```java
public class Product{
    protected int productid;
    protected String name;
    protected float price;

    public Product(int productid, String name, float price){
        this.productid=Math.abs(a: productid);
        this.name=name;
        this.price=Math.abs(a: price);
    }

    public void setProductid(int productid) {
        this.productid = Math.abs(a: productid);
    }

    public void setName(String name) {
        this.name = name;
    }

    public void setPrice(float price) {
        this.price = Math.abs(a: price);
    }

    public int getProductid() {
        return productid;
    }

    public String getName() {
        return name;
    }
}
```

```java
    public String getName() {
        return name;
    }

    public float getPrice() {
        return price;
    }
}

class ElectronicProduct extends Product{
    protected String brand;
    protected int warrantyPeriod;
    public ElectronicProduct(int productId, String name, float price, String brand, int warrantyPeriod) {
        super(productid: productId, name, price);
        this.brand = brand;
        this.warrantyPeriod =Math.abs(a: warrantyPeriod) ;
    }

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

    public void setWarrantyPeriod(int warrantyPeriod) {
        this.warrantyPeriod =Math.abs(a: warrantyPeriod);
    }

    public String getBrand() {
        return brand;
    }

    public int getWarrantyPeriod() {
        return warrantyPeriod;
    }
```

```java
        public int getWarrantyPeriod() {
            return warrantyPeriod;
        }
    }
    class ClothingProduct extends Product{
        protected String size,fabric;
        public ClothingProduct(int productid, String name, float price, String size, String fabric){
            super(productid, name, price);
            this.fabric=fabric;
            this.size=size;
        }

        public void setSize(String size) {
            this.size = size;
        }

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


        public String getSize() {
            return size;
        }

        public String getFabric() {
            return fabric;
        }
    }
    class bookProduct extends Product{
        protected String author,publisher;
        public bookProduct(int productid, String name, float price,String author,String publisher){
```

```java
        }
    }
    class bookProduct extends Product{
        protected String author,publisher;
        public bookProduct(int productid, String name, float price,String author,String publisher){
            super(productid, name, price);
            this.author=author;
            this.publisher=publisher;
        }

        public void setAuthor(String author) {
            this.author = author;
        }

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

        public String getAuthor() {
            return author;
        }

        public String getPublisher() {
            return publisher;
        }
    }
```

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Course.java Start Page Customer.java Cart.java EcommerceSystem.java Product.java EcommerceSystemGUI.java

```java
public class Customer {
    protected int customerId;
    protected String name;
    protected String address;
    public Customer(int customerId,String name,String address){
        this.customerId=Math.abs(a: customerId);
        this.name=name;
        this.address=address;


    }

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

    public void setName(String name) {
        this.name = name;
    }

    public void setAddress(String address) {
        this.address = address;
    }

    public int getCustomerId() {
        return customerId;
    }

    public String getName() {
        return name;
    }

    public String getAddress() {
```

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Course.java Start Page Customer.java Cart.java EcommerceSystem.java Product.java EcommerceSystemGUI.java

```java
import java.util.Scanner;
class Cart{
    protected int customerId;
    protected int nProducts;
    protected Product[]products;
    int currentIndex = 0;
    public Cart(int customerId, int nProducts){
        this.customerId=Math.abs(a: customerId);
        this.nProducts=Math.abs(a: nProducts);
        this.products=new Product[nProducts];
    }
    public void setCustomerId(int customerId){
        this.customerId =Math.abs(a: customerId);
    }

    public void setnProducts(int nProducts) {
        this.nProducts = Math.abs(a: nProducts);
    }

    public void setProducts(Product[] products) {
        this.products = products;
    }

    public int getCustomerId() {
        return customerId;
    }

    public int getnProducts() {
        return nProducts;
    }

    public Product[] getProducts() {
```

```java
        public Product[] getProducts() {
            return products;
        }
        public void addProduct(Product product){
            if (currentIndex < nProducts) {
                products[currentIndex++] = product;
            } else {
                System.out.println(x: "Cart is full. Cannot add more products.");
            }
        }
        public void removeProduct(Product product){
            for (int i = 0; i < nProducts; i++) {
                if (products[i].getProductid() == product.getProductid()){
                    products[i] = products[nProducts - 1];
                    products[--nProducts] = null;
                    return;
                }
            }
            System.out.println(x: "Product not found in cart!");
        }
        public double calculatePrice(){
            double total_price=0;
            for(int i=0;i<nProducts;i++){
                total_price+=products[i].getPrice();
            }
            return total_price;

        }
            public void Placeorder(int x){
                Scanner in = new Scanner(source: System.in);
                if(x==1){
```

```java
            }
            public void Placeorder(int x){
                Scanner in = new Scanner(source: System.in);
                if(x==1){
                    System.out.println(x: "Order placed successfully");
                }
                else if(x==2){
                    System.out.println(x: "Order not placed");
                }
            }
        class Order {
    protected int customerId;
    protected int orderId;
    protected float totalPrice;
    protected Product[] products;
    public Order(int customerId,int orderId,float totalPrice,Product[] products) {
        this.customerId = Math.abs(a: customerId);
        this.orderId = Math.abs(a: 1);
        this.totalPrice = Math.abs(a: totalPrice);
        this.products = products;
    }
    public void printOrderInfo() {
        System.out.println("Order ID: " + orderId);
        System.out.println("Customer ID: " + customerId);
        System.out.println(x: "Products:");
        for (int i = 0; i < products.length; i++) {
            System.out.println("Product " + (i + 1) + ": " + products[i].getName() + " - $" + products[i].getPrice());
        }
        System.out.println("Total Price: $" + totalPrice);
```

Course.java × Start Page × Customer.java × Cart.java × EcommerceSystem.java × Product.java × EcommerceSystemGUI.java ×

Source History

```java
import java.util.Scanner;
public class EcommerceSystem {
    public static void main(String[] args) {
        Scanner in = new Scanner(source: System.in);
        System.out.println(x: "Welcome to the E-Commerce System!");
        ElectronicProduct e1 = new ElectronicProduct(productId: 1, name: "smartphone", price: 599.9f, brand: "Samsung", warrantyPeriod:1);
        ClothingProduct c2 = new ClothingProduct(productid: 2, name: "T-shirt", price: 19.99f, size: "Medium", fabric: "cotton");
        bookProduct b1 = new bookProduct(productid: 3, name: "OPP", price: 39.99f, author: "Oreilly", publisher: "X Publication");

        System.out.println(x: "Please enter your id:");
        int customerId = in.nextInt();
        System.out.println(x: "Please enter your name:");
        String name = in.next();
        System.out.println(x: "Enter your address:");
        String address = in.next();
        Customer customer = new Customer(customerId, name, address);

        System.out.println(x: "How many products would you like to add to your cart?");
        int nProducts = in.nextInt();
        Cart cart = new Cart(customerId, nProducts);
        for (int i = 0; i < nProducts; i++) {
            System.out.println(x: "Which product would you like to add? \t 1-smartphone 2-T-Shirt  3-OOP");
            int choice = in.nextInt();
            switch (choice) {
                case 1:
                    cart.addProduct(product:e1);
                    break;
                case 2:
                    cart.addProduct(product:c2);
                    break;
                case 3:
                    cart.addProduct(product:b1);
```

Output   1:1   INS Windows (CRLF)

```java
                case 2:
                    cart.addProduct(product:c2);
                    break;
                case 3:
                    cart.addProduct(product:b1);
                    break;
                default:
                    System.out.println(x: "Invalid choice");
                    break;
            }
        }

        System.out.println(x: "would you like to placeorder?\t 1-YES  2-NO");
        int x = in.nextInt();
        cart.Placeorder(x);
        float totalPrice= (float) cart.calculatePrice();
        System.out.println("Total price in the cart: $" +totalPrice);
        int orderId=1;
        Order o1 = new Order(customerId, orderId, totalPrice, products: cart.getProducts());
        if(x==1){
            o1.printOrderInfo();
        }
        else if(x==2){
            System.out.println(x: "Order not placed");
        }
    }
}
```

Output   1:1   INS Windows (CRLF)

```
run:
Welcome to the E-Commerce System!
Please enter your id:
202
Please enter your name:
nour
Enter your address:
address
How many products would you like 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
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
1
would you like to placeorder?    1-YES  2-NO
1
Order placed successfully
Total price in the cart: $1259.78
Order ID: 1
Customer ID: 202
Products:
Product 1: smartphone - $599.9
Product 2: T-shirt - $19.99
Product 3: OPP - $39.99
Product 4: smartphone - $599.9
Total Price: $1259.78
BUILD SUCCESSFUL (total time: 26 seconds)
```