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Registration No.: 19BCS063

Database Management Systems Lab Assignment 3

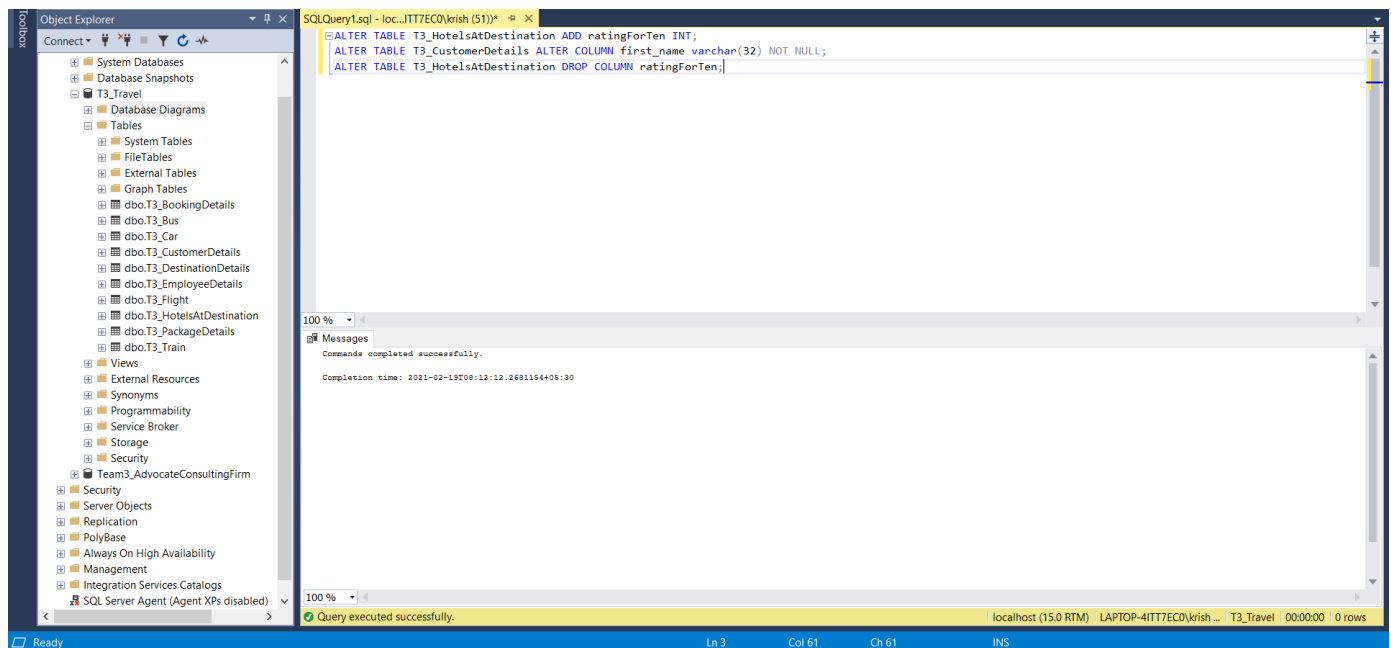**Question 1: Add, Modify and Delete column using Alter command.**

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);

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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', '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');
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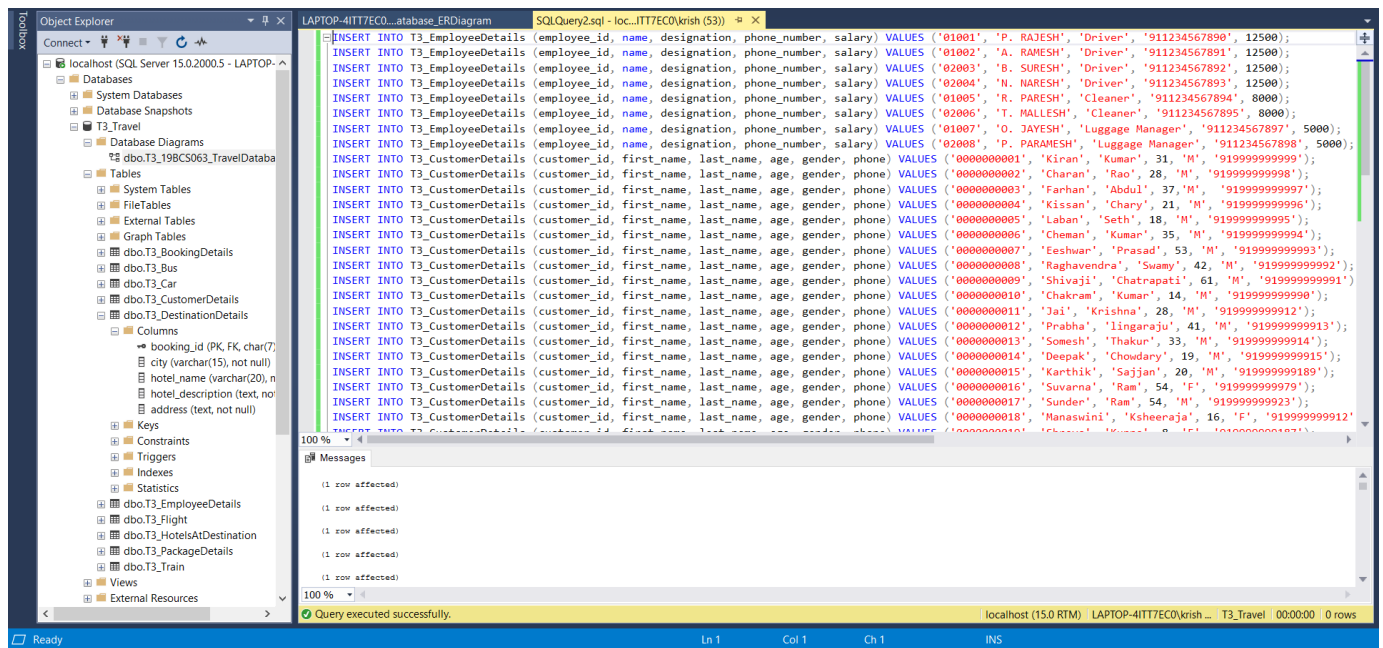
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INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('0000000015', 'Karthik', 'Sajjan', 20, 'M', '919999999189');
INSERT INTO T3_CustomerDetails (customer_id, first_name, last_name, age, gender, phone) VALUES ('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');
```

```sql
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_____';
```

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 ('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');

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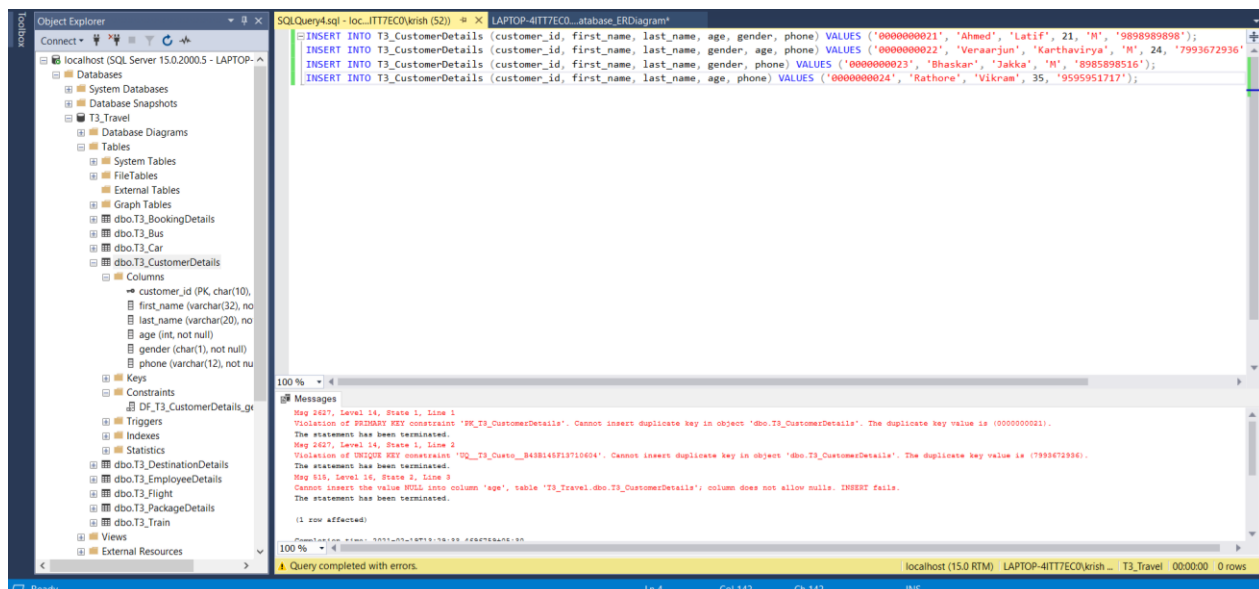
Question 4: Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first.

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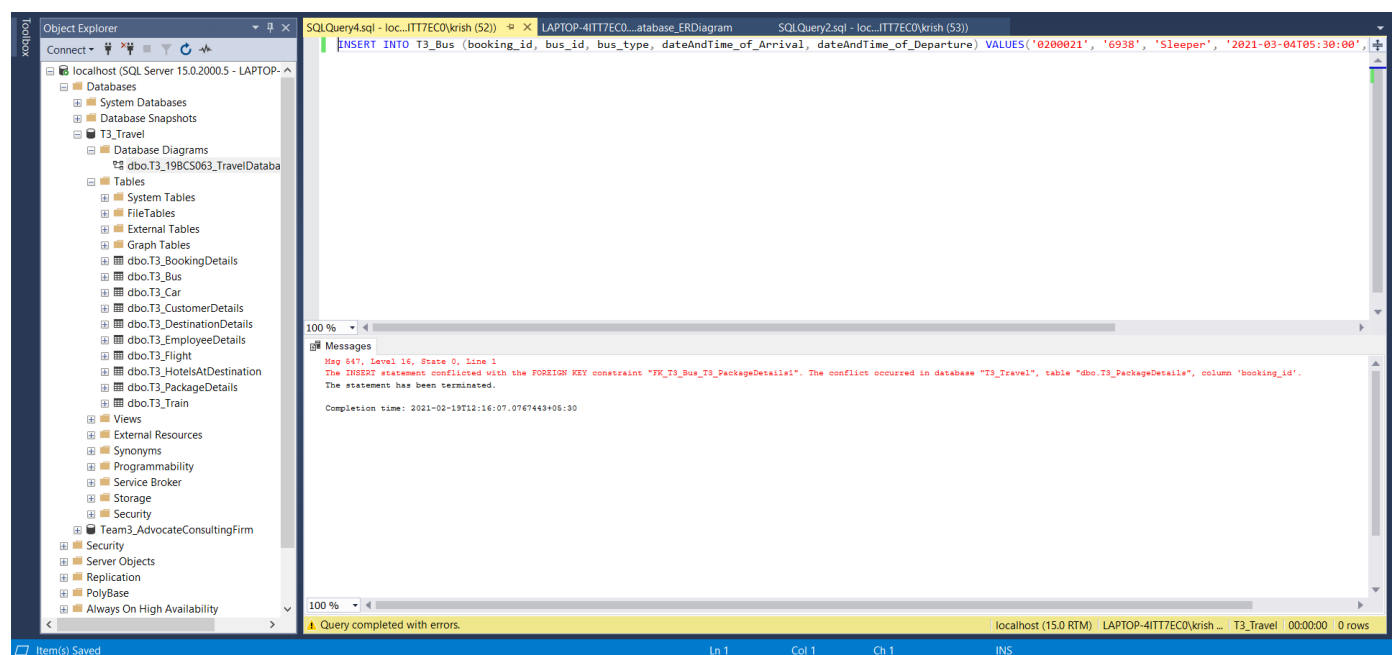
Question 5: Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error

Query:

DELETE FROM T3_BookingDetails WHERE booking_id = '0100001';

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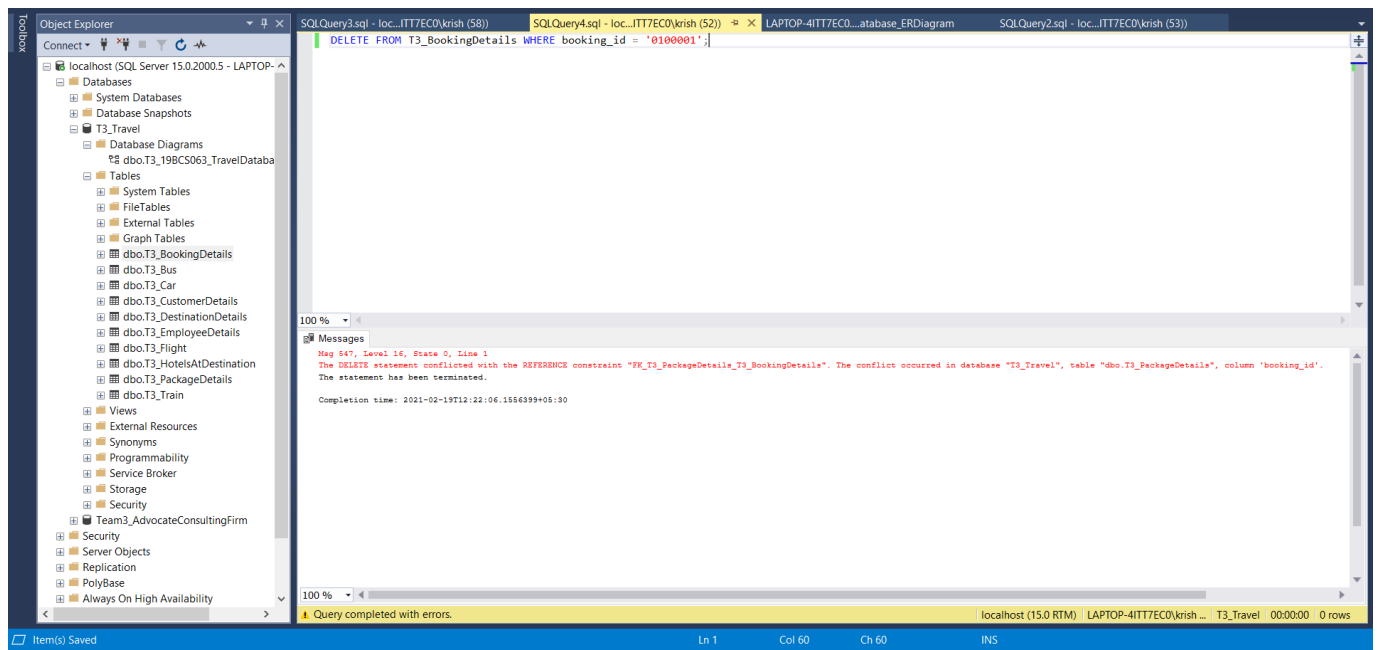
The Query did not execute because whenever we aim to delete a record from the base table, we need to ensure that all the related dependent table records are deleted prior. Otherwise, there will be redundant data all over the database.

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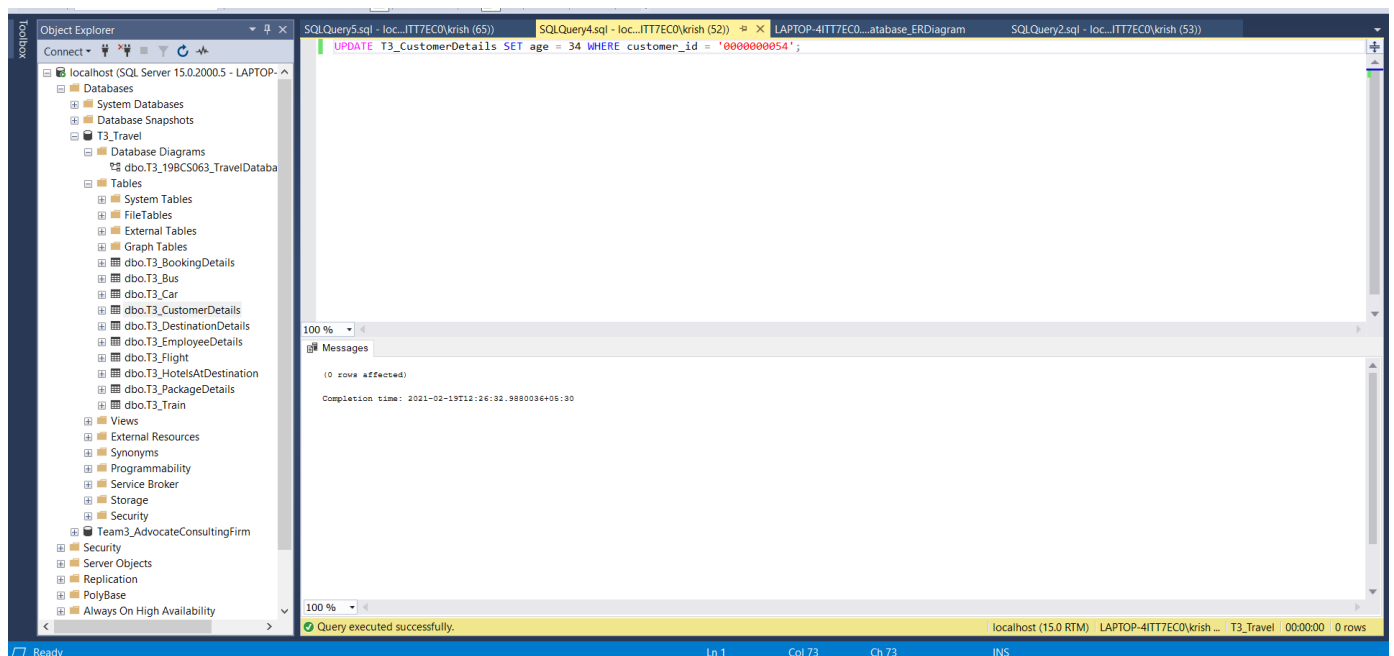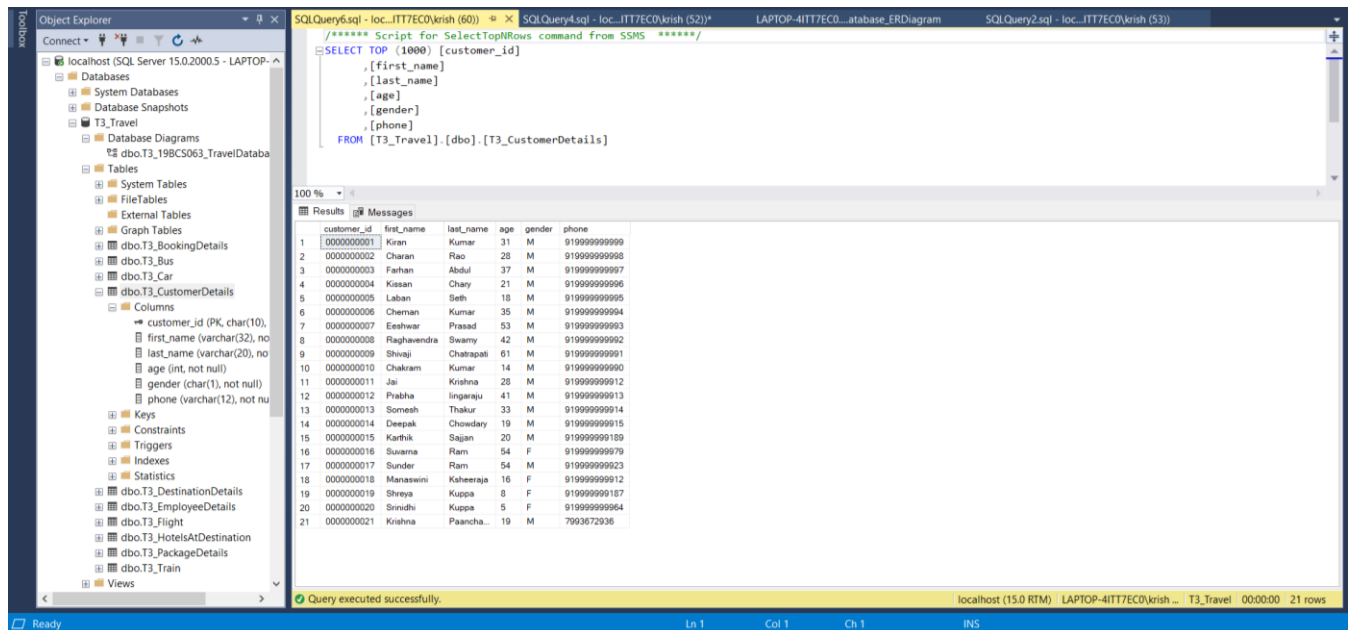
Here, we tried to update a non-existing entity of an entity set. This doesn't give an error but does no effect on the existing entities.

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:

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

SELECT * FROM T3_CustomerDetails;
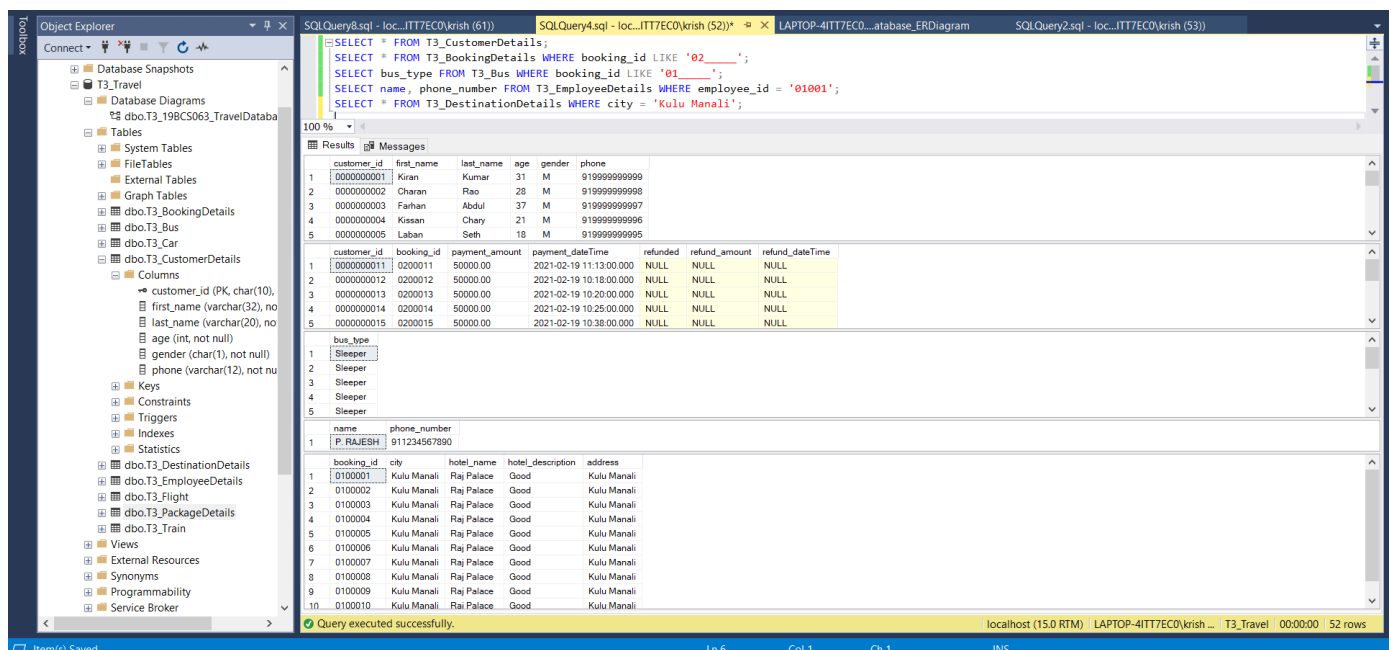
SELECT * FROM T3_BookingDetails WHERE booking_id LIKE '02_____';

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:

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: