```
package Project1;

import java.util.Scanner;

import java.util.Scanner;

public class EcommerceSystem {

/**
* @param args the command line arguments
*/
public static void main(String[] args) {
// TODO code application logic here
Scanner in = new Scanner(System.in);

ElectronicProduct e = new ElectronicProduct("Smasung", 1, 1, "SmartPhone", 599.9f);
ClothingProduct c1 = new ClothingProduct("Medium ", " cotton ", 2, "T-shirt ", 19.99f);
BookProduct p = new BookProduct("O' Reilly ", "X publications ", 3, "OOP", 39.99f);

System.out.println("Welcome to E-commerce system!");
System.out.println("Please enter your ID ");
int id = in.nextInt();
System.out.println("Please enter your name ");
String name = in.next();
System.out.println("Please enter your address ");
String address = in.next();

Customer c2 = new Customer(id, name, address);

System.out.println("How many products you want to add to your cart ? ");
int num = in.nextInt();
```

```
String[] array = new String[num];
Cart c3 = new Cart(id, num);
c3.addProduct(array);
Order o = new Order(c3);

System.out.println("your total price is : " + c3.calculatePrice());
System.out.println("Would you place the order? 1- yes 2- No");
int ans = in.nextInt();

if (c3.placeOrder(ans) == true) {
o.printOrderInfo();
} else {
System.out.println(" OrderCanceled ");
}

}
}
```

.....

```
package project1;

public class ClothingProduct 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;

    }

    public int getProductId() {
        return productId;
    }

    public void setProductId(int productId) {
        if (productId > 0) {
            this.productId = productId;
        } else {
            this.productId = 0;
        }
    }

    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 {
this.price = 0.0f;
}
}

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

public ClothingProduct() {
super();
this.size = null;
this.fabric = null;
}}
```

.....

```
package Project1;

/**
*
* @author Fatma
```

```
*/
public class ElectronicProduct extends Product {

    private String brand;
    private int warrantyPeriod;

    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 = 0;
        }
    }

    public int getProductId() {
        return productId;
    }

    public void setProductId(int productId) {
```

```
        if (productId > 0) {
            this.productId = productId;
        } else {
            this.productId = 0;
        }
    }

    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 {
            this.price = 0.0f;
        }
    }

public ElectronicProduct(String brand, int warrantyPeriod, int productId, String name, float price) {
    super(productId, name, price);
```

```
        this.brand = brand;
        this.warrantyPeriod = warrantyPeriod;
    }

    public ElectronicProduct() {
        super();
        this.brand = null;
        this.warrantyPeriod = 0;
    }
}
```

.....

```
package project1;

public class Customer {

    private int customerId;
    private String name;
    private String address;

    public int getCustomerId() {
        return customerId;
    }

    public void setCustomerId(int customerId) {
        if (customerId > 0) {
            this.customerId = customerId;
        } else {
            this.customerId = 0;
        }

    }
```

```
    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 Customer(int customerId, String name, String address) {
        this.customerId = customerId;
        this.name = name;
        this.address = address;
    }

    public Customer() {
        this.customerId = 0;
        this.name = null;
        this.address = null;
    }
}
```

.....

```
package project1;

public class BookProduct 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;
    }

    public int getProductId() {
        return productId;
    }

    public void setProductId(int productId) {
        this.productId = 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 = price;
}

public BookProduct(String author, String publisher, int productId, String name, float price) {
super(productId, name, price);
this.author = author;
this.publisher = publisher;
}

public BookProduct() {
super();
this.author = null;
this.publisher = null;
}}
```

.....

```
package project1;

public class Product {

protected int productId;
protected String name;
protected float price;

public int getProductId() {
return productId;
}

public void setProductId(int productId) {
if (productId > 0) {
this.productId = productId;
} else {
this.productId = 0;
}
}

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 {
this.price = 0.0f;
}
}

public Product(int productId, String name, float price) {
this.productId = productId;
this.name = name;
this.price = price;
}

public Product() {
this.productId = 0;
this.name = null;
this.price = 0.0f;
}

}
```

.....

```
package Project1;

public class Order {

private int customerId;
private int orderId = 0;
private float totalPrice;
```

```
private int nProducts;
private String[] products = new String[nProducts];

public Order(Cart c3) {
this.customerId = c3.getCustomerId();
this.orderId = this.orderId + 1;
this.totalPrice = (float) c3.getPrice();
this.nProducts = c3.getnProducts();
this.products = c3.getProducts();
}

public void printOrderInfo() {
System.out.println("Order ID : " + this.orderId);
System.out.println("Customer ID : " + this.customerId);
for (int i = 0; i < this.nProducts; i++) {
System.out.println(this.products[i]);
}

System.out.println("your Total price : " + this.totalPrice);
}
}
```

```
package project1;
import java.util.Scanner;

public class Cart {

Scanner in = new Scanner(System.in);
private int customerId;
private int nProducts;
private String[] products = new String[nProducts];
```

```
private float price = 0;

public int getCustomerId() {
return customerId;
}

public void setCustomerId(int customerId) {
if (customerId > 0) {
this.customerId = customerId;
} else {
this.customerId = 0;
}
}

public int getnProducts() {
return nProducts;
}

public void setnProducts(int nProducts) {
if (nProducts > 0) {
this.nProducts = nProducts;
} else {
this.nProducts = 0;
}
}

public void setProducts(String[] products) {
for (int i = 0; i < products.length; i++) {
int n = 0;
boolean flag = false;
do {
```

```
System.out.println("Which product would you like to add? 1- Smartphone 2- T-shirt 3- OOP");
n = in.nextInt();
switch (n) {
case 1:
products[i] = "Smartphone - $599.99";
flag = true;
break;
case 2:
products[i] = "T-shirt - $19.99";
flag = true;
break;
case 3:
products[i] = "OOP - $39.99";
flag = true;
break;
default:
System.out.println("This product isn't exist, please try again.");
break;
}
} while (!flag);
}
}

public String[] addProduct(String[] products) {
for (int i = 0; i < products.length; i++) {
int n = 0;
boolean flag = false;
do {
System.out.println("Which product would you like to add? 1- Smartphone 2- T-shirt 3- OOP");
n = in.nextInt();
```

```
switch (n) {
case 1:
this.products[i] = "Smartphone - $599.99";
flag = true;
break;
case 2:
this.products[i] = "T-shirt - $19.99";
flag = true;
break;
case 3:
this.products[i] = "OOP - $39.99";
flag = true;
break;
default:
System.out.println("This product isn't exist, please try again.");
break;
}
} while (!flag);
}
return this.products;
}

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

public double getPrice() {
return price;
}

public String[] removeProduct(int removeIndex) {
```

```
if (removeIndex < 0 || removeIndex >= this.products.length) {
return this.products;
}

float removedPrice = 0;
String removedProduct = this.products[removeIndex];

if ("Smartphone - $599.99".equals(removedProduct)) {
removedPrice = 599.99f;
} else if ("T-shirt - $19.99".equals(removedProduct)) {
removedPrice = 19.99f;
} else if ("OOP - $39.99".equals(removedProduct)) {
removedPrice = 39.99f;
}

String[] newProducts = new String[this.products.length - 1];
int newIndex = 0;
for (int i = 0; i < this.products.length; i++) {
if (i == removeIndex) {
continue;
}

newProducts[newIndex] = this.products[i];
newIndex++;
}

this.products = newProducts;
this.price -= removedPrice;

return newProducts;
}
```

```
//    public void removeProduct(int num) {
//        String[] newproducts = new String[this.nProducts];
//        for (int i = 0; i < this.products.length; i++) {
//            if (i == num ) {
//                for (int j = 0; j < newproducts.length; j++) {
//                    this.products[j] = newproducts[i];}
//            }
//        }
//        this.nProducts--;
//        this.products = newproducts;
//    }
//    public void removeProduct(int num){
//        for(int i = 0 ; i < this.nProducts; i++){
//            if(products[i]==products[num-1] ){
//                products[i]=null;
//                break;
//            }else
//                System.out.println("Not Exist");
//        }
//    }
    public float calculatePrice() {
        for (String product : this.products) {
            if ("Smartphone - $599.99".equals(product)) {
                this.price += 599.99;
            } else if ("T-shirt - $19.99".equals(product)) {
                this.price += 19.99;
            } else {
                this.price += 39.99;
            }
        }
```

```
        return this.price;
    }

    public boolean placeOrder(int ans) {
        if (ans == 1) {
            return true;
        } else {
            return false;
        }

    }

    public Cart(int customerId, int nProducts) {
        this.customerId = customerId;
        this.nProducts = nProducts;
        this.products = new String[this.nProducts];
    }

    public Cart() {
        this.customerId = 0;
        this.nProducts = 0;
    }

}
```

.....