NAME: SURYAWANSHI RANDHEER AJIT

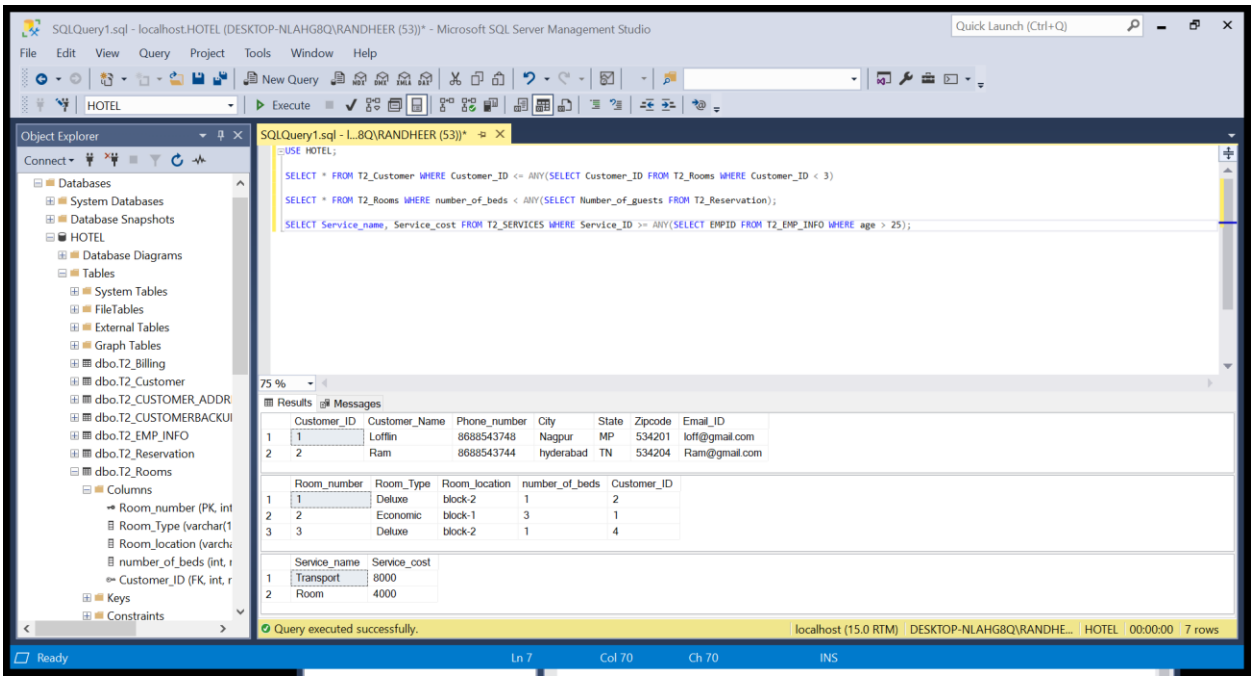
REG. NO.: 19BCS104

SUBJECT: DBMS LAB ASSIGNMENT – 5

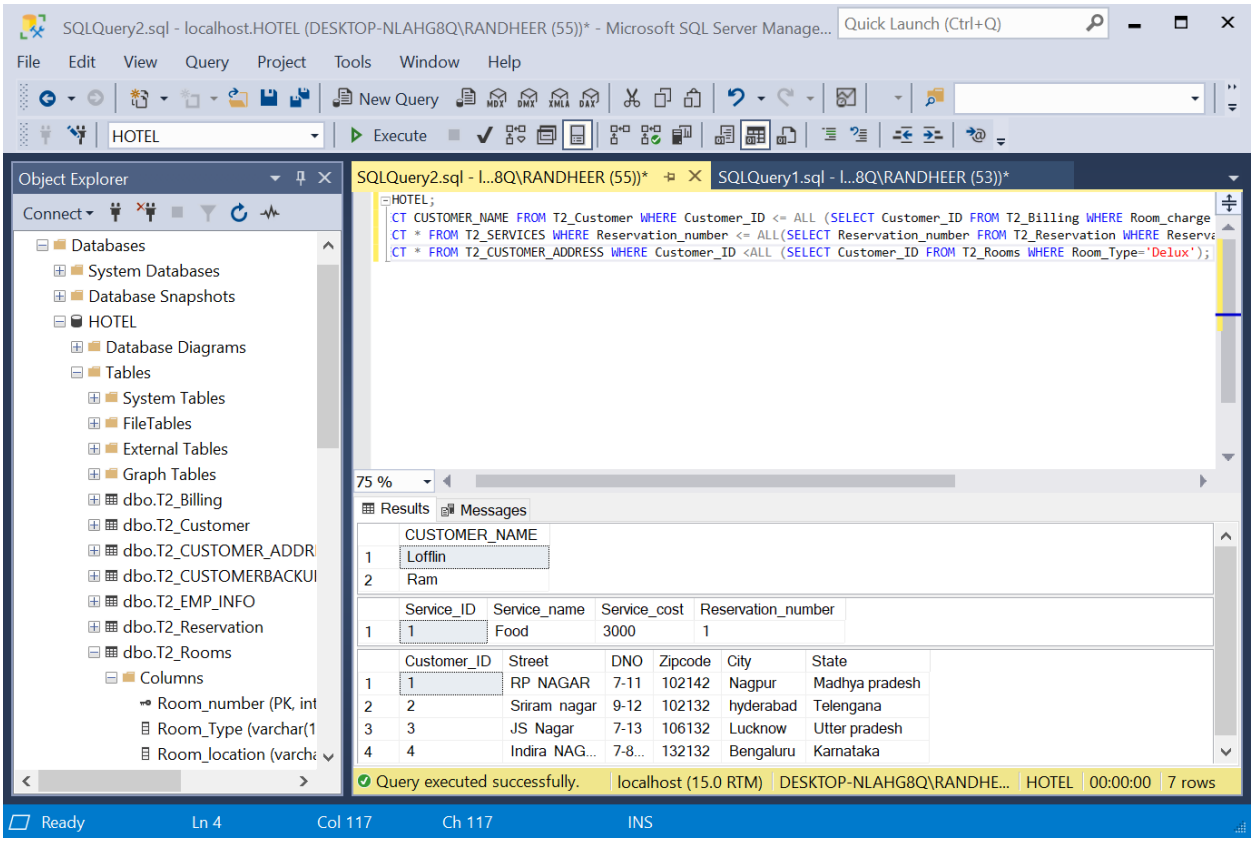
DATABASE : HOTEL (group 2)

Q1) Illustrate logical ANY, ALL and LIKE operator- the queries should be relevant to your respective databases 3 queries for each operator. One query explaining the difference between ANY and ALL

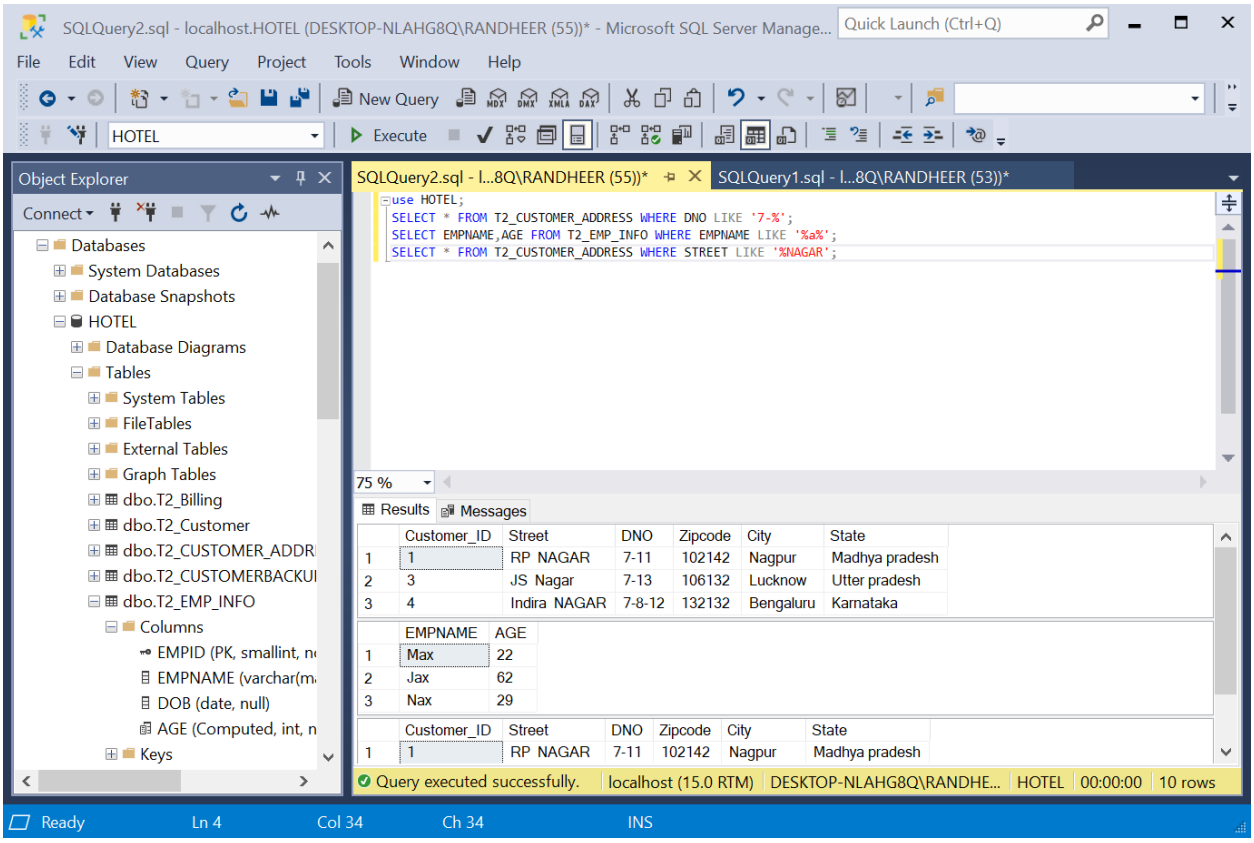
QUERIES FOR "ANY"



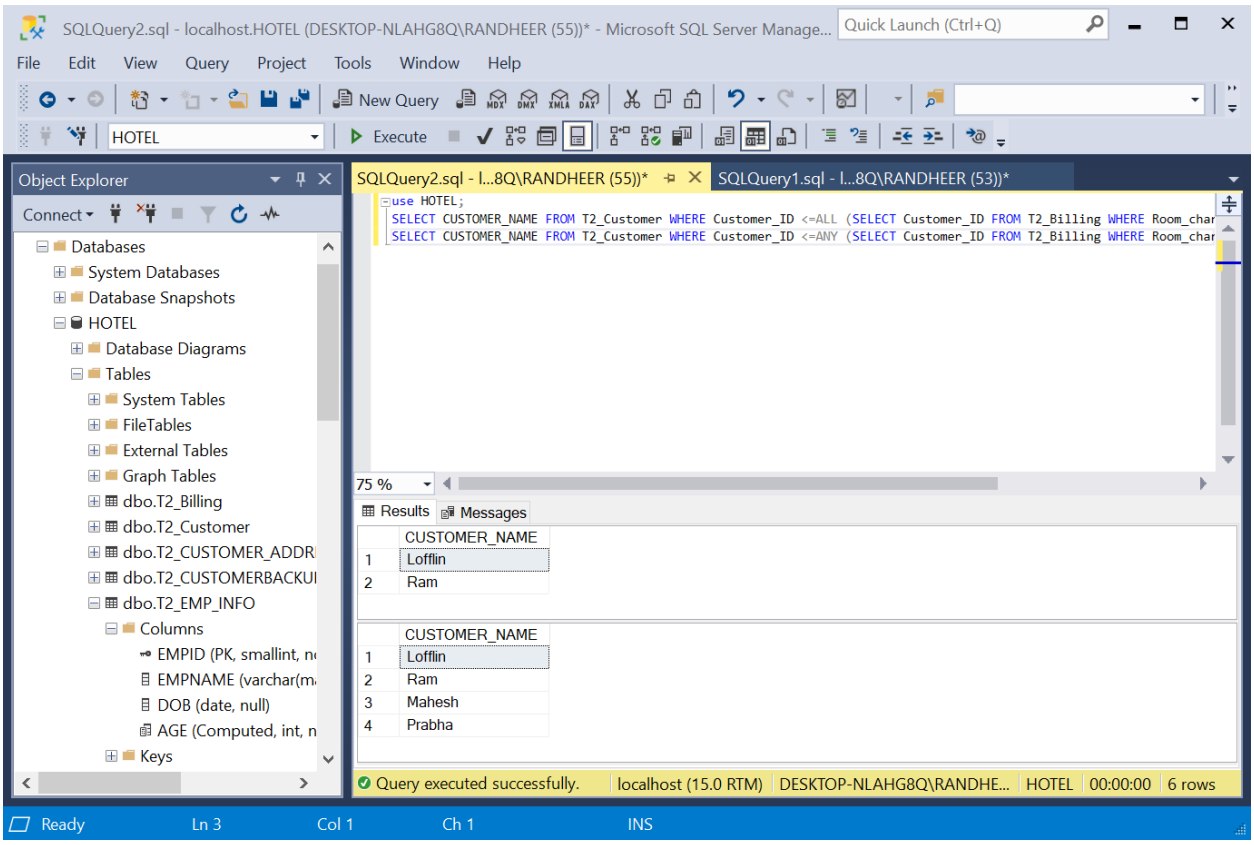
QUERIES FOR “All”



QUERIES FOR “Like”



QUERY FOR DIFFERENCE BETWEEN ANY AND ALL



Q2) One query for each Aggregate function.

The aggregate functions are MIN(), MAX(), COUNT(), AVG(), SUM()

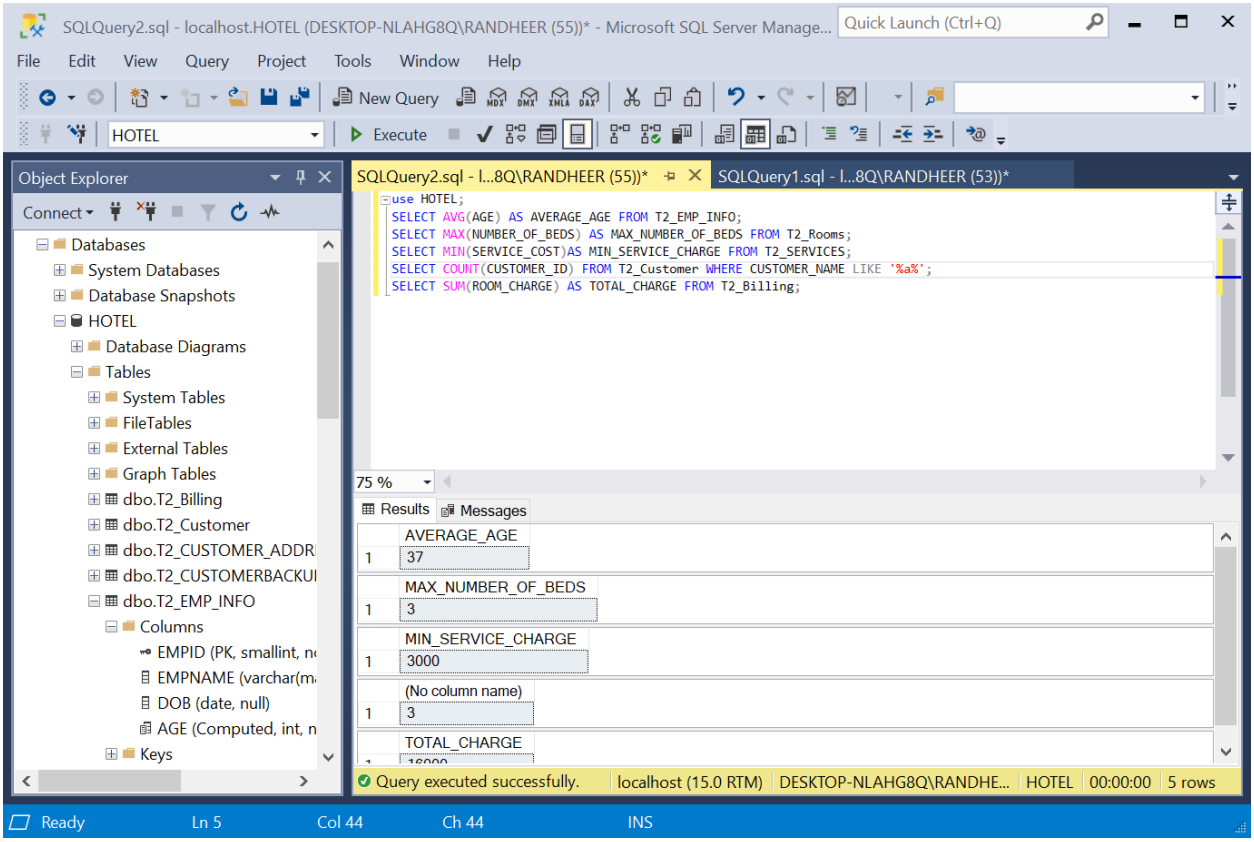
AVG() – return the average of the set

MIN() – returns the minimum value in a set

MAX() – returns the maximum value in set

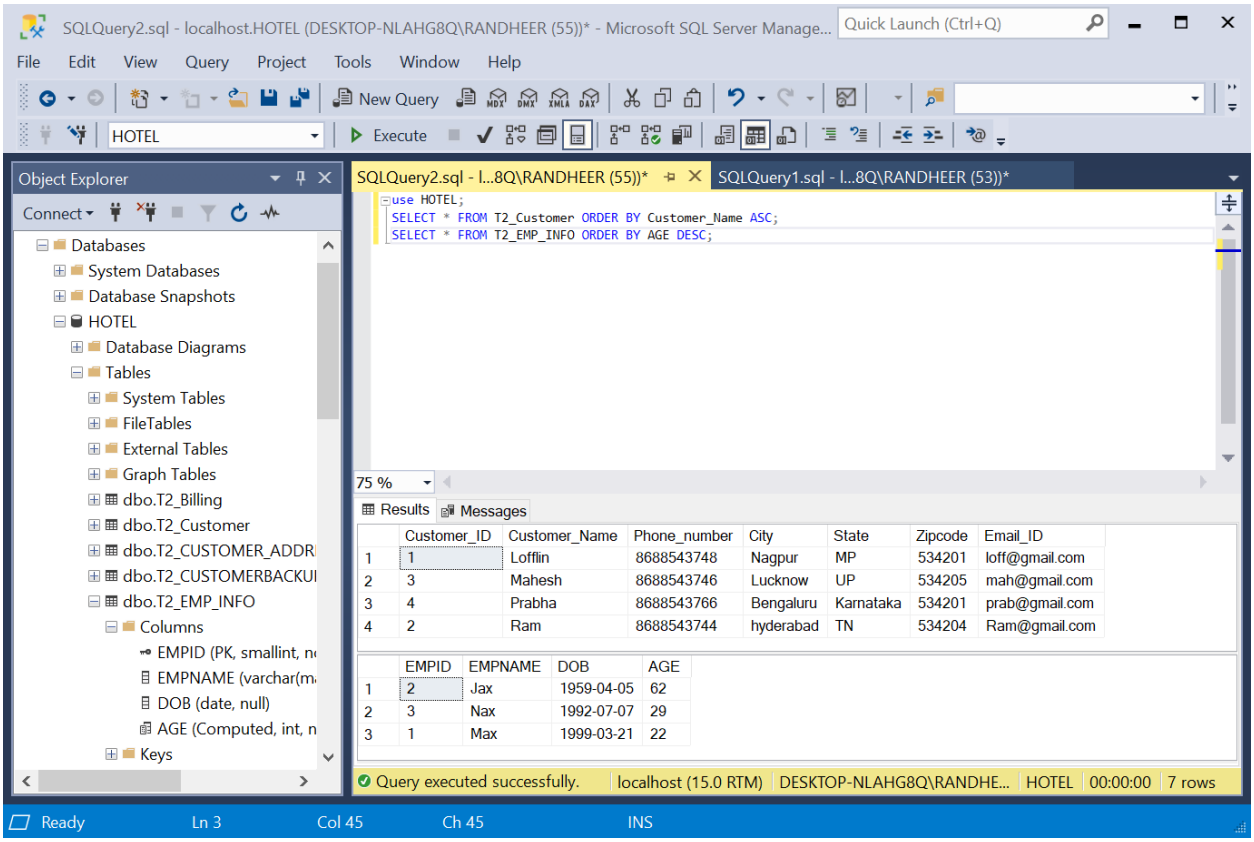
SUM() – returns the sum of all distinct values of a set

COUNT() – returns the number of items in a set

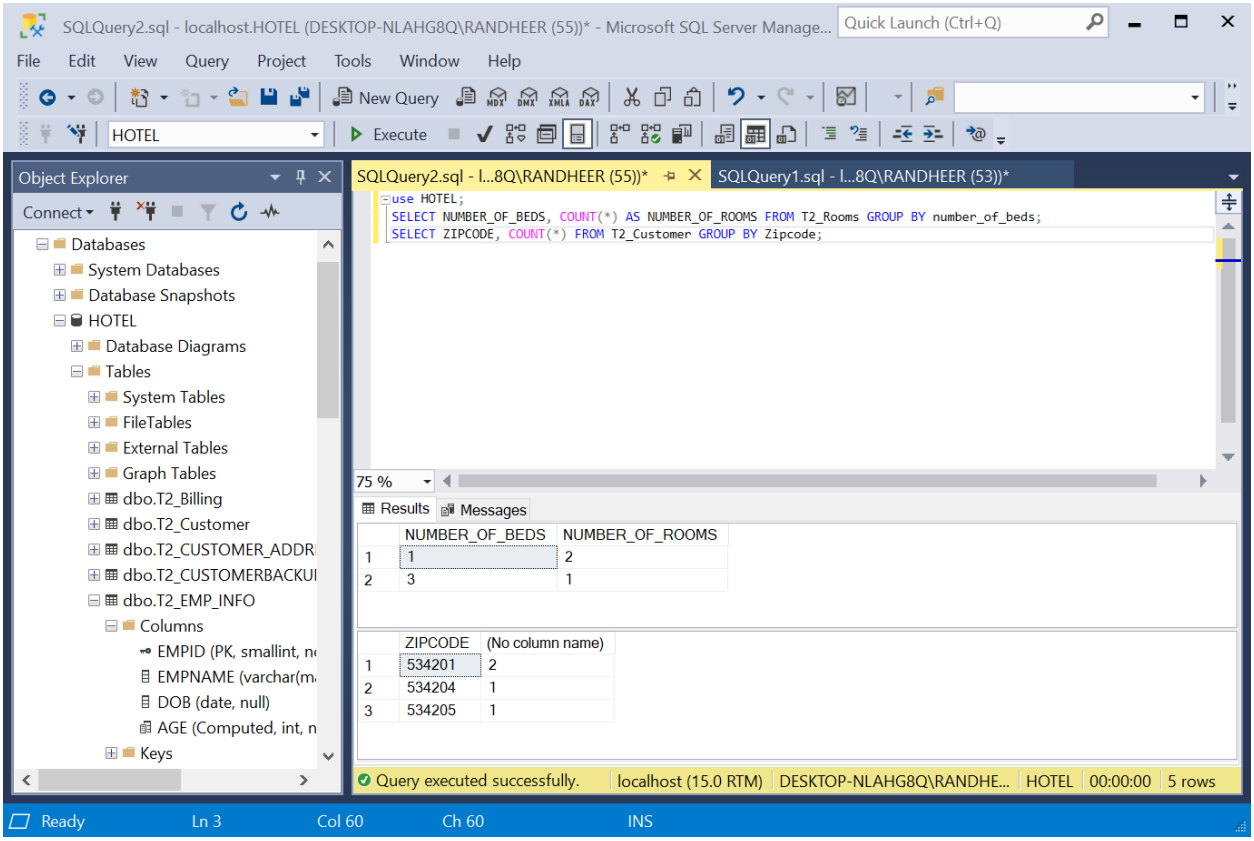


Q3) Illustrate the usage of order by, group by and having clause (2 queries for each case)

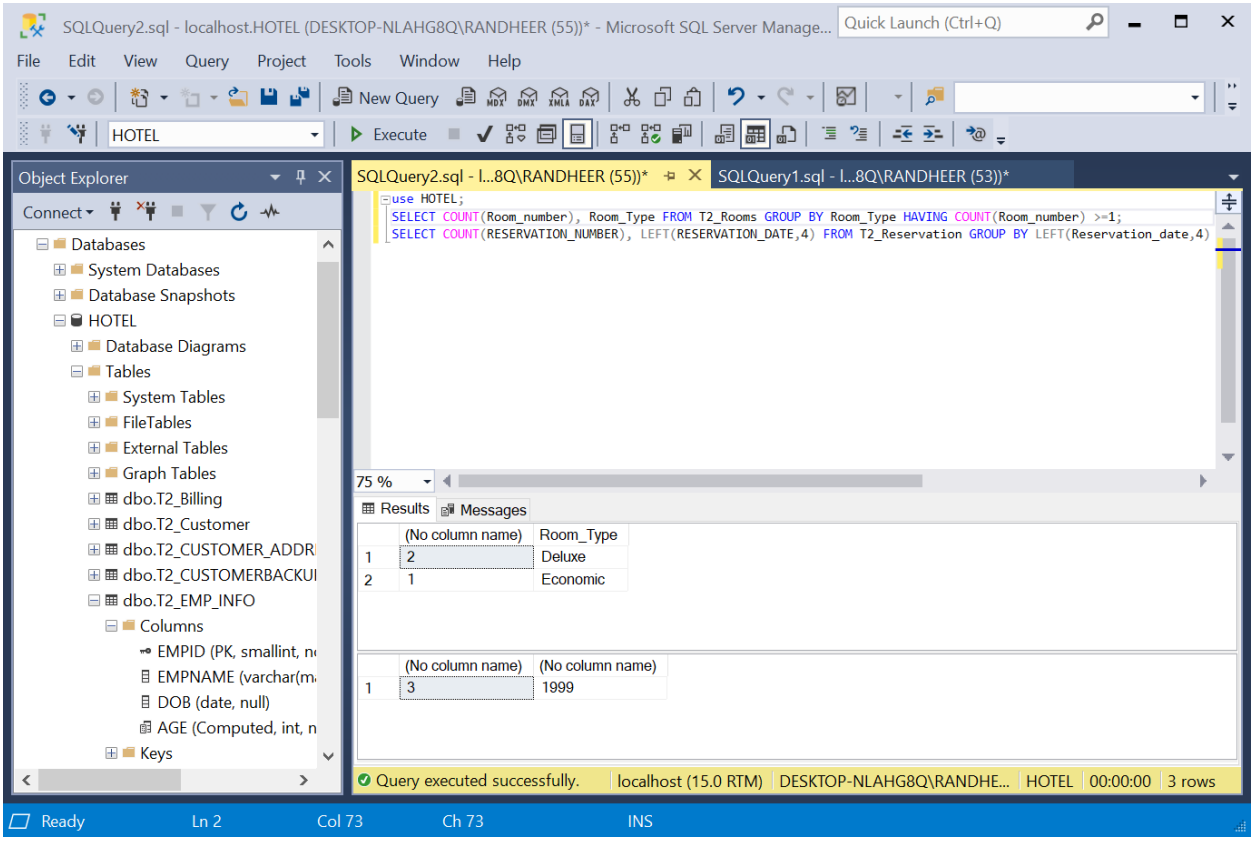
ORDER BY



GROUP BY

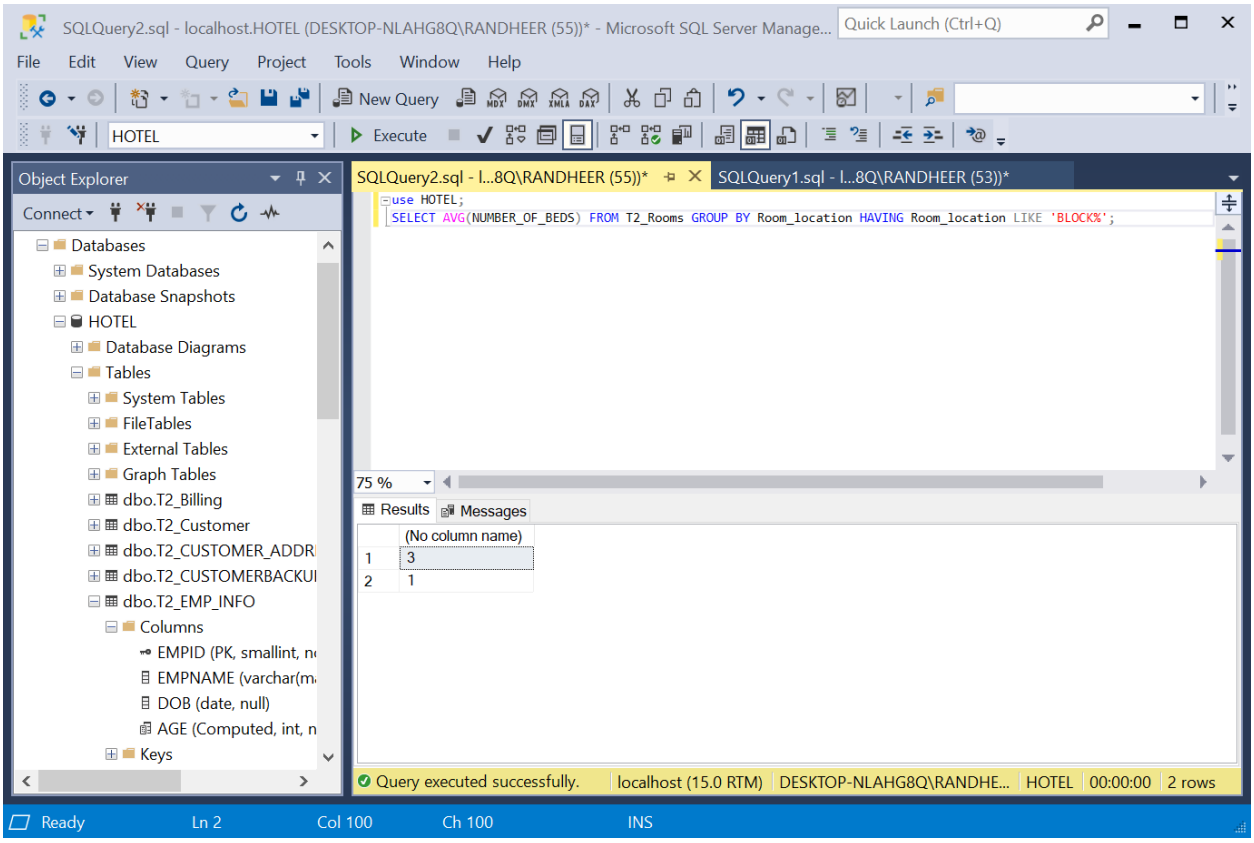

SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT NUMBER_OF_BEDS, COUNT(*) AS NUMBER_OF_ROOMS FROM T2_Rooms GROUP BY number_of_beds;
SELECT ZIPCODE, COUNT(*) FROM T2_Customer GROUP BY Zipcode;
75 %
Results
Messages
NUMBER_OF_BEDS NUMBER_OF_ROOMS
1 1 2
2 3 1
ZIPCODE (No column name)
1 534201 2
2 534204 1
3 534205 1
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
5 rows
Ready
Ln 3
Col 60
Ch 60
INS

HAVING CLAUSE

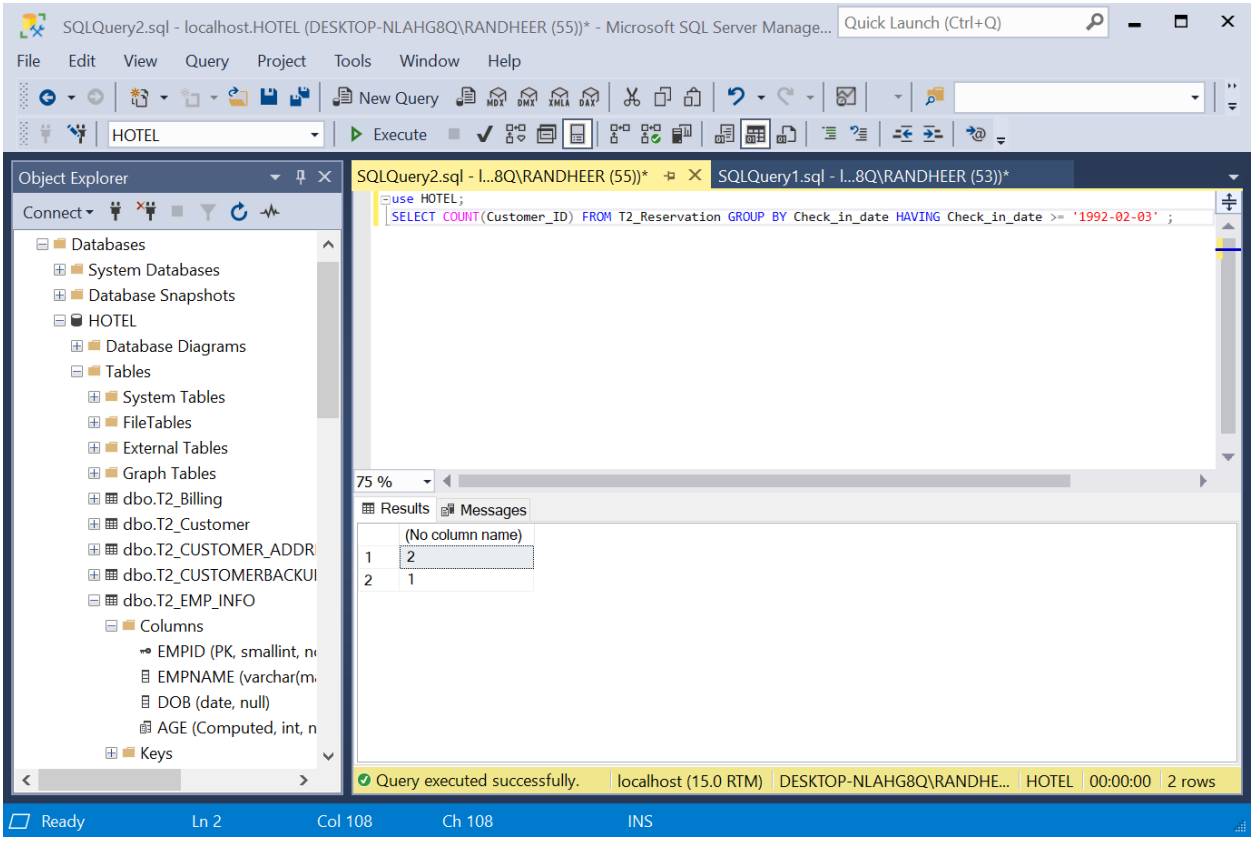


Q4) Use Aggregate function with group by and having

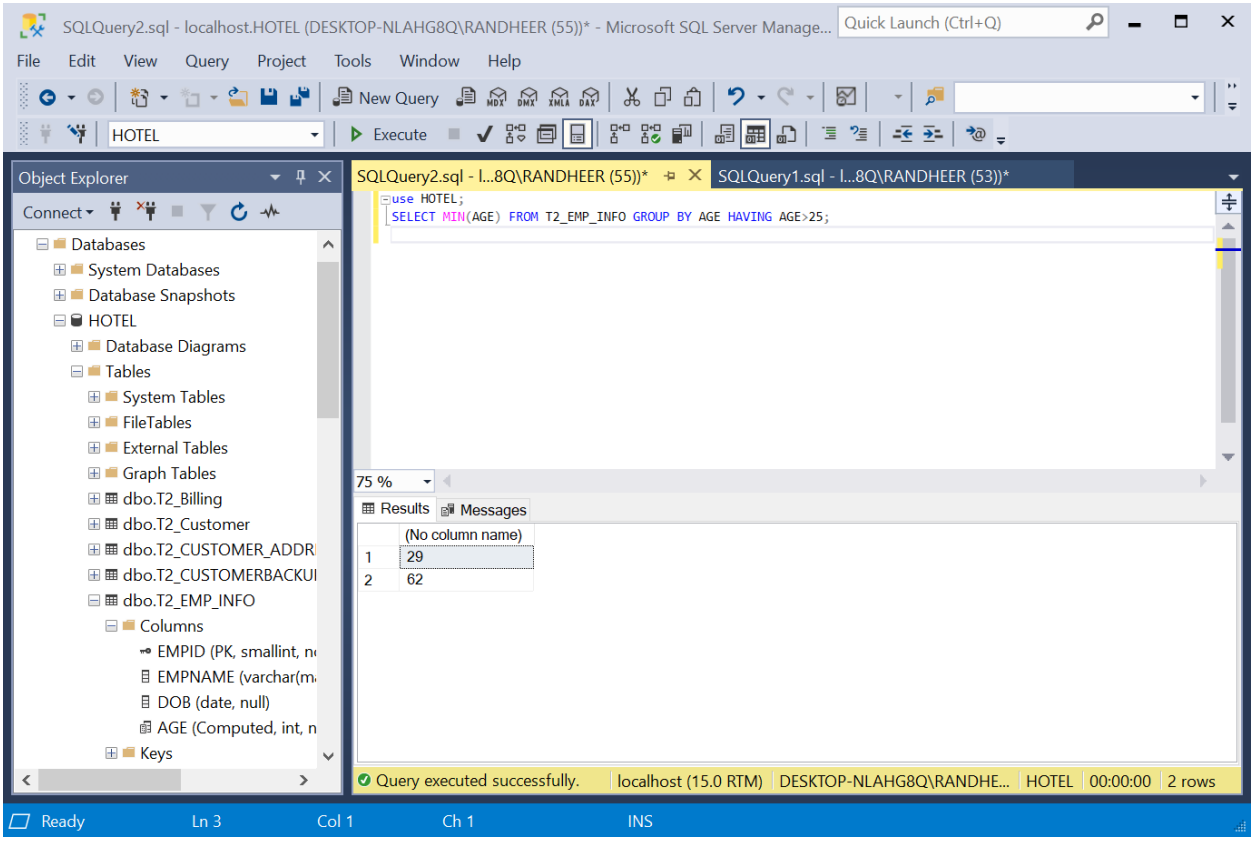
AVG():



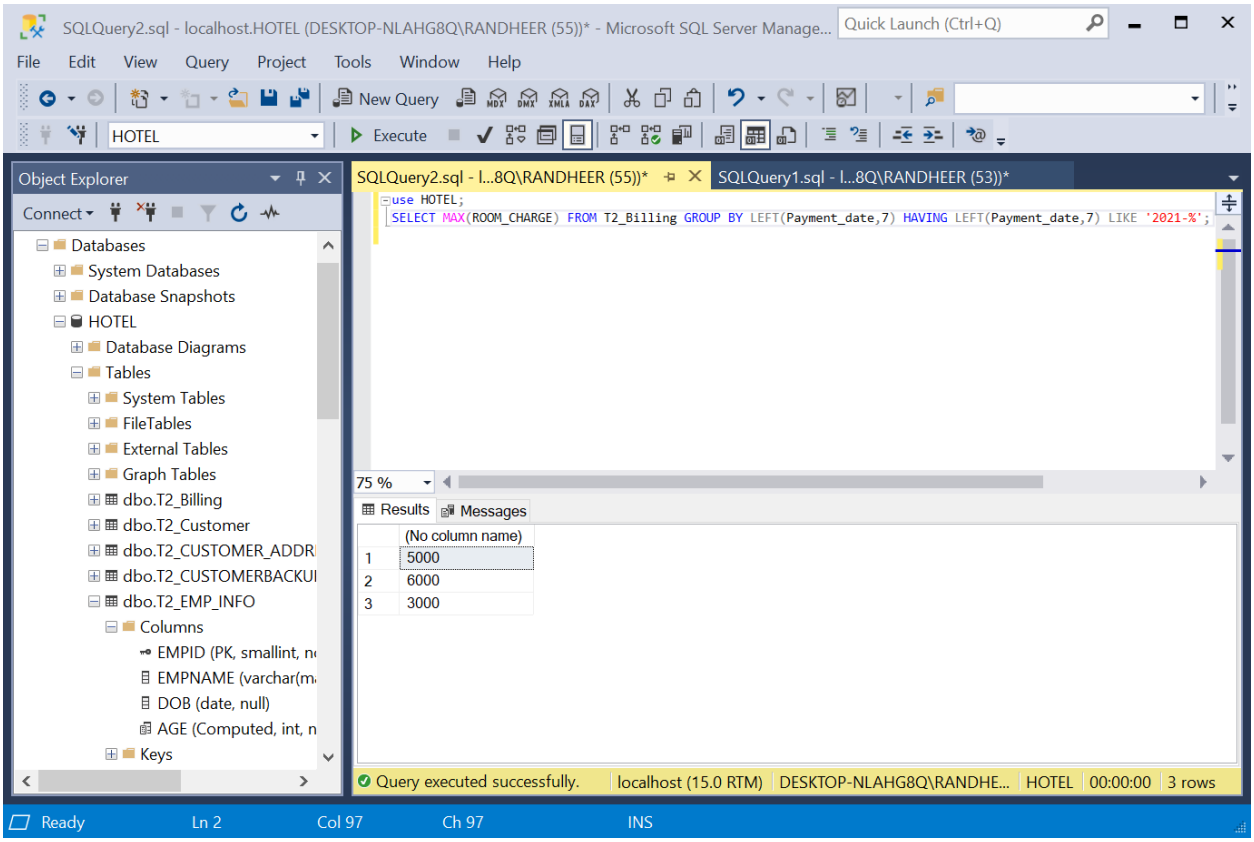
COUNT():


SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT COUNT(Customer_ID) FROM T2_Reservation GROUP BY Check_in_date HAVING Check_in_date >= '1992-02-03' ;
75 %
Results
Messages
(No column name)
1 2
2 1
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
2 rows
Ready
Ln 2
Col 108
Ch 108
INS

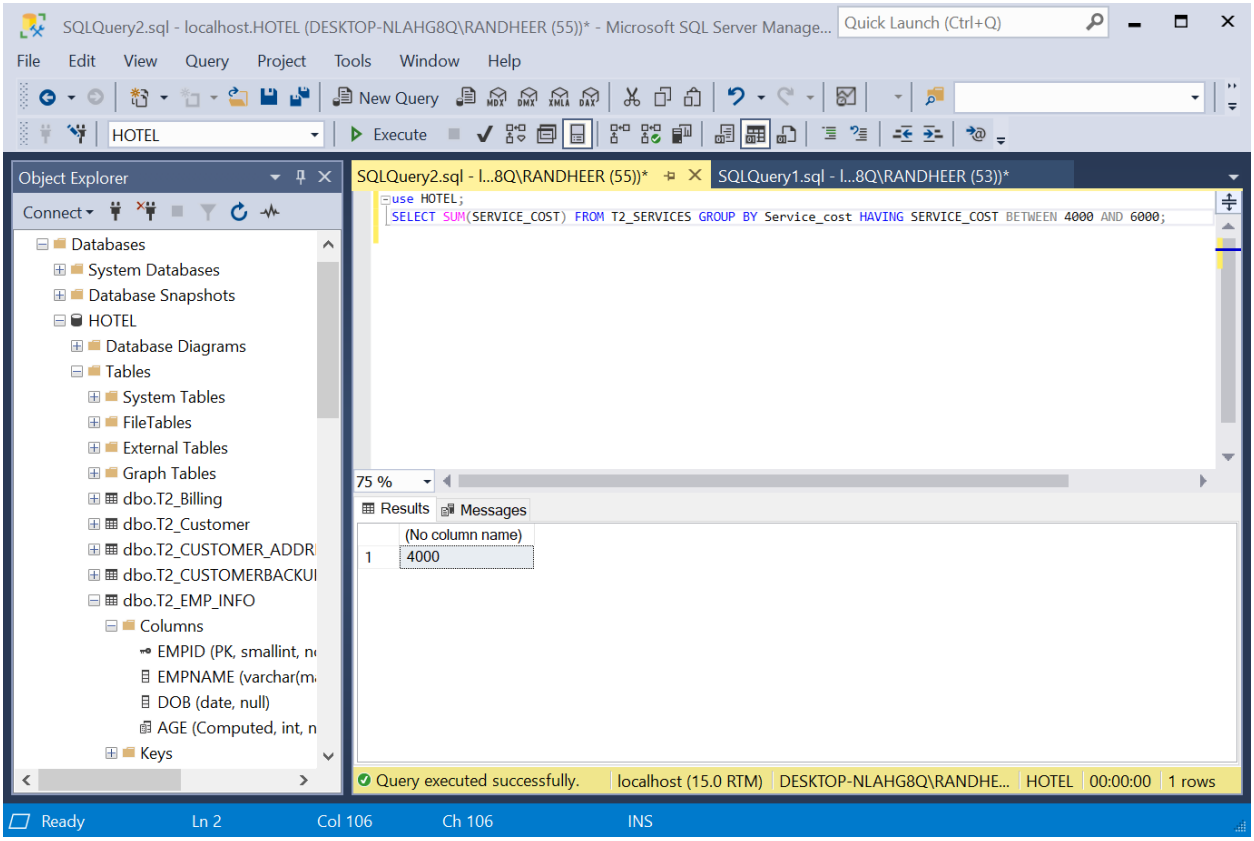
MIN():


SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT MIN(AGE) FROM T2_EMP_INFO GROUP BY AGE HAVING AGE>25;
75 %
Results
Messages
(No column name)
1 29
2 62
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
2 rows
Ready
Ln 3
Col 1
Ch 1
INS

MAX():

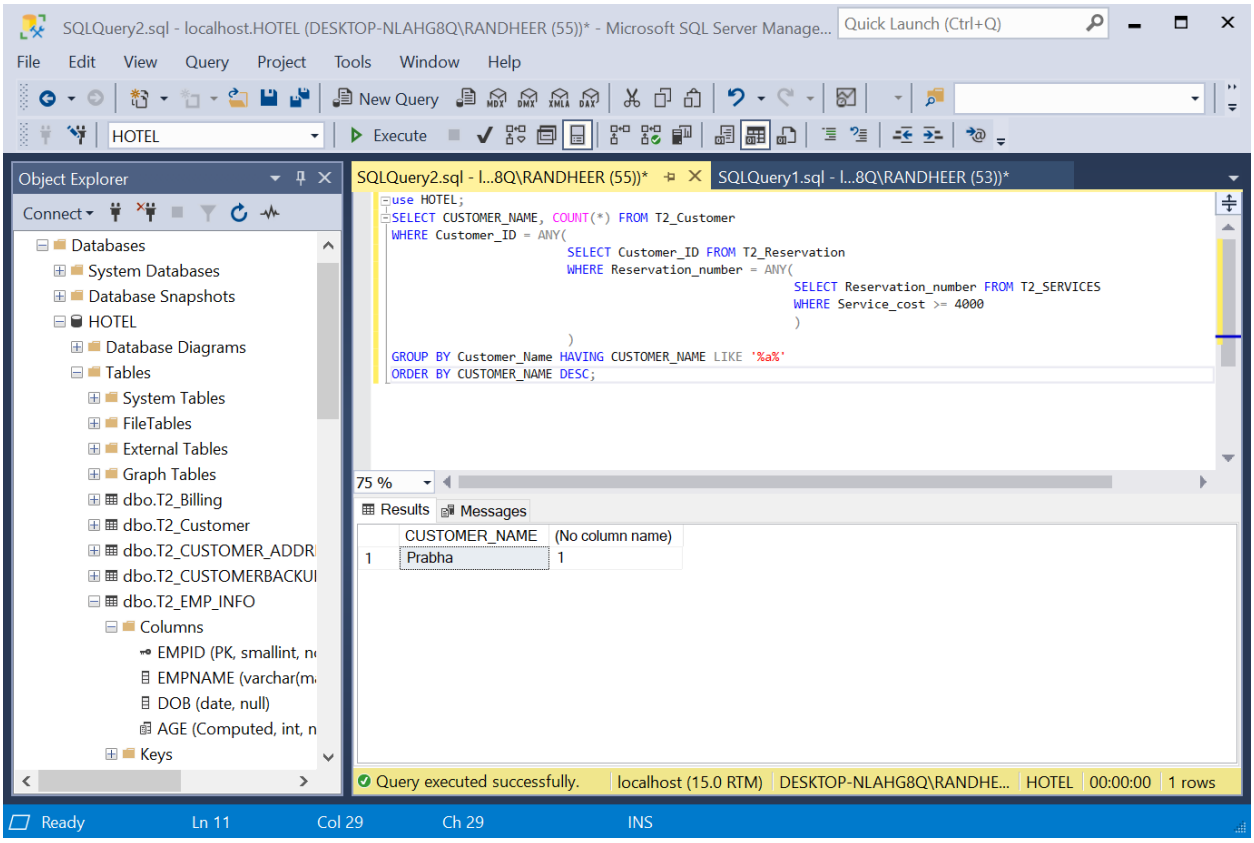

SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT MAX(ROOM_CHARGE) FROM T2_Billing GROUP BY LEFT(Payment_date,7) HAVING LEFT(Payment_date,7) LIKE '2021-%';
75 %
Results
Messages
(No column name)
1 5000
2 6000
3 3000
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
3 rows
Ready
Ln 2
Col 97
Ch 97
INS

SUM():


SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT SUM(SERVICE_COST) FROM T2_SERVICES GROUP BY Service_cost HAVING SERVICE_COST BETWEEN 4000 AND 6000;
75 %
Results
Messages
(No column name)
1
4000
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
1 rows
Ready
Ln 2
Col 106
Ch 106
INS

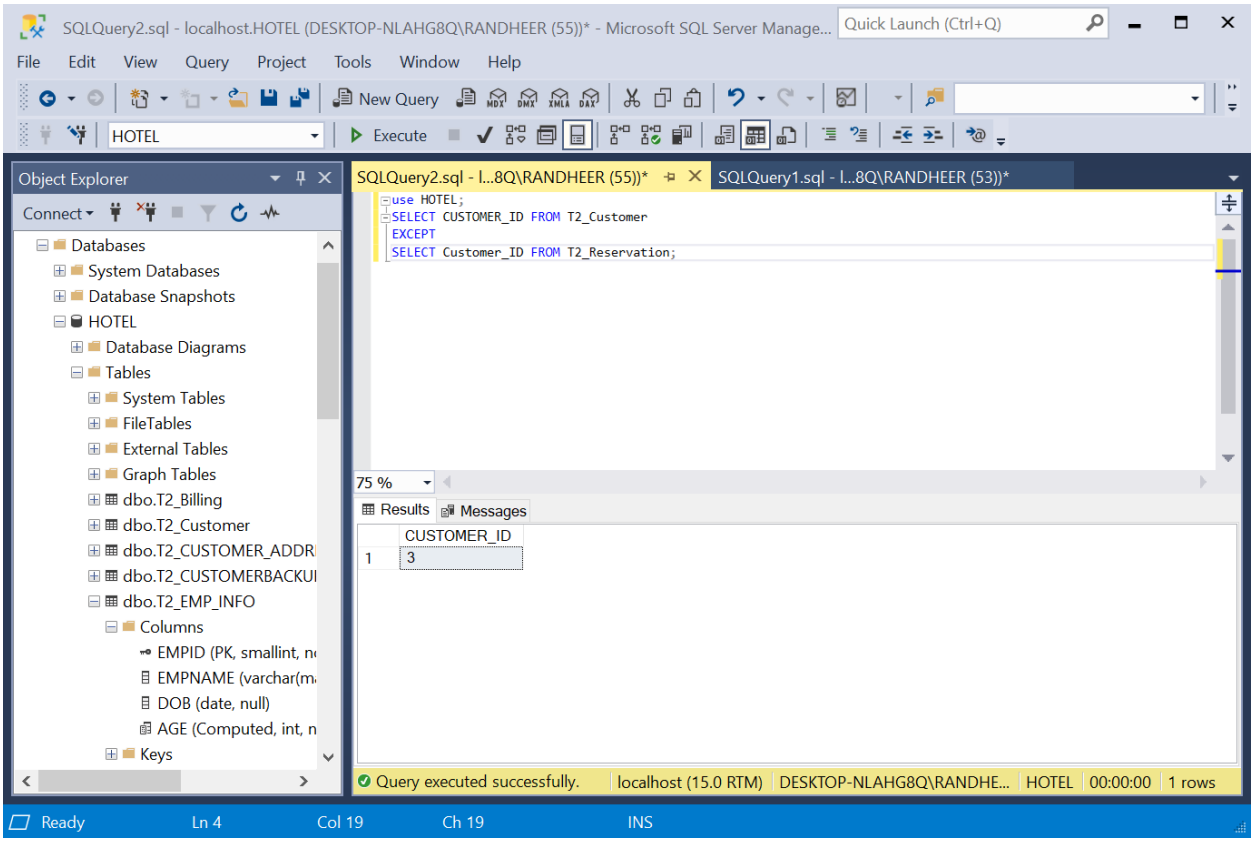
Q5) Write at least 3 nested queries using order by, group by and having clause.

QUERY:

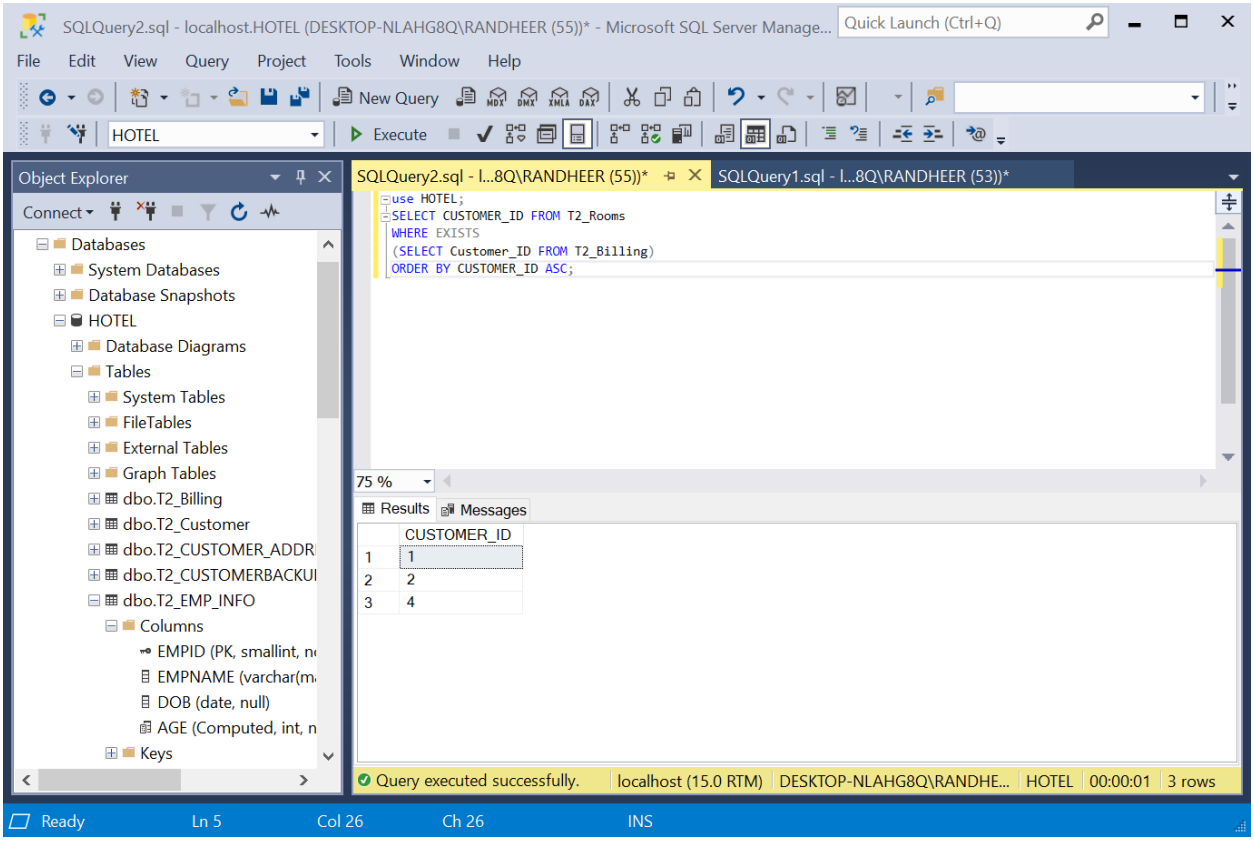


Q6) Illustrate the Usage of Except, Exists, Not Exists, Union, Intersection

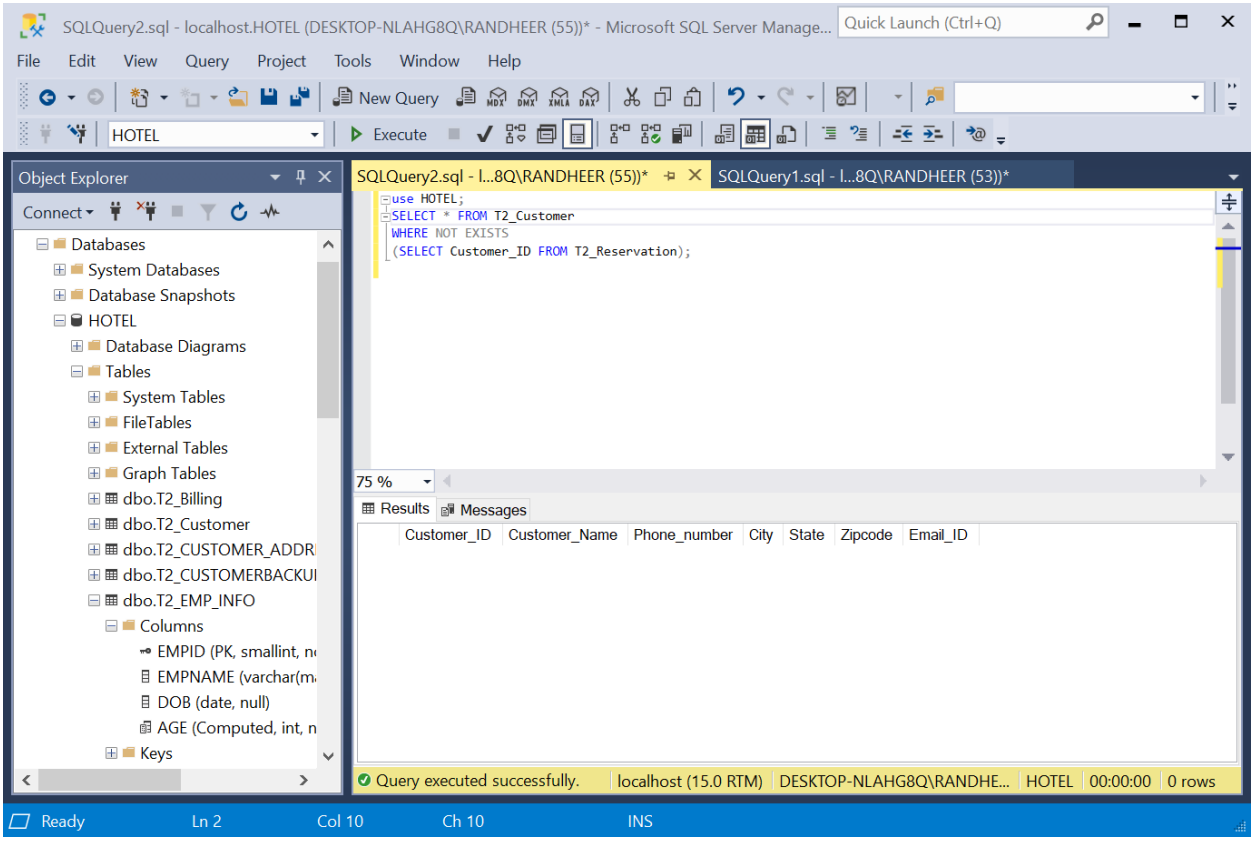
EXCEPT():



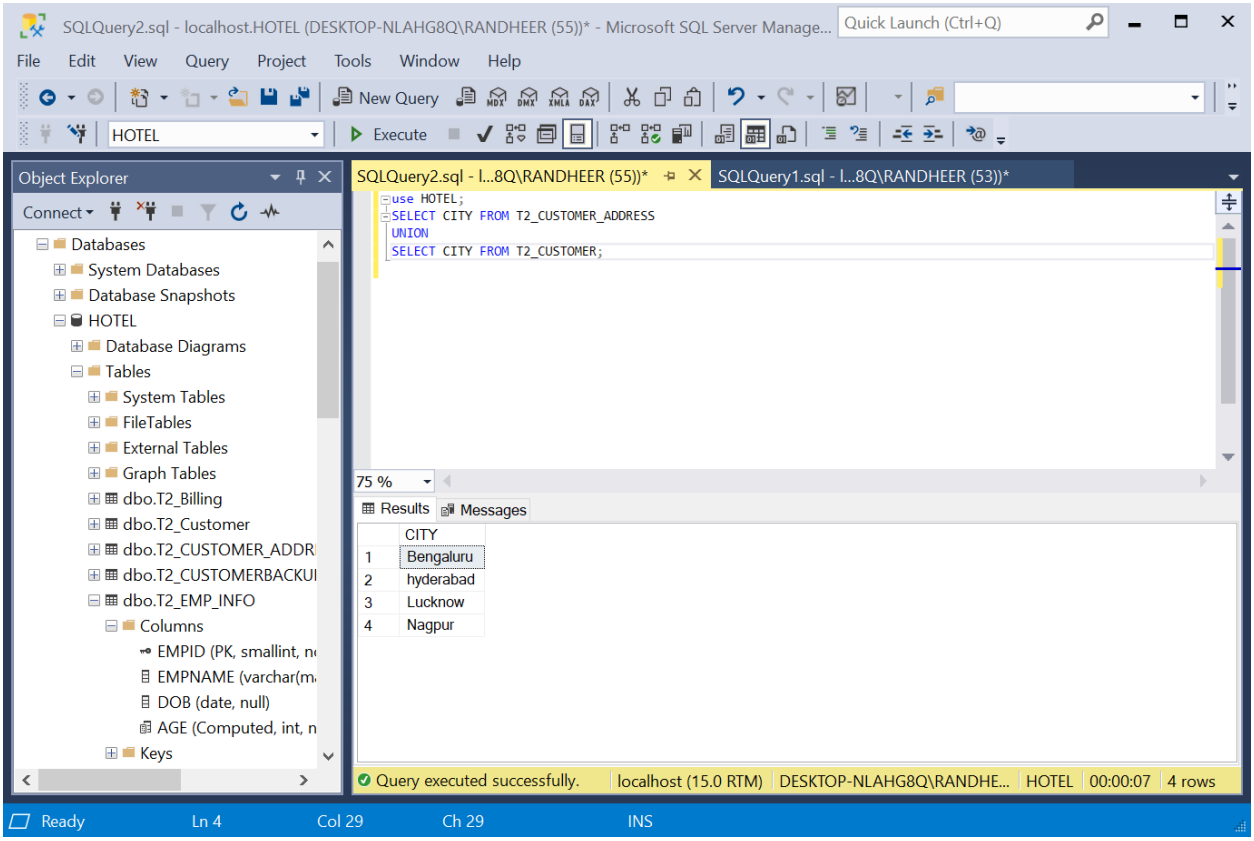
EXISTS():


SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT CUSTOMER_ID FROM T2_Rooms
WHERE EXISTS
(SELECT Customer_ID FROM T2_Billing)
ORDER BY CUSTOMER_ID ASC;
75 %
Results
Messages
CUSTOMER_ID
1 1
2 2
3 4
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:01
3 rows
Ready
Ln 5
Col 26
Ch 26
INS

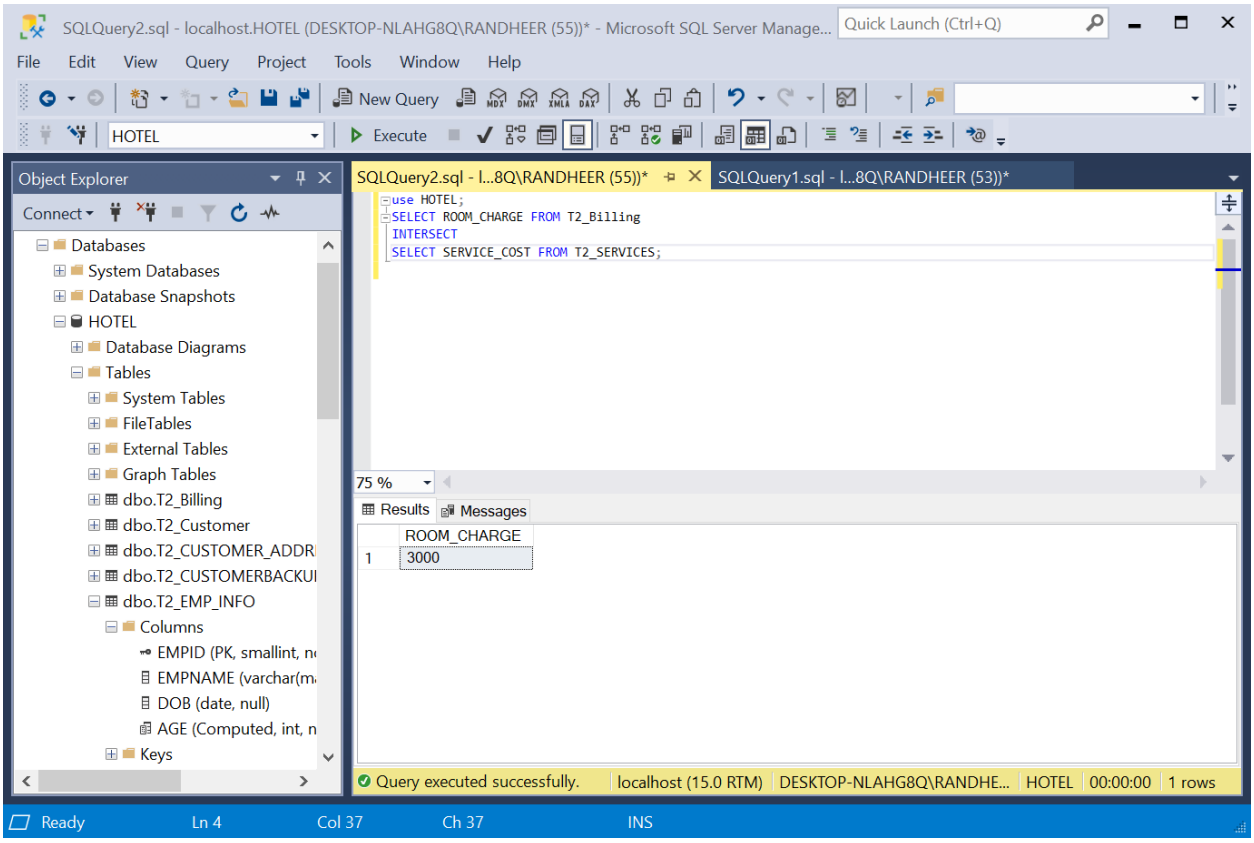
NOT EXISTS():


SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT * FROM T2_Customer
WHERE NOT EXISTS
(SELECT Customer_ID FROM T2_Reservation);
75 %
Results
Messages
Customer_ID
Customer_Name
Phone_number
City
State
Zipcode
Email_ID
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
0 rows
Ready
Ln 2
Col 10
Ch 10
INS

UNION():

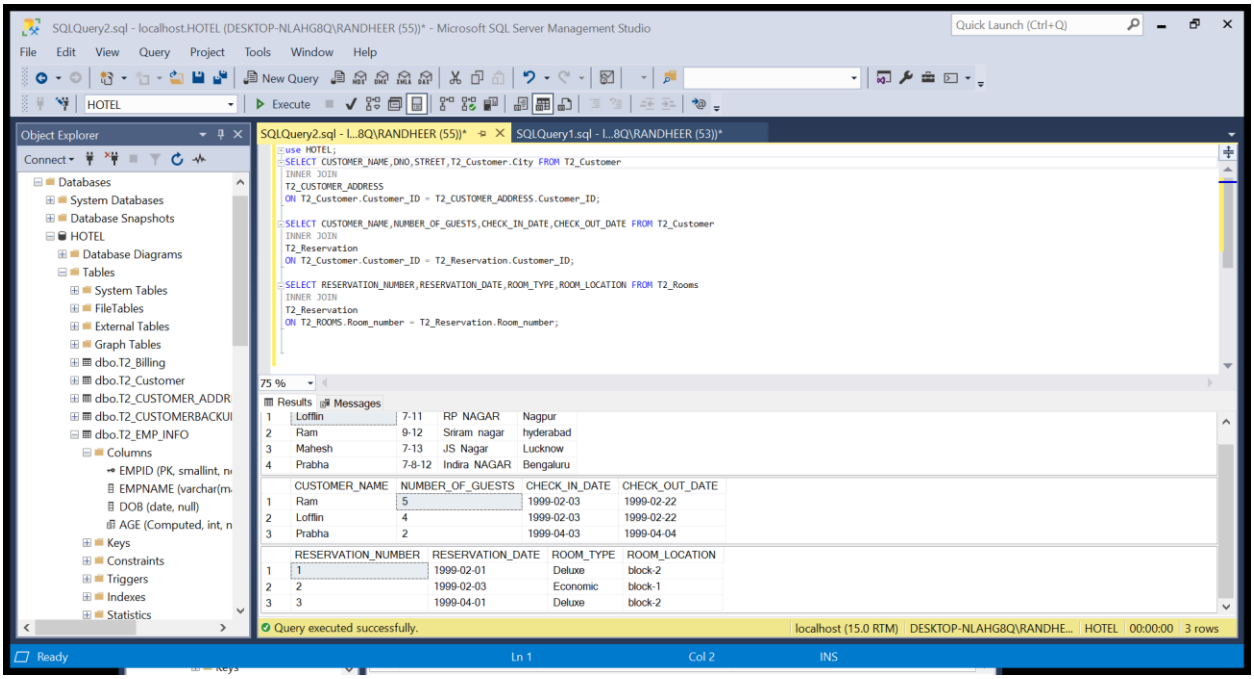

SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
HOTEL
Execute
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT CITY FROM T2_CUSTOMER_ADDRESS
UNION
SELECT CITY FROM T2_CUSTOMER;
75 %
Results
Messages
CITY
1 Bengaluru
2 hyderabad
3 Lucknow
4 Nagpur
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:07
4 rows
Ready
Ln 4
Col 29
Ch 29
INS

INTERSECT:

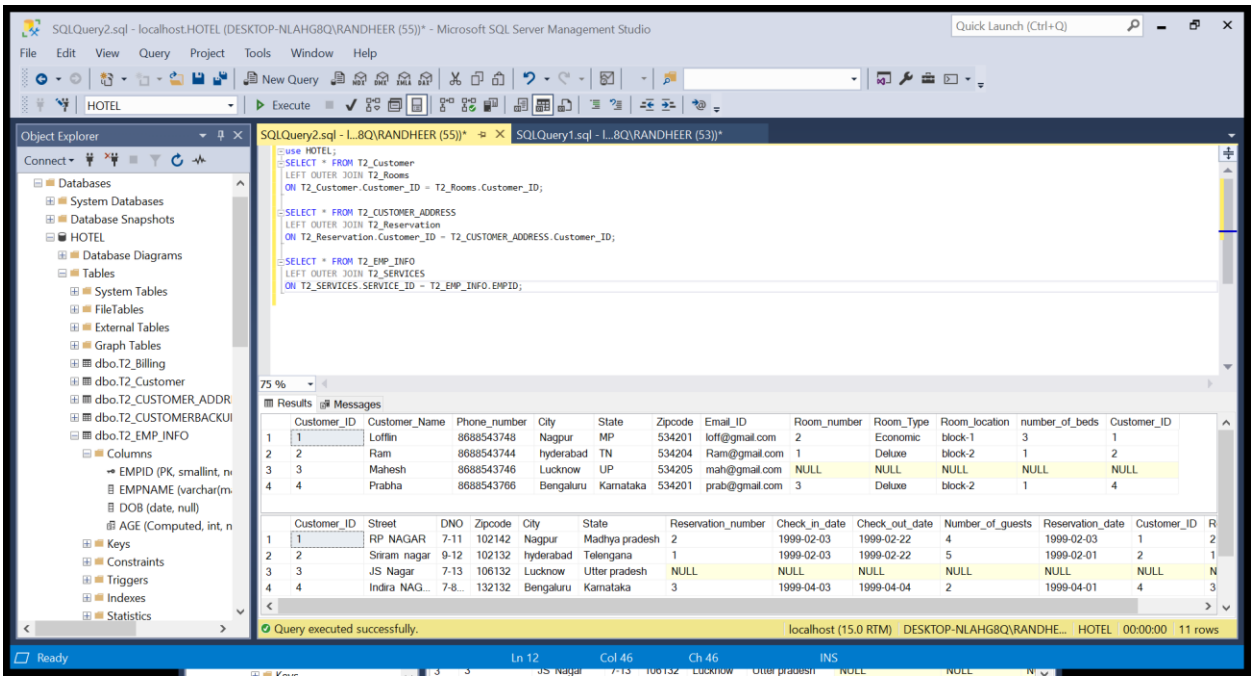

SQLQuery2.sql - localhost.HOTEL (DESKTOP-NLAHG8Q\RANDHEER (55))* - Microsoft SQL Server Manage...
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
Execute
HOTEL
Object Explorer
Connect
Databases
System Databases
Database Snapshots
HOTEL
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.T2_Billing
dbo.T2_Customer
dbo.T2_CUSTOMER_ADDR
dbo.T2_CUSTOMERBACKUI
dbo.T2_EMP_INFO
Columns
EMPID (PK, smallint, n
EMPNAME (varchar(m
DOB (date, null)
AGE (Computed, int, n
Keys
SQLQuery2.sql - l...8Q\RANDHEER (55))*
SQLQuery1.sql - l...8Q\RANDHEER (53))*
use HOTEL;
SELECT ROOM_CHARGE FROM T2_Billing
INTERSECT
SELECT SERVICE_COST FROM T2_SERVICES;
75 %
Results
Messages
ROOM_CHARGE
1
3000
Query executed successfully.
localhost (15.0 RTM)
DESKTOP-NLAHG8Q\RANDHE...
HOTEL
00:00:00
1 rows
Ready
Ln 4
Col 37
Ch 37
INS

Q7) INNER JOIN, LEFT OUTER JOIN, RIGHT OUTER JOIN- 3 queries for each instance

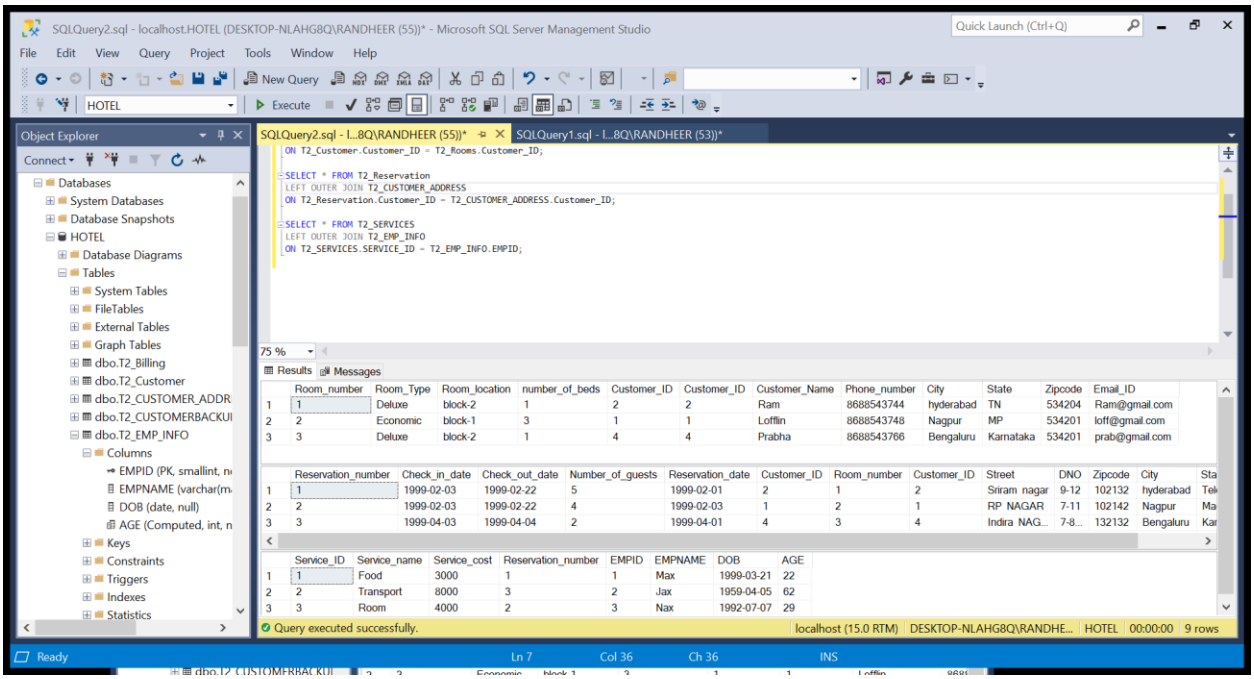
INNER JOIN



LEFT OUTER JOIN



RIGHT OUTER JOIN



Q8) Use all the above condition in JOIN as well.

QUERY: