GIT Department of Computer Engineering
CSE 222/505 - Spring 2020
Homework 1 - Part 2 Report

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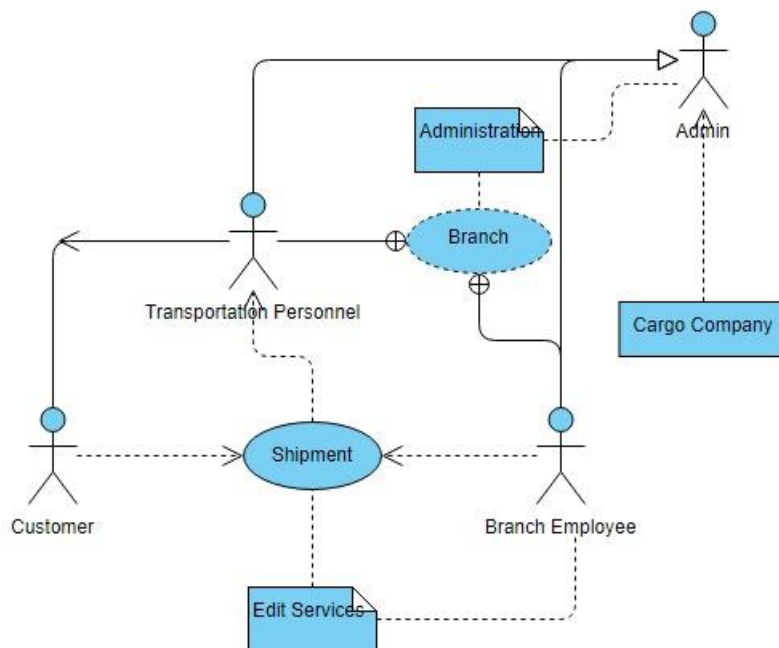
1. SYSTEM REQUIREMENTS

- Portability
- Security : username & password methods
- Maintainability : useful menu
- Reliability
- Scalability : established regular class hierarchy
- Performance : with arrays useful data structure
- Reusability
- Flexibility : changable contex

Library constraints :   import java.util.Scanner
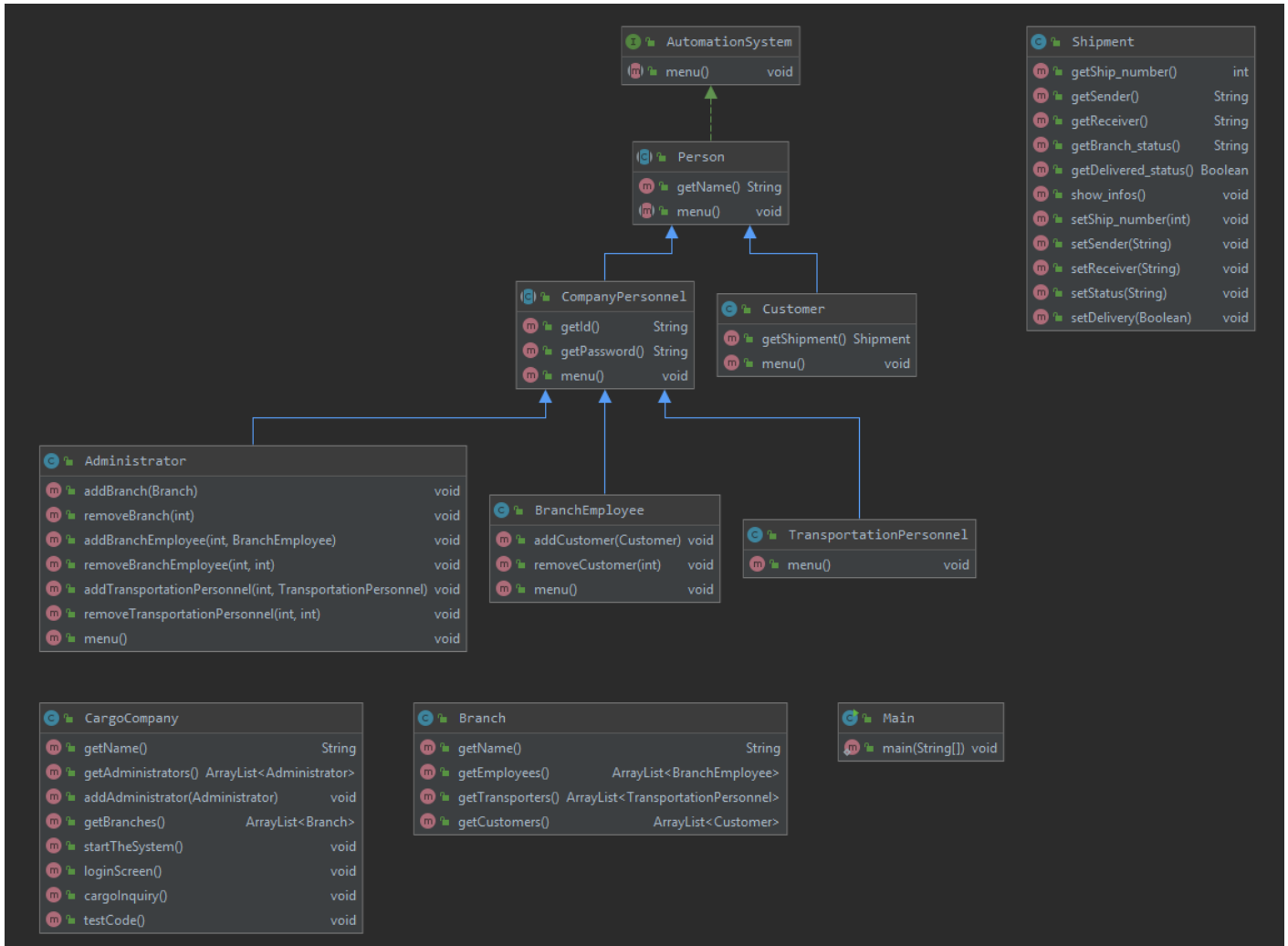
                            import java.util.ArrayList

Interface constraints : used to terminal interface

Performance constraints : made with arrays

2. USE CASE DIAGRAMS

3. CLASS DIAGRAMS

5. PROBLEM SOLUTION APPROACH

I tried to create a useful ecosystem. I have provided a class and authorization limitation for every system user such as admin, employee, transporter, customer. I included the company, branch and cargo hierarchy that should be in the system to interconnected classes. I made the system ready with a total of 11 classes (1 Interface, 2 abstract classes and 3 inherit classes). I designed a system that provides customer, transporter and employee relations.

6. TEST CASES (Administrator)

```
*BlaBla Cargo Company
(1) Administrator
(2) Branch Employee
(3) Transportation Personnel
(4) Customer
(0) Exit
Choice: 1
Please enter your ID and password.
ID: 1234
Password: abcd
Access Granted
```

```
Welcome admin
Administrator Menu
(1) Branch Operations
(2) Branch Employee Operations
(3) Transportation Personnel Operations
(0) Exit
Choice: 1
(1) Add Branch
(2) Remove Branch
(0) Exit
Choice: 1
Please enter a name for the branch: Branch 3
```

```
Administrator Menu
(1) Branch Operations
(2) Branch Employee Operations
(3) Transportation Personnel Operations
(0) Exit
Choice: 2
Please choose a branch:
1) Branch 1
2) Branch 2
3) Branch 3
Index: 1
(1) Add Employee
(2) Remove Employee
(0) Exit
Choice: 1
ID of employee: 123
Name of employee: Employee 5
Password of employee: 123
```

```
Administrator Menu
(1) Branch Operations
(2) Branch Employee Operations
(3) Transportation Personnel Operations
(0) Exit
Choice: 2
Please choose a branch:
1) Branch 1
2) Branch 2
3) Branch 3
Index: 1
(1) Add Employee
(2) Remove Employee
(0) Exit
Choice: 2
Please choose a employee:

1) Employee 1
2) Employee 2
3) Employee 5
Index: 0
```

```
Administrator Menu
(1) Branch Operations
(2) Branch Employee Operations
(3) Transportation Personnel Operations
(0) Exit
Choice: 0
Welcome to Cargo Automation System
*BlaBla Cargo Company
(1) Administrator
(2) Branch Employee
(3) Transportation Personnel
(4) Customer
(0) Exit
Choice: 0
```

(Branch Employee)

```
Welcome to Cargo Automation System
*BlaBla Cargo Company
(1) Administrator
(2) Branch Employee
(3) Transportation Personnel
(4) Customer
(0) Exit
Choice: 2
Please enter your ID and password.
ID: 102
Password: 102
Access Granted
```

```
Welcome Employee 2
Branch Employee Menu
(1) Customer Operations
(2) Shipment Operations
(3) Current Status
(0) Exit
Choice: 1
(1) Add Customer
(2) Remove Customer
(0) Exit
Choice: 0
```

```
Branch Employee Menu
(1) Customer Operations
(2) Shipment Operations
(3) Current Status
(0) Exit
Choice: 2
Please choose a shipment:

1) 301 Customer 1
2) 302 Customer 2
Index: 1
- Shipment Informations -
Number : 301
Sender : Sender 1
Reciever : Receiver 1
Branch Status : Branch 1
Delivered Status : NOT DELIVERED


(1) Edit Shipment Number
(2) Edit Sender
(3) Edit Receiver
(0) Exit
Choice: 0
```

```
Branch Employee Menu
(1) Customer Operations
(2) Shipment Operations
(3) Current Status
(0) Exit
Choice: 3
Please choose a shipment:

1) 301 Customer 1
2) 302 Customer 2
Index: 1
- Shipment Informations -
Number : 301
Sender : Sender 1
Reciever : Receiver 1
Branch Status : Branch 1
Delivered Status : NOT DELIVERED


Current Branch Status: 0
```

(Customer)

```
Welcome to Cargo Automation System
*BlaBla Cargo Company
(1) Administrator
(2) Branch Employee
(3) Transportation Personnel
(4) Customer
(0) Exit
Choice: 4
Please enter your shipment number.
Shipment Number: 301
Shipment found

- Shipment Informations -
Number : 301
Sender : Sender 1
Reciever : Receiver 1
Branch Status : Branch 1
Delivered Status : NOT DELIVERED


Welcome to Cargo Automation System
*BlaBla Cargo Company
(1) Administrator
(2) Branch Employee
(3) Transportation Personnel
(4) Customer
(0) Exit
Choice: |
```

7. RESULT

My cargo automation system works without problems. I tried all component and i did not see any bug, warning or error.