

**GIT Department of Computer Engineering  
CSE 222/505 - Spring 2021  
Homework # Report**

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## 1. System Requirements

First of all, a company must be created. When creating the company, the name of the company should be determined.

```
FurnitureCompany company1= new FurnitureCompany("Holding 1");
```

**Administrator** can add and delete branch, branch employee and can query about product.

When adding a new branch or removing a existing branch, reference of the branch is sent.

```
public void addBranch(Branch branch)
public void removeBranch(Branch branch)
```

To add a new branch employee, references of branch and employee are sent.

To delete, just reference of employee is sent.

```
public void addEmployee(Branch branch,BranchEmployee newEmployee)
public void removeEmployee(BranchEmployee employee)
```

To query, reference of branch and product are sent. If the product is not found, it adds.

```
public void productQuery(Branch branch,AbstractProduct product)
```

**Branch employee** can inquire about the products in stock, inform the manager that the product should be purchased when any product is less than the requested amount, add / remove products, make sales, access the information of the previous orders of a customer by using the customer id.

When add or remove product, reference of product is sent .

```
public boolean addProduct(AbstractProduct product)
public boolean removeProduct(AbstractProduct product)
```

When inquiring about the products in stock, reference of product is sent.

```
public boolean stockOf(AbstractProduct product)
```

When inform the manager, reference of product is sent.

```
public void infoToManager(AbstractProduct product)
```

When make sales, references of customer and product are sent.

```
public void makesell(Customer customer, AbstractProduct product)
```

When access the information of the previous orders of a customer, customer id is sent.

```
public array<AbstractProduct> previousOrderOf(int id)
```

**Customer** can search for products, see the list of products, see which store a product is in, shop online by entering address and phone information, and view their previous orders.

When search for products, customer can see list of products and which store products are in.

```
public void seeProducts()
```

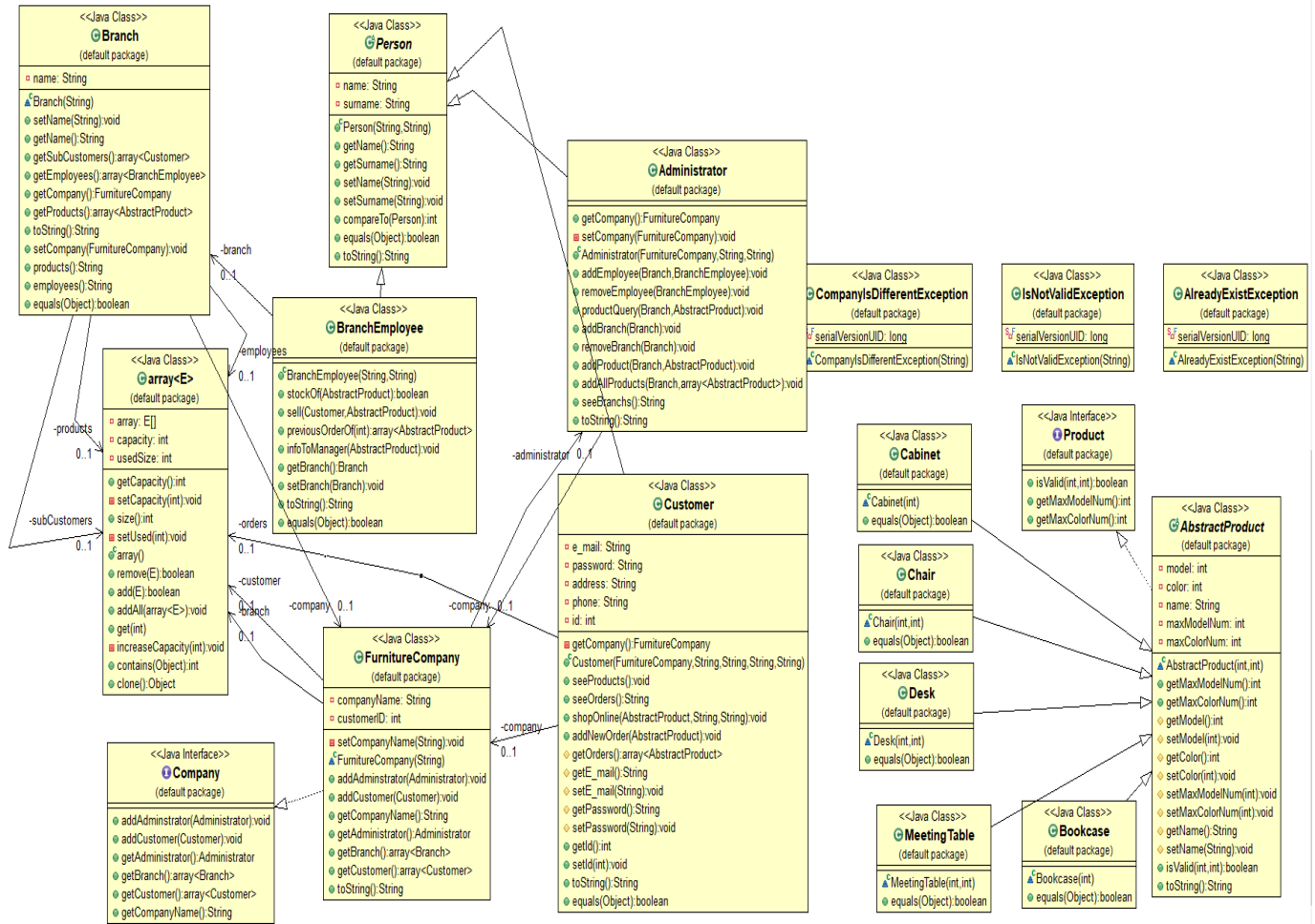
When shop online, address, phone information and product reference are sent.

```
public void shopOnline(AbstractProduct product, String address, String p
```

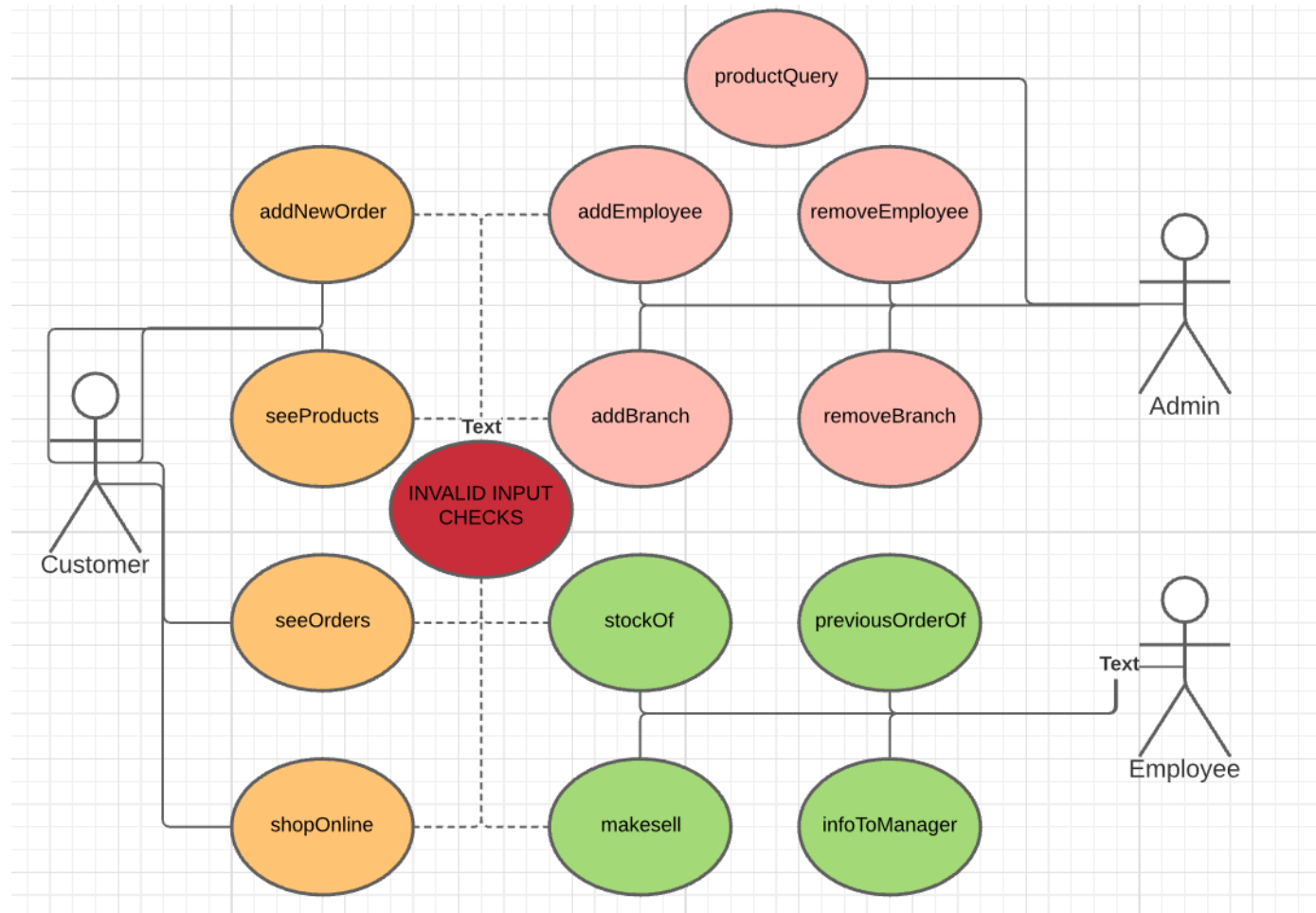
Customer can see previous orders.

```
public String seeOrders()
```

## 2. Class Diagrams



### 3. Use Case Diagrams



### 4. Problem Solution Approach

I created a generic array class to keep and modify the data easily. Then, I was able to come up with a solution by establishing a class hierarchy by correctly determining the class relationships and the facilities provided by my container class.

## 5. Test Cases

Create company

Company name: Holding 1

### Administrator

Add admin to company

Administrator name: Ugur ER

Add branch to company

branch 1 is opened

company name: Holding 1 branch name: branch 1

Add another branch to company

branch 2 is opened

company name: Holding 1 branch name: branch 2

Add employee to branch 1

elon is added

name: elon surname: musk

make query

chair is currently supplied

remove employee:

before remove:

name: elon surname: musk

name: mark surname: zuckerburg

elon is removed

after remove: name: mark surname: zuckerburg

remove branch:

before remove:

company name: Holding 1 branch name: branch 1

company name: Holding 1 branch name: branch 2

branch 1 is closed

after remove:

company name: Holding 1 branch name: branch 2

## Branch Employee

add product with employee

before add:

branch 1: chair    model: 2        color: 5

branch 1: desk    model: 2        color: 1

after add:

branch 1: chair    model: 2        color: 5

branch 1: desk    model: 2        color: 1

branch 1: meetingTable    model: 1        color: 1

remove product with employee

before remove:

branch 1: chair    model: 2        color: 5

branch 1: desk    model: 2        color: 1

branch 1: meetingTable    model: 1        color: 1

after remove:

branch 1: chair    model: 2        color: 5

branch 1: desk    model: 2        color: 1

check stock of product inform to manager and make sell functions of employees

The product is not available in the store, it is currently supplied.

elon bought desk    model: 1        color: 2

NOTE: branch employee should create a new subscription. I showed this process at customer section.

## CUSTOMER

see all products at company as customers

branch 1: chair    model: 2        color: 5

branch 1: desk    model: 2        color: 1

branch 2: chair    model: 1        color: 1

branch 2: chair    model: 2        color: 5

branch 2: desk    model: 2        color: 1

Shop online:(this is first order.So, customer will subscribe)

The product is not available in the store, it is currently supplied.

Welcome elon musk. You are subscribed

elon bought chair    model: 1        color: 5

see customer orders

Previous Orders:

chair    model: 1            color: 5

if the desired product is not in stores

The product is not available in the store, it is currently supplied.

elon bought chair    model: 5        color: 5