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Ecommerce Project

Main:

```java
package second_sem_project;
import javax.swing.*;
public class Second_sem_project {
    public static void main(String[] args) {
        int start=Integer.parseInt(s: JOptionPane.showInputDialog(message: "Welcome to the E-commerce System!\nTo start the system enter 1 if you don't enter any number"));

        String customerName=JOptionPane.showInputDialog(message: "Enter your name");
        int customerID=Integer.parseInt(s: JOptionPane.showInputDialog(message: "Enter your id:"));
        int nProduct =Integer.parseInt(s: JOptionPane.showInputDialog(message: "What is the number of products you want to buy?"));
        Clothing_product cloothprod=new Clothing_product();
        Electronic_product electroprod=new Electronic_product();
        Book_product bookprod=new Book_product();
        Cart c1=new Cart(customerId:1,nProduct);
        Customer cust1=new Customer();
        cust1.setCustomerName(customerName);
        for(int i=0; i<nProduct; i++){
            int prod_num=Math.abs(a: Integer.parseInt(s: JOptionPane.showInputDialog(message: "Choose your product: 1)clooth 2)Electronic device 3)Book")));
            if (prod_num==1){
                String prod_name=JOptionPane.showInputDialog(message: "Enter the product name");
                cloothprod.setName(name: prod_name);
                int prod_id=Math.abs(a: Integer.parseInt(s: JOptionPane.showInputDialog(message: "Enter the product id:")));
                cloothprod.setProductId(productId:prod_id);
                String size=JOptionPane.showInputDialog(message: "Enter the size");
                cloothprod.setSize(size);
                String fabric=JOptionPane.showInputDialog(message: "Enter the kind of fabric");
                cloothprod.setFabric(fabric);
                float prod_price=Math.abs(a: Float.parseFloat(s: JOptionPane.showInputDialog(message: "Enter the product price:")));
                cloothprod.setPrice(Price: prod_price);
                c1.addProduct(product: cloothprod);
            }
            if (prod_num==2){
                String prod_name=JOptionPane.showInputDialog(message: "Enter the category of the device");
                electroprod.setName(name: prod_name);
                int prod_id=Integer.parseInt(s: JOptionPane.showInputDialog(message: "Enter the product id"));
                electroprod.setProductId(productId:prod_id);
                String brand=JOptionPane.showInputDialog(message: "Enter the brand of the device");
                electroprod.setBrand(brand);
```

```java
                c1.addProduct(product: electroprod);
            }
            if (prod_num==3){
                String prod_name=JOptionPane.showInputDialog(message: "Enter the name of the book");
                bookprod.setName(name: prod_name);
                int prod_id=Math.abs(a: Integer.parseInt(s: JOptionPane.showInputDialog(message: "Enter the book id")));
                bookprod.setProductId(productId:prod_id);
                String author=JOptionPane.showInputDialog(message: "Enter the name of the author");
                bookprod.setAuthor(author);
                String publisher=JOptionPane.showInputDialog(message: "Enter the name of the publisher");
                bookprod.setPublisher(publisher);
                float prod_price=Math.abs(a: Float.parseFloat(s: JOptionPane.showInputDialog(message: "Enter the product price")));
                bookprod.setPrice(Price: prod_price);
                c1.addProduct(product: bookprod);
            }
        }
        c1.placeOrder();
        Order o1=new Order(customerId: customerID,nProduct,cart: c1,customer: cust1);
        if(c1.ans==1){
            o1.printOrder();
        }
        else{
            System.out.println(x: "Thank you for using our E-commerce system ");
        }
    }
}
```

Product:

```java
package second_sem_project;
public class Product {


    private int productId;
    private String name;
    protected float Price;

    public int getProductId() {
        return productId;
    }

    public void setProductId(int productId) {
        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) {
        this.Price = Math.abs(a: Price);
    }

}
```

Customer:

```java
package second_sem_project;
public class Customer {
    private String customerName;
    private String address;
    private int customerId;

    public String getCustomerName() {
        return customerName;
    }

    public void setCustomerName(String customerName) {
        this.customerName = customerName;
    }

    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(a: customerId);
    }

}
```

Electronic Product:

```java
package second_sem_project;
public class Electronic_product extends Product {
    private String brand;
    private int warrantyProduct;

    public String getBrand() {
        return brand;
    }

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

    public int getWarrantyProduct() {
        return warrantyProduct;
    }

    public void setWarrantyProduct(int warrantyProduct) {
        this.warrantyProduct = Math.abs(a: warrantyProduct);
    }

}
```

Book Product:

```java
package second_sem_project;
public class Book_product extends Product {
    private String author;
    private String 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;
    }

}
```

Clothes Product:

```java
package second_sem_project;
public class Clothing_product extends Product {
    private String size;
    private String 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;
    }

}
```

Order:

```java
package second_sem_project;
public class Order   {
    private int orderId=1;
    private int customerId;
    Cart cart = new Cart();
    Customer customer=new Customer();

    public Order() {
    }

    public Order(int customerId, int nProduct,Cart cart,Customer customer) {
        this.customer=customer;
        this.cart = cart;
        this.customerId = customerId;
    }

    public void printOrder(){
        System.out.println(x: "Here is your order summery: ");
        System.out.println("Customer name: "+customer.getCustomerName());
        System.out.println("Customer ID: "+customerId);
        System.out.println(x: "Your order id: 1");
        for(int i=0; i<cart.getnProduct(); i++ ){
            System.out.println(cart.products[i].getName()+" - "+cart.products[i].getPrice()+" $");
        }
        System.out.println("Total price: "+cart.calculateTotal());
        System.out.println(x: "Thank you for using our E-commerce system ");
    }

}
```

Cart:

```java
package second_sem_project;
import javax.swing.JOptionPane;
public class Cart {
    private int customerId;
    private int nProduct;
    Product[] products;
    int ans=1;
    public Cart() {
    }
    public Cart(int customerId, int nProduct) {
        this.customerId = customerId;
        this.nProduct = nProduct;
        products = new Product[this.nProduct];// this is for making array length.
    }
    public int getCustomerId() {
        return customerId;
    }
    public void setCustomerId(int customerId) {
        this.customerId = customerId;
    }
    public  int getnProduct() {
        return nProduct;
    }
    public void setnProduct(int nProduct) {
        this.nProduct = Math.abs(a: nProduct);
    }
    public Product[] getProducts() {
        return products;
    }
    public void setProducts(Product[] products) {
        this.products = products;
    }
    public void addProduct(Product product){
        for(int i=0; i<nProduct; i++){
            if(products[i]==null){
                products[i]=product;
                break;
```

```java
                products[i]=product;
                break;
            }
        }
    }
    public void removeProducts(){
        for(int i=0; i<nProduct; i++){
            if(products[i]!=null){
                products[i]=null;
            }
        }
    }
    public float calculateTotal(){
        float sum=0;
        for(int i=0; i<nProduct; i++){

            sum +=products[i].Price;
        }
        return sum;
    }
    public void placeOrder(){
        this.ans=Integer.parseInt(s: JOptionPane.showInputDialog("Total price is "+calculateTotal()+" $"+"\n Do you want to place order?"+"\n 1-yes or 2-no"));
    }
}
```

Output:

```
run:
Here is your order summery:
Customer name: Saif Eldin Yousry Mohamed Mahmoud
Customer ID: 23010152
Your order id: 1
T-Shirt - 19.99 $
OOP - 39.99 $
T-Shirt - 19.99 $
Smartphone - 599.99 $
Total price: 679.95996
Thank you for using our E-commerce system
BUILD SUCCESSFUL (total time: 3 minutes 38 seconds)
```