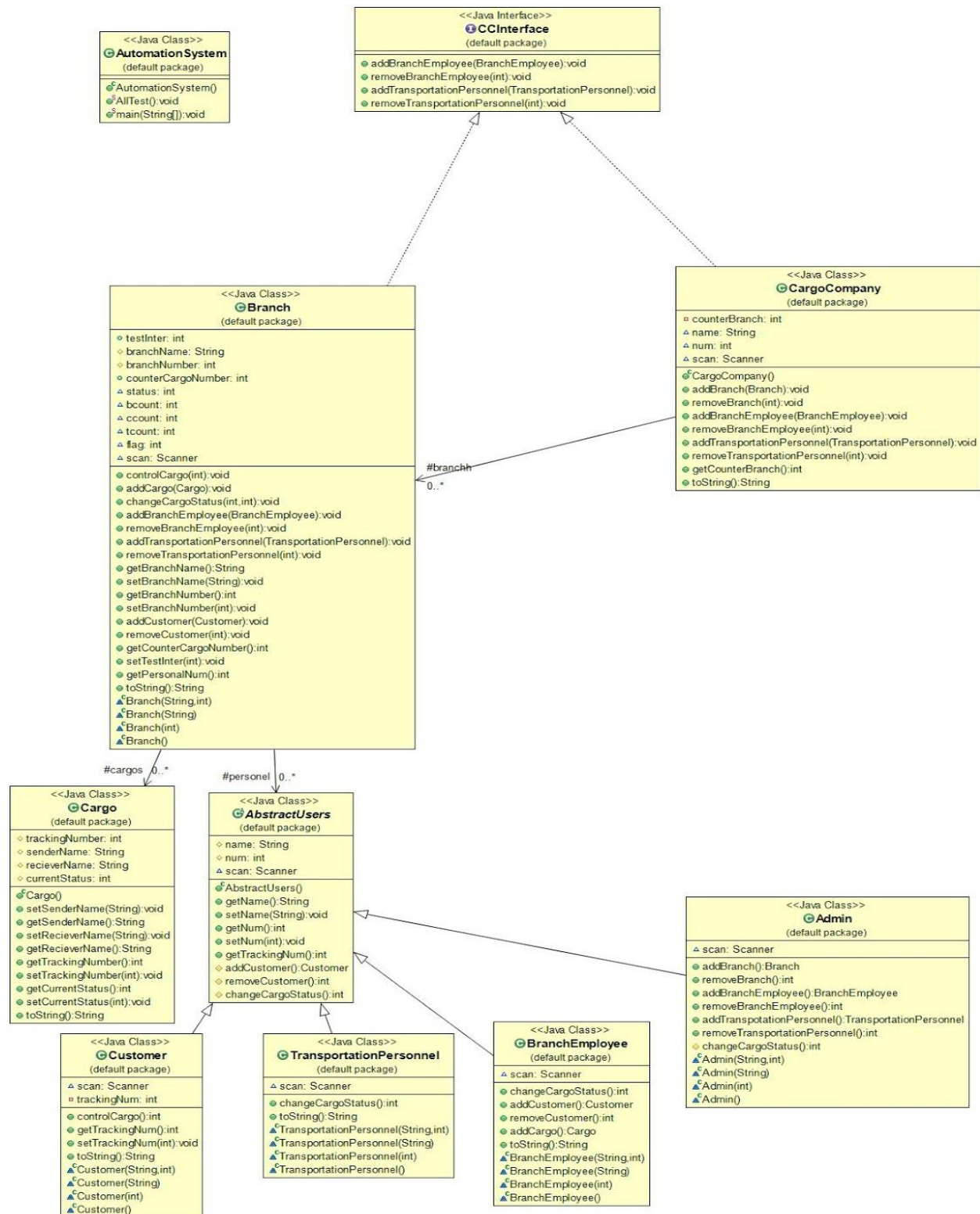


GIT Department of Computer Engineering
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Homework 2 Report

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CLASS DIAGRAM FOR CARGO COMPANY



You see the class diagram of the cargo company I created above. There is a cargo company with branches array in it. There are branches employees, transportation personnel and cargoes in each class.

SYSTEM REQUIREMENTS

In this system we wrote the online application of a cargo company. A system that contains the information of the personnel, shipments and branches.

Administrators manage the system by adding and removing branches, branch employees and transportation personnel. Branch employees can enter and remove information about the shipments sent from that branch, add and remove users (customers) to the system. The information of the sender and receiver are recorded for each shipment. When the package arrives at a branch or leaves the branch, its current status is entered into the system by the branch employee. When it is delivered, the transportation personnel makes the update. The customer entering the system with the tracking number is only authorized to see the name and surname information of the sender and receiver and the current status of the cargo.

There is a cargo company in this application and it keeps the data of branches within this company. Each branch, on the other hand, holds the data of the employees in the branch as well as the data of the shipments.

Admin, staff and customers can use the app.

ADMINISTRATOR

System administrator capable of add/remove branch, add/remove branch employee, add/remove transportation personnel functions.

BRANCH EMPLOYEE

User who can add or remove transportation personnel, add and remove customers, and change cargo status

TRANSPORTATION PERSONNEL

The user who can update the cargo status when he delivered the cargo.

BE and TP can log into the system with branch number and personal id.

CUSTOMER

User who can see the cargo status with the cargo tracking number.

Security

Each personnel can enter the application by entering their unique number and company number without errors.

Reusability

The project has been written in accordance with oop rules and all methods that can be used repeatedly are written with error checks.

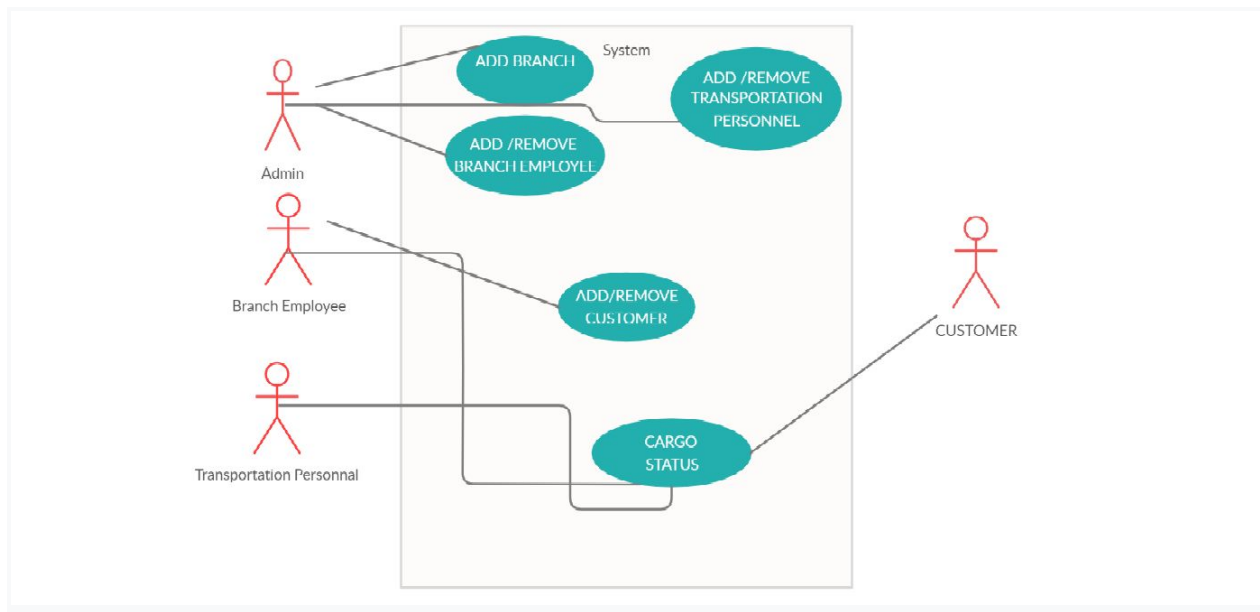
Performance

The application is divided into many parts and is easy to access. Each part has a separate task and is efficient.

Flexibility

Lists are used in the application and there is no problem about the place that can be added continuously.

USE-CASE DIAGRAM FOR CARGO COMPANY



TEST CASES and RUNNING COMMAND, RESULTS

In this section, I tried test scenarios for admin, be, tp and customer and reflected the terminal image.

The code has the code written in the alltest method in AutomationSystem class.

The menu options for each user are below.

GENERAL MENU AND ADMINISTRATION MENU

```
Welcome the Cargo company automation system
Please choose your input method
1-)Admin
2-)Branch Employee
3-)Transportation Personal
4-)Customer
5-)Exit
1
Please select operation that you want
1-)Add Branches
2-)Remove Branches
3-)Add Branches Employee
4-)Remove Branches Employee
5-)Add Transportation Personnel
6-)Remove Transportation Personnel
7-)List Branches Employee
8-)List Transportation Personal
```

BRANCH EMPLOYEE MENU

```
81
Welcome the Cargo company automation system
Please choose your input method
1-)Admin
2-)Branch Employee
3-)Transportation Personal
4-)Customer
5-)Exit
2
82 --- GEBZE
Please enter the your branch number and your branch employe num
Branch Num=82
Branch personal num=14
Please select operation that you want
1-)Add Customer
2-)Remove Customer
3-)Change cargo status
4-)List cargos
```

If wrong information is entered, you are asked to enter it again.

TRANSPORTATION PERSONAL MENU

```
Please choose your input method
1-)Admin
2-)Branch Employee
3-)Transportation Personal
4-)Customer
5-)Exit
3
82 --- GEBZE
Please enter the your branch number and yourTransportation Personal num
Branch Num=82
Transportation personal num=55
Please select operation that you want
1-)Change cargo status
```

TEST CASES,RUNNING and RESULTS

```

welcome to test Scenariio for my Cargo Company.
I will try to explain results of choice
firstly we create CargoCompany object and admin
Now we create 3 branch for my company
1.Branch name is Gebze and branch num is 82
2.Branch name is Darica and branch num is 83
3.Branch name is Cayirova and num is 84.We create this branch for testing to remove branch command.
Now we list to branch
82 --- Gebze
83 --- Darica
84 --- Cayirova
And now we try remove branch(Cayirova) and i will list again all branch
82 --- Gebze
83 --- Darica
Now we test add branches employee so we create branches employee object
1. Ahmet Yilmaz and branch num is 1 and his branch is gebze
secondly Hasan Arkin in Darica and his num 45
Also we create Ali Ihsan(13) in gebze and Fatma Gunes (5) in darica
Now we listed all Branches Employee for testing AddBranchesEmployee Command
name= Ahmet Yilmaz no= 1
name= Ali Ihsan no= 13
name= Hasan Arkin no= 45
name= Fatma Gunes no= 5
And now we try removeBranchEmployee command and we list again.(Hasan Arkin 45)
name= Ahmet Yilmaz no= 1
name= Ali Ihsan no= 13
name= Fatma Gunes no= 5
Now we will test addTp and remove Tp commands for admin
We create 4 tp and list all.
name Ayse Bal no 4
name Mehmet Turk no 51
name Uraz Alp no 23
name Will Grick no 62
And we remove uraz and list again for remove tp command
name Ayse Bal no 4
name Mehmet Turk no 51
name Will Grick no 62
Yes we finished all commands for administrator and now we try branch employe commands
firstly we will try add and remove customer.
We create 3 customer Cengiz Söyüncü(88),Hakan Tosun(17),Ozan Ayhan(95)
Now we listed all customers and all cargos
Cargos:
Tracking num: 87 -> from Cengiz Söyüncü to xxxx
Tracking num: 16 -> from Hakan Tosun to xxxx
Tracking num: 94 -> from Ozan Ayhan to xxxx
Customers:
Tracking num: 87 -> name: Cengiz Söyüncü
Tracking num: 16 -> name: Hakan Tosun
Tracking num: 94 -> name: Ozan Ayhan
Now we test remove customer(Ozan Ayhan) and listed
Tracking num: 87 -> from Cengiz Söyüncü to xxxx
Tracking num: 16 -> from Hakan Tosun to xxxx
Tracking num: 94 -> from Ozan Ayhan to xxxx
Customers:
Tracking num: 87 -> name: Cengiz Söyüncü
Tracking num: 16 -> name: Hakan Tosun
Now we test for Customer and Transportation Personnal
firstly we control cargos status like customer(Hakans cargo)
four package is in branch yet

```

*We added 3 branches in order above and then deleted one(ADD/REMOVE BRANCHES FOR ADMIN).

*We added 4 branch employee to the branches and then deleted one.(ADD/REMOVE BRANCHES EMPLOYEE FOR ADMIN).

*We added 4 transportation personnel to the branches and then deleted one.(ADD/REMOVE TRANSPORTATION PERSONNEL FOR ADMIN).

*We added 3 customers to the branches and then deleted one.(ADD/REMOVE CUSTOMERS FOR BRANCH PERSONNEL).

*Then we tried to update the shipping status for branch employee and transportation personnel.

*Then we checked the cargo status as customer.

ALL RESULTS ARE IN TERMINAL SCREENSHOTS.

PROBLEM SOLUTIONS APPROACH

I needed a company and created a CargoCompany object.I should keep the branch information in this object. I created an arraylist of the branches type.Each branch should keep employee information and shipments in it so I kept a list of staff and cargos.

I used my branch class for branches, my cargo class for cargoes and my abstract class for staff.Since I used the list of my Abstract class using polymorphism, I didn't have to create more than one list.For the tasks;

Fistly,I have created a admin automaticly.Using admin class

Then I created a branch using the admin addbranch method.

AddBranch-->Creates a branch type object and returns it to CargoCompany class.

We add the object to the branch array using the add branches method of CargoCompany.

I used similar methods in both branch employee and transportation personnel for both processes.

I used the addcustomer method to create a customer and created the cargo related to that customer in this method.

AddCustomer-->Requests customer related information and creates objects.Sending some information to the addcargo method.

AddCargo-->I create an object from the cargo method and send it to the branch. I'm adding to the list at the branch.

I use the tracking code to update the cargo status with cargostatus method.

CargoStatus-->The function that tells us by checking the status and getting the tracking code.

The customer can find out the status of the cargo just by entering the cargo tracking code.
