Java Lecture > src > lab_java > AmazonCRMSystem.java > Customer

```java
package lab_java;

import java.util.ArrayList;
import java.util.HashMap;
import java.util.HashSet;
import java.util.TreeSet;

// Customer class
class Customer implements Comparable<Customer> {
    private String customerId;
    private String name;

    public Customer(String customerId, String name) {
        this.customerId = customerId;
        this.name = name;
    }

    public String getCustomerId() {
        return customerId;
    }

    public String getName() {
        return name;
    }


    @Override
    public int compareTo(Customer otherCustomer) {
        return this.customerId.compareTo(otherCustomer.getCustomerId());
    }
}

// Product class
class Product implements Comparable<Product> {
    private String productId;
    private String name;

    public Product(String productId, String name) {
        this.productId = productId;
        this.name = name;
    }
```

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    }

    public String getProductId() {
        return productId;
    }

    public String getName() {
        return name;
    }

    @Override
    public int compareTo(Product otherProduct) {
        return this.productId.compareTo(otherProduct.getProductId());
    }
}

// Order class
class Order {
    private String orderId;
    private Customer customer;
    private ArrayList<Product> products;

    public Order(String orderId, Customer customer) {
        this.orderId = orderId;
        this.customer = customer;
        this.products = new ArrayList<>();
    }

    public void addProduct(Product product) {
        this.products.add(product);
    }

    public String getOrderId() {
        return orderId;
    }

    public Customer getCustomer() {
        return customer;
    }

```


Java Lecture > src > lab_java > AmazonCRMSystem.java > Order > Order(String, Customer)
public ArrayList<Product> getProducts() {
return products;
}
}
// Main class
public class AmazonCRMSystem {
Run | Debug
public static void main(String[] args) {
// Implementation of ArrayList
ArrayList<Customer> customersList = new ArrayList<>();
ArrayList<Product> productsList = new ArrayList<>();
ArrayList<Order> ordersList = new ArrayList<>();
// Sample customers, products, and orders
Customer customer1 = new Customer(customerId:"001", name:"abcde");
customersList.add(customer1);
Product product1 = new Product(productId:"p0123", name:"Laptop");
productsList.add(product1);
Order order1 = new Order(orderId:"001", customer1);
order1.addProduct(product1);
ordersList.add(order1);
// Implementation of HashMap
HashMap<String, Customer> customerMap = new HashMap<>();
HashMap<String, Product> productMap = new HashMap<>();
for (Customer customer : customersList) {
customerMap.put(customer.getCustomerId(), customer);
}
for (Product product : productsList) {
productMap.put(product.getProductId(), product);
}
// Implementation of HashSet
HashSet<Product> uniqueProductsSet = new HashSet<>();

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        for (Product product : productsList) {
            productMap.put(product.getProductId(), product);
        }

        // Implementation of HashSet
        HashSet<Product> uniqueProductsSet = new HashSet<>();

        // Adding products to the set
        uniqueProductsSet.add(product1);

        // Implementation of TreeSet
        TreeSet<Customer> sortedCustomersSet = new TreeSet<>(customersList);
        TreeSet<Product> sortedProductsSet = new TreeSet<>(productsList);

        // Display information about customers
        System.out.println(x:"Customers:");
        for (Customer customer : customersList) {
            System.out.println("Customer ID: " + customer.getCustomerId() + ", Name: " + customer.getName());
        }

        // Display information about products
        System.out.println(x:"\nProducts:");
        for (Product product : productsList) {
            System.out.println("Product ID: " + product.getProductId() + ", Name: " + product.getName());
        }

        // Display information about orders and associated products
        System.out.println(x:"\nOrders:");
        for (Order order : ordersList) {
            System.out.println("Order ID: " + order.getOrderId() + ", Customer: " + order.getCustomer().getName());

            System.out.println(x:"Products in the order:");
            for (Product product : order.getProducts()) {
                System.out.println("  Product ID: " + product.getProductId() + ", Name: " + product.getName());
            }
        }
    }
}
```

```
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Customers:
Customer ID: 001, Name: abcde

Products:
Product ID: p0123, Name: Laptop

Orders:
Order ID: 001, Customer: abcde
Products in the order:
  Product ID: p0123, Name: Laptop
PS D:\Java Projects>
```