

```
package com.mycompany.ecommercesystem;
```

```
import java.util.Scanner;
```

```
public class EcommerceSystem {
```

```
    public static void main(String[] args) {
```

```
        Scanner hs=new Scanner(System.in);
```

```
        Product p=new Product();
```

```
        ElectronicProduct e_p =new ElectronicProduct(brand: " Samsung",warrantyPeriod: 1,productId: 1,price: 599.99f,name: "Smartphone");
```

```
        ClothingProduct c_p=new ClothingProduct(fabric: "Cotton",size: "Medium",productId: 2,price: 19.99f,name: "T-shirt");
```

```
        BookProduct b_p=new BookProduct(author: "O'Reilly",publisher: " x Publications",productId: 3,price: 39.99f,name: "oop");
```

```
        System.out.println("Welcome to the E-commerce system!");
```

```
        System.out.println("Enter your id:");
```

```
        int customerId=hs.nextInt();
```

```
        System.out.println("Enter your name:");
```

```
        String name=hs.next();
```

```
        System.out.println("Enter your address:");
```

```
        String address=hs.next();
```

```
        Customer customer=new Customer(name,address,customerId);
```

```
        System.out.println("How many products you want to add to your cart ?");
```

```
        int nProducts=hs.nextInt();
```

```
        Cart cart = new Cart(customerId,nProducts);
```

```

int x=1;
while (x<=nProducts){
    System.out.println(x: "Which product would you like to add? 1:Smartphone , 2:T-shirt , 3:Oop");
    int n =hs.nextInt();
    switch(n){
        case 1:
            cart.addProducts(product:e_p);
            break;
        case 2:
            cart.addProducts( product:c_p);
            break;
        case 3:
            cart.addProducts( product:b_p);
            break;
    }
    x+=1;
}
System.out.print( " your total is"+cart.calculatePrice() );
System.out.println(x: " Would you like to place the order ?1:yes , 2:no");
int placeOrder =hs.nextInt();
if (placeOrder==1){
    System.out.println(x: "Here is your order is summary:");
    cart.placeOrder();
}
}

```

```
public class Product {  
    private int productId;  
    private float price;  
    private String name;  
    public int getProductId() {  
        return productId;  
    }  
    public Product(int productId, float price, String name) {  
        this.productId = productId;  
        this.price = price;  
        this.name = name;  
    }  
    public Product() {  
    }  
    public void setProductId(int productId) {  
        this.productId = Math.abs(productId);  
    }  
    public float getPrice() {  
        return price;  
    }  
    public void setPrice(float price) {  
        this.price = Math.abs(price);  
    }  
    public String getName() {  
        return name;  
    }  
    public void setName(String name) {  
        this.name = name;  
    }  
}
```

```
package com.mycompany.ecommercesystem;

public class ElectronicProduct extends Product {
    private String brand;
    private int warrantyPeriod;
    public ElectronicProduct(String brand, int warrantyPeriod, int productId, float price, String name) {
        super(productId, price, name);
        this.brand = brand;
        this.warrantyPeriod = Math.abs(warrantyPeriod);
    }
    public String getBrand() {
        return brand;
    }
    public void setBrand(String brand) {
        this.brand = brand;
    }
    public int getWarrantyPeriod() {
        return warrantyPeriod;
    }
    public void setWarrantyPeriod(int warrantyPeriod) {
        this.warrantyPeriod = Math.abs(warrantyPeriod);
    }
}
```

```
package com.mycompany.ecommercesystem;

public class ClothingProduct extends Product{
    private String fabric;
    private String size;
    public ClothingProduct(String fabric, String size, int productId, float price, String name) {
        super(productId, price, name);
        this.fabric = fabric;
        this.size = size;
    }
    public String getFabric() {
        return fabric;
    }
    public void setFabric(String fabric) {
        this.fabric = fabric;
    }
    public String getSize() {
        return size;
    }
    public void setSize(String size) {
        this.size = size;
    }
}
```

```
package com.mycompany.ecommercesystem;

public class BookProduct extends Product{
    private String author;
    private String publisher;
    public BookProduct(String author, String publisher, int productId, float price, String name) {
        super(productId, price, name);
        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 com.mycompany.ecommercesystem;

public class Customer {
    private String name ;
    private String address;
    private int customerId;
    public Customer(String name, String address, int customerId) {
        this.name = name;
        this.address = address;
        this.customerId =Math.abs( 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;
    }
    public int getCustomerId() {
        return customerId;
    }
    public void setCustomerId(int customerId) {
        this.customerId= Math.abs( customerId) ;
    }
}
```

```
package com.mycompany.ecommercesystem;

public class Cart {
    private int customerId;
    private int nProducts;
    private Product[] products=new Product[nProducts];
    public Cart(int customerId, int nProducts) {
        this.customerId = Math.abs(;; customerId) ;
        this.nProducts = Math.abs(;; nProducts) ;
        this.products = new Product[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) ;
    }
    public Product[] getProducts() {
        return products;
    }
    public void setProducts(Product[] products) {
        this.products=products;
    }
}
```



```

    int i=0;
    public void addProducts(Product product) {
        products[i]=product;
        i++;
    }
    public void removeProduct(Product product, int n ){
        if(product==this.products[n])
            product=null;
        else
            System.out.println("not find this product ");
    }
    public float calculatePrice() {
        float total = 0;
        for (Product product : products) {
            total += product.getPrice();
        }
        float totalPrice=total;
        return totalPrice ;
    }
    public Order placeOrder(){
        float totalPrice= calculatePrice();
        int orderId = (int)(Math.random()*1000);
        Order order= new Order(customerId,orderId,products,totalPrice);
        order.printOrderInfo();
        return order;
    }
}

```

```
package com.mycompany.ecommercesystem;

public class Order {
    private int customerId;
    private int orderId;
    Product[] products;
    float totalPrice;

    public Order(int customerId, int orderId, Product[] products, float totalPrice) {
        this.customerId = Math.abs(customerId);
        this.orderId = Math.abs(orderId);
        this.products = products;
        this.totalPrice = Math.abs(totalPrice);
    }

    public void printOrderInfo() {
        System.out.println("customerId : " + customerId);
        System.out.println("orderId : " + orderId);
        System.out.println("products : ");
        for(Product product : products) {
            System.out.println(product.getName() + " - $" + product.getPrice());
        }
        System.out.println("totalPrice : " + totalPrice);
    }
}
```

Welcome to the E-commerce system!

Enter your id:

2692023

Enter your name:

habiba

Enter your address:

montaza

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

2

Which product would you like to add? 1:Smartphone , 2:T-shirt , 3:Oop

3

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

1

your total is 679.95996 Would you like to place the order ? 1:yes , 2:no

1

Here is your order summary:

customerId : 2692023

orderId : 644

products :

T-shirt - \$19.99

oop - \$39.99

T-shirt - \$19.99

Smartphone - \$599.99

totalPrice : 679.95996

BUILD SUCCESS