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Registration No.: 19BCS063

Database Management Systems Lab Assignment 3

Question 1: Add, Modify and Delete column using Alter command.

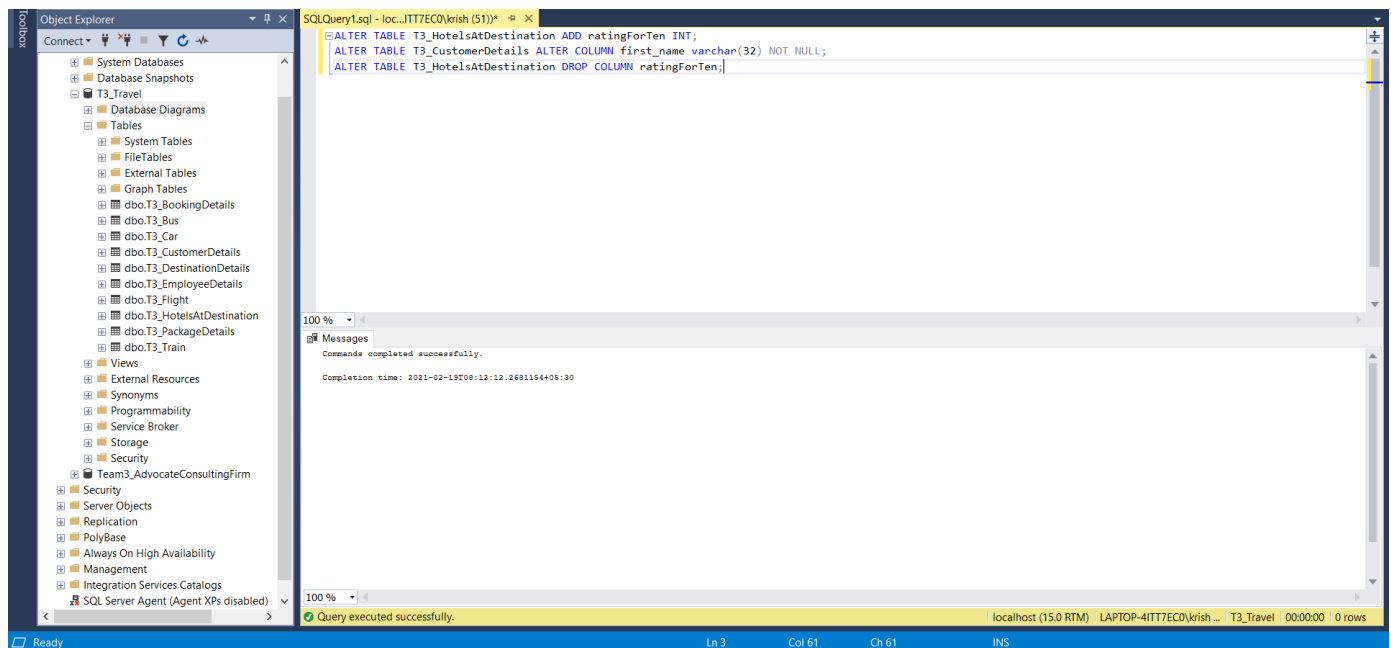
Query:

```
ALTER TABLE T3_HotelsAtDestination ADD ratingForTen INT;
```

```
ALTER TABLE T3_CustomerDetails ALTER COLUMN first_name varchar(32) NOT NULL;
```

```
ALTER TABLE T3_HotelsAtDestination DROP COLUMN ratingForTen;
```

Database Output:



Question 2: Insert 20 Customer Booking records in the Travel Database.

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', '919999999995');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000006', 'Cheman', 'Kumar', 35, 'M', '919999999994');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000007', 'Eeshwar', 'Prasad', 53, 'M', '919999999993');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000008', 'Raghavendra', 'Swamy', 42, 'M', '919999999992');
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', '9199999999912');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000012', 'Prabha', 'lingaraju', 41, 'M', '9199999999913');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000013', 'Somesh', 'Thakur', 33, 'M', '9199999999914');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000014', 'Deepak', 'Chowdary', 19, 'M', '9199999999915');
```

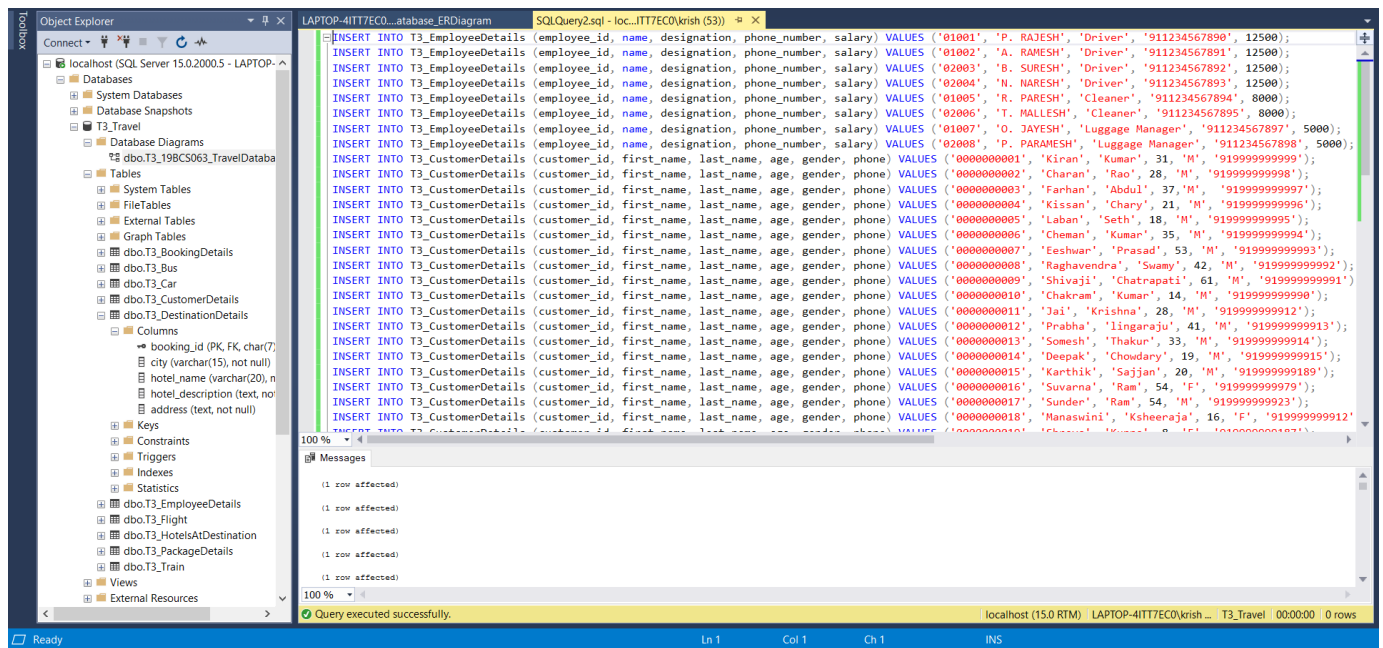
```
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES
('0000000015', 'Karthik', 'Sajjan', 20, 'M', '919999999189');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES
('0000000016', 'Suvarna', 'Ram', 54, 'F', '919999999979');
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', '919999999122');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES
('0000000019', 'Shreya', 'Kuppa', 8, 'F', '919999999187');
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 ('00000000013', '0200013', 50000, '2021-02-19T10:20:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000014', '0200014', 50000, '2021-02-19T10:25:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000015', '0200015', 50000, '2021-02-19T10:38:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000016', '0200016', 50000, '2021-02-19T10:42:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000017', '0200017', 50000, '2021-02-19T10:16:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000018', '0200018', 50000, '2021-02-19T10:11:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000019', '0200019', 50000, '2021-02-19T10:09:00');
INSERT INTO T3_BookingDetails (customer_id, booking_id, payment_amount, payment_dateTime)
VALUES ('00000000020', '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_____';

```

Database Output:



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

Query:

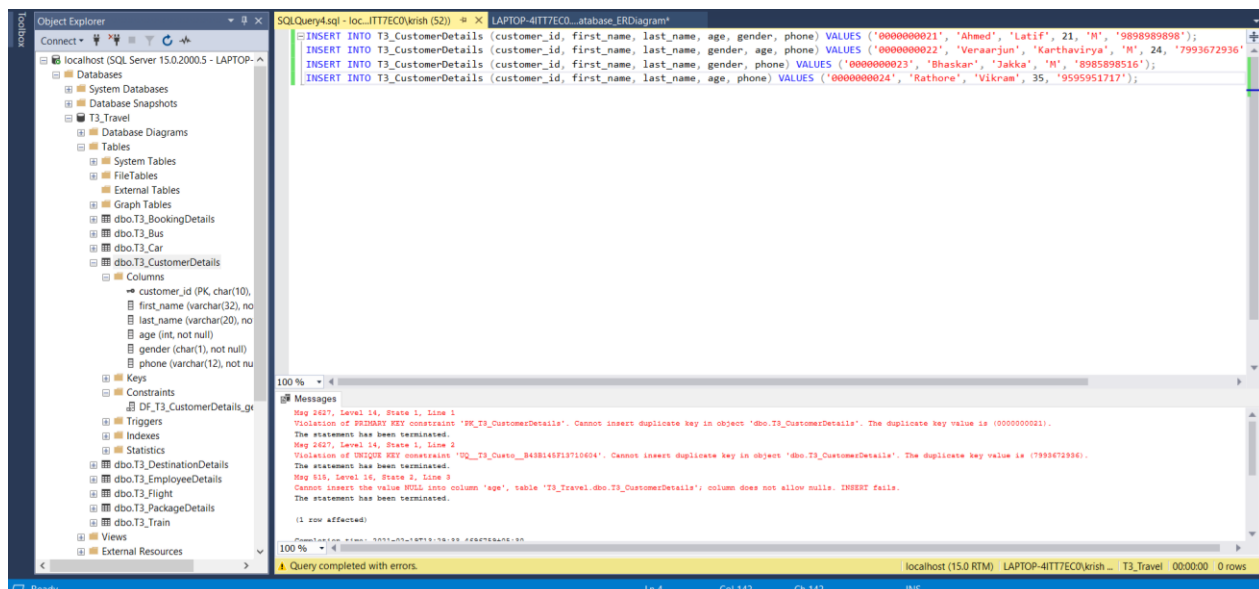
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('00000000021', 'Ahmed', 'Latif', 21, 'M', '9898989898');

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, age, phone) VALUES ('00000000022', 'Veraarjun', 'Karthavirya', 'M', 24, '7993672936');

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, gender, phone) VALUES ('00000000023', 'Bhaskar', 'Jakka', 'M', '8985898516');

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, phone) VALUES ('00000000024', 'Rathore', 'Vikram', 35, '9595951717');

Database Output:

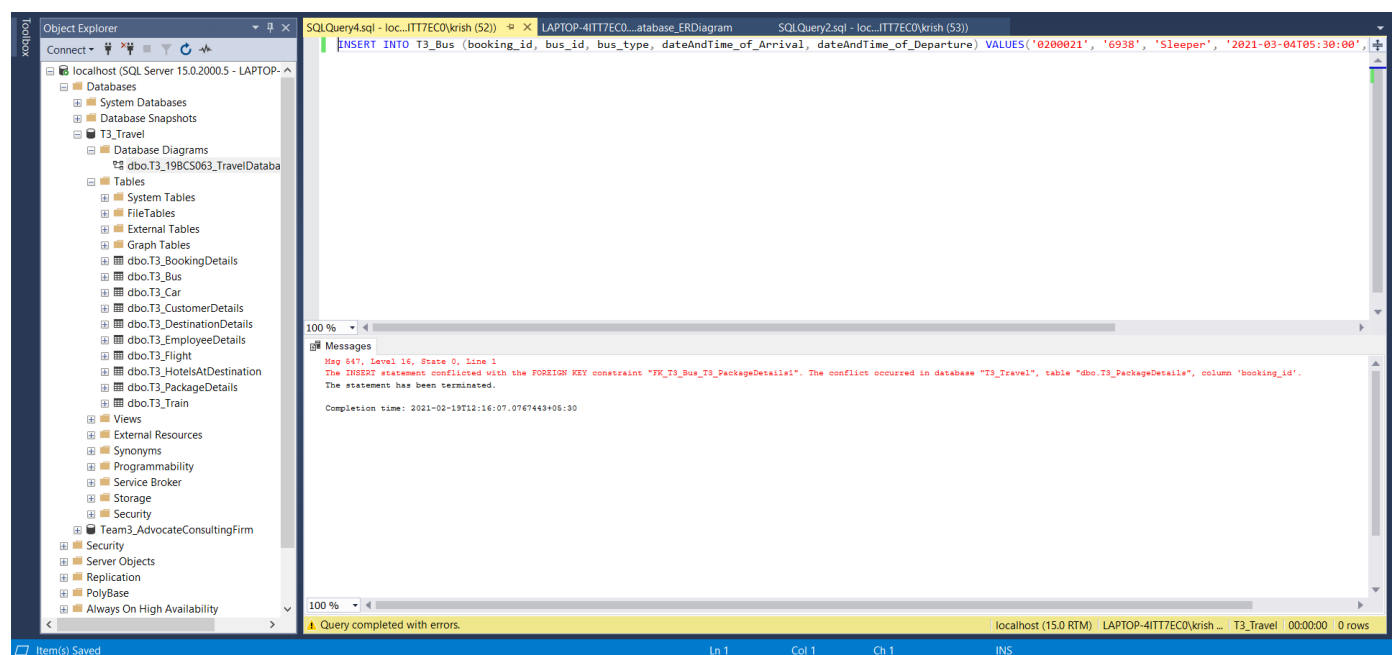


Question 4: Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first.

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');
```

Database Output:

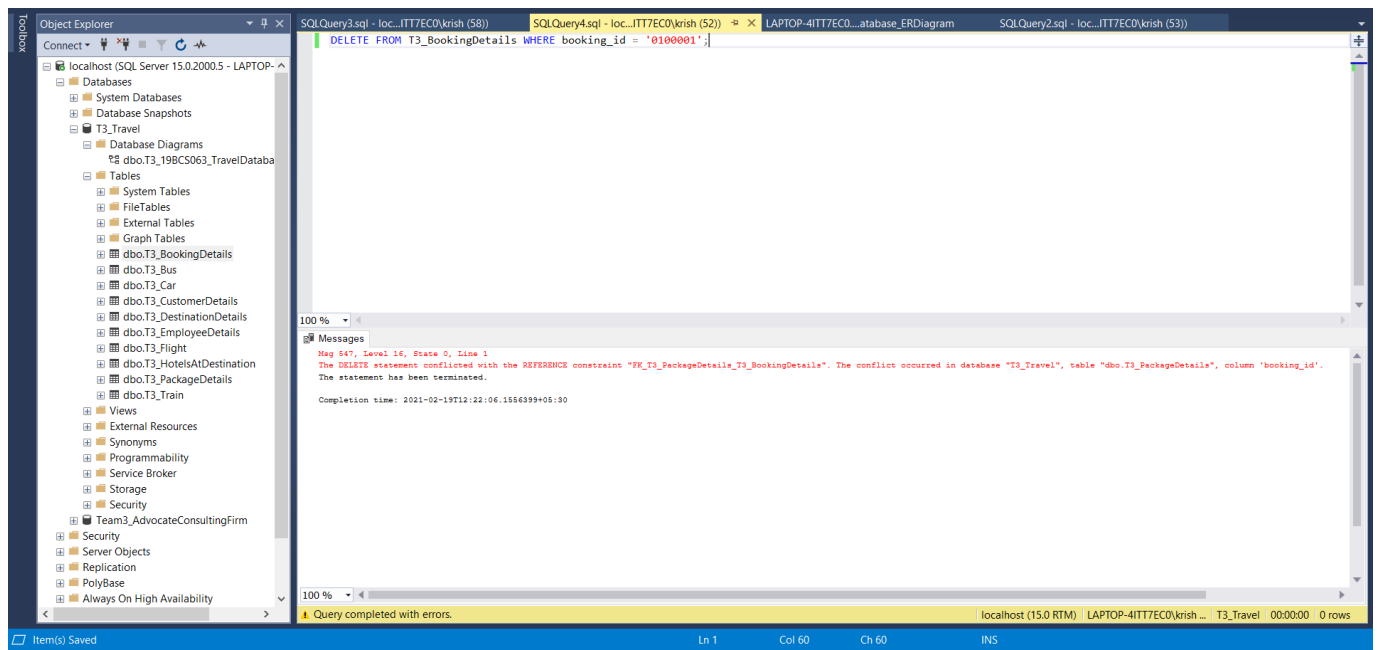


Question 5: Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error

Query:

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

Database Output:

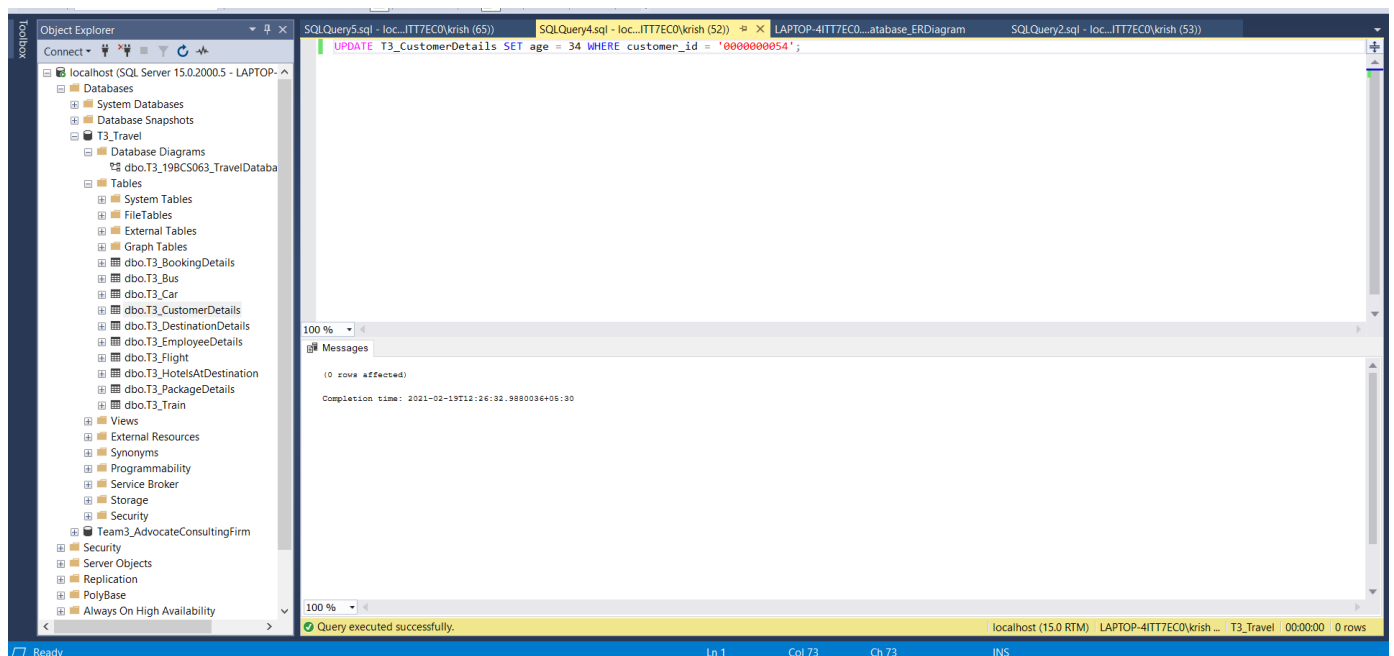


The Query did not execute because whenever we aim to delete a record from the base table, we need to ensure that all the related dependent table records are deleted prior. Otherwise, there will be redundant data all over the database.

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

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

Database Output:

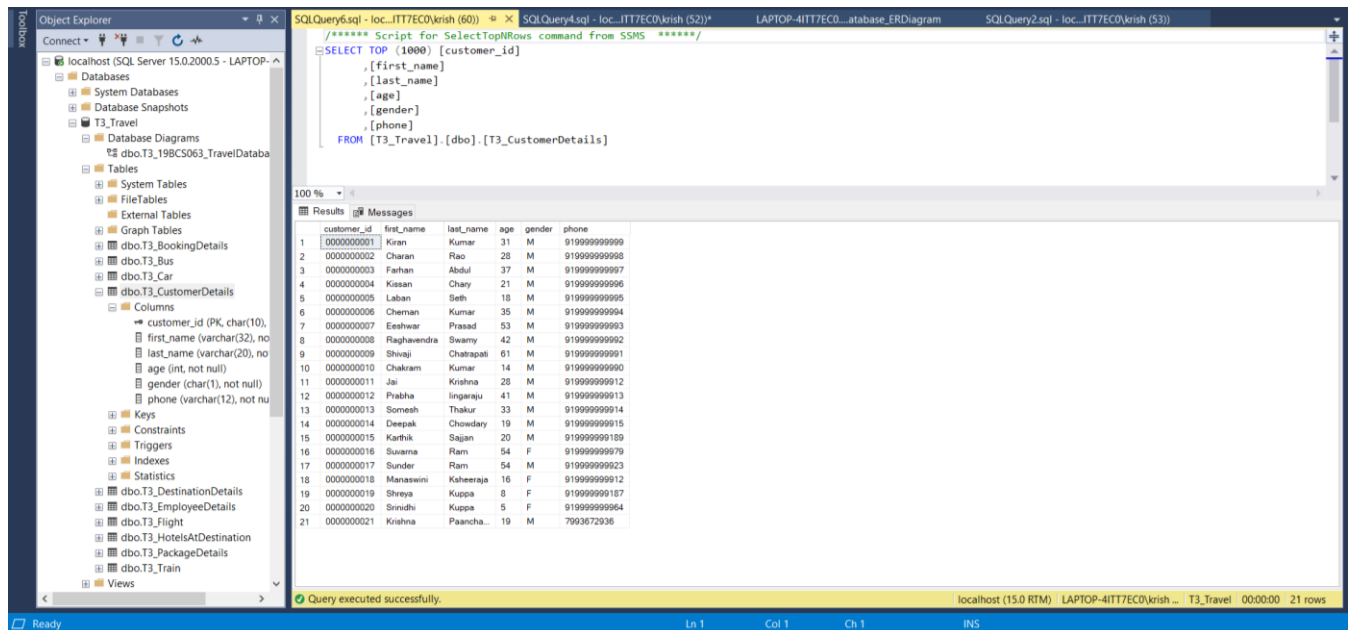


Here, we tried to update a non-existing entity of an entity set. This doesn't give an error but does no effect on the existing entities.

Question 7: Add a column which has default value.

INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, phone) VALUES ('0000000021', 'Krishna', 'Paanchajanya', 19, '7993672936');

Database Output:



The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the database structure, including the T3_CustomerDetails table. The right pane shows a query window with the following SQL code:

```
SELECT TOP (1000) [customer_id]
,[first_name]
,[last_name]
,[age]
,[gender]
,[phone]
FROM [T3_Travel].[dbo].[T3_CustomerDetails]
```

The query results are displayed in a table with 21 rows and 6 columns:

customer_id	first_name	last_name	age	gender	phone
0000000001	Kiran	Kumar	31	M	919999999999
0000000002	Charan	Rao	28	M	919999999998
0000000003	Farhan	Abdul	37	M	919999999997
0000000004	Kissan	Chary	21	M	919999999996
0000000005	Laban	Seth	18	M	919999999995
0000000006	Chernan	Kumar	35	M	919999999994
0000000007	Eeshwar	Prasad	53	M	919999999993
0000000008	Raghavendra	Swamy	42	M	919999999992
0000000009	Shivaji	Chhatrapati	61	M	919999999991
0000000010	Chakram	Kumar	14	M	919999999990
0000000011	Jai	Krishna	28	M	919999999989
0000000012	Prabha	lingaraju	41	M	919999999988
0000000013	Somesh	Thakur	33	M	919999999987
0000000014	Deepak	Chowdary	19	M	919999999986
0000000015	Karthik	Sajan	20	M	919999999985
0000000016	Suvarna	Ram	54	F	919999999984
0000000017	Sunder	Ram	54	M	919999999983
0000000018	Manaswini	Kohleraja	16	F	919999999982
0000000019	Silvesh	Kuppa	8	F	919999999981
0000000020	Srinidhi	Kuppa	5	F	919999999980
0000000021	Krishna	Paancha...	19	M	7993672936

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

SELECT * FROM T3_CustomerDetails;

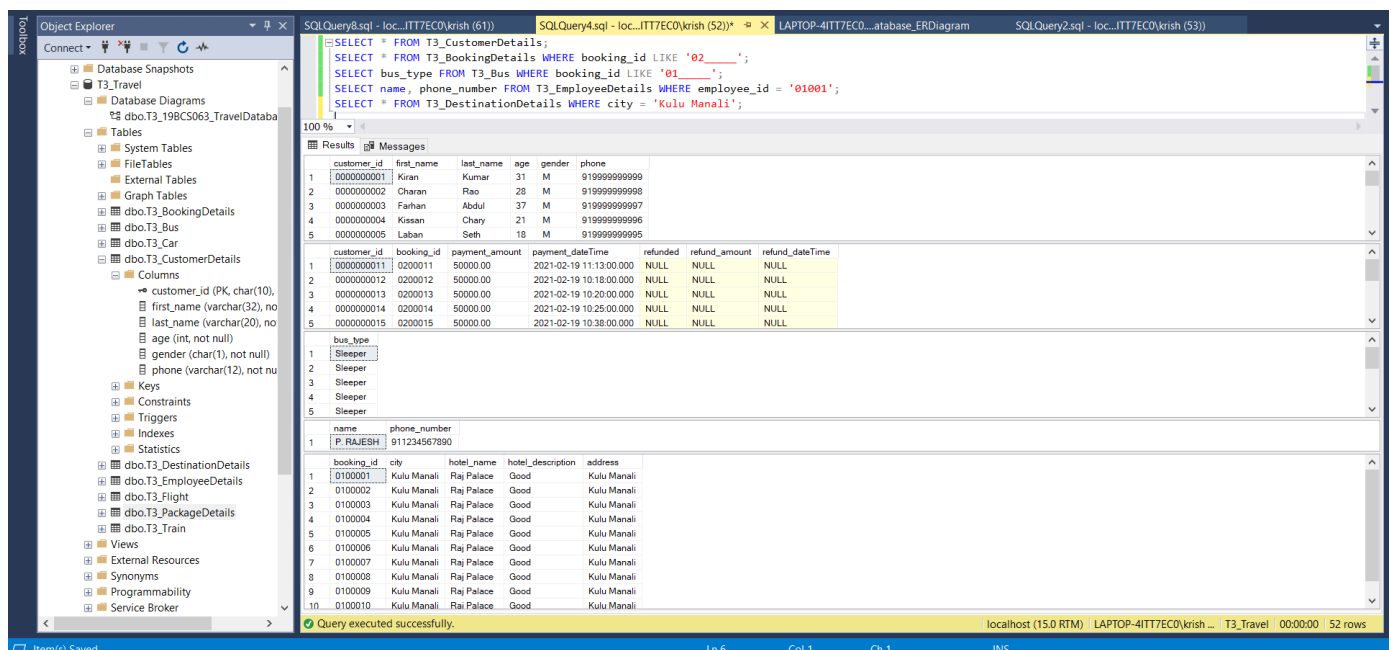
SELECT * FROM T3_BookingDetails WHERE booking_id LIKE '02_____';

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';

Database Output:



The screenshot shows the SQL Server Enterprise Manager interface with multiple query windows. The left pane displays the database structure, including the T3_CustomerDetails table. The right pane shows the results of five queries:

```
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';
```

The query results are displayed in a table with 52 rows and 10 columns:

customer_id	first_name	last_name	age	gender	phone
0000000001	Kiran	Kumar	31	M	919999999999
0000000002	Charan	Rao	28	M	919999999998
0000000003	Farhan	Abdul	37	M	919999999997
0000000004	Kissan	Chary	21	M	919999999996
0000000005	Laban	Seth	18	M	919999999995

customer_id	booking_id	payment_amount	payment_dateTime	refunded	refund_amount	refund_dateTime
0000000011	0200011	50000.00	2021-02-19 11:13:00.000	NULL	NULL	NULL
0000000012	0200012	50000.00	2021-02-19 10:18:00.000	NULL	NULL	NULL
0000000013	0200013	50000.00	2021-02-19 10:20:00.000	NULL	NULL	NULL
0000000014	0200014	50000.00	2021-02-19 10:25:00.000	NULL	NULL	NULL
0000000015	0200015	50000.00	2021-02-19 10:38:00.000	NULL	NULL	NULL

bus_type
Sleeper
Sleeper
Sleeper
Sleeper
Sleeper

name	phone_number
P. RAJESH	911234567890

booking_id	city	hotel_name	hotel_description	address
0100001	Kulu Manali	Raj Palace	Good	Kulu Manali
0100002	Kulu Manali	Raj Palace	Good	Kulu Manali
0100003	Kulu Manali	Raj Palace	Good	Kulu Manali
0100004	Kulu Manali	Raj Palace	Good	Kulu Manali
0100005	Kulu Manali	Raj Palace	Good	Kulu Manali
0100006	Kulu Manali	Raj Palace	Good	Kulu Manali
0100007	Kulu Manali	Raj Palace	Good	Kulu Manali
0100008	Kulu Manali	Raj Palace	Good	Kulu Manali
0100009	Kulu Manali	Raj Palace	Good	Kulu Manali
0100010	Kulu Manali	Raj Palace	Good	Kulu Manali

Question 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';
```

Database Output:

