Vehicle Rental Manager Black Box Test Plan

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Introduction

This test suite focuses on testing the basic, overarching functionality of the Vehicle Rental Manager program. To start the program, the user runs VehicleRentalManagerUI.java. The tests that use a valid input file will use input/sample.csv, the contents of which are available below. The tests focus on valid and invalid startup of the program, invalid and valid command selection, and output for generating the optimal sequence of rentals and querying the rentals for a given day.

input/sample.csv

START DAY, END DAY, COST, MAKE, MODEL

1,2,85, Chevrolet, Tahoe

1,4,255,Toyota,Prius

2,5,220,Ford,Explorer

4,5,50, Honda, Accord

2,3,65,Jeep,Compass

3,5,90,Ford,Explorer

3,4,55,<u>Kia</u>,Soul

1,5,500,Honda,CRV

1,3,180,Chevrolet,Silverado

2,4,90, Jeep, Cherokee

Test ID	Description	Expected Results	Actual Results
(DT) None The user rule VehicleRen agerUI.java When prone for the input the user en the following the user of the following the user en the following the user end the user end the following the user end the user end the following the user end the	The user runs	The user is initially prompted with the following:	The user is initially prompted with the following:
	VehicleRentalMan agerUI.java	"Enter path to rental cost file: "	"Enter path to rental cost file: "
	When prompted for the input file, the user enters the following: "vehicleDNE.csv"	After entering the invalid file path, the following error message is displayed:	After entering the invalid file path, the following error message is displayed:
	Check results	java.io.FileNotFou ndException: vehicleDNE.csv (The system cannot find the file specified)	java.io.FileNotFou ndException: vehicleDNE.csv (The system cannot find the file specified)

		The user is then	The user is then
		reprompted to enter	reprompted to enter
		the input file.	the input file.
testStartValidInput	Preconditions:	The user is initially	The user is initially
(ECP)	None	prompted with the	prompted with the
- /		following:	following:
	The user runs		
	VehicleRentalMan agerUI.java	"Enter path to rental cost file: "	"Enter path to rental cost file: "
	When prompted for the input file, the user enters the following:	After entering the file path, the user is given the following prompt:	After entering the file path, the user is given the following prompt:
	"input/sample.cs v"	"Enter 1 to get the cost-minimized	"Enter 1 to get the cost-minimized
	Check results	sequence of car rentals between	sequence of car rentals between
		two days or 2 to list all of the available rentals for a given	two days or 2 to list all of the available rentals for a given
		day: "	day: "
testInvalidInputGUI	Preconditions:	The following is	The following is
(DT)	testStartValidInp	output:	output:
	ut passes	"Invalid input.	"Invalid input.
	(Run	-	-
	testStartValidInp	Run again? (y/n):"	Run again? (y/n):"
	ut)		
	The user is		
	prompted with		
	the following:		
	and romo wing.		
	"Enter 1 to get		
	the cost-		
	minimized		
	sequence of car rentals between		
	two days or 2 to		
	list all of the		
	available rentals		
	for a given day: "		
	Enter 3		

	Check results		
testOptimalRentalSequence	Preconditions:	The program outputs the following:	The program
AvailableRentals	testStartValidInp		outputs the
(ECP)	ut passes		following:
(=)	lii peisses		Tollowing.
	(Run	Rental total is	Rental total is
	,		
	testStartValidInp	\$225.00	\$225.00
	ut)	L	L
		From day 1 to	From day 1 to
	The user is	day 2: \$85.00,	day 2: \$85.00,
	prompted with	Chevrolet Tahoe	Chevrolet Tahoe
	the following:	From day 2 to	From day 2 to
		day 4: \$90.00, Jeep	day 4: \$90.00, Jeep
	"Enter 1 to get	Cherokee	Cherokee
	the cost-	From day 4 to	From day 4 to
	minimized	day 5: \$50.00,	day 5: \$50.00,
	sequence of car	Honda Accord	Honda Accord
	-		
	rentals between]]
	two days or 2 to		
	list all of the		
	available rentals		
	for a given day: "		
	Enton 1		
	Enter 1		
	The user is		
	prompted to		
	enter the start		
	day. Enter 1		
	auy. Eliter 1		
	The user is		
	prompted to		
	enter the end day.		
	Enter 5		
	Check results		
testOptimalRentalSequence	Preconditions:	The program	The program
UnavailableRentals	testStartValidInp	outputs the	outputs the
(BVA)	ut passes	following:	following:
	1	-31101118.	
	(Run	Rental total is	Rental total is
	testStartValidInp	\$140.00	\$140.00
	ut)	ψ1 + 0.00	Ψ1-10.00
	(ut)	L	L
		<u> </u>	

	The user is prompted with the following: "Enter 1 to get the costminimized sequence of car rentals between two days or 2 to list all of the available rentals for a given day: " Enter 1 The user is prompted to enter the start day. Enter 2 The user is prompted to enter the end day. Enter 7 Check results	From day 2 to day 4: \$90.00, Jeep Cherokee From day 4 to day 5: \$50.00, Honda Accord No rentals available on day 5]	From day 2 to day 4: \$90.00, Jeep Cherokee From day 4 to day 5: \$50.00, Honda Accord No rentals available on day 5]
testQuery (ECP)	Preconditions: testStartValidInp ut passes	The program outputs the following:	The program outputs the following:
	(Run testStartValidInp ut) "Enter 1 to get the costminimized sequence of car rentals between two days or 2 to list all of the available rentals for a given day: "	Available rentals for day 1 \$85.00 Chevrolet Tahoe for day 1 to day 2 \$180.00 Chevrolet Silverado for day 1 to day 3 \$255.00 Toyota Prius for day 1 to day 4 \$500.00 Honda CRV for day 1 to day 5	Available rentals for day 1 \$85.00 Chevrolet Tahoe for day 1 to day 2 \$180.00 Chevrolet Silverado for day 1 to day 3 \$255.00 Toyota Prius for day 1 to day 4 \$500.00 Honda CRV for day 1 to day 5

	Enter 2 The user is prompted to enter the day to query for. Enter 1 Check results		
testQuit (ECP)	Preconditions: testStartValidInp ut, testInvalidInputG UI both pass (Run testStartValidInp ut and testInvalidInputG UI) The following is output: "Invalid input. Run again? (y/n):" Type n Check results	The program exits successfully	The program exits successfully

Document Revision History

Date	Author	Change Description
4/4/18	Noah Benveniste	Ran black box tests