

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

**Murat YILDIZ
1801042004**

1. SYSTEM REQUIREMENTS

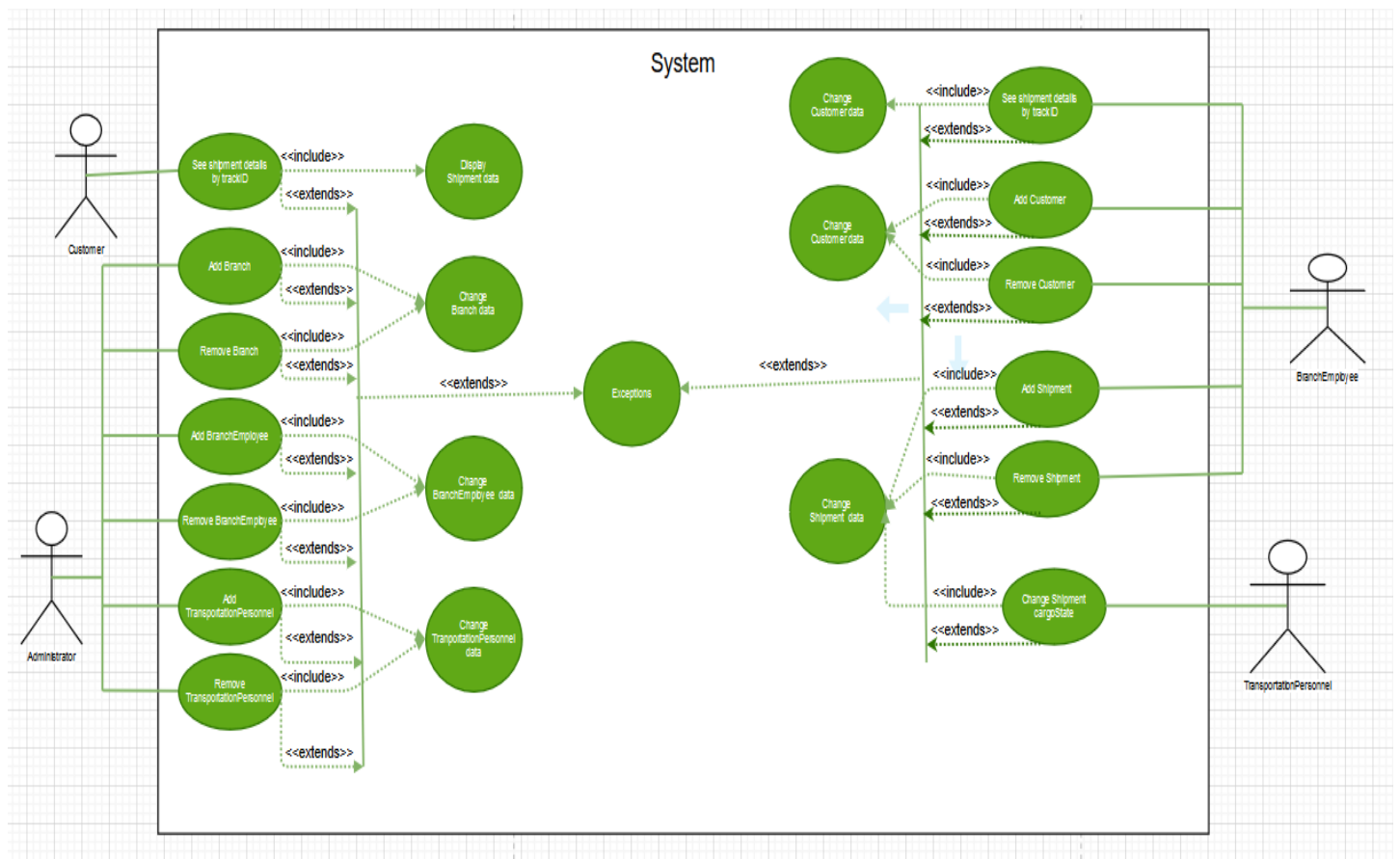
Non-Functional Requirements:

- In this system, there are Administrators, Transportation Personnel, Branch employee, Branchs, Customer and Shipments
- Cargo Company holds admins
- Administrator holds Transportation Personnel, Branch employee, Branchs
- Branch employee holds one branch that branch employee belongs to
- Branch holds shipments and customers that belongs to that branch
- Shipment holds sender, receiver, cargoState and trackID (which is unique to each Shipment)
- All Administrators, Transportation Personnel, Branch employee, Branchs, Customer has a unique ID.
- With same ID:1212 you can have branch and customer but you can not have two customer or two another thing with same ID
- To do operations employees (Administrators, Transportation Personnel, Branch employee) must be login with ID and password

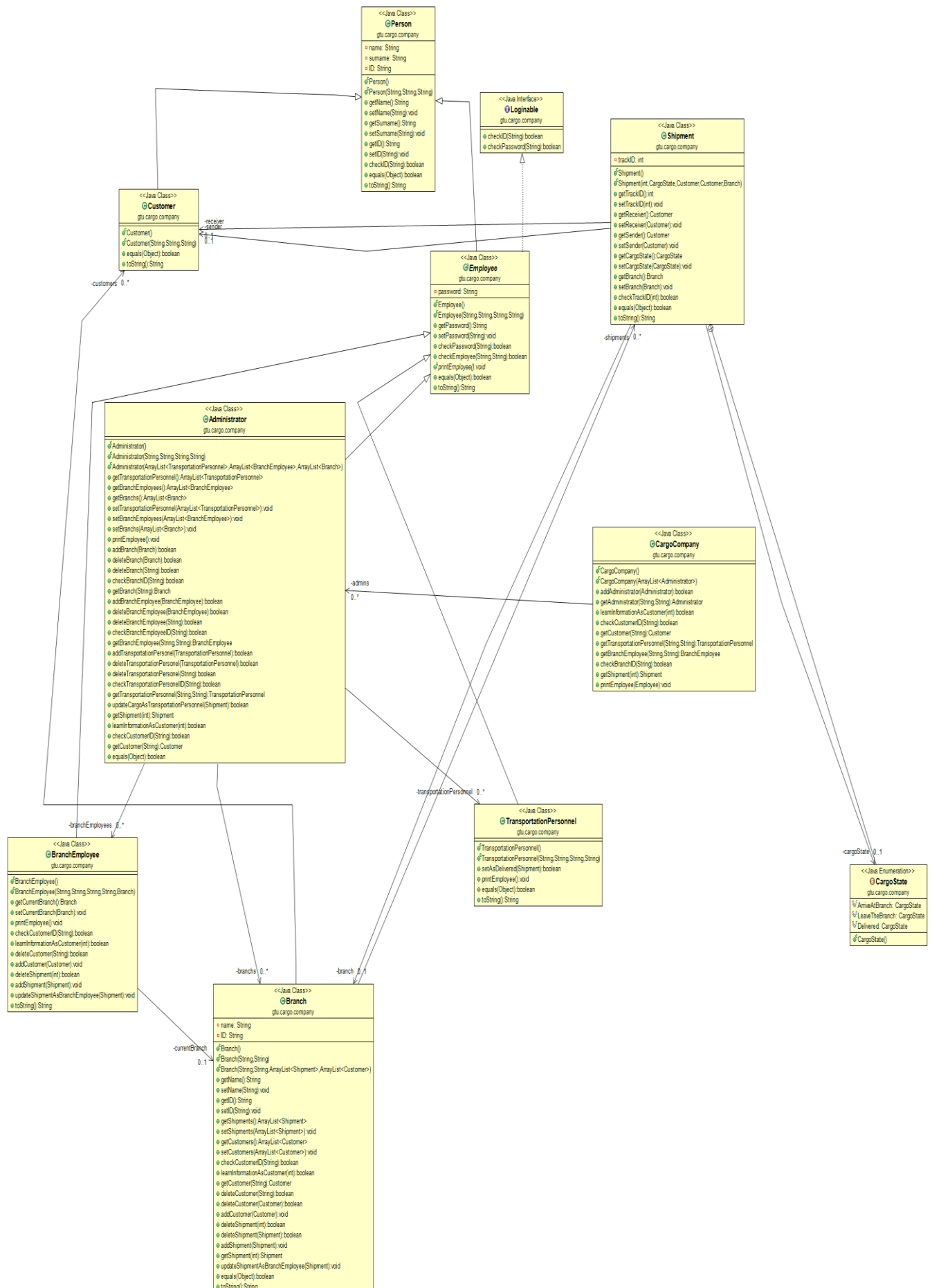
Functional Requirements:

- Administrator:
 - Can add Branchs
 - Can remove Branchs
 - Can add Branch Employees
 - Can remove Branch Employees
 - Can add Transportation Personnel
 - Can remove Transportation Personnel
- BranchEmployee:
 - Can add Customer
 - Can remove Customer
 - Can add Shipment
 - Can remove Shipment
 - Can change Shipment cargoState(as leaves the branch or arrive at the branch)
- Transportation Personnel:
 - Can change Shipment cargoState(as delivered)
- Customer:
 - Can display Shipment informations with trackID

2. USE CASE DIAGRAMS



3. CLASS DIAGRAMS



4. PROBLEM SOLUTION APPROACH

In this system, we have four user such as customer , branch employee, transportation personnel and administrator and each one of them has some authority to do some works. First divide problem to small pieces (classes and methods) and implement each one OOP design (independently) . After dividing and implementing , get all classes and functions to create a cargo company system . Create an User Interface to make sure system is working correctly .

5. TEST CASES AND RESULTS

Welcome to Cargo company user interface

Please select a choice to continue

Proceed as:

- 1- Administrator
- 2- Branch Employee
- 3- Transporter Personnel
- 4- Customer
- 0- Exit Program

/* Selected ADMIN */

Selected choice: 1

You selected to proceed as an Administrator

Please enter your ID: admin

Please enter your password: 1234

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

/* Add Branch */

Selected choice: 1

Please enter name for new branch: kartal

Please enter ID for new branch: 1212

Branch with ID : 1212 successfully added

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

/* Add Branch */

Selected choice: 1

Please enter name for new branch: yakacik

Please enter ID for new branch: 1313

Branch with ID : 1313 successfully added

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

/* Delete Branch */

Selected choice: 2

Please enter ID of branch to be deleted: 1313

Branch with ID : 1313 successfully removed

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

/* Add BranchEmployee */

Selected choice: 3

Please enter name for new branch employee: kemal

Please enter surname for new branch employee: soylu

Please enter ID for new branch employee: 1515

Please enter password for new branch employee: 1515

Please enter Branch ID which new branch employee belongs to: 1212

Branch employee with ID : 1515 successfully added

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

/* Add BranchEmployee */

Selected choice: 3

Please enter name for new branch employee: abdullah

Please enter surname for new branch employee: yilmaz

Please enter ID for new branch employee: 1616

Please enter password for new branch employee: 1616

Please enter Branch ID which new branch employee belongs to: 1212

Branch employee with ID : 1616 successfully added

/* Added Transporter Personnel */

Please select an operation to continue:

1- Add Branch

2- Remove Branch

3- Add Branch Employee

4- Remove Branch Employee

5- Add Transporter Personnel

6- Remove Transporter Personnel

0- To go back Menu

Selected choice: 5

Please enter name for new Transportation Personnel: hayri

Please enter surname for new Transportation Personnel: kesen

Please enter ID for new Transportation Personnel: 1717

Please enter password for new Transportation Personnel: 1717

Transportation Personnel with ID : 1717 successfully added

Please select an operation to continue:

1- Add Branch

2- Remove Branch

3- Add Branch Employee

4- Remove Branch Employee

5- Add Transporter Personnel

6- Remove Transporter Personnel

0- To go back Menu

/* Added Transporter Personnel */

Selected choice: 5

Please enter name for new Transportation Personnel: kerem

Please enter surname for new Transportation Personnel: poyraz

Please enter ID for new Transportation Personnel: 1818

Please enter password for new Transportation Personnel: 1818

Transportation Personnel with ID : 1717 successfully added

Please select an operation to continue:

1- Add Branch

2- Remove Branch

3- Add Branch Employee

4- Remove Branch Employee

5- Add Transporter Personnel

6- Remove Transporter Personnel

0- To go back Menu

/* Delete Transporter Personnel */

Selected choice: 6

Please enter ID of Transportation Personnel to be deleted: 1818

Transportation Personnel with ID : 1818 successfully removed

Please select an operation to continue:

- 1- Add Branch
- 2- Remove Branch
- 3- Add Branch Employee
- 4- Remove Branch Employee
- 5- Add Transporter Personnel
- 6- Remove Transporter Personnel
- 0- To go back Menu

Selected choice: 0

Going back to Menu

Welcome to Cargo company user interface

Please select a choice to continue

Proceed as:

- 1- Administrator
- 2- Branch Employee
- 3- Transporter Personnel
- 4- Customer
- 0- Exit Program

/* Select BranchEmployee */

Selected choice: 2

You selected to proceed as a Branch Employee

Please enter your ID: 1515

Please enter your password: 1515

Please select an operation to continue:

- 1- Add Customer
- 2- Remove Customer
- 3- Add Shipment
- 4- Remove Shipment
- 5- Change a Shipment's statu
- 0- To go back Menu

/* Add Customer */

Selected choice: 1

Please enter name for new customer: murat

Please enter surname for new customer: yildiz

Please enter ID for new customer: 1616

Please select an operation to continue:

- 1- Add Customer
- 2- Remove Customer
- 3- Add Shipment
- 4- Remove Shipment
- 5- Change a Shipment's statu
- 0- To go back Menu

/* Add Customer */

Selected choice: 1

Please enter name for new customer: berk

Please enter surname for new customer: yilmaz

Please enter ID for new customer: 2020

Please select an operation to continue:

1- Add Customer

2- Remove Customer

3- Add Shipment

4- Remove Shipment

5- Change a Shipment's statu

0- To go back Menu

/* Add Customer */

Selected choice: 1

Please enter name for new customer: gokhan

Please enter surname for new customer: ozer

Please enter ID for new customer: 1212

Please select an operation to continue:

1- Add Customer

2- Remove Customer

3- Add Shipment

4- Remove Shipment

5- Change a Shipment's statu

0- To go back Menu

/* Delete Customer */

Selected choice: 2

Please enter ID of customer to be deleted: 1212

Customer with ID : 1212 successfully removed

Please select an operation to continue:

1- Add Customer

2- Remove Customer

3- Add Shipment

4- Remove Shipment

5- Change a Shipment's statu

0- To go back Menu

/* Add Shipment */

Selected choice: 3

Please enter track ID of shipment to be added: 1234

Please enter ID of sender to be added: 1616

Please enter ID of receiver to be added: 2020

Please select an operation to continue:

1- Add Customer

2- Remove Customer

3- Add Shipment

4- Remove Shipment

5- Change a Shipment's statu

0- To go back Menu

/* Change a Shipments state as BranchEmployee */

Selected choice: 5

Please enter track ID of shipment to be change its statue: 1234

Please select an operation to continue:

- 1- Add Customer
- 2- Remove Customer
- 3- Add Shipment
- 4- Remove Shipment
- 5- Change a Shipment's statu
- 0- To go back Menu

Selected choice: 0

Going back to Menu

Welcome to Cargo company user interface

Please select a choice to continue

Proceed as:

- 1- Administrator
- 2- Branch Employee
- 3- Transporter Personnel
- 4- Customer
- 0- Exit Program

/* Select Customer */

Selected choice: 4

You selected to proceed as a Customer.

Please enter your track ID: 1234

Shipment Informations

Receiver

Customer Person Information

Name: berk

Surname: yilmaz

Sender

Customer Person Information

Name: murat

Surname: yildiz

Current Cargo State : LeaveTheBranch

Welcome to Cargo company user interface

Please select a choice to continue

Proceed as:

- 1- Administrator
- 2- Branch Employee
- 3- Transporter Personnel
- 4- Customer
- 0- Exit Program

/* Select Transporter Personnel */

Selected choice: 3

You selected to proceed as a Transporter Personnel

Please enter your ID: 1717

Please enter your password: 1717

Give the track ID which you want to update Shipment as delivered: 1234

The Cargo with track ID : 1234 is successfully changed as delivered

Welcome to Cargo company user interface

Please select a choice to continue

Proceed as:

1- Administrator

2- Branch Employee

3- Transporter Personnel

4- Customer

0- Exit Program

/* Select Customer*/

Selected choice: 4

You selected to proceed as a Customer.

Please enter your track ID: 1234

Shipment Informations

Receiver

Customer Person Information

Name: berk

Surname: yilmaz

Sender

Customer Person Information

Name: murat

Surname: yildiz

Current Cargo State : Delivered