

# **GIT Department of Computer Engineering**

## **CSE 222/505 - Spring 2020 Homework 2 Report**

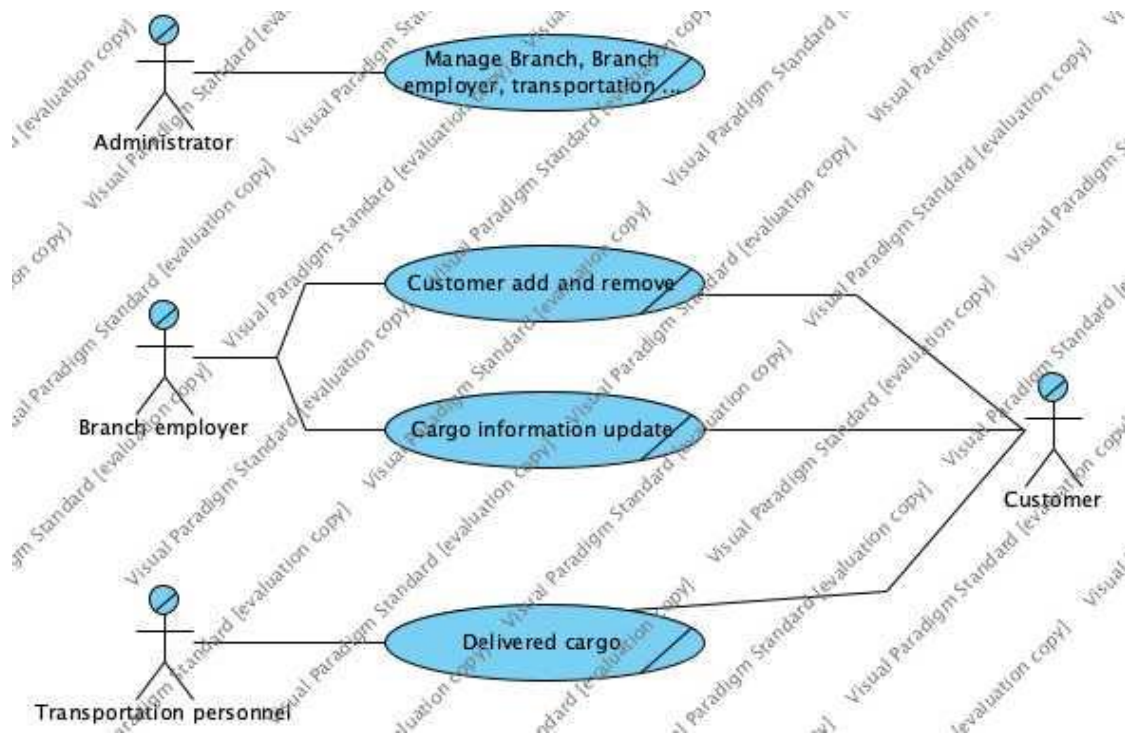
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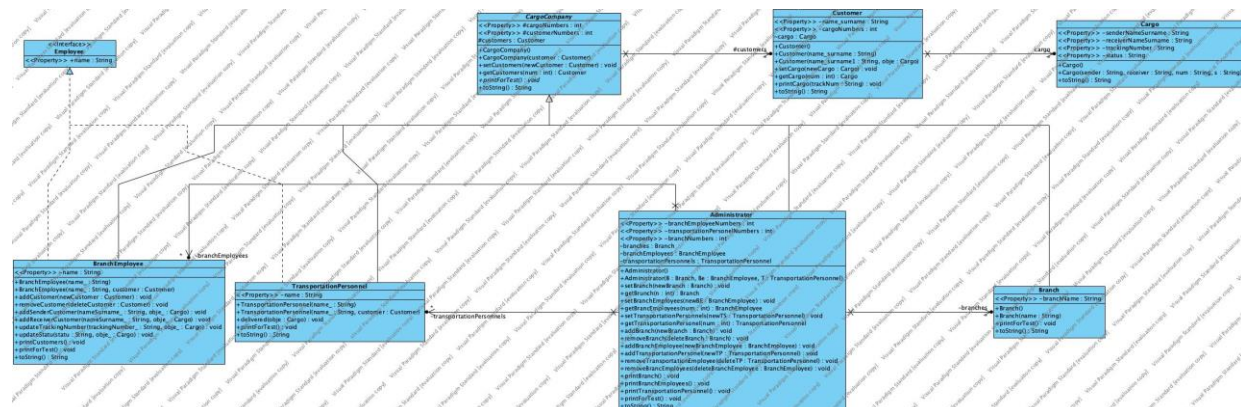
# 1. SYSTEM REQUIREMENTS

In this homework, the problem build is a cargo company. This cargo company consists of class branch. Class of branch employee and transportation personnel are extended from class of branch. These classes also implemented employee interface. Administrators manage to this. For example, adding and removing branches, branch employees and transportation personnel. In addition to the transportation personnel transportation process, the job in the system is to update the system that cargo has reached the desired location. Branch employees can enter the information cargo. For example; tracking number, cargo's status, receiver name and surname, sender name and surname. Status is updated by branch employees when the cargo arrives at a branch or leaves the branch. In addition to, branch employee can add and remove customers. These costumers are in the cargo company. Every costumer has cargos. If customer want to see cargos information, they can enter the receiver number in the system. The information includes receiver name and surname, sender name and surname, cargo's status.

## 2. USE CASE DIAGRAMS



## 3. CLASS DIAGRAMS



## **4. PROBLEM SOLUTION APPROACH**

### **5.1) CARGO CLASS**

This class include senderNameSurname, receiverNameSurname, trackingNumber, status. We need this class for cargo information.

### **5.2) CUSTOMERS CLASS**

This class include name, cargoNumbers,cargo arraylist.Cargo arraylist's type is cargo class. Customer may have more than one cargo. Customers enter tracking number for they see cargo what they want to see.

### **5.3) ABSTRACT CARGOCOMPANY CLASS**

This class include customers,cargoNumber. Customers's type is customers class(Arraylist). Cargo company may has more than one customer.

Classes that are inherited from this class : Administrators, Branch.

Firstly, I created an object from the administrators class. To test this class, I created objects from branch, branchEmployee and transportationPersonnel classes added and deleted them to my arraylists.

I created objects from customers and cargo classes and added cargo company's object. In this way, branch employees and transportation objects were able to update. These classes were also accessible because they were inherited from branch class.

## **5.4) EMPLOYEE INTERFACE**

BranchEmployee and transportationPersonnel classes implemented this interface. Through this implementation, setName and getName functions are override.

## **5.5) ERROR HANDLING**

System throws NoSuchElementException when the customer in the system tries to delete the member who is not in deletion in the cargo and branch classes.

## **5. TEST CASES**

### **ADD BRANCH**

**1) NEW YORK ADD BRANCH**

**1) NEW YORK**

**2) LOS ANGELES**

### **REMOVE BRANCH (LOS ANGELES)**

**1) NEW YORK**

### **ADD BRANCH EMPLOYEE**

**1) LOUIS LITT**

### **ADD BRANCH EMPLOYEE**

**1) LOUIS LITT**

**2) JESSICA PEARSON**

### **REMOVE BRANCH EMPLOYEE (LOUIS)**

**1) JESSICA PEARSON**

### **ADD TRANSPORTATION PERSONAL**

**1) KARTINA BENNETT**

### **ADD TRANSPORTATION PERSONAL**

**1) KATRINA BENNETT**

**2) DANIEL HARDMAN**

### **REMOVE TRANSPORTATION PERSONAL**

**1) DANIEL HARDMAN**

## 6. RUNNING AND RESULTS

```
Dilara-MacBook-Air:src dilarakarakas$ javac Main.java
Dilara-MacBook-Air:src dilarakarakas$ java Main
*****
*****
*****TEST FOR CARGO COMPANY*****
*****
*****->TEST FOR ADMINISTRATORS<-*****
**->TEST FOR ADD NEW YORK BRANCH<-**
1. Branch) New York
**->TEST FOR ADD LOS ANGELES BRANCH<-**
1. Branch) New York
2. Branch) Los Angeles
**->TEST FOR REMOVE LOS ANGELES BRANCH<-**
1. Branch) New York
**->TEST FOR ADD BOSTON BRANCH<-**
1. Branch) New York
2. Branch) Boston
**->TEST FOR REMOVE NEW YORK BRANCH<-**
1. Branch) Boston
**->TEST FOR ADD FIRST BRANCH EMPLOYEE<-**
1. Branch Employee) Louis Litt
**->TEST FOR ADD SECOND BRANCH EMPLOYEE<-**
1. Branch Employee) Louis Litt
2. Branch Employee) Jessica Pearson
**->TEST FOR REMOVE FIRST BRANCH EMPLOYEE<-**
1. Branch Employee) Jessica Pearson
**->TEST FOR ADD FIRST TRANSPORTATION PERSONNEL<-**
1. Transportation Personel) Katrina Bennett
**->TEST FOR ADD SECOND TRANSPORTATION PERSONNEL<-**
1. Transportation Personel) Katrina Bennett
2. Transportation Personel) Daniel Hardman
**->TEST FOR REMOVE FIRST TRANSPORTATION PERSONNEL<-**
1. Transportation Personel) Daniel Hardman
*****
```

```

*****
****->TEST FOR BRANCH EMPLOYEES<-****
**->TEST FOR ADD FIRST CUSTOMER<-**
1. Customer) Mike Ross
**->TEST FOR ADD SECOND CUSTOMER<-**
1. Customer) Mike Ross
2. Customer) Harvey Specter
**->TEST FOR REMOVE FIRST CUSTOMER<-**
1. Customer) Harvey Specter
**->TEST FOR ADD SENDER CUSTOMER(RACHEL ZANE) IN FIRST CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname:
Tracking Number:
Current Status:
**->TEST FOR ADD RECEIVER CUSTOMER(MIKE ROSS) IN FIRST CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname: Mike Ross
Tracking Number:
Current Status:
**->TEST FOR UPDATE TRACKING NUMBER IN FIRST CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname: Mike Ross
Tracking Number: 201 032 021
Current Status:
**->TEST FOR UPDATE STATUS IN FIRST CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname: Mike Ross
Tracking Number: 201 032 021
Current Status: Cargo is a branch
**->TEST FOR UPDATE STATU IN FIRST CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname: Mike Ross
Tracking Number: 201 032 021
Current Status: Cargo is in distribution
**->TEST FOR ADD SENDER CUSTOMER(RACHEL ZANE) IN SECOND CARGO INFORMATION<-**
Sender Name and Surname: Donna Paulsen
Receiver Name and Surname:
Tracking Number:
Current Status:
**->TEST FOR ADD RECEIVER CUSTOMER(MIKE ROSS) IN SECOND CARGO INFORMATION<-**
Sender Name and Surname: Donna Paulsen
Receiver Name and Surname: Harvey Specter
Tracking Number:
Current Status:
**->TEST FOR UPDATE TRACKING NUMBER IN SECOND CARGO INFORMATION<-**
Sender Name and Surname: Donna Paulsen
Receiver Name and Surname: Harvey Specter
Tracking Number: 567 778 456
Current Status:
**->TEST FOR UPDATE STATUS IN SECOND CARGO INFORMATION<-**
Sender Name and Surname: Donna Paulsen
Receiver Name and Surname: Harvey Specter
Tracking Number: 567 778 456
Current Status: Cargo is a branch
**->TEST FOR UPDATE STATUS IN SECOND CARGO INFORMATION<-**
Sender Name and Surname: Donna Paulsen
Receiver Name and Surname: Harvey Specter
Tracking Number: 567 778 456
Current Status: Cargo is in distribution

```



```
*****->TEST FOR TRANSFORMATION PERSONNEL<-*****
**->TEST FOR UPDATE STATUS IN CARGO INFORMATION<-**
Sender Name and Surname: Rachel Zane
Receiver Name and Surname: Mike Ross
Tracking Number: 201 032 021
Current Status: Cargo deliverid!!
*****
```

```
*****->TEST FOR CUSTOMERS<-*****
1. Customer's Cargo(Tracking Number: 201 032 021)
***Shipping information that the customer wants to see***
Sender name and surname: Rachel Zane
Receiver name and surname: Mike Ross
Current Status: Cargo deliverid!!
2. Customer's Cargo(Tracking Number: 567 778 456)
***Shipping information that the customer wants to see***
Sender name and surname: Donna Paulsen
Receiver name and surname: Harvey Specter
Current Status: Cargo is in distribution
*****
*****
```