

GIT Department of Computer Engineering

CSE222/505- Spring 2020 Homework 1

Report



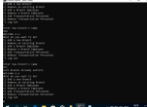
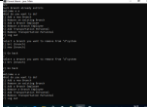
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Requirement case Id	Requirement description
1	Administrator adds a new branch
2	Administrator removes a branch
3	Administrator adds a branch employee
4	Administrator removes a branch employee
5	Administrator adds a Transportation personnel
6	Administrator 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 reciever 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



Non-functional requirements



case ID	Requirement ID	Test Scenario	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail	Photo
T1	1	Administrator 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	Administrator 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	Administrator 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	Administrator removes an existing branch	1) Log in 2) Select option remove a branch 3) Select a branch	Admin name: a Admin surname : a Branch option: 2	New branch should be removed	As expected	Pass	



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 of the employee	Admin name a Admin surname : a Branch Option: 1 Employee name: e2 Employee surname : e2	New branch employee should be added	As expected	Pass	




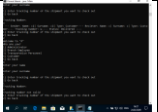
T7	4	Administrator removes a branch employee	1) Log in 2) Select option to remove branch employee 3) Choose branch to remove from 4) Select an employee to remove	Admin name a Admin surname : a Branch Option: 1 Employee Option: 2	e2 e2 branch employee should be removed	As expected	Pass	
T8	5	Administrator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

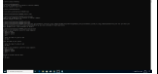



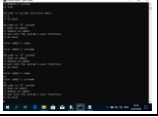
T10	6	Administ rator removes a transpor tation personn el	1) Log in 2) Select option to remove transpor tation personn el 3)Choos e personn el to be removed	Admin name a Admin surname : a Personn el choice: 2	t2 t2 transpor tation personn el should be removed	As expected	Pass	
T11	10	Branch Empoye e adds a new Custome r	1)Choos e branch on login 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	Branch choice: 1 Empoye e name: e Empoye surname : e Custome r name: c Custome r Surname : c	custome r should be added	As expected	Pass	
T12	10	Branch Empoye e adds a new Custome r	1)Choos e branch on login 2)Enter name 3) Enter surname	Branch choice: 1 Empoye e name: e Empoye surname : e	c2 c2 custome r should be added	As expected	Pass	


			4) Select option to add a new customer 5) Enter customer's name 6) Enter customer's surname	Customer name: c2 Customer Surname: c2				
T13	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 tracking number	Branch choice:1 Employee name: e Employee surname: e Sender name: c2 Sender surname: c2 Receiver name: c Receiver surname: c Tracking number: w	Shipment info should be added	As expected	Pass	
T14	7	Branch Employee adds info about shipment	1) Login 2) Select option to add a new shipment	Branch choice:1 Employee name: e Employee	Shipment info should fail since shipment with the same	As expected	Pass	

			3) Enter sender name 4) Enter sender surname 5) Enter receiver name 6) Enter receiver surname 7) Enter tracking number	surname : e Sender name: c Sender surname : c Receiver name: c2 Receiver surname : c2 Tracking number: w	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 tracking number	Branch choice: 1 Employee name: e Employee surname : e Sender name: c Sender surname : c Receiver name: c2 Receiver surname : c2 Tracking number: w2	Shipment info should be added	As expected	Pass	
T16	8	Branch Employee removes info about	1) Login 2) Select option to remove a	Branch choice:1 Employee name: e Employee	Shipment info with tracking number w2 should	As expected	Pass	

		shipment	shipment 3) Select shipment to be removed	surname: e Shipment option: 2	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 to update	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	

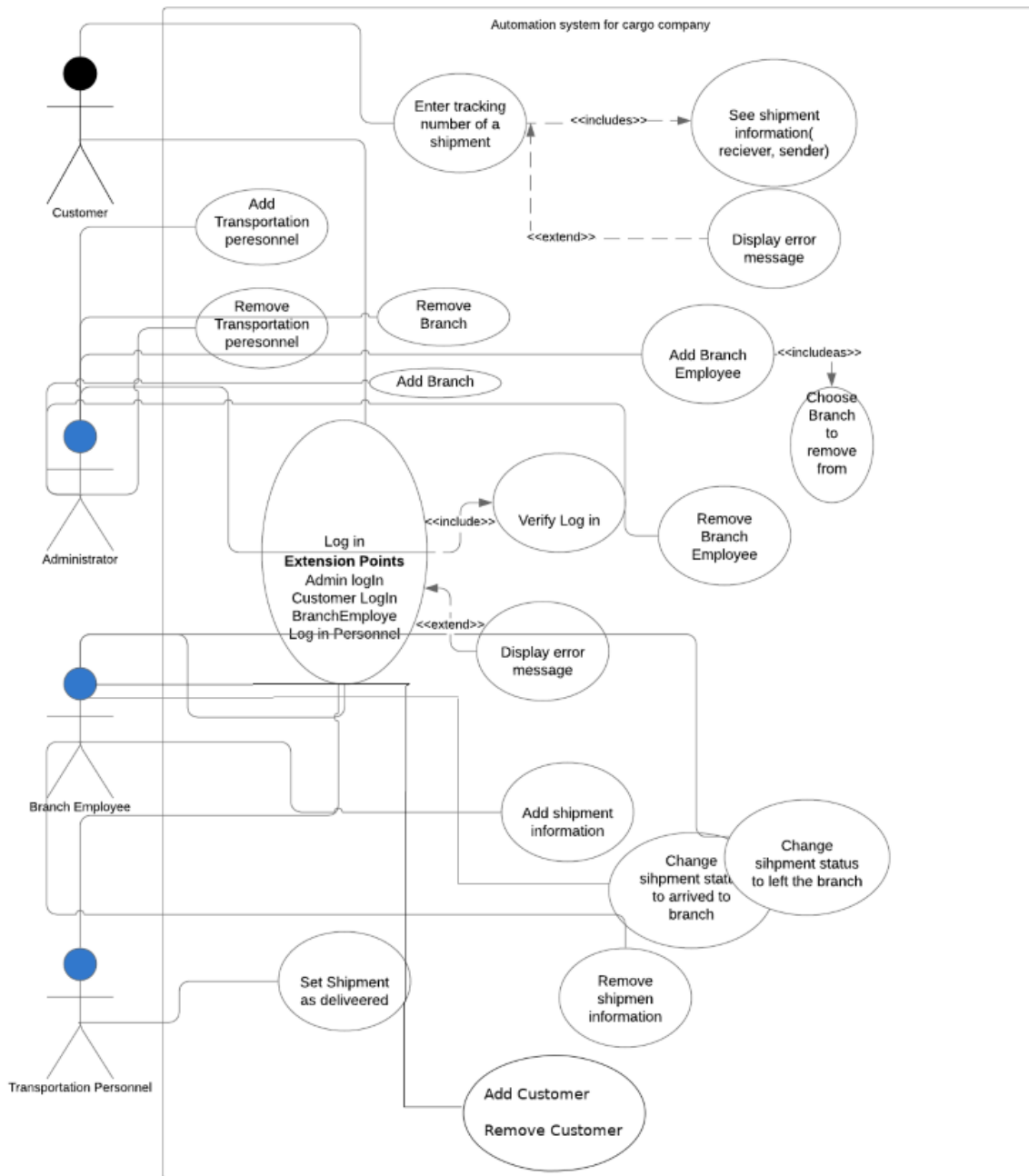
T19	11	Branch Employee removes a customer from the system	1) Login 2) Select option to remove customer from the system 3) Select customer to be removed	Branch choice:1 Employee name: e Employee surname : e Customer option: 2	Customer c2 c2 should be removed	As expected	Pass	
T20	12	Transportation Personnel sets shipment 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 Checks 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 Checks the informat	1) Login 2) Enter tracking number	Customer name: c Customer	Error message will be displayed since	As expected	Pass	

		ion of a shipment		surname : c Tracking number: o	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	1) Select system	Enter name: a1	Admin should	As expected	Pass	

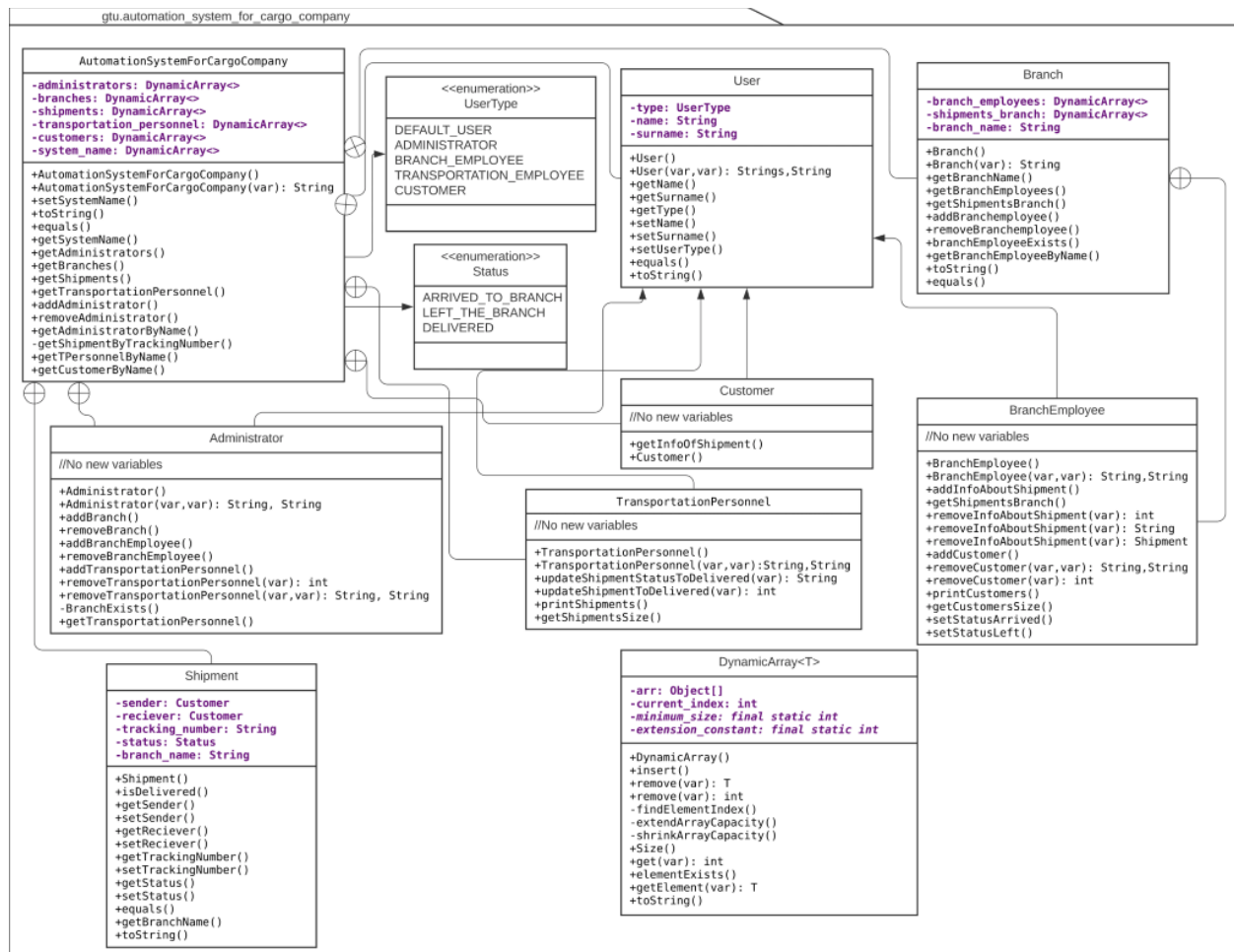
		adds an admin to the system	to add admin to 2) Enter the name of the admin	Enter surname : a1	be created			
T28	16	Head of the system removes an admin from the system	1) Select system to remove admin from 2) Select an admin to remove	Choice:2	Admin should be removed	As expected	Pass	

Test cases

djuro | February 24, 2020



Use case digaram



Class diagram

Problem solution approach

The problem this system solves is automation of the cargo company. To be able to have a smooth customer experience when making or using this system a natural hierarchy is needed. Main system class is defined and inside of it other classes that are part of it are also defined. Whoever is in charge of the system can make or remove its users such as admins, customers etc. The system class has an array of its users (administrators, customers, branch employees) and resources it is manipulating(shipments, branches...). Only branch employees cannot be access directly through the system since they are part of the branch class hence needing an existence of the branch through which they could be accessed. To be able to access system's most basic functions a system administrator needs to be made firstly. After the administrator is made by the head of the system the other users can be made through any of the administrators that are part of the system. Administrator also has rights to add /remove branches to the system, add/remove branch employees to the system and add/remove personnel to the system. In the system there cannot be two users with the same name, surname and type (something like an ID for

users). After some of the admins have added a branch and an employee to a certain branch, branch employee can perform a login into the system. After branch employee enters the system by providing its name, surname and branch name information it can manipulate shipments that are sent from that branch. When the shipment is sent from the branch it is automatically also added to the system's shipments. Every shipment has its unique tracking number(like an ID) and two shipments with the same tracking number cannot exist in the system. Branch employee can add a shipment to the system by providing data about customer(its name and surname), receiver(its name and surname) and tracking number as was already mentioned. Branch employee might as well remove a shipment from the system or update its status to either note that it left or arrived to the branch. Branch employees only manipulate shipments of the branch they work in. Also they can add or remove customers to the system by providing their name and surname. After they add a Customer, that customer can also login into the system by providing their name and surname. Customer can check information about shipment by entering its unique tracking number. Transportation personnel logs in with its name and surname and is able to update any shipment's status to delivered. System is made out of menus from which any user of the system can choose an option. Invalid inputs are shown as errors on the screen. Error is also shown when user fails to log in or has entered invalid information about something(expl. Branch employee enters tracking number for a new shipment but the shipment with that number already exists).