

```
/* * @author ibrahim ali khaled ibrahim ibrahim  
elwe;el 23010116 */
```

```
public class EcommerceSystem {  
  
    public static void main(String[] args) {  
  
        // coded by ibrahim ali khaled ibrahim ibrahim  
        elwe;el 23010116  
  
        Scanner scanner = new Scanner(System.in)  
        Electronicproduct electronicProduct = new  
        Electronicproduct(1, "smartphone", 599.9f,  
        "Samsung", 1);    clothingproduct  
        clothingProduct = new clothingproduct(2,  
        "T-shirt", 19.99f, "Medium", "Cotton");  
        bookproduct bookProduct = new  
        bookproduct(3, "OOP", 39.99f, "O'Reilly", "X  
        Publications");    System.out.println("Enter  
        your customer ID:");    int customerId =  
        scanner.nextInt();    scanner.nextLine();  
        System.out.println("Enter your name:");  
        String name = scanner.nextLine();  
        System.out.println("Enter your address:");  
        String address = scanner.nextLine();  
        customer customer = new  
        customer(customerId, name, address);  
        System.out.println("How many products do you  
        want to order?");    int numProducts =  
        scanner.nextInt();    scanner.nextLine();  
        cart cart = new cart(customerId,  
        numProducts);    for (int i = 0; i <  
        numProducts; i++) {  
  
        // coded by ibrahim ali khaled ibrahim ibrahim  
        elwekel 23010116  
        System.out.println("choose\n 1-smartphone \t  
        2-T-shirt \t 3-OOP " + (i + 1) + ":");    int  
        productId = scanner.nextInt();  
        scanner.nextLine();    switch (productId)  
        {  
            case 1:  
                cart.addProduct(electronicProduct);  
                break;    case 2:  
                cart.addProduct(clothingProduct);  
                break;    case 3:  
                cart.addProduct(bookProduct);  
                break;    default:  
                System.out.println("Invalid product  
        ID.");    }    }    System.out.println("your  
        total is"+cart.calculatePrice());  
        System.out.println("Do you want to place an  
        order? (yes/no)");    String response =  
        scanner.nextLine();    if  
        (response.equalsIgnoreCase("yes")) {  
            System.out.println("here is your order's  
        summary");    order order = new  
        order(customerId, 1, cart.products, (float)  
        cart.calculatePrice());  
        order.printOrderInfo();    } else {  
            System.out.println("Order not  
        placed.");    }    scanner.close();    }  
  
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        ibrahim elwe;el 23010116
```



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```
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```
public class product {  int productID;  String  
name;  float price;  public product(int  
productID, String name, float price) {  
this.productID = (productID > 0) ? productID :  
Math.abs(productID);    this.name =  
name;    this.price = Math.abs(price);  }  
public void set_productID(int p){ if (p>0)  
productID = p; else    productID =  
Math.abs(p); } public int get_productID (){  
return productID; } public void set_name(String  
n){    name = n; } public String get_name (){  
return name; } public void set_price(float pr)  
{    price = Math.abs(pr); } public float  
get_price (){    return price; } }
```

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```
/* *@author ibrahim ali khaled ibrahim ibrahim  
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public class Electronicproduct extends product  
{ String brand; int warrantyperiod; public  
Electronicproduct(int productID, String name,  
float price, String brand, int warrantyPeriod)  
{ super(productID, name, price);  
this.brand = brand; this.warrantyperiod =  
(warrantyPeriod > 0) ? warrantyPeriod :  
Math.abs(warrantyPeriod); }  
  
// coded by ibrahim ali khaled ibrahim ibrahim  
elwekel 23010116  
  
public void set_brand(String b){ brand = b; }  
public String get_brand (){ return brand; }  
public void set_warrantyperiod(int w){ if (w>0)  
warrantyperiod = w; else warrantyperiod =  
Math.abs(w); } public int get_warrantyperiod ()  
{ return warrantyperiod; } }
```



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```

```
public class clothingproduct extends product  
{ String size; String fabric; public  
clothingproduct(int productID, String name,  
float price, String size, String fabric) {  
super(productID, name, price); this.size =  
size; this.fabric = fabric; } public void  
set_size(String s){ size = s; } public String  
get_size (){ return size; } public void  
set_fabric(String f){ fabric = f; } public  
String get_fabric (){ return fabric; }}
```

```
/* @author ibrahim ali khaled ibrahim ibrahim  
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```

```
public class bookproduct extends product {  
String author; String publisher; public  
bookproduct(int productID, String name, float  
price, String author, String publisher) {  
super(productID, name, price); this.author =  
author; this.publisher = publisher; }
```

```
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```

```
public void set_author(String a){ author =  
a; } public String get_author (){ return  
author; } public void set_publisher(String p){  
publisher = p; } public String get_publisher ()  
{ return publisher; }}
```

```
/* @author elwekel */
```

```
public class customer { int customerID;  
String name; String address; public  
customer(int customerID, String name, String  
address) { this.customerID = (customerID >  
0) ? customerID : Math.abs(customerID);  
this.name = name; this.address =  
address; }
```

```
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```

```
public void set_customerID(int c){ if (c>0)  
customerID = c; else customerID =  
Math.abs(c); } public int get_customerID (){  
return customerID; } public void  
set_name(String n){ name = n; } public  
String get_name (){ return name; } public void  
set_address(String a){ address = a; } public  
String get_address (){ return address; } }
```



```
/* @author elwekel */
```

```
public class cart { int customerID; int
nproducts; product[]products; public
cart(int customerId, int nProducts) {
this.customerID = Math.abs(customerId);
this.nproducts = Math.abs(nProducts);
this.products = new
product[this.nproducts]; }

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public void set_customerID(int c){ if (c>0)
customerID = c; else    customerID =
Math.abs(c); } public int get_customerID (){
return customerID; } public void
set_nproducts(int n){ if (n>0)    nproducts = n;
else    nproducts = Math.abs(n); } public int
get_nproducts (){    return nproducts; } public
void addProduct(product product) {    for (int
i = 0; i < products.length; i++) {        if
(products[i] == null) {            products[i] =
product;            break;        }    } } public
void removeProduct(product product) {    for
(int i = 0; i < products.length; i++) {        if
(products[i] == product) {            products[i] =
null;            break;        }    }} public double
calculatePrice() {    double totalPrice = 0.0;    for
(product product : products) {        if (product !=
null) {            totalPrice +=
product.get_price();        }    }    return
totalPrice;}    public void placeOrder() {
System.out.println("Order placed
successfully."); }}

/* @author elwekel */
```

```
public class order {    int customerId; int
orderId;    product[] products;    float
totalPrice;

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    public order(int customerId, int orderId,
product[] products, float totalPrice) {
this.customerId = (customerId > 0) ?
customerId : Math.abs(customerId);
this.orderId = (orderId > 0) ? orderId :
Math.abs(orderId);    this.products =
products;    this.totalPrice = (totalPrice > 0) ?
totalPrice : Math.abs(totalPrice);    }    public
void printOrderInfo() {
System.out.println("Order ID: " + orderId);
System.out.println("Customer ID: " +
customerId);
System.out.println("Products:");    for
(product product : products) {
System.out.println(" - " + product.get_name() +
": " + product.get_price());    }
System.out.println("Total Price: " +
totalPrice);    } }
```



Output - JavaApplication5 (run)

```
run:
Enter your customer ID:
23010116
Enter your name:
ibrahim ali khaled ibrahim ibrahim elwekel
Enter your address:
address
How many products do you want to order?
4
choose
1-smartphone      2-T-shirt      3-OOP      1:
2
choose
1-smartphone      2-T-shirt      3-OOP      2:
3
choose
1-smartphone      2-T-shirt      3-OOP      3:
2
choose
1-smartphone      2-T-shirt      3-OOP      4:
1
your total is 679.8700256347856
Do you want to place an order? (yes/no)
yes
here is your order's summary
Order ID: 1
Customer ID: 23010116
Products:
- T-shirt: 19.99
- OOP: 39.99
- T-shirt: 19.99
- smartphone: 599.9
Total Price: 679.87
BUILD SUCCESSFUL (total time: 1 minute 14 seconds)
```

Output

Type here to search