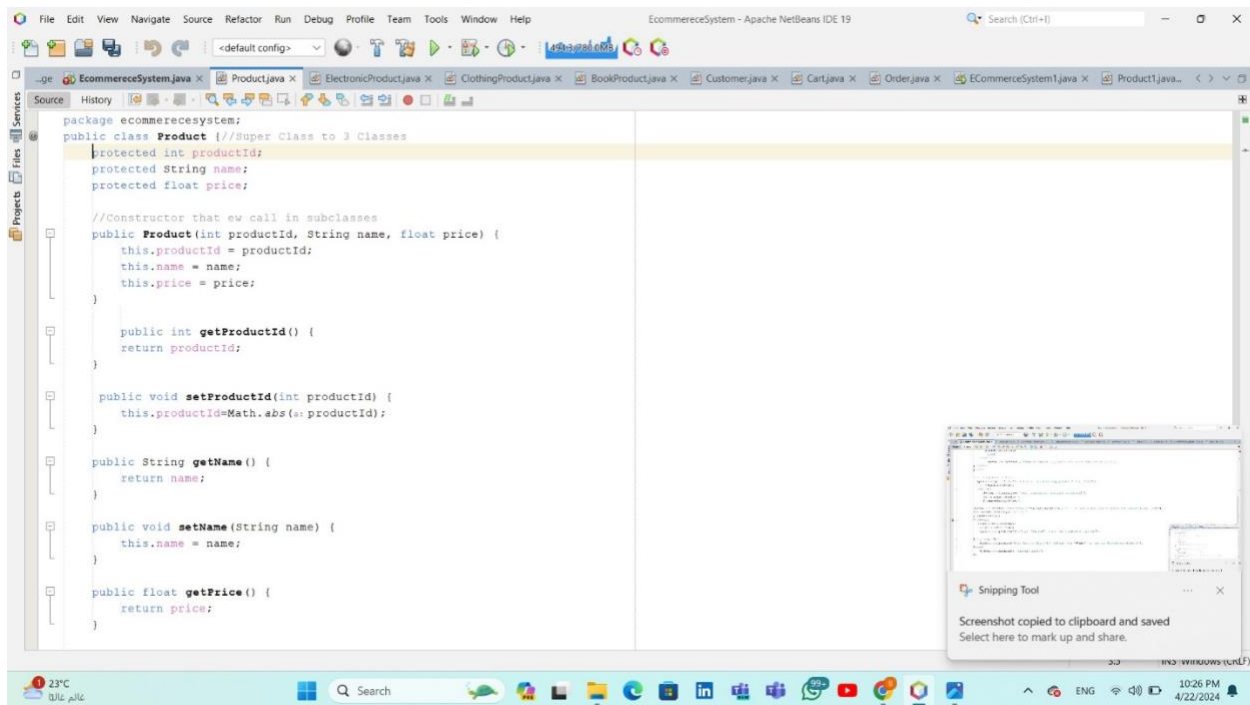
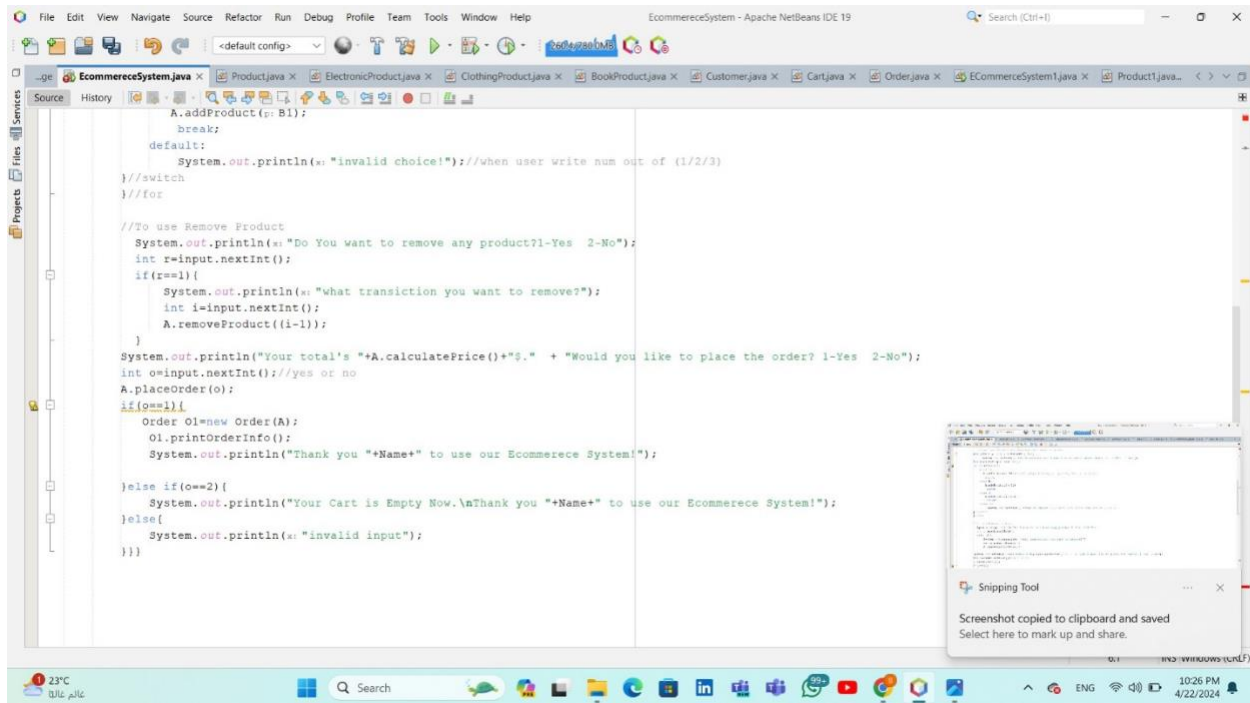


```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help EcommerceSystem - Apache NetBeans IDE 19
<default config>
EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java...
Source History
package ecommerceSystem;
import java.util.Scanner;
public class EcommerceSystem {
    public static void main(String[] args) {
        Scanner input=new Scanner(System.in);
        //Take object from Electronic Class
        ElectronicProduct E1=new ElectronicProduct(brand: "Samsung", warrantyPeriod: 1, productId: 1, name: "SmartPhone", price: 599.9f);
        //Take object from Clothing Class
        ClothingProduct C1=new ClothingProduct(size: "Medium", fabric: "Coton", productId: 2, name: "T-shirt", price: 19.99f);
        //Take object from Book Class
        BookProduct B1=new BookProduct(author: "O'Reilly", publisher: "X Publications", productId: 3, name: "OOP", price: 93.99f);
        //Take arguments to store this values in Customer
        System.out.print("Please enter your name:");
        String Name=input.nextLine();
        System.out.println("welcome "+Name+" to Ecommerce System");
        System.out.print("Please "+Name+" enter your ID:");
        int ID=Math.abs(input.nextInt());
        input.nextLine();
        System.out.print("Please "+Name+" enter your address:");
        String Address=input.nextLine();
        //Take object from Customer Class
        Customer C2=new Customer();
        C2.setName(name: Name);
        C2.setCustomerId(customerId: ID);
        C2.setAddress(address: Address);
        //Take length of Array
        System.out.print("How many products you want to add to your cart? ");
        int nProducts=input.nextInt();//store the length in var
        //Take obj from Cart Class
        Cart A=new Cart();
        A.setnProducts(nProducts);//store length of Array in my obj(A from cart class) in memory
        A.setCustomerId(customerId: ID);//store my ID in memory
        //For loop to take the products and store in Array
        for (int i = 0; i < nProducts; i++) {
            System.out.println("Which product would you like to add?1-Smart Phone 2-T-Shirt 3-OOP");
            int choosen=input.nextInt();
            switch(choosen){
                case 1:
                    A.addProduct(p: E1);//call addproduct by using A(obj From cart class)
                    break;
                case 2:
                    A.addProduct(p: C1);
                    break;
                case 3:
                    A.addProduct(p: B1);
                    break;
                default:
                    System.out.println("invalid choice!");//when user write num out of (1/2/3)
            }
        }
        //switch
        //for
        //To use Remove Product
        System.out.println("Do You want to remove any product?1-Yes 2-No");
        int r=input.nextInt();
        if(r==1){
            System.out.println("what transaction you want to remove?");
            int i=input.nextInt();
            A.removeProduct((i-1));
        }
        System.out.println("Your total's "+A.calculatePrice()+"$." + "Would you like to place the order? 1-Yes 2-No");
        int o=input.nextInt();//yes or no
        A.placeOrder(o);
        if(o==1){
            Order O1=new Order(A);
            O1.printOrderInfo();
        }
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help EcommerceSystem - Apache NetBeans IDE 19
<default config>
EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java...
Source History
//For loop to take the products and store in Array
for (int i = 0; i < nProducts; i++) {
    System.out.println("Which product would you like to add?1-Smart Phone 2-T-Shirt 3-OOP");
    int choosen=input.nextInt();
    switch(choosen){
        case 1:
            A.addProduct(p: E1);//call addproduct by using A(obj From cart class)
            break;
        case 2:
            A.addProduct(p: C1);
            break;
        case 3:
            A.addProduct(p: B1);
            break;
        default:
            System.out.println("invalid choice!");//when user write num out of (1/2/3)
    }
}
//switch
//for
//To use Remove Product
System.out.println("Do You want to remove any product?1-Yes 2-No");
int r=input.nextInt();
if(r==1){
    System.out.println("what transaction you want to remove?");
    int i=input.nextInt();
    A.removeProduct((i-1));
}
System.out.println("Your total's "+A.calculatePrice()+"$." + "Would you like to place the order? 1-Yes 2-No");
int o=input.nextInt();//yes or no
A.placeOrder(o);
if(o==1){
    Order O1=new Order(A);
    O1.printOrderInfo();
}
}
```



The screenshot shows the NetBeans IDE interface with the `ElectronicProduct.java` file open. The code defines a class `ElectronicProduct` that extends `Product`. It includes private attributes `brand` and `warrantyPeriod`, a constructor, and getter/setter methods. The IDE's project explorer on the left shows the file structure, and the bottom status bar indicates the temperature is 23°C.

```
package ecommerceSystem;

public class ElectronicProduct extends Product { //subclass
    private String brand;
    private int warrantyPeriod;

    //Constructor
    public ElectronicProduct(String brand, int warrantyPeriod, int productId, String name, float price) {
        super(productId, name, price); //call super constructor
        this.brand = brand;
        this.warrantyPeriod = 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);
    }
}
```

The screenshot shows the NetBeans IDE interface with the `ClothingProduct.java` file open. The code defines a class `ClothingProduct` that extends `Product`. It includes private attributes `size` and `fabric`, a constructor, and getter/setter methods. The IDE's project explorer on the left shows the file structure, and the bottom status bar indicates the temperature is 23°C.

```
package ecommerceSystem;

public class ClothingProduct extends Product { //subclass
    private String size;
    private String fabric;

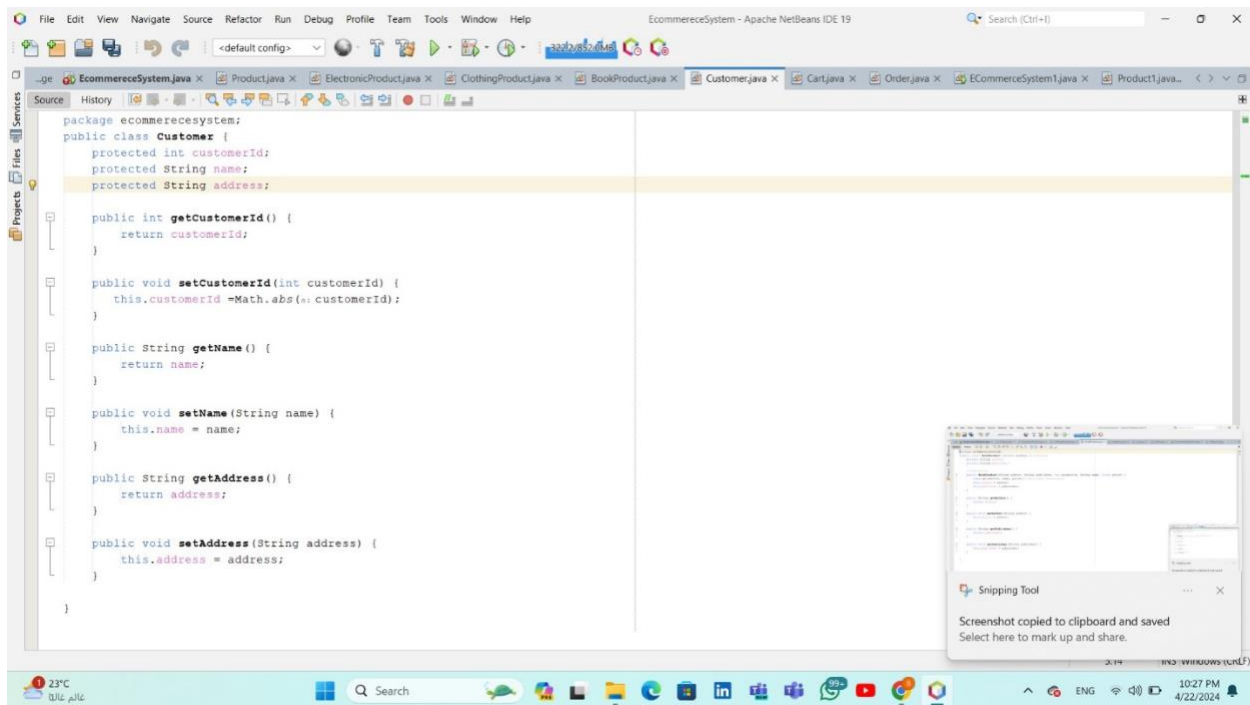
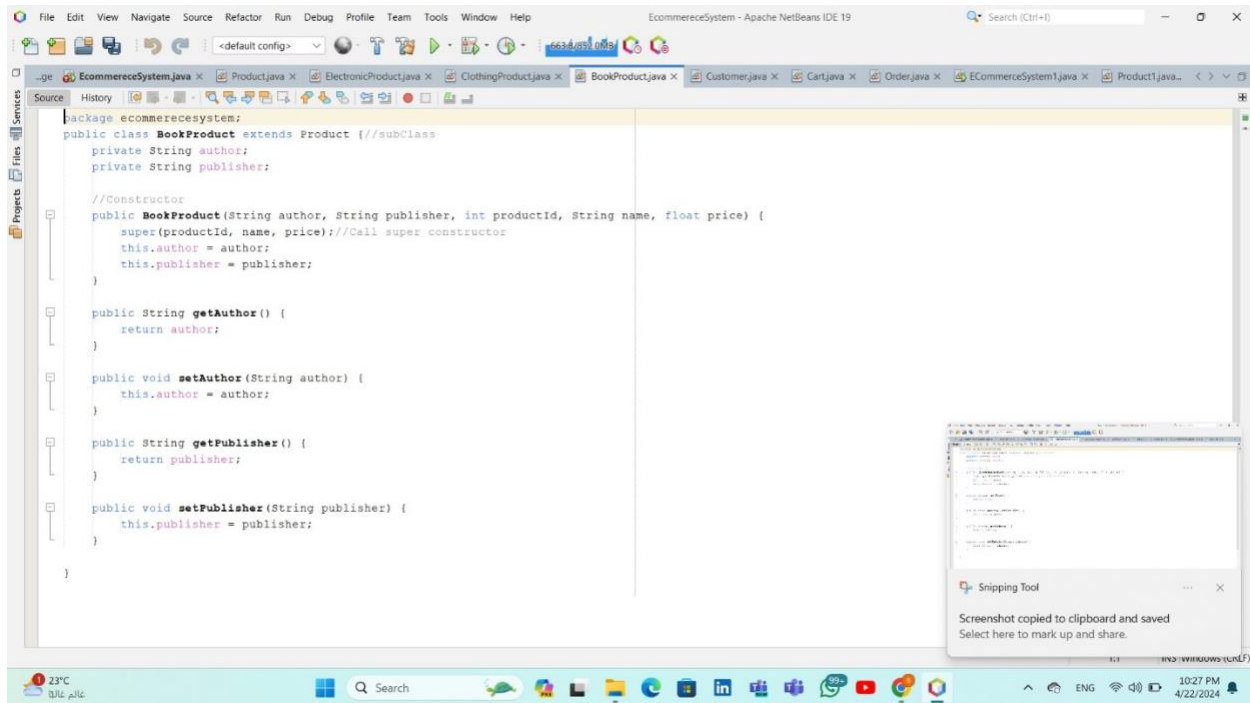
    //constructor
    public ClothingProduct(String size, String fabric, int productId, String name, float price) {
        super(productId, name, price); //call super constructor
        this.size = size;
        this.fabric = fabric;
    }

    public String getSize() {
        return size;
    }

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

    public String getFabric() {
        return fabric;
    }

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



```
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EcommerceSystem - Apache NetBeans IDE 19
Search (Ctrl+I)

EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java

Source History
package ecommercesystem;
public class Cart {
    protected int customerId;
    protected int nProducts;
    protected Product[] products;
    public int getCustomerId() {
        return customerId;
    }
    public void setCustomerId(int customerId) {
        this.customerId = Math.abs(a: customerId);
    }
    public int getnProducts() {
        return nProducts;
    }
    public void setnProducts(int nProducts) {
        this.nProducts=Math.abs(a: nProducts);
        products=new Product[nProducts]; //Creat Array in memory
    }
    public Product[] getProducts() { //use this in Order class to print the Order
        return products;
    }
    public void setProducts(Product[] products) { //Can remove this because we create this array in memory in SetnProducts
        this.products = new Product[nProducts];
    }
    //Methode to add product in the Array
    public void addProduct(Product p){
        for (int i = 0; i <nProducts; i++) {
            if(products[i]==null){
                products[i]=p;
                return; //Exit from All Function not like break
            }
        }
        System.out.println(a: "the cart is full,can not add more products.");
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
EcommerceSystem - Apache NetBeans IDE 19
Search (Ctrl+I)

EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java

Source History
//Methode to Remove any product from array
public void removeProduct(int tran){
    if (tran >=0&& tran< nProducts) {
        products[tran] = null;
    }
    else{
        System.out.println(a: "cannot remove product.");
    }
}
//Methode to calculate the total price of Order
public float calculatePrice(){
    float total=0;
    for (int i = 0; i <products.length; i++) { //products.length=nProducts
        if(products[i]!=null){
            total +=products[i].getPrice();
        }
    }
    return total;
}
//Methode to confirm the order
public void placeOrder(int o){
    switch(o){
        case 1:
            System.out.println(a: "Now, your Order is been Confirmed.");
            break;
        case 2:
            for(int i=0;i<products.length;i++){
                products[i] = null;
            }
            break;
    }
} //methode place order
}
```



```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help EcommerceSystem - Apache NetBeans IDE 19
<default config>
EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java
package ecommercesystem;
public class Order {
    private int customerId, orderId;
    private Product[] products;
    private float totalPrice;
    //int counter;
    //Constructor
    public Order(Cart A) { //Associations
        //counter++;
        this.customerId = A.getCustomerId();
        this.orderId = (int) (Math.random() * 100);
        //this.orderId=Math.abs(counter);
        this.products=A.getProducts();
        this.totalPrice =A.calculatePrice();
    }
    //Method to print name and Price
    public void printOrderInfo() {
        System.out.println("Here's your order's summary: ");
        System.out.println("Order ID: " + orderId);
        System.out.println("Customer ID: " + customerId);
        System.out.println("Total Price: " + totalPrice+"$");
        System.out.println("Ordered Products:");
        for (int i=0;i<products.length;i++) {
            if (products[i] != null) {
                System.out.println("name:"+products[i].getName() );
                System.out.println("price:"+products[i].getPrice()+"$");
            }
        }
        System.out.println("total price: "+totalPrice+"$");
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help ECommerceSystem1 - Apache NetBeans IDE 19
<default config>
EcommerceSystem.java Product.java ElectronicProduct.java ClothingProduct.java BookProduct.java Customer.java Cart.java Order.java ECommerceSystem1.java Product1.java
package ecommercesystem1;
import javax.swing.JOptionPane;
public class ECommerceSystem1 {
    public static void main(String[] args) {
        String name=JOptionPane.showInputDialog(message: "Enter your name");
        JOptionPane.showMessageDialog(parentComponent: null,"Hello "+name+" to ECommerce System!");

        String Address=JOptionPane.showInputDialog("Please "+name+" Enter your address");

        int ID=Integer.parseInt(s: JOptionPane.showInputDialog("Please "+name+" Enter your ID"));

        Customer1 C=new Customer1(customerId: ID,name:Address);

        ElectronicProduct1 E=new ElectronicProduct1(brand: "Samsung",warrantyPeriod:1,productId: 1,name: "SmartPhone",price: 599.9f);
        ClothingProduct1 C2=new ClothingProduct1(size: "Medium",fabric: "Cotton",productId: 2,name: "T-Shirt",price: 19.99f);
        BookProduct1 B=new BookProduct1(author: "O'Reilly",publisher: "X Publications",productId: 3,name: "OOP",price: 93.99f);

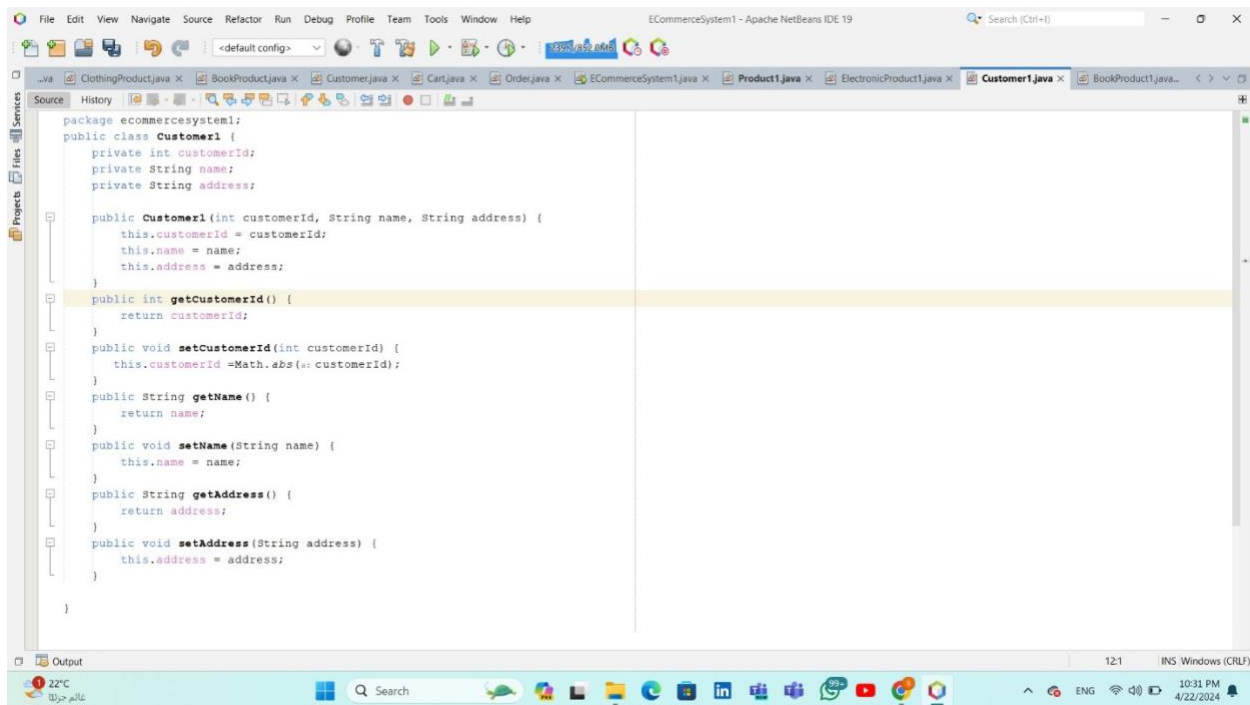
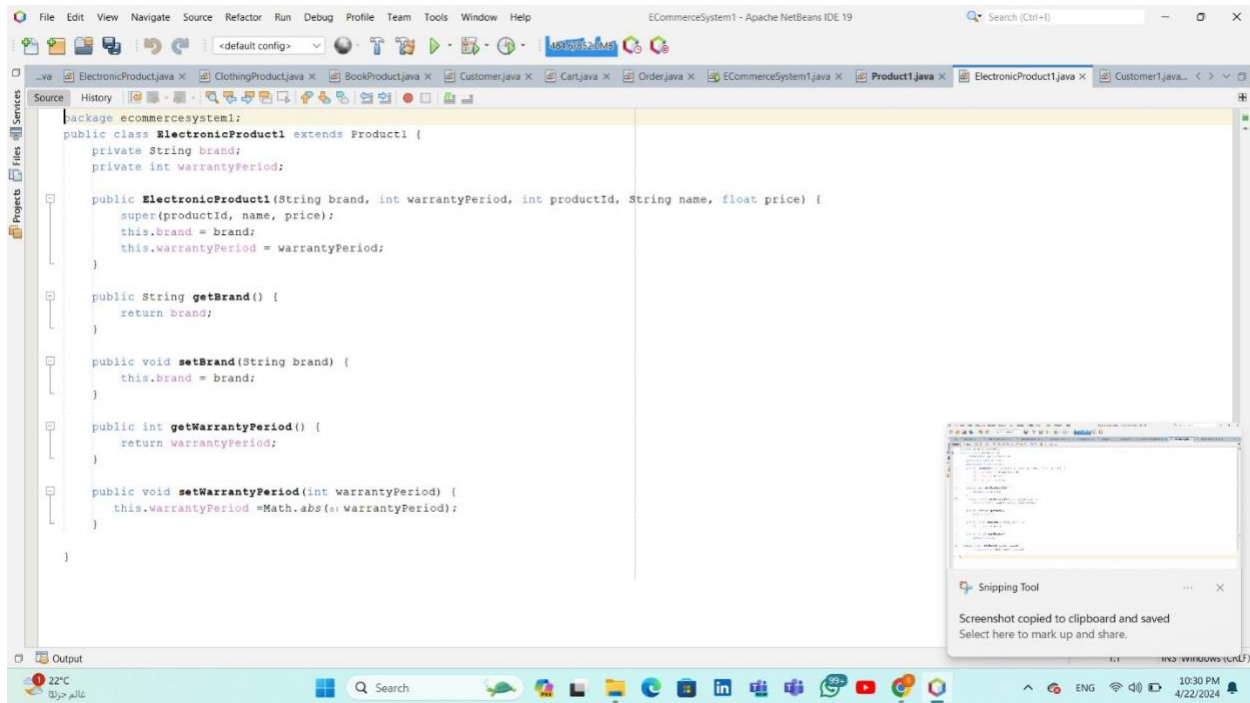
        int NProducts=Integer.parseInt(s: JOptionPane.showInputDialog(message: "How many Products you want to add?"));
        Cart1 A=new Cart1();
        A.setnProducts(nProducts: NProducts);
        A.setCustomerId(customerId: ID);

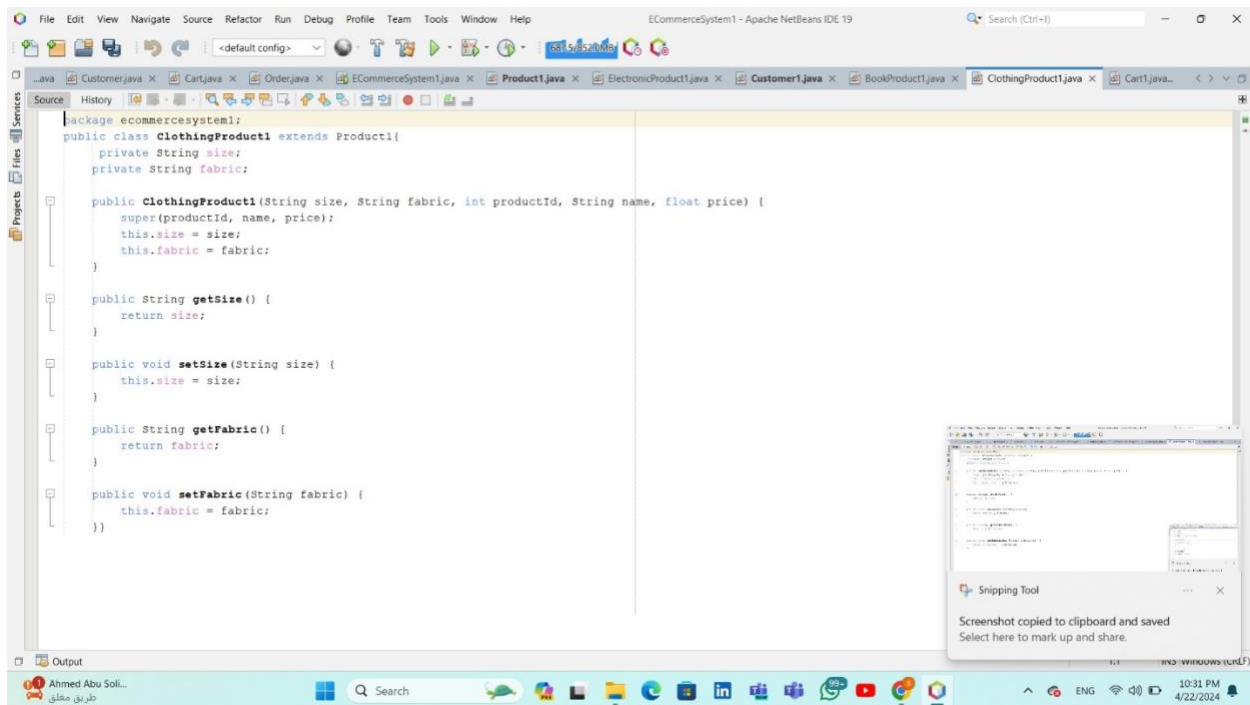
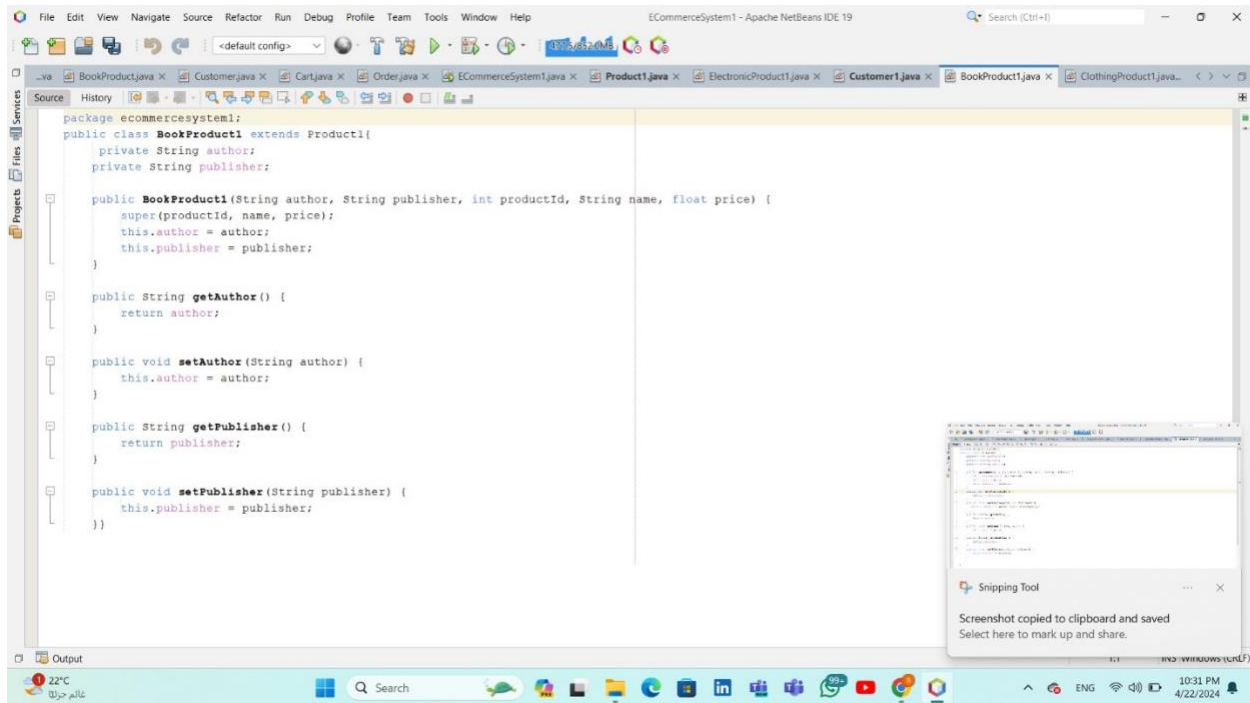
        for (int i = 0; i < NProducts; i++) {
            int ARRAY=Integer.parseInt(s: JOptionPane.showInputDialog(message: "Which product would you like to add?1-Smart Phone 2-T-Shirt 3-OOP"));
            switch(ARRAY) {
                case 1:
                    A.addProduct(p: E);
                    break;
                case 2:
                    A.addProduct(p: C2);
                    break;
                case 3:
                    A.addProduct(p: B);
            }
        }
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help ECommerceSystem1 - Apache NetBeans IDE 19
<default config> 768x520x0Ms
ECommerceSystem1.java Product1.java
int main() {
    int choice = Integer.parseInt(JOptionPane.showInputDialog(message: "Which product would you like to add? 1-Smart Phone 2-Laptop 3-Book"));
    switch (choice) {
        case 1:
            A.addProduct(p: E);
            break;
        case 2:
            A.addProduct(p: C2);
            break;
        case 3:
            A.addProduct(p: B);
            break;
        default:
            System.out.println("Invalid choice!");
    }
}
//switch
//for
JOptionPane.showMessageDialog(parentComponent: null, "Your total's " + A.calculatePrice() + "$");

int CHOICE = Integer.parseInt(JOptionPane.showInputDialog(message: "Would you like to place the order? 1-Yes 2-No"));
A.placeOrder(p: CHOICE);
if (CHOICE == 1) {
    Order1 o = new Order1(A);
    o.printOrderInfo();
    JOptionPane.showMessageDialog(parentComponent: null, "Thank you " + name + " to use our Ecommerce System!");
}
else if (CHOICE == 2) {
    JOptionPane.showMessageDialog(parentComponent: null, "Your Cart is Empty Now. Thank you " + name + " to use our Ecommerce System!");
}
else {
    JOptionPane.showMessageDialog(parentComponent: null, message: "Invalid input!");
}
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help ECommerceSystem1 - Apache NetBeans IDE 19
Product1.java ElectronicProduct1.java
package ecommercesystem1;
public class Product1 {
    protected int productId;
    protected String name;
    protected float price;
    public Product1(int productId, String name, float price) {
        this.productId = productId;
        this.name = name;
        this.price = price;
    }
    public int getProductId() {
        return productId;
    }
    public void setProductId(int productId) {
        this.productId = Math.abs(productId);
    }
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public float getPrice() {
        return price;
    }
    public void setPrice(float price) {
        this.price = Math.abs(price);
    }
}
```





```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help ECommerceSystem1 - Apache NetBeans IDE 19
<default config>
Source History
package ecommercesystem1;
import javax.swing.JOptionPane;
public class Cart1 {
    private int customerId;
    int nProducts;
    private Product1[] products;
    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);
        products=new Product1[nProducts];
    }
    public Product1[] getProducts() {
        return products;
    }
    public void setProducts(Product1[] products) {
        this.products = new Product1[nProducts];
    }
    public void addProduct(Product1 p){
        for (int i = 0; i <nProducts; i++) {
            if(products[i]==null){
                products[i]=p;
                return;
            }
        }
        JOptionPane.showMessageDialog(parentComponent: null,message: "the cart is full,can not add more products." );
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help ECommerceSystem1 - Apache NetBeans IDE 19
<default config>
Source History
    }
    JOptionPane.showMessageDialog(parentComponent: null,message: "the cart is full,can not add more products." );
}
public void removeProduct(int tran){
    if (tran >=0&& tran< nProducts) { //(index >=0 && index< nProduct
        products[tran] = null;
    }
    else{
        JOptionPane.showMessageDialog(parentComponent: null,message:" cannot remove product." );
    }
}
public float calculatePrice(){
    float total=0;
    for (int i = 0; i <products.length; i++) { //products.length=nProducts
        if(products[i]!=null){
            total +=products[i].getPrice();
        }
    }
    return total;
}
public void placeOrder(int o){
    switch(o){
        case 1:
            JOptionPane.showMessageDialog(parentComponent: null,message:"Now, your Order is been Confirmed." );
            break;
        case 2:
            for(int i=0;i<products.length;i++){
                products[i] = null;
            }
            break;
    }
}
} //methode place order
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
ECommerceSystem1 - Apache NetBeans IDE 19
Search (Ctrl+I)

Source History
package ecommercesystem1;
import javax.swing.JOptionPane;
public class Order1 {
    private int customerId, orderId;
    private Product1[] products;
    private float totalPrice;
    private int nProducts;

    public Order1(Cart1 A) {
        this.customerId = A.getCustomerId();
        this.orderId = (int) (Math.random() * 100);
        this.products = A.getProducts();
        this.totalPrice = A.calculatePrice();
    }

    public void printOrderInfo() {
        JOptionPane.showMessageDialog(parentComponent: null, "Here's your order's summary: " + "\nOrder ID: " + orderId + " \nCustomer ID: " + customerId + " \nTotal Price: " + totalPrice);
        for (int i=0; i<products.length; i++) {
            if (products[i] != null) {
                JOptionPane.showMessageDialog(parentComponent: null, "name : " + products[i].getName() + ", price: " + products[i].getPrice() + "$ ");
            }
        }
        JOptionPane.showMessageDialog(parentComponent: null, "total price: " + totalPrice + "$");
    }
}
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
ECommerceSystem1 - Apache NetBeans IDE 19
Search (Ctrl+I)

Source History
package ecommercesystem1;
import javax.swing.JOptionPane;
public class ECommerceSystem1 {
    public static void main(String[] args) {
        String name = JOptionPane.showInputDialog(message: "Enter your name");
        JOptionPane.showMessageDialog(parentComponent: null, "Hello " + name + " to ECommerce System!");

        String Address = JOptionPane.showInputDialog("Please " + name + " Enter your address");

        int ID = Integer.parseInt(s: JOptionPane.showInputDialog("Please " + name + " Enter your ID"));

        Customer1 C = new Customer1(customerId: ID, name, address: Address);

        ElectronicProduct1 E = new ElectronicProduct1(brand: "Samsung", price: 599.9f);
        ClothingProduct1 C2 = new ClothingProduct1(size: "Medium", fabric: "Cotton", price: 19.99f);
        BookProduct1 B = new BookProduct1(author: "O'Reilly", publisher: "X", price: 93.99f);

        int NProducts = Integer.parseInt(s: JOptionPane.showInputDialog(message: "How many Products you want to add?"));
        Cart1 A = new Cart1();
        A.setnProducts(nProducts: NProducts);
        A.setCustomerId(customerId: ID);
    }
}
```

