GIT Department of Computer Engineering
CSE222/505- Spring 2020 Homework 1 part 2
Report
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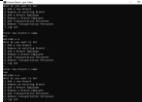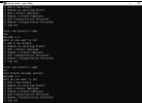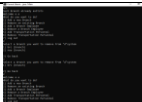# 171044095

Requirement case Id	Requirement description
1	Administrator adds a new branch
2	Administrator removes a branch
3	Administrator adds a branch employee
4	Administrator removes a branch employee
5	Administrator adds a Transportation personnel
6	Administrator removes a Transportation personnel
7	Branch Employee adds information about Shipment
8	Branch Employee removes information about shipment
9	Branch Employee updates the status of shipment to either "Arrived to the branch" or "Left the branch"
10	Branch Employee adds a new Customer
11	Branch Employee removes a new Customer
12	Transportation employee sets shipment status to Delivered
13	Customer enters the tracking number and checks out the sender and the receiver of the shipment

End-user system functional requirements

14	Head of the system can make a system
15	Head of the system can remove a system
16	Head of the system can add/remove an admin of the system

| 17 | | | | | | Head of the system can check out detailed information about the system | | |

case ID	Require ment ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail	Photo
T1	1	Administ rator adds a new branch	1) Log in 2) Select option add a new branch 3) Enter name of the branch	Admin name: a Admin surname : a Branch name: brc	New branch should be made	As expected	Pass	
T2	1	Administ rator adds a new branch	1) Log in 2) Select option add a new branch 3) Enter name of the branch	Admin name: a Admin surname : a Branch name: new	New branch should be made	As expected	Pass	
T3	1	Administ rator tries to add a new branch with the same name	1) Log in 2) Select option add a new branch 3) Enter name of the branch	Admin name: a Admin surname : a Branch name: brc	New branch should not be made	As expected	Pass	
T4	2	Administ rator removes an	1) Log in 2) Select option remove	Admin name: a	New branch should	As expected	Pass	

		existing branch	a branch 3) Select a branch	Admin surname: a Branch option: 2	be removed			
T5	3	Administrator adds a new branch employee	1) Log in 2) Select option to add branch employee 3) Choose branch to add to 4) Enter name of the employee 5) Enter surname of the employee	Admin name a Admin surname: a Branch Option: 1 Employee name: e Employee surname: e	New branch employee should be added	As expected	Pass	
T6	3	Administrator adds a new branch employee	1) Log in 2) Select option to add branch employee 3) Choose branch to add to 4) Enter name of the employee 5) Enter surname	Admin name a Admin surname: a Branch Option: 1 Employee name: e2 Employee surname: e2	New branch employee should be added	As expected	Pass	

			of the employee				
T7	4	Administrator removes a branch employee	1) Log in 2) Select option to remove branch employee 3) Choose branch to remove from 4) Select an employee to remove	Admin name a Admin surname : a Branch Option: 1 Employee Option: 2	e2 e2 branch employee should be removed	As expected	Pass
T8	5	Administrator adds a transportation personnel	1) Log in 2) Select option to add transportation personnel 3)Enter name 4) Enter surname	Admin name a Admin surname : a Personnel name: t Personnel surname : t	t t transportation personnel should be added	As expected	Pass
T9	5	Administrator adds a transportation personnel	1) Log in 2) Select option to add transportation personnel	Admin name a Admin surname : a Personnel name: t2	t2 t2 transportation personnel should be added	As expected	Pass

			3)Enter name 4) Enter surname	Personnel surname : t2				
T10	6	Administrator removes a transportation personnel	1) Log in 2) Select option to remove transportation personnel 3)Choose personnel to be removed	Admin name a Admin surname : a Personnel choice: 2	t2 t2 transportation personnel should be removed	As expected	Pass	
T11	10	Branch Empoyee adds a new Customer	1)Choose branch on login 2)Enter name 3) Enter surname 4) Selcet option to add a new customer 5) Enter customer's name 6)Enter customer's surname	Branch choice: 1 Employee name: e Empoye surname : e Customer name: c Customer Surname : c	customer should be added	As expected	Pass	
T12	10	Branch Empoyee adds a new	1)Choose branch on login	Branch choice: 1	c2 c2 customer should	As expected	Pass	

		Custome r	2)Enter name 3) Enter surname 4) Selcet option to add a new custome r 5) Enter custome r's name 6)Enter custome r's surname	Employe e name: e Empoye surname : e Custome r name: c2 Custome r Surname : c2	be added			
T13	7	Branch Employe e adds info about shipmen t	1) Login 2) Select option to add a new shipmen t 3) Enter sender name 4) Enter sender surname 5) Enter receiver name 6) Enter receiver surname 7) Enter tarcking number	Branch choice:1 Employe e name: e Employe e surname : e Sender name: c2 Sender surname : c2 Reciever name: c Reciever surname : c Tracking number: w	Shipmen t info should be added	As expected	Pass	
T14	7	Branch Employe e adds info	1) Login 2) Select option to add a	Branch choice:1 Employe	Shipmen t info should fail since	As expected	Pass	

		about shipment	new shipment 3) Enter sender name 4) Enter sender surname 5) Enter receiver name 6) Enter receiver surname 7) Enter tarcking number	e name: e Employee surname: e Sender name: c Sender surname: c Reciever name: c2 Reciever surname: c2 Tracking number: w	shipment with the same tracking number already exists			
T15	7	Branch Employee adds info about shipment	1) Login 2) Select option to add a new shipment 3) Enter sender name 4) Enter sender surname 5) Enter receiver name 6) Enter receiver surname 7) Enter tarcking number	Branch choice: 1 Employee name: e Employee surname: e Sender name: c Sender surname: c Reciever name: c2 Reciever surname: c2 Tracking number: w2	Shipment info should be added	As expected	Pass	
T16	8	Branch Employee	1) Login 2) Select option	Branch choice:1 Employe	Shipment info with	As expected	Pass	

		removes info about shipment	to remove a shipment 3) Select shipment to be removed	e name: e Employee surname: e Shipment option: 2	tracking number w2 should be removed			
T17	9	Branch Employee makes shipment status as left branch	1) Login 2) Select option to update shipments status 3) Select shipment to be updated 4) Choose to which shipment status to update	Branch choice:1 Employee name: e Employee surname: e Shipment option: 1 Status option: 2	Shipment with tracking number w should now have status of "left the branch"	As expected	Pass	
T18	9	Branch Employee makes shipment status as arrived to branch	1) Login 2) Select option to update shipments status 3) Select shipment to be updated 4) Choose to which shipment status	Branch choice:1 Employee name: e Employee surname: e Shipment option: 1 Status option: 1	Shipment with tracking number w should now have status of "arrived to the branch"	As expected	Pass	

			to update					
T19	11	Branch Employee removes a customer from the system	1) Login 2) Select option to remove customer from the system 3) Select customer to be removed	Branch choice:1 Employee name: e Employee surname: e Customer option: 2	Customer c2 c2 should be removed	As expected	Pass	
T20	12	Transportation Personnel sets shipmnet status to delivered	1)Login 2)Select option to set shipment as delivered 3) Select shipment whose status is to be set to "delivered"	Personnel name: t Personnel surname: t Shipment choice: 1	Shipment with tracking number w should now have status "delivered"	As expected	Pass	
T21	13	Customer Checkes the information of a shipment	1) Login 2) Enter tracking number	Customer name: c Customer surname: c Tracking number: w	Shipment information should be displayed	As expected	Pass	
T22	13	Customer	1) Login	Customer name: c	Erro message will be	As expected	Pass	

		Checkes the information of a shipment	2) Enter tracking number	Customer surname : c Tracking number: o	displayed since there is no shipment with such tracking number			
T23	14	Head of the system adds a system	1) Select make a system option 2) Enter the name of the system	Enter name: d	System should be made	As expected	Pass	
T24	14	Head of the system adds a system	1) Select make a system option 2) Enter the name of the system	Enter name: d2	System should be made	As expected	Pass	
T25	15	Head of the system removes a system	1) Select remove a system option 2) Enter the your choice	Enter choice: 2	System should be removed	As expected	Pass	
T26	16	Head of the system adds an admin to the system	1) Select system to add admin to 2) Enter the name of the admin	Enter name: a Enter surname : a	Admin should be created	As expected	Pass	

T27	16	Head of the system adds an admin to the system	1) Select system to add admin to 2) Enter the name of the admin	Enter name: a1 Enter surname : a1	Admin should be created	As expected	Pass	
T28	16	Head of the system removes an admin from the system	1) Select system to remove admin from 2) Select an admin to remove	Choice:2	Admin should be removed	As expected	Pass	
T29	17	Head of the system checks out the information about the system they made	1) Select the option to check the sysyem 2) Select the system to check out	Choice: 4 Choice: 1	Detailed information about the system should be seen(branches (brc and brc2), employees of brc(e,e), employee of brc2(e2,e2) shipments of the branches etc.	As expected	Pass	

Test cases

Automative System for Cargo Companies

Admin

Customer

LogIn -----> Show Options

Transportation Employee

Branch Employee

Use case digraam

Automation system for cargo companies

Remove branch

<<Include>>

Remove branch employee

<<Include>>

Show options and choose

<<Include>>

Remove transportation personnel

Actor

Add transportation personnel

<<Include>>

Give name and/or surname

<<Include>>

Add branch

<<Include>>
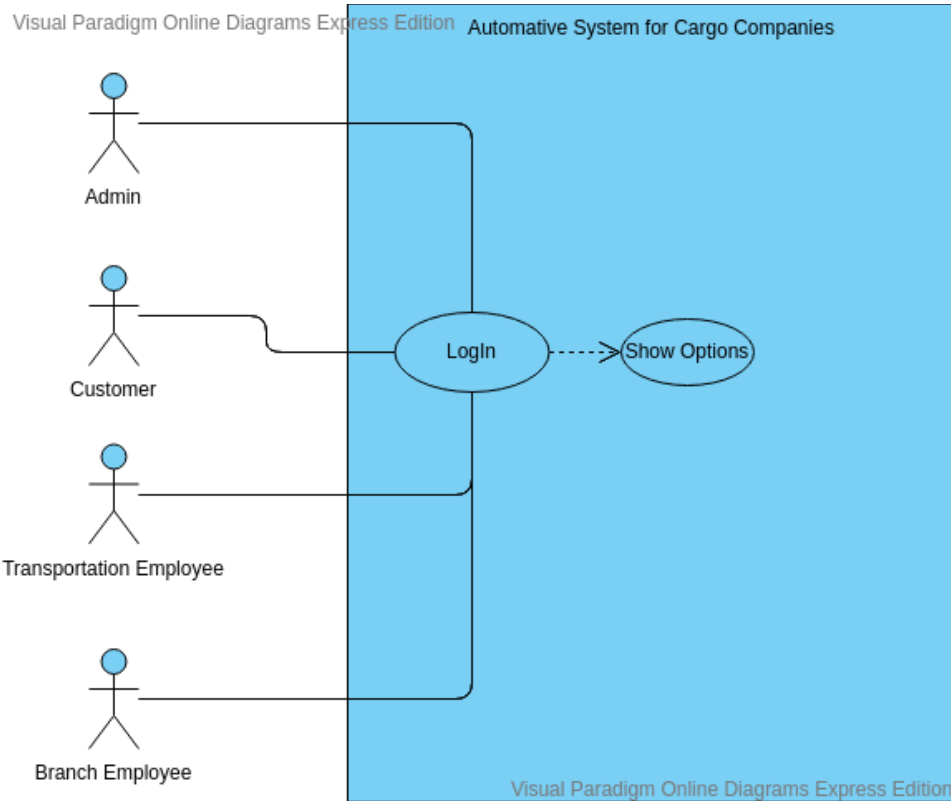
Add branch employee
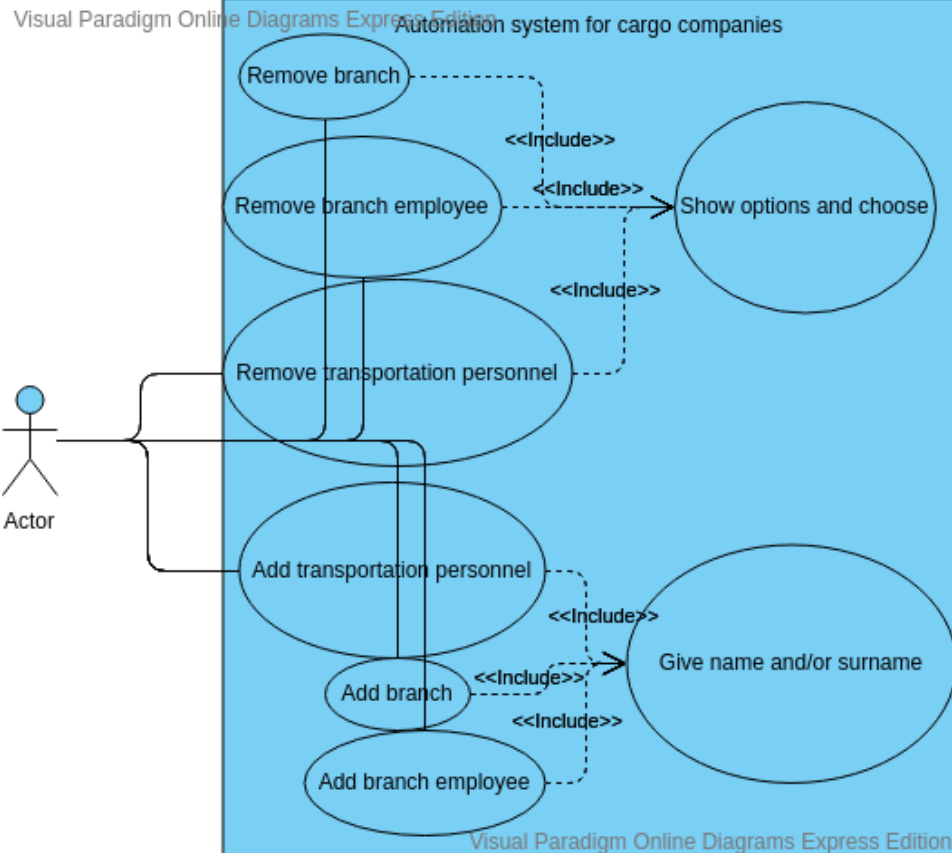
Administrator(Actor) use case diagram

System/Branch

Add Shipment <<Include>> Verify shipment

Remove shipment <<Include>>

Branch Employee

Change status of shipment <<Include>> See options and choose

Add customer

<<Include>> Remove customer <<Include>>

Give name and surname

Branch employee use case diagram

System

Set shipment as delivered

Transportation personnel

<<Include>>

See options and make a choice
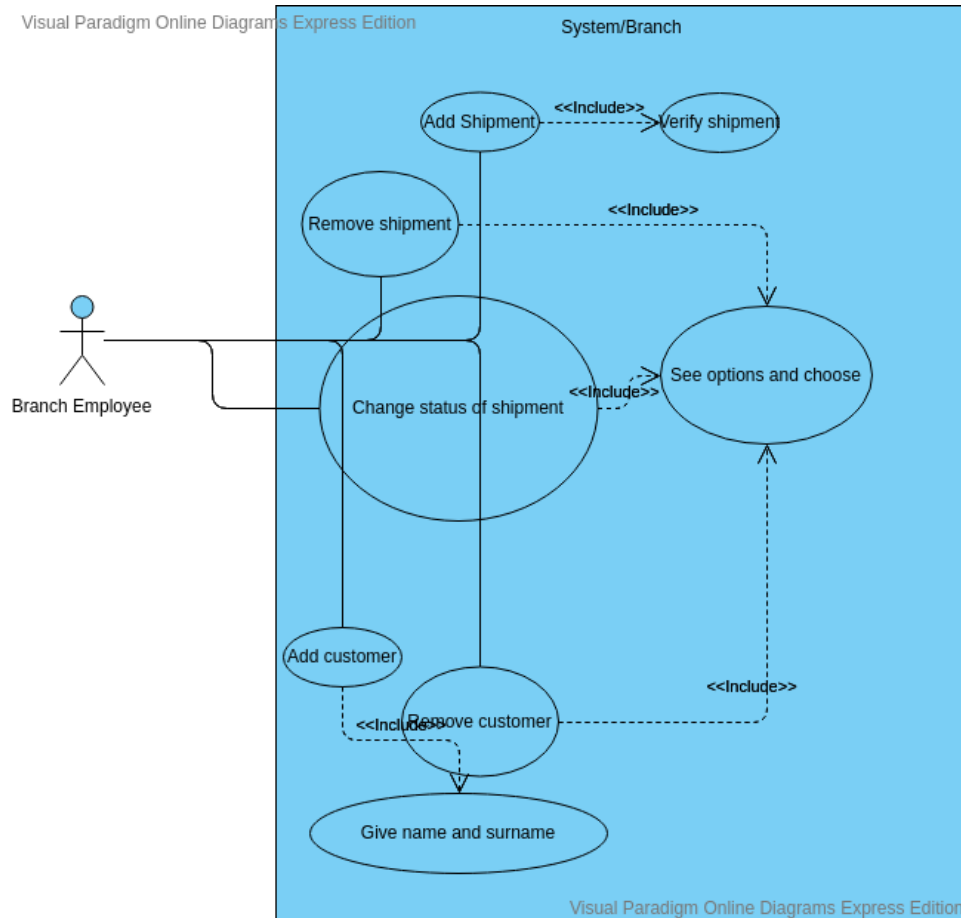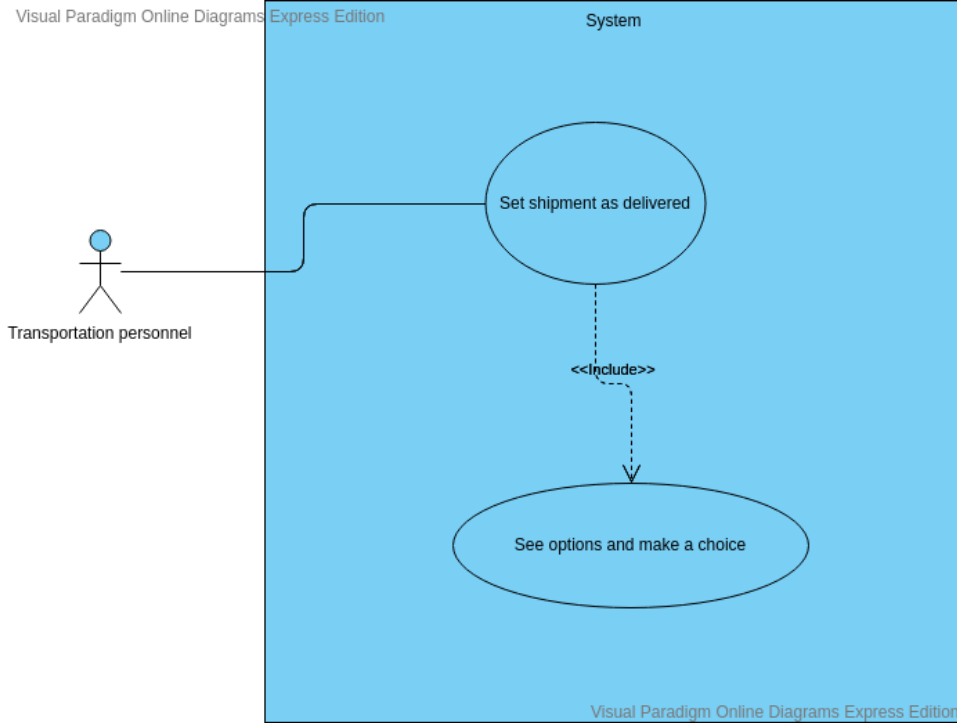
Transportation personnel use case diagram

System

Check shipment

Customer

<<Include>>

Provide tracking number

<<Include>>

Give out details about sender and reciever
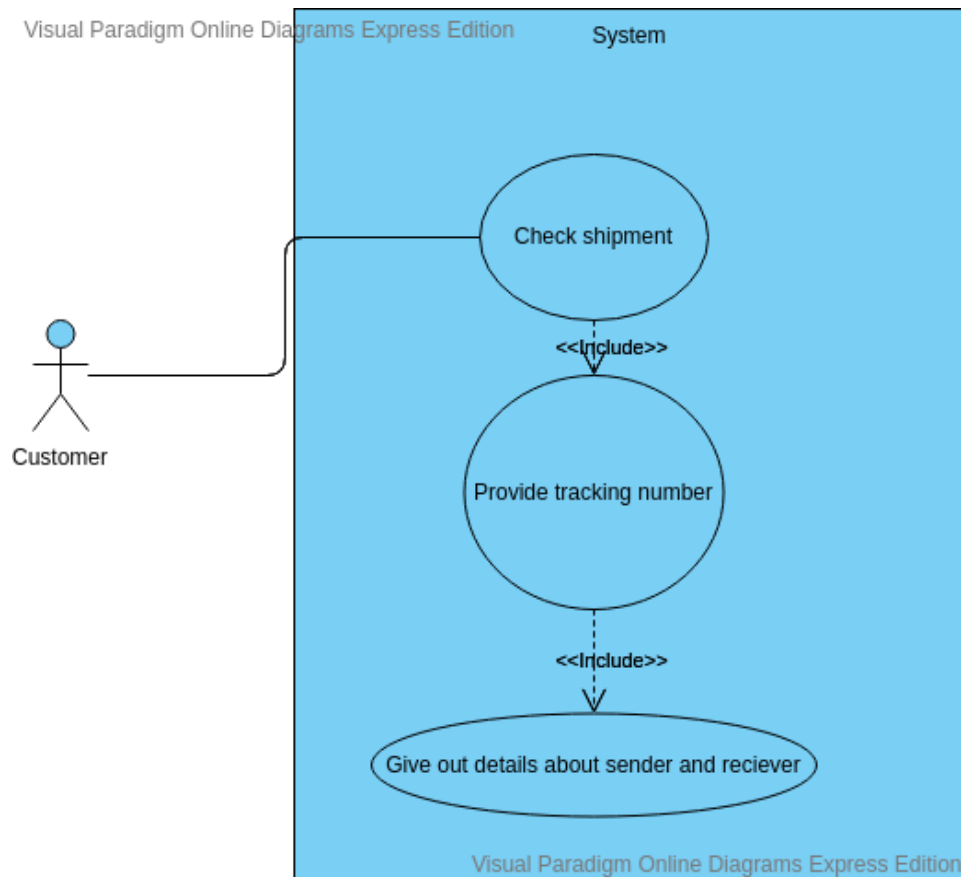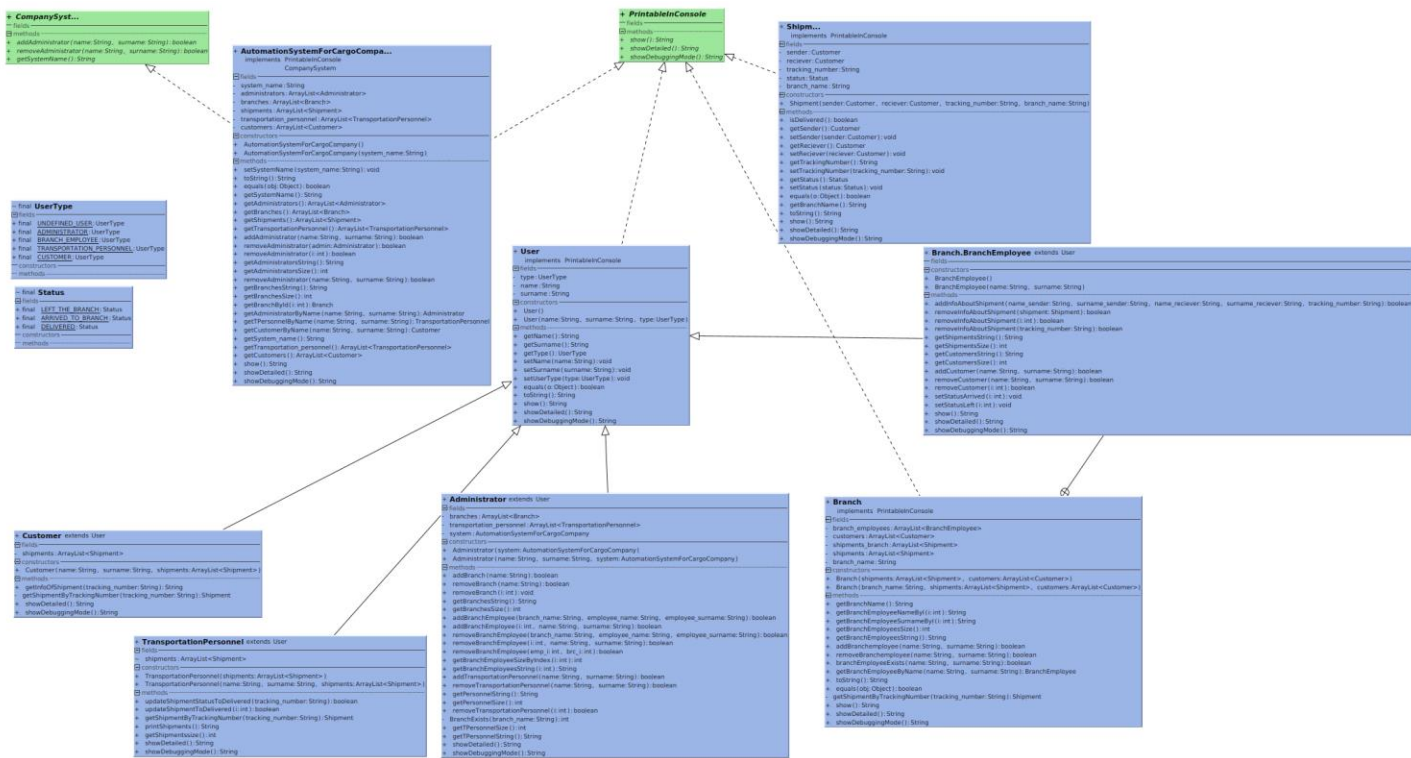
Problem solution approach

This time i took another approach to the problem. Instead of accomplishing encapsulation using inner classes i separated the files in a few public classes. Every class now has limited number of methods and getters for some data is removed. Again, there is a main system class which is to be created by anyone who is in charge of the system. System allows creating and removal of admins. System implements a system interface. This interface is general for any system and it requires implementation of methods to add/remove administrators and a method that gets the name of the system.

Everything else is done through admins. They are methods for adding and removing transportation personnel, branches and branch employees in admin class. Methods are more versitile than in part one of the homework, things they manipulate can be removed by providing not just name, but also index and etc. All exceptions for 'remove' methods that work with index parameters are caught and securely handled. There is no direct class for branch employees also. Branch employee is an inner class of yet another public class called Branch. There is a dependency relationship between the two as it is not possible to make a branch employee if a branch does not exist. When the branch exists and there are employees inside that branch those employees can add and remove shipments or update its status. Also they are allowed to add and remove customers to/from the system. Those are the only methods they use as a unique class. Transportation personnel can update the status of shipments and customers have a method for checking out the shipment by providing the tracking number. There is a common thing for all the classes and that is the PrintableInConsole interface all of them implement. This interface has 3 methods and one of them is supposed to be used by developers that are making the system (it shows the hash code and some more detailed information about the object). Some of the classes implement some of these methods using polymorphism. All in all it works the same as the homework1 of the previous week with a difference in design. I tried to make it as object oriented as possible so that the developer using the package to create the system could be able to make as few mistakes as possible.