Laboratory Assignments Subject: Introduction to Databases

Subject code: CSE 3151

**Assignment 2: Practicing DDL and DML Commands**

# Objective of this Assignment:

* To solve simple queries using DDL and DML statements over tables based on assignment 1.

# Write the SQL Expressions for the following SQL Queries and verify it in your PC by executing it.

* 1. Display the structure of all the tables you have created in assignment (1).

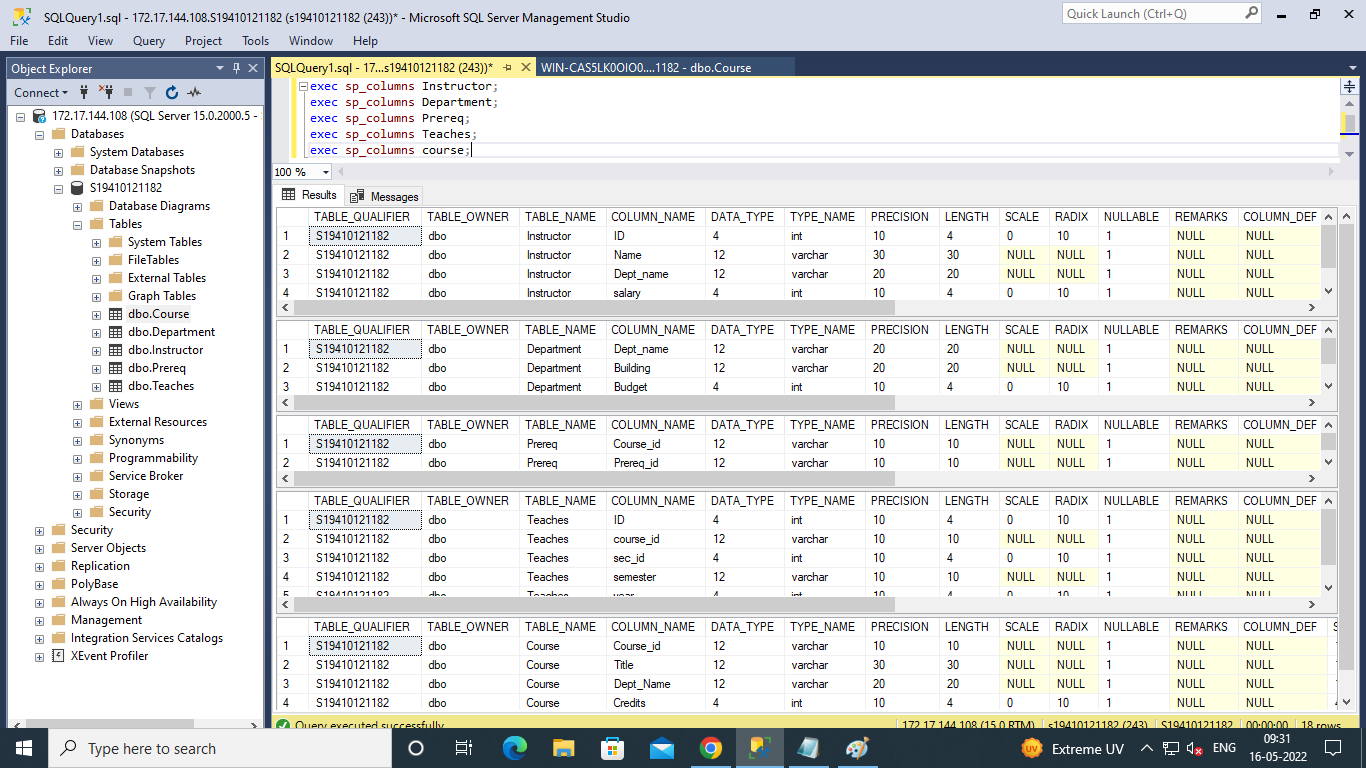
EXEC sp\_columns INSTRUCTOR;

EXEC sp\_columns COURSE;

EXEC sp\_columns DEPARTMENT;

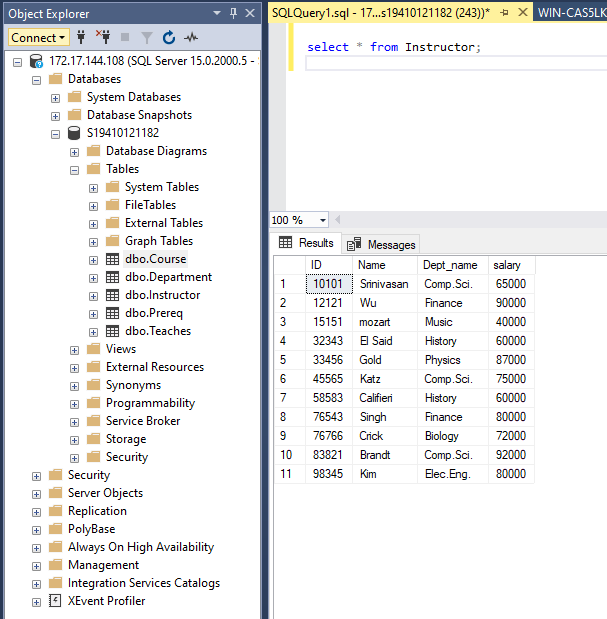
EXEC sp\_columns TEACHES;

EXEC sp\_columns PREREQ;

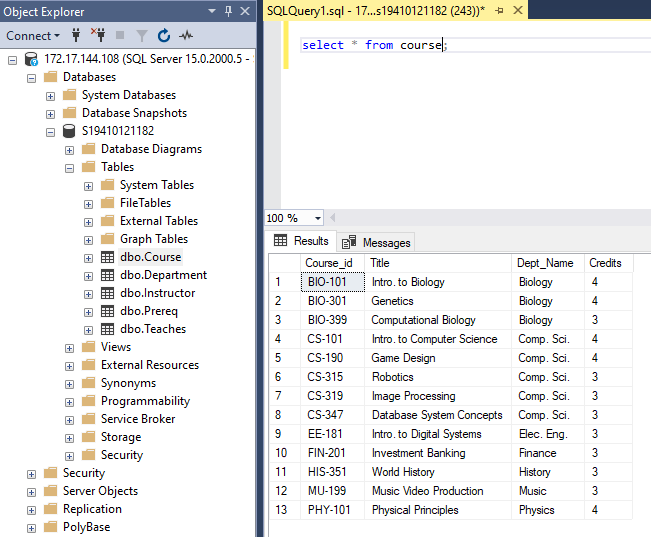


* 1. Display the contents of all the tables you have created in assignment (1).

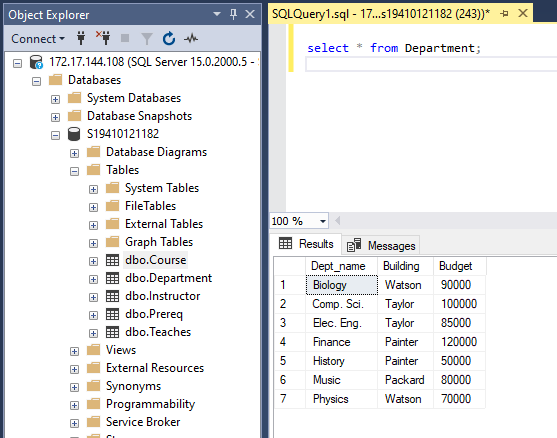
SELECT \* FROM INSTRUCTOR;



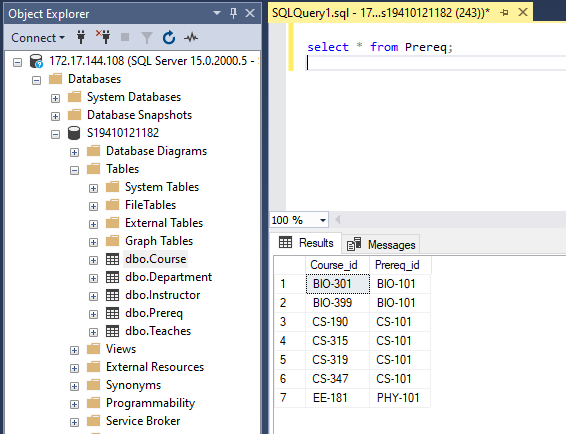
SELECT \* FROM COURSE;



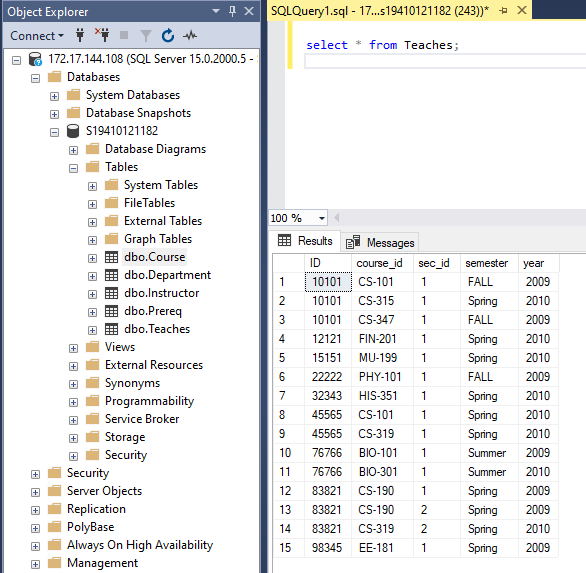
SELECT \* FROM DEPARTMENT;



SELECT \* FROM PREREQ;

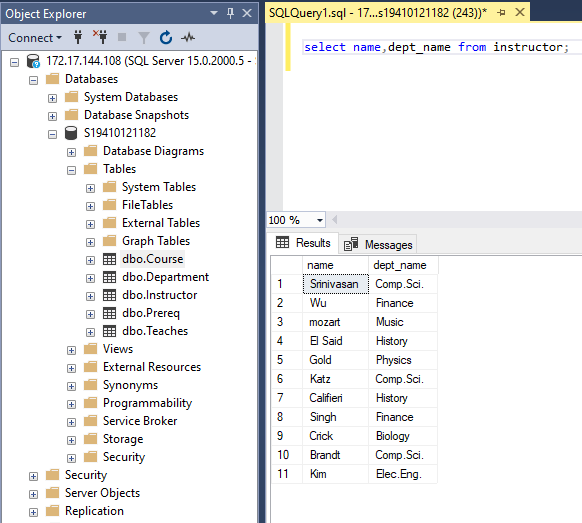


SELECT \* FROM TEACHES;



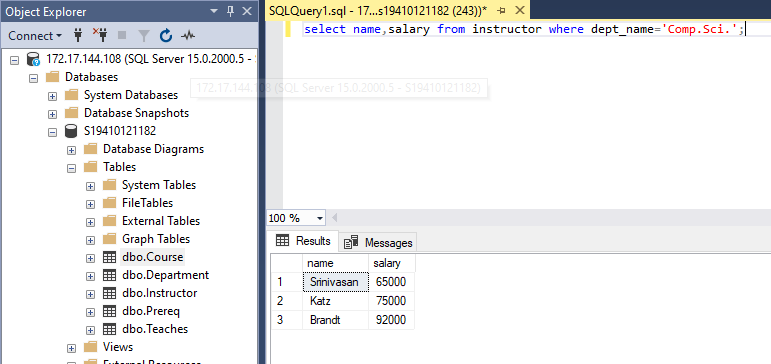
* 1. Display the name and department of each instructor.

SELECT NAME,DEPT\_NAME FROM INSTRUCTOR;



* 1. Display the name and salary of Comp. Sci. Instructors.

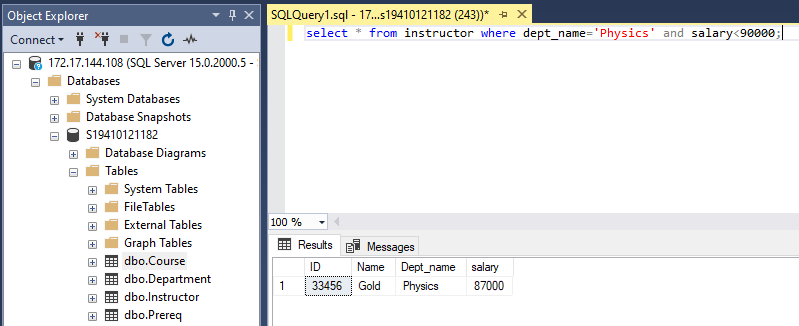
SELECT NAME,SALARY FROM INSTRUCTOR WHERE DEPT\_NAME='COMP. SCI.';



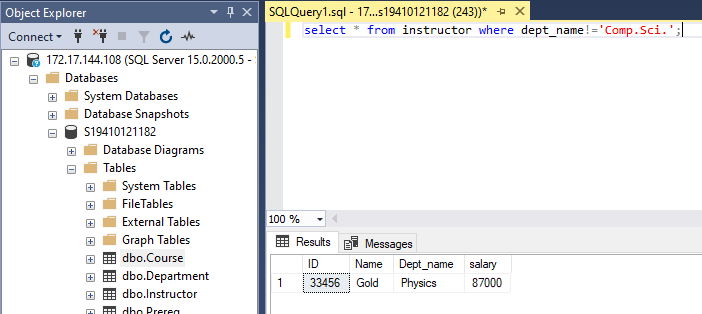
* 1. Display the records of instructor who belongs to Physics department and getting salary

less than 90000.

SELECT \* FROM INSTRUCTOR WHERE DEPT\_NAME='PHYSICS' AND SALARY<90000;

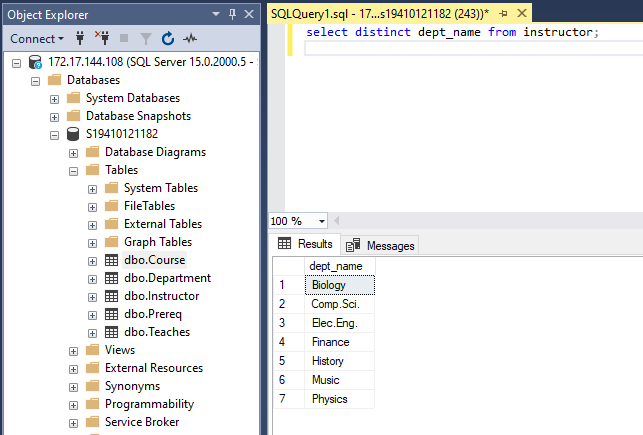


* 1. Display the name of the instructors who do not belong to Comp. Sci. Department.

SELECT NAME FROM INSTRUCTOR WHERE DEPT\_NAME!='COMP. SCI.'; 

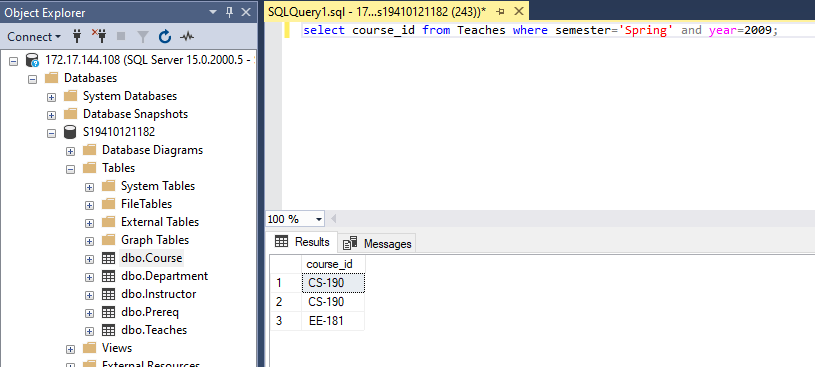
* 1. Display the names of the different department distinctly available in Instructor table.

SELECT DISTINCT DEPT\_NAME FROM INSTRUCTOR;



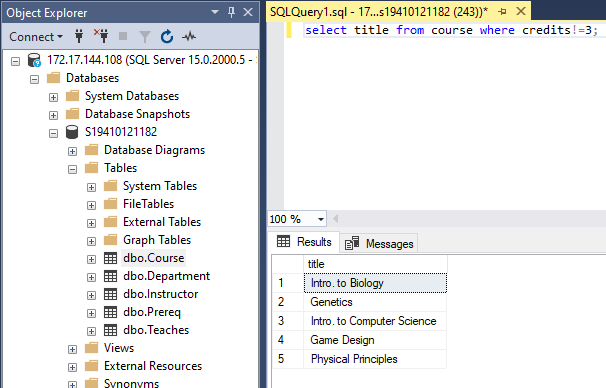
* 1. Display all Course\_id‘s that are taught in Spring semester of 2009.

SELECT COURSE\_ID FROM TEACHES WHERE SEMESTER='SPRING' AND YEAR=2009;



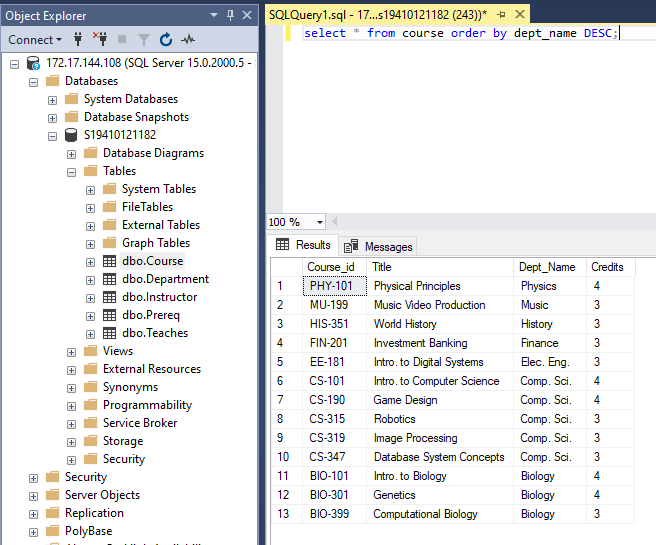
* 1. Display course titles that are taught in Comp. Sci. Department and do not have credit

equals to 3.

SELECT TITLE FROM COURSE WHERE DEPT\_NAME='Comp.Sci.' AND CREDITS!=3; 

* 1. Display all columns of course table sorted in descending order of department names.

SELECT \* FROM COURSE ORDER BY DEPT\_NAME DESC;

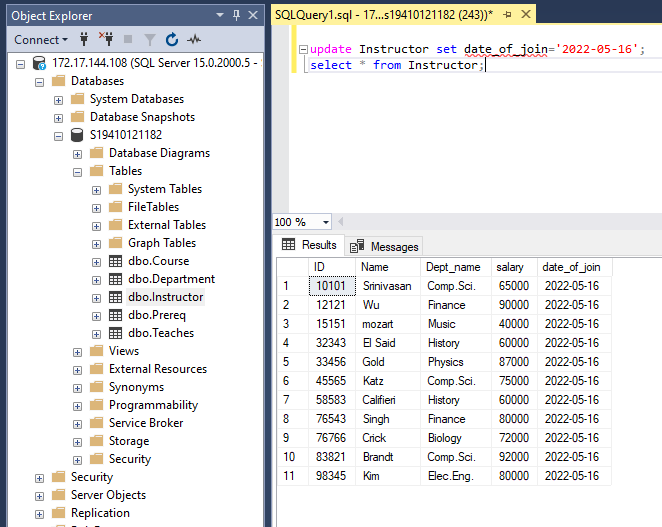


* 1. Add a date\_of\_join column to instructor table.

Alter table instructor add date\_of\_join DATE;

* 1. Insert date values to existing rows.

update Instructor set date\_of\_join='2022-05-16';

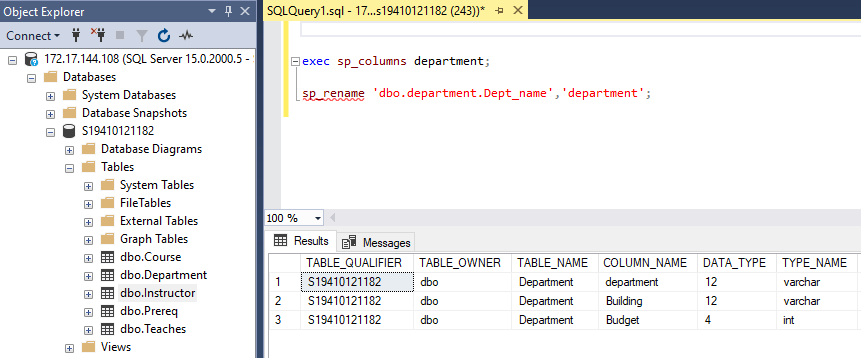
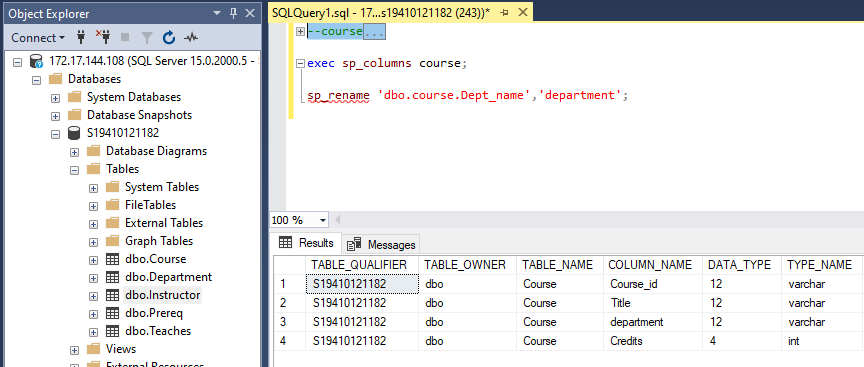
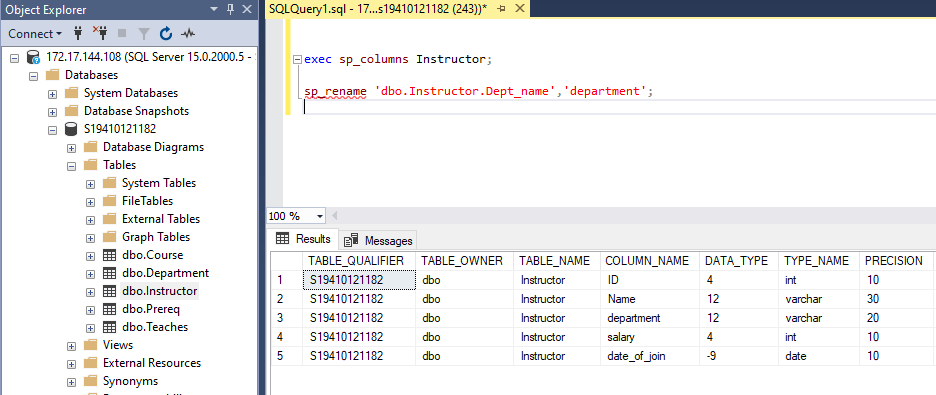


* 1. Change the name of dept\_name to department in all the tables.

SP\_RENAME 'DBO.INSTRUCTOR.DEPT\_NAME','DEPARTMENT';

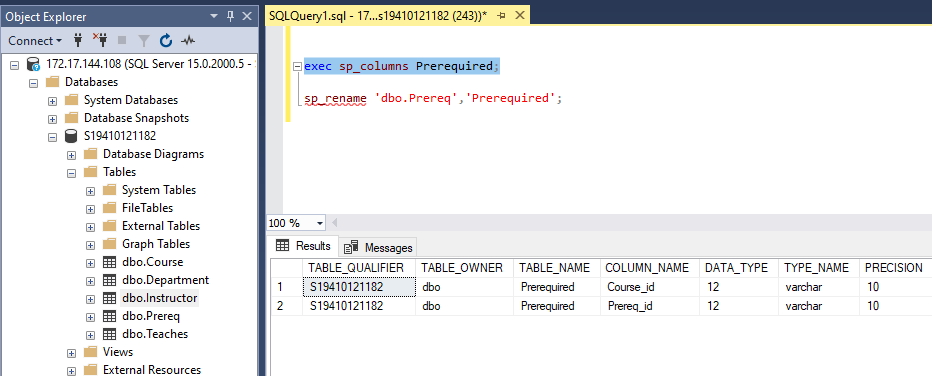
SP\_RENAME 'DBO.COURSE.DEPT\_NAME','DEPARTMENT';

SP\_RENAME 'DBO.DEPARTMENT.DEPT\_NAME','DEPARTMENT';



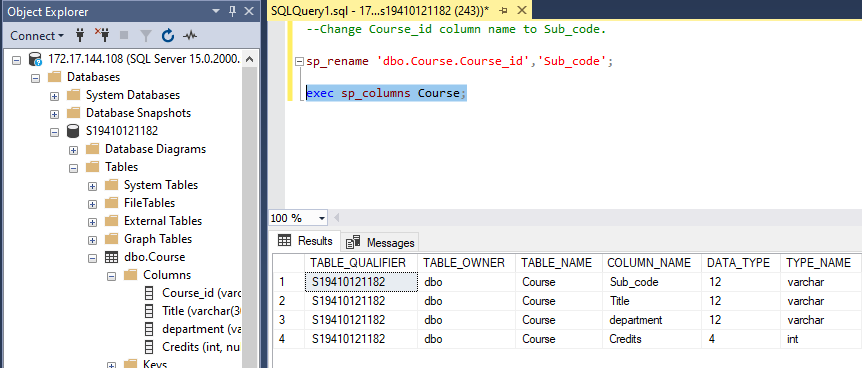
* 1. Change the name of “Prereq” table with new name “Prerequired”.

EXEC sp\_rename 'DBO.PREREQ', 'PREREQUIRED';



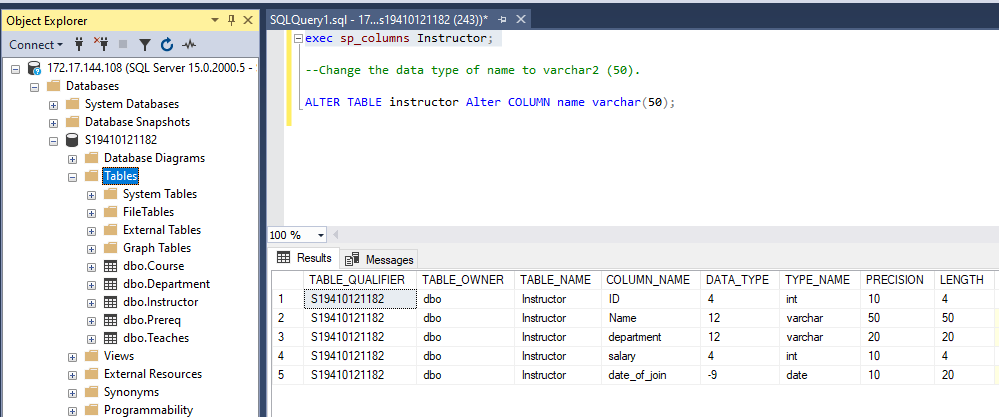
* 1. Change Course\_id column name to Sub\_code.

SP\_RENAME 'DBO.COURSE.COURSE\_ID','SUB\_CODE';



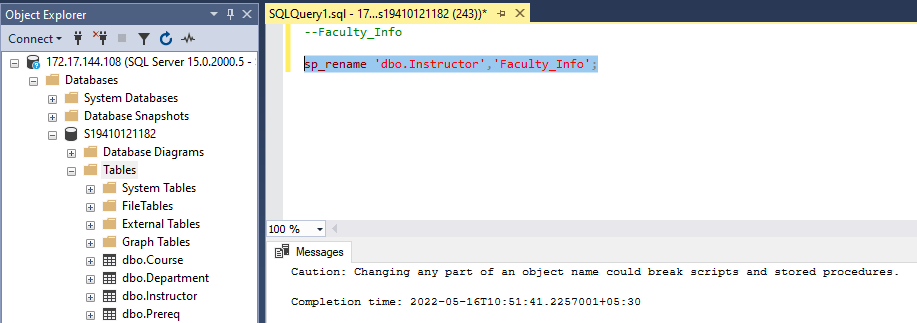
* 1. Change the data type of name to varchar2 (50).

ALTER TABLE INSTRUCTOR ALTER COLUMN NAME VARCHAR(50);



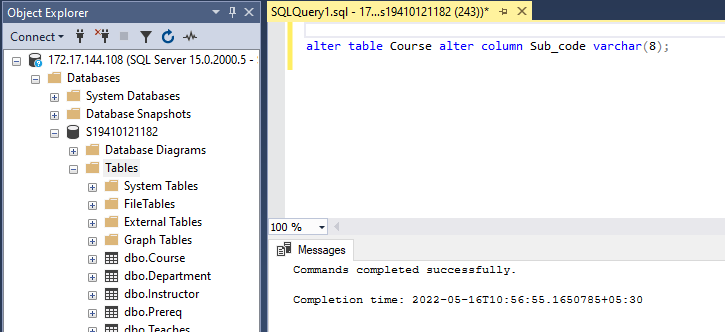
* 1. Change the name of Instructor table to Faculty\_Info.

EXEC sp\_rename 'DBO.INSTRUCTOR', 'FACULTY\_INFO';



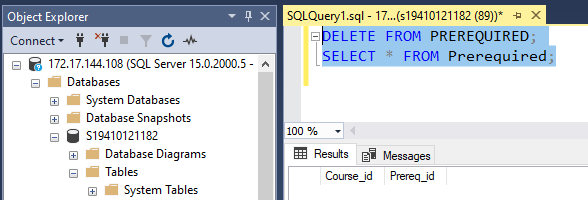
* 1. Change the Column size of Course\_id in Course table from 10 to 8.

ALTER TABLE COURSE ALTER COLUMN Sub\_code VARCHAR(8);



* 1. Delete the content of the table Prereq along with its description.

DELETE FROM PREREQUIRED;



* 1. Change the column name ‘Building’ of Department table by new column name ‘Builder’.

SP\_RENAME 'DBO.DEPARTMENT.BUILDING,'BUILDER';

