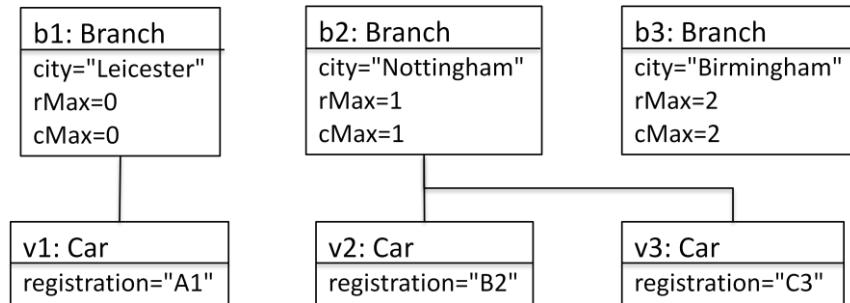


Class Test - Not Assessed - Group A

Full Name _____ **CFS** _____

You will be given 5 test reports (each consisting of a sequence of invocations) and the source code of their implementation. Your task is to find out which test reports show failures of the service to satisfy the specification and locate the faults responsible for the failures in the code.

At the start of each test case the database is initialised with 3 branches and 3 cars using the following data:



Question 1) Please use the following table to report the failed steps and explain briefly how the behaviour differs from the specification. The first row has been completed as an example of what is expected.

Failed step only		Brief Justification
Test Report No	Step No	
	

Question 2) Please locate the faults responsible for the failures you identified under 1). Use line numbers to indicate where these faults occur in the code and explain briefly. Again, the first row provides an example.

As a part of our survey, please answer the following questions:

- How many years of experience do you have in OO programming?
 - For how long, if at all, have you worked in software development outside university?
 - If any, how much of this time (in%) involved testing and debugging?

Test Report 1		* to show the state after
Step	Operation invocation	Output
1	registerClient("Leicester", "Reiko")	"Leicester_0"
*	showClients("Leicester")	[0]={cName="Reiko", cID="Leicester_0"}
	showBranch("Leicester")	{city="Leicester", rMax=0, cMax=0}
2	registerClient("Leicester", "Abdullah")	"Leicester_1"
*	showClients("Leicester")	[0]={cName="Reiko", cID="Leicester_0"} [1]={cName="Abdullah", cID="Leicester_1"}
	showBranch("Leicester")	{city="Leicester", rMax=0, cMax=0}
3	makeReservation("Leicester_1", "Leicester", "Nottingham")	"Leicester_1"
*	showClientReservations("Leicester_1")	[0]={ reference="Leicester_1", made="Leicester_1", pickup="Leicester", dropoff="Nottingham", for="A1" }
	showBranch("Leicester")	{city="Leicester", rMax=1, cMax=0}
4	makeReservation("Leicester_1", "Birmingham", "Leicester")	null
*	showClientReservations("Leicester_1")	[0]={ reference="Leicester_1", made="Leicester_1", pickup="Leicester", dropoff="Nottingham", for="A1" }
	showBranch("Leicester")	{city="Leicester", rMax=1, cMax=0}
5	cancelReservation ("Leicester_1")	-
*	showClientReservations("Leicester_1")	null

Test Report 2		* to show the state after
Step	Operation invocation	Output
1	registerClient("Nottingham", "Reiko")	"Nottingham_0"
*	showClients("Nottingham")	[0]={cName="Reiko", cID="Nottingham_0"}
	showBranch("Nottingham")	{city="Nottingham", rMax=1, cMax=1}
2	makeReservation("Nottingham_0", "Nottingham", "Nottingham")	"Nottingham_2"
*	showClientReservations("Nottingham_0")	[0]={reference="Nottingham_2", made="Nottingham_0", pickup="Nottingham", dropoff="Nottingham", for="B2"}
	showBranch("Nottingham")	{city="Nottingham", rMax=2, cMax=1}
3	makeReservation("Nottingham_0", "Leicester", "Nottingham")	"Leicester_1"
*	showClientReservations("Nottingham_0")	[0]={reference="Nottingham_2", made="Nottingham_0", pickup="Nottingham", dropoff="Nottingham", for="B2"} [1]={reference="Leicester_1", made="Nottingham_0", pickup="Leicester", dropoff="Nottingham", for="A1"}
	showBranch("Nottingham")	{city="Nottingham", rMax=2, cMax=1}
	showBranch("Leicester")	{city="Leicester", rMax=1, cMax=0}
	cancelReservation ("Nottingham_2")	-
*	showClientReservations("Nottingham_0")	null

Test Report 3		* to show the state after
Step	Operation invocation	Output
1	registerClient("Leicester", "Reiko")	"Leicester_0"
*	showClients("Leicester")	[0]={ cName="Reiko", cID="Leicester_0" }
	showBranch("Leicester")	{city=" Leicester", rMax=0, cMax=0}
2	registerClient("Leicester", "Abdullah")	"Leicester_1"
*	showClients("Leicester")	[0]={ cName="Reiko", cID="Leicester_0" }
	showBranch("Leicester")	[1]={ cName="Abdullah", cID="Leicester_1" }
3	makeReservation("Leicester_0", "Leicester", "Birmingham")	{city=" Leicester", rMax=0, cMax=0}
*	showClientReservations("Leicester_0")	"Leicester_1"
	showBranch("Leicester")	[0]={ reference="Leicester_1" , made="Leicester_0" , pickup="Leicester" , dropoff="Birmingham" , for="A1" }
4	makeReservation("Leicester_1", "Leicester", "Leicester")	{city="Leicester", rMax=1, cMax=0}
*	showClientReservations("Leicester_1")	"Leicester_2"
	showBranch("Leicester")	[0]={ reference="Leicester_2" , made="Leicester_1" , pickup="Leicester" , dropoff="Leicester" , for="A1" }
5	cancelReservation ("Leicester_1")	{city="Leicester", rMax=2, cMax=0}
*	showClientReservations("Leicester_0")	-
	showClientReservations("Leicester_1")	null

Test Report 4		* to show the state after
Step	Operation invocation	Output
1	registerClient("Nottingham", "Reiko")	"Nottingham_0"
*	showClients("Nottingham")	[0]={ cName="Reiko", cID="Nottingham_0" }
	showBranch("Nottingham")	{city="Nottingham", rMax=1, cMax=1}
*	showCars("Nottingham")	[0] = {Registration="B2"} [1] = {Registration="C3"}
	makeReservation("Nottingham_0", "Nottingham", "Birmingham")	"Nottingham_2"
*	showClientReservations("Nottingham_0")	[0]={ reference="Nottingham_2" , made=" Nottingham_0" , pickup="Nottingham" , dropoff= "Birmingham" , for="B2" }
	showBranch("Nottingham")	{city=" Nottingham", rMax=2, cMax=1}
3	pickupCar("Nottingham_2")	-
*	showCars("Nottingham")	[0] = {Registration="C3"}
	showCars("Birmingham")	Null
*	showClientReservations("Nottingham_0")	[0]={ reference="Nottingham_2" , made=" Nottingham_0" , pickup="Nottingham" , dropoff= "Birmingham" , for="B2" }
4	dropoffCar ("Nottingham_2")	-
*	showCars("Nottingham")	[0] = {Registration="C3"}
	showCars("Birmingham")	[0] = {Registration="B2"}
*	showClientReservations("Nottingham_0")	[0]={ reference="Nottingham_2" , made=" Nottingham_0" , pickup="Nottingham" , dropoff=null , for=null }

Test Report 5		* to show the state after
Step	Operation invocation	Output
1	registerClient("Birmingham", "Reiko")	"Birmingham_0"
*	showClients("Birmingham")	[0]={cName="Reiko", cID="Birmingham_0"}
	showBranch("Birmingham")	{city=" Birmingham", rMax=2, cMax=2}
2	registerClient("Birmingham ", "Abdullah")	"Birmingham_1"
*	showClients("Birmingham")	[0]={cName="Reiko", cID="Birmingham_0"} [1]={cName=" Abdullah ", cID="Birmingham_1"}
	showBranch("Birmingham")	{city=" Birmingham", rMax=2, cMax=2}
	showCars("Birmingham")	null
3	makeReservation("Birmingham_0", "Birmingham", "Birmingham")	null
*	showClientReservations("Birmingham_0")	null
	showBranch("Birmingham")	{city="Birmingham", rMax=2, cMax=2}
4	makeReservation("Birmingham_1", "Birmingham", "Leicester")	null
*	showClientReservations("Birmingham_1")	null
	showBranch("Birmingham")	{city=" Birmingham", rMax=2, cMax=2}