44 System.out.println("Your total is " + cart.calculatePrice() + ". Would you like to place your order? 1- Yes 2- No");
45 int choice = input.nextInt();
46 if (choice ==1){
47     System.out.println("Here is your order summary");
48     Order odr = new Order(id, orderId: 1, cart.getProducts(), (float)cart.calculatePrice());
49     odr.printOrderInfo();
50 }
51 }
52 }

```

```
53 class Product {  
54     3 usages  
    int productId;  
55     3 usages  
    String name;  
56     3 usages  
    float price;  
57  
    3 usages  
58     public Product(int productId, String name, float price) {  
59         this.productId = Math.abs(productId);  
60         this.name = name;  
61         this.price = Math.abs(price);  
62     }  
63  
    no usages  
64     public int getProductId() {  
65         return productId;  
66     }  
67  
    no usages  
68     public void setProductId(int productId) {  
69         this.productId = Math.abs(productId);  
70     }  
71 }
```

```
72 public String getName() {
73     return name;
74 }
75
76 no usages
77 public void setName(String name) {
78     this.name = name;
79 }
80
81 1 usage
82 public float getPrice() {
83     return price;
84 }
85
86 no usages
87 public void setPrice(float price) {
88     this.price = Math.abs(price);
89 }
90 }
```

```
87 } class ElectronicProduct extends Product{
    3 usages
88     String brand;
    3 usages
89     int warrantyPeriod;
90
    2 usages
91     public ElectronicProduct(int productId, String name, float price, String brand, int warrantyPeriod) {
92         super(productId, name, price);
93         this.brand = brand;
94         this.warrantyPeriod = Math.abs(warrantyPeriod);
95     }
96
    no usages
97     public String getBrand() {
98         return brand;
99     }
100
    no usages
101     public void setBrand(String brand) {
102         this.brand = brand;
103     }
104
    no usages
105     public int getWarrantyPeriod() {
106         return warrantyPeriod;
107     }
108 }
```

no usages

```
109 public void setWarrantyPeriod(int warrantyPeriod) {  
110     this.warrantyPeriod = Math.abs(warrantyPeriod);  
111 }
```

```
112 } class ClothingProduct extends Product {  
    3 usages  
113     String size;  
    3 usages  
114     String fabric;  
115  
    2 usages  
116     public ClothingProduct(int productId, String name, float price, String size, String fabric) {  
117         super(productId, name, price);  
118         this.size = size;  
119         this.fabric = fabric;  
120     }  
121  
    no usages  
122     public String getSize() {  
123         return size;  
124     }  
125  
    no usages  
126     public void setSize(String size) {  
127         this.size = size;  
128     }  
129  
    no usages  
130     public String getFabric() {  
131         return fabric;  
132     }
```

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



```
137 } class BookProduct extends Product{  
    3 usages  
138     String author;  
    3 usages  
139     String publisher;  
140  
    2 usages  
141     public BookProduct(int productId, String name, float price, String author, String publisher) {  
142         super(productId, name, price);  
143         this.author = author;  
144         this.publisher = publisher;  
145     }  
146  
    no usages  
147     public String getAuthor() {  
148         return author;  
149     }  
150  
    no usages  
151     public void setAuthor(String author) {  
152         this.author = author;  
153     }  
154  
    no usages  
155     public String getPublisher() {  
156         return publisher;  
157     }
```

no usages

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

```
162 } class Customer {  
    3 usages  
163     int customerId;  
    3 usages  
164     String name;  
    3 usages  
165     String address;  
166  
    1 usage  
167     public Customer(int customerId, String name, String address) {  
168         this.customerId = Math.abs(customerId);  
169         this.name = name;  
170         this.address = address;  
171     }  
172  
    1 usage  
173     public int getCustomerId() {  
174         return customerId;  
175     }  
176  
    no usages  
177     public void setCustomerId(int customerId) {  
178         this.customerId = customerId;  
179     }  
180  
    no usages
```

no usages

```
181 public String getName() {  
182     return name;  
183 }  
184
```

no usages

```
185 public void setName(String name) {  
186     this.name = name;  
187 }  
188
```

no usages

```
189 public String getAddress() {  
190     return address;  
191 }  
192
```

no usages

```
193 public void setAddress(String address) {  
194     this.address = address;  
195 }
```

Method 'getName()' is never used

```
196 } class Cart{  
    3 usages  
197     int customerId;  
    6 usages  
198     int nProducts;  
    6 usages  
199     Product[] products;  
200  
    1 usage  
201     public Cart(int customerId, int nProducts) {  
202         this.customerId = Math.abs(customerId);  
203         this.nProducts = Math.abs(nProducts);  
204         this.products = new Product[nProducts];  
205     }  
206  
    no usages  
207     public int getCustomerId() {  
208         return customerId;  
209     }  
210  
    no usages  
211     public void setCustomerId(int customerId) {  
212         this.customerId = Math.abs(customerId);  
213     }  
214
```

no usages

```
215 public int getNProducts() {  
216     return nProducts;  
217 }  
218
```

no usages

```
219 public void setNProducts(int nProducts) {  
220     this.nProducts = Math.abs(nProducts);  
221 }  
222
```

1 usage

```
223 public Product[] getProducts() {  
224     return products;  
225 }  
226
```

1 usage

```
227 public void addProduct(Product product, int x) {  
228     if (x >= 0 && x < nProducts) {  
229         products[x] = product;  
230     } else {  
231         System.out.println("wrong size");  
232     }  
233 }  
234
```

no usages

```
public void removeProduct(int x) {  
    if (x >= 0 && x < nProducts) {  
        products[x] = null;  
    } else {  
        System.out.println("wrong size");  
    }  
}
```

2 usages

```
public double calculatePrice() {  
    double totalPrice = 0;  
    for (int i=0;i <nProducts;i++) {  
        if (products[i] != null) {  
            totalPrice += products[i].getPrice();  
        }  
    }  
    return totalPrice;  
}
```

```

251 }class Order {
      2 usages
252     int customerId;
      2 usages
253     int orderId;
      3 usages
254     Product[] products;
      2 usages
255     float totalPrice;
256
      1 usage
257     public Order(int customerId, int orderId, Product[] products, float totalPrice) {
258         this.customerId = Math.abs(customerId);
259         this.orderId = Math.abs(orderId);
260         this.products = products;
261         this.totalPrice = Math.abs(totalPrice);
262     }
      1 usage
263     public void printOrderInfo(){
264         System.out.println("Customer Id is " + customerId + ", Order Id is " + orderId);
265         for (int i = 0;i<products.length;i++){
266             System.out.println("Product number "+i+ " is "+products[i]);|
267         }
268         System.out.println("Total price is " +totalPrice);
269     }
270 }

```



```
Welcome to the E-commerce System!  
Entre your ID  
23010039  
Entre your name  
mo'men wael esmail elsherif  
Entre your address  
business  
How many Products do you want to add to your cart  
3  
Which product do you want to add? 1- Smartphone 2- T-shirt 3- 00P  
1  
Which product do you want to add? 1- Smartphone 2- T-shirt 3- 00P  
2  
Which product do you want to add? 1- Smartphone 2- T-shirt 3- 00P  
3  
Your total is 659.8800258636475. Would you like to place your order? 1- Yes 2- No  
1  
Here is your order summary  
Customer Id is 23010039, Order Id is 1  
Product number 0 is ElectronicProduct@5010be6  
Product number 1 is ClothingProduct@533ddba  
Product number 2 is BookProduct@246b179d  
Total price is 659.88  
  
Process finished with exit code 0
```