

Karthik Sajjan

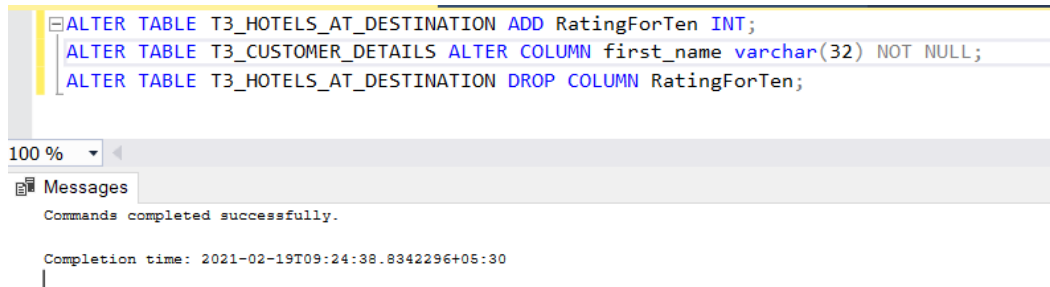
19bcs049

1. Add, Modify and Delete Column using Alter Command

QUERY

```
ALTER TABLE T3_HOTELS_AT_DESTINATION ADD RatingForTen INT;  
ALTER TABLE T3_CUSTOMER_DETAILS ALTER COLUMN first_name varchar(32)  
NOT NULL;  
ALTER TABLE T3_HOTELS_AT_DESTINATION DROP COLUMN RatingForTen;
```

OUTPUT



```
ALTER TABLE T3_HOTELS_AT_DESTINATION ADD RatingForTen INT;  
ALTER TABLE T3_CUSTOMER_DETAILS ALTER COLUMN first_name varchar(32) NOT NULL;  
ALTER TABLE T3_HOTELS_AT_DESTINATION DROP COLUMN RatingForTen;
```

100 %

Messages

Commands completed successfully.

Completion time: 2021-02-19T09:24:38.8342296+05:30

2. Insert data into your specific database tables

QUERY

```
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('01001', 'P. RAJESH', 'Driver', '911234567890', 12500);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('01002', 'A. RAMESH', 'Driver', '911234567891', 12500);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('02003', 'B. SURESH', 'Driver', '911234567892', 12500);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('02004', 'N. NARESH', 'Driver', '911234567893', 12500);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('01005', 'R. PARESH', 'Cleaner', '911234567894', 8000);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('02006', 'T. MALLESH', 'Cleaner', '911234567895', 8000);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('01007', 'O. JAYESH', 'Luggage Manager', '911234567897', 5000);  
INSERT INTO T3_EmployeeDetails (employee_id, name, designation, phone_number,  
salary) VALUES ('02008', 'P. PARAMESH', 'Luggage Manager', '911234567898', 5000);  
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,  
phone) VALUES ('0000000001', 'Kiran', 'Kumar', 31, 'M', '919999999999');  
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,  
phone) VALUES ('0000000002', 'Charan', 'Rao', 28, 'M', '919999999998');  
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,  
phone) VALUES ('0000000003', 'Farhan', 'Abdul', 37, 'M', '919999999997');  
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,  
phone) VALUES ('0000000004', 'Kissan', 'Chary', 21, 'M', '919999999996');
```

```

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000005', 'Laban', 'Seth', 18, 'M', '91999999995');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000006', 'Cheman', 'Kumar', 35, 'M', '91999999994');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000007', 'Eeshwar', 'Prasad', 53, 'M', '91999999993');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000008', 'Raghavendra', 'Swamy', 42, 'M', '91999999992');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000009', 'Shivaji', 'Chatrapati', 61, 'M', '91999999991');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000010', 'Chakram', 'Kumar', 14, 'M', '91999999990');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000011', 'Jai', 'Krishna', 28, 'M', '919999999912');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000012', 'Prabha', 'lingaraju', 41, 'M', '919999999913'); INSERT
INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone)
VALUES ('0000000013', 'Somesh', 'Thakur', 33, 'M', '919999999914');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000014', 'Deepak', 'Chowdary', 19, 'M', '919999999915');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000015', 'Karthik', 'Sajjan', 20, 'M', '9199999999189');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000016', 'Suvarna', 'Ram', 54, 'F', '919999999979');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000017', 'Sunder', 'Ram', 54, 'M', '919999999923');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000018', 'Manaswini', 'Ksheeraja', 16, 'F', '9199999999122');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000019', 'Shreya', 'Kuppa', 8, 'F', '9199999999187');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender,
phone) VALUES ('0000000020', 'Srinidhi', 'Kuppa', 5, 'F', '919999999964');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000001', '0100001', 25000, '2021-02-19T09:37:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000002', '0100002', 25000, '2021-02-19T09:42:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000003', '0100003', 25000, '2021-02-19T09:16:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000004', '0100004', 25000, '2021-02-19T09:07:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000005', '0100005', 25000, '2021-02-19T09:34:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000006', '0100006', 25000, '2021-02-19T09:12:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000007', '0100007', 25000, '2021-02-19T09:18:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000008', '0100008', 25000, '2021-02-19T09:58:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000009', '0100009', 25000, '2021-02-19T09:54:00');

```

```

INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000010', '0100010', 25000, '2021-02-19T11:12:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000011', '0200011', 50000, '2021-02-19T11:13:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000012', '0200012', 50000, '2021-02-19T10:18:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000013', '0200013', 50000, '2021-02-19T10:20:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000014', '0200014', 50000, '2021-02-19T10:25:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000015', '0200015', 50000, '2021-02-19T10:38:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000016', '0200016', 50000, '2021-02-19T10:42:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000017', '0200017', 50000, '2021-02-19T10:16:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000018', '0200018', 50000, '2021-02-19T10:11:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000019', '0200019', 50000, '2021-02-19T10:09:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount,
payment_dateTime) VALUES ('0000000020', '0200020', 50000, '2021-02-19T10:14:00');
INSERT INTO T3_PackageDetails (package_name, package_description, cost,
starting_point, booking_id) SELECT 'Kulu Manali', 'Chill Out!', 25000.00, 'Hyderabad',
booking_id FROM T3_BookingDetails WHERE booking_id LIKE '01_____';
INSERT INTO T3_PackageDetails (package_name, package_description, cost,
starting_point, booking_id) SELECT 'Manasarovar', 'Have a nice glimpse of Nature!',
50000.00, 'Hyderabad', booking_id FROM T3_BookingDetails WHERE booking_id LIKE
'02_____';
INSERT INTO T3_DestinationDetails (city, hotel_name, hotel_description, address,
booking_id) SELECT 'Kulu Manali', 'Raj Palace', 'Good', 'Kulu Manali', booking_id FROM
T3_BookingDetails WHERE booking_id LIKE '01_____';
INSERT INTO T3_DestinationDetails (city, hotel_name, hotel_description, address,
booking_id) SELECT 'Burang', 'Gurugrantha Choultry', 'Good', 'Manasarovar', booking_id
FROM T3_BookingDetails WHERE booking_id LIKE '02_____';
INSERT INTO T3_Bus (bus_id, bus_type, dateAndTime_of_Arrival,
dateAndTime_of_Departure, booking_id) SELECT '8714', 'Sleeper', '2021-03-04T15:15:00',
'2021-03-06T15:15:00', booking_id FROM T3_BookingDetails WHERE booking_id LIKE
'01';
INSERT INTO T3_Bus (bus_id, bus_type, dateAndTime_of_Arrival,
dateAndTime_of_Departure, booking_id) SELECT '6938', 'Sleeper', '2021-03-04T05:30:00',
'2021-03-08T15:15:00', booking_id FROM T3_BookingDetails WHERE booking_id LIKE
'02_____';

```

OPUTPUT

```

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000009', 'Shivaji', 'Chatrapati', 61, 'M', '919999999991');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000010', 'Chakram', 'Kumar', 14, 'M', '919999999990');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000011', 'Jai', 'Krishna', 28, 'M', '919999999912');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000012', 'Prabha', 'lingaraju', 41, 'M', '919999999913');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000013', 'Somes', 'Thakur', 33, 'M', '919999999914');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000014', 'Deepak', 'Chowdary', 19, 'M', '919999999915');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000015', 'Karthik', 'Sajjan', 20, 'M', '9199999999189');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000016', 'Suvarna', 'Ram', 54, 'F', '919999999979');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000017', 'Sunder', 'Ram', 54, 'M', '919999999923');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000018', 'Manaswini', 'Ksheeraja', 16, 'F', '919999999912');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000019', 'Bhaskar', 'Jakka', 54, 'M', '8985898516');

```

100 %

Messages

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

100 %

Query executed successfully.

localhost (15.0 RTM) | LAPTOP-4IT7EC0\krish... | T3_Travel | 00:00:00 | 0 rows

3. Show Violation of Primary Key, Unique Not Null and default key constraints through insertion.

QUERY

```

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000021', 'Ahmed', 'Latif', 21, 'M', '9898989898');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, age, phone) VALUES ('0000000022', 'Veraarjun', 'Karthavirya', 'M', 24, '7993672936');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, phone) VALUES ('0000000023', 'Bhaskar', 'Jakka', 'M', '8985898516');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, phone) VALUES ('0000000024', 'Rathore', 'Vikram', 35, '9595951717');

```

OUTPUT

```

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000021', 'Ahmed', 'Latif', 21, 'M', '9898989898');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, age, phone) VALUES ('0000000022', 'Veraarjun', 'Karthavirya', 'M', 24, '7993672936');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, phone) VALUES ('0000000023', 'Bhaskar', 'Jakka', 'M', '8985898516');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, phone) VALUES ('0000000024', 'Rathore', 'Vikram', 35, '9595951717');

```

0 %

Messages

Msg 2627, Level 14, State 1, Line 1
Violation of PRIMARY KEY constraint 'PK_T3_CustomerDetails'. Cannot insert duplicate key in object 'dbo.T3_CustomerDetails'. The duplicate key value is (0000000021).
The statement has been terminated.

Msg 2627, Level 14, State 1, Line 2
Violation of UNIQUE KEY constraint 'UQ_T3_CustomerDetails_8438145713710604'. Cannot insert duplicate key in object 'dbo.T3_CustomerDetails'. The duplicate key value is (7993672936).
The statement has been terminated.

Msg 818, Level 16, State 2, Line 3
Cannot insert the value NULL into column 'age', table 'T3_Travel.dbo.T3_CustomerDetails'; column does not allow nulls. INSERT fails.
The statement has been terminated.

(1 row affected)

10 %

Query completed with errors.

localhost (15.0 RTM) | LAPTOP-4IT7EC0\krish... | T3_Travel | 00:00:00 | 0 rows

4. Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first.

QUERY

```
INSERT INTO T3_Bus (booking_id, bus_id, bus_type, dateAndTime_of_Arrival,
dateAndTime_of_Departure) VALUES('0200021', '6938', 'Sleeper', '2021-03-
04T05:30:00', '2021-03- 08T15:15:00');
```

OUTPUT

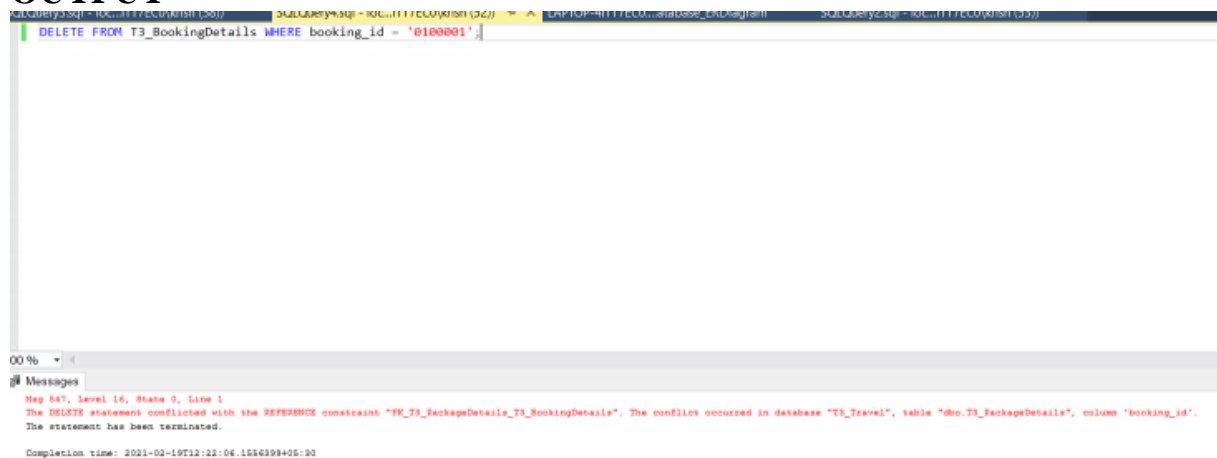


- 5. Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error.**

QUERY

```
DELETE FROM T3_BookingDetails WHERE booking_id = '0100001';
```

OUTPUT



The Query did not execute because whenever we aim to delete a record from the base table, we need to ensure that all the related dependent table records are deleted prior. Otherwise, there will be redundant data all over the database.

- 6. Try to update a non-existing entity data and check for error.**

QUERY

```
UPDATE T3_CustomerDetails SET age = 34 WHERE customer_id = '0000000054';
```

OUTPUT

Here, we tried to update a non-existing entity of an entity set. This doesn't give an error but does no effect on the existing entities.

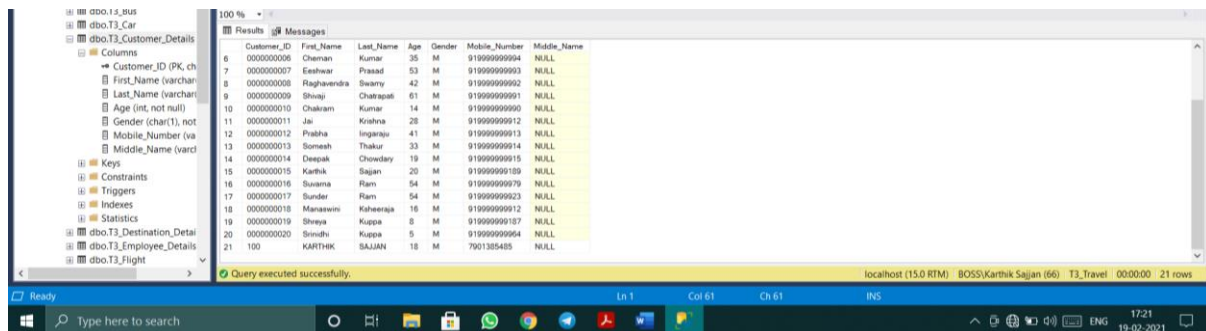


7. Add a column which has default value.

QUERY

```
ALTER TABLE dbo.T3_CUSTOMER_DETAILS
ADD Middle_Name VARCHAR(50) DEFAULT 'NULL';
INSERT INTO dbo.T3_CUSTOMER_DETAILS (Customer_ID, First_Name,
Last_Name, Age, Gender, Phone_No)
VALUES(100, 'KARTHIK', 'SAJJAN', 18, 'M', '7901385485')
```

OUTPUT



8. 5 Simple Select queries to retrieve data from your database.

QUERY

```
SELECT * FROM T3_CustomerDetails;
SELECT * FROM T3_BookingDetails WHERE booking_id LIKE '02_____';
SELECT bus_type FROM T3_Bus WHERE booking_id LIKE '01_____';
SELECT name, phone_number FROM T3_EmployeeDetails WHERE employee_id =
'01001';
SELECT * FROM T3_DestinationDetails WHERE city = 'Kulu Manali'
```

OUTPUT

```

SELECT * FROM T3_CustomerDetails;
SELECT * FROM T3_BookingDetails WHERE booking_id LIKE '02_____';
SELECT bus_type FROM T3_Bus WHERE booking_id LIKE '01_____';
SELECT name, phone_number FROM T3_EmployeeDetails WHERE employee_id = '01001';
SELECT * FROM T3_DestinationDetails WHERE city = 'Kulu Manali';

```

0.00 %

Results Messages

	customer_id	first_name	last_name	age	gender	phone
1	000000001	Kiran	Kumar	31	M	91999999999
2	000000002	Charan	Rao	28	M	91999999999
3	000000003	Fahian	Abdul	37	M	91999999997
4	000000004	Kisan	Chary	21	M	91999999996
5	000000005	Laban	Seth	18	M	91999999995

	customer_id	booking_id	payment_amount	payment_dateTime	refunded	refund_amount	refund_dateTime
1	000000011	0200011	50000.00	2021-02-19 11:13:00.000	NULL	NULL	NULL
2	000000012	0200012	50000.00	2021-02-19 10:18:00.000	NULL	NULL	NULL
3	000000013	0200013	50000.00	2021-02-19 10:20:00.000	NULL	NULL	NULL
4	000000014	0200014	50000.00	2021-02-19 10:25:00.000	NULL	NULL	NULL
5	000000015	0200015	50000.00	2021-02-19 10:38:00.000	NULL	NULL	NULL

	bus_type
1	Sleeper
2	Sleeper
3	Sleeper
4	Sleeper
5	Sleeper

	name	phone_number
1	P. RAJESH	911234567890

	booking_id	city	hotel_name	hotel_description	address
1	0100001	Kulu Manali	Raj Palace	Good	Kulu Manali
2	0100002	Kulu Manali	Raj Palace	Good	Kulu Manali
3	0100003	Kulu Manali	Raj Palace	Good	Kulu Manali
4	0100004	Kulu Manali	Raj Palace	Good	Kulu Manali
5	0100005	Kulu Manali	Raj Palace	Good	Kulu Manali
6	0100006	Kulu Manali	Raj Palace	Good	Kulu Manali
7	0100007	Kulu Manali	Raj Palace	Good	Kulu Manali
8	0100008	Kulu Manali	Raj Palace	Good	Kulu Manali
9	0100009	Kulu Manali	Raj Palace	Good	Kulu Manali
10	0100010	Kulu Manali	Raj Palace	Good	Kulu Manali

Query executed successfully. localhost (15.0 RTM) LAPTOP-4IT7E

9. Show how Foreign key constraint effects Updating a dependent table when value is not existing and in Base table where the value is referred and you want to update it.

QUERY

UPDATE T3_Bus SET bus_type = '2 Seater' WHERE bus_id = '6938';

OUTPUT

```

UPDATE T3_Bus SET bus_type = '2 Seater' WHERE bus_id = '6938';

```

0.00 %

Messages

(10 rows affected)

Completion time: 2021-02-19T13:09:25.1083272+05:30