

**GIT Department of Computer Engineering**  
**CSE 222/505 - Spring 2021**  
**Homework 1# Report**

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## 1. SYSTEM REQUIREMENTS

We need at least Company, Branch, Administrator, Employee and Customer class to represent our company. We will also need some additional classes to properly implement these classes like Order and Person.

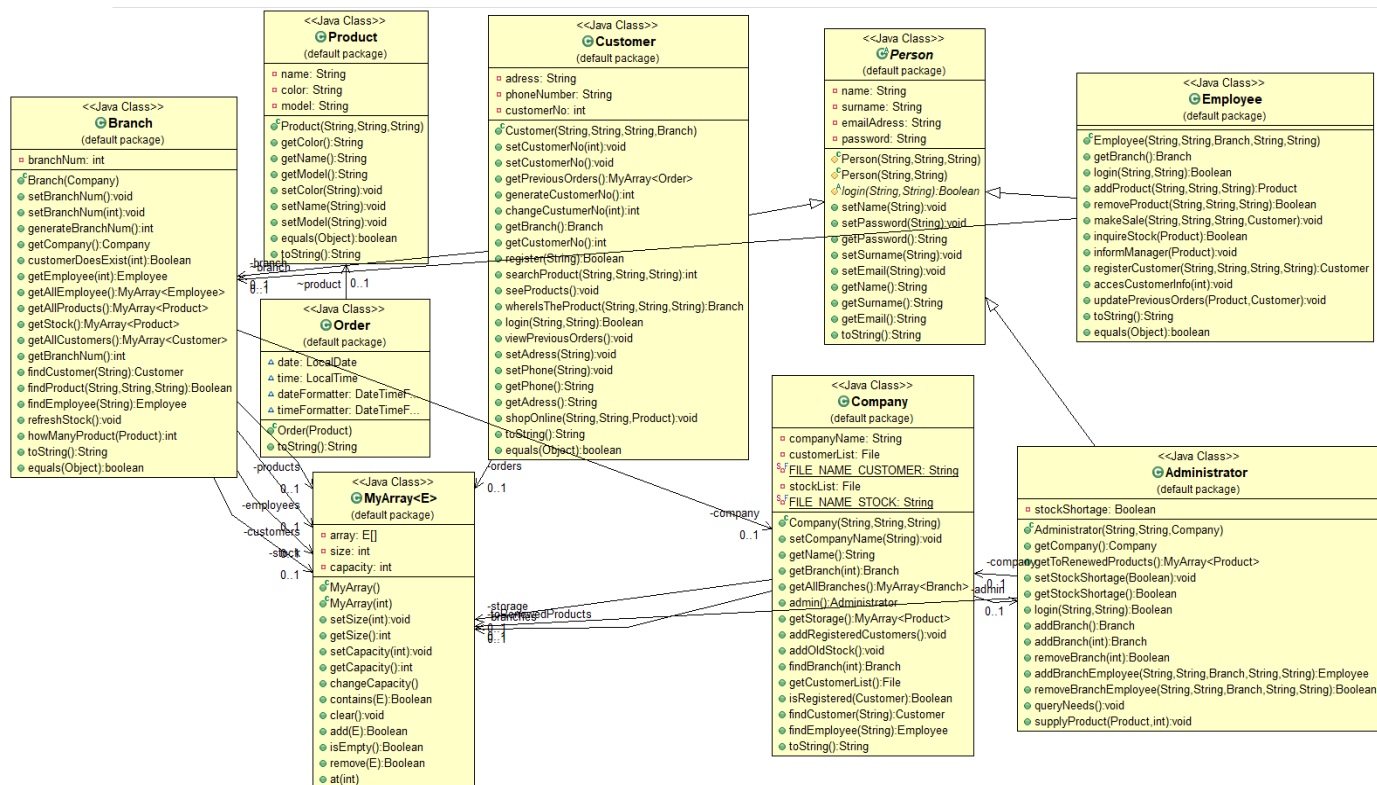
Furniture company add existing customers and products from files to its system. Also, it has some features to find specific employees and customers. You can create a company with company name and admin information.

Administrators can delete branch/employee, add branch/employee, and query the needs and supply if something is out of the stock.

Customers can register 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.

Employees 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 number and add new order to this section.

## 2. USE CASE AND CLASS DIAGRAMS



### 3. PROBLEM SOLUTION APPROACH

I have used my own class to represent array of the classes. MyArray class basically acts like hash set. You can't add same branch, customer and employee twice to the system, but you can add products.

MyArray class have basic commands like remove, add ,find, at, contains etc. They helped me while I'm implementing my class functions a lot.

MyArray's capacity change with twice of its first capacity which we can initialize with. I think it is better for the efficiency rather than change capacity after each adding operations.

With the help of my array class I've implemented my system requirements.

### 4. TEST CASES

I write a main function with a Main Menu, Customer Menu, Employee Menu, Admin Menu. All the conditions can test there.

Note: If you run multiple times the program, you should delete the files because it throws exception because we're trying to add same person twice.

I will add test cases and running result at part 5. Password is always "12345" for test.

### 5. RUNNING AND RESULTS

I added some objects for each class and then create my menus. You can use them in menu.

```
Name: Ayse
Surname: Yilmaz
Email: ayseyilmaz@gmail.com
Customer No:10102 is registered.

Branch No:2
Name: Ali
Surname: Veli
Email: aliveli@outlook.com
Customer No:10202 is registered.

Branch No:3
Name: Selin
Surname: Yildiz
Email: syildiz@gtu.edu.tr
Customer No:10302 is registered.

Branch No:4
Name: Beyza
Surname: Güven
Email: bguven@outlook.com
Customer No:10402 is registered.

----- Bloom Furniture Company Automation System -----

1- Login as Admin
2- Login as Customer
3- Login as Branch Employee
4- Register as Customer
5- Exit

Employee added.
Name: Melisa
Surname: Al
Branch No:4
Email:melisaal@gmail.com

Employee added.
Name: Nesrin
Surname: Bal
Branch No:3
Email:nesrinbal@gmail.com

Employee added.
Name: Eylül
Surname: Öztürk
Branch No:2
Email:eyluloz@outlook.com

Employee added.
Name: Ali
Surname: Yol
Branch No:1
Email:aliyol@outlook.com
```

```
File created: customerList.txt
File created: stockList.txt
Company added.
Company Name: Bloom
Admin:
Name: Sena
Surname: Ulukaya
```

```
Branch added.
Branch No: 4
Branch added.
Branch No: 3
Branch added.
Branch No: 2
Branch added.
Branch No: 1
```

```
Product added to Branch 4
Office Desk Model2 in Brown color
Product added to Branch 3
Office Chair Model3 in Brown color
Product added to Branch 2
Meeting Table Model1 in Black color
```

## Admin Menu:

If you enter right email and password it will login and new options will come.

```
1
Enter email: senaulukaya@outlook.com
Enter password: 12345
You have succesfully loggedin.
a) Add a New Branch
b) Remove Branch
c)Add Branch Employee
d)Remove Branch Employee
e)Query Needs
f)Return Main Menu
```

```
1
Enter email: senaulukaya@outlook.com
Enter password: 123456s.
Incorrect password.
```

```
a
Branch added.
Branch No: 5
```

```
b
Which branch do you want to remove?
Enter branch num ex:1
1
Branch removed.
```

```
c
Enter employee name: Feyza
Enter employee surname: Gul
Enter employee's branch no: 2
Enter employee email: feyza@outlook.com
Enter employee password: 12345
Employee added.
Name: Feyza
Surname: Gul
Branch No:2
Email:feyza@outlook.com
```

```
d
Enter employee name: Feyza
Enter employee surname: Gul
Enter employee's branch no: 2
Enter employee email: feyza@outlook.com
Enter employee password: 12345
Employee removed
```

```
e
Products supplied and added to center storage.
```

### Customer Menu:

```
2
Enter email: aliveli@outlook.com
Enter password: 12345
You have succesfully logined.
a) Search Product & See Which Branch it is in
b) See All Products
c) Shop Online
d)View Previous Orders
e)Return Main Menu
```

It was in the Branch 1 and we removed branch 1, so out of stock.

```
a
Enter the product type: Bookcase
Enter the product color: Pink
Enter the product model: Model1
Product is out of stock.
```

Shows all the products in our branch.

```
b
Product Name: Office Chair
Product Color: Brown
Product Model: Model3
Branch No: 3
Stock: 1
```

Shop online:

```
c
What do you want to buy?

Enter the product type: OfficeChair
Enter the product color: Brown
Enter the product model: Model3
Enter your adress: istanbul
Enter your phone number: 05678900987
You have succesfully buyed.
```

See previous orders:

```
d
13/03/2021 23:38:12
OfficeChair Model3 in Brown color
```

Employee Menu:

```
3
Enter email: melisaal@gmail.com
Enter password: 12345
You have succesfully logged in.
a) Inquire Stock and Inform Manager
b) Add Product
c) Remove Product
d) Make Sale and Update Theirs Orders
e) Acces Customer Info
f) Register Customer
g) Return Main Menu
```

```
a
Which product do you want to check?

Enter the product type: OfficeChair
Enter the product color: Brown
Enter the product model: Model1
Product is out of stock, manager is informed.
```

```
b
Which product do you want to add?

Enter the product type: OfficeChair
Enter the product color: Brown
Enter the product model: Model1
```

```
c
Which product do you want to remove?

Enter the product type: OfficeChair
Enter the product color: Pink
Enter the product model: Model1
Product does not exist.
```