GIT Department of Computer Engineering
CSE 222/505 - Spring 2021
Homework 3 Report

Murat SARIBAŞ
205008003010

1. SYSTEM REQUIREMENTS

The automation system for a company that sells office furnitures. The system has users such as administrators, branch employees and customer. Administrators manage the system by adding and removing branches and branch employees, prints the branches and employees registered in the system, checks the stocks of the furniture registered in the system. Branch employees add and remove customers to the system. Branch employees can inquire about the products in stock, query the stocks of the products, add and remove product, take orders and sells, access the information of the previous orders of a customer by using the customer number. Branch employees can update the customers' previous orders section during their sales. Customers can searh for products, see the list of products, see which store a product is in and view their previous orders ,can add products to cart and can clear the cart.

First of all, a company must be created. Company's constructor create default admin

```java
public Company(String companyName)
```

```java
Admin admin1 = new Admin( name: "admin", surname: "admin", email: "admin@gmail.com", password: "1234", company: this);
```

Then automation system must be created with company

```java
public AutomationSystem(String name, Company company)
```

Administrator can add and remove branches and branch employees, prints the branches and employees registered in the system, checks the stocks of the furniture registered in the system if the stock is zero it increases the stock by 1.

```java
public boolean addBranch(int branchCode)
```

```java
public boolean removeBranch(int branchCode)
```

```java
public boolean addBranchEmployee(int branchCode, String name, String surname, String email ,String password)
```

```java
public boolean removeBranchEmployee(int branchCode, int userID)
```

```java
public void printBranches()
```

```java
public void printEmployees()
```

```java
public void checkStocks()
```

Branch employees can add and remove customer and products.

```java
public boolean addUser(String name, String surname, String email, String password)

public boolean removeUser(int userID)

public void addProduct(Furniture furniture)

public boolean removeProduct(Furniture furniture)
```

Branch employee can take orders and sells, access the information of the previous orders of a customer by using the customer number.

```java
public void printPreviousOrders(int userID)

public void newOrder(int userID, String model, String color)

public void sale(int userID)

public int getStock(Furniture furniture)
```

Customer can searh for products, see the list of products, see which store a product is in and view their previous orders, can add products to cart and can clear the cart.

```java
public void findProduct(Company company, Furniture fr)

public void listProducts(Branch branch)

public void printProductsBranch(Company company, Furniture fr)

public void printPreviousOrders()

public void addOrder(Furniture fr)

public void clearCart()
```
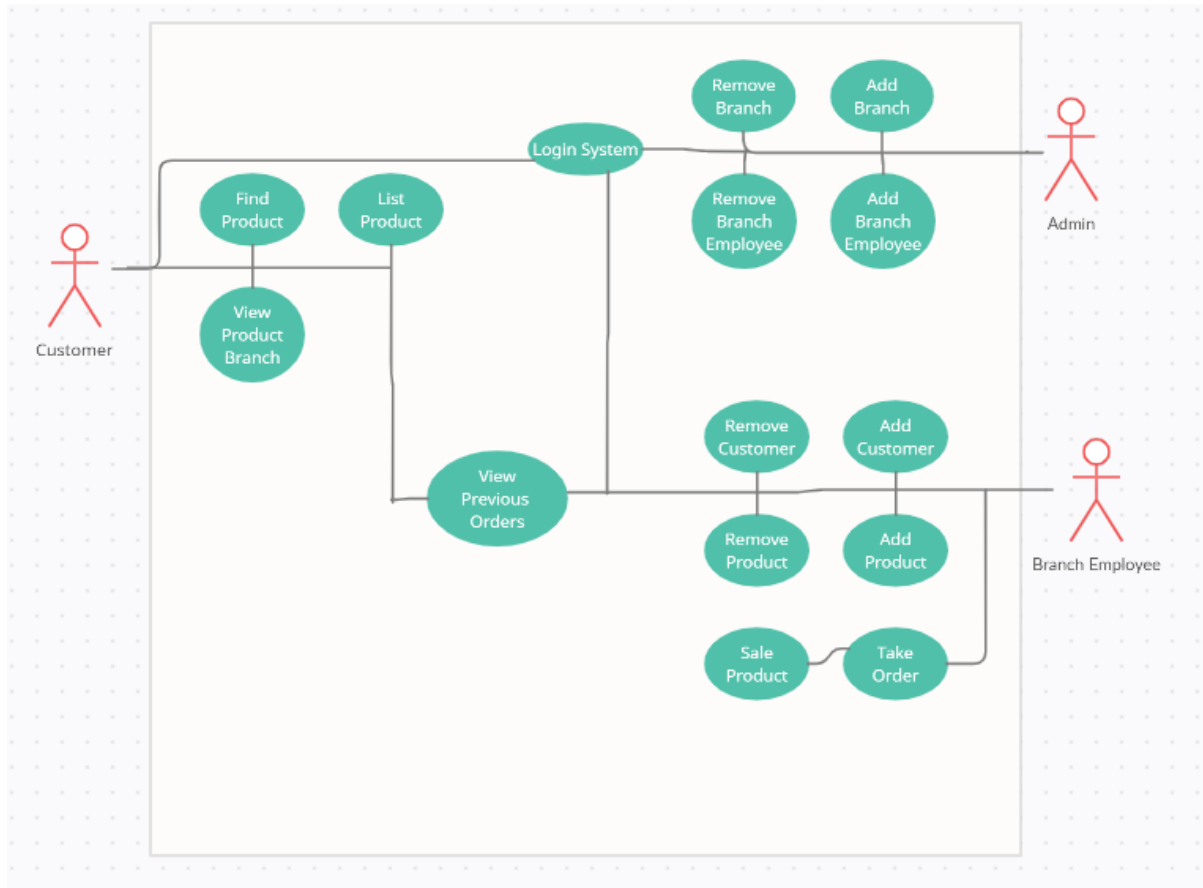
2. **USE CASE AND CLASS DIAGRAMS**

3. **RUNNING AND RESULTS**

- **Admin**

```
### Login to system as Admin ###
Login successful: admin admin
Name: admin admin email: admin@gmail.com ID: 100


 ### Add branch ###
 Branch Code: 100
 Branch Code: 200
 Branch Code: 300
 Branch Code: 400


 ### Remove branch ###
 Branch Code: 100
 Branch Code: 200


 ### Add branch employee ###
Name: be1 be1 email: be1@gmail.com ID: 101 Branch: 100
Name: be2 be2 email: be2@gmail.com ID: 102 Branch: 200
Name: be3 be3 email: be3@gmail.com ID: 103 Branch: 100
Name: be4 be4 email: be4@gmail.com ID: 104 Branch: 200


 ### Remove branch employee ###
Name: be1 be1 email: be1@gmail.com ID: 101 Branch: 100
Name: be2 be2 email: be2@gmail.com ID: 102 Branch: 200
```

- **Branch employee**

```
### Login to system as branch employee ###
Login successful: be1 be1 Branch: 100
Name: be1 be1 email: be1@gmail.com ID: 101 Branch: 100

 ### Add customer ###

Successful: Murat Saribas ID: 107
Successful: Veli Kemal ID: 108
Successful: Enes Ozgur ID: 109
Successful: Bilal Eksi ID: 110
Total Customer: 4

 ### Remove customer ###
Name: Murat Saribas ID: 107
Name: Veli Kemal ID: 108
Name: Bilal Eksi ID: 110
Total Customer: 3

 ### Create and add office chair ###

 ### Create and add office desk ###

 ### Create and add meeting table ###
```

- **added products**

```
#### All products ####
Office Desk: MODEL_1 Color: BLACK
  Branch: 100
Office Desk: MODEL_1 Color: BLUE
  Branch: 100
Office Desk: MODEL_1 Color: GREEN
  Branch: 100
Office Desk: MODEL_1 Color: WHITE
  Branch: 100
Office Desk: MODEL_2 Color: BLACK
  Branch: 100
Office Desk: MODEL_2 Color: BLUE
  Branch: 100
Office Desk: MODEL_2 Color: GREEN
  Branch: 100
Office Desk: MODEL_2 Color: WHITE
  Branch: 100
Office Desk: MODEL_1 Color: BLACK
  Branch: 200
Office Desk: MODEL_1 Color: BLUE
  Branch: 200
Office Desk: MODEL_2 Color: BLACK
  Branch: 200
Office Desk: MODEL_2 Color: BLUE
  Branch: 200
Office Chair: MODEL_A Color: BLACK
  Branch: 100
Office Chair: MODEL_A Color: BLUE
  Branch: 100
Office Chair: MODEL_A Color: GREEN
  Branch: 100
Office Chair: MODEL_A Color: WHITE
  Branch: 100
```

```
Office Chair: MODEL_B Color: BLACK
  Branch: 100
Office Chair: MODEL_B Color: BLUE
  Branch: 100
Office Chair: MODEL_C Color: GREEN
  Branch: 100
Office Chair: MODEL_C Color: WHITE
  Branch: 100
Office Chair: MODEL_B Color: RED
  Branch: 200
Office Chair: MODEL_B Color: BLUE
  Branch: 200
Office Chair: MODEL_C Color: RED
  Branch: 200
Office Chair: MODEL_C Color: WHITE
  Branch: 200
Meeting Table : MODEL_MT1 Color: BLACK
  Branch: 100
Meeting Table : MODEL_MT1 Color: BLUE
  Branch: 100
Meeting Table : MODEL_MT1 Color: GREEN
  Branch: 100
Meeting Table : MODEL_MT2 Color: BLACK
  Branch: 100
Meeting Table : MODEL_MT2 Color: BLUE
  Branch: 100
Meeting Table : MODEL_MT2 Color: GREEN
  Branch: 100
Meeting Table : MODEL_MT3 Color: BLACK
  Branch: 200
Meeting Table : MODEL_MT3 Color: BLUE
  Branch: 200
Meeting Table : MODEL_MT3 Color: GREEN
  Branch: 200
```

```
### Print stock of the furniture ###
Stock: 3
Office Chair: MODEL_C Color: WHITE
Stock: 3
Office Desk: MODEL_2 Color: BLUE
Stock: 3
Meeting Table : MODEL_MT3 Color: GREEN
```

-product list after removes

```
 ### Remove product ###

                                      Office Chair: MODEL_B Color: BLACK
 #### All products ####               Branch: 100
Office Desk: MODEL_1 Color: BLACK     Office Chair: MODEL_B Color: BLUE
 Branch: 100                          Branch: 100
Office Desk: MODEL_1 Color: BLUE      Office Chair: MODEL_C Color: GREEN
 Branch: 100                          Branch: 100
Office Desk: MODEL_1 Color: GREEN     Office Chair: MODEL_B Color: RED
 Branch: 100                          Branch: 200
Office Desk: MODEL_1 Color: WHITE     Office Chair: MODEL_B Color: BLUE
 Branch: 100                          Branch: 200
Office Desk: MODEL_2 Color: BLACK     Office Chair: MODEL_C Color: RED
 Branch: 100                          Branch: 200
Office Desk: MODEL_2 Color: GREEN     Office Chair: MODEL_C Color: WHITE
 Branch: 100                          Branch: 200
Office Desk: MODEL_2 Color: WHITE     Meeting Table : MODEL_MT1 Color: BLACK
 Branch: 100                          Branch: 100
Office Desk: MODEL_1 Color: BLACK     Meeting Table : MODEL_MT1 Color: BLUE
 Branch: 200                          Branch: 100
Office Desk: MODEL_1 Color: BLUE      Meeting Table : MODEL_MT1 Color: GREEN
 Branch: 200                          Branch: 100
Office Desk: MODEL_2 Color: BLACK     Meeting Table : MODEL_MT2 Color: BLACK
 Branch: 200                          Branch: 100
Office Desk: MODEL_2 Color: BLUE      Meeting Table : MODEL_MT2 Color: BLUE
 Branch: 200                          Branch: 100
Office Chair: MODEL_A Color: BLACK    Meeting Table : MODEL_MT2 Color: GREEN
 Branch: 100                          Branch: 100
Office Chair: MODEL_A Color: BLUE
 Branch: 100
Office Chair: MODEL_A Color: GREEN
 Branch: 100
Office Chair: MODEL_A Color: WHITE
 Branch: 100
```

```
 ### Taking orders and selling ###
Stocks before sale:
Stock: 3
Office Chair: MODEL_A Color: BLACK
Stock: 3
Office Desk: MODEL_2 Color: BLUE
Stock: 3
Meeting Table : MODEL_MT1 Color: GREEN


Stocks after sale:
Stock: 2
Office Chair: MODEL_A Color: BLACK
Stock: 2
Office Desk: MODEL_2 Color: BLUE
Stock: 1
Meeting Table : MODEL_MT1 Color: GREEN

 ### Prints the customer's previous orders ###
Order History:
Office Chair: MODEL_A Color: BLACK
Office Desk: MODEL_2 Color: BLUE
Meeting Table : MODEL_MT1 Color: GREEN
Meeting Table : MODEL_MT1 Color: GREEN
```

- **Customer**

```
### Login to system as customer ###
Login successful: Murat Saribas
Name: Murat Saribas email: ms@gmail.com ID: 107

 ### Find product ###
Office Chair: MODEL_A Color: BLACK
Branch: 100 Stock: 2
Office Desk: MODEL_2 Color: BLUE
Branch: 200 Stock: 2
Meeting Table : MODEL_MT1 Color: GREEN
Branch: 100 Stock: 1

 ### List products in the branch ###
Office Desk: MODEL_1 Color: BLACK
 Branch: 200
Office Desk: MODEL_1 Color: BLUE
 Branch: 200
Office Desk: MODEL_2 Color: BLACK
 Branch: 200
Office Desk: MODEL_2 Color: BLUE
 Branch: 200
Office Chair: MODEL_B Color: RED
 Branch: 200
Office Chair: MODEL_B Color: BLUE
 Branch: 200
Office Chair: MODEL_C Color: RED
 Branch: 200
Office Chair: MODEL_C Color: WHITE
 Branch: 200
```

```
 ### Find the branch where the product is located ###
Branch: 100
Branch: 200
Branch: 100

 ### Prints previous orders ###
Order History:
Office Chair: MODEL_A Color: BLACK
Office Desk: MODEL_2 Color: BLUE
Meeting Table : MODEL_MT1 Color: GREEN
Meeting Table : MODEL_MT1 Color: GREEN
```