

Section A: Logging in to SQL Server 2018

WINDOWS LOGIN

1. Obtain your **Group ID** and **Password** from the technicians in the lab
2. Note that this ID and password is the “Windows Authentication” mode of access to the Lab Server in Software Lab 2 Lab.

*** Remember:** Please backup your SQL statements in your own Thumbdrive.

Figure 1: Run <Microsoft SQL Server Management Studio Tools 18> as shown above.

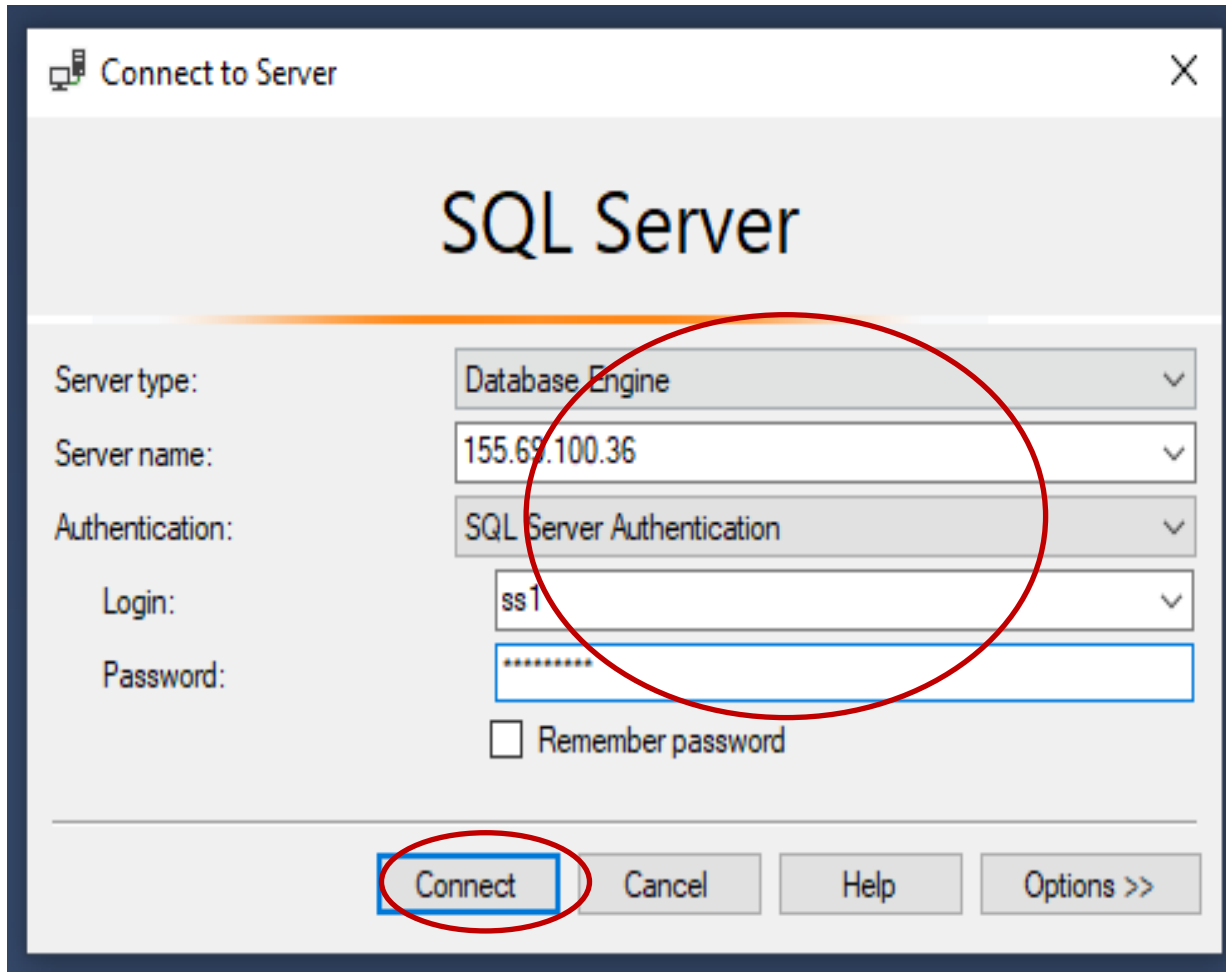
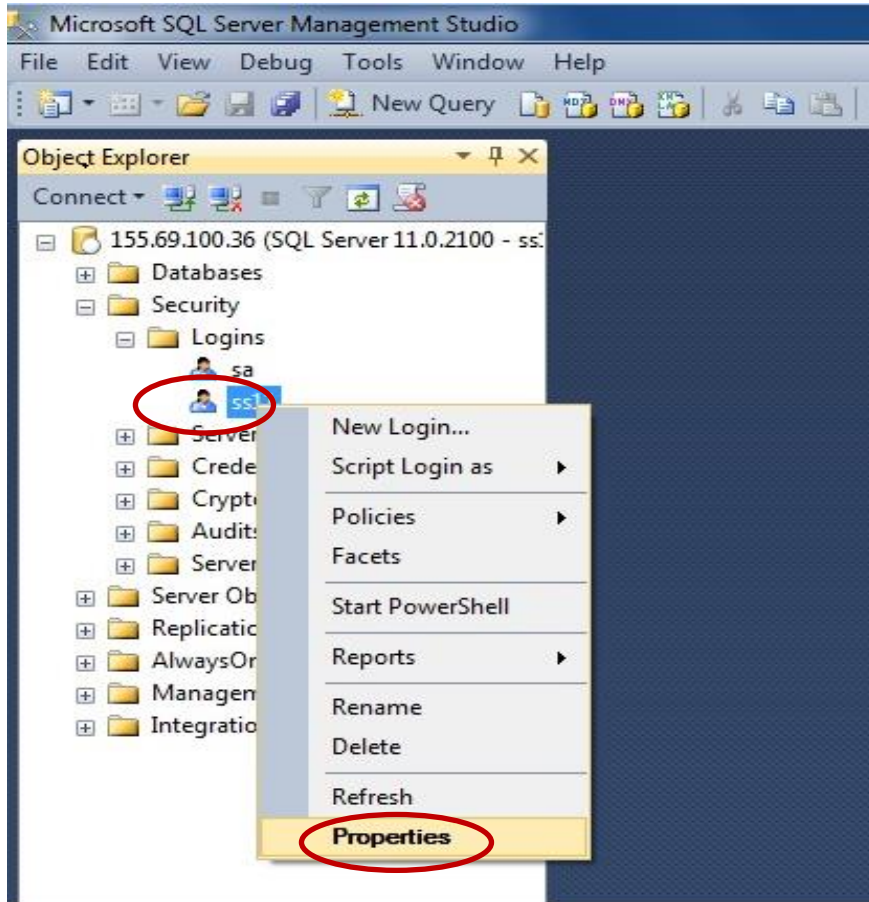


Figure 2: Logging In to MS SQL Server 2018

SQL SERVER LOGIN

1. From <Start> menu, select < Microsoft SQL Server Tools 2018>< Microsoft SQL Server Management Studio 18>.
2. A pop-up box will appear. One member will login 1st. Type/select the following
 - a. Server type : **Database Engine**
 - b. Server name: **155.69.100.36**
Authentication: **SQL Server Authentication**
 - c. Login : <Enter your group ID>
 - d. Password:
(Please get the Password from the Lab Technician)
 - e. Press <Connect>



Section B: Changing your SQL Server Login Password

1. You need to change your SQL Server password too! One member will change the password.
 - Go to <Security><Login>.
 - Look for your group ID, e.g., **ss1g1**.
 - <Right-click><Properties>

Figure 3: Changing your MS SQL Server Password

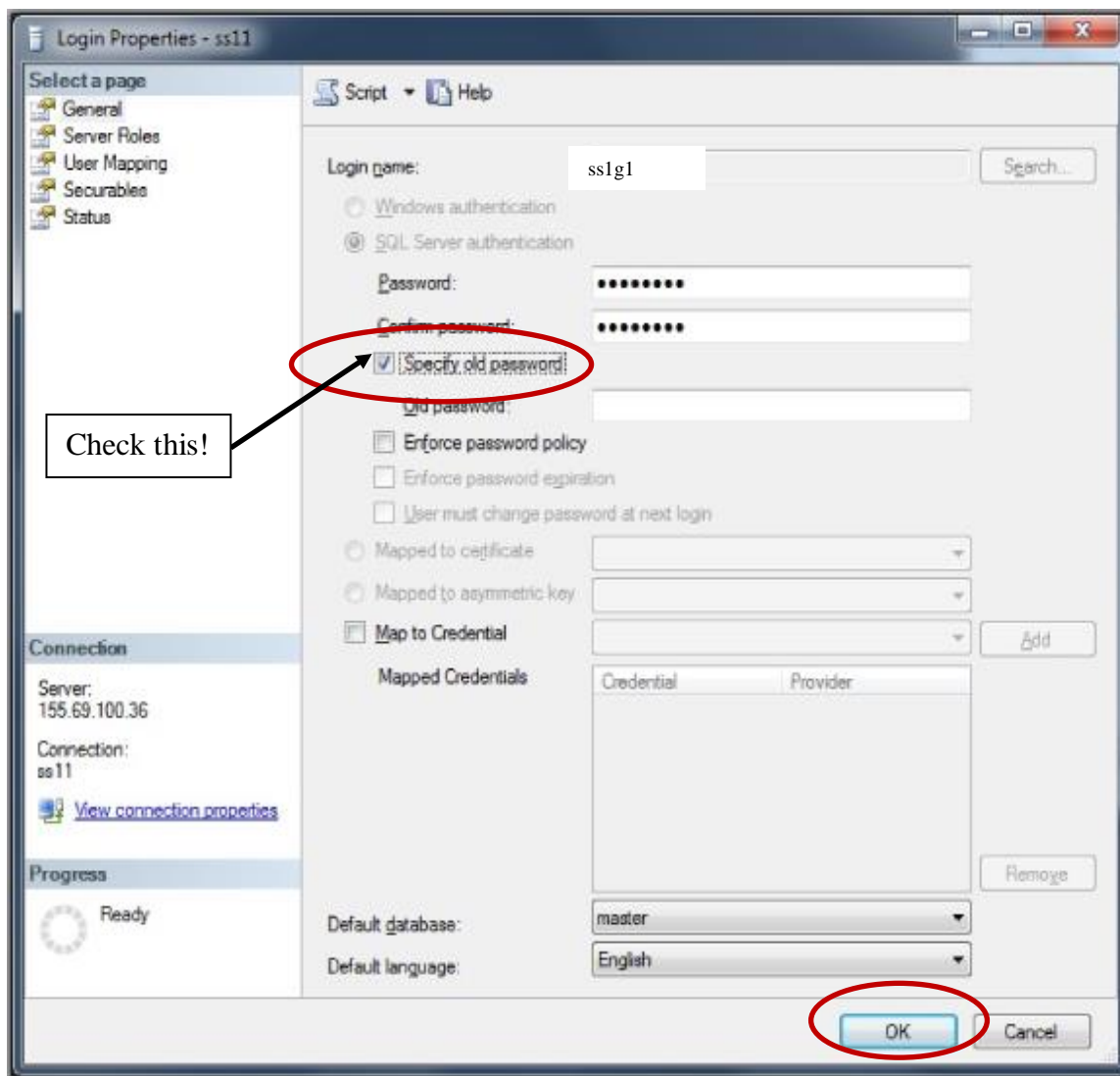


Figure 4: Changing your MS SQL Server Password (Cont'd)

The following screen will appear as shown on the left.


Ensure that you check the following boxes

1. <Specify old password>

Tip about Password

- You may wish to use the same password for Windows and SQL Server.
- Do not use password such as “SC304”, “12345”, etc.
- Enter your new password twice, and click <OK>.
- **Next, you will need to disconnect and reconnect again to dblab1 in order to continue working on your database.**

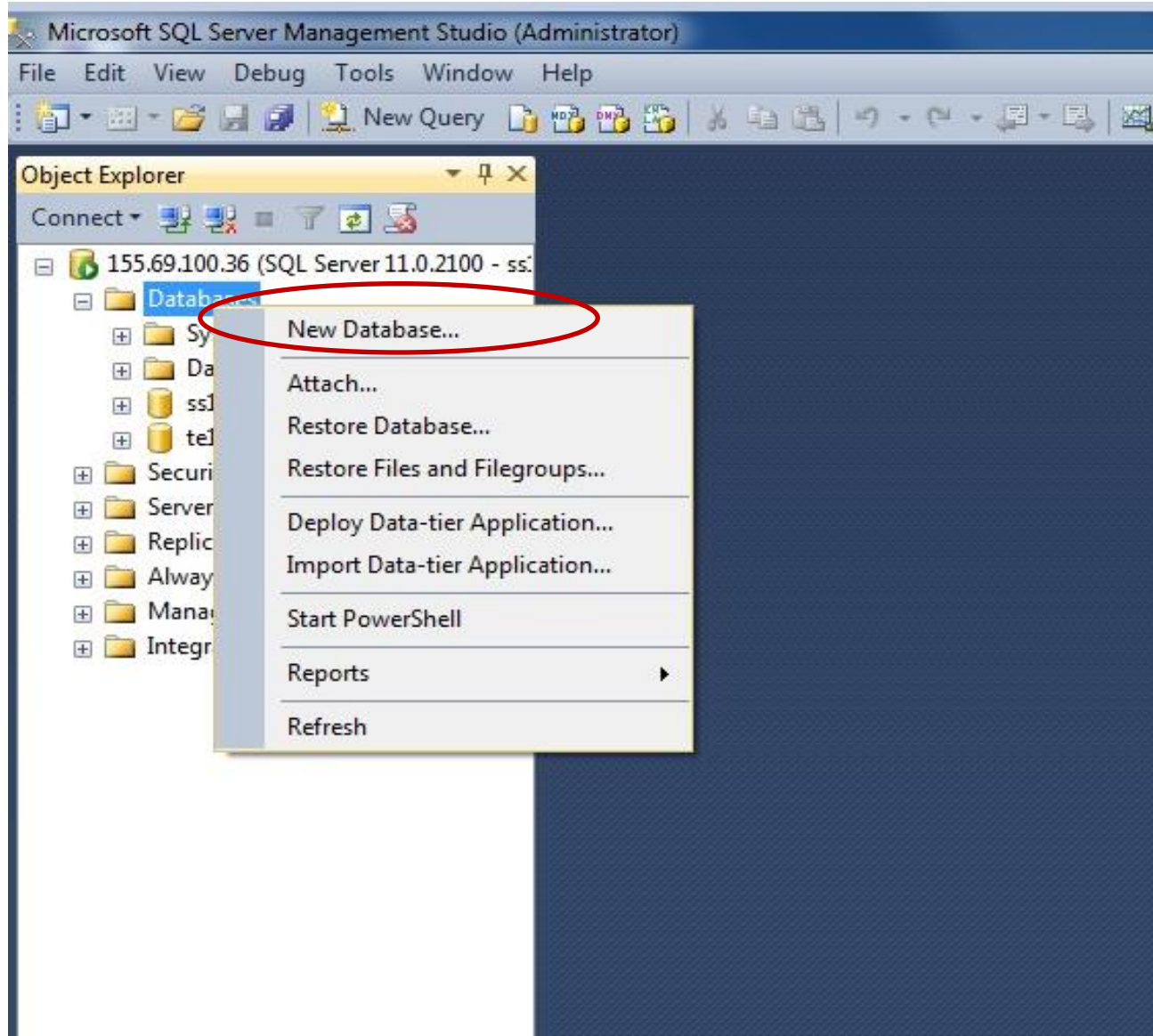
The disconnect button is 

The connect button is 

2. All members can login concurrently after you have reconnected to the SQL Server.

Tip about Working Outside the Lab

- At your home or hostel, you might want to connect to the lab database server to continue your work.
- You need to install Microsoft SQL Server Management Studio tools 2018.
- SQL Server Authentication is the only mode of access to the SQL Database Server.
- From your home, you will need to run **VPN** first.
- SQL Server IP Address: **155.69.100.36**

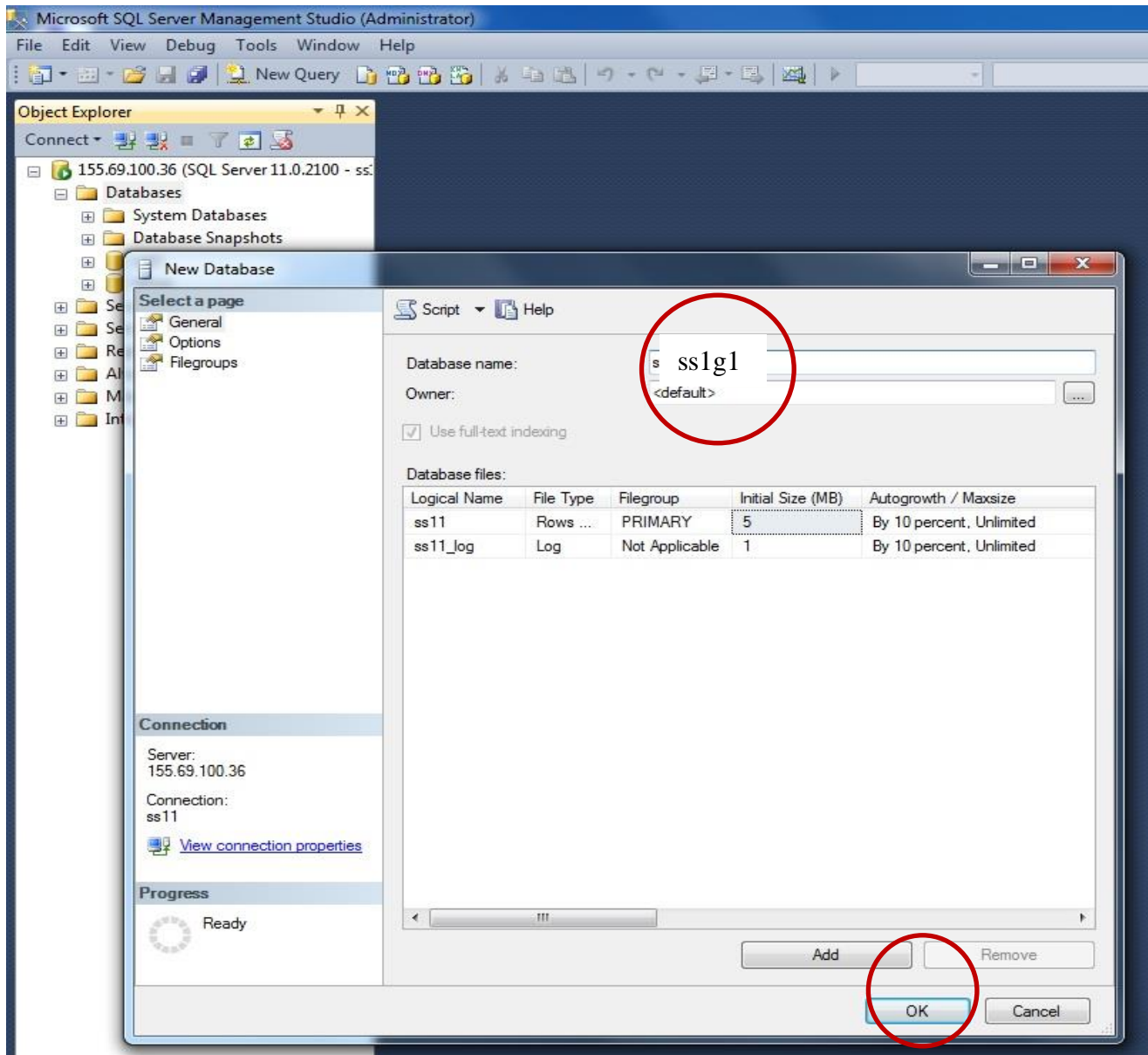


Section C: Creating a Database

Note: You only need to create **one database per group**.

1. Select <Databases><Right-Click><New Database>

Figure 5: Creating a Database (Graphical Method)



2. A pop-up box as shown above will appear for “New Database”.

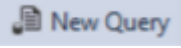
Under <**Database name**>, enter your group ID., e.g., **ss1g1**

3. Click <**OK**>.
4. You should be able to see your database named “**ss1g1**” after you hit <**OK**>. If you don’t see your database, <right><click> on <**Databases**>, and select <**Refresh**>.

Figure 6: Naming your Database

Section D: Creating Tables using SQL statements

Note: A graphical method of creating tables is available. But for the purpose of lab 1 and 2 assessment, you are required to **practice writing SQL statements**, you shall therefore create tables using SQL statements.

1. Select “ New Query” as shown.

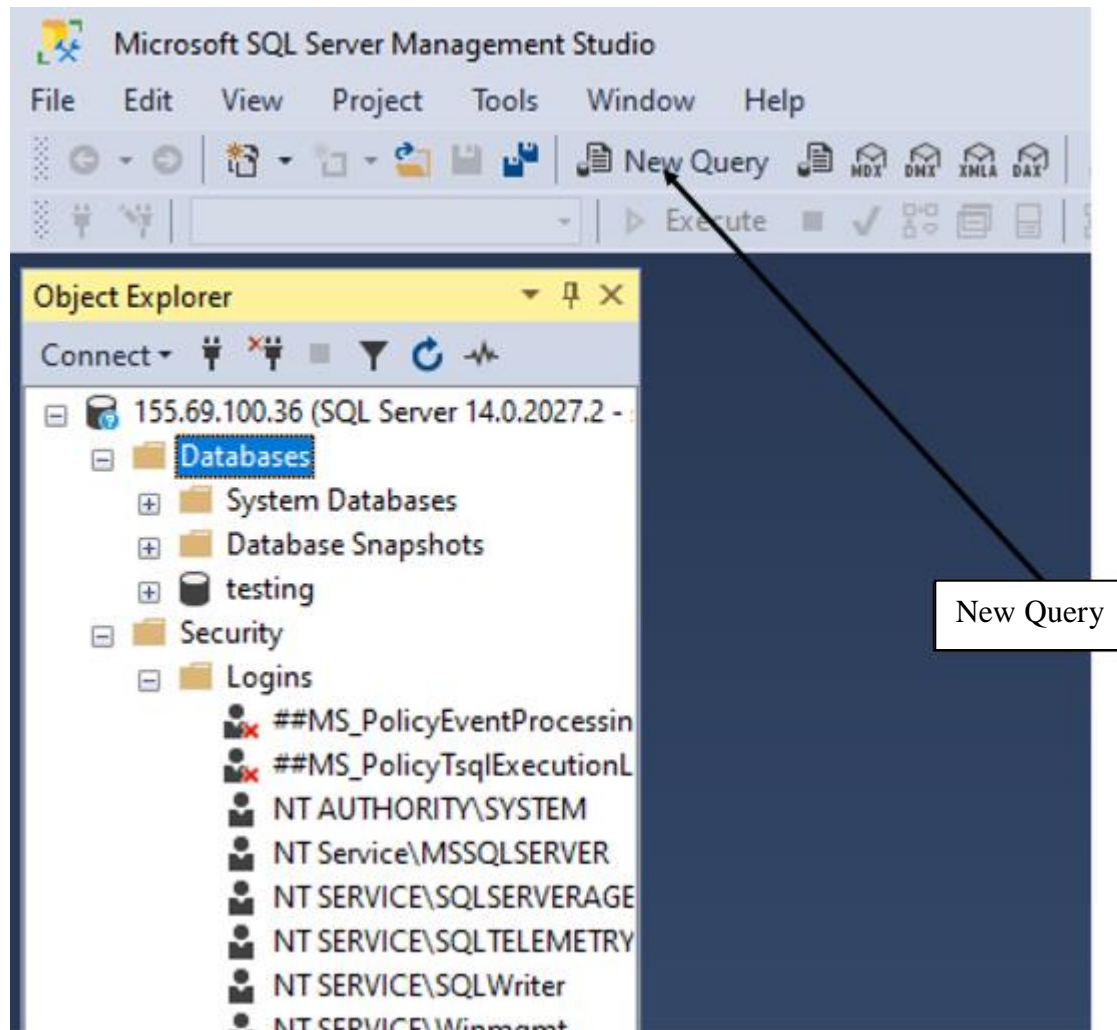
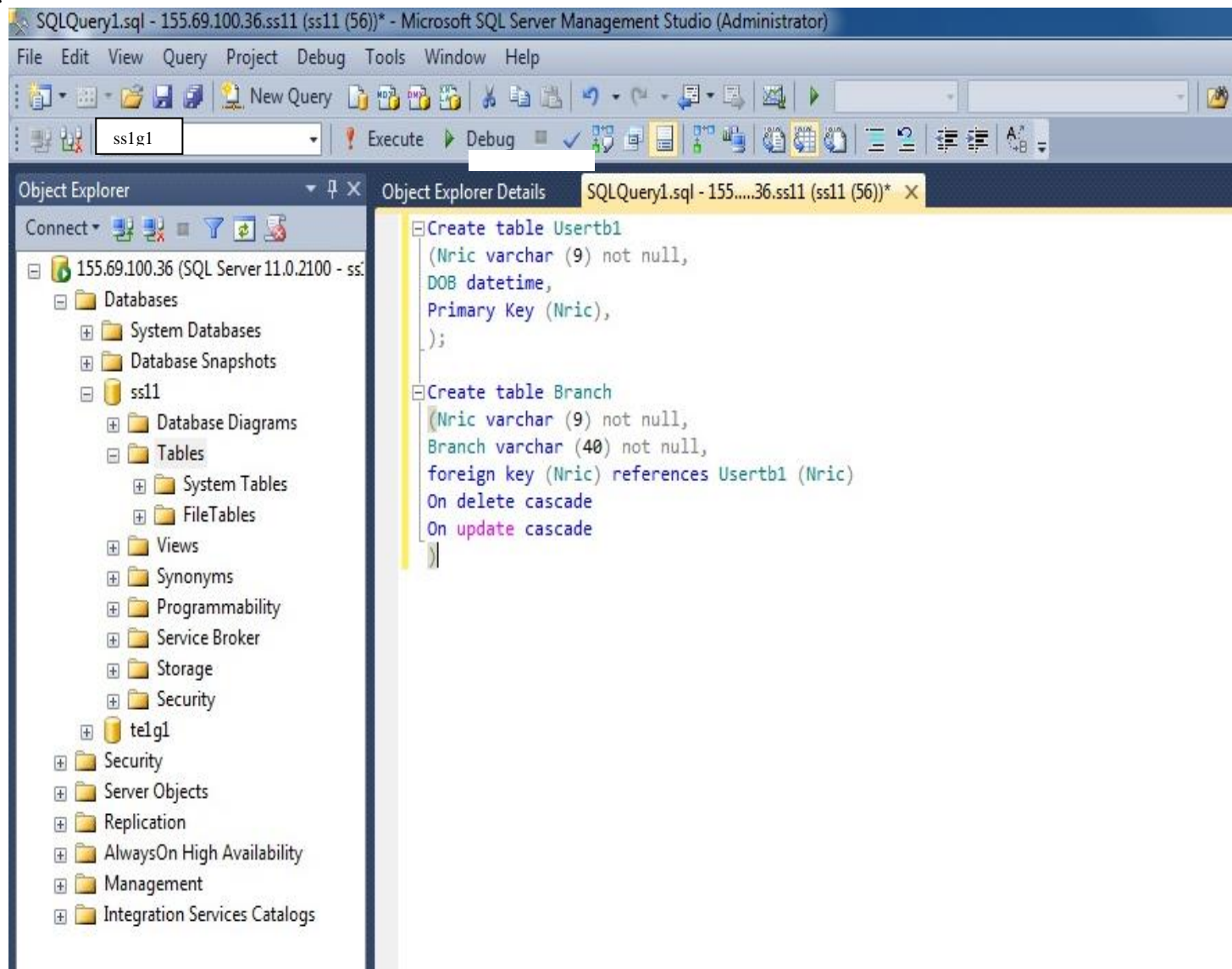
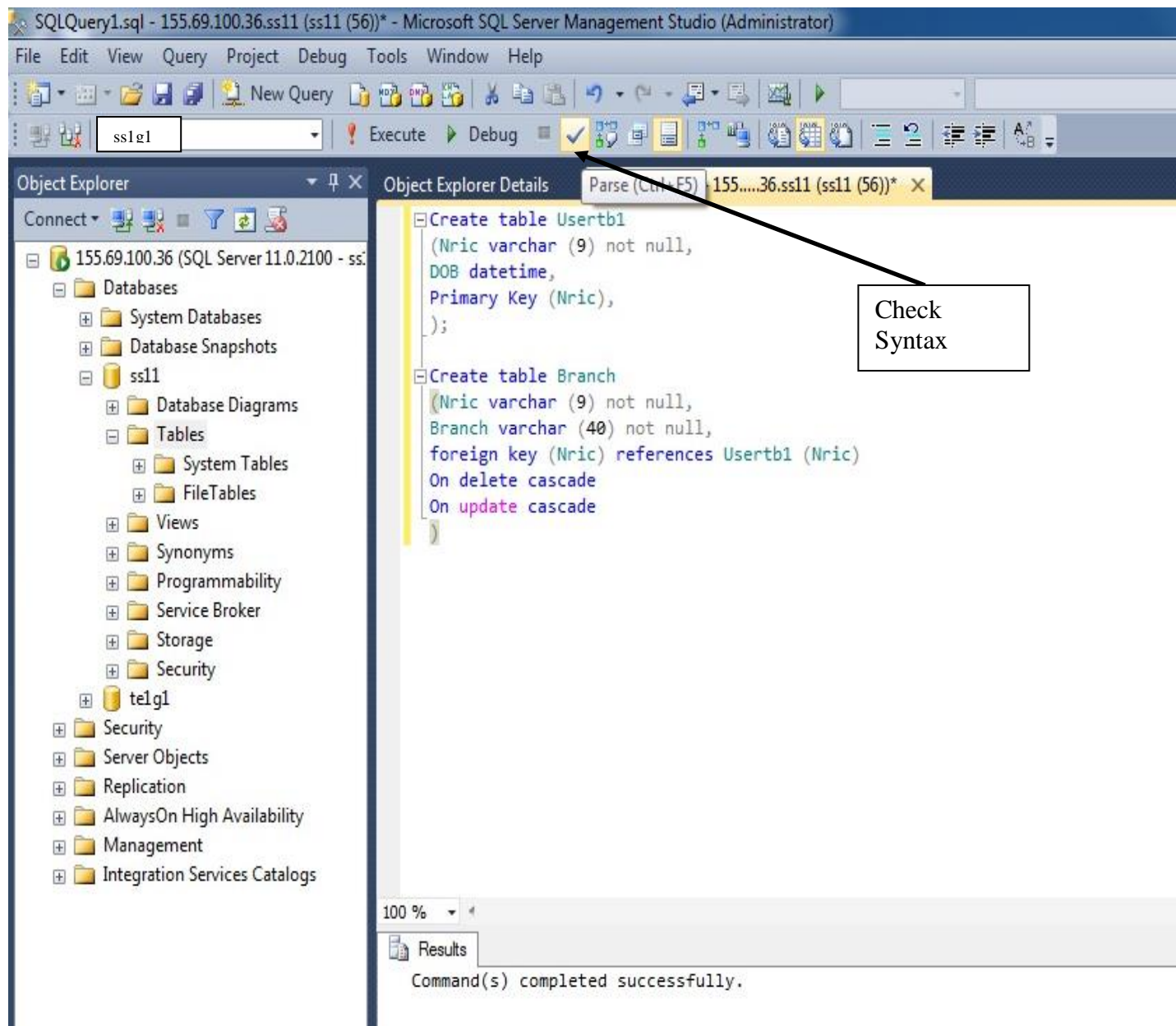


Figure 7: Using Query Analyser to create tables (Non-Graphical Method)



2. Enter your SQL code onto the right panel as shown.

Figure 8: Using Query Analyser to create tables (Non-Graphical Method)




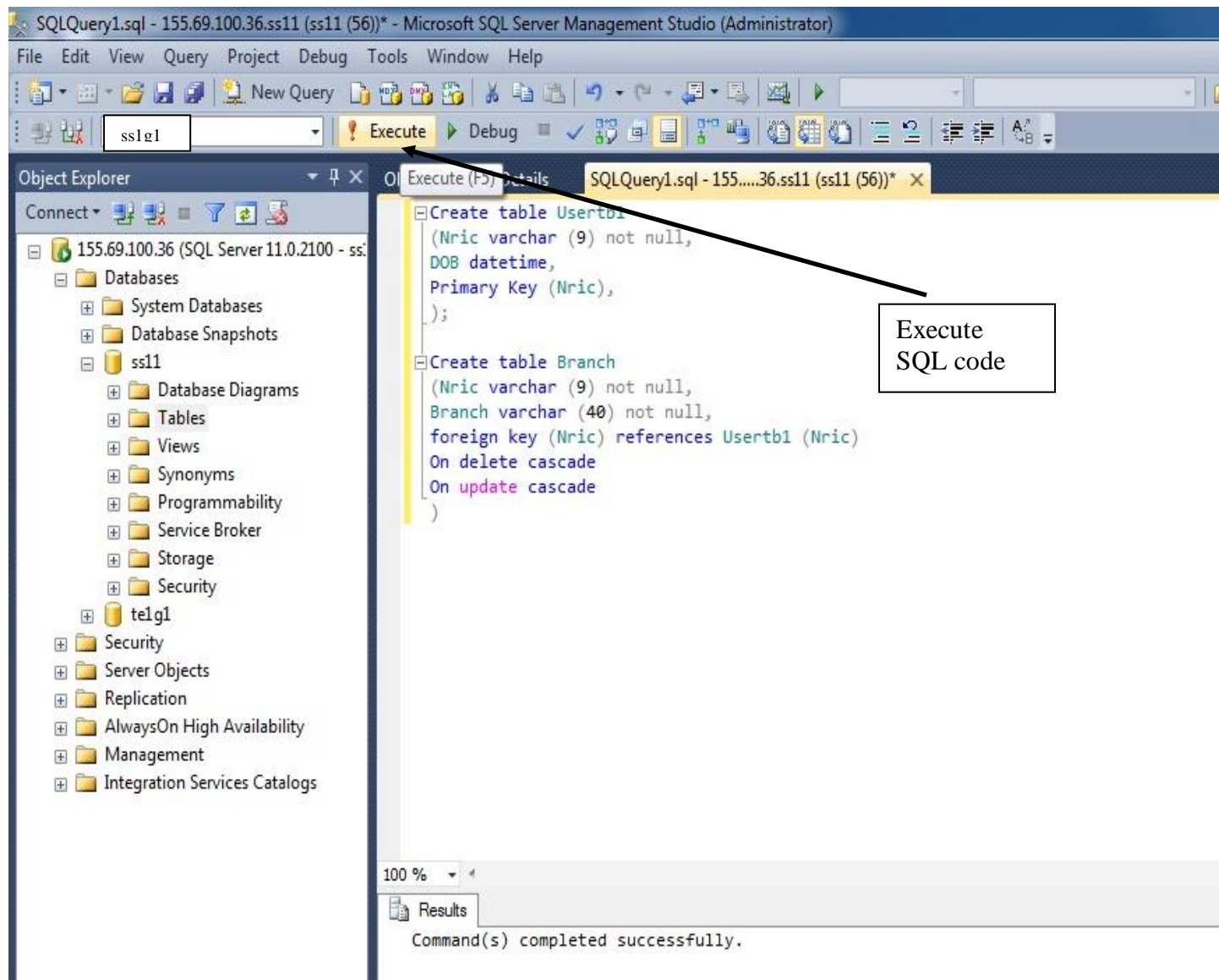
3. Press “” is to check for correct SQL syntax.

Figure 9: Checking your syntax of your SQL Statement



In the example, the SQL codes create 2 tables with a relation.

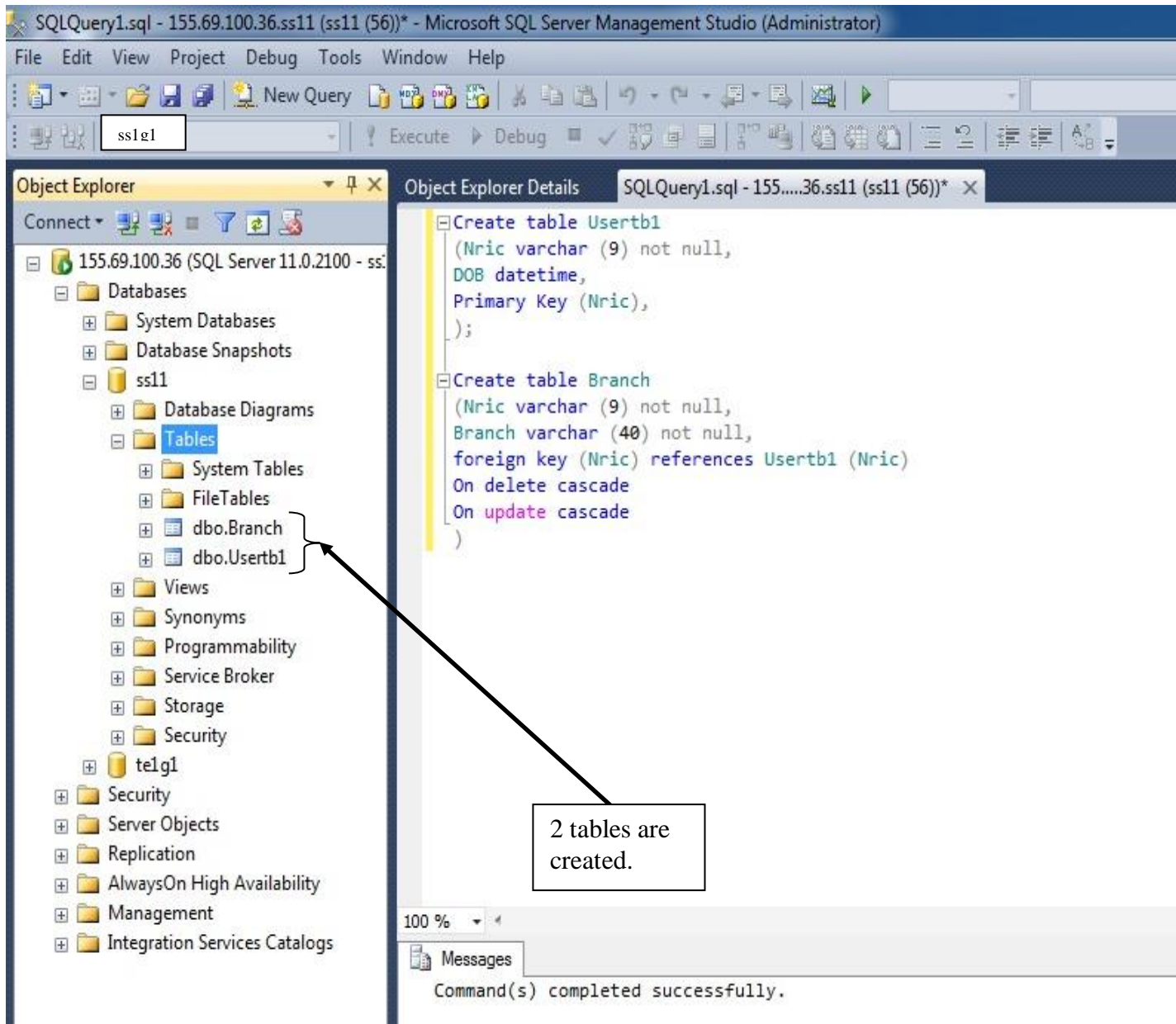
4. Press “ Execute,” will execute the SQL code.

Note: You may also choose to highlight certain portions of your code to run.

Tip:

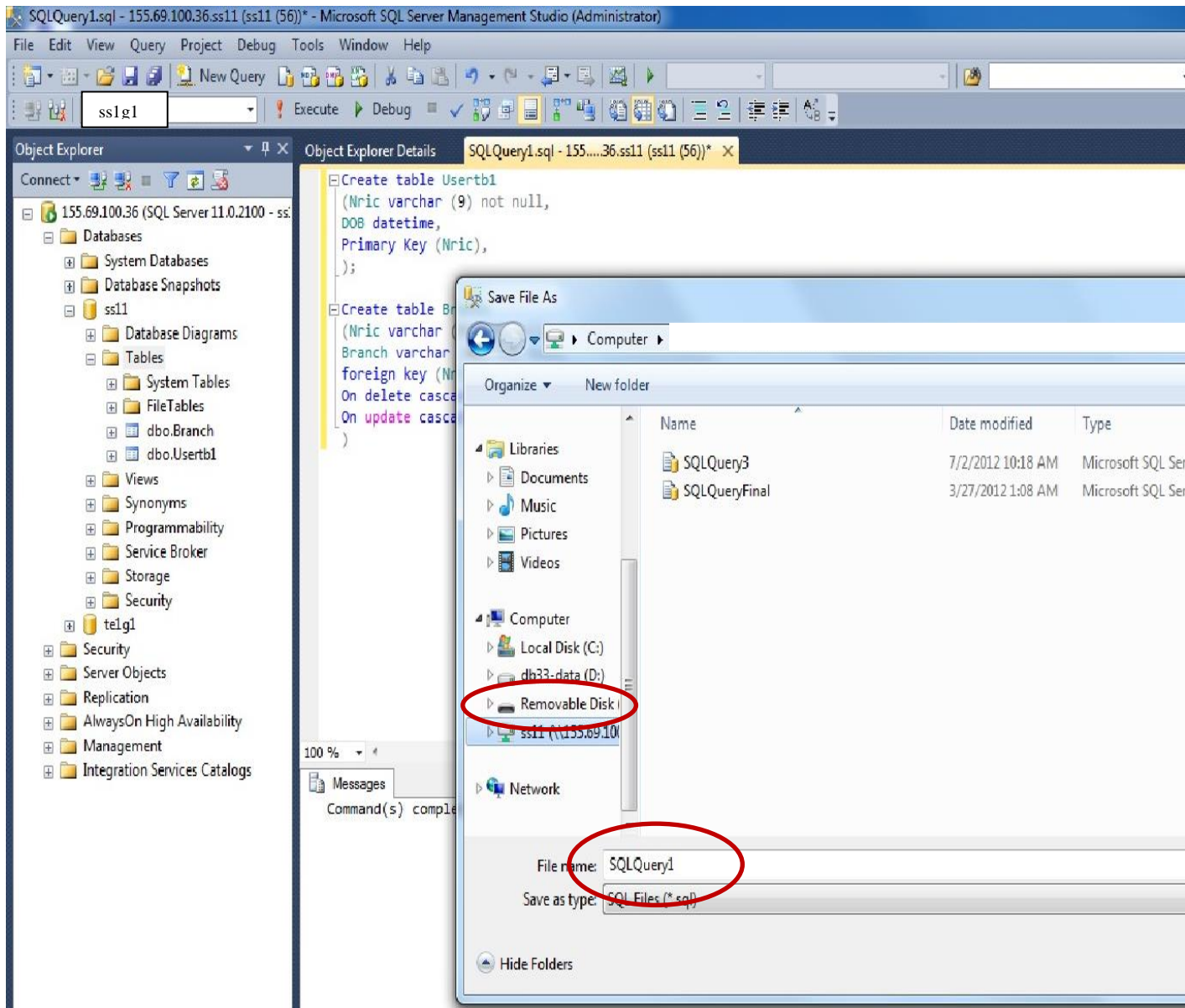
- Create the parent table 1st before you child tables.
- Delete child tables 1st before you delete the parent table.

Figure 10: Executing your SQL statements



5. Select <Tables> for your database.
6. Press <F5> to refresh.
7. If your SQL codes execute perfectly, 2 tables will be listed under “Tables”.

Figure 11: Creating your tables



8. Save your SQL statements in your Thumb drive.

Important!

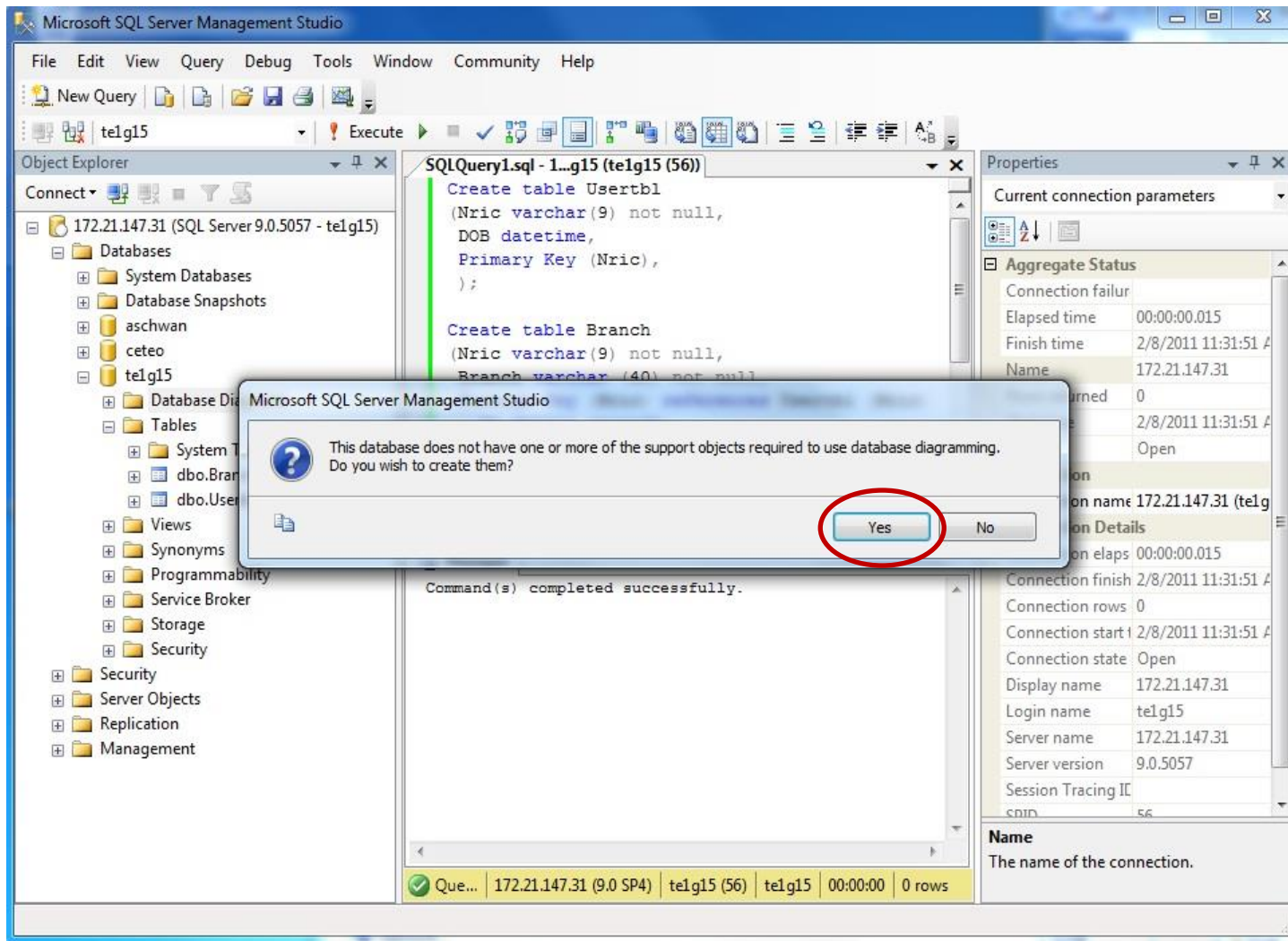
1. Successful execution of SQL statements will create your tables but will not save your SQL statements.
2. Do remember to save your working SQL statements.

(Reverse engineering will only retrieve SQL statements proprietary to Microsoft)

9. Save as <filename>.sql for example.

10. Save another copy in your thumb drive (for backup purpose)

Figure 12: Saving (& backing up) your SQL statements

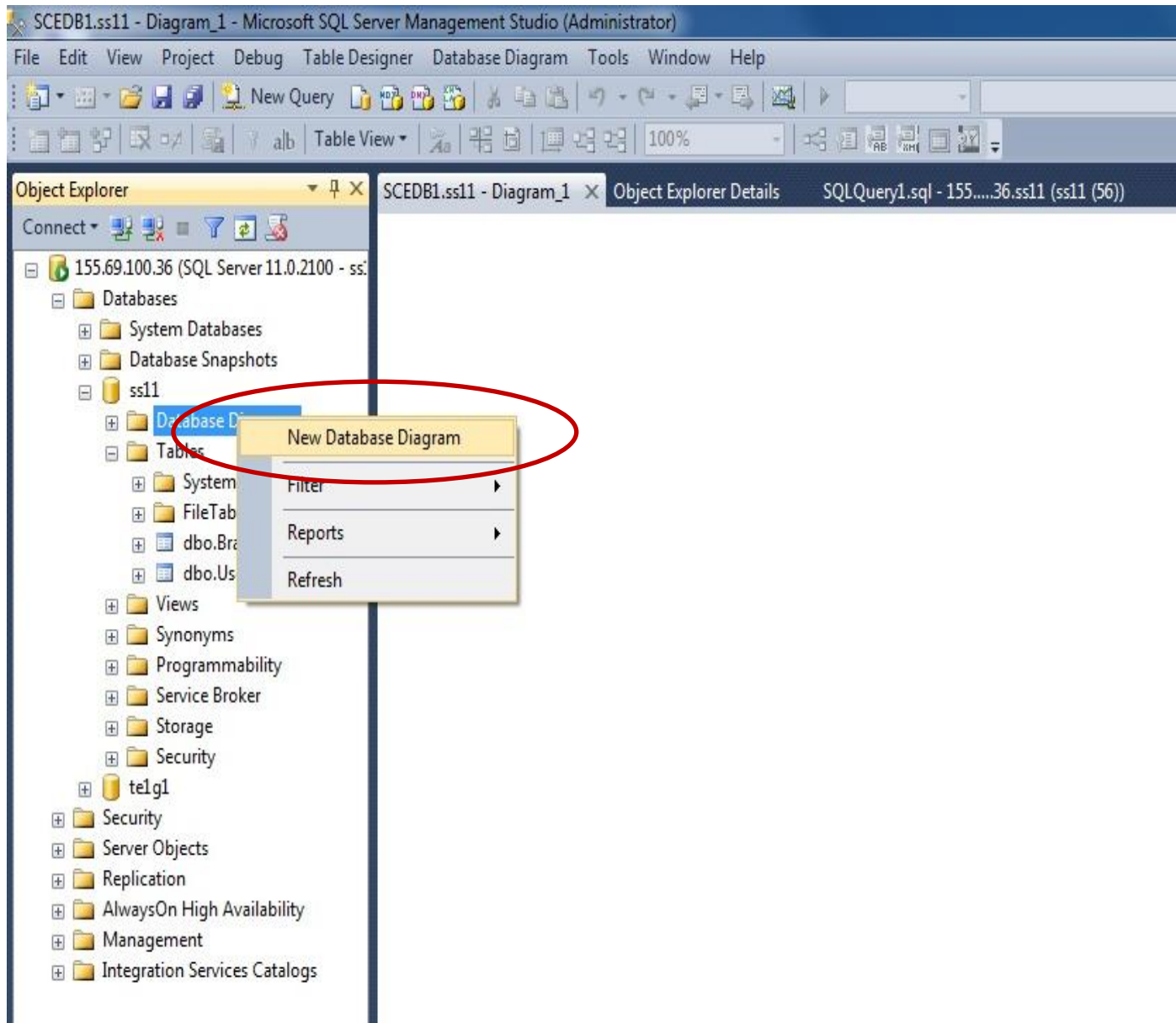


Section E: Creating a Database Diagram

Note: This diagram which you are about to create represents the relations between your tables.

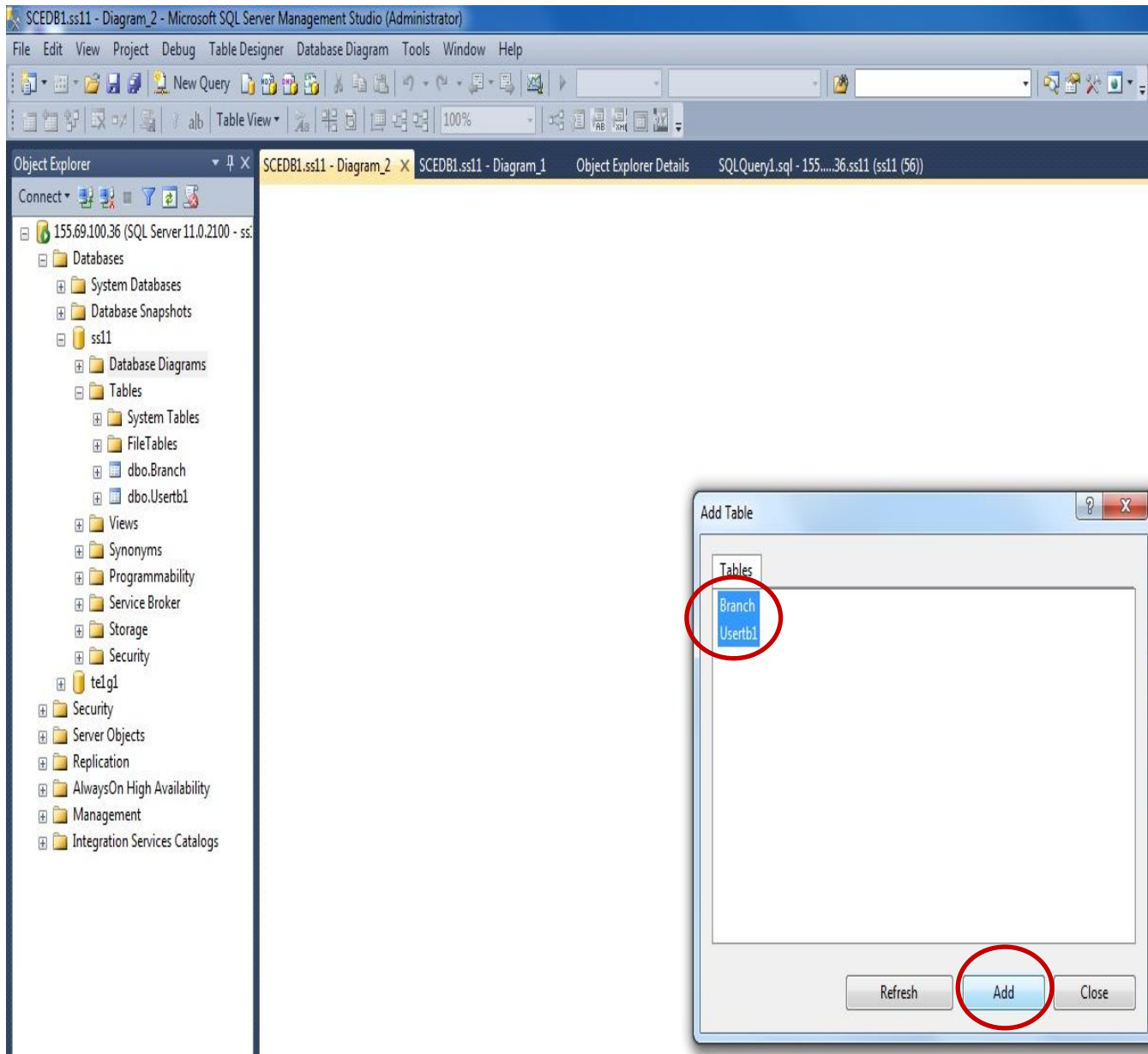
1. <Right-click> on <Database Diagrams><New Database Diagram> and click <Yes> on the pop-up windows as shown.

Figure 13: Creating your Database Diagram



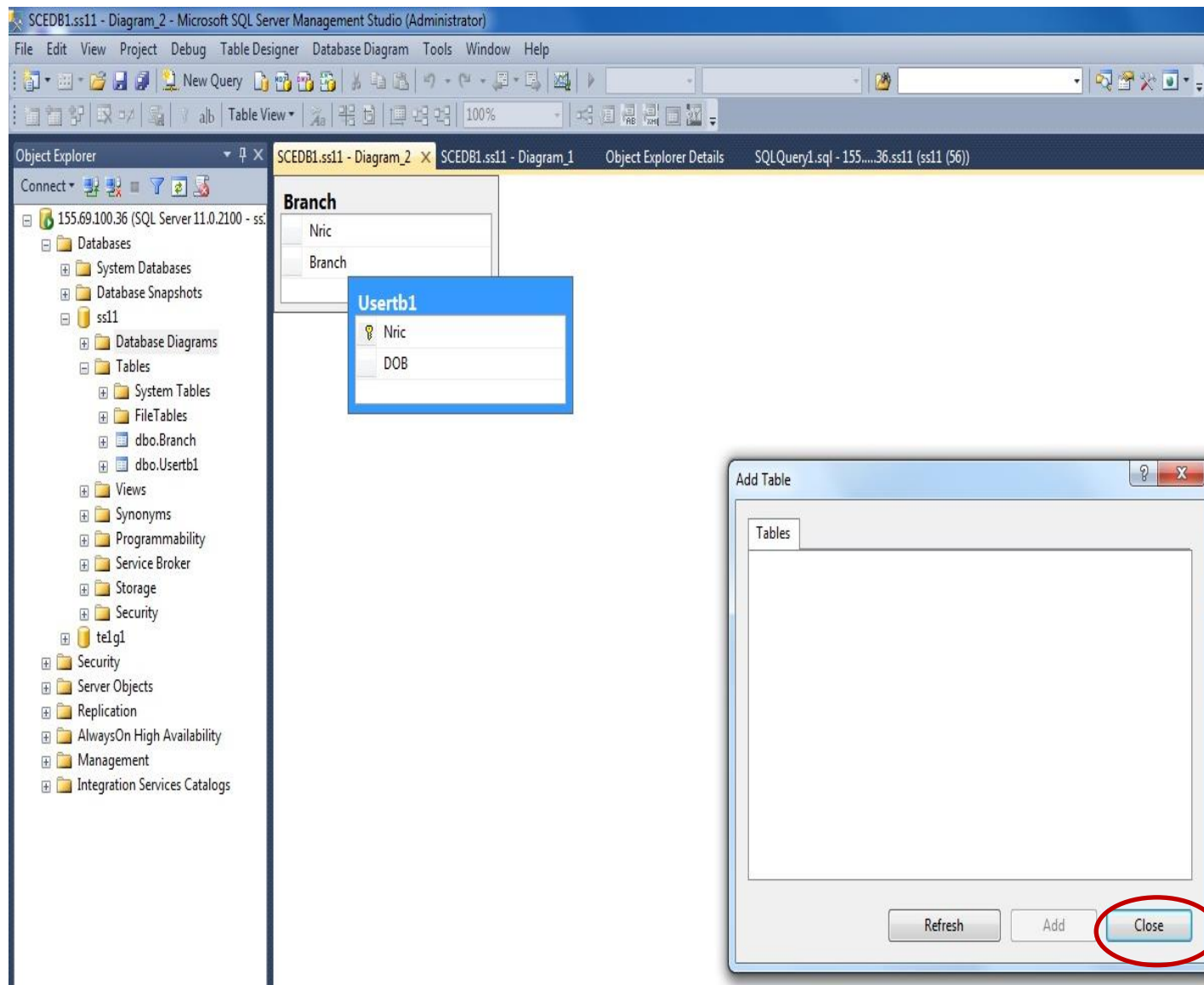
2. <Right-click><New Database Diagram>
again, if necessary.

Figure 14: Creating your Database Diagram (Cont'd)



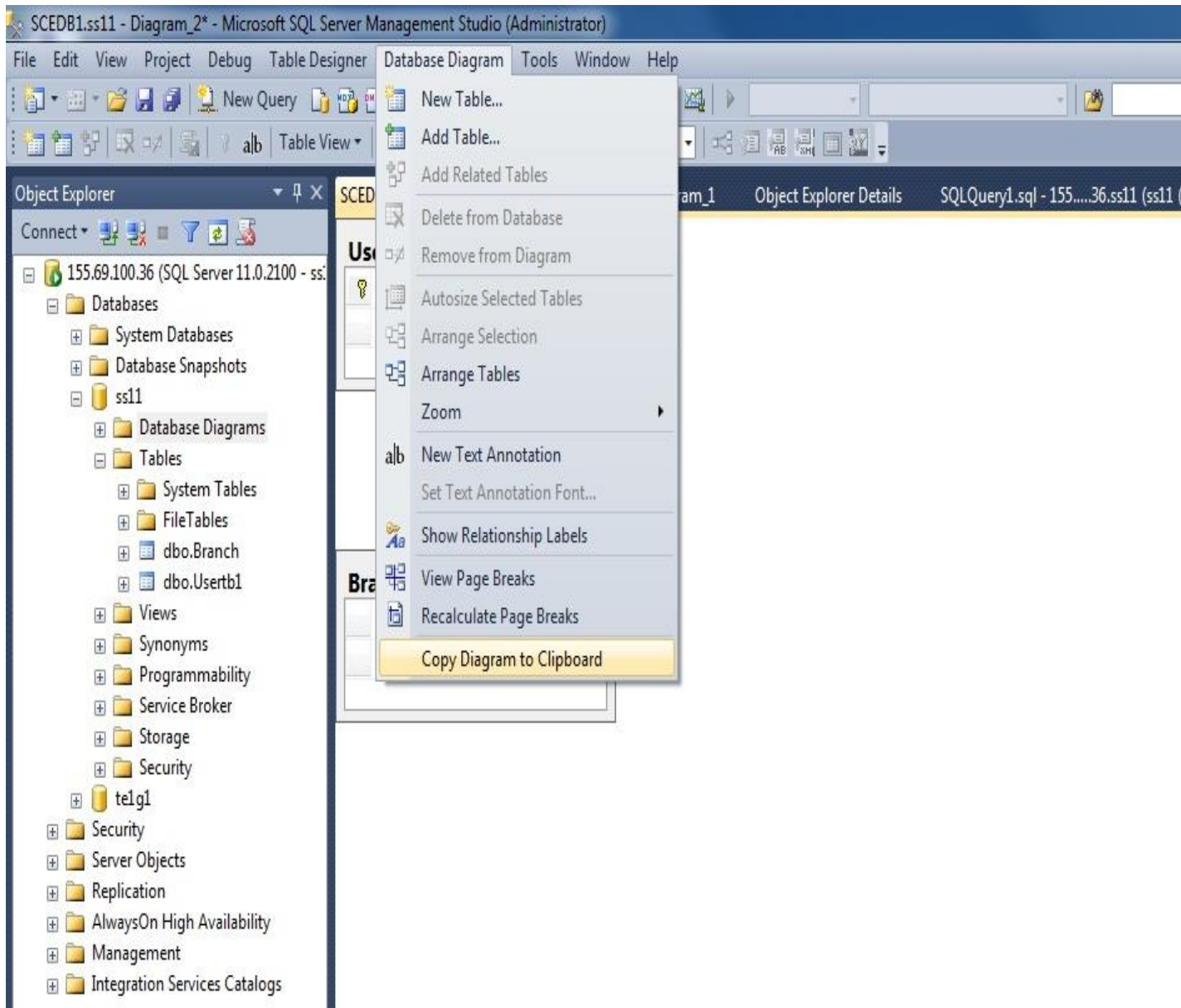
3. Select the tables that you want to be represented in a Database Diagram as shown.
4. Click <Add>.

Figure 15: Creating your Database Diagram (Cont'd)



5. Click <Close>.

. Figure 16: Creating your Database Diagram (Cont'd)

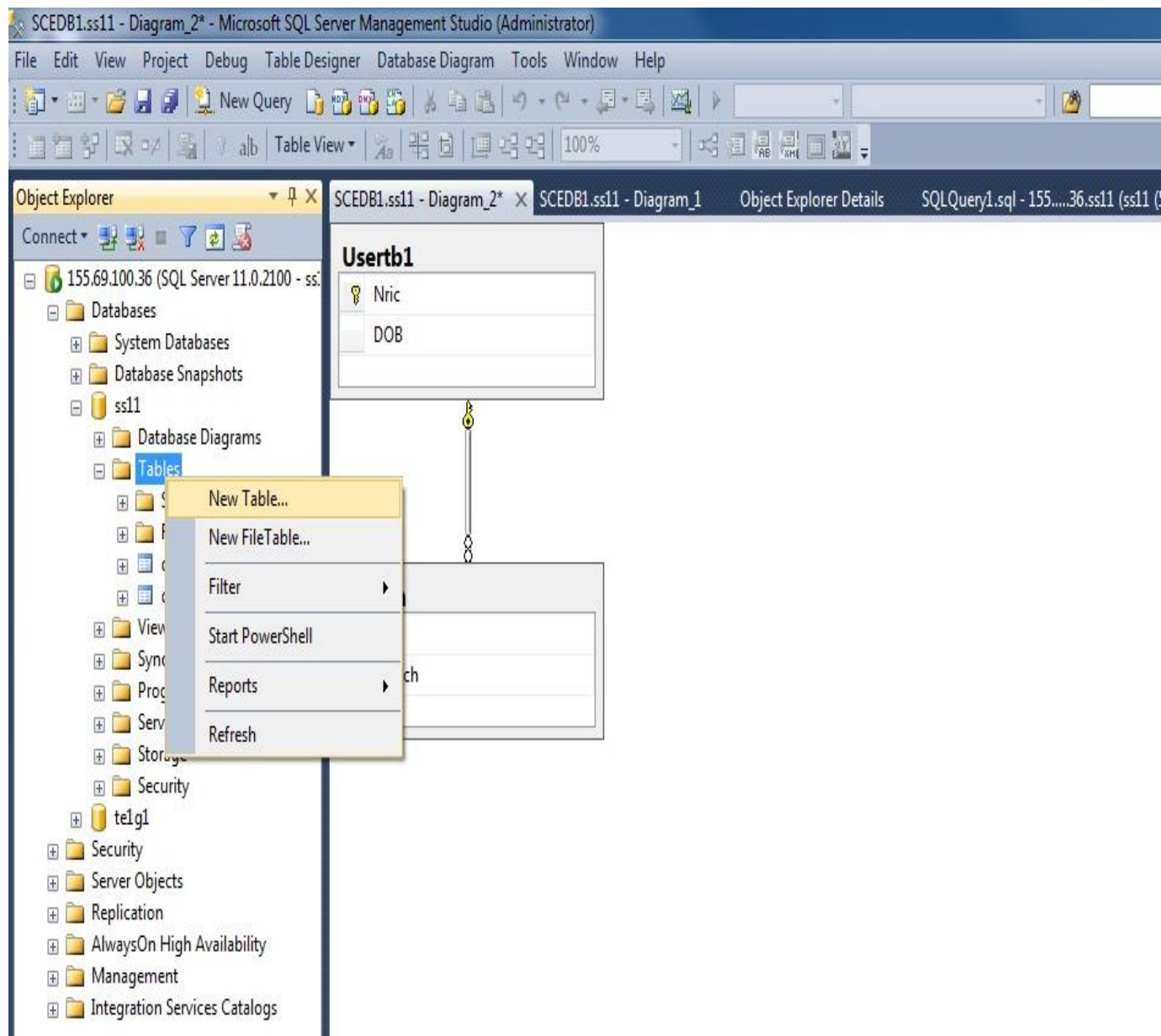


The 2 tables will appear and the “line” joining both tables represents their “relation”.

Note: To have the diagram printed for submission,

1. Select <Database Diagram>.
2. Select <Copy Diagram to Clipboard>.
3. Copy and paste inside Word or PowerPoint.

Figure 17: Creating your Database Diagram (Cont'd)

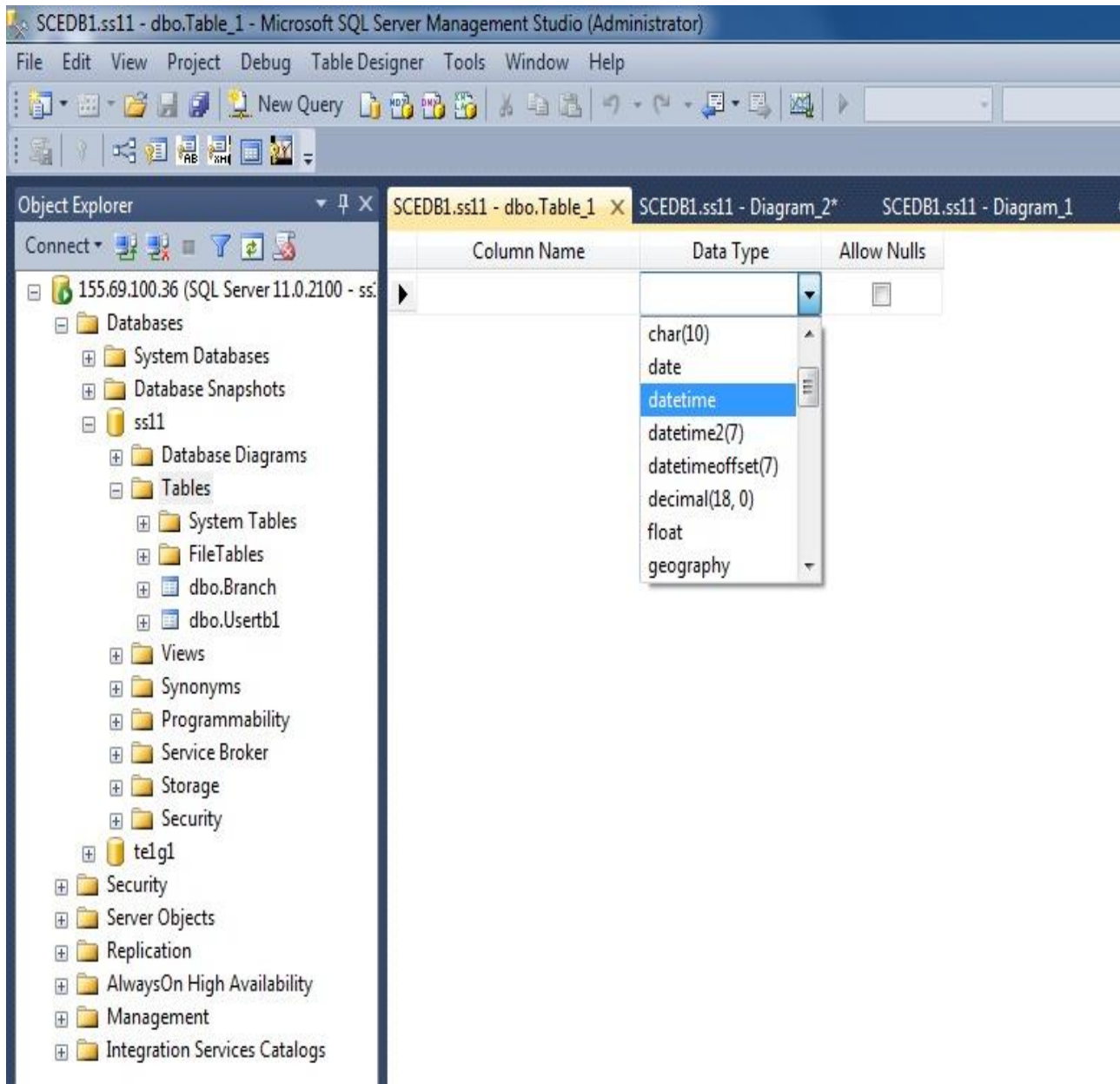


Section F: Data Types in SQL 2018

What are the Data Types in MSSQL 2012?

1. Under <Tables>, select <New Table>.

Figure 18: Creating your Database Diagram (Cont'd)



2. Under “Data Type”, scroll down the drop-down menu and the available data types will be displayed.

For user-defined data types, please refer to the lab white board.

Figure 19: Viewing the Data Types available in MSSQL 2018