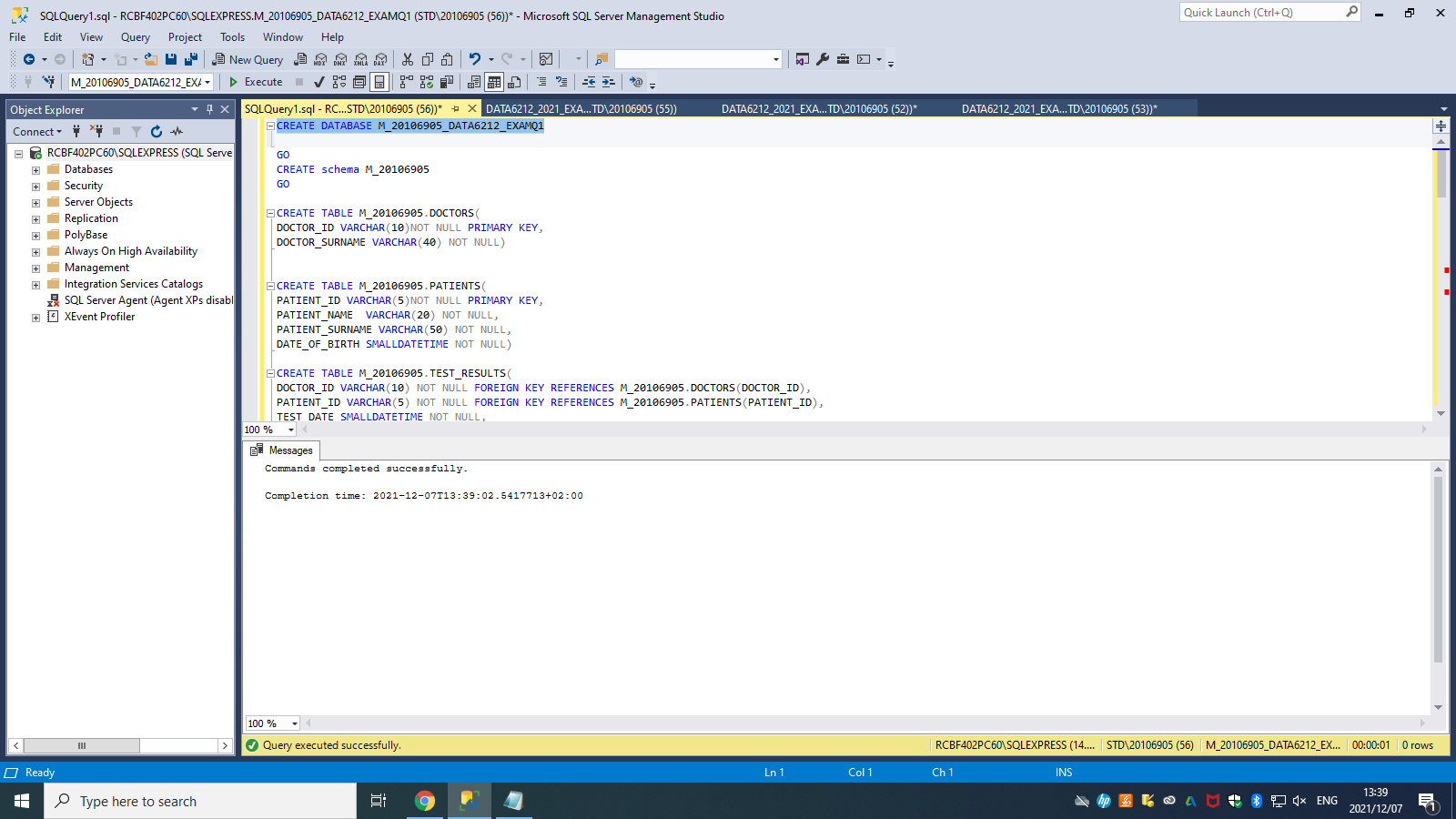
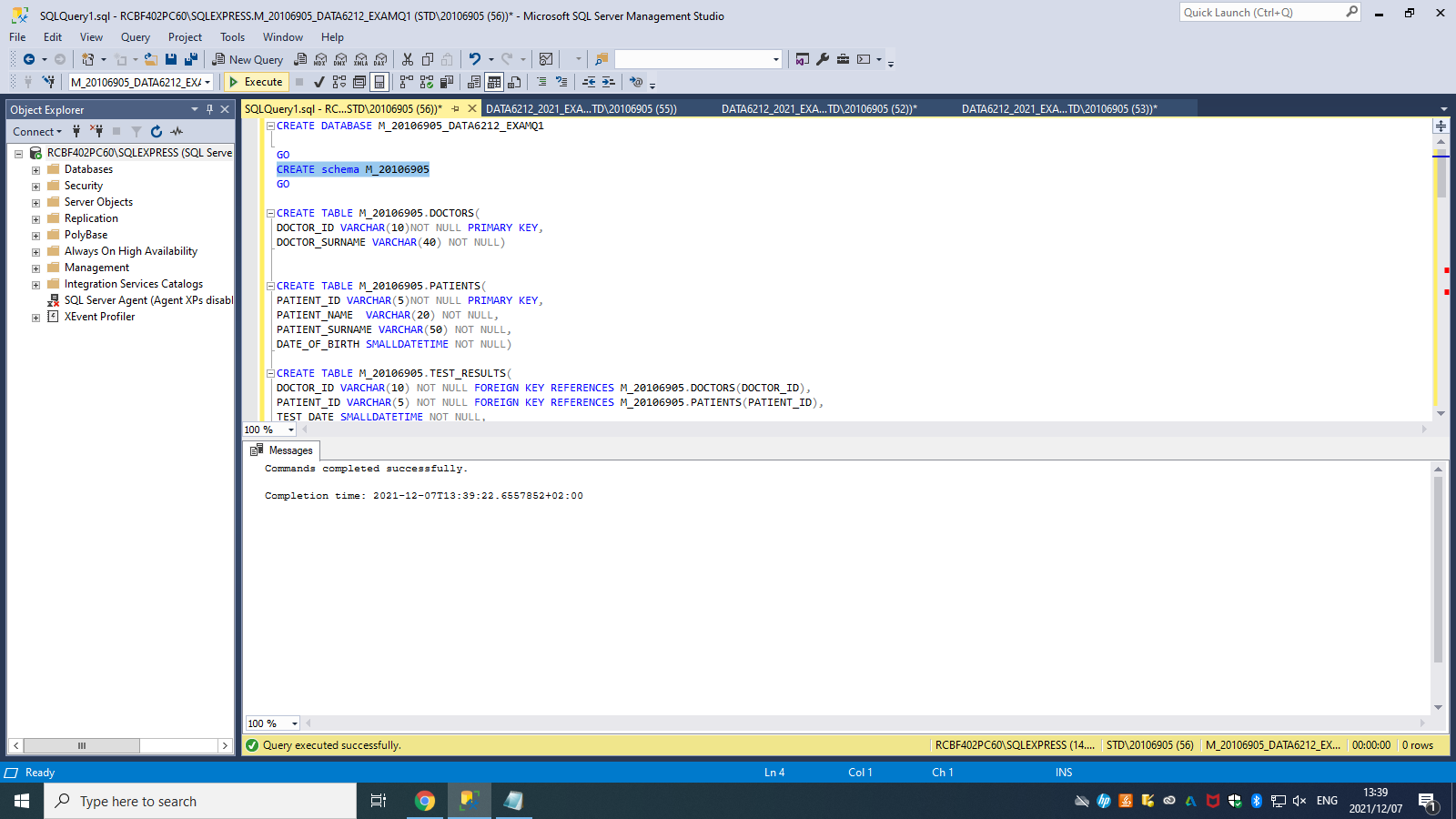
MUNEI MUKWEVHO

DATABASE EXAM

STUDENT NO.20106905





CREATE TABLE M\_20106905.DOCTORS(

DOCTOR\_ID VARCHAR(10)NOT NULL PRIMARY KEY,

DOCTOR\_SURNAME VARCHAR(40) NOT NULL)

CREATE TABLE M\_20106905.PATIENTS(

PATIENT\_ID VARCHAR(5)NOT NULL PRIMARY KEY,

PATIENT\_NAME VARCHAR(20) NOT NULL,

PATIENT\_SURNAME VARCHAR(50) NOT NULL,

DATE\_OF\_BIRTH SMALLDATETIME NOT NULL)

CREATE TABLE M\_20106905.TEST\_RESULTS(

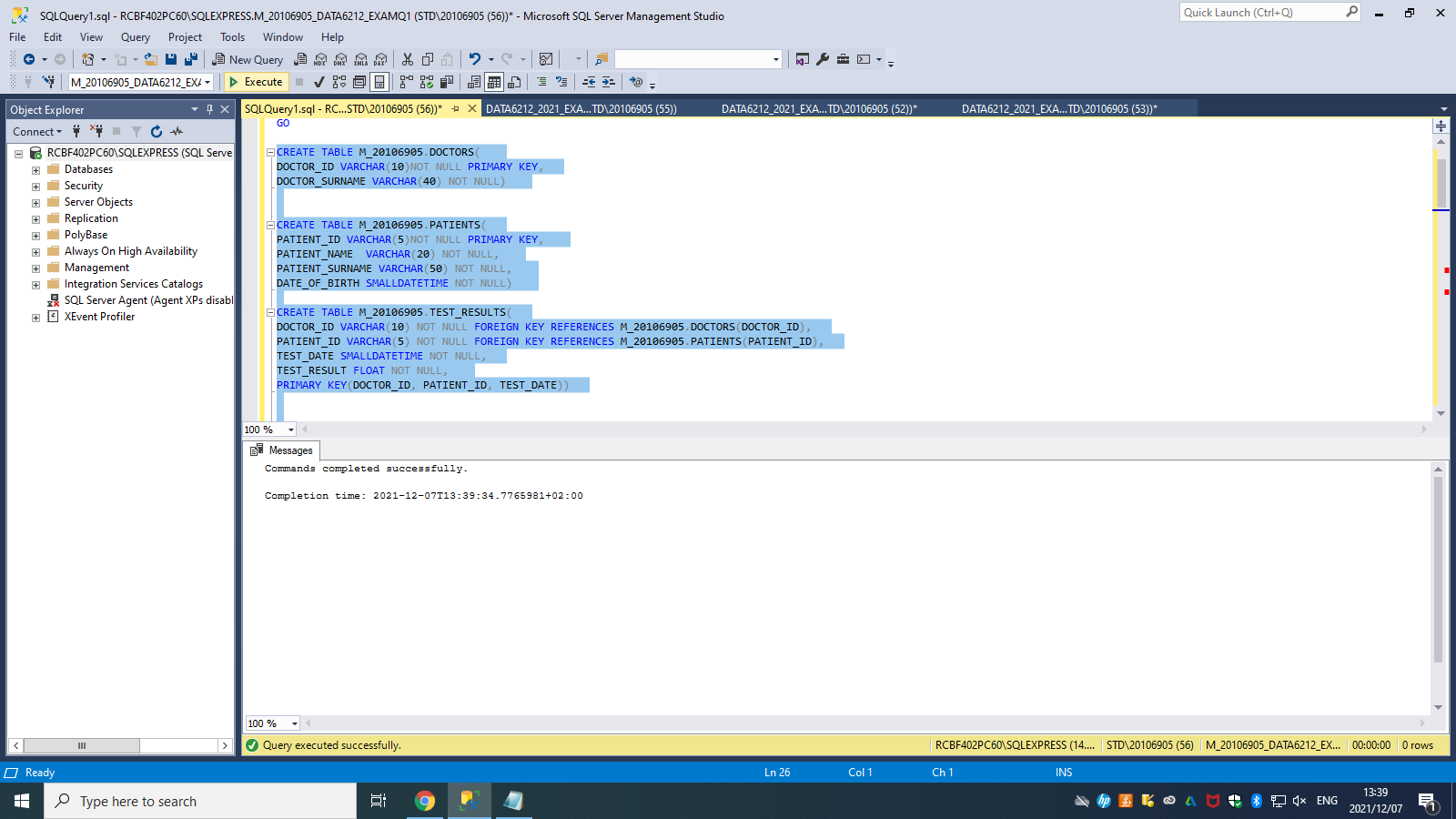
DOCTOR\_ID VARCHAR(10) NOT NULL FOREIGN KEY REFERENCES M\_20106905.DOCTORS(DOCTOR\_ID),

PATIENT\_ID VARCHAR(5) NOT NULL FOREIGN KEY REFERENCES M\_20106905.PATIENTS(PATIENT\_ID),

TEST\_DATE SMALLDATETIME NOT NULL,

TEST\_RESULT FLOAT NOT NULL,

PRIMARY KEY(DOCTOR\_ID, PATIENT\_ID, TEST\_DATE))



INSERT INTO M\_20106905.DOCTORS VALUES

('DR001','Coetzee'),

('DR002','Hasim'),

('DR003','Mbeku'),

('DR004','Phillips')

INSERT INTO M\_20106905.PATIENTS VALUES

('PT001','Dominique',' Woolridge','1962‐04‐19'),

('PT002','Nico','Baird','1951‐11‐19'),

('PT003','Derek','Moore','1995‐06‐24'),

('PT004','Neo','Petlele','1947‐12‐29'),

('PT005','Andrew','Crouch','1972‐01‐30')

INSERT INTO M\_20106905.TEST\_RESULTS VALUES

('DR002','PT001','2021‐02‐05',7.8),

('DR001','PT004','2021‐01‐14',11.1),

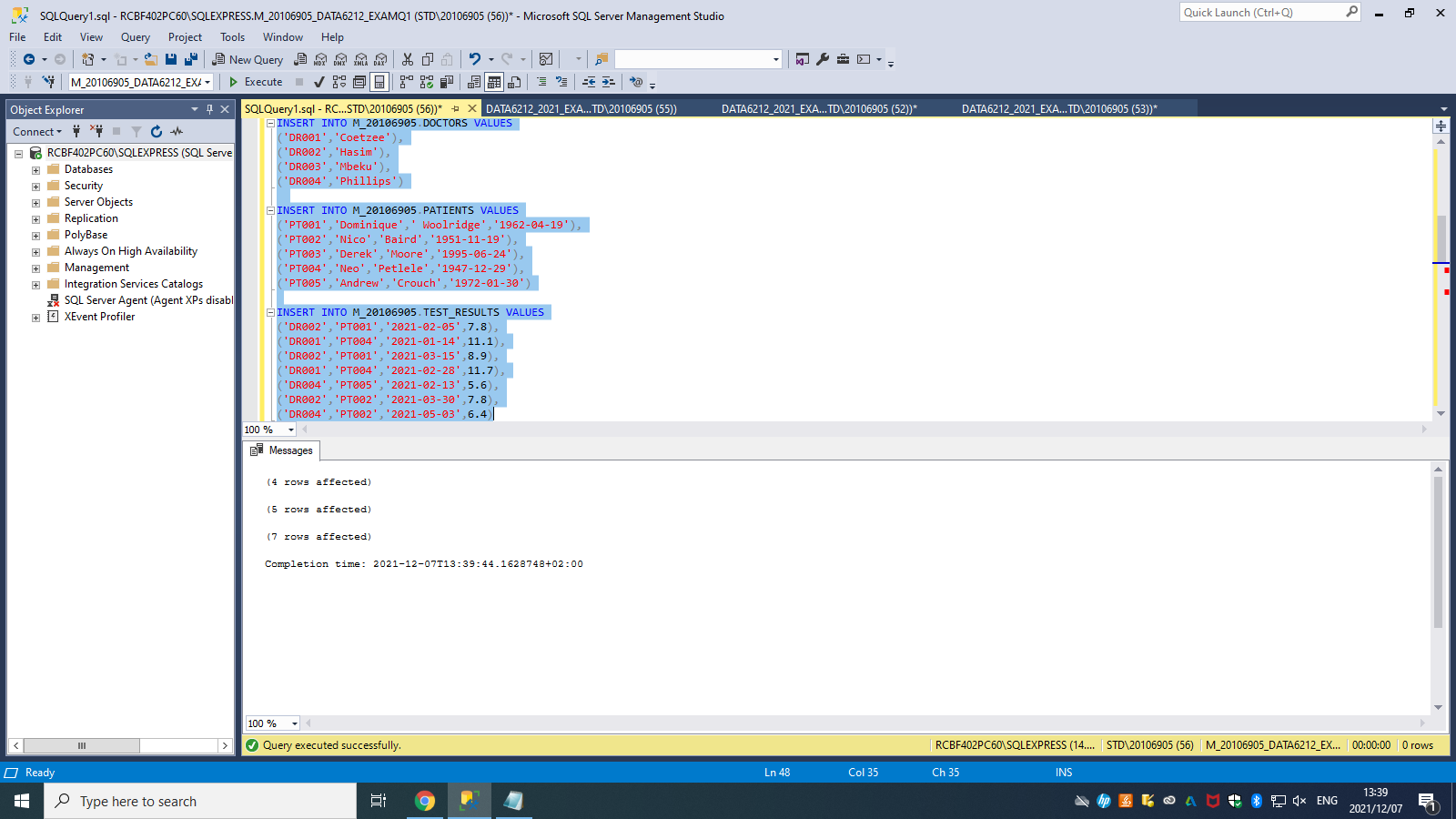
('DR002','PT001','2021‐03‐15',8.9),

('DR001','PT004','2021‐02‐28',11.7),

('DR004','PT005','2021‐02‐13',5.6),

('DR002','PT002','2021‐03‐30',7.8),

('DR004','PT002','2021‐05‐03',6.4)



--Q1.1--

CREATE view NormalResult as

select p.PATIENT\_NAME , p.Patient\_Surname,d.DOCTOR\_SURNAME, TR.TEST\_DATE,TR.TEST\_RESULT

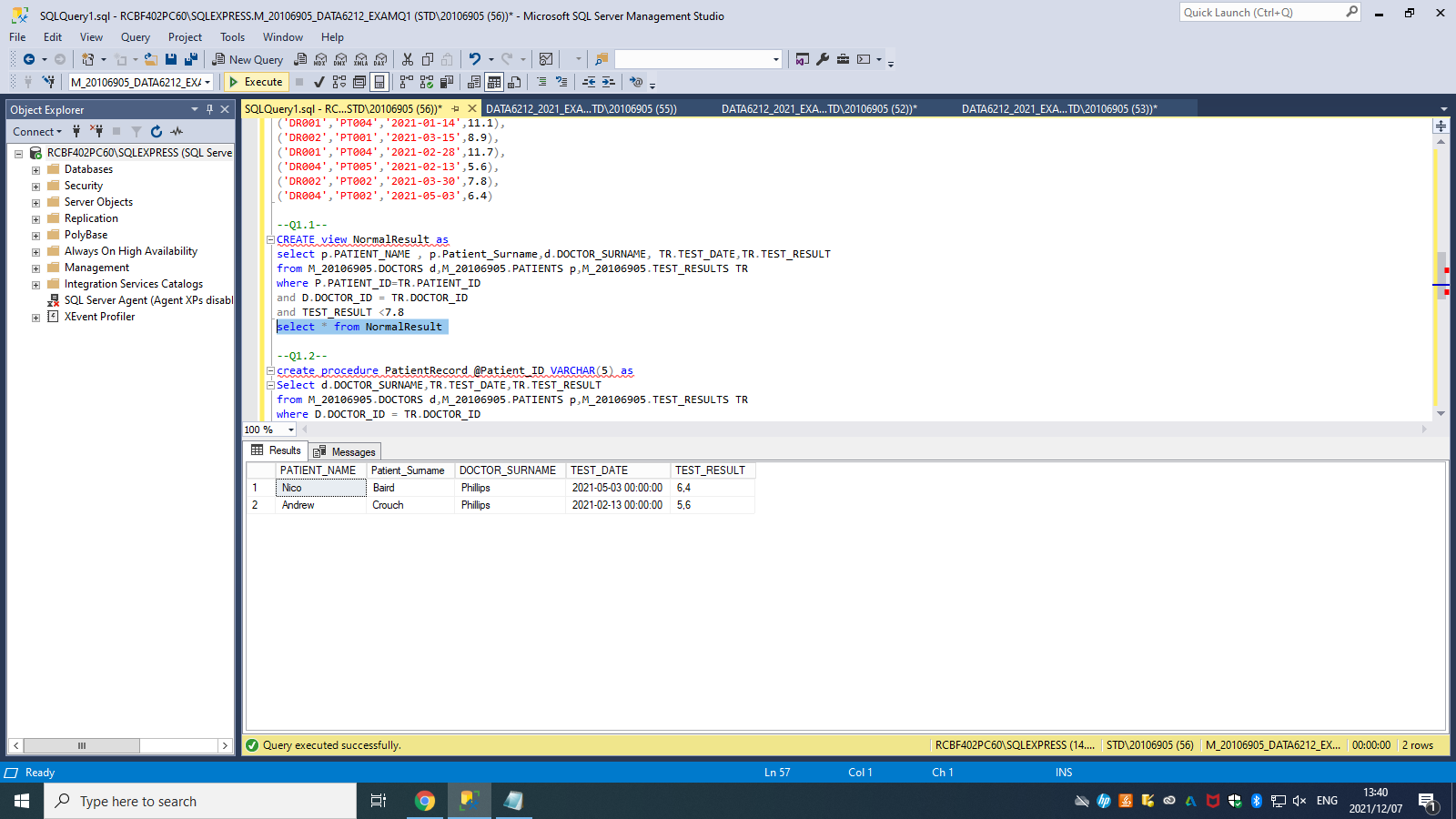
from M\_20106905.DOCTORS d,M\_20106905.PATIENTS p,M\_20106905.TEST\_RESULTS TR

where P.PATIENT\_ID=TR.PATIENT\_ID

and D.DOCTOR\_ID = TR.DOCTOR\_ID

and TEST\_RESULT <7.8

select \* from NormalResult



--Q1.2--

create procedure PatientRecord @Patient\_ID VARCHAR(5) as

Select d.DOCTOR\_SURNAME,TR.TEST\_DATE,TR.TEST\_RESULT

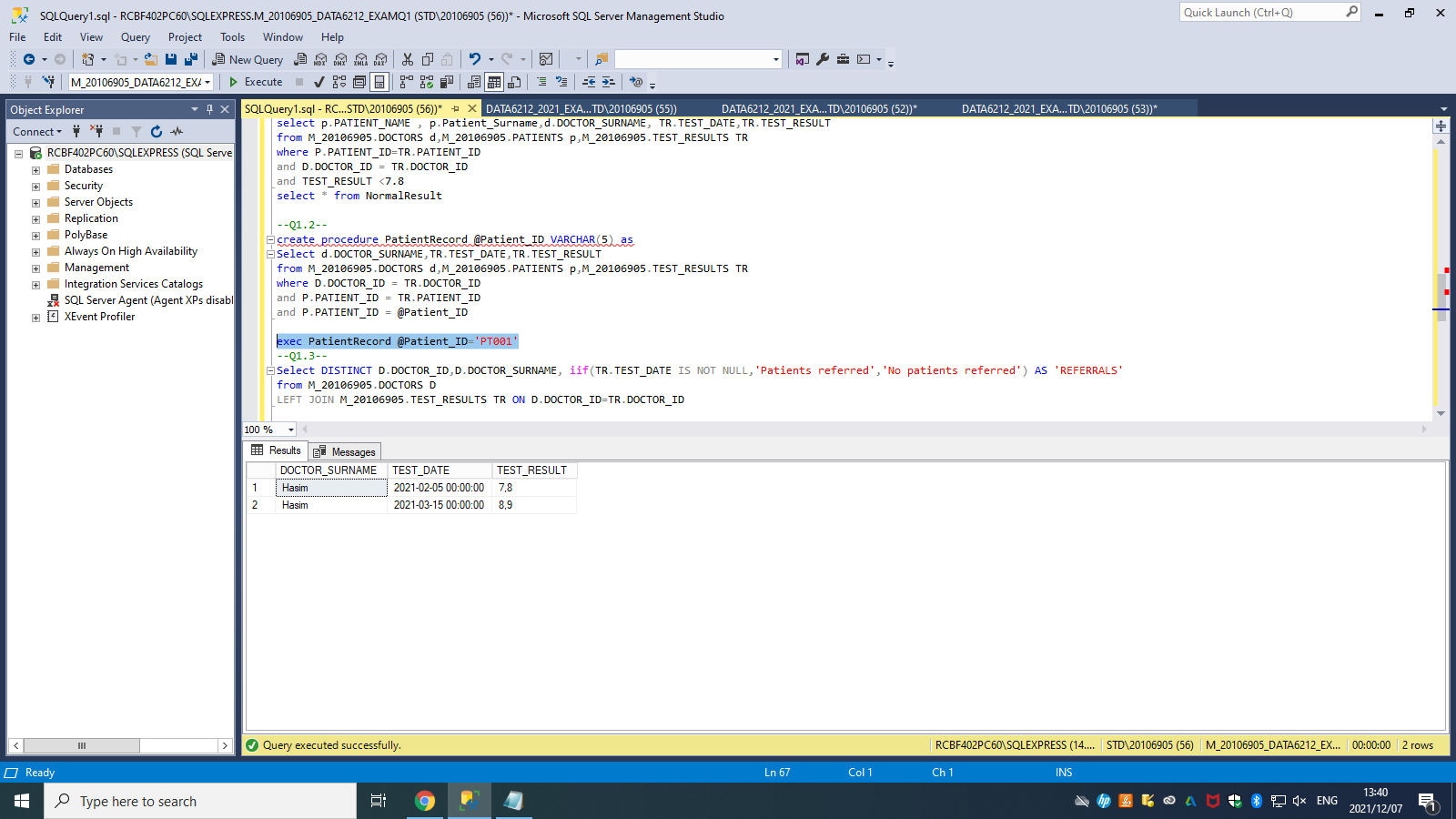
from M\_20106905.DOCTORS d,M\_20106905.PATIENTS p,M\_20106905.TEST\_RESULTS TR

where D.DOCTOR\_ID = TR.DOCTOR\_ID

and P.PATIENT\_ID = TR.PATIENT\_ID

and P.PATIENT\_ID = @Patient\_ID

exec PatientRecord @Patient\_ID='PT001'

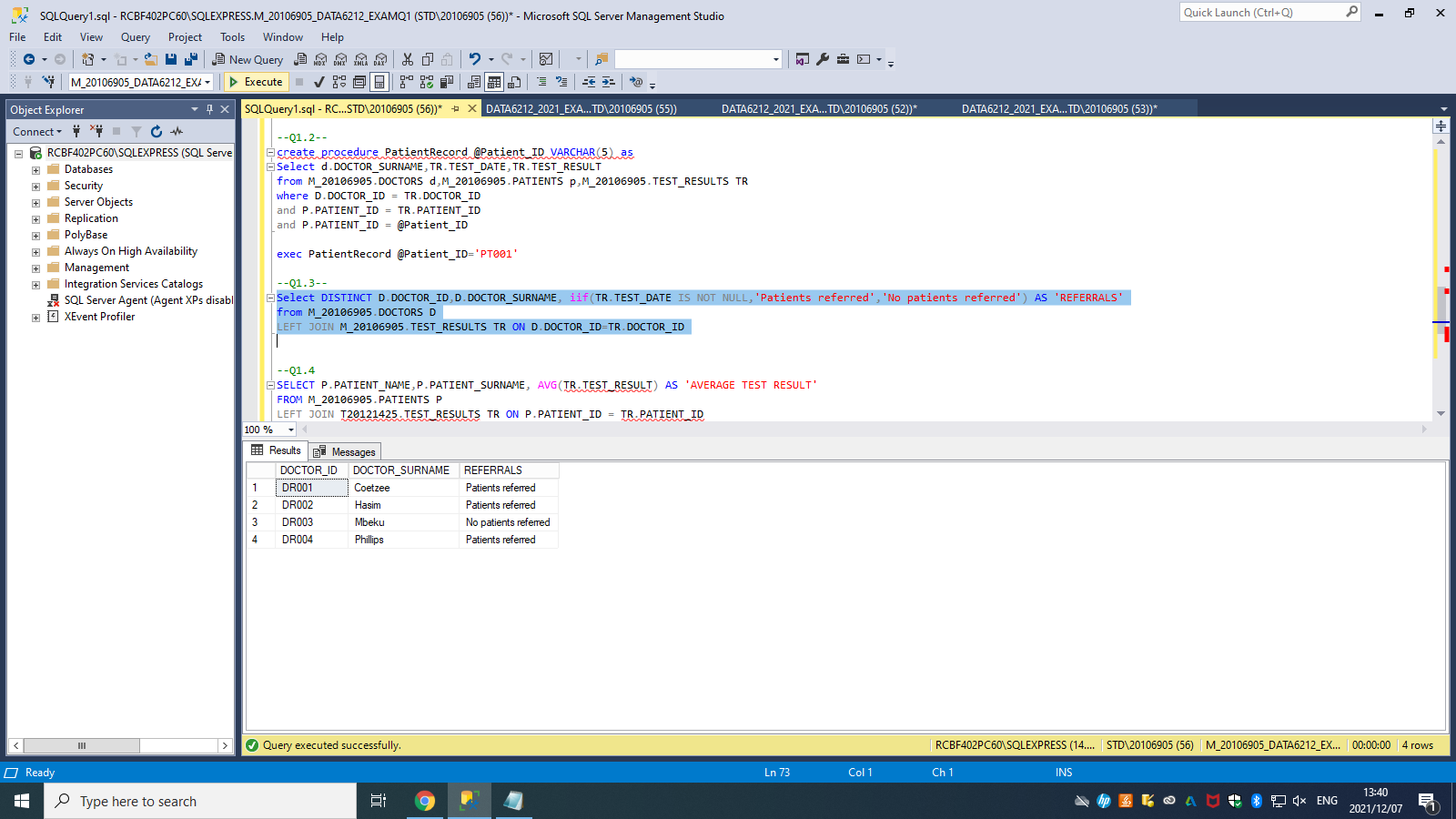


--QUE1.3--

Select DISTINCT D.DOCTOR\_ID,D.DOCTOR\_SURNAME, iif(TR.TEST\_DATE IS NOT NULL,'Patients referred','No patients referred') AS 'REFERRALS'

from M\_20106905.DOCTORS D

LEFT JOIN M\_20106905.TEST\_RESULTS TR ON D.DOCTOR\_ID=TR.DOCTOR\_ID



--QUE1.4

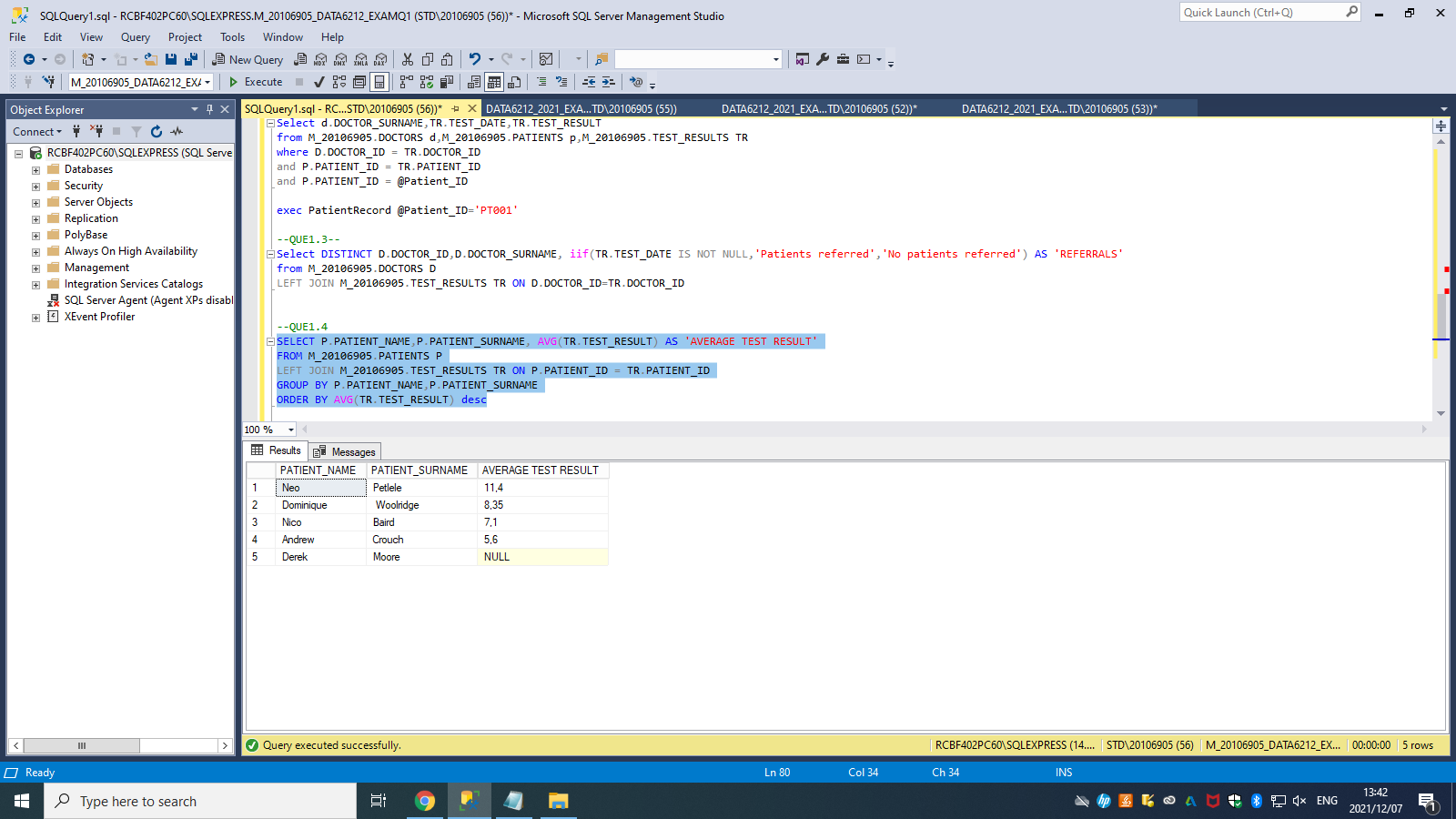
SELECT P.PATIENT\_NAME,P.PATIENT\_SURNAME, AVG(TR.TEST\_RESULT) AS 'AVERAGE TEST RESULT'

FROM M\_20106905.PATIENTS P

LEFT JOIN M\_20106905.TEST\_RESULTS TR ON P.PATIENT\_ID = TR.PATIENT\_ID

GROUP BY P.PATIENT\_NAME,P.PATIENT\_SURNAME

ORDER BY AVG(TR.TEST\_RESULT) desc



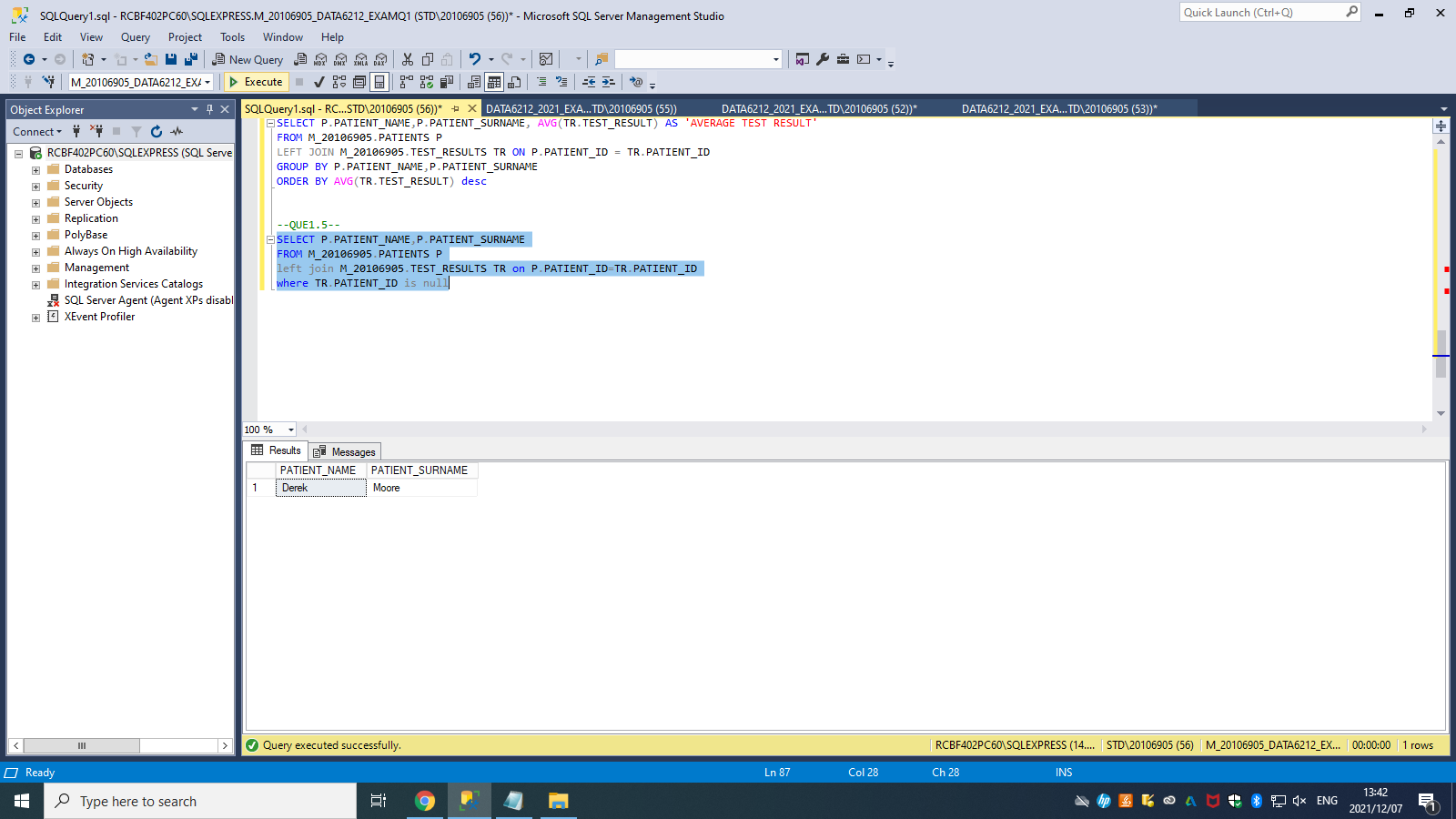
--QUE1.5--

SELECT P.PATIENT\_NAME,P.PATIENT\_SURNAME

FROM M\_20106905.PATIENTS P

left join M\_20106905.TEST\_RESULTS TR on P.PATIENT\_ID=TR.PATIENT\_ID

where TR.PATIENT\_ID is null



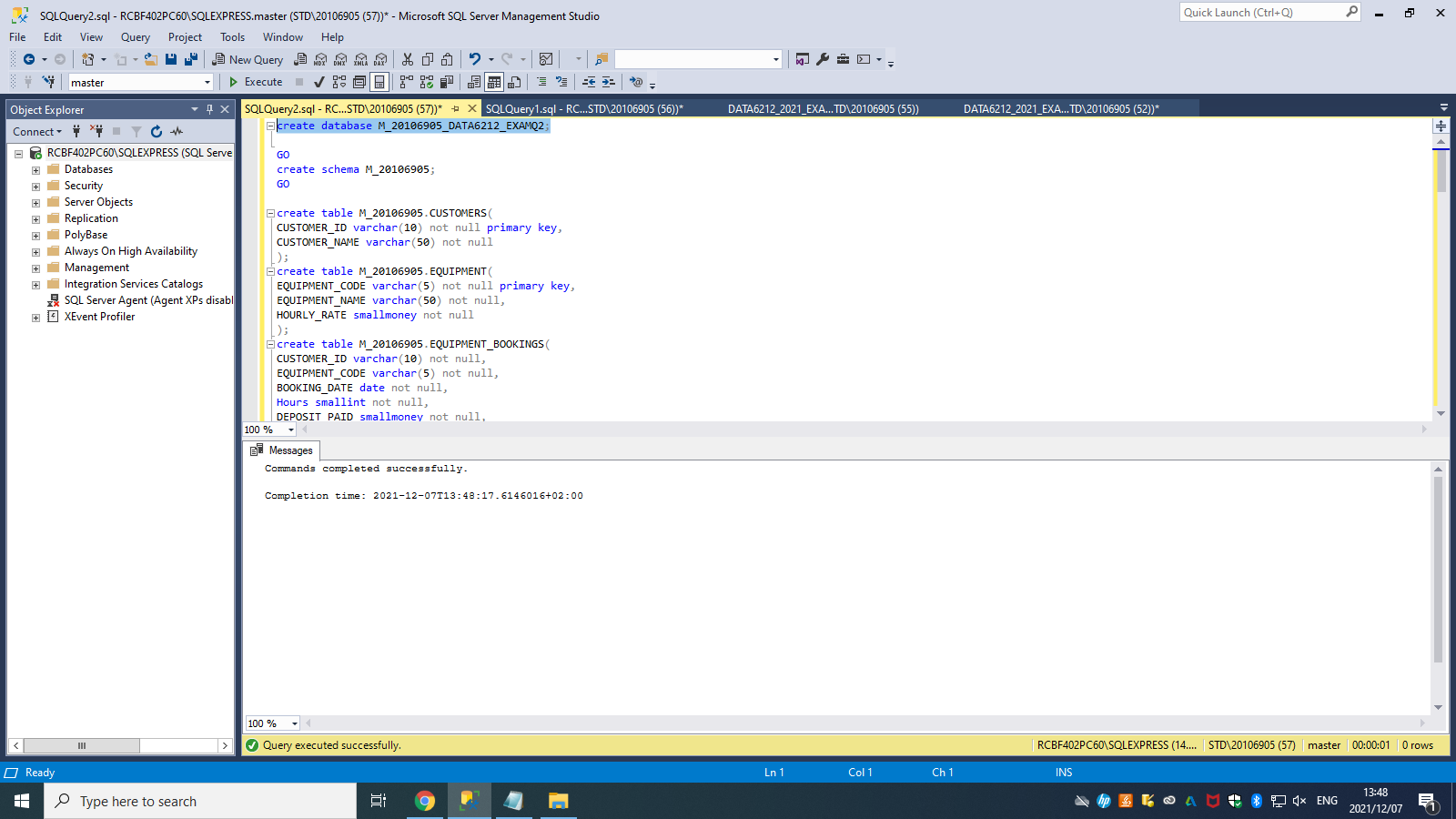
---QUESTION 2---

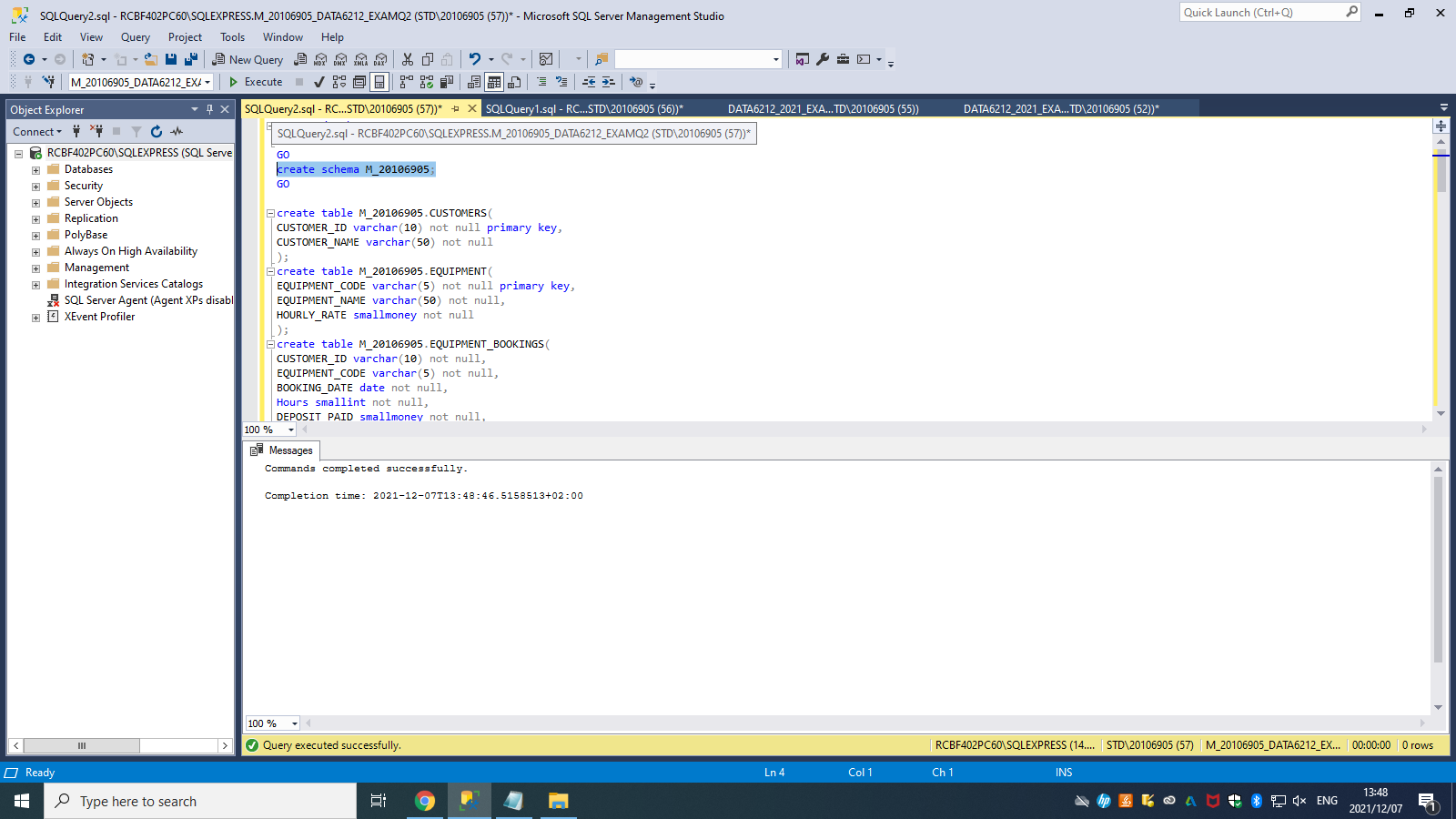
create database M\_20106905\_DATA6212\_EXAMQ2;

GO

create schema M\_20106905;

GO





-----QUE2.1------

create table M\_20106905.CUSTOMERS(

CUSTOMER\_ID varchar(10) not null primary key,

CUSTOMER\_NAME varchar(50) not null

);

create table M\_20106905.EQUIPMENT(

EQUIPMENT\_CODE varchar(5) not null primary key,

EQUIPMENT\_NAME varchar(50) not null,

HOURLY\_RATE smallmoney not null

);

create table M\_20106905.EQUIPMENT\_BOOKINGS(

CUSTOMER\_ID varchar(10) not null,

EQUIPMENT\_CODE varchar(5) not null,

BOOKING\_DATE date not null,

Hours smallint not null,

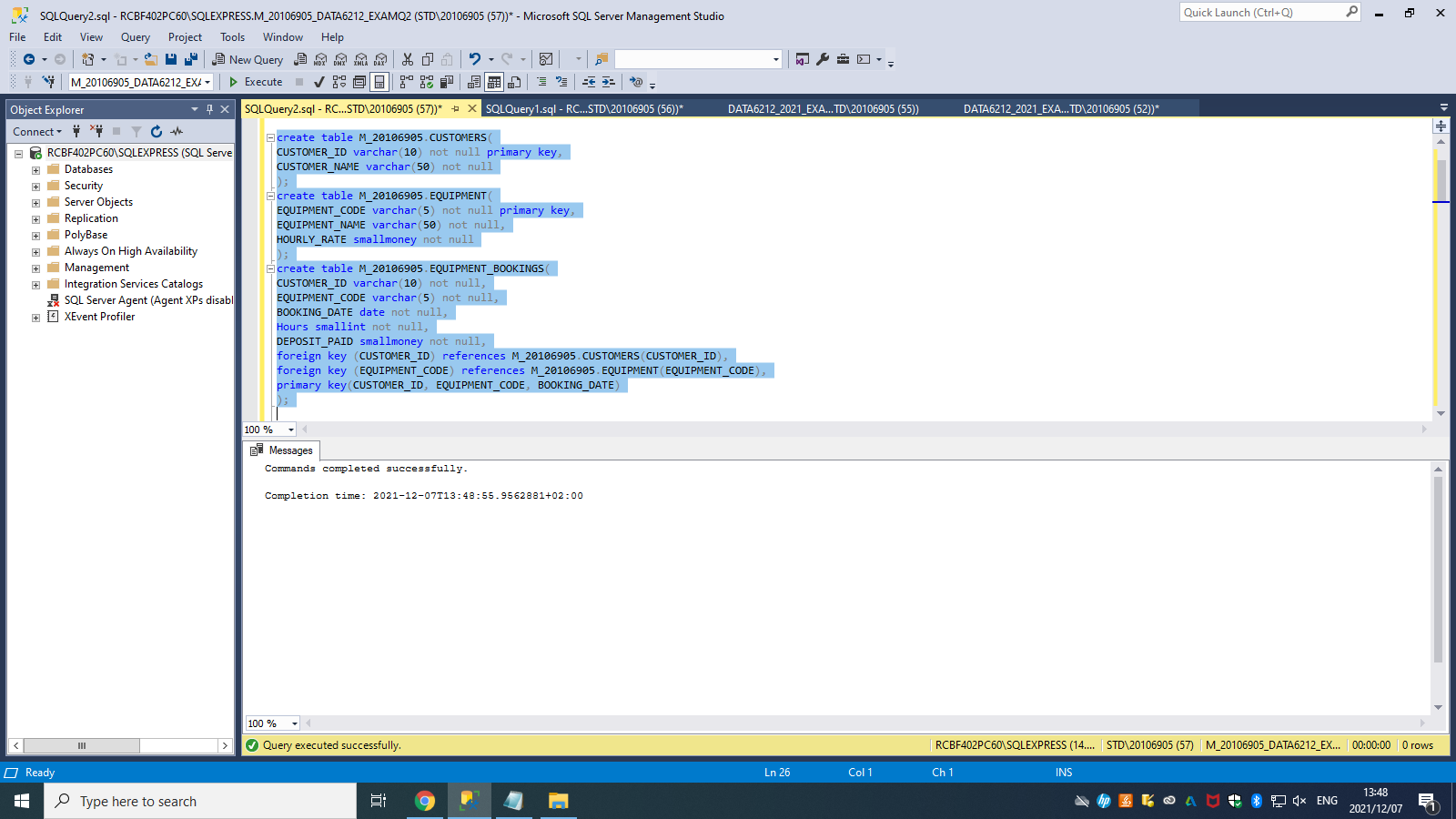
DEPOSIT\_PAID smallmoney not null,

foreign key (CUSTOMER\_ID) references M\_20106905.CUSTOMERS(CUSTOMER\_ID),

foreign key (EQUIPMENT\_CODE) references M\_20106905.EQUIPMENT(EQUIPMENT\_CODE),

primary key(CUSTOMER\_ID, EQUIPMENT\_CODE, BOOKING\_DATE)

);



-----QUE2.2------

insert into M\_20106905.CUSTOMERS

values

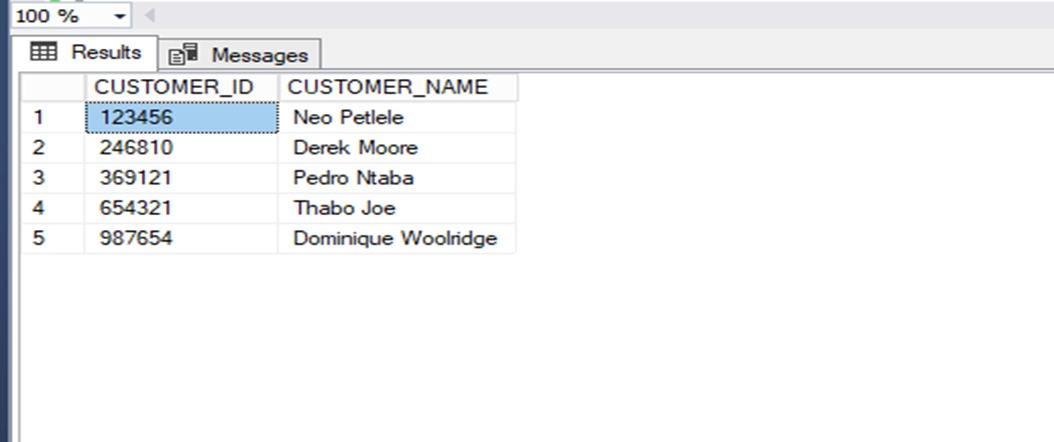
('123456', 'Neo Petlele'),

('246810', 'Derek Moore'),

('369121', 'Pedro Ntaba'),

('654321', 'Thabo Joe'),

('987654', 'Dominique Woolridge');



insert into M\_20106905.EQUIPMENT

values

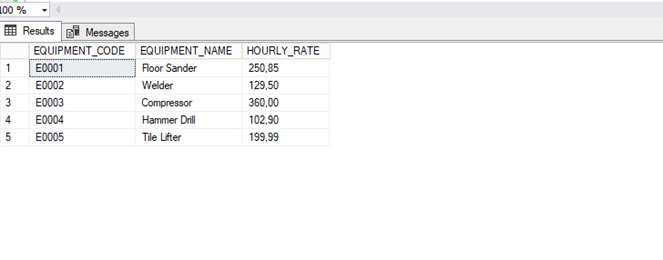
('E0001', 'Floor Sander', 250.85),

('E0002', 'Welder', 129.50),

('E0003', 'Compressor', 360.00),

('E0004', 'Hammer Drill', 102.90),

('E0005', 'Tile Lifter', 199.99);



insert into M\_20106905.EQUIPMENT\_BOOKINGS

values

('123456', 'E0001', '2021‐10‐30', 3, 350.00),

('246810', 'E0005', '2021‐11‐19', 2, 200.00),

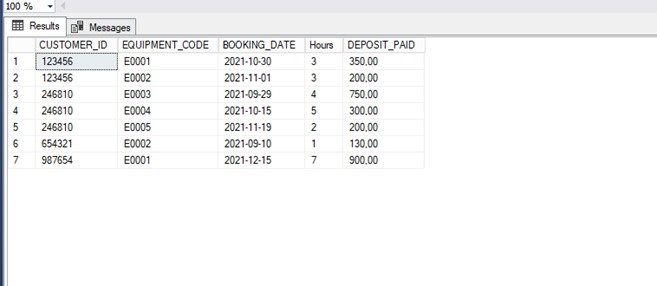
('246810', 'E0004', '2021‐10‐15', 5, 300.00),

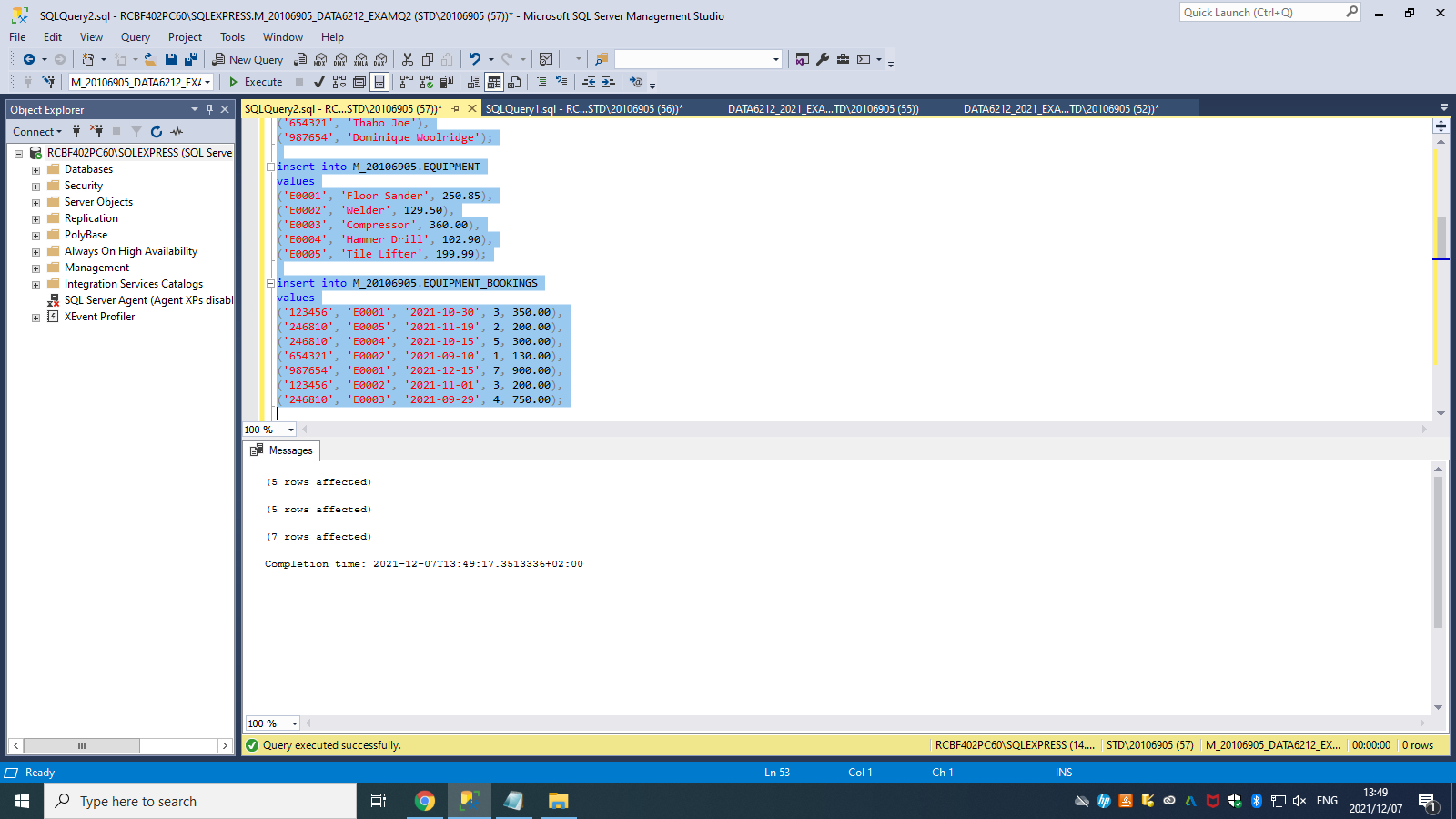
('654321', 'E0002', '2021‐09‐10', 1, 130.00),

('987654', 'E0001', '2021‐12‐15', 7, 900.00),

('123456', 'E0002', '2021‐11‐01', 3, 200.00),

('246810', 'E0003', '2021‐09‐29', 4, 750.00);



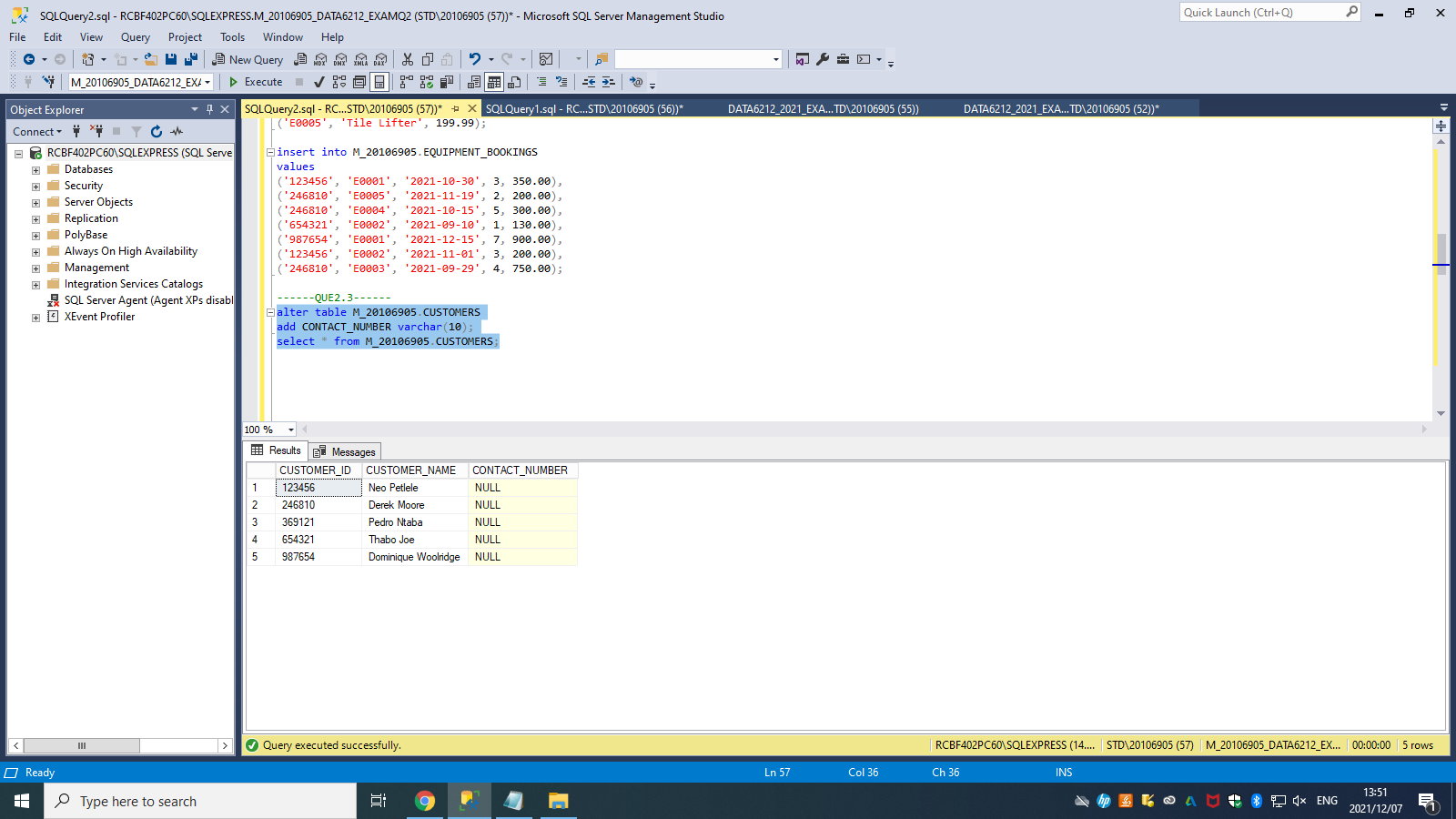


------QUE2.3------

alter table M\_20106905.CUSTOMERS

add CONTACT\_NUMBER varchar(10);

select \* from M\_20106905.CUSTOMERS;



-------QUE2.4------

update M\_20106905.CUSTOMERS

set CONTACT\_NUMBER = '0833875687'

where CUSTOMER\_ID = '123456';

update M\_20106905.CUSTOMERS

set CONTACT\_NUMBER = '0836914682'

where CUSTOMER\_ID = '246810';

update M\_20106905.CUSTOMERS

set CONTACT\_NUMBER = '0728965412'

where CUSTOMER\_ID = '369121';

update M\_20106905.CUSTOMERS

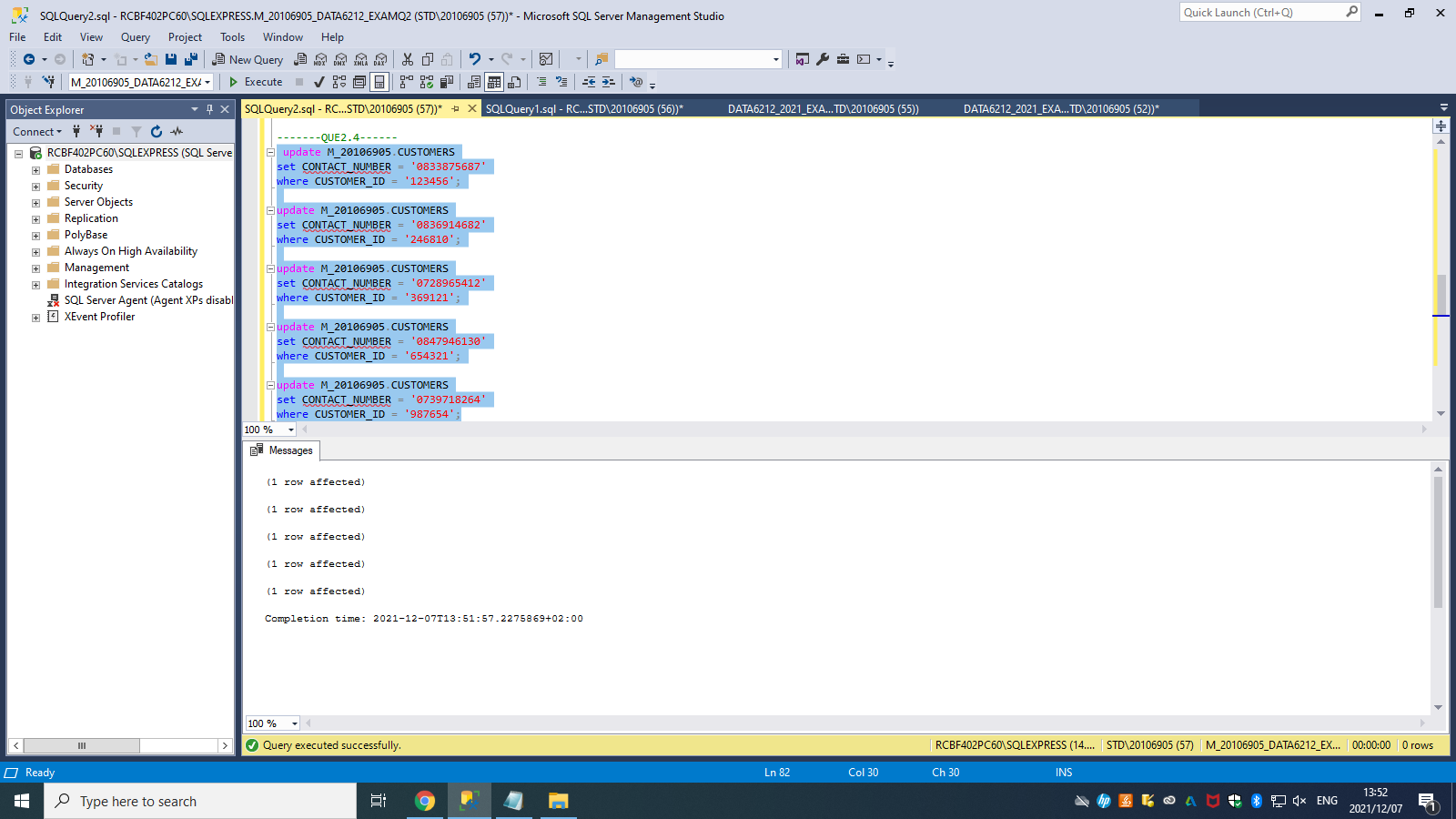
set CONTACT\_NUMBER = '0847946130'

where CUSTOMER\_ID = '654321';

update M\_20106905.CUSTOMERS

set CONTACT\_NUMBER = '0739718264'

where CUSTOMER\_ID = '987654';



------QUE2.5-------

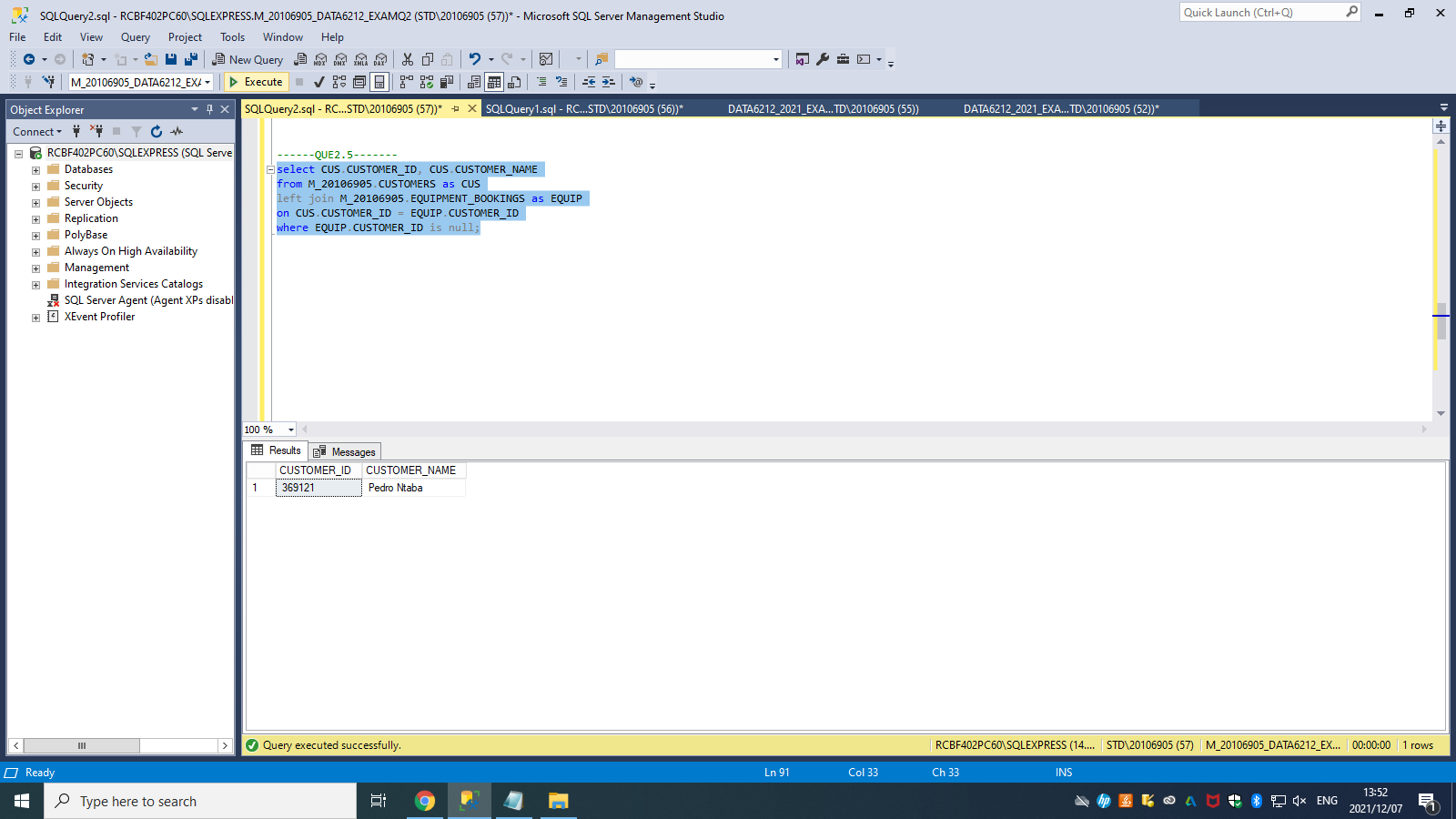
select CUS.CUSTOMER\_ID, CUS.CUSTOMER\_NAME

from M\_20106905.CUSTOMERS as CUS

left join M\_20106905.EQUIPMENT\_BOOKINGS as EQUIP

on CUS.CUSTOMER\_ID = EQUIP.CUSTOMER\_ID

where EQUIP.CUSTOMER\_ID is null;



-----QUE2.6------

select CUS.CUSTOMER\_ID, CUS.CUSTOMER\_NAME, COUNT(EQUIP.CUSTOMER\_ID) as 'NUMBEROF EQUIPMENT BOOKINGS'

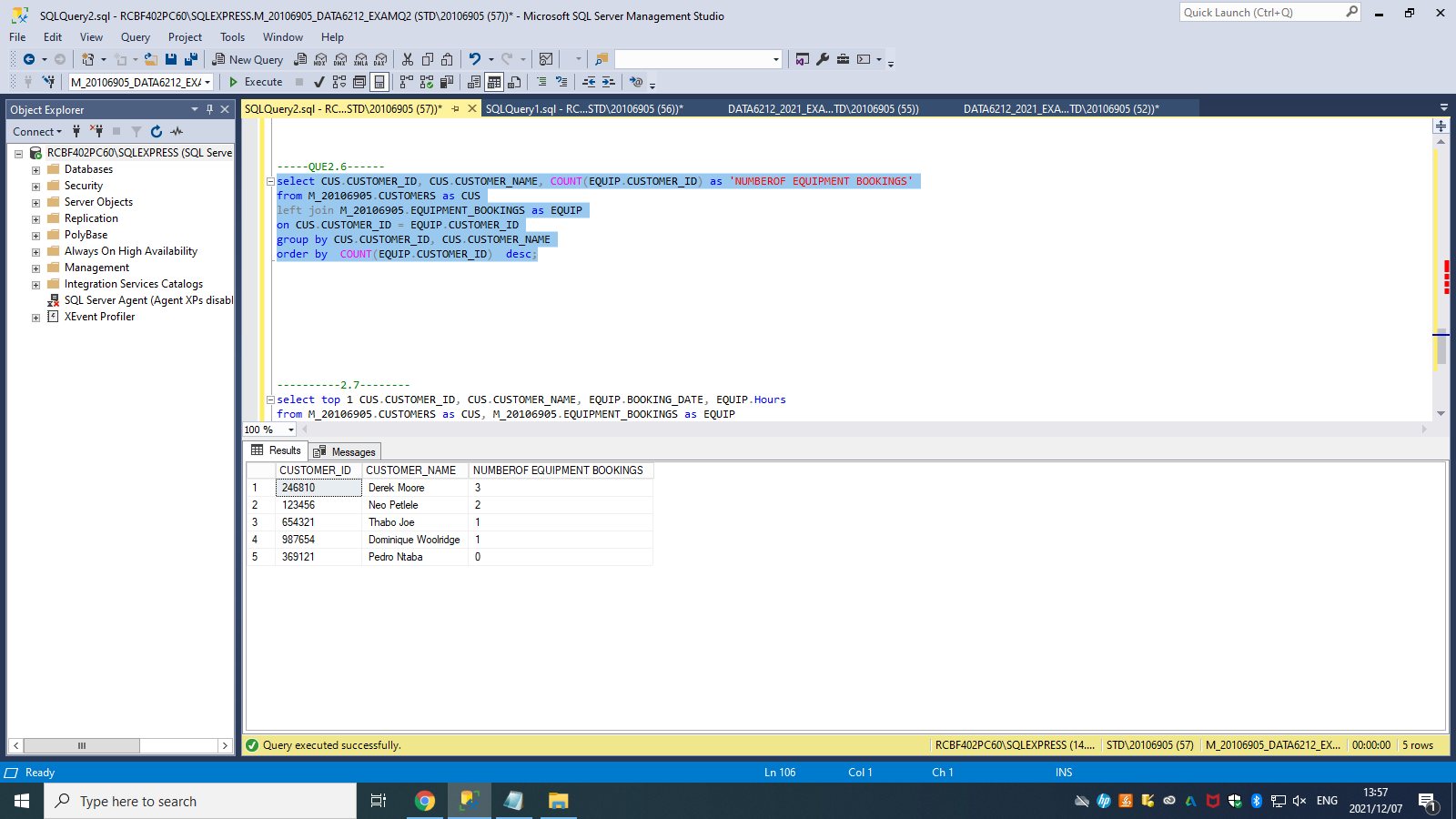
from M\_20106905.CUSTOMERS as CUS

left join M\_20106905.EQUIPMENT\_BOOKINGS as EQUIP

on CUS.CUSTOMER\_ID = EQUIP.CUSTOMER\_ID

group by CUS.CUSTOMER\_ID, CUS.CUSTOMER\_NAME

order by COUNT(EQUIP.CUSTOMER\_ID) desc;



----------QUE2.7--------

select top 1 CUS.CUSTOMER\_ID, CUS.CUSTOMER\_NAME, EQUIP.BOOKING\_DATE, EQUIP.Hours

from M\_20106905.CUSTOMERS as CUS, M\_20106905.EQUIPMENT\_BOOKINGS as EQUIP

where CUS.CUSTOMER\_ID = EQUIP.CUSTOMER\_ID

order by EQUIP.Hours desc;

