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SUBJECT : DBMS

DBMS LAB ASSIGNMENT-3

GROUP -2

Q1) Add, Modify and Delete Column using Alter

Command QUERY:

USE HOTEL;

ALTER TABLE T2_CUSTOMER_ADDRESS

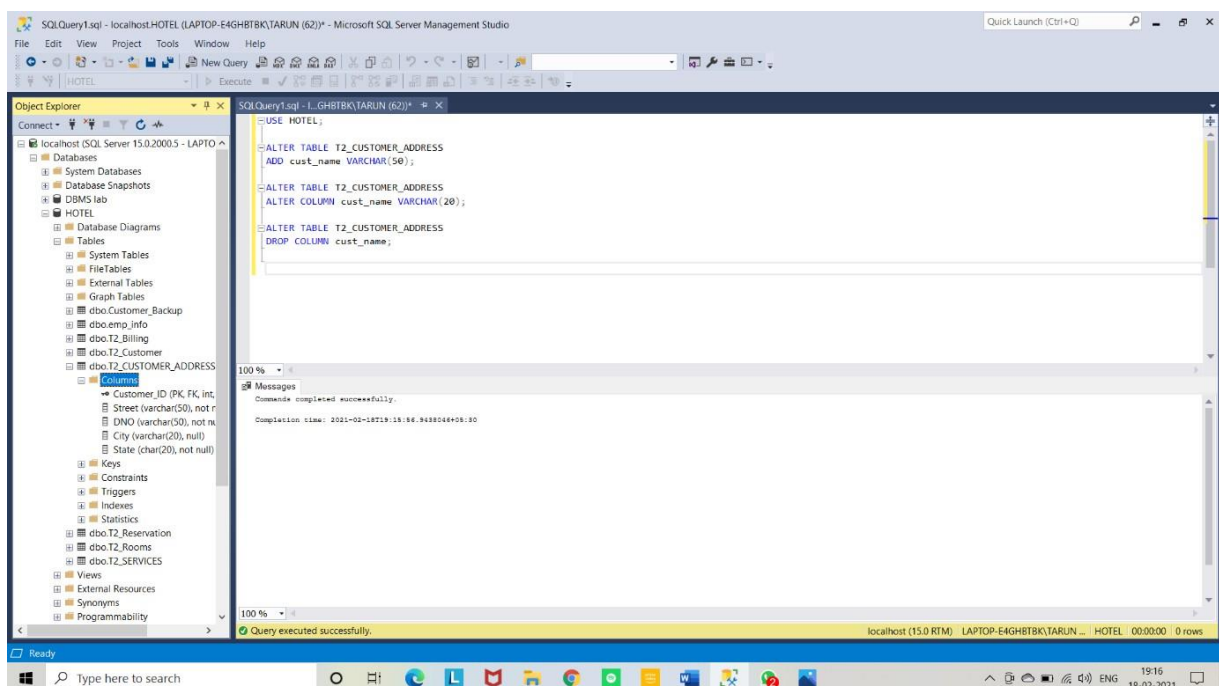
ADD cust_name VARCHAR(50);

ALTER TABLE T2_CUSTOMER_ADDRESS ALTER
COLUMN cust_name VARCHAR(20);

ALTER TABLE T2_CUSTOMER_ADDRESS

DROP COLUMN cust_name;

OUTPUT:



Q2) Insert 20 Employees Data into all the tables.

QUERY:

```
USE HOTEL;
INSERT INTO T2_Customer
VALUES('1','Lofflin','8688543748','Nagpur','MP','534201','loff@gmail.com');

INSERT INTO T2_Customer
VALUES('2','Ram','8688543744','hyderabad','TN','534204','Ram@gmail.com');

INSERT INTO T2_Customer
VALUES('3','Mahesh','8688543746','Lucknow','UP','534205','mah@gmail.com');

INSERT INTO T2_Customer
VALUES('4','Prabha','8688543766','Bengaluru','Karnataka','534201','prab@gmail.com');

INSERT INTO T2_CUSTOMER_ADDRESS(Customer_ID,Street,DNO,City,State) VALUES('1','RP
NAGAR','7-11','Nagpur','Madhya pradesh');

INSERT INTO T2_CUSTOMER_ADDRESS(Customer_ID,Street,DNO,City,State) VALUES('2','Sriram
nagar','9-12','hyderabad','Telengana');

INSERT INTO T2_CUSTOMER_ADDRESS(Customer_ID,Street,DNO,City,State) VALUES('3','JS
Nagar','7-13','Lucknow','Utter pradesh');

INSERT INTO T2_CUSTOMER_ADDRESS(Customer_ID,Street,DNO,City,State) VALUES('4','Indira
NAGAR','7-8-12','Bengaluru','Karnataka');

INSERT INTO Customer_Backup SELECT * FROM T2_Customer;

INSERT INTO emp_info
VALUES('1','Max','1999/03/21');
INSERT INTO emp_info VALUES('2','Jax','1959/04/5');
INSERT INTO emp_info VALUES('3','Nax','1992/07/7');

INSERT INTO T2_Billing
VALUES('1','2000','1234567891','2021/09/5','1');

INSERT INTO T2_Billing
VALUES('2','5000','9876543211','2021/05/5','2');

INSERT INTO T2_Billing
VALUES('3','6000','1234987655','2021/09/30','3');

INSERT INTO T2_Billing
VALUES('4','3000','5546666666','2021/12/11','4');

INSERT INTO T2_Rooms
VALUES('1','DeLuxe','block-2','2','2');

INSERT INTO T2_Rooms
VALUES('2','Economic','block-1','3','1');

INSERT INTO T2_Rooms
VALUES('3','DeLuxe','block-2','1','4');
```

```
INSERT INTO T2_Reservation
```

```
VALUES('1','1999/02/3','1999/02/22','5','1999/02/1','2','1');
```

```
INSERT INTO T2_Reservation
```

```
VALUES('2','1999/02/3','1999/02/22','4','1999/02/3','1','2');
```

```
INSERT INTO T2_Reservation
```

```
VALUES('3','1999/04/3','1999/04/4','2','1999/04/1','4','3');
```

```
INSERT INTO T2_SERVICES VALUES('1','Food','3000','1');
```

```
INSERT INTO T2_SERVICES
```

```
VALUES('2','Transport','8000','3');
```

```
INSERT INTO T2_SERVICES VALUES('3','Room','4000','2');
```

OUTPUT:

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'HOTEL' database structure, including tables like T2_Customer, T2_Customer_Address, T2_Customer_Backup, T2_Customer_Rooms, T2_Customer_Services, T2_Customer_Reservation, T2_Customer_Rooms, T2_Customer_Services, and T2_Customer_Reservation. The right pane shows a SQL query window with the following code:

```
USE HOTEL;

INSERT INTO T2_Customer
VALUES('1','Lofflin','8688543748','Nagpur','MP','534201','loff@gmail.com');

INSERT INTO T2_Customer
VALUES('2','Ram','8688543744','Hyderabad','TN','534204','Ram@gmail.com');

INSERT INTO T2_Customer
VALUES('3','Mahesh','8688543746','Lucknow','UP','534205','mah@gmail.com');

INSERT INTO T2_Customer
VALUES('4','Prabha','8688543766','Bengaluru','Karnataka','534201','prab@gmail.com');

INSERT INTO T2_Customer_Address(Customer_ID,Street,DNO,City,State)
VALUES('1','RP NAGAR','7-11','Nagpur','Madhya pradesh');

INSERT INTO T2_Customer_Address(Customer_ID,Street,DNO,City,State)
VALUES('2','Srinam nagar','9-12','Hyderabad','Telengana');

INSERT INTO T2_Customer_Address(Customer_ID,Street,DNO,City,State)
VALUES('3','JS Nagar','7-13','Lucknow','Uttar pradesh');

INSERT INTO T2_Customer_Address(Customer_ID,Street,DNO,City,State)
VALUES('4','Indira NAGAR','7-8-12','Bengaluru','Karnataka');

INSERT INTO Customer_Backup SELECT * FROM T2_Customer;

INSERT INTO emp_info
VALUES('1','Rax','1999/03/21');

INSERT INTO emp_info
VALUES('2','Jax','1999/04/5');

INSERT INTO emp_info
VALUES('3','Nax','1999/07/7');

INSERT INTO T2_Billing
```

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'HOTEL' database structure. The right pane shows a SQL query window with the following code:

```
USE HOTEL;

SELECT * FROM T2_Reservation;
SELECT * FROM T2_Customer;
SELECT * FROM T2_Customer_Address;
SELECT * FROM T2_SERVICES;
SELECT * FROM T2_Billing;
SELECT * FROM T2_Rooms;
SELECT * FROM Customer_Backup;
SELECT * FROM emp_info;
```

The results of the queries are displayed in the 'Results' pane. The first query returns reservation data, the second returns customer data, the third returns customer address data, the fourth returns service data, the fifth returns billing data, and the sixth returns room data.

Reservation_number	Check_in_date	Check_out_date	Number_of_guests	Reservation_date	Customer_ID	Room_number
1	1999-02-03	1999-02-22	5	1999-02-01	2	1
2	1999-02-03	1999-02-22	4	1999-02-03	1	2
3	1999-04-03	1999-04-04	2	1999-04-01	4	3

Customer_ID	Customer_Name	Phone_number	City	State	Zipcode	Email_ID
1	Lofflin	8688543748	Nagpur	MP	534201	loff@gmail.com
2	Ram	8688543744	Hyderabad	TN	534204	Ram@gmail.com
3	Mahesh	8688543746	Lucknow	UP	534205	mah@gmail.com
4	Prabha	8688543766	Bengaluru	Karnataka	534201	prab@gmail.com
5		8688543728	Agre	UP	586214	msh@gmail.com

Customer_ID	Street	DNO	City	State
1	RP NAGAR	7-11	Nagpur	Madhya pradesh
2	Srinam nagar	9-12	Hyderabad	Telengana
3	JS Nagar	7-13	Lucknow	Uttar pradesh
4	Indira NAGAR	7-8	Bengaluru	Karnataka

Service_ID	Service_name	Service_cost	Reservation_number
1	Food	3000	1
2	Transport	8000	3
3	Room	4000	2

Billing_ID	Room_number	Room_charge	Credit_card	Payment_date	Customer_ID
1	1	2000	123456789	2021-09-05	1
2	2	5000	987654321	2021-05-05	2
3	3	6000	123456789	2021-09-30	3
4	4	3000	554666666	2021-12-11	4

Room_number	Room_Type	Room_Location	number_of_beds	Customer_ID
1	Room	Room	2	1
2	Room	Room	2	2
3	Room	Room	2	3
4	Room	Room	2	4

Q3) Show Violation of Primary Key, Unique Not Null and default key constraints through insertion.

QUERY:

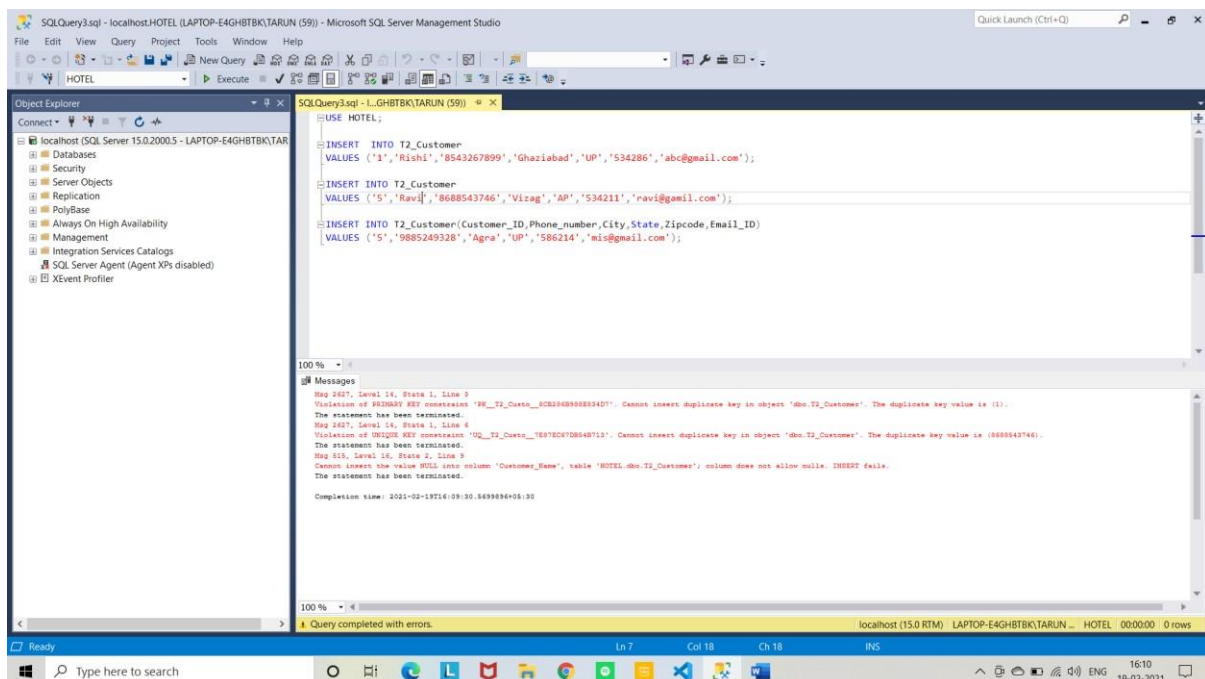
USE HOTEL;

```
INSERT INTO T2_Customer
VALUES
('1','Rishi','8543267899','Ghaziabad','UP','534286','abc@gmail.com');
```

```
INSERT INTO T2_Customer
VALUES
('5','Ravi','8688543746','Vizag','AP','534211','ravi@gamil.com');
```

```
INSERT INTO
T2_Customer(Customer_ID,Phone_number,City,State,Zipcode,Email_ID)
VALUES ('5','9885249328','Agra','UP','586214','mis@gmail.com');
```

OUTPUT:

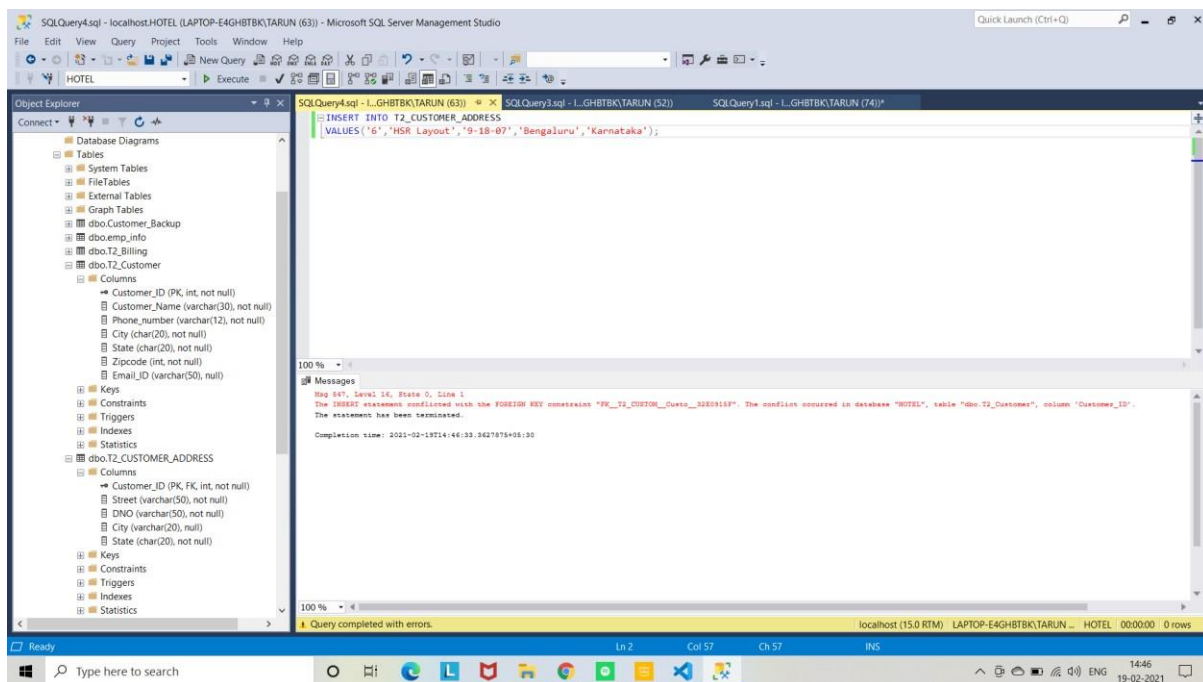


Q4) Insert tuples into the table and see how foreign key constraint works if you try to insert into dependent table first.

QUERY:

```
INSERT INTO T2_CUSTOMER_ADDRESS
VALUES('6','HSR Layout','9-18-07','Bengaluru','Karnataka');
```

OUTPUT:

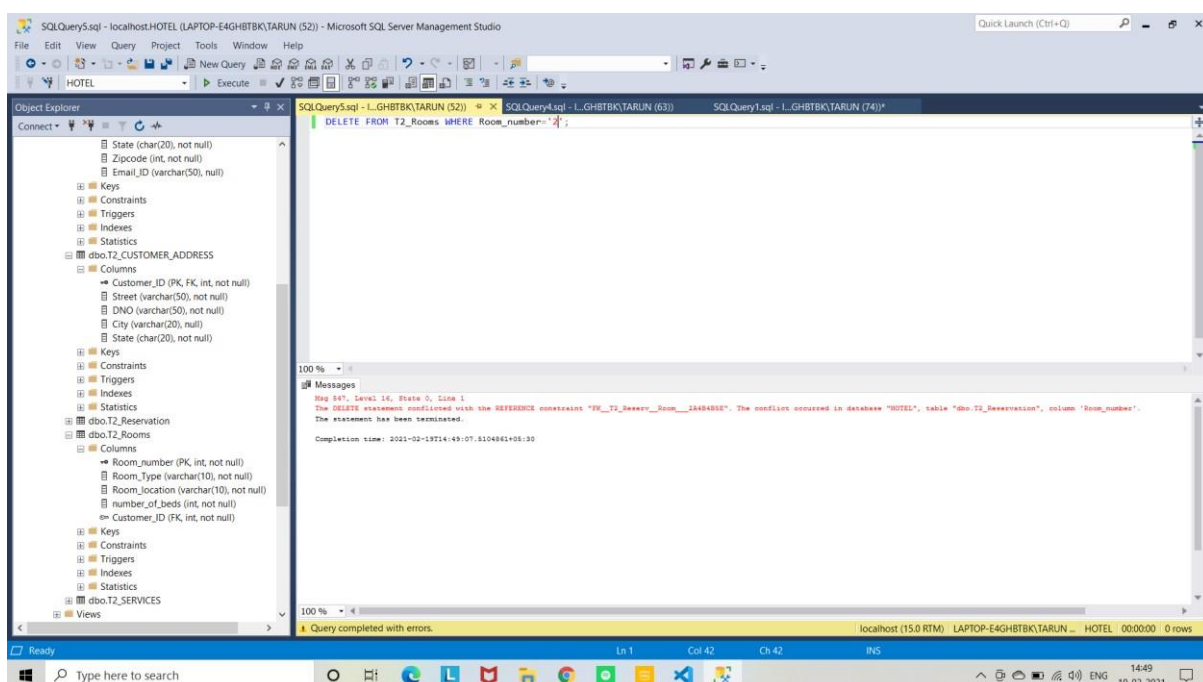


Q5) Show Violation of Foreign Key Constraint when you try to delete from a base table. If you get an error explain why deletion gives an error

QUERY:

DELETE FROM T2_Rooms WHERE Room_number='2';

OUTPUT:



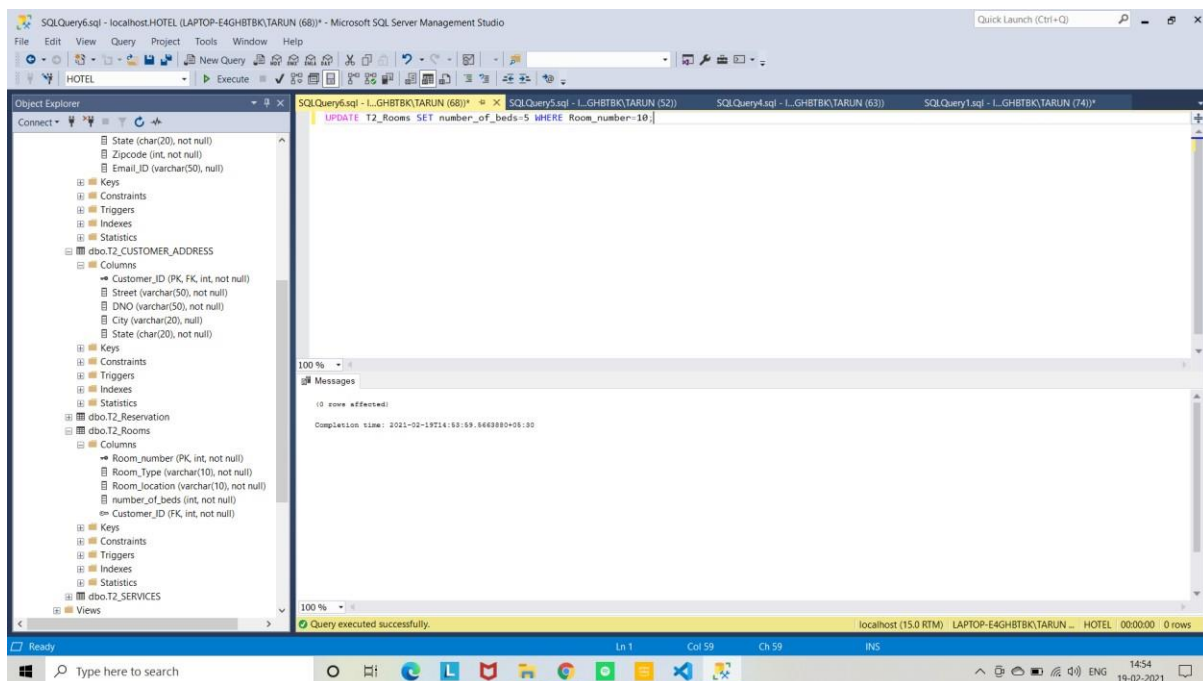
The error occurs because when we delete a record from the base table, we should make sure that all the related dependent tables records are deleted prior. Otherwise, there will be redundant data all over the database.

Q6) Try to update a non-existing entity data and check for error.

QUERY:

```
UPDATE T2_Rooms SET number_of_beds=5 WHERE Room_number=10;
```

OUTPUT:



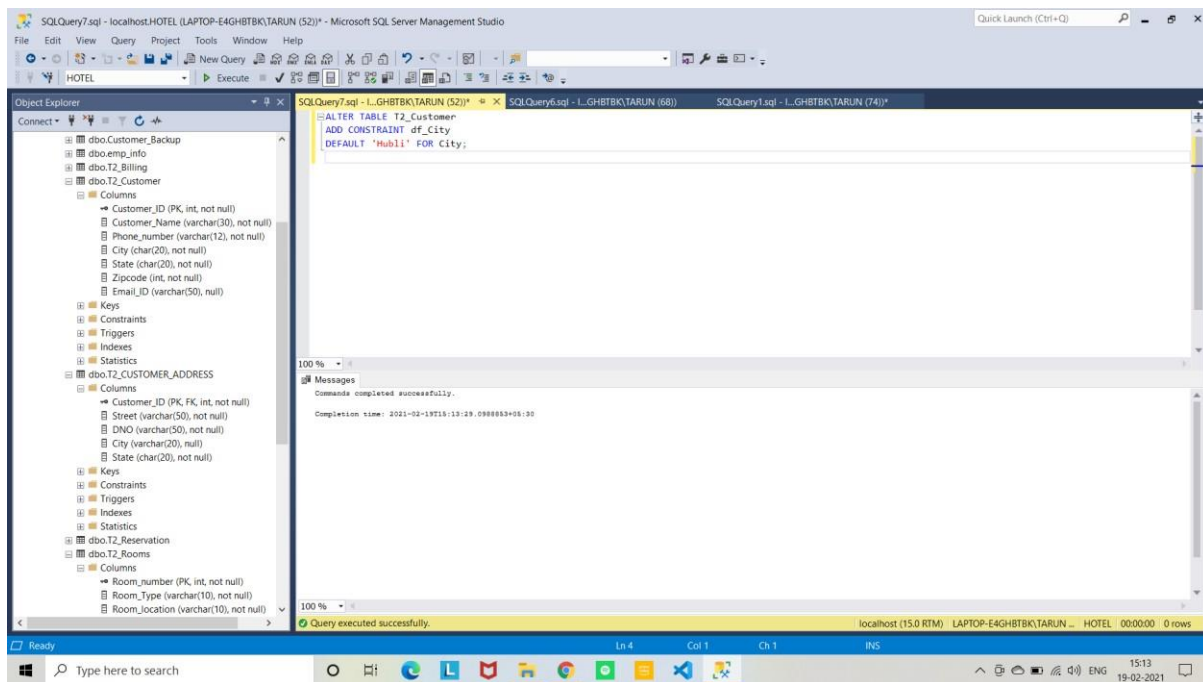
Q7) Add a column which has

DefaultValue.

QUERY:

```
ALTER TABLE T2_Customer  
ADD CONSTRAINT df_City  
DEFAULT 'Hubli' FOR City;
```

OUTPUT:

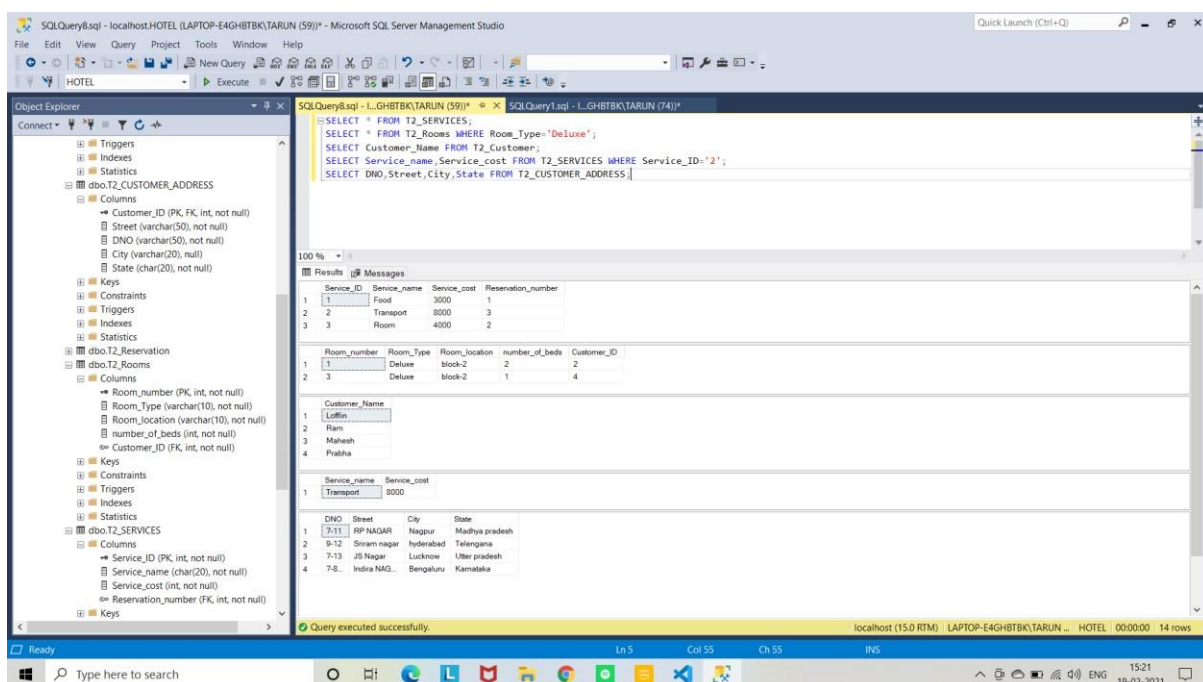


Q8) 5 Simple Select queries to retrieve data from your database

QUERY:.

```
SELECT * FROM T2_SERVICES;
SELECT * FROM T2_Rooms WHERE Room_Type='DeLuxe';
SELECT Customer_Name FROM T2_Customer;
SELECT Service_name,Service_cost FROM T2_SERVICES WHERE Service_ID='2';
SELECT DNO,Street,City,State FROM T2_CUSTOMER_ADDRESS;
```

OUTPUT:



Q9) 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 T2_Rooms SET number_of_beds=1 WHERE Room_Type='DeLuxe';
```

OUTPUT:

