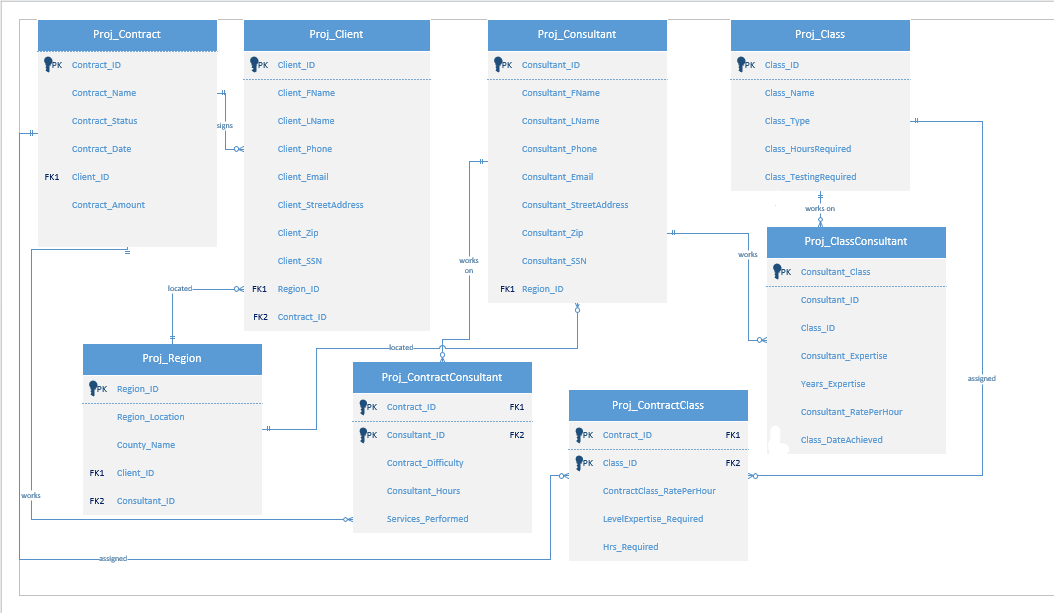
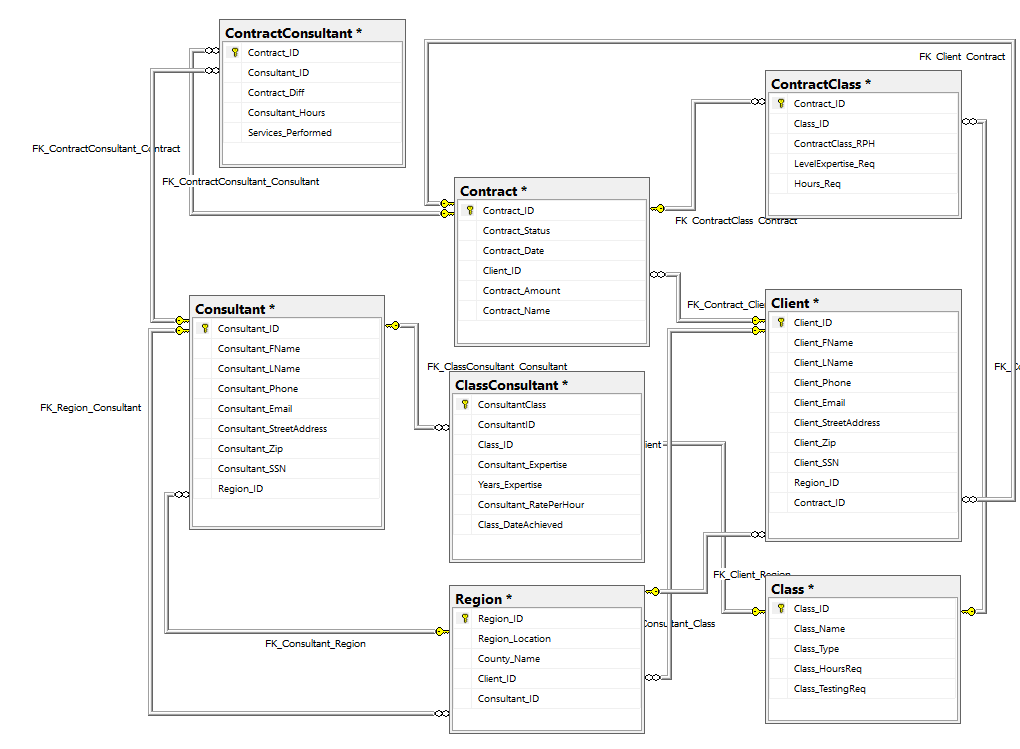
**ERD**



**Relational Diagram**



**3NF Relational Schema:**

**Region** (Region\_ID, Region\_Location, County\_Name, *Client\_ID*, *Consultant\_ID*)

**Contract** (Contract\_ID, Contract\_Name, Contract\_Status, Contract\_Date, *Client\_ID*, Contract\_Amount)

**Client** (Client\_ID, Client\_FName, Client\_LName, Client\_Phone, Client\_Email, Client\_StreetAdress, Client\_Zip, Client\_SSN, *Region\_ID*, *Contract\_ID*)

**ContractConsultant** (*Contract\_ID, Consultant\_ID*, Contract\_Difficulty, Consultant\_Hours, Services\_Performed)

**Consultant** (Consultant\_ID, Consultant\_FName, Consultant\_LName, Consultant\_Phone, Consultant\_Email, Consultant\_StreetAddress, Consultant\_Zip, Consultant\_SSN, *Region\_ID*)

**ContractClass** (*Contract\_ID, Class\_ID,* ContractClass\_RatePerHour, LevelExpertise\_Required, Hrs\_Required)

**Class** (Class\_ID, Class\_Name, Class\_Type, Class\_HoursRequired, Class\_TestingRequired)

**ClassConsultant** (Consultant\_Class, Consultant\_ID, Class\_ID, Years\_Expertise, Consultant\_Expertise, Consutlant\_RatePerHours, Class\_DateAchieved)

**Queries**

Query 1:

Description: Using these specific values from the Region, Client, and Consultant tables, we are identifying business relationships between the clients and consultants.

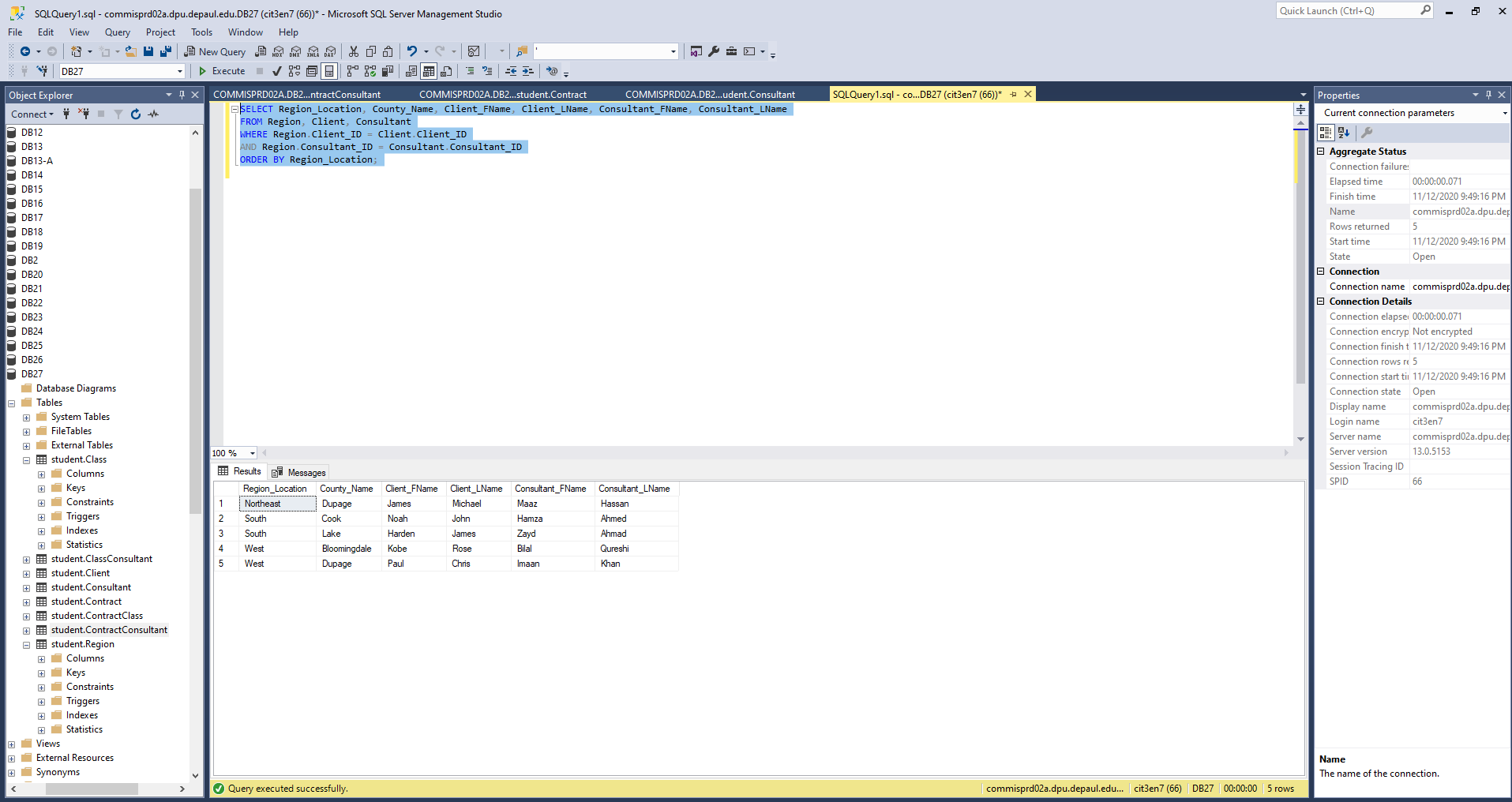
**SELECT Region\_Location, County\_Name, Client\_FName, Client\_LName, Consultant\_FName, Consultant\_LName**

**FROM Region, Client, Consultant**

**WHERE Region.Client\_ID = Client.Client\_ID**

**AND Region.Consultant\_ID = Consultant.Consultant\_ID**

**ORDER BY Region\_Location;**



Query 2:

Description: Using values and relationships from the Contract, Consultant, and ContractConsultant tables, we find contracts that are still active.

**SELECT Contract\_Status, Contract\_Name, Consultant\_FName, Consultant\_LName**

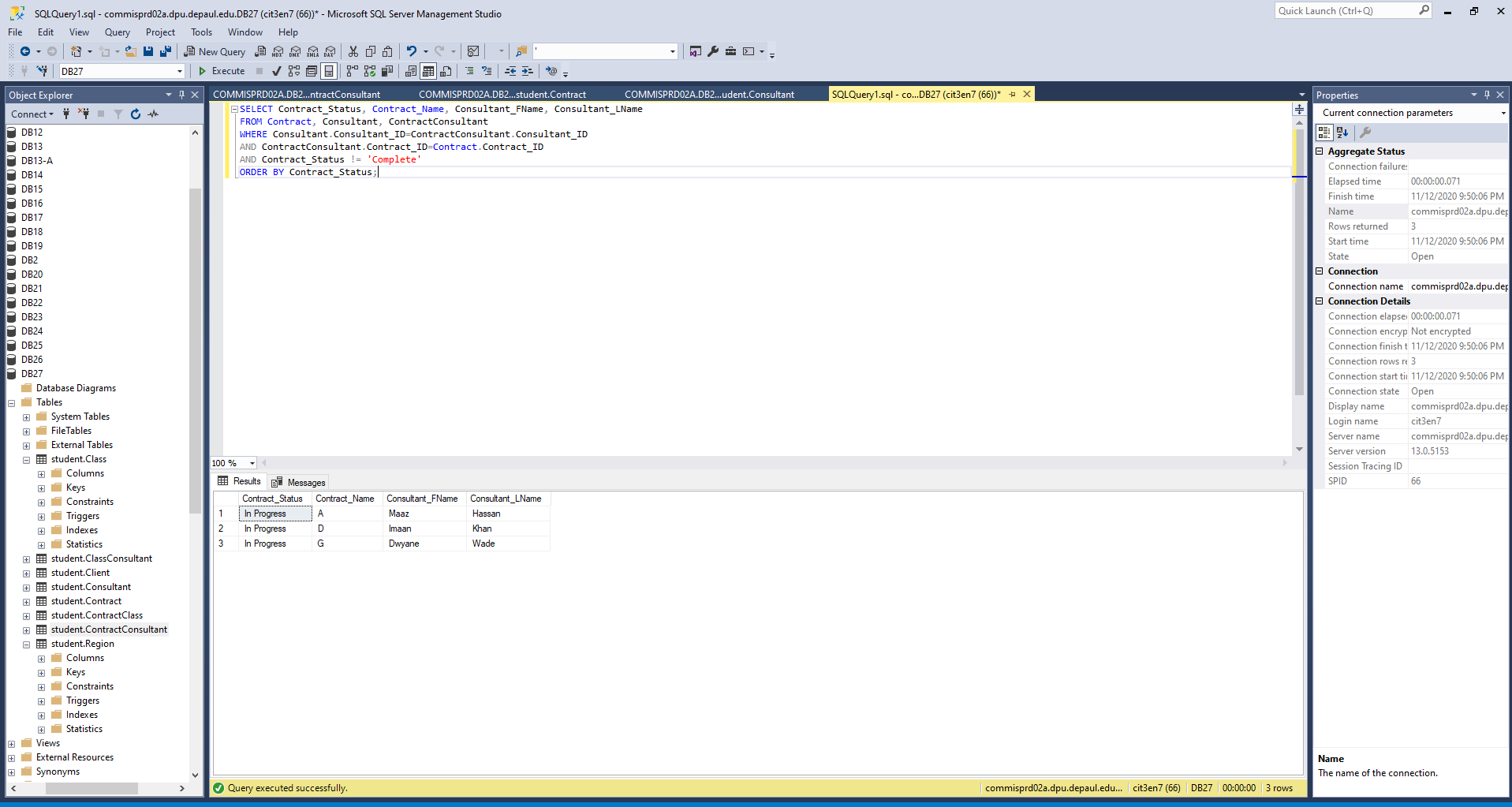
**FROM Contract, Consultant, ContractConsultant**

**WHERE Consultant.Consultant\_ID=ContractConsultant.Consultant\_ID**

**AND ContractConsultant.Contract\_ID=Contract.Contract\_ID**

**AND Contract\_Status != 'Complete'**

**ORDER BY Contract\_Status;**



Query 3:

Description: This will identify which clients and consultants are located in the same geographic region.

**SELECT Region\_Location, County\_Name, Client\_FName, Client\_LName, Consultant\_FName, Consultant\_LName**

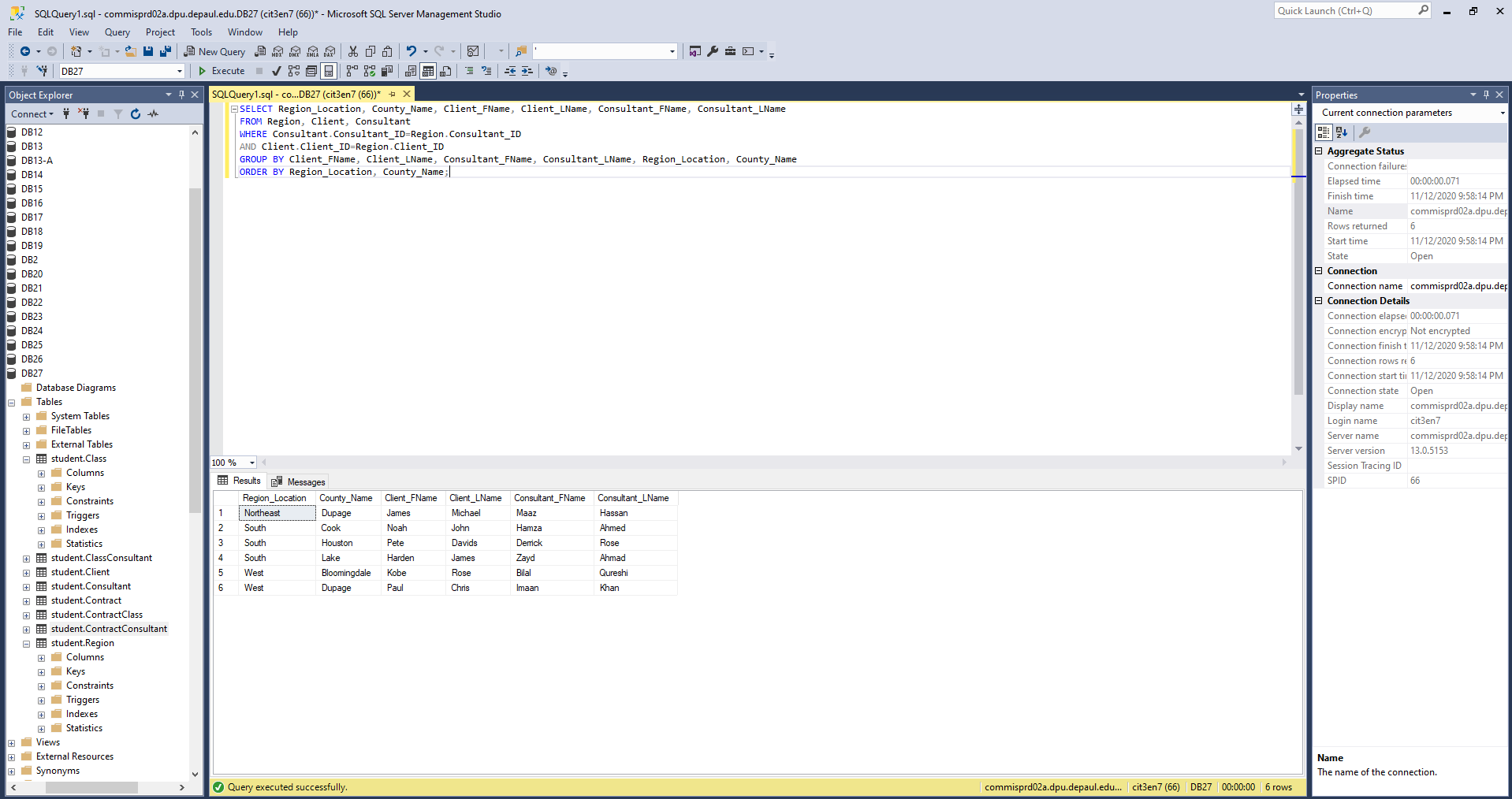
**FROM Region, Client, Consultant**

**WHERE Consultant.Consultant\_ID=Region.Consultant\_ID**

**AND Client.Client\_ID=Region.Client\_ID**

**GROUP BY Client\_FName, Client\_LName, Consultant\_FName, Consultant\_LName, Region\_Location, County\_Name**

**ORDER BY Region\_Location, County\_Name;**



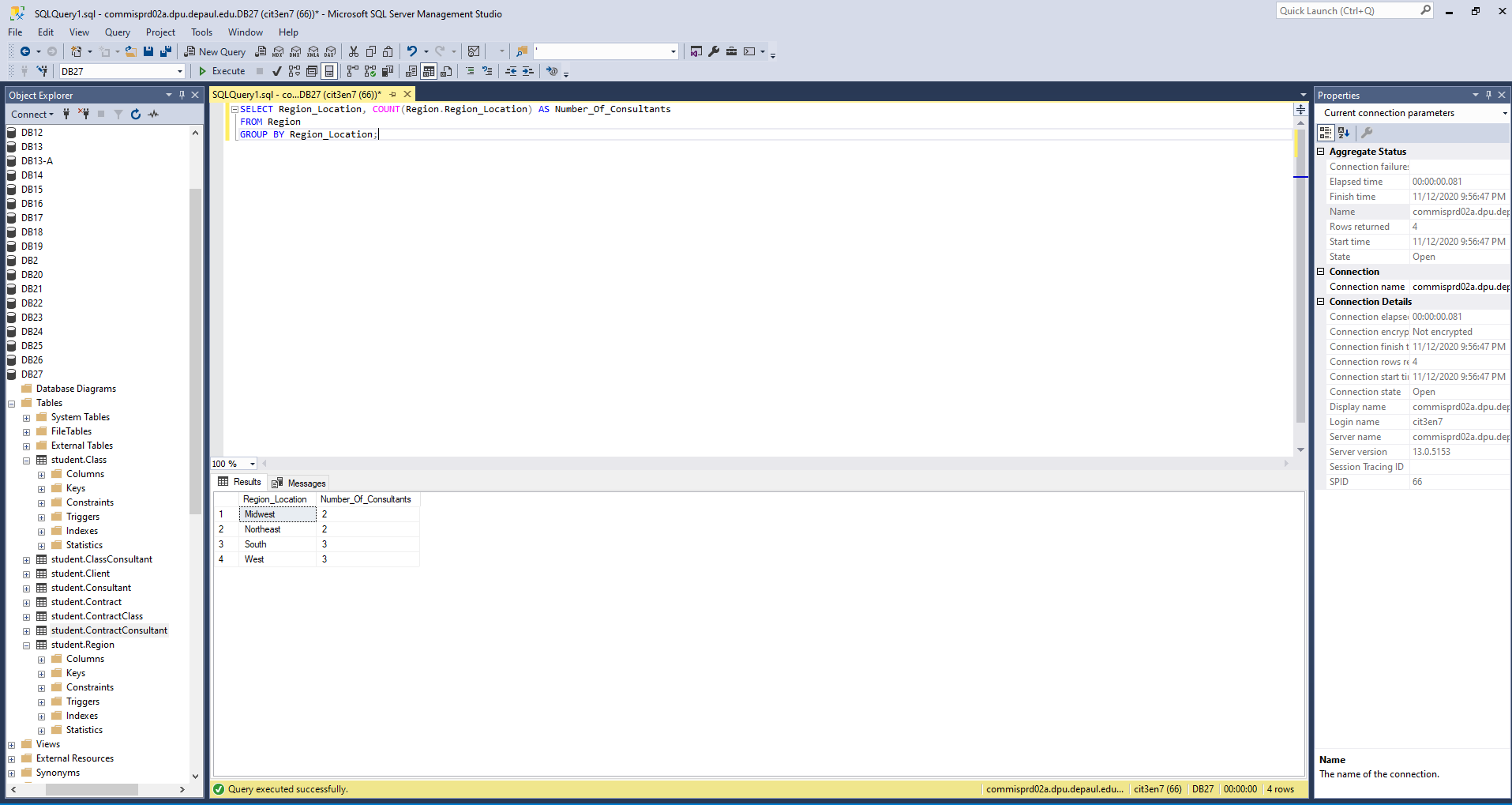
Query 4:

Description: This will filter out data from the Region table to identify consultants by region.

**SELECT Region\_Location, COUNT(Region.Region\_Location) AS Number\_Of\_Consultants**

**FROM Region**

**GROUP BY Region\_Location;**



Query 5:

Description: This will identify all the relevant information of each consultant.

**SELECT Consultant.Consultant\_ID, Consultant\_FName, Consultant\_LName, Consultant\_Phone, Consultant\_StreetAddress, Consultant\_Zip, Consultant\_Email,**

**Region\_Location, Consultant\_Expertise, Years\_Expertise, Consultant\_RatePerHour, Contract\_ID**

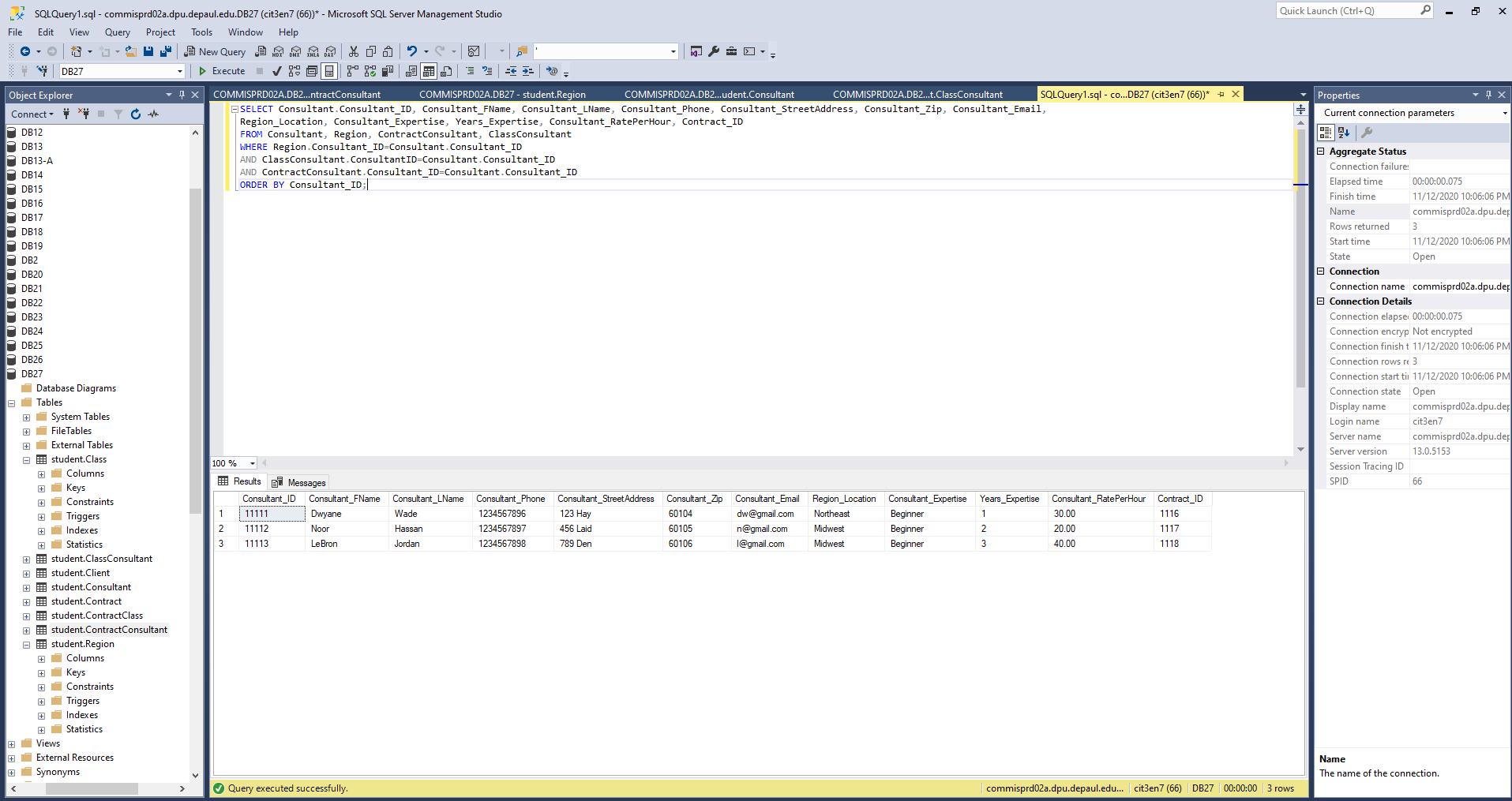
**FROM Consultant, Region, ContractConsultant, ClassConsultant**

**WHERE Region.Consultant\_ID=Consultant.Consultant\_ID**

**AND ClassConsultant.ConsultantID=Consultant.Consultant\_ID**

**AND ContractConsultant.Consultant\_ID=Consultant.Consultant\_ID**

**ORDER BY Consultant\_ID;**



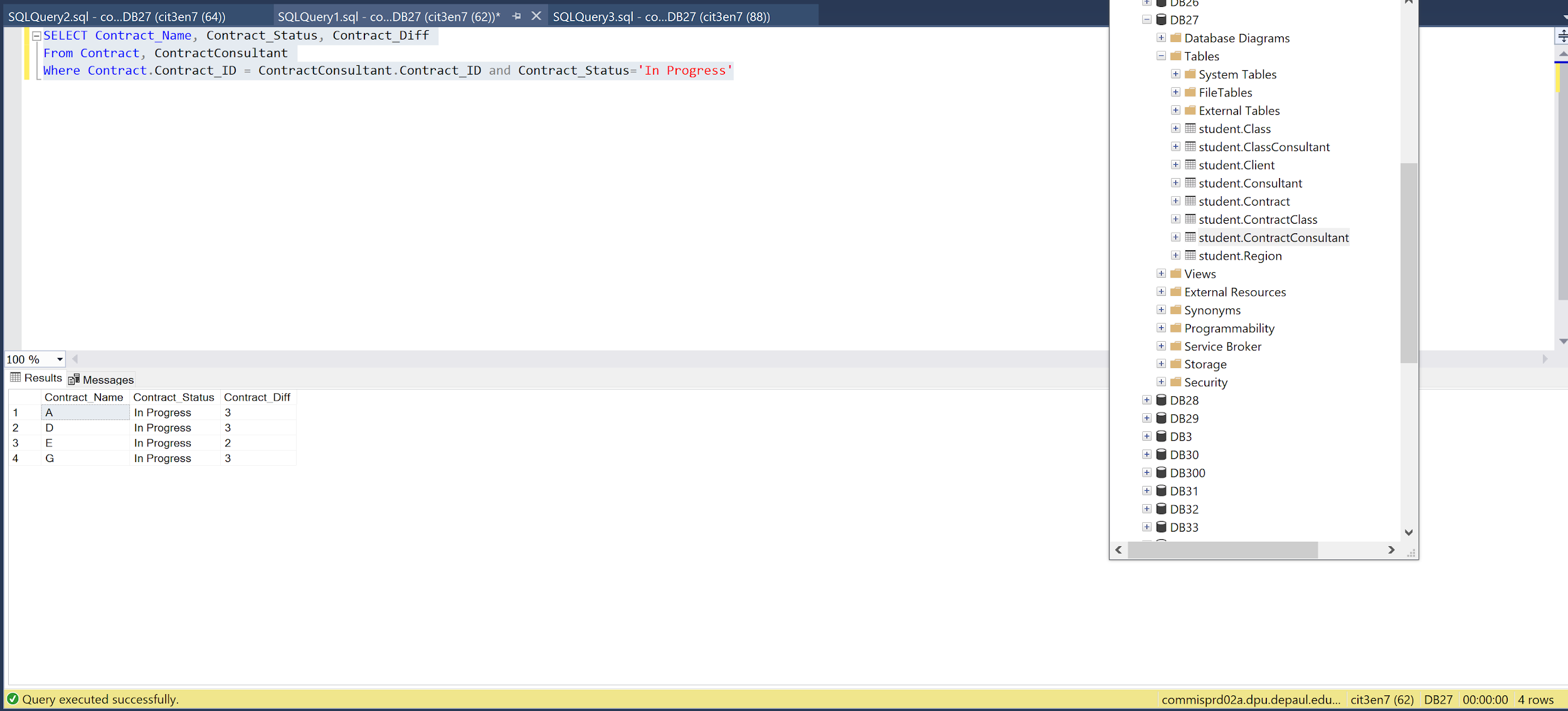
Query 6:

Description: This query displays all contracts that are currently in progress. This could help someone take out all complete contracts and only see those that are in progress.

**SELECT Contract\_Name, Contract\_Status, Contract\_Diff**

**FROM Contract, ContractConsultant**

**WHERE Contract.Contract\_ID = ContractConsultant.Contract\_ID and Contract\_Status='In Progress';**



Query 7:

Description: This query displays contracts that are not complete and have a difficulty level of 3. This could be useful in seeing active contracts that are the most difficult.

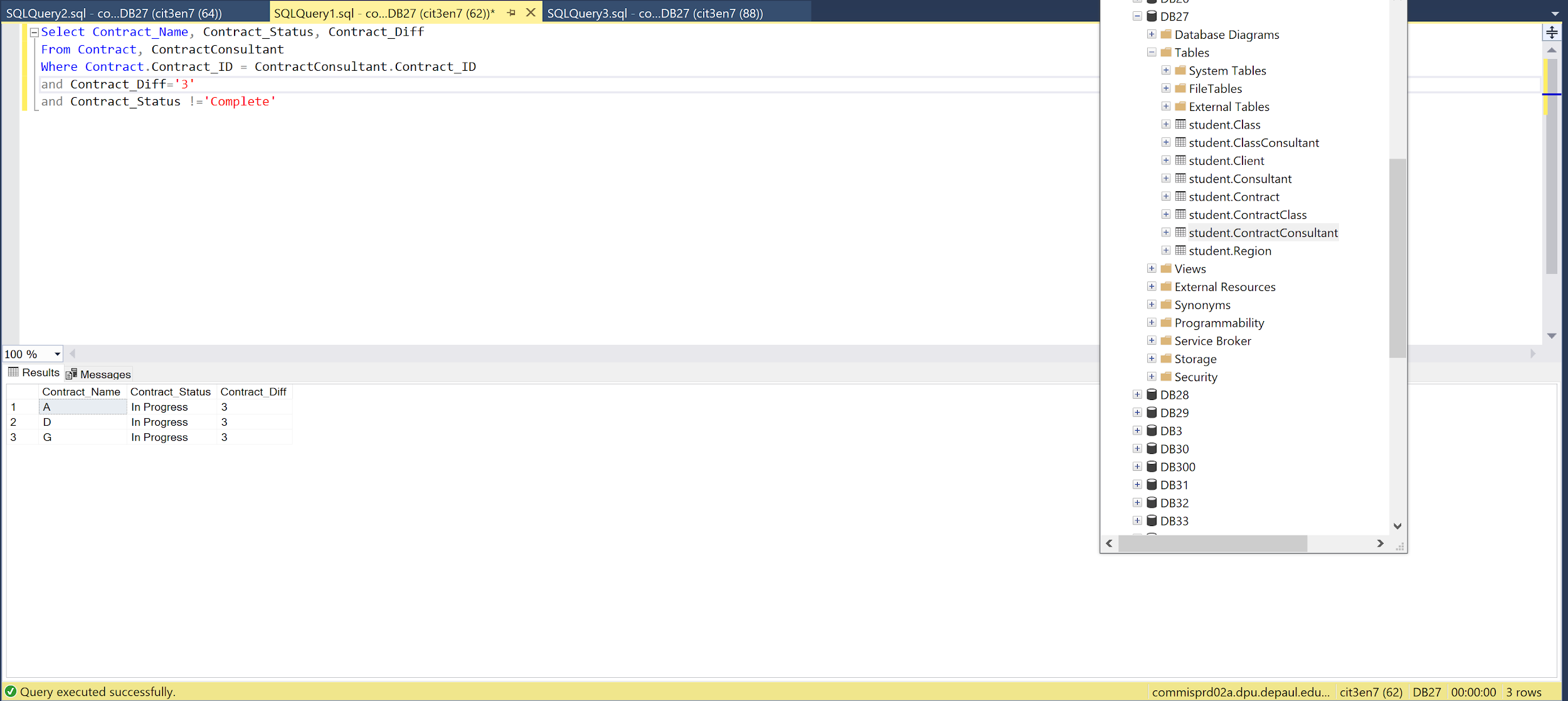
**SELECT Contract\_Name, Contract\_Status, Contract\_Diff**

**FROM Contract, ContractConsultant**

**WHERE Contract.Contract\_ID = ContractConsultant.Contract\_ID**

**AND Contract\_Diff='3'**

**AND Contract\_Status !='Complete';**



Query 8:

Description: This query shows contracts that are not complete and have a difficulty of 2. This is useful for finding past contracts that are of moderate difficulty.

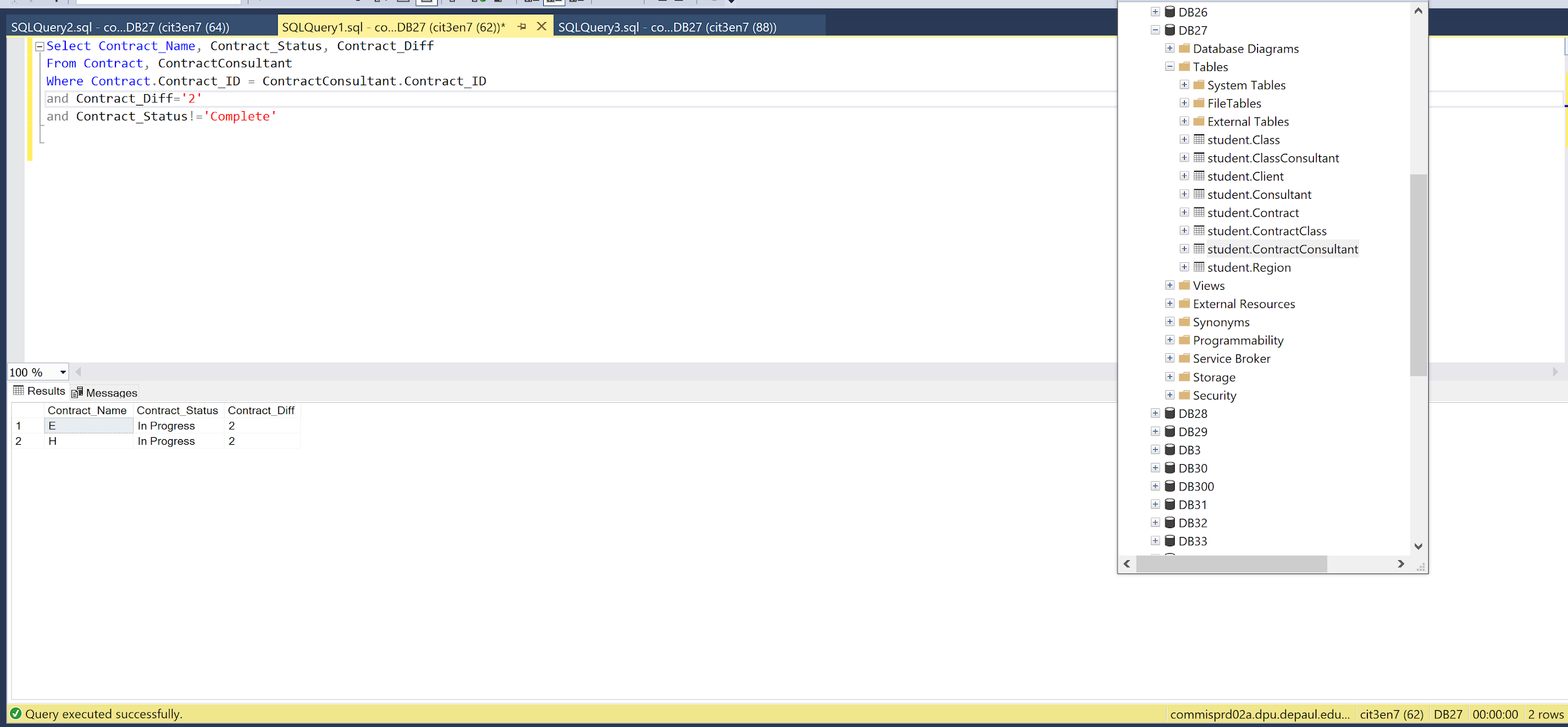
**SELECT Contract\_Name, Contract\_Status, Contract\_Diff**

**FROM Contract, ContractConsultant**

**WHERE Contract.Contract\_ID = ContractConsultant.Contract\_ID**

**AND Contract\_Diff='2'**

**AND Contract\_Status!='Complete';**



Query 9:

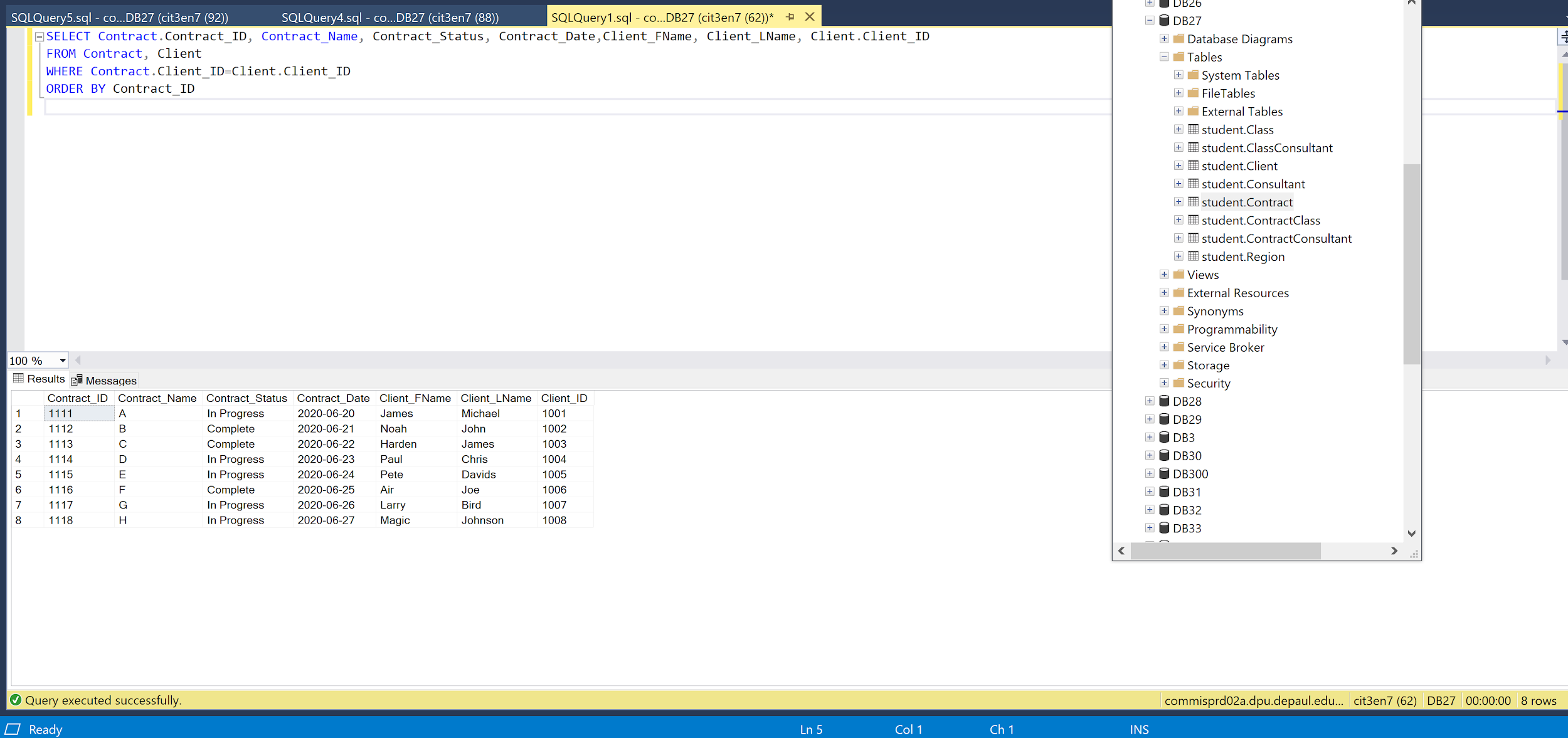
Description: This query shows contract information that includes the contract name, the status, the date, and the client's name and ID. This could be helpful when searching for the status of contracts and which clients they are for, as well as the contract date.

**SELECT Contract.Contract\_ID, Contract\_Name, Contract\_Status, Contract\_Date,Client\_FName, Client\_LName, Client.Client\_ID**

**FROM Contract, Client**

**WHERE Contract.Client\_ID=Client.Client\_ID**

**ORDER BY Contract\_ID;**



Query 10:

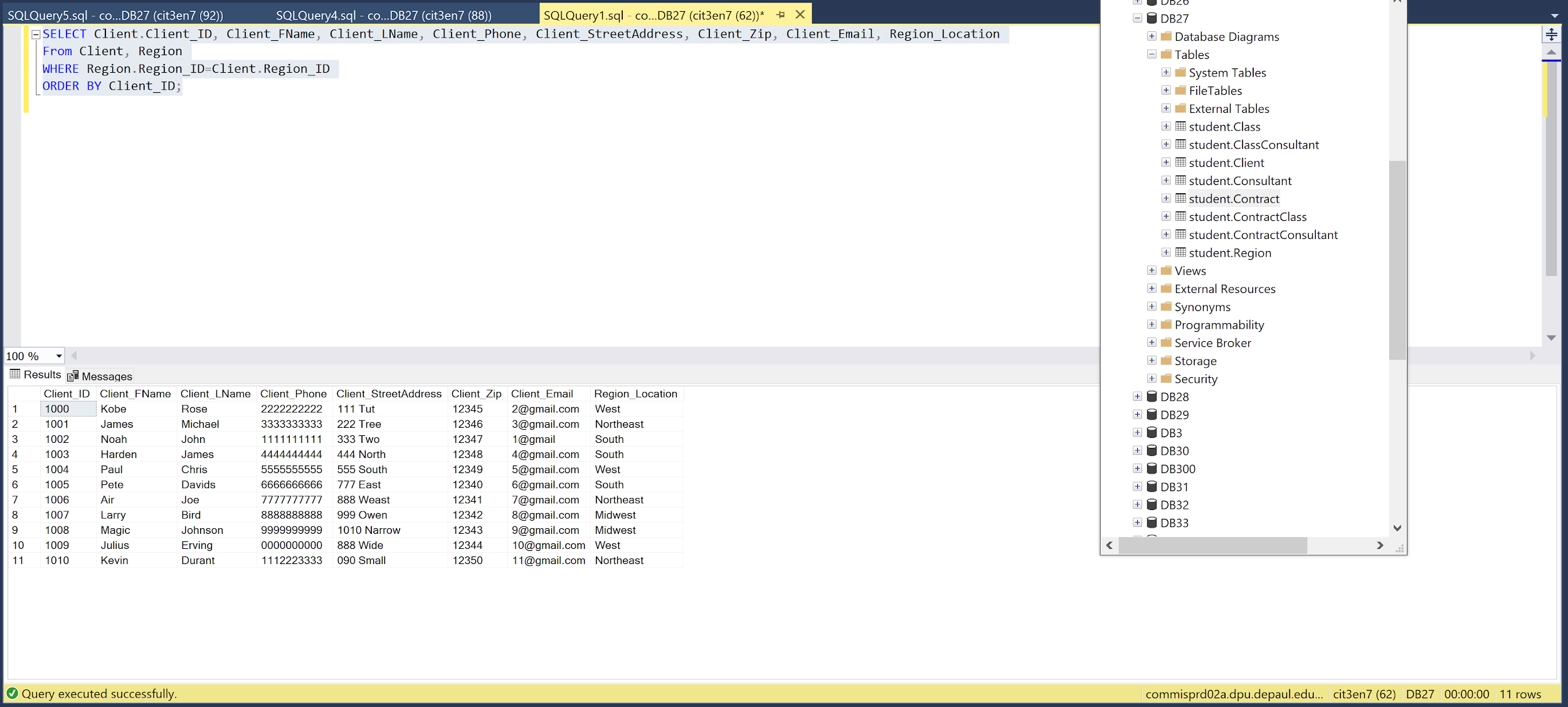
Description: This query displays client Information including the Client’s ID, Name, Phone, Address, and Region Location. This could be helpful for a business trying to search for a specific clients email address and phone number.

**SELECT Client.Client\_ID, Client\_FName, Client\_LName, Client\_Phone, Client\_StreetAddress, Client\_Zip, Client\_Email, Region\_Location**

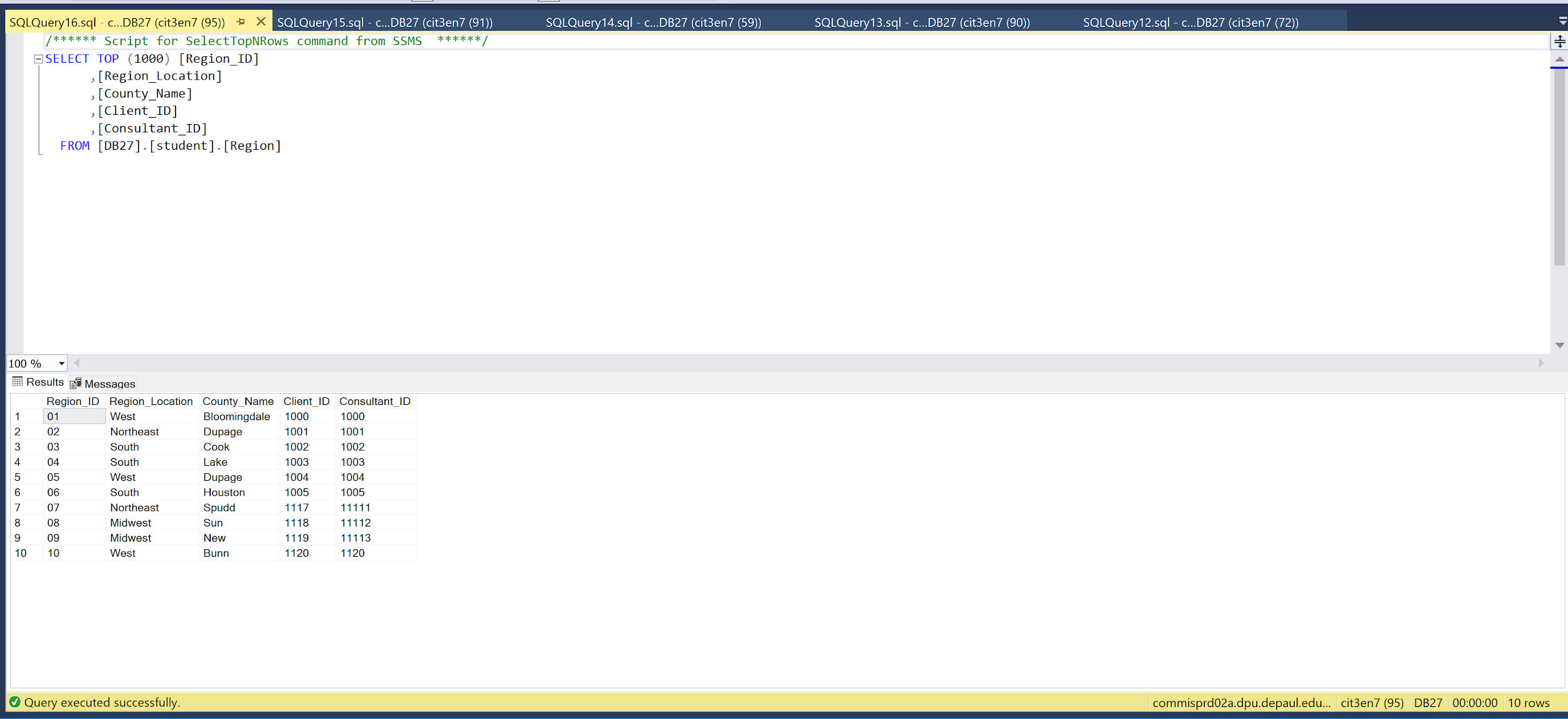
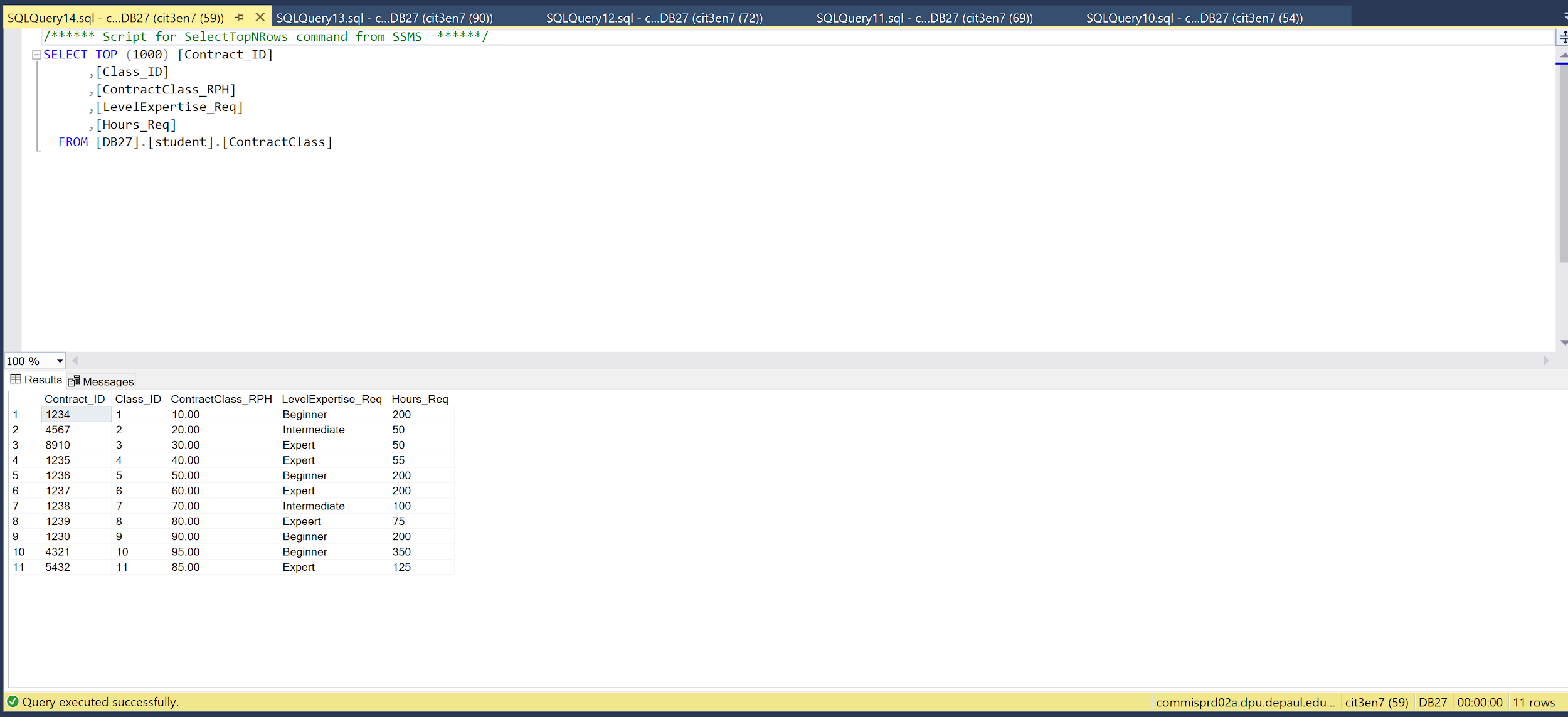
**From Client, Region**

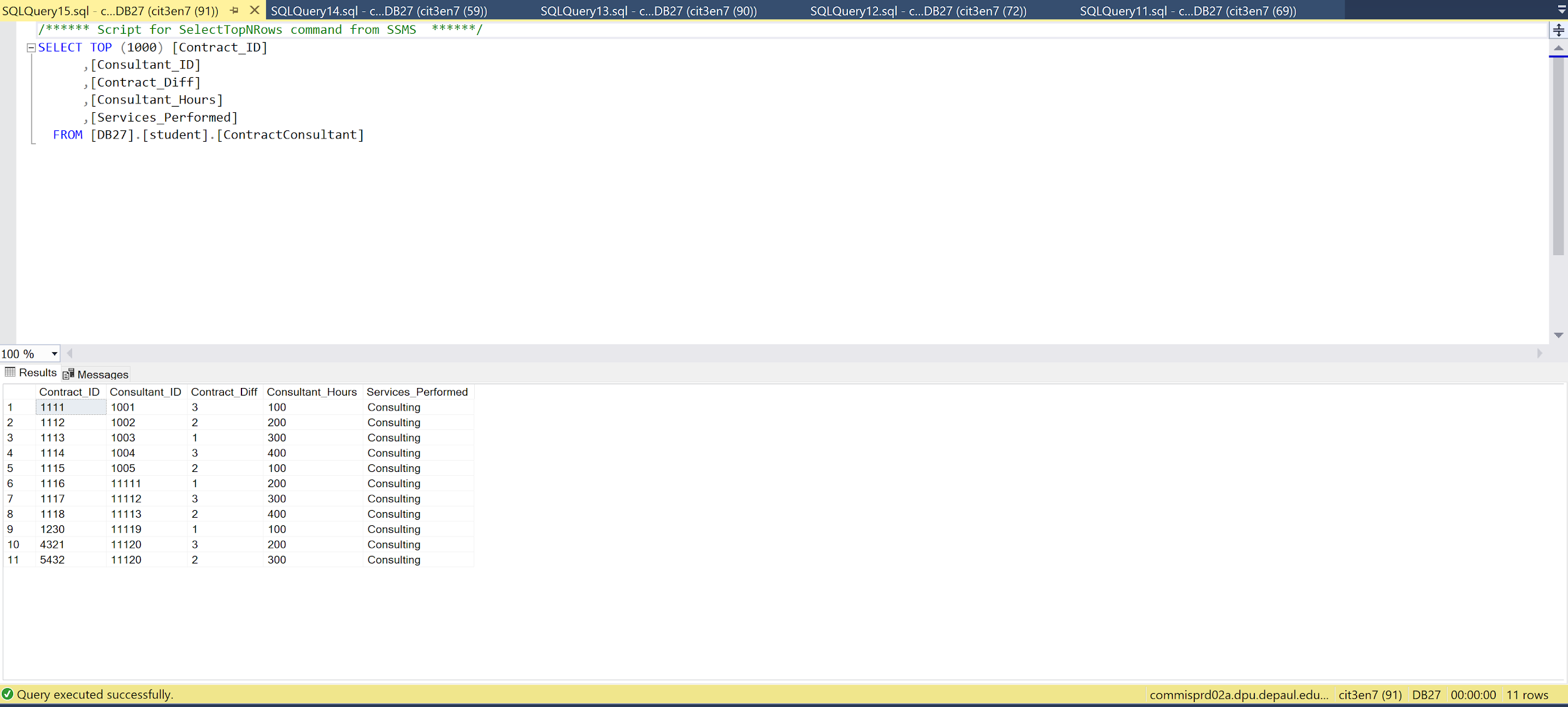
**WHERE Region.Region\_ID=Client.Region\_ID**

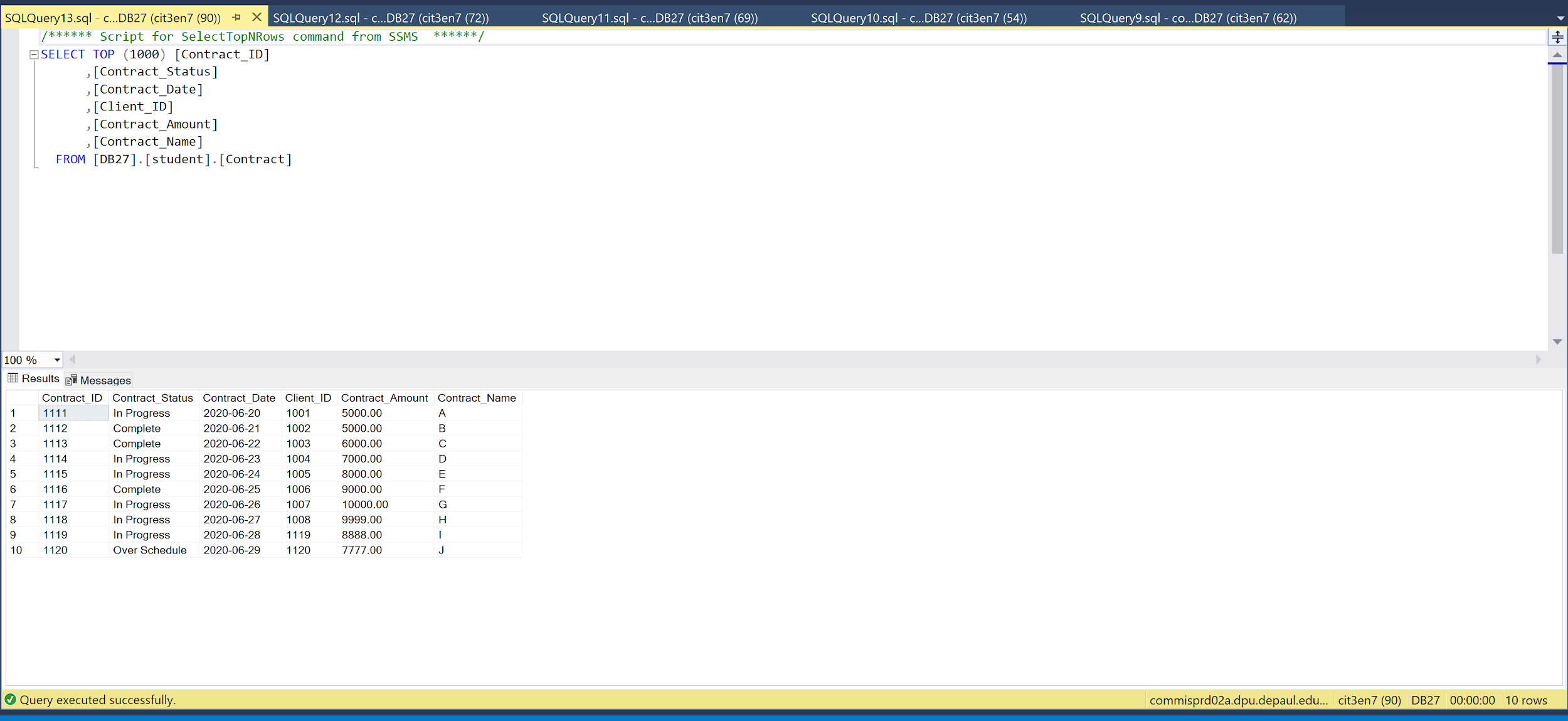
**ORDER BY Client\_ID;**

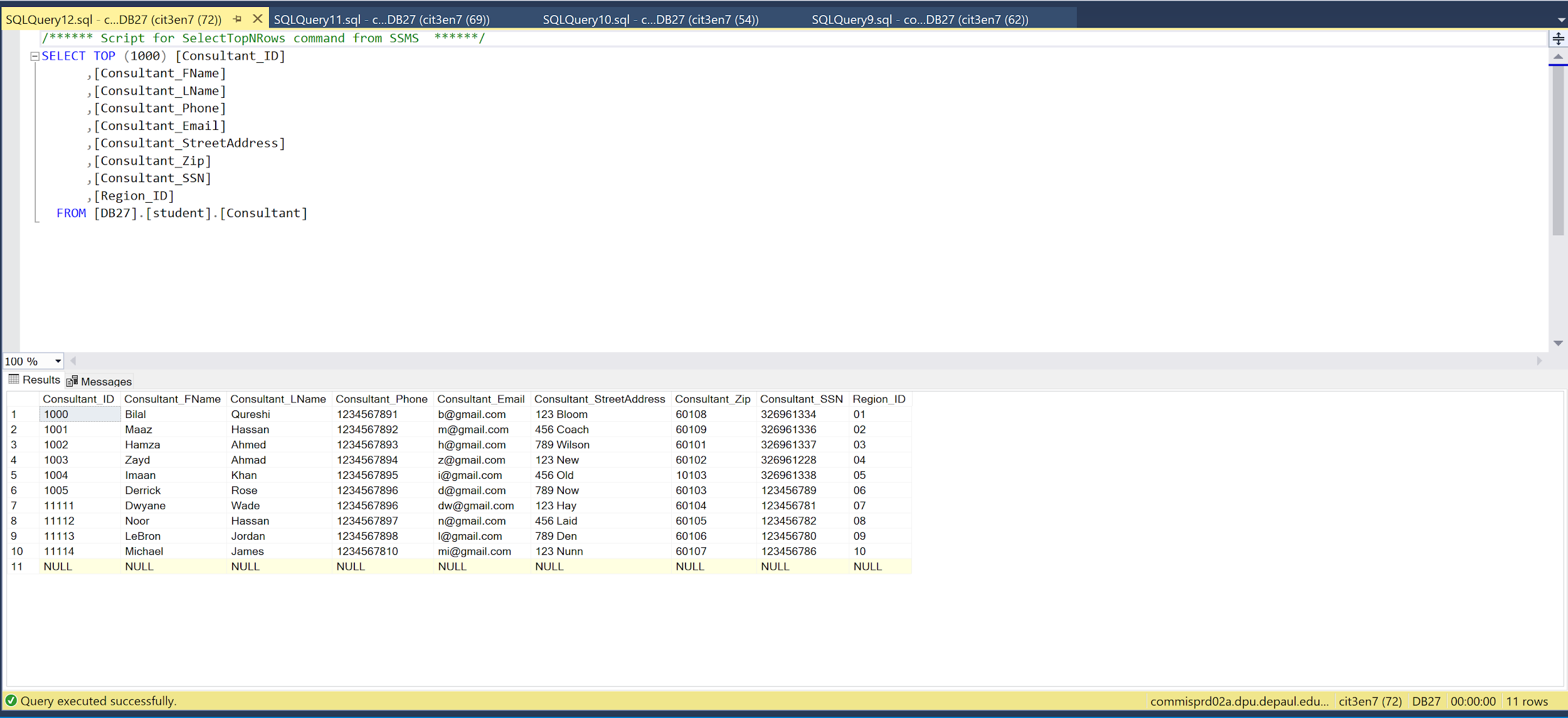
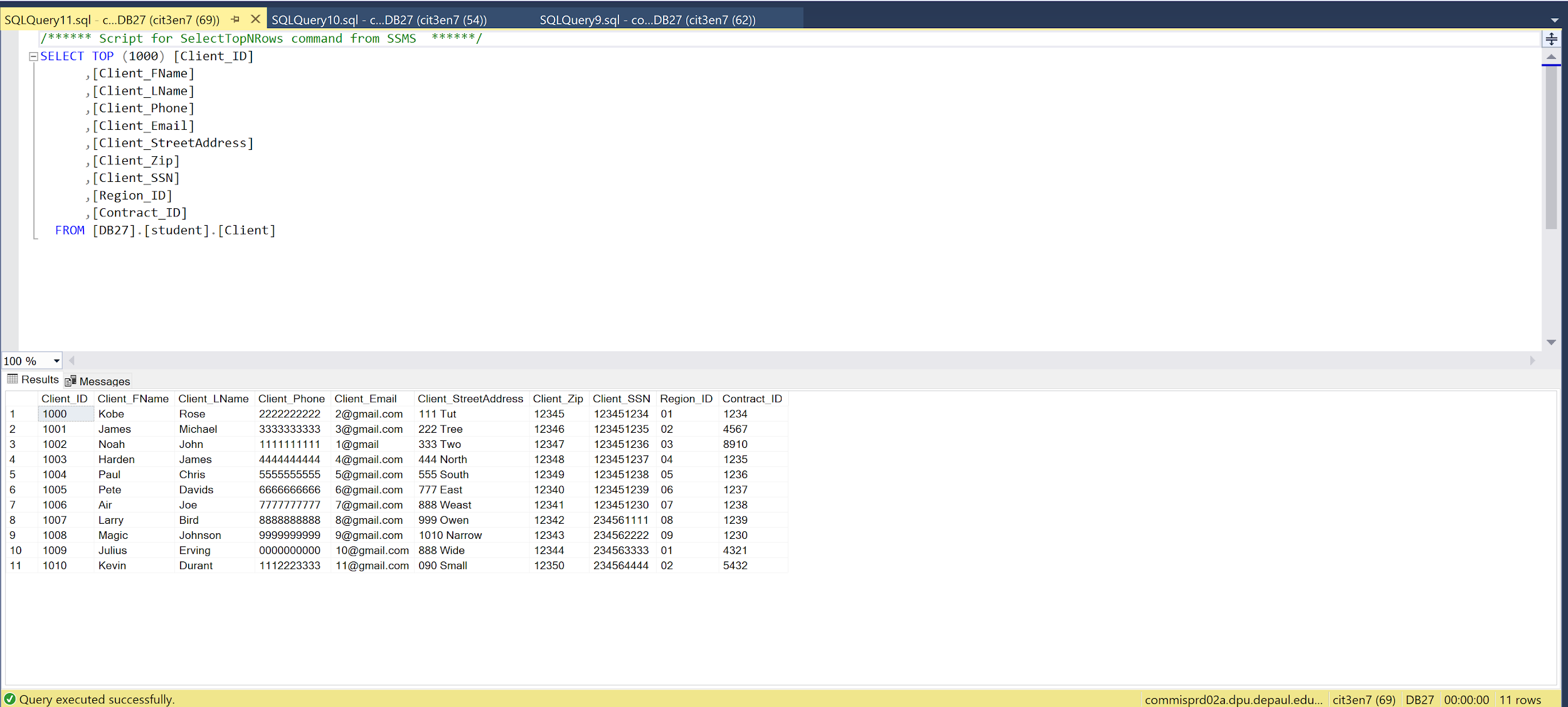


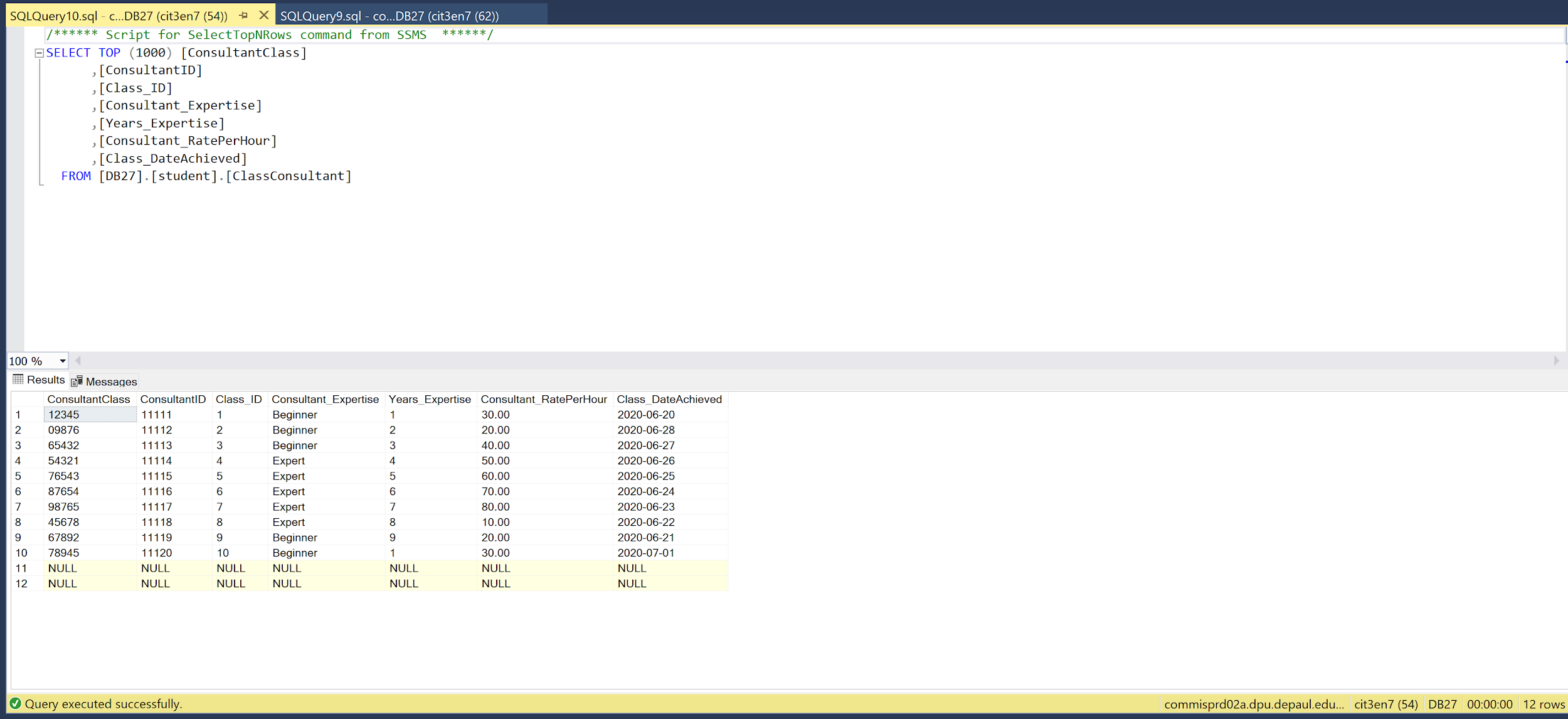
**TABLES**

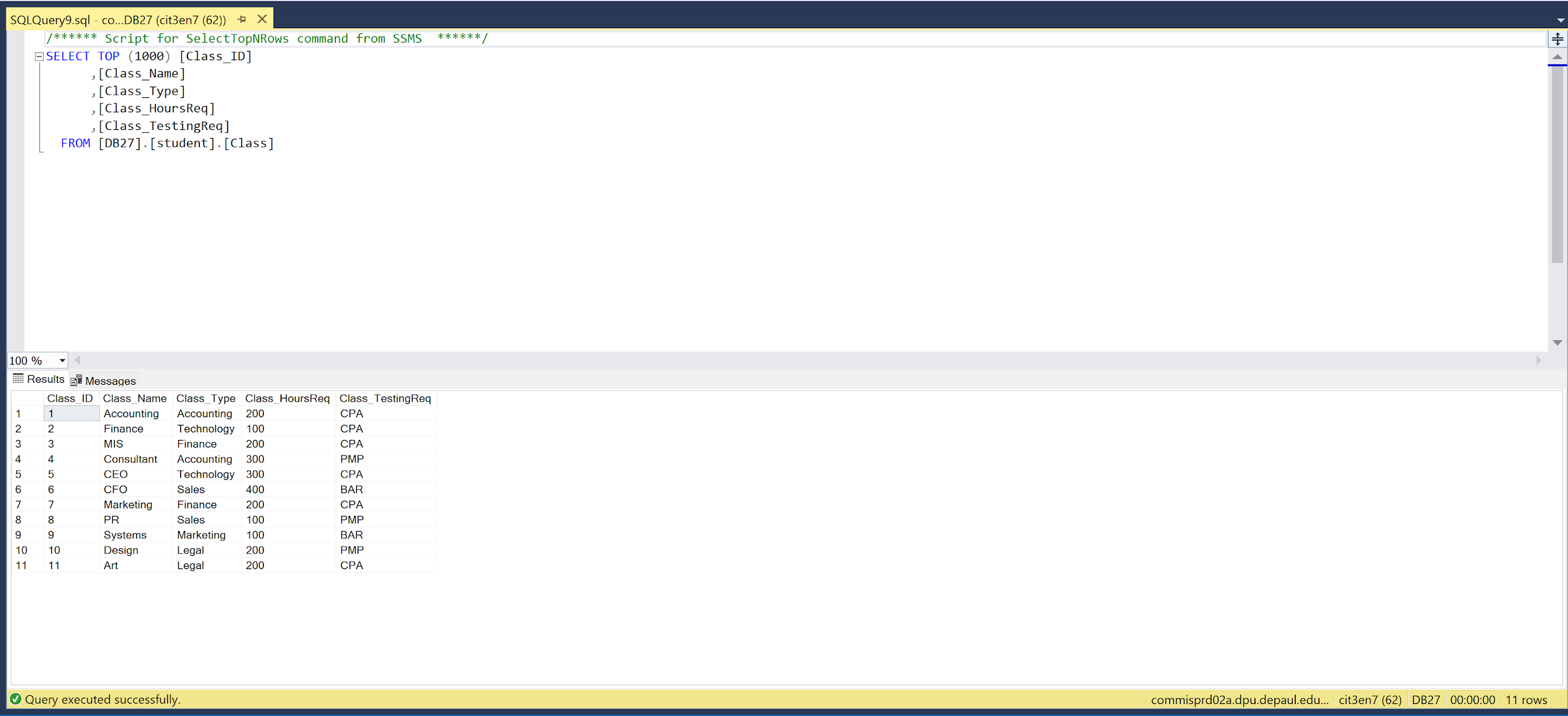






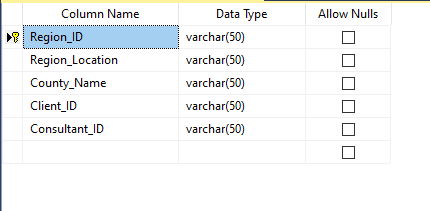




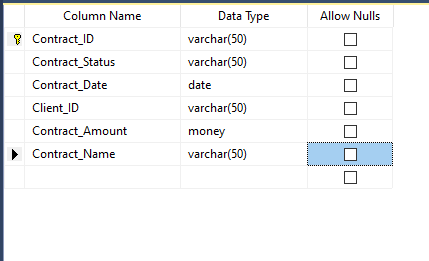


**Table Designs**

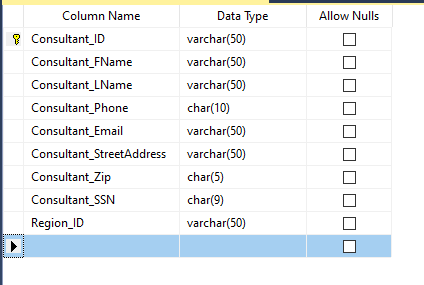
**Region Table:**



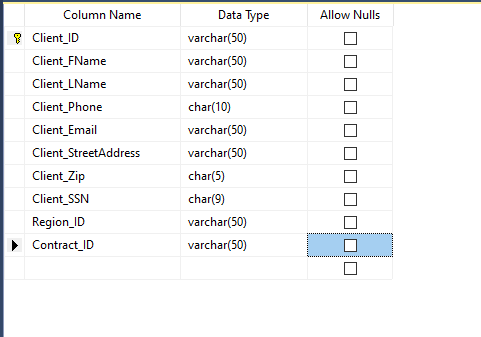
**Contract Table:**

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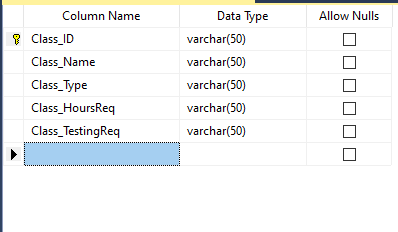
**Consultant Table:**



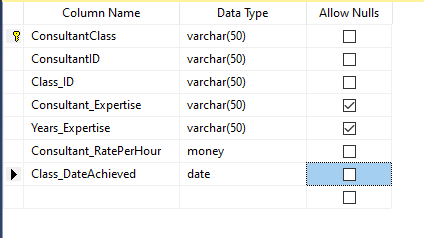
**Client Table:**

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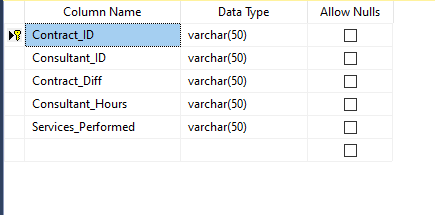
**ClassTable:**

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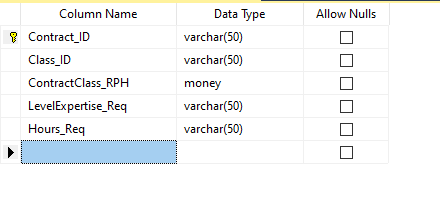
**ClassConsultant Table:**

****

**ContractConsultant:**

****

**ContractClass:**

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