

```

package com.ecommerce;

public class Product {

    int ProductId;

    String Name;

    double Price;

    public Product(int ProductId , String Name , double Price){

        this.ProductId=ProductId;
        this.Name=Name;
        this.Price=Price;
    }

    public int getProductId(){
        return ProductId;
    }

    public String Name(){
        return Name;
    }

    public double getPrice(){
        return Price;
    }

}

```

```

package com.ecommerce;

import com.ecommerce.orders.Order;

import java.util.ArrayList;
import java.util.List;

public class Customer {
    int CustomerId;
    String CustomerName;

    List<Product> ShoppingCart;

    public Customer(int CustomerId , String CustomerName){
        this.CustomerId = CustomerId;
        this.CustomerName= CustomerName;
        this.ShoppingCart = new ArrayList<>();
    }

    public void addToCart(Product product) {

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        ShoppingCart.add(product);
    }
    public void removeFromCart(Product product) {
        ShoppingCart.remove(product);
    }
    public double calculateTotalCost() {
        return ShoppingCart.stream().mapToDouble(Product::getPrice).sum();
    }

    public void placeOrder(Order order) {
        // Logic for placing an order
    }

    // Getters

    public int getCustomerID() {
        return CustomerId;
    }

    public String getName() {
        return CustomerName;
    }
}

```

```

package com.ecommerce.orders;

import com.ecommerce.Customer;
import com.ecommerce.Product;
import java.util.List;
public class Order {

    int orderID;
    private Customer Customer;
    private List<Product> Products;
    private double OrderTotal;

    public Order(int orderID, Customer customer, List<Product> products) {
        this.orderID = orderID;
        this.Customer = customer;
        this.Products = products;
        this.OrderTotal = calculateOrderTotal();
    }

    // Methods for order operations

    public void updateOrderStatus(String status) {
        // Logic for updating order status
    }

    public void generateOrderSummary() {
        // Logic for generating order summary
    }

    private double calculateOrderTotal() {
        return Products.stream().mapToDouble(Product::getPrice).sum();
    }
}

```

```

    }

    // Getters

    public int getOrderID() {
        return orderID;
    }

    public Customer getCustomer() {
        return Customer;
    }

    public List<Product> getProducts() {
        return Products;
    }

    public double getOrderTotal() {
        return OrderTotal;
    }
}

```

```

import com.ecommerce.Customer;
import com.ecommerce.Product;
import com.ecommerce.orders.Order;

import java.util.Arrays;

public class MainPro {

    public static void main(String[] args) {
        // Creating instances of products, customers, and orders
        Product laptop = new Product(1, "Laptop", 1200.0);
        Product smartphone = new Product(2, "Smartphone", 800.0);

        Customer customer = new Customer(101, "John Doe");

        Order order = new Order(001, customer, Arrays.asList(laptop,
smartphone));

        // Allowing customers to browse products, add them to their shopping
cart, and place orders
        customer.addToCart(laptop);
        customer.addToCart(smartphone);

        customer.placeOrder(order);

        // Displaying information about products, customers, and orders
        System.out.println("Product: " + laptop.Name() + ", Price: $" +
laptop.getPrice());
        System.out.println("Customer: " + customer.getName() + ", Total Cost:
$" + customer.calculateTotalCost());
        System.out.println("Order ID: " + order.getOrderID() + ", Total: $" +
order.getOrderTotal());
    }
}

```

output:

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2023.3.3\lib\idea_rt.jar=17753:C:\Program Files\
Product: Laptop, Price: $1200.0
Customer: John Doe, Total Cost: $2000.0
Order ID: 1, Total: $2000.0

Process finished with exit code 0
```