

Car Rental Database 2022



**CSE 3330
GROUP 8**

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HONOR CODE

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Task 1

Query 1:

```
ALTER table RENTAL add COLUMN Returned INT;  
UPDATE Rental set Returned = (CASE when PaymentDate = 'NULL' THEN 0 ELSE 1  
END);  
SELECT * FROM RENTAL;
```

CustID	VehicleID	StartDate	OrderDate	RentalType	Qty	ReturnDate	TotalAmount	PaymentDate	Returned
203	JM3KE4DY4F0441471	2019-09-09	2019-05-22	1	4	2019-09-13	460	2019-09-09	1
210	19VDE1F3XEE414842	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
210	JTHFF2C26F135BX45	2019-05-01	2019-04-15	7	1	2019-05-08	600	2019-05-08	1
210	JTHFF2C26F135BX45	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
210	WAUTFAFH0E0010613	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
210	WBA3A9G51ENN73366	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
210	WBA3B9C59EP458859	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
210	WDCGG0EB0EG188709	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	0
212	19VDE1F3XEE414842	2019-06-10	2019-04-15	7	3	2019-07-01	1800	2019-06-10	1
216	1N6BF0KM0EN101134	2019-08-02	2019-03-15	7	4	2019-08-30	2740	2019-08-02	1
216	1N6BF0KM0EN101134	2019-08-30	2019-03-15	1	2	2019-09-01	230	2019-08-02	1
221	19VDE1F3XEE414842	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	1
221	19VDE1F3XEE414842	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	1
221	19VDE1F3XEE414842	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
221	JTHFF2C26F135BX45	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
221	WAUTFAFH0E0010613	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	1
221	WAUTFAFH0E0010613	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	1
221	WAUTFAFH0E0010613	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
221	WBA3A9G51ENN73366	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
221	WBA3B9C59EP458859	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
221	WDCGG0EB0EG188709	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	0
229	19VDE1F3XEE414842	2019-05-06	2019-04-12	1	4	2019-05-10	400	2019-05-06	1
229	WAUTFAFH0E0010613	2019-05-06	2019-04-12	1	4	2019-05-10	400	2019-05-06	1

sqlite> █

Result: 23 rows affected

Query 2:

```
CREATE VIEW [vRentalInfo] as  
SELECT OrderDate, StartDate, ReturnDate, cast(julianday(ReturnDate) -  
julianday(StartDate) as int) as [TotalDays], v.VehicleID as VIN, v.Description as  
[Vehicle], CASE V.Type WHEN 1 then 'Compact' WHEN 2 then 'Medium' WHEN 3 then  
'Large' WHEN 4 then 'SUV' WHEN 5 then 'Truck' ELSE 'Van' end Type,  
CASE V.Category WHEN 0 then 'Basic' ELSE 'Luxury' end Category, C.CustID as  
CustomerID, Name as CustomerName, TotalAmount as OrderAmount, CASE when  
Returned = 1 then 0 ELSE TotalAmount END RentalBalance  
FROM Customer C, Vehicle V, Rental R, Rate S  
WHERE v.vehicleid = r.vehicleid and r.custid = c.custid and S.type = v.type and  
v.category = s.category  
ORDER by StartDate ASC;  
SELECT * from vRentalInfo;
```

```

sqlite> select * from vrentalinfo;
OrderDate  StartDate  ReturnDate  TotalDays  VIN          Vehicle      Type  Category  CustomerID  CustomerName  OrderAmount  RentalBalance
-----
2019-04-15  2019-05-01  2019-05-08  7          JTHFF2C26F135BX45  Lexus IS 250C  Compact  Luxury  210        G. Clarkson  600          0
2019-04-12  2019-05-06  2019-05-10  4          19VDE1F3XEE414842  Acura ILX     Compact  Luxury  229        D. Kirkpatrick  400          0
2019-04-12  2019-05-06  2019-05-10  4          WAUTFAFH0E0010613  Audi A5       Compact  Luxury  229        D. Kirkpatrick  400          0
2019-04-15  2019-06-10  2019-07-01  21         19VDE1F3XEE414842  Acura ILX     Compact  Luxury  212        H. Gallegos    1800         0
2019-06-12  2019-07-01  2019-07-08  7          19VDE1F3XEE414842  Acura ILX     Compact  Luxury  221        J. Brown       600          0
2019-06-12  2019-07-01  2019-07-08  7          WAUTFAFH0E0010613  Audi A5       Compact  Luxury  221        J. Brown       600          0
2019-06-12  2019-07-09  2019-07-11  2          19VDE1F3XEE414842  Acura ILX     Compact  Luxury  221        J. Brown       200          0
2019-06-12  2019-07-09  2019-07-11  2          WAUTFAFH0E0010613  Audi A5       Compact  Luxury  221        J. Brown       200          0
2019-03-15  2019-08-02  2019-08-30  28         1N6BF0KM0EN101134  Nissan NV     Van      Basic    216        A. Hess        2740         0
2019-03-15  2019-08-30  2019-09-01  2          1N6BF0KM0EN101134  Nissan NV     Van      Basic    216        A. Hess        230          0
2019-05-22  2019-09-09  2019-09-13  4          JM3KE4DY4F0441471  Mazda CX5    SUV      Basic    203        A. Hernandez    460          0
2019-10-28  2019-11-01  2019-11-15  14         19VDE1F3XEE414842  Acura ILX     Compact  Luxury  210        G. Clarkson    1200         1200
2019-10-28  2019-11-01  2019-11-15  14         JTHFF2C26F135BX45  Lexus IS 250C  Compact  Luxury  210        G. Clarkson    1200         1200
2019-10-28  2019-11-01  2019-11-15  14         WAUTFAFH0E0010613  Audi A5       Compact  Luxury  210        G. Clarkson    1200         1200
2019-10-28  2019-11-01  2019-11-15  14         WBA3A9G51ENN73366  BMW 3 Series  Compact  Luxury  210        G. Clarkson    1200         1200
2019-10-28  2019-11-01  2019-11-15  14         WBA3B9C59EP458859  BMW 3 Series  Compact  Luxury  210        G. Clarkson    1200         1200
2019-10-28  2019-11-01  2019-11-15  14         WDCGG0EB0EG188709  Mercedes Benz GLK  Compact  Luxury  221        G. Clarkson    1200         1200
2019-12-15  2020-01-01  2020-01-29  28         19VDE1F3XEE414842  Acura ILX     Compact  Luxury  210        J. Brown       2400         2400
2019-12-15  2020-01-01  2020-01-29  28         JTHFF2C26F135BX45  Lexus IS 250C  Compact  Luxury  221        J. Brown       2400         2400
2019-12-15  2020-01-01  2020-01-29  28         WAUTFAFH0E0010613  Audi A5       Compact  Luxury  221        J. Brown       2400         2400
2019-12-15  2020-01-01  2020-01-29  28         WBA3A9G51ENN73366  BMW 3 Series  Compact  Luxury  221        J. Brown       2400         2400
2019-12-15  2020-01-01  2020-01-29  28         WBA3B9C59EP458859  BMW 3 Series  Compact  Luxury  221        J. Brown       2400         2400
2019-12-15  2020-01-01  2020-01-29  28         WDCGG0EB0EG188709  Mercedes-Benz GLK  Compact  Luxury  221        J. Brown       2400         2400
sqlite>

```

Result: 23 rows returned

Task 2

1.

Query: INSERT INTO CUSTOMER (Name, Phone) VALUES (:Name, :Phone)

This screenshot shows adding a new customer without adding in a customer ID

In the following query the user can add customer using the customer name and phone number and click on add customer button to add the record

Car Rental Database 2019

New Customer Name:

Phone Number:

Customer: K. Gerald Added Successfully

The Next Screenshot shows that K. Gerald was added as the last record with the incremented Customer ID.

Car Rental Database 2019

Add Vehicle

Add Customer

Customer Lookup

Vehicle Lookup

Book Rental

Return Rental

Customer Name:

Customer ID:

List Customers

List ALL Customers

	201		A. Parks		(214) 555-0127	
	202		S. Patel		(849) 811-6298	
	203		A. Hernandez		(355) 572-5385	
	204		G. Carver		(753) 763-8656	
	205		Sh. Byers		(912) 925-5332	
	206		L. Lutz		(931) 966-1775	
	207		L. Bernal		(884) 727-0591	
	208		I. Whyte		(811) 979-7345	
	209		L. Lott		(954) 706-2219	
	210		G. Clarkson		(309) 625-1838	
	211		Sh. Dunlap		(604) 581-6642	
	212		H. Gallegos		(961) 265-8638	
	213		L. Perkins		(317) 996-3104	
	214		M. Beach		(481) 422-0282	
	215		C. Pearce		(599) 881-5189	
	216		A. Hess		(516) 570-6411	
	217		M. Lee		(369) 898-6162	
	218		R. Booker		(730) 784-6303	
	219		A. Crowther		(325) 783-4081	
	220		H. Mahoney		(212) 262-8829	
	221		J. Brown		(644) 756-0110	
	222		H. Stokes		(931) 969-7317	
	223		J. Reeves		(940) 981-5113	
	224		A. Mcghee		(838) 610-5802	
	225		L. Mullen		(798) 331-7777	
	226		R. Armstrong		(325) 783-4081	
	227		J. Greenaway		(212) 262-8829	
	228		K. Kaiser Acosta		(228) 576-1557	
	229		D. Kirkpatrick		(773) 696-8009	
	230		A. Odonnell		(439) 536-8929	
	231		K. Kay		(368) 336-5403	
	232		G. Kimeu		(303) 455-5555	
	233		G. Kimeu		(303) 455-5555	
	234		K. Jay		(230) 564-2345	
	235		J. Lenop		(698) 156-1663	
	236		H. Gwel		(654) 569-1564	
	237		H. Wells		(569) 456-4586	
	238		H. Hjk		(569) 456-4589	
	239		K. Went		(569) 568-5694	
	240		K. Gol		(569) 568-5786	
	241		K. GOPY		(569) 568-5786	
	242		K. Gerald		(365) 456-4569	

Records returned: 42

2.

Query: INSERT INTO VEHICLE VALUES (:VehicleID, :Description, :Year, :Type, :Category)

This screenshot shows adding new vehicle information

In the following query the user can add vehicle using the VIN, Description, Year, Type and category and click on add vehicle button to add the vehicle

The screenshot displays a web application window titled "Car Rental Database 2019". The window features a navigation bar with the following tabs: "Add Vehicle", "Add Customer", "Customer Lookup", "Vehicle Lookup", "Book Rental", and "Return Rental". The "Add Vehicle" tab is currently selected. Below the navigation bar, there is a form with the following fields and values:

VIN:	2HKRL19202S783210
Description:	Honda Lambo
Year:	2006
Type:	1
Category:	1

Below the form fields is a button labeled "Add Vehicle". Below the button, a message states: "Vehicle: Honda Lambo Added Successfully".

The next screenshot shows all records returned plus the new vehicle, "Honda Lambo", added as the last record



Add Vehicle Add Customer Customer Lookup Vehicle Lookup Book Rental Return Rental

VIN:

Description:

List Vehicles

List ALL Vehicle

19VDE1F3XEE414842	Acura ILX	2014
1FDEE3FL6EDA29122	Ford E 350	2014
1FDRF3B61FEA87469	Ford Super Duty Pickup	2015
1FTNF1CF2EKE54305	Ford F Series Pickup	2014
1G1JD5SB3E4240835	Chevrolet Optra	2014
1GB3KZCG1EF117132	Chevrolet Silverado	2014
1HGCR2E3XEA305302	Honda Accord	2014
1N4AB7AP2EN855026	Nissan Sentra	2014
1N6BA0EJ9EN516565	Nissan Titan	2014
1N6BF0KM0EN101134	Nissan NV	2014
1VWCH7A3XEC037969	Volkswagen Passat	2014
2HGFB2F94FH501940	Honda Civic	2015
2T3DFREV0FW317743	Toyota RAV4	2015
3MZBM1L74EM109736	Mazda 3	2014
3N1CE2CP0FL409472	Nissan Versa Note	2015
3N1CN7APXEK444458	Nissan Versa	2014
3VW2A7AU1FM012211	Volkswagen Golf	2015
4S4BRCFC1E3203823	Subaru Outback	2014
4S4BSBF39F3261064	Subaru Outback	2015
4S4BSELC0F3325370	Subaru Outback	2015
5J6RM4H90FL028629	Honda CR-V	2015
5N1AL0MM8EL549388	Infiniti JX35	2014
5NPDH4AE2FH565275	Hyundai Elantra	2015
5TDBKRFH4ES26D590	Toyota Highlander	2014
5XYKT4A75FG610224	Kia Sorento	2015
5XYKU4A7XFG622415	Kia Sorento	2015
5XYKUDA77EG449709	Kia Sorento	2014
JF1GPAA61F8314971	Subaru Impreza	2015
JH4KC1F50EC800004	Acura RLX	2014
JH4KC1F56EC000095	Acura RLX	2014
JM1BM1V35E1210570	Mazda 3	2014
JM3KE4DY4F0441471	Mazda CX5	2015
JM3TB3DV0E0015742	Mazda CX9	2014
JN8AS5MV0FW760408	Nissan Rogue Select	2015
JTEZUEJR7E5081641	Toyota 4Runner	2014
JTHBW1GG1F120DU53	Lexus ES 300h	2015
JTHCE1BL3F151DE04	Lexus GS 350	2015
JTHDL5EF9F5007221	Lexus LS 460	2015
JTHFF2C26F135BX45	Lexus IS 250C	2015
JTIJHY7AX2F120EA11	Lexus LX 570	2015
JTIJM7FX2E152CD75	Lexus GX460	2014
JTMBFREV1FJ019885	Toyota RAV4	2015
KM8SN4HF0FU107203	Hyundai Santa Fe	2015
KMHJT3AF1FU028211	Hyundai Tucson	2015
KMHTC6AD8EU998631	Hyundai Veloster	2014
KNAFZ4A86E5195865	KIA Sportage	2014
KNAFZ4A86E5195895	KIA Forte	2014
KNAGN4AD2F5084324	KIA Optima Hybrid	2015
KNALN4D75E5A57351	KIA Cadenza	2014
KNALU4D42F6025717	KIA K900	2015
KNDPCCA65F7791085	KIA Sportage	2015
WA1LGAF8ED001506	Audi Q7	2014
WAU32AFD8FN005740	Audi A8	2015
WAUTFAFH0E0010613	Audi A5	2014
WBA3A9G51ENN73366	BMW 3 Series	2014
WBA3B9C59EP458859	BMW 3 Series	2014
WBAVL1C57EVR93286	BMW X1	2014
WDCGG0EB0EG188709	Mercedes-Benz GLK	2014
YV440MDD6F2617077	Volvo XC60	2015
YV4940NB5F1191453	Volvo XC70	2015
2HKRL19202S783210	Honda Lambo	2006

Records returned: 61

3. SELECT v.VehicleID, v.Description, v.Year, v.Type, v.Category FROM VEHICLE v, RENTAL r
WHERE v.Type = ? AND v.Category = ? GROUP BY v.VehicleID

Here we take in the filter fields for searching available vehicles.

Add Vehicle	Add Customer	Customer Lookup	Vehicle Lookup	Book Rental	Return Rental
Customer ID:	<input type="text" value="203"/>				
Start Date**:	<input type="text" value="6/10/2016"/>				
End Date**:	<input type="text" value="6/20/2016"/>				
Order Date:	<input type="text" value="6/1/2016"/>				
Type**:	<input type="text" value="Compact"/>				
Category**:	<input type="text" value="Basic"/>				
Rental Type:	<input type="text" value="Daily"/>				
	<input type="text" value="Pay Today"/>				
Quantity	<input type="text" value="10"/>				
<input type="button" value="Search available vehicles"/>					
<input type="button" value="Select from results"/>					
Total	<input type="button" value="Reserve Vehicle"/>				

Here the available cars are displayed for the customer to choose.

Add Vehicle	Add Customer	Customer Lookup	Vehicle Lookup	Book Rental	Return Rental
Customer ID:	<input type="text" value="203"/>				
Start Date**:	<input type="text" value="6/10/2016"/>				
End Date**:	<input type="text" value="6/20/2016"/>				
Order Date:	<input type="text" value="6/1/2016"/>				
Type**:	<input type="text" value="Compact"/>				
Category**:	<input type="text" value="Basic"/>				
Rental Type:	<input type="text" value="Daily"/>				
	<input type="text" value="Pay Today"/>				
Quantity	<input type="text" value="10"/>				
<input type="button" value="Search available vehicles"/>					
<input type="button" value="Select from results"/>					
Total	<div>1G1JD5SB3E4240835 {Chevrolet Optra} 2014 1 0 1N4AB7AP2EN855026 {Nissan Sentra} 2014 1 0 2HGFB2F94FH501940 {Honda Civic} 2015 1 0 3MZBM1L74EM109736 {Mazda 3} 2014 1 0 3N1CE2CP0FL409472 {Nissan Versa Note} 2015 1 0 3N1CN7APXEK444458 {Nissan Versa} 2014 1 0 3VW2A7AU1FM012211 {Volkswagen Golf} 2015 1 0 5NPDH4AE2FH565275 {Hyundai Elantra} 2015 1 0 JF1GPAA61F8314971 {Subaru Impreza} 2015 1 0 JM1BM1V35E1210570 {Mazda 3} 2014 1 0 KMHTC6AD8EU998631 {Hyundai Veloster} 2014 1 0 KNAFZ4A86E5195895 {KIA Forte} 2014 1 0</div>				

The total is displayed for the user and once he/she reserves a message is displayed at the bottom of screen.

The screenshot shows a web application interface for vehicle booking. At the top, there are navigation tabs: 'Add Vehicle', 'Add Customer', 'Customer Lookup', 'Vehicle Lookup', 'Book Rental', and 'Return Rental'. The 'Book Rental' tab is active. Below the tabs, there is a form with the following fields and values:

- Customer ID: 203
- Start Date**: 6/10/2016
- End Date**: 6/20/2016
- Order Date: 6/1/2016
- Type**: Compact (dropdown menu)
- Category**: Basic (dropdown menu)
- Rental Type: Daily (dropdown menu)
- Pay Today (checkbox, checked)
- Quantity: 10

Below the form, there is a button labeled 'Search available vehicles'. Below that, a search result is displayed: '3MZBM1L74EM109736 {Mazda 3} 2014 1 0'. Below the search result, the total amount is displayed: 'Total \$800'. Below the total, there is a button labeled 'Reserve Vehicle'. At the bottom, a message is displayed: 'Vehicle Booking Complete!'.

Here the record is updated in the database.

25	203	3MZBM1L74EM109736	6/10/2016	6/1/2016	1	10	6/20/2016	800	NULL	1
26	203	3VW2A7AU1FM012211	6/10/2016	6/1/2016	1	10	6/20/2016	800	6/1/2016	1

4.SELECT Name, Year, Description, CASE when PaymentDate='NULL' THEN '(\$0.00)' ELSE '\$'||TotalAmount END FROM VEHICLE V, CUSTOMER C NATURAL JOIN RENTAL R WHERE C.CustID = ? OR V.VehicleID = ? OR V.Description = ? OR V.Year = ? OR V.Type = ? OR V.Category = ? ORDER BY TotalAmount

Here we look up the vehicle's customer with id 203 reserved. Once the submit button is clicked, a message is displayed at the bottom of the screen.

Add Vehicle	Add Customer	Customer Lookup	Vehicle Lookup	Book Rental	Return Rental
VIN:		<input type="text"/>			
Description:		<input type="text"/>			
Year:		<input type="text"/>			
Type:		<input type="text"/>			
Category:		<input type="text"/>			
Customer Name:		A. Hernandez			
Return Date:		<input type="text"/>			
<input type="button" value="List Vehicle"/>					
<div>{A. Hernandez} 2015 {Volkswagen Golf} {\$800}</div>					
<input type="button" value="Submit Return"/>					
Vehicle Return Complete!					

After the vehicle is returned, the totals which the customer owes are updated.

The screenshot shows a web application with a top navigation bar containing the following tabs: "Add Vehicle", "Add Customer", "Customer Lookup", "Vehicle Lookup", "Book Rental", and "Return Rental". The "Return Rental" tab is currently selected. Below the navigation bar, there is a form with the following fields and values:

- VIN: (empty)
- Description: (empty)
- Year: (empty)
- Type: (empty)
- Category: (empty)
- Customer Name: A. Hernandez
- Return Date: (empty)

Below the form fields, there is a "List Vehicle" button. Underneath this button is a "Select from results" dropdown menu. The dropdown menu is open, showing three items:

- {A. Hernandez} 2015 {Mazda CX5} (\$0.00)
- {A. Hernandez} 2014 {Mazda 3} (\$0.00)
- {A. Hernandez} 2015 {Volkswagen Golf} (\$0.00)

Below the dropdown menu, there is a "Vehicle Return Complete" button.

5a.

Query: SELECT CustomerID, CustomerName, CASE when RentalBalance = 0 THEN '\$0.00' ELSE '\$'||RentalBalance END FROM vRentalInfo WHERE CustomerName LIKE ?

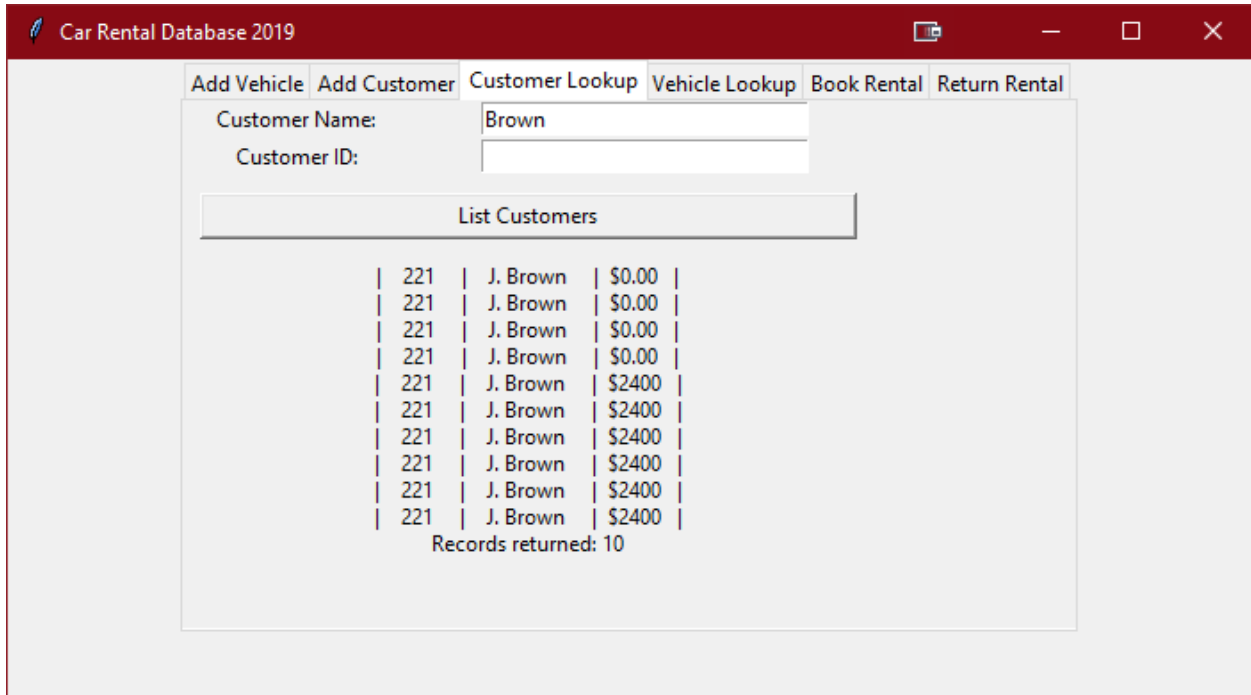
Query: SELECT CustomerID, CustomerName, CASE when RentalBalance = 0 THEN '\$0.00' ELSE '\$'||RentalBalance END FROM vRentalInfo WHERE CustomerID = ?

Query: SELECT CustomerID, CustomerName, CASE when RentalBalance = 0 THEN '\$0.00' ELSE '\$'||RentalBalance END FROM vRentalInfo ORDER BY RentalBalance

The next screenshot shows filtering by customer named “Brown” and the results

The following query returns the Customer Name, Customer ID and the total balance of the customer.

Users can either search the customer using the Customer Name or Customer ID and get the details.



Car Rental Database 2019

Customer Lookup

Customer Name: Brown

Customer ID:

List Customers

221	J. Brown	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400

Records returned: 10

The next screenshot shows returning all customers that are in the view with the specified outputs.

Car Rental Database 2019

[Add Vehicle](#)
[Add Customer](#)
[Customer Lookup](#)
[Vehicle Lookup](#)
[Book Rental](#)
[Return Rental](#)

Customer Name:

Customer ID:

List Customers

203	A. Hernandez	\$0.00
210	G. Clarkson	\$0.00
212	H. Gallegos	\$0.00
216	A. Hess	\$0.00
216	A. Hess	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$0.00
221	J. Brown	\$0.00
229	D. Kirkpatrick	\$0.00
229	D. Kirkpatrick	\$0.00
210	G. Clarkson	\$1200
210	G. Clarkson	\$1200
210	G. Clarkson	\$1200
210	G. Clarkson	\$1200
210	G. Clarkson	\$1200
210	G. Clarkson	\$1200
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400
221	J. Brown	\$2400

Records returned: 23

5b

Query: select VIN, Vehicle, printf('\$%0.2f', OrderAmount / TotalDays) as [DAILY] from vRentalInfo

select VIN, Vehicle, printf('\$%0.2f', OrderAmount / TotalDays) as [DAILY] from vRentalInfo WHERE Vehicle LIKE ?", ('%' + vehicle_name_text + '%',))

select VIN, Vehicle, printf('\$%0.2f', OrderAmount / TotalDays) as [DAILY] from vRentalInfo WHERE Vehicle = ?", (vehicle_id_text,))

The next screenshot shows VehicleID, Vehicle Description and daily cost for input "BMW"

The following query returns the vehicle description like VehicleID, Vehicle Description and the average daily cost for the vehicle.

Users can either search the vehicle using the VIN or the Vehicle Description and get the details.

listVehicles.py ×

```
18
19     iq_cur = iq_conn.cursor()
20     print_record = '' # needed to clear
21     if(vehicle_id2.get() == "" and description1.get() == ""):
22         Empty = True;
23         iq_cur.execute("select VIN, Vehicle, printf('%.2f',
24             OrderAmount / TotalDays) as [DAILY] from vRentalInfo")
25     else:
26         Empty = False;
27         vehicle_name_text = description1.get()
28         vehicle_id_text = vehicle_id2.get()
29         if vehicle_name_text and not vehicle_id_text:
30             iq_cur.execute("select VIN, Vehicle, printf('%.2f',
31                 OrderAmount / TotalDays) as [DAILY] from vRentalInfo WHERE Vehicle
32                 LIKE ?",
33                     ('%'+vehicle_name_text+'%',))
34         elif vehicle_id_text and not vehicle_name_text:
35             iq_cur.execute("select VIN, Vehicle, printf('%.2f',
36                 OrderAmount / TotalDays) as [DAILY] from vRentalInfo WHERE Vehicle =
37                 ?",
38                     (vehicle_id_text,))
39         else:
40             print_record += "CAN ONLY SEARCH ONE FILTER\n"
41
42     #executes search query when list vehicles button is clicked
43     output_records2 = iq_cur.fetchall()
44
```

Car Rental Database 2019

Add Vehicle | Add Customer | Customer Lookup | Vehicle Lookup | Book Rental | Return Rental

VIN:

Description:

List Vehicles

JTHFF2C26F135BX45 Lexus IS 250C \$85.00
19VDE1F3XEE414842 Acura ILX \$100.00
WAUTFAFH0E0010613 Audi A5 \$100.00
19VDE1F3XEE414842 Acura ILX \$85.00
19VDE1F3XEE414842 Acura ILX \$85.00
WAUTFAFH0E0010613 Audi A5 \$85.00
19VDE1F3XEE414842 Acura ILX \$100.00
WAUTFAFH0E0010613 Audi A5 \$100.00
1N6BF0KMOEN101134 Nissan NV \$97.00
1N6BF0KMOEN101134 Nissan NV \$115.00
JM3KE4DY4F0441471 Mazda CX5 \$115.00
19VDE1F3XEE414842 Acura ILX \$85.00
JTHFF2C26F135BX45 Lexus IS 250C \$85.00
WAUTFAFH0E0010613 Audi A5 \$85.00
WBA3A9G51ENN73366 BMW 3 Series \$85.00
WBA3B9C59EP458859 BMW 3 Series \$85.00
WDCGG0EB0EG188709 Mercedes-Benz GLK \$85.00
19VDE1F3XEE414842 Acura ILX \$85.00
JTHFF2C26F135BX45 Lexus IS 250C \$85.00
WAUTFAFH0E0010613 Audi A5 \$85.00
WBA3A9G51ENN73366 BMW 3 Series \$85.00
WBA3B9C59EP458859 BMW 3 Series \$85.00
WDCGG0EB0EG188709 Mercedes-Benz GLK \$85.00

Car Rental Database 2019

Add Vehicle | Add Customer | Customer Lookup | Vehicle Lookup | Book Rental | Return Rental

VIN:

Description:

List Vehicles

WBA3A9G51ENN73366 BMW 3 Series \$85.00
WBA3B9C59EP458859 BMW 3 Series \$85.00
WBA3A9G51ENN73366 BMW 3 Series \$85.00
WBA3B9C59EP458859 BMW 3 Series \$85.00