```java
public class Product {
    int productId;
    String name;
    float price;
public Product (int pId, String n, float p) {
productId = Math.abs(a: pId);
name = n;
price = Math.abs(a: p);
}
    public int getProductId() {
        return productId;
    }
    public void setProductId(int productId) {
        if(productId>0)
            this.productId = productId;
        else
            this.productId =Math.abs(a: productId);
    }
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public float getPrice() {
        return price;
    }
    public void setPrice(float price) {
        if(price>0)
            this.price = price;
        else
```
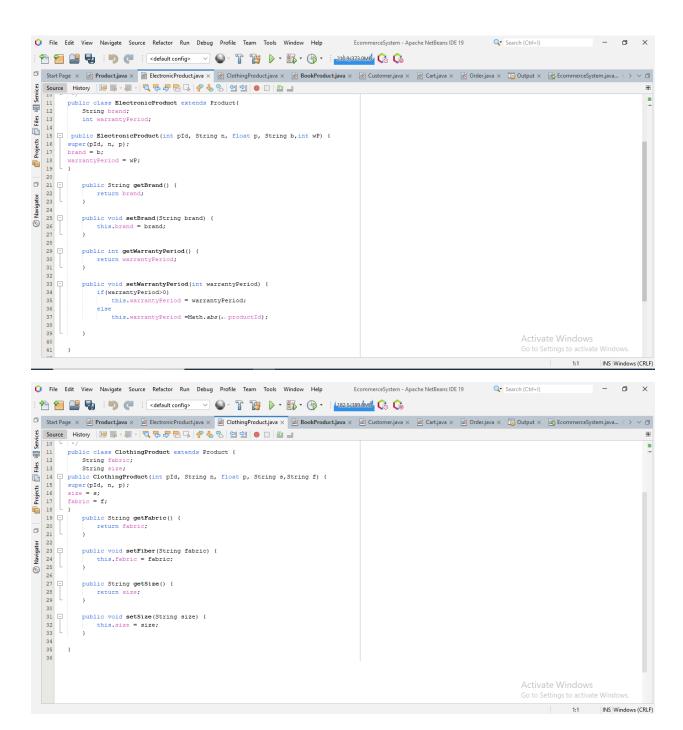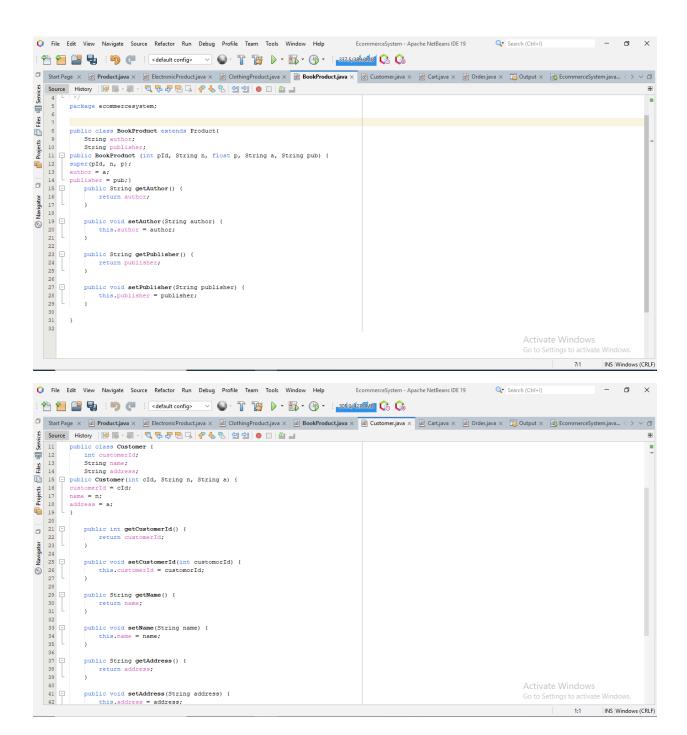
Source | History

```java
23        else
24            this.productId =Math.abs(a: productId);
25    }
26    public String getName() {
27        return name;
28    }
29    public void setName(String name) {
30        this.name = name;
31    }
32    public float getPrice() {
33        return price;
34    }
35    public void setPrice(float price) {
36        if(price>0)
37            this.price = price;
38        else
39            this.price =Math.abs(a: price);
40    }
41
42 }
43
```

```java
public class ElectronicProduct extends Product{
    String brand;
    int warrantyPeriod;

    public ElectronicProduct(int pId, String n, float p, String b,int wP) {
        super(pId, n, p);
        brand = b;
        warrantyPeriod = wP;
    }

    public String getBrand() {
        return brand;
    }

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

    public int getWarrantyPeriod() {
        return warrantyPeriod;
    }

    public void setWarrantyPeriod(int warrantyPeriod) {
        if(warrantyPeriod>0)
            this.warrantyPeriod = warrantyPeriod;
        else
            this.warrantyPeriod =Math.abs(: productId);

    }

}
```

```java
public class ClothingProduct extends Product {
    String fabric;
    String size;
    public ClothingProduct(int pId, String n, float p, String s,String f) {
        super(pId, n, p);
        size = s;
        fabric = f;
    }
    public String getFabric() {
        return fabric;
    }

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

    public String getSize() {
        return size;
    }

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

}
```

```java
package ecommercesystem;


public class BookProduct extends Product{
    String author;
    String publisher;
public BookProduct (int pId, String n, float p, String a, String pub) {
super(pId, n, p);
author = a;
publisher = pub;}
    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;
    }

}
```

```java
public class Customer {
    int customerId;
    String name;
    String address;
public Customer(int cId, String n, String a) {
customerId = cId;
name = n;
address = a;
}

    public int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customorId) {
        this.customerId = customorId;
    }

    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;
```

```java
public Customer(int cId, String n, String a) {
    customerId = cId;
    name = n;
    address = a;
}

    public int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customorId) {
        this.customerId = customorId;
    }

    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;
    }

}
```

```java
public class Cart {
    int customorId;
    int nProducts;
    Product[]products ;
    int length;
    public int getCustomorId() {
        return customorId;
    }

    public void setCustomorId(int customorId) {

        this.customorId = customorId;
    }

    public int getnProducts() {
        return nProducts;
    }
    public Product[] getProducts() {
        return products;
    }

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

    public void setnProducts(int nProducts) {
        this.nProducts = nProducts;
        products = new Product[nProducts];
        length=nProducts;
    }
    public void addProducts(Product p,int i){
```

```java
public void addProducts(Product p,int i){
    products[i]=p;
}
public void removeProduct(int i){
    products[i]=null;
    length--;
}
public float calculatePrice(Product products[]){
    float total=0;
    for(int i=0;i<nProducts;i++){
        if(products[i]==null)
            continue;
        else
            total+=products[i].getPrice();

    }
    return total;
}
public void placeOrder(int customorId){
    Scanner input=new Scanner(source: System.in);
    Order o=new Order();
    System.out.println(x: "would you like to place order? 1_yes 2_no");
    int place =input.nextInt();
    int order=1;
    if(place==1){
        o.printOrderInfo(customorId, orderId:order, totalPrice: calculatePrice(products), length, products,nProducts);
    }
    else{
        System.out.println(x: "do you want to remove an item? 1-yes 2-no");
        int x=input.nextInt();
        if(x==1){
            System.out.println(x: "wich item you wish to remove?");
```

```java
        total+=products[i].getPrice();

    }
    return total;
}
public void placeOrder(int customorId){
    Scanner input=new Scanner(source: System.in);
    Order o=new Order();
    System.out.println(x: "would you like to place order? 1_yes 2_no");
    int place =input.nextInt();
    int order=1;
    if(place==1){
        o.printOrderInfo(customorId, orderId:order, totalPrice: calculatePrice(products), length, products,nProducts);
    }
    else{
        System.out.println(x: "do you want to remove an item? 1-yes 2-no");
        int x=input.nextInt();
        if(x==1){
            System.out.println(x: "wich item you wish to remove?");
            int index=input.nextInt();
            index--;
            removeProduct(i: index);
            o.printOrderInfo(customorId, orderId:order, totalPrice: calculatePrice(products), length, products,nProducts);
        }
        System.out.println(x: "wish you a happy day :)");
    }
}
```

```java
public class Order {
    int customorId;
    int orderId;
    float totalPrice;
    int nProducts;
    Product[]products=new Product[nProducts];
    public int getCustomorId() {
        return customorId;
    }

    public void setCustomorId(int customorId) {
        if(customorId>0)
            this.customorId = customorId;
        else
            this.customorId = Math.abs(orderId);

    }

    public int getOrderId() {
        return orderId;
    }

    public void setOrderId(int orderId) {
        if(orderId>0)
            this.orderId = orderId;
        else
            this.orderId = orderId;
    }

    public float getTotalPrice() {
        return totalPrice;
    }
```

```java
    public void setOrderId(int orderId) {
        if(orderId>0)
            this.orderId = orderId;
        else
            this.orderId = orderId;
    }

    public float getTotalPrice() {
        return totalPrice;
    }
        public int getnProducts() {
        return nProducts;
    }

    public void setnProducts(int nProducts) {
        this.nProducts = nProducts;
    }

    public Product[] getProducts() {
        return products;
    }

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

    public void setTotalPrice(float totalPrice) {
        if(totalPrice>0)
            this.totalPrice = totalPrice;
        else
            this.totalPrice = Math.abs(totalPrice);
```

```java
        this.nProducts = nProducts;
    }

    public Product[] getProducts() {
        return products;
    }

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

    public void setTotalPrice(float totalPrice) {
        if(totalPrice>0)
            this.totalPrice = totalPrice;
        else
            this.totalPrice = Math.abs(totalPrice);

    }

    public void printOrderInfo(int customorId , int orderId, float totalPrice, int length,Product products[],int nProducts){
        System.out.println("Here is your order summary: ");
        System.out.println("Order id: "+orderId+"\ncustomor id: "+customorId+"\nnumber of products: "+length);
        System.out.println("products: ");
        for(int i=0;i<nProducts;i++){
            if(products[i]==null)
                continue;
            else{
                System.out.println(products[i].getName()+" - $"+products[i].getPrice());
            }
        }
        System.out.println("tatal price :&"+totalPrice);
    }
```

```
run:
Welcome to the E-commerce System!
Please enter your id
23011565
Please Enter your name
menna mohamed mohamed mamdouh
Please enter your address
adress

How many products you want to add to the cart?
4
wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly
2
wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly
3
wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly
6
please enter a valid choice
wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly
1
wich product would you like to add? '1' for Samsung Smartphone - '2' for T-shirt - '3' for OOP book by O'Reilly
1
your total is $1259.78
would you like to place order? 1_yes 2_no
2
do you want to remove an item? 1-yes 2-no
1
wich item you wish to remove?
```

Thank you ☺