

CSE-3330-003/004
Fall 2020
Project II Part III

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December 16, 2020

Query 1:

part1:

```
SELECT * FROM Project2_Part3.rental
```

The screenshot shows a database query tool interface. At the top, the SQL query is entered: `1 SELECT * FROM Project2_Part3.rental;`. Below the query editor, a toolbar includes options for 'Result Grid', 'Filter Rows', 'Search', and 'Export'. The main area displays a table with 10 columns: CustID, VehicleID, StartDate, OrderDate, RentalType, Qty, ReturnDate, TotalAmount, PaymentDate, and an empty column. The table contains 23 rows of data, with the first row highlighted. The bottom of the interface shows 'rental 4' and a 'Read Only' status.

CustID	VehicleID	StartDate	OrderDate	RentalType	Qty	ReturnDate	TotalAmount	PaymentDate	
203	JM3KE4DY4F0441471	2019-09-09	2019-05-22	1	4	2019-09-13	460	2019-09-09	
210	19VDE1F3XEE414842	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
210	JTHFF2C26F135BX45	2019-05-01	2019-04-15	7	1	2019-05-08	600	2019-05-08	
210	JTHFF2C26F135BX45	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
210	WAUTFAFH0E0010613	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
210	WBA3A9G51ENN73366	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
210	WBA3B9C9EP458859	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
210	WDCGG0EB0EG188709	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	
212	19VDE1F3XEE414842	2019-06-10	2019-04-15	7	3	2019-07-01	1800	2019-06-10	
216	1N6BF0KM0EN101134	2019-08-02	2019-03-15	7	4	2019-08-30	2740	2019-08-02	
216	1N6BF0KM0EN101134	2019-08-30	2019-03-15	1	2	2019-09-01	230	2019-08-02	
221	19VDE1F3XEE414842	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	
221	19VDE1F3XEE414842	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	
221	19VDE1F3XEE414842	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
221	JTHFF2C26F135BX45	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
221	WAUTFAFH0E0010613	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	
221	WAUTFAFH0E0010613	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	
221	WAUTFAFH0E0010613	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
221	WBA3A9G51ENN73366	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
221	WBA3B9C9EP458859	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
221	WDCGG0EB0EG188709	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	
229	19VDE1F3XEE414842	2019-05-08	2019-04-12	1	4	2019-05-10	400	2019-05-08	
229	WAUTFAFH0E0010613	2019-05-08	2019-04-12	1	4	2019-05-10	400	2019-05-08	

part2:

```
ALTER TABLE Project2_Part3.rental  
ADD COLUMN Returned Varchar(15);
```

```
SELECT * FROM Project2_Part3.rental;
```

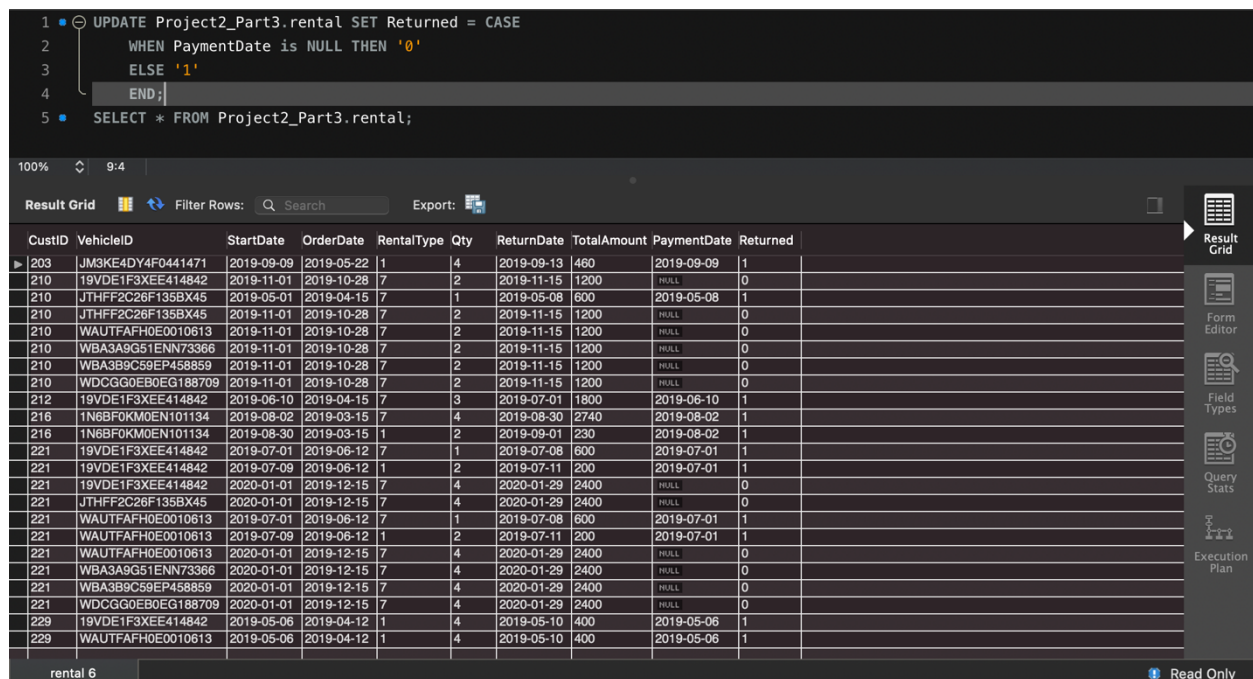
The screenshot shows a database query tool interface. The SQL query is entered: `1 ALTER TABLE Project2_Part3.rental
2 ADD COLUMN Returned Varchar(15);
3 SELECT * FROM Project2_Part3.rental;`. The toolbar and table structure are similar to the first screenshot. The table now has 11 columns, including the new 'Returned' column. The data rows are identical to the first screenshot, but the 'Returned' column is empty for all rows. The bottom of the interface shows 'rental 5' and a 'Read Only' status.

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	NULL
210	19VDE1F3XEE414842	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
210	JTHFF2C26F135BX45	2019-05-01	2019-04-15	7	1	2019-05-08	600	2019-05-08	NULL
210	JTHFF2C26F135BX45	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
210	WAUTFAFH0E0010613	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
210	WBA3A9G51ENN73366	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
210	WBA3B9C9EP458859	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
210	WDCGG0EB0EG188709	2019-11-01	2019-10-28	7	2	2019-11-15	1200	NULL	NULL
212	19VDE1F3XEE414842	2019-06-10	2019-04-15	7	3	2019-07-01	1800	2019-06-10	NULL
216	1N6BF0KM0EN101134	2019-08-02	2019-03-15	7	4	2019-08-30	2740	2019-08-02	NULL
216	1N6BF0KM0EN101134	2019-08-30	2019-03-15	1	2	2019-09-01	230	2019-08-02	NULL
221	19VDE1F3XEE414842	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	NULL
221	19VDE1F3XEE414842	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	NULL
221	19VDE1F3XEE414842	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
221	JTHFF2C26F135BX45	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
221	WAUTFAFH0E0010613	2019-07-01	2019-06-12	7	1	2019-07-08	600	2019-07-01	NULL
221	WAUTFAFH0E0010613	2019-07-09	2019-06-12	1	2	2019-07-11	200	2019-07-01	NULL
221	WAUTFAFH0E0010613	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
221	WBA3A9G51ENN73366	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
221	WBA3B9C9EP458859	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
221	WDCGG0EB0EG188709	2020-01-01	2019-12-15	7	4	2020-01-29	2400	NULL	NULL
229	19VDE1F3XEE414842	2019-05-08	2019-04-12	1	4	2019-05-10	400	2019-05-08	NULL
229	WAUTFAFH0E0010613	2019-05-08	2019-04-12	1	4	2019-05-10	400	2019-05-08	NULL

part3:

```
UPDATE Project2_Part3.rental SET Returned = CASE
WHEN PaymentDate is NULL THEN '0'
ELSE '1'
END;
```

```
SELECT * FROM Project2_Part3.rental;
```



```
1 UPDATE Project2_Part3.rental SET Returned = CASE
2   WHEN PaymentDate is NULL THEN '0'
3   ELSE '1'
4   END;
5 SELECT * FROM Project2_Part3.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

Query 2:

create view vRentalInfo as

select OrderDate, StartDate, ReturnDate, TotalDays, VehicleID as 'VIN', Description as 'Vehicle',

Category, CustID as 'CustomerID', Name as 'CustomerName', TotalAmount as 'OrderAmount',
CASE WHEN Balance < 0 then 0 else Balance end as RentalBalance

FROM (

SELECT a.OrderDate, a.StartDate, a.ReturnDate, datediff(a.ReturnDate, a.StartDate) as
TotalDays, a.VehicleID, c.Description,

CASE WHEN d.Type = 1 THEN 'Compact'

WHEN d.Type = 2 THEN 'Medium'

WHEN d.Type = 3 THEN 'Large'

WHEN d.Type = 4 THEN 'SUV'

WHEN d.Type = 5 THEN 'Truck' ELSE 'Van' END AS Type,

CASE WHEN d.Category = 0 THEN 'Basic' ELSE 'Luxury' END AS Category, b.CustID,
b.Name,

CASE WHEN a.RentalType = 1 THEN a.TotalAmount - (datediff(a.ReturnDate, a.StartDate) * d.Daily)

```
ELSE a.TotalAmount - (datediff(a.ReturnDate, a.StartDate)/7 * d.Weekly) END as 'Balance'
```

FROM rental a JOIN customer b on a.CustID = b.CustID join vehicle c on a.VehicleID =

c.VehicleID join rate d on c.Type = d.Type and c.Category = d.Category

) demo order by 2

[illegible]

Object Info	Session
View: vrentalinfo	
Columns:	
OrderDate	text
StartDate	text
ReturnDate	text
TotalDays	int
VIN	text
Vehicle	text
Category	varchar(6)
CustomerID	int
CustomerName	text
OrderAmount	int
RentalBalance	decimal(21,4)

QUERIES USED FOR TASK – 2:

1. INSERT INTO customer(CustID, Name,Phone) VALUES(232, "".\$_POST['name']).",".\$_POST['phone']).");

OUTPUT:

Your Customer ID is '232'

Add a Customer

Enter name:

Enter phone:

Add a Vehicle

`$_POST['name']` and `$_POST['phone']` variables hold the value of name and phone respectively.

- ```
2. INSERT INTO vehicle('VehicleID', 'Description', 'Year', 'Type', 'Category')
 ('".$_POST['id']."','".$_POST['desc']."','".$_POST['year']."','".$_POST['type']."','".$_POST['category']."');
```

\$\_POST['id'] denotes the Vehicle ID, \$\_POST['desc'] denotes the description, \$\_POST['year'] denotes the year, \$\_POST['type'] denotes the type of vehicle and \$\_POST['category'] denotes the category of the vehicle.

INPUT:

### Add a Vehicle

Vehicle ID: 5TBJN32112S291095

Description: Acura TSX

Year: 2000

Vehicle Type: 1

Vehicle Category: 1

Submit

OUTPUT:

```
WA1LGAF8ED001506	Audi Q7	2014	4	1
WAU32AFD8FN005740	Audi A8	2015	3	1
WAUTFAFH0E0010613	Audi A5	2014	1	1
WBA3A9G51ENN73366	BMW 3 Series	2014	1	1
WBA3B9C59EP458859	BMW 3 Series	2014	1	1
WBAVL1C57EVR93286	BMW X1	2014	4	1
WDCGG0EB0EG188709	Mercedes-Benz GLK	2014	1	1
YV440MDD6F2617077	Volvo XC60	2015	4	1
YV4940NB5F1191453	Volvo XC70	2015	4	1
5TBJN32112S291095	Acura TSX	2000	1	1
+-----+-----+-----+-----+
62 rows in set (0.00 sec)
```

- INSERT INTO rental(`CustID`, `VehicleID`, `StartDate`, `OrderDate`, `RentalType`, `Qty`, `ReturnDate`, `TotalAmount`, `PaymentDate`, `Returned`)  
VALUES('.\$\_POST['cid'].','.\$vehicle\_id','.\$\_POST['start'].','.\$date','.\$\_POST['plan'].','.\$\_POST['quantity'].','.\$\_POST['return'].','.\$total\_price',NULL,0)

#### Rent A Car

Customer ID:

Select Vehicle Type

Select Vehicle Category

Select Vehicle Plan

Number of Days

Start Date

Return Date

Select Payment Type

#### OUTPUT:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
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	WDCG0EB0EG188709	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
231	1G1JD5S83E4240835	2020-12-16	2020-12-16	1	3	2020-12-18	240	2020-12-18	1
201	JM3KE4DY4F0441471	2020-12-17	2020-12-16	1	2	2020-12-19	230	NULL	0
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
25 rows in set (0.00 sec)

```

- UPDATE rental SET returned=1, PaymentDate='\$date' WHERE CustID='\$value[CustID]' AND TotalAmount=\$price;

#### INPUT:

#### Return a Car

Customer Name:

Vehicle ID:

Return Date

#### OUTPUT:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
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	WDCG0EB0EG188709	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
231	1G1JD5S83E4240835	2020-12-16	2020-12-16	1	3	2020-12-18	240	2020-12-18	1
201	JM3KE4DY4F0441471	2020-12-17	2020-12-16	1	2	2020-12-19	230	2020-12-19	1
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
25 rows in set (0.00 sec)

mysql>

```

5. For empty input:

- SELECT \* FROM customer;

For only ID input:

- SELECT \* from customer WHERE CustID='\$custid' LIMIT 1;
- SELECT \* FROM rental WHERE CustID='\$customer\_id' and PaymentDate IS NULL;

For only name input:

- SELECT \* from customer WHERE Name='\$name%' OR Name LIKE '\$name' OR Name LIKE '%\$name%' OR Name LIKE '%\$name' LIMIT 1;
- SELECT \* FROM rental WHERE CustID='\$cust\_id' and PaymentDate IS NULL;

OUTPUT on inputting one of the fields:

Customer id  Customer name

| Customer Id | Name     | Dues |
|-------------|----------|------|
| 201         | A. Parks | \$ 0 |

OUTPUT after neither value is provided in the search bar:

Customer id  Customer name

| Customer Id | Name         | Dues     |
|-------------|--------------|----------|
| 201         | A. Parks     | \$ 0     |
| 202         | S. Patel     | \$0      |
| 203         | A. Hernandez | \$0      |
| 204         | G. Carver    | \$0      |
| 205         | Sh. Byers    | \$0      |
| 206         | L. Lutz      | \$0      |
| 207         | L. Bernal    | \$0      |
| 208         | I. Whyte     | \$0      |
| 209         | L. Lott      | \$0      |
| 210         | G. Clarkson  | \$ 7200  |
| 211         | Sh. Dunlap   | \$0      |
| 212         | H. Gallegos  | \$0      |
| 213         | L. Perkins   | \$0      |
| 214         | M. Beach     | \$0      |
| 215         | C. Pearce    | \$0      |
| 216         | A. Hess      | \$0      |
| 217         | M. Lee       | \$0      |
| 218         | R. Booker    | \$0      |
| 219         | A. Crowther  | \$0      |
| 220         | H. Mahoney   | \$0      |
| 221         | J. Brown     | \$ 14400 |
| 222         | H. Stokes    | \$0      |
| 223         | J. Reeves    | \$0      |
| 224         | A. McGhee    | \$0      |