

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

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- **SYSTEM REQUIREMENTS**

In this homework, we require Users Interface class. . We also require some inherited classes from Users which names are Administrators, BranchEmployees, and Customers classes.I don't need to keep any data in that classes. These classes have some functions for furniture automation system. We need one more classes which name is Company In that class I need to keep all informantions about the furniture-stok.If we want to run this system, it will start automatically when we run the program.In this assignment, we design and implement the furniture-automation system. This automation system has users such as administrators, branch employees and customers.

Administrators:

-Admin can adding and removing branches

-Admin can add branch employees and delete branch employees.

Employees:

Employee can take care of products in stock

Employee can add or remove products from branches

access customer's information and view old shopping

Employee can create new customers

Customers :

Customers register and log into the system.

Customers can learn about the branches and search for products in branches and shop online

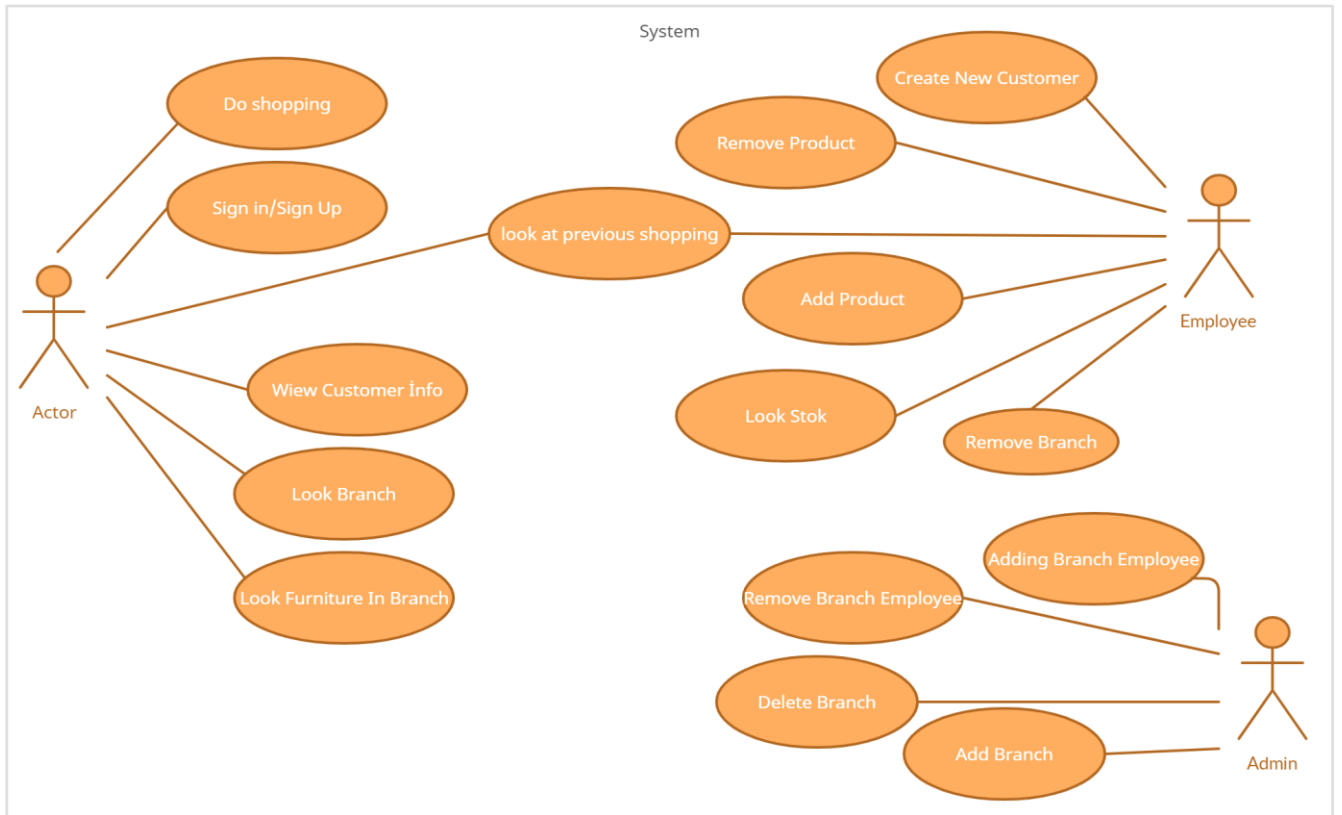
Customers can view their previous orders

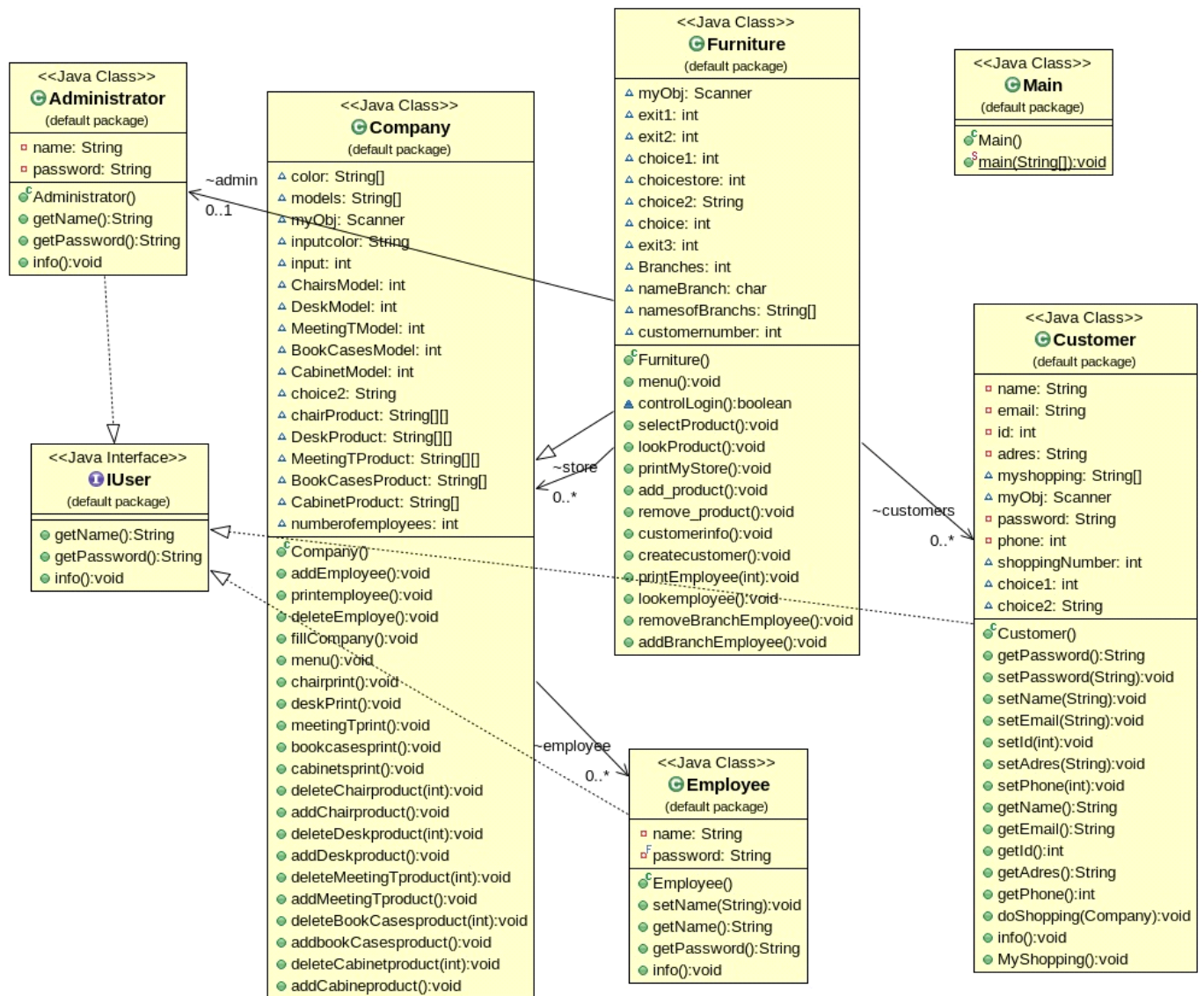
To make the system, I first wrote an interface for users. I implemented this interface with an admin class, employee class and customer class. I created a Company class similar to a store where I can store my products. I have created arrays in this class where I can store chairs, tables, meeting tables, bookcases and office cabinets and I produced arrays from the Employee Class with a size of 10 because each branch can have more than one element to work with. Then I created a Furniture class where I can run the system and inherit the Company class here so that I could access products in the system. I produced arrays from the Company Class, which can be 10 in size. because we start with 4 stores and an online branch in the system, and then we can increase or decrease it. I have created a menu to be an interactive system in this class.

SYSTEM USAGE

I left the system admin and employee open, we can use it without entering a password. We start with an admin and an employee. In order for the customer to use the system, they must first register and then log in. If the customer enters the correct id and password to the system, they can view the customer panel and take action. After the first purchase, the address and phone information are registered in the system, but each time they make a purchase, they are asked again because they may want to deliver to a different address.

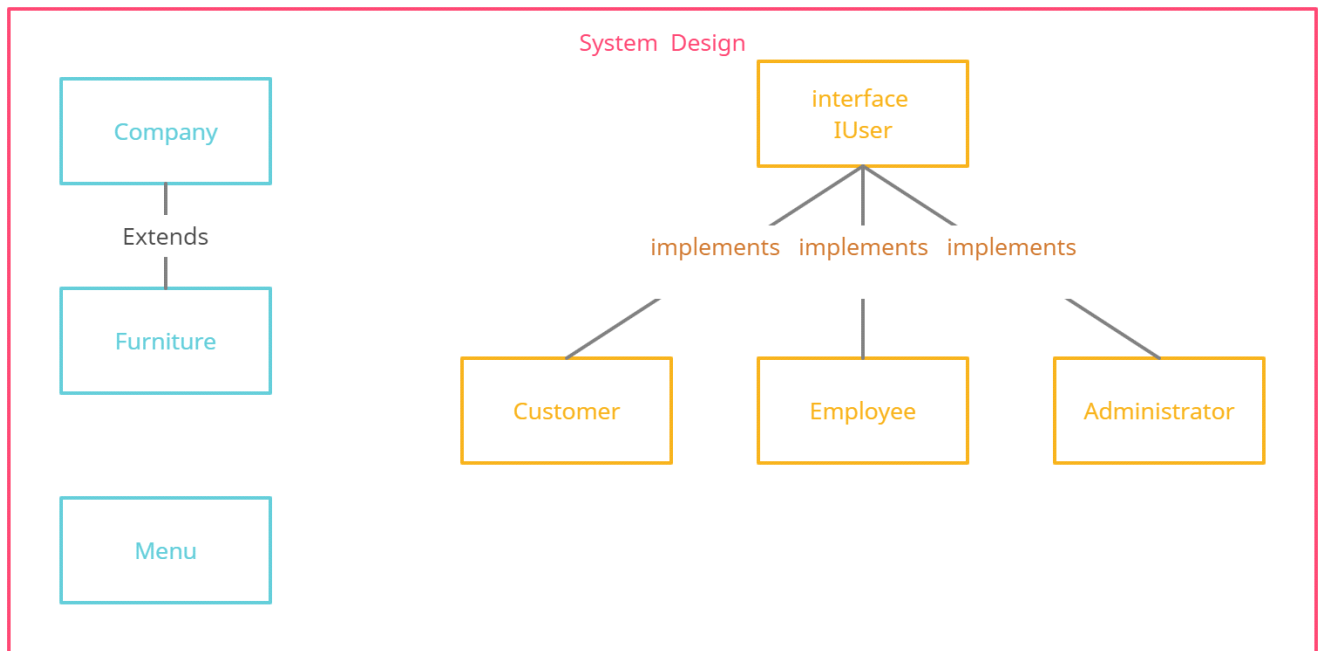
- **USE CASE AND CLASS DIAGRAMS**





- PROBLEM SOLUTION APPROACH**

I started by drawing the object orientated programming scheme before starting to coding, I started by drawing on paper by placing the things given in the .grading section into the system.



I applied the overriding methods of my administrator, employee and customer classes that I derived from the interface. I decided to create it as arrays so that the products can be added and removed. I created each product's own array. Then I created objects from the Company class named store, which I applied Error Handling to create this object and so I applied the whole grading. and so I applied the whole grading. As there are 4 branches at the beginning of the program according to the pdf instruction, some branches are added automatically.

Some of the grading section

```
7  
8 public static void main(String[] args) {  
9     Company myObj = new Furniture(); //Polymorphism  
10    myObj.menu();  
}
```

```

        if (choice1 == 1) {
            try {
                store[Branches] = new Company();
                store[Branches].fillCompany();
                namesofBranches[Branches] = String.valueOf(nameBranch);
                nameBranch += 1;
                Branches += 1;
                System.out.println("Congratulations on your " + (Branches) + ". store");
            } catch (ArrayIndexOutOfBoundsException e) {
                System.out.println("Store capacity exceeded.");
            }
        }
    }
}

```

IDE tabs: Main.java, Company.java, Customer.java, IUser.java, Furniture.java, Employee.java

```

1 public interface IUser {
2
3     /**
4      *
5      * @return name
6      */
7     String getName();
8 }

```

```

7     * This method is the menu system created for the user to use interactively.
8     */
9     @Override
10    public void menu() {
11        while (exit1 == 0){
12            System.out.println("---Welcome Furniture Store---");
13            System.out.println("1) Admin Login");
14        }
15    }

```

- **TEST CASES**

Some Main Tests

new branch added - passed

remove branch -passed

logging into the system with the wrong id -passed

Add branch employee - passed

Delete branch employee -passed

delete an absent employee -passed

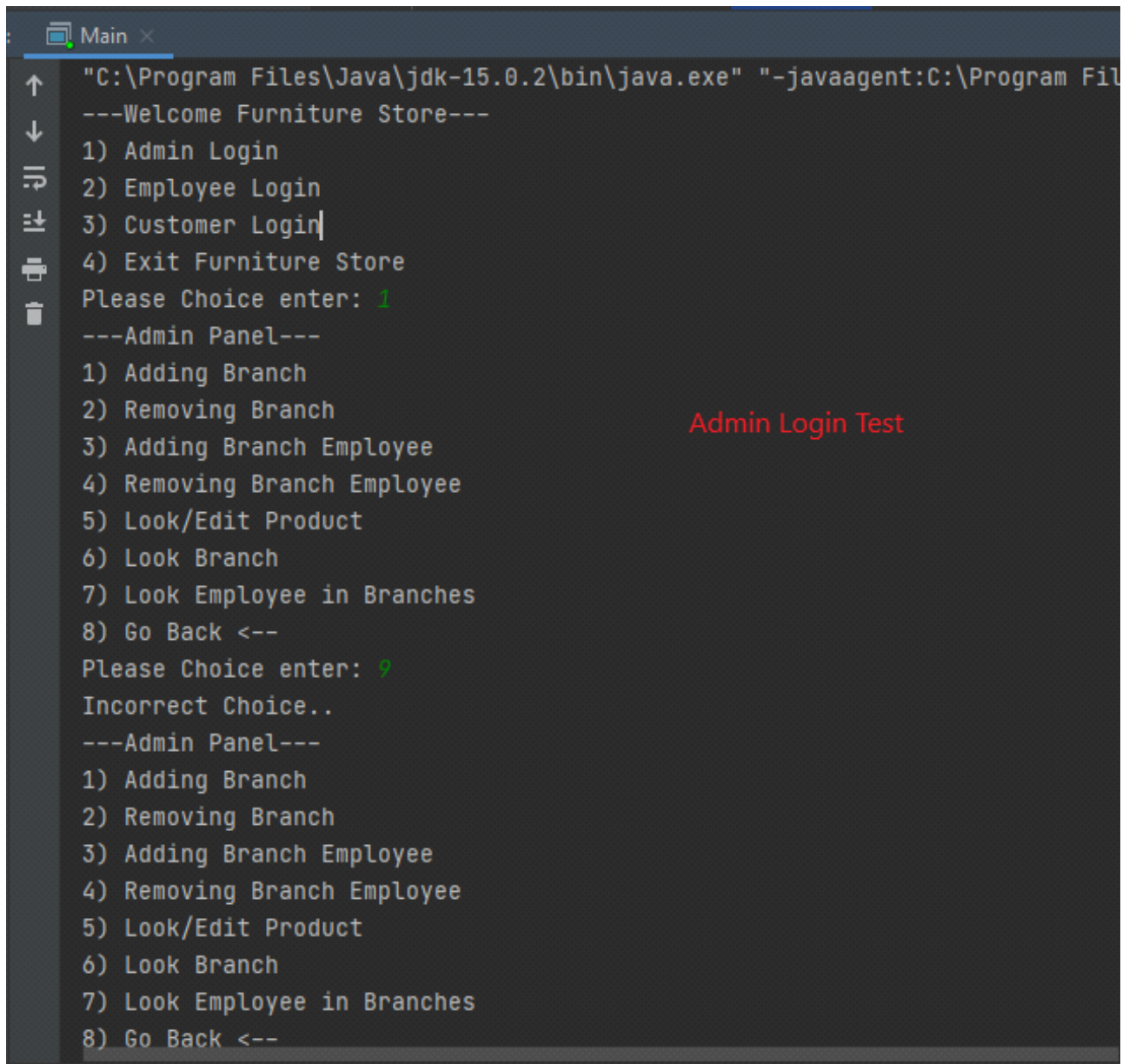
purchase nonexistent product - passed

Adding the wrong color product -passed

Adding the wrong model product -passed

RUNNING AND RESULTS

some images of system operation and running of tests



```
"C:\Program Files\Java\jdk-15.0.2\bin\java.exe" "-javaagent:C:\Program Fil
---Welcome Furniture Store---
1) Admin Login
2) Employee Login
3) Customer Login
4) Exit Furniture Store
Please Choice enter: 1
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 9
Incorrect Choice..
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
```

Admin Login Test

```
Main x
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 6
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 1
Congratulations on your 6. store
---Admin Panel---
```

Look Branch and Adding
Branch


```
Main x
8) Go Back <--
Please Choice enter: 1
Congratulations on your 6. store
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 3
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
6-) F Store
Please select a branch to add employee: 7
Incorrecct Choice or Cannot add employee to online store.
Please select a branch to add employee: 3
Please enter Employee name: john
Process Completed.Employee added to branch
*****Employees In Branch*****
1.Employee: john
---Admin Panel---
```

adding branch employee

```
Main x
Please select a branch to add employee: 0
Please enter Employee name: john
Process Completed.Employee added to branch
*****Employees In Branch*****
1.Employee: john
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 3
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
6-) F Store
Please select a branch to add employee: 3
Please enter Employee name: erdoğan
Process Completed.Employee added to branch
*****Employees In Branch*****
1.Employee: john
2.Employee: erdoğan
---Admin Panel---
```

Adding Branch Employee 2nd
added

```

Main x
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 4
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
6-) F Store
Please select a branch to delete employee: 1
There are no employee in this branch
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter:

```

Deleting an employee from a non-employee store

```
Main x
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 4
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
6-) F Store
Please select a branch to delete employee: 3
*****Employees In Branch*****
1.Employee: john
2.Employee: erdoğan
Please enter Employee name: erdoğan
Process Completed.Employee delete to branch
---Admin Panel---
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter:
```

removing branch employee

```
Process completed.Employee delete to branch
Main x
↑
↓
1) Adding Branch
2) Removing Branch
3) Adding Branch Employee
4) Removing Branch Employee
5) Look/Edit Product
6) Look Branch
7) Look Employee in Branches
8) Go Back <--
Please Choice enter: 2
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
6-) F Store
Please enter the shop number you want to delete. 6
Branch Removed..
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
---Admin Panel---
1) Adding Branch
2) Removing Branch
```

remove branch

```

Main x
Please Choice enter:
---Employee Panel---
1) Look Product
2) Remove Product
3) Add Product
4) Look Customer Info
5) Create New Customer
6) Go Back <--
Please Choice enter: 3
1-) A Store
2-) B Store
3-) C Store
4-) D Store
5-) Online Store
Enter the store number : 1
1-) Chair
2-) Desk
3-) Meeting Table
4-) Bookcase
5-) Office Cabinet
Please select the product: 8
Wrong Choice.Product could not be added.
---Employee Panel---
1) Look Product
2) Remove Product
3) Add Product
4) Look Customer Info
5) Create New Customer

```

add product test

```

Main x
Please Choice enter: 1
---Customer Panel---
1) Sign Up
2) Sign In
3) Back
Please Choice enter: 1
Please Enter your name: tuba
Please Enter your e-mail: tbfkf@gmail.com
Please Enter your Password: max
You Are Now a Registered User and Your id : 1
Please go back and log in to the system.
---Customer Panel---
1) Sign Up
2) Sign In
3) Back
Please Choice enter: 2
Please Your Shopping id: 2
User not Found
---Customer Panel---
1) Sign Up
2) Sign In
3) Back
Please Choice enter: 2
Please Your Shopping id: 1
Please Your Password: max
-----Welcome-----
1-) Look at Branches
2-) Do the Shopping

```

sign up-sign in test

```
Main x
Welcome
1-) Look at Branches
2-) Do the Shopping
3-) My previous purchases
4-) Look In Branch
5-) My Info
6-) Logout
Please enter your choice: 2
Please enter your Address
maltepe
Please enter your phone
12345
1-) Chair
2-) Desk
3-) Meeting Table
4-) Bookcase
5-) Office Cabinet
6-) Exit
Please select the product: 7
Incorrect Select..
Please select the product: 2
--Desk in stock--
1-)Walnut color 1.Model Desk
2-)Walnut color 2.Model Desk
3-)Walnut color 3.Model Desk
4-)Walnut color 4.Model Desk
5-)Walnut color 5.Model Desk
6-)White color 1 Model Desk
```

do shopping


```
Main x
17-)Black color 4.Model Desk
20-)Black color 5.Model Desk
Please select the product you want to buy: 21
The product was entered incorrectly
Please select the product you want to buy: 19
Your shopping has been completed.
1-) Chair
2-) Desk
3-) Meeting Table
4-) Bookcase
5-) Office Cabinet
6-) Exit
Please select the product: 4
--Bookcases in stock--
1-)1.Model BookCase
2-)2.Model BookCase
3-)3.Model BookCase
4-)4.Model BookCase
5-)5.Model BookCase
6-)6.Model BookCase
7-)7.Model BookCase
8-)8.Model BookCase
9-)9.Model BookCase
10-)10.Model BookCase
11-)11.Model BookCase
12-)12.Model BookCase
Please select the product you want to buy: 1
--Bookcases in stock--
```

do shopping test
I buy 1 desk and bookcases

```
Main x
1-) Chair
2-) Desk
3-) Meeting Table
4-) Bookcase
5-) Office Cabinet
6-) Exit
Please select the product: 6
-----Welcome-----
1-) Look at Branches
2-) Do the Shopping
3-) My previous purchases
4-) Look In Branch
5-) My Info
6-) Logout
Please enter your choice: 3
*****My Previous Orders*****
1. Black color 5. Model Desk
2. 1. Model BookCases
*****
-----Welcome-----
1-) Look at Branches
2-) Do the Shopping
3-) My previous purchases
4-) Look In Branch
5-) My Info
6-) Logout
Please enter your choice:
```

my previous Orders