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

WINDOWS LOGIN

1. Obtain your **Group ID** from the technicians in the lab
2. One member will login first. For 1st time login, password is empty (no password).

.

<mark>Remember:</mark> Please backup your SQL statements in your own Thumbdrive.
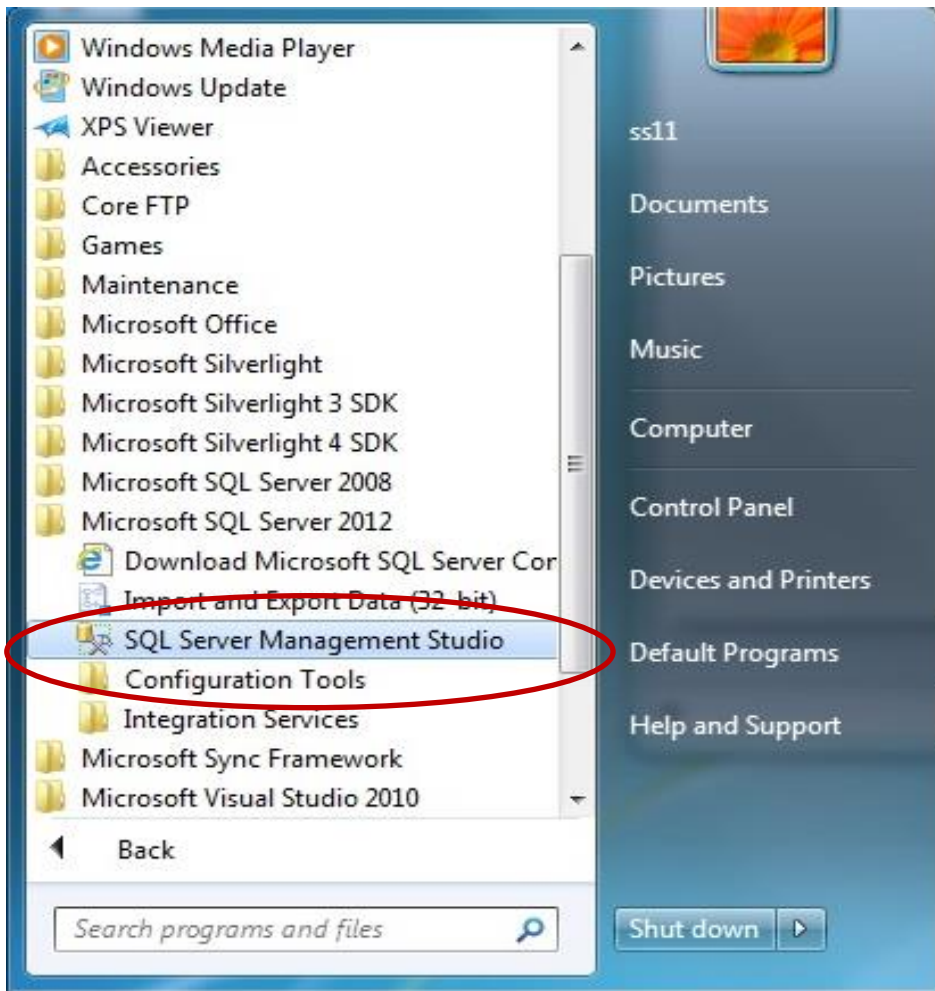
1

Figure 2: Logging In to MS SQL Server 2012

SQL SERVER LOGIN

1. From <Start> menu, select <All Programs><Microsoft SQL Server 2012 R2><SQL Server Management Studio>.
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:
      (For 1st time login, password is empty)
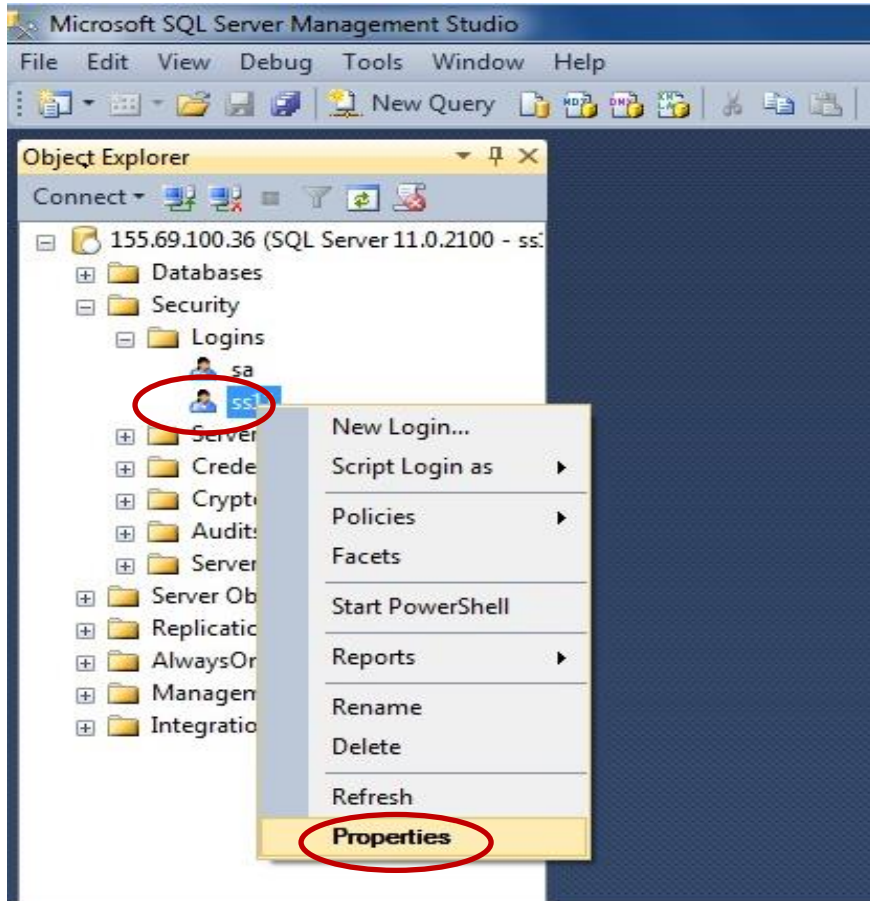   e. Press <**Connect**>

Figure 3: Changing your MS SQL Server Password

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**.
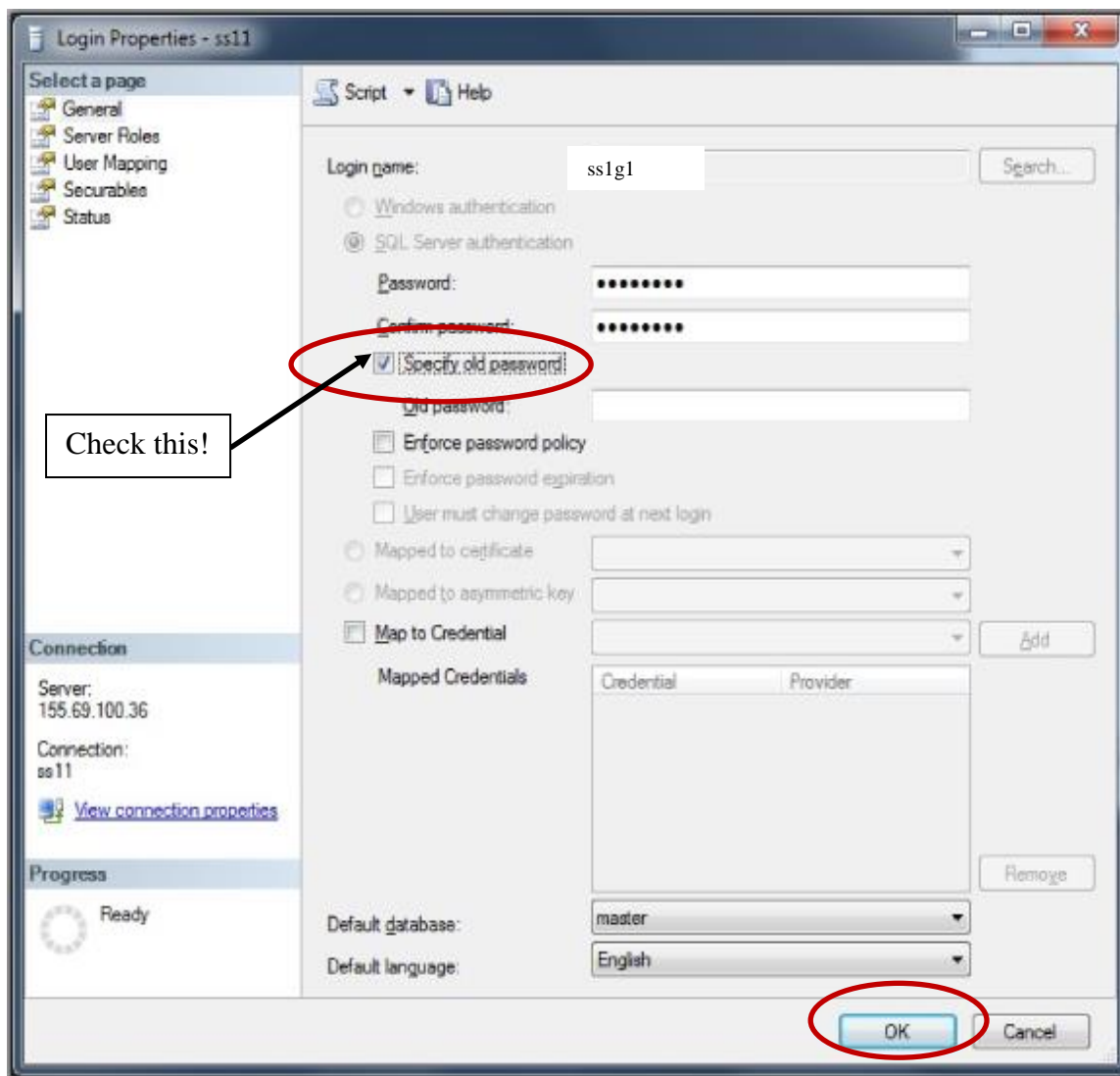- <Right-click><Properties>.

Figure 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 SQL 2012 with the SQL Server Management Studio. (Please check with the technician).
. 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 2005 IP Address: 155.69.100.36

Figure 5: Creating a Database (Graphical Method)
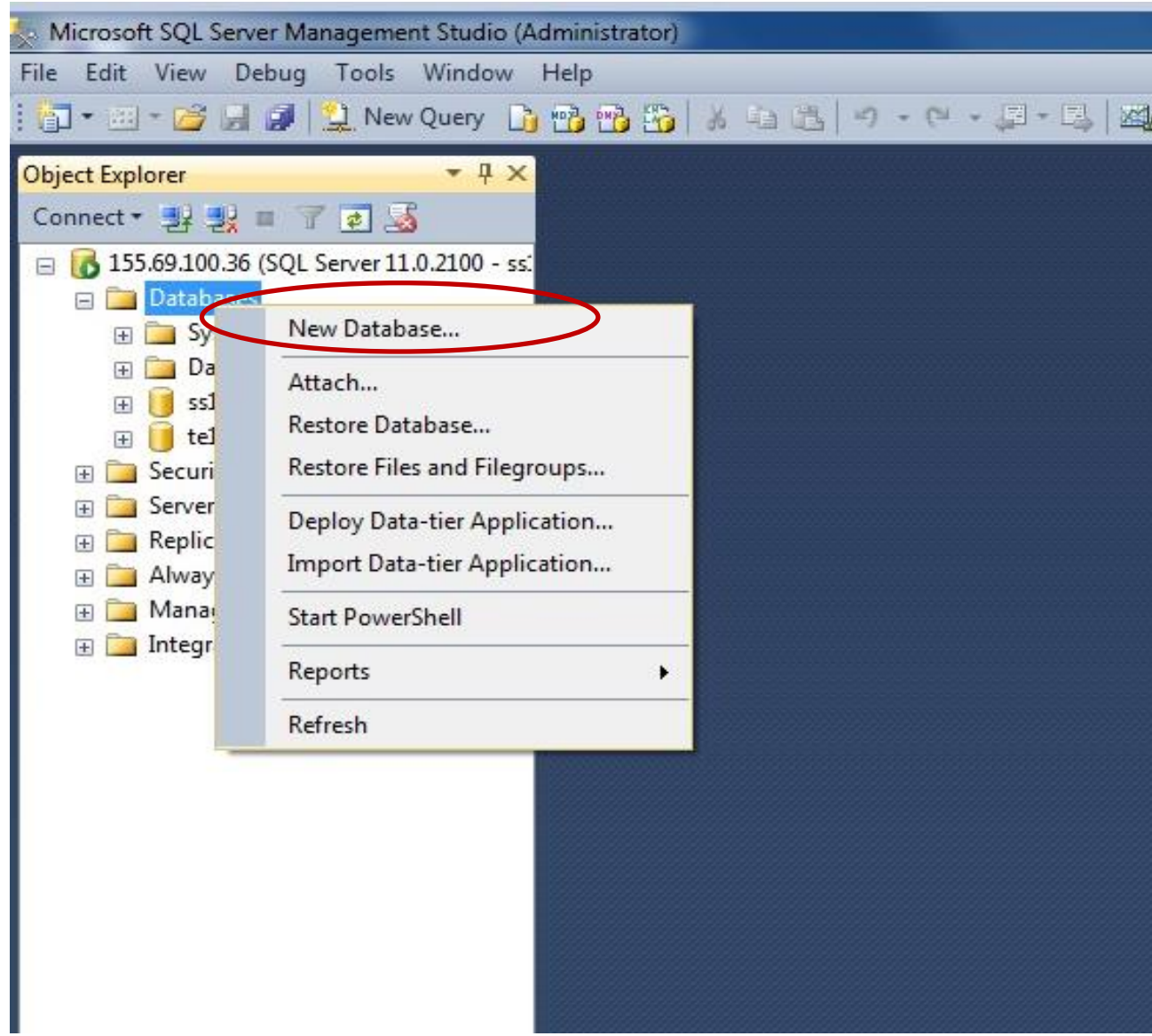
Section C: Creating a Database

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

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

Figure 6: Naming your Database
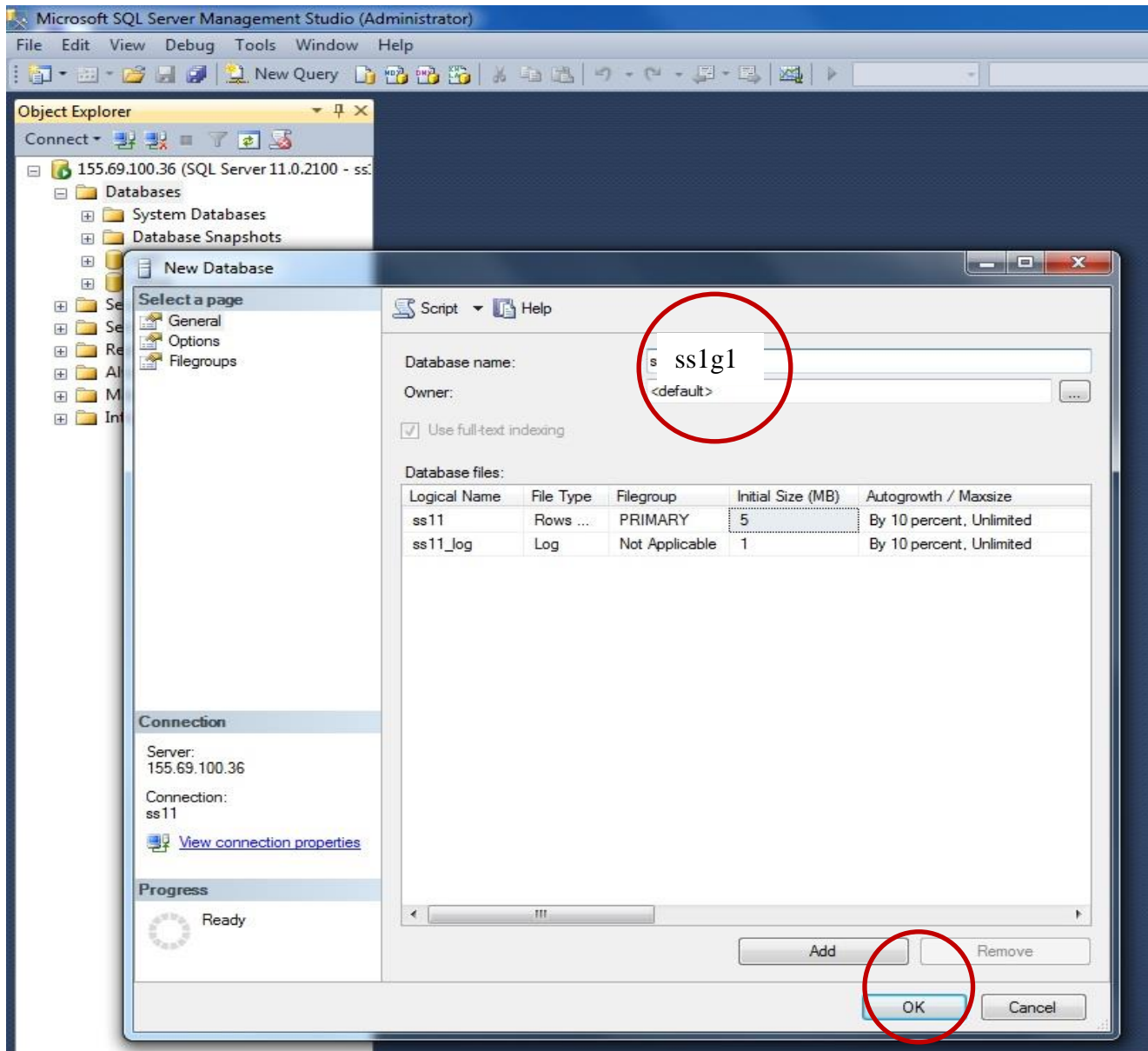
2. A pop-up box as shown above will appear for "New Database".

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

 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.

.

SQLQuery1.sql - 155.69.100.36.ss11 (ss11 (56))* - Microsoft SQL Server Management Studio (Administrator)
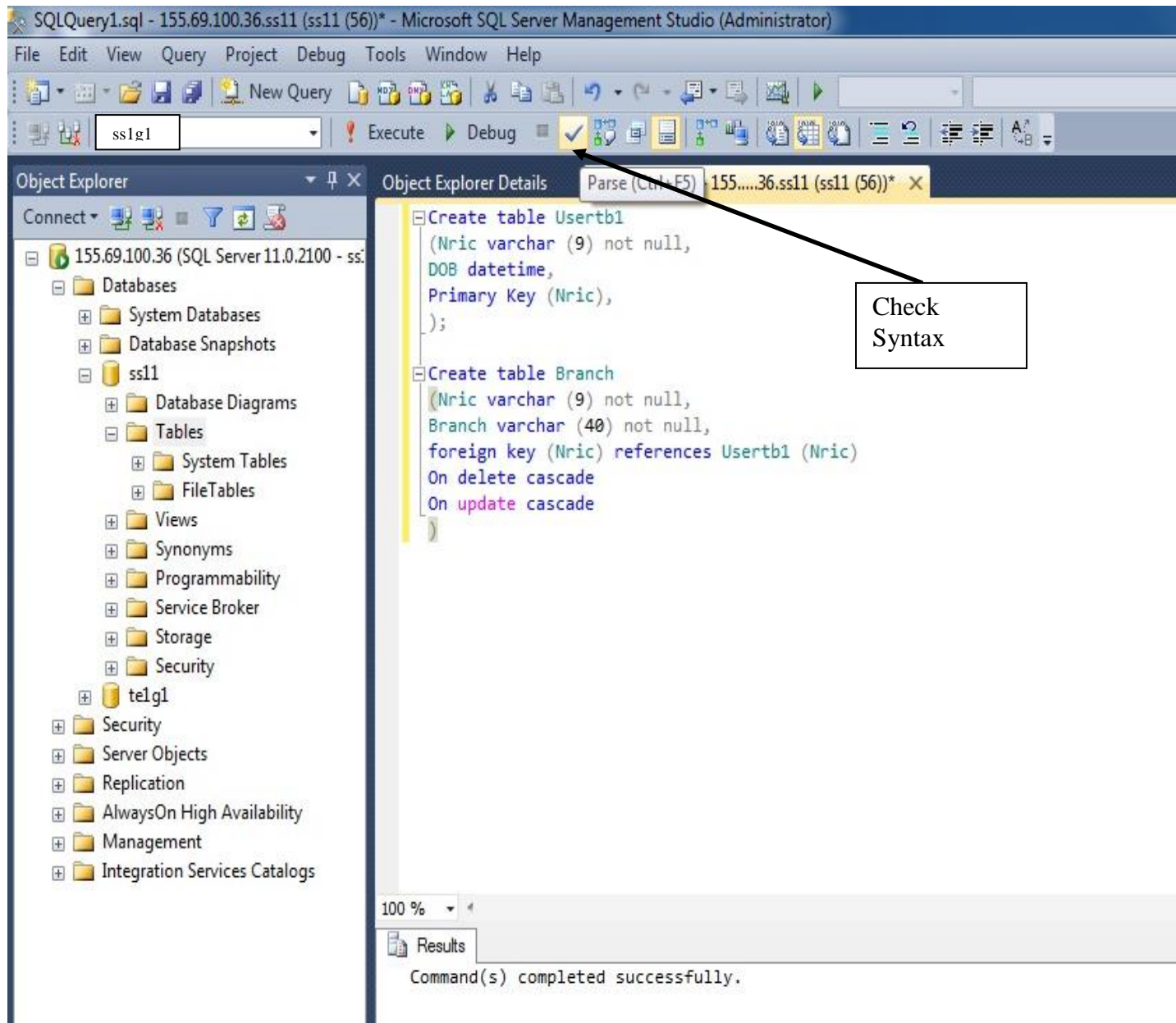
File Edit View Query Project Debug Tools Window Help

ss1g1

Object Explorer

Connect

155.69.100.36 (SQL Server 11.0.2100 - ss1
  Databases
    System Databases
    Database Snapshots
    ss11
      Database Diagrams
      Tables
        System Tables
        FileTables
      Views
      Synonyms
      Programmability
      Service Broker
      Storage
      Security
    te1g1
  Security
  Server Objects
  Replication
  AlwaysOn High Availability
  Management
  Integration Services Catalogs

Object Explorer Details   SQLQuery1.sql - 155.....36.ss11 (ss11 (56))*

```
Create table Usertb1
(Nric varchar (9) not null,
DOB datetime,
Primary Key (Nric),
);

Create table Branch
(Nric varchar (9) not null,
Branch varchar (40) not null,
foreign key (Nric) references Usertb1 (Nric)
On delete cascade
On update cascade
)
```

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

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

8

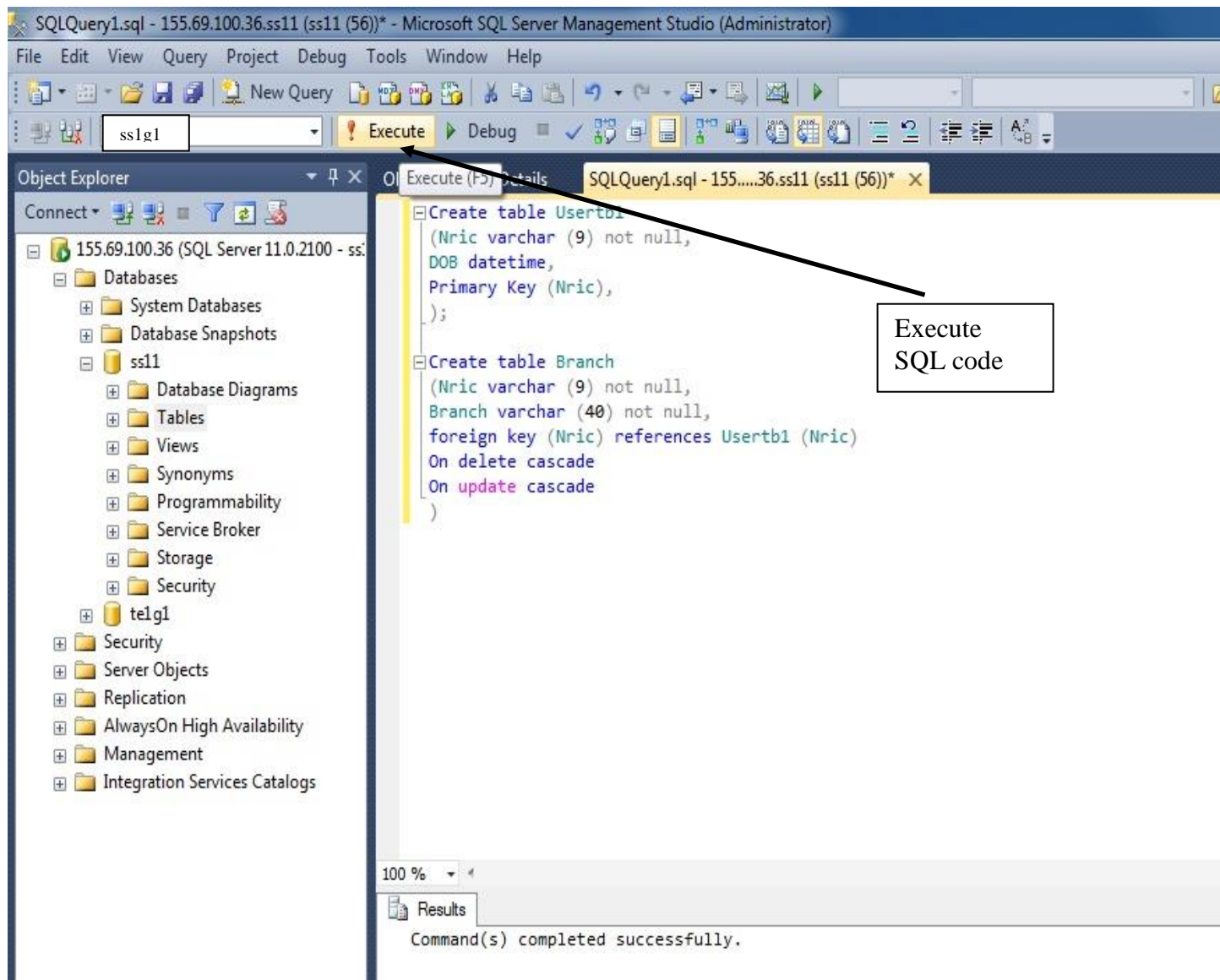3. Press " ✓ " is to check for correct SQL syntax.

```
Create table Usertb1
(Nric varchar (9) not null,
DOB datetime,
Primary Key (Nric),
);

Create table Branch
(Nric varchar (9) not null,
Branch varchar (40) not null,
foreign key (Nric) references Usertb1 (Nric)
On delete cascade
On update cascade
)
```

Check Syntax

Command(s) completed successfully.

Figure 9: Checking your syntax of your SQL Statement

Figure 10: Executing your SQL statements

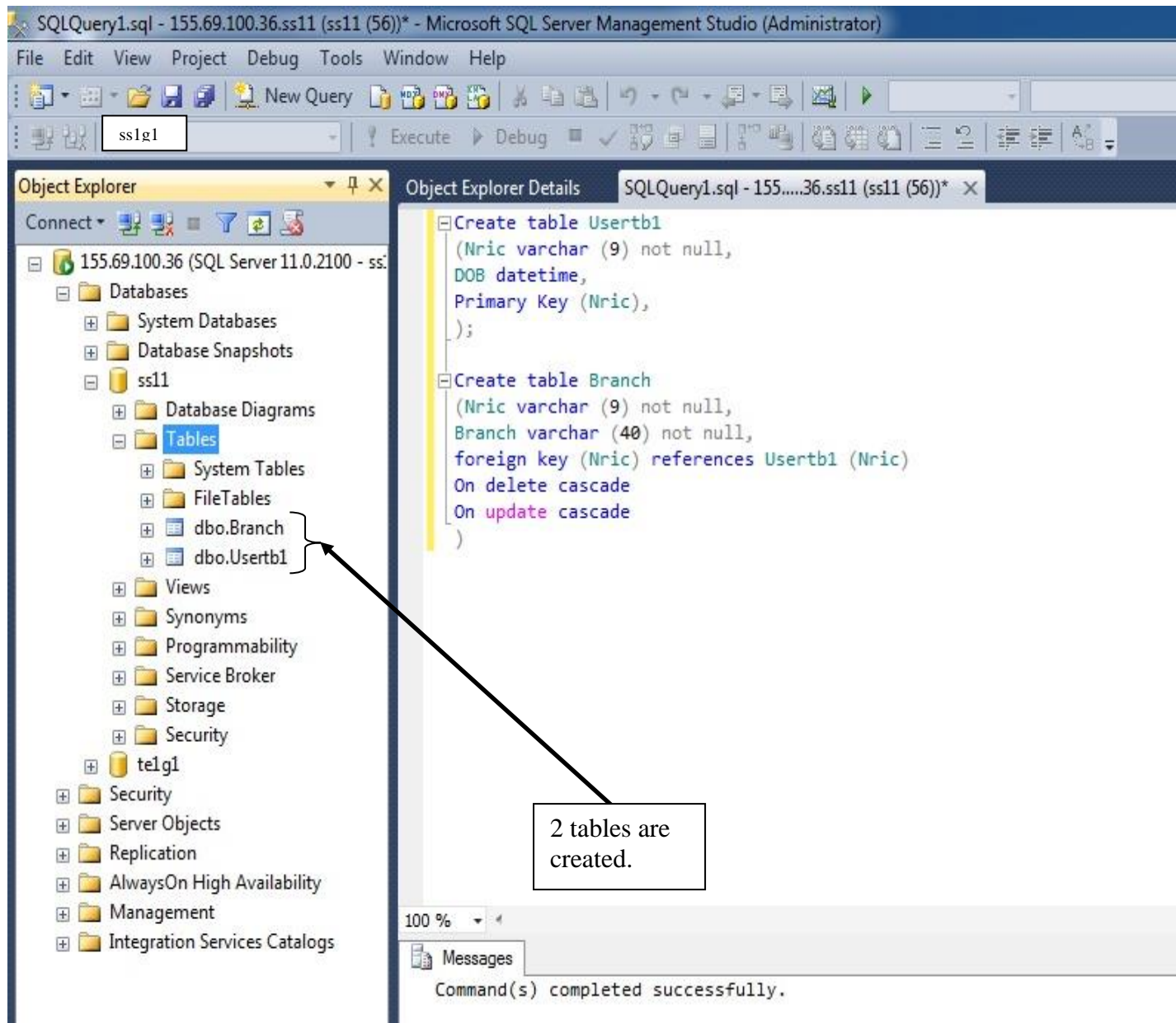In the example, the SQL codes create 2 tables with a relation.

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.

The image shows a Microsoft SQL Server Management Studio window.

Title bar: SQLQuery1.sql - 155.69.100.36.ss11 (ss11 (56))* - Microsoft SQL Server Management Studio (Administrator)

Menu: File Edit View Project Debug Tools Window Help

Toolbar field: ss1g1

Object Explorer panel:
Connect
155.69.100.36 (SQL Server 11.0.2100 - ss...
  Databases
    System Databases
    Database Snapshots
    ss11
      Database Diagrams
      Tables
        System Tables
        FileTables
        dbo.Branch
        dbo.Usertb1
      Views
      Synonyms
      Programmability
      Service Broker
      Storage
      Security
    te1g1
  Security
  Server Objects
  Replication
  AlwaysOn High Availability
  Management
  Integration Services Catalogs

Object Explorer Details | SQLQuery1.sql - 155.....36.ss11 (ss11 (56))* tabs

Query editor:

```
Create table Usertb1
(Nric varchar (9) not null,
DOB datetime,
Primary Key (Nric),
);

Create table Branch
(Nric varchar (9) not null,
Branch varchar (40) not null,
foreign key (Nric) references Usertb1 (Nric)
On delete cascade
On update cascade
)
```

Callout box: 2 tables are created.

Messages:
Command(s) completed successfully.

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

11

Figure 12: Saving (& backing up) your SQL statements
.
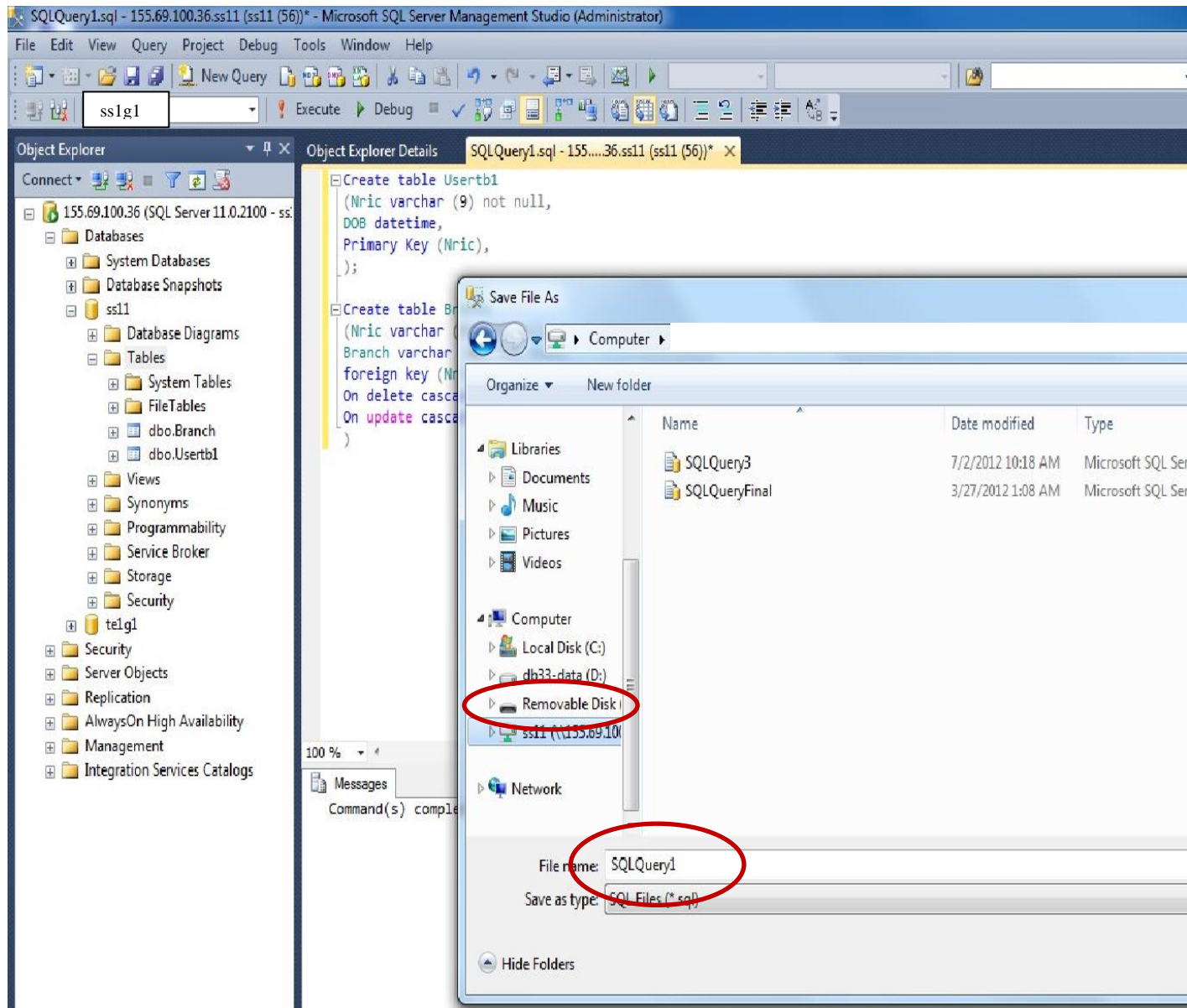
8. Save your SQL statements in your Thumb drive.

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 13: Creating your Database Diagram

Section E: Creating a Database Diagram

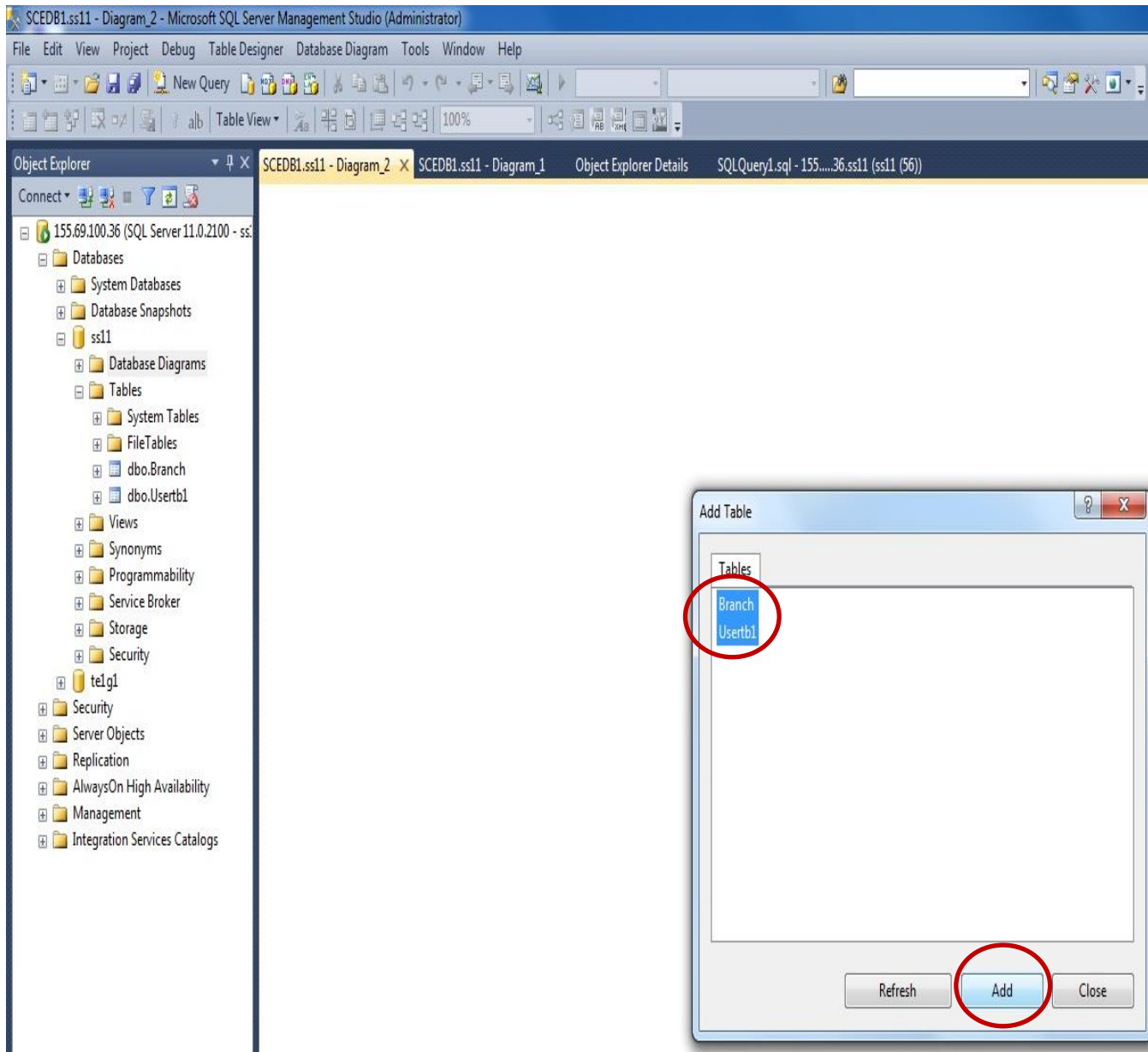Note: This diagram which you are about to create represents the relations between your tables.

1. <**Right-click**> on <**Database Diagrams**><**New Database Diagram**> and click <**Yes**> on the pop-up windows as shown.
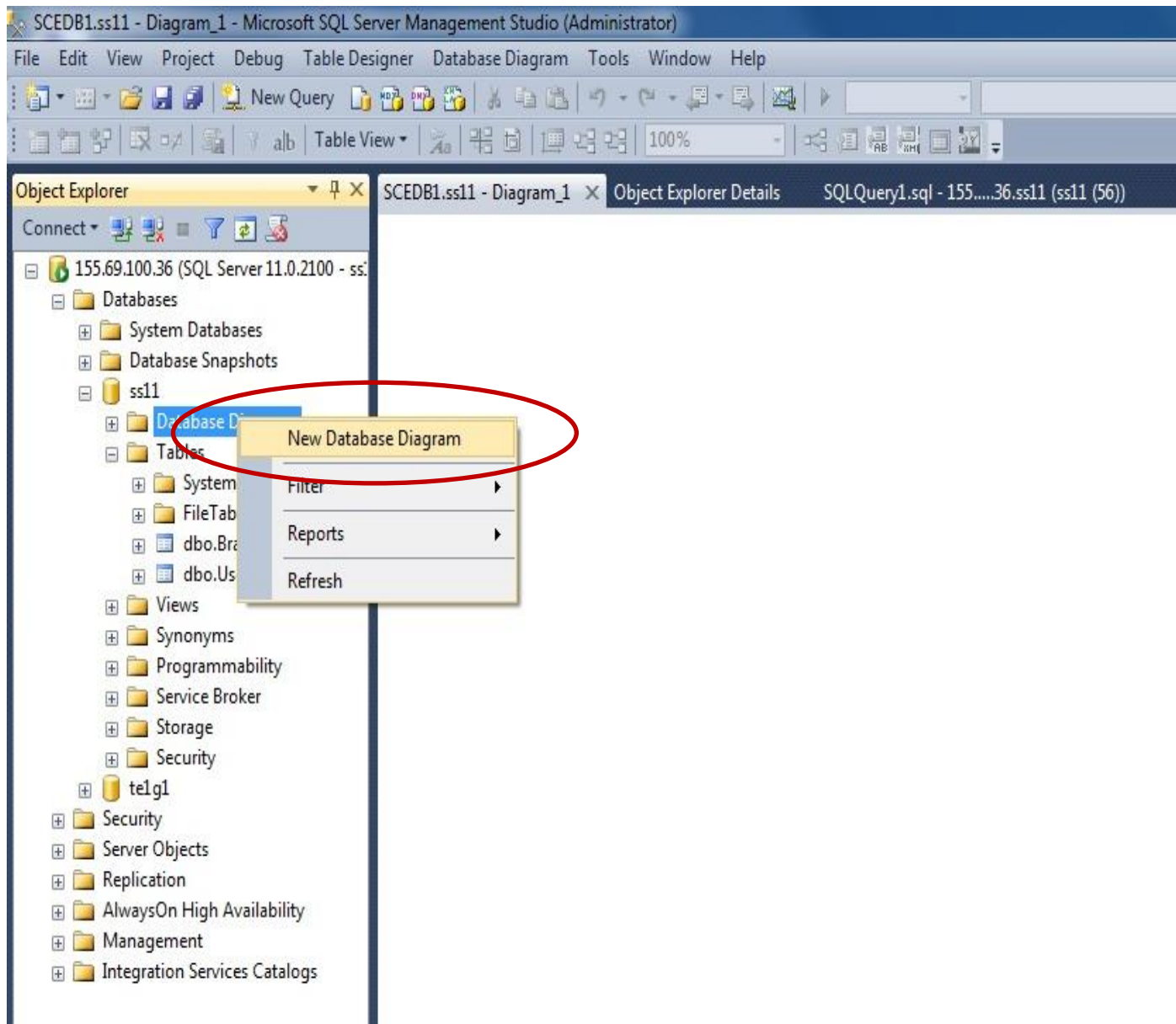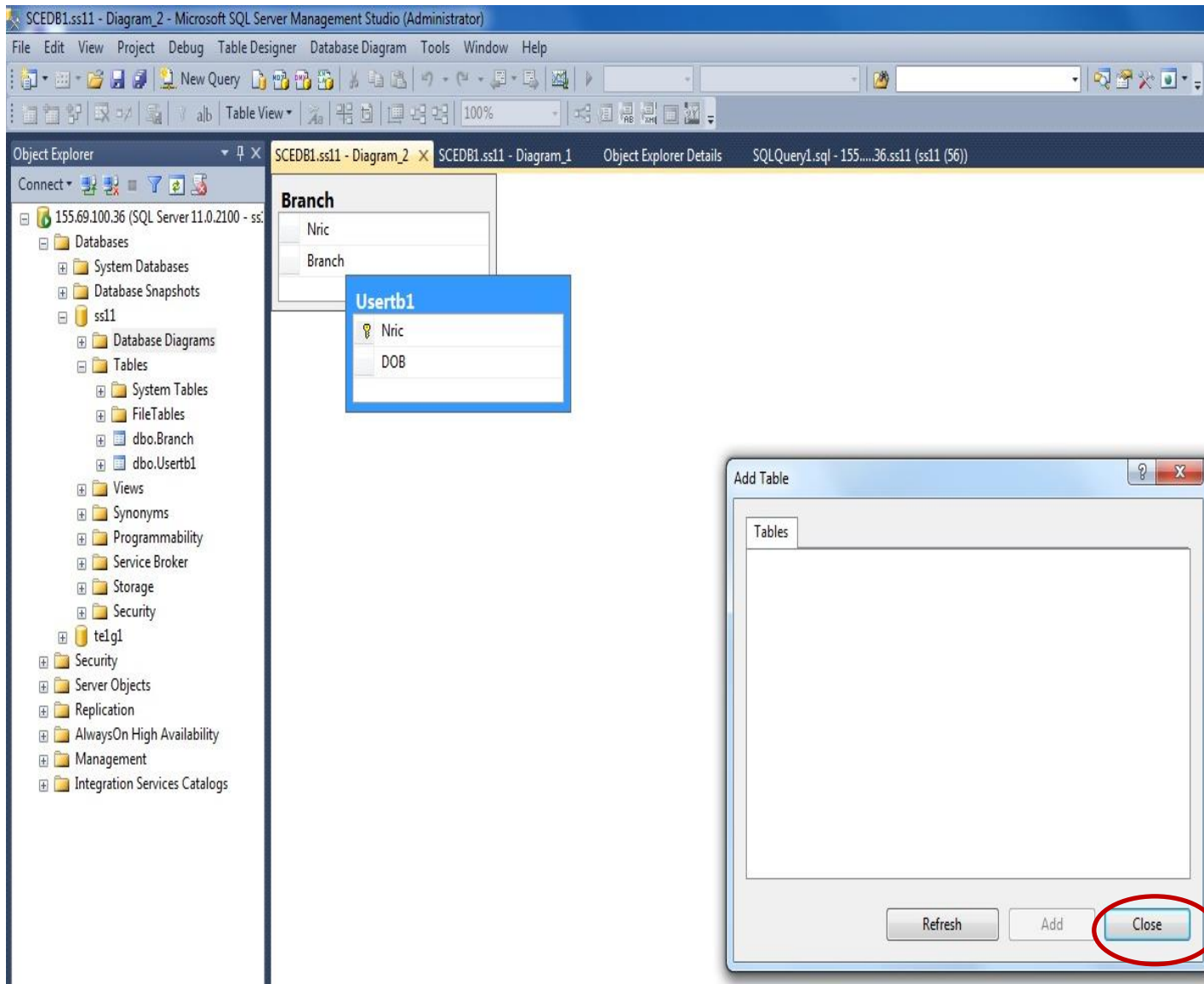
2. <**Right-click**><**New Database Diagram**>
again, if necessary.
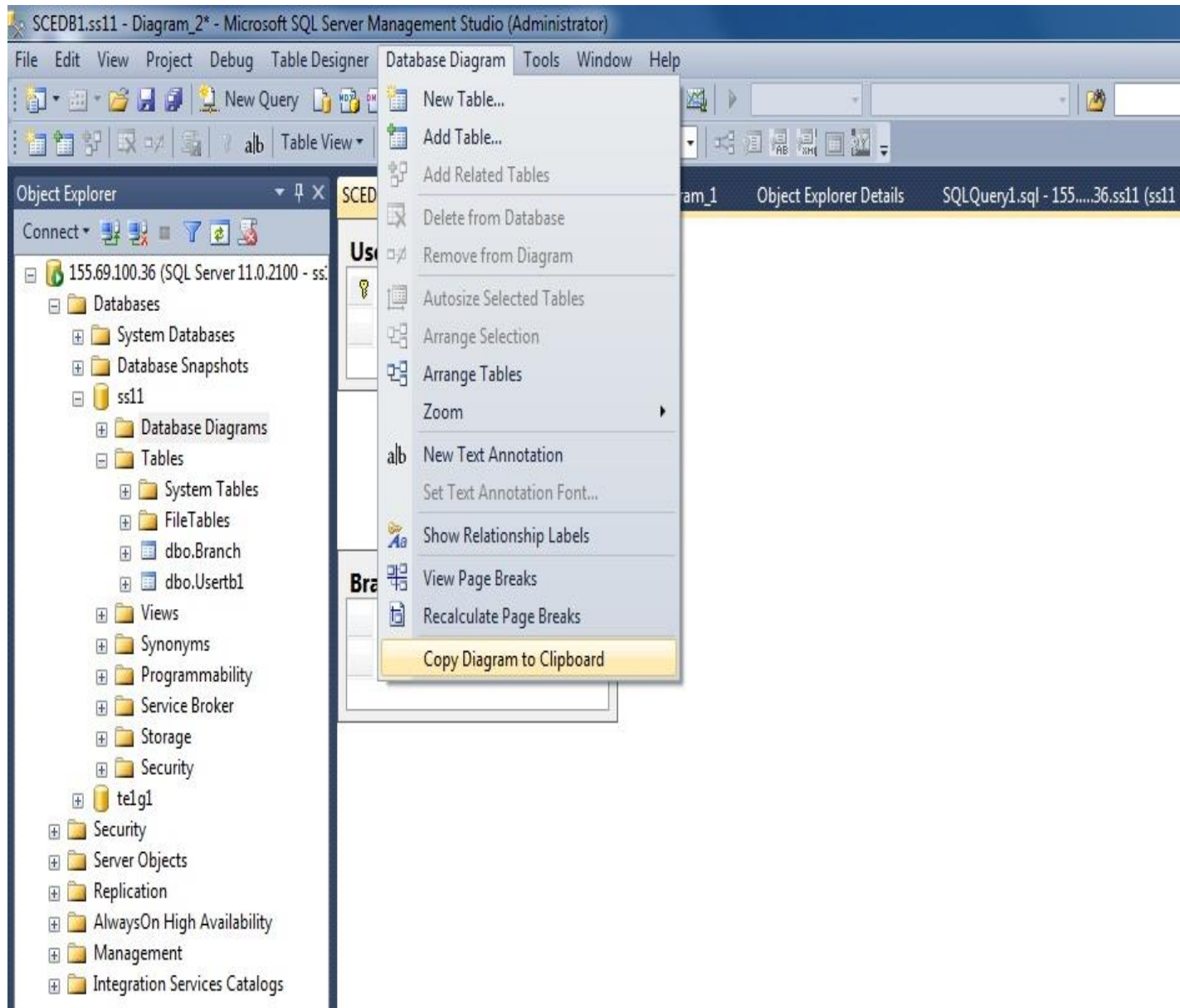
Figure 14: Creating your Database Diagram (Cont'd)

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)

15

5. Click <**Close**>.

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

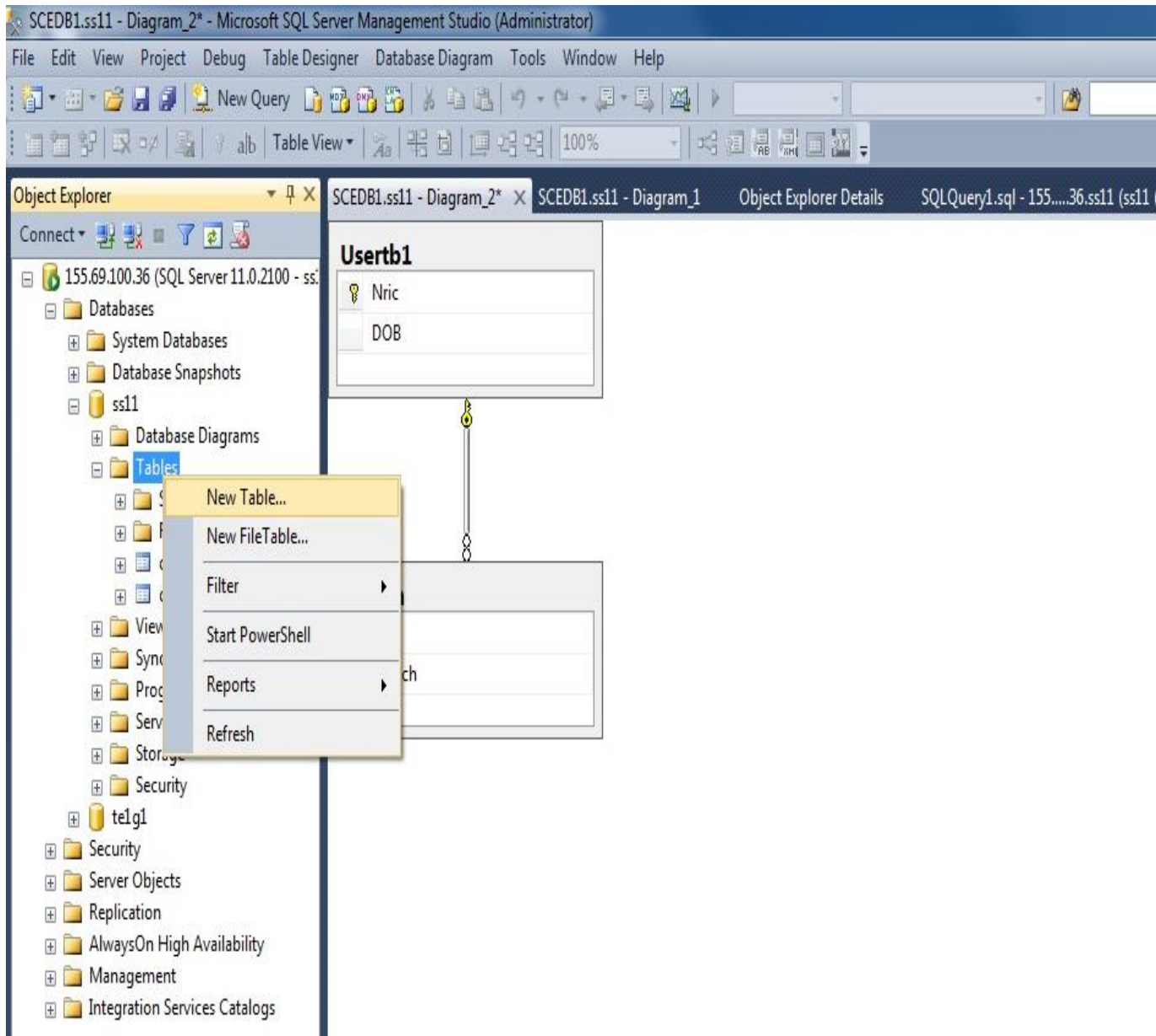Figure 17: Creating your Database Diagram (Cont'd)

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.
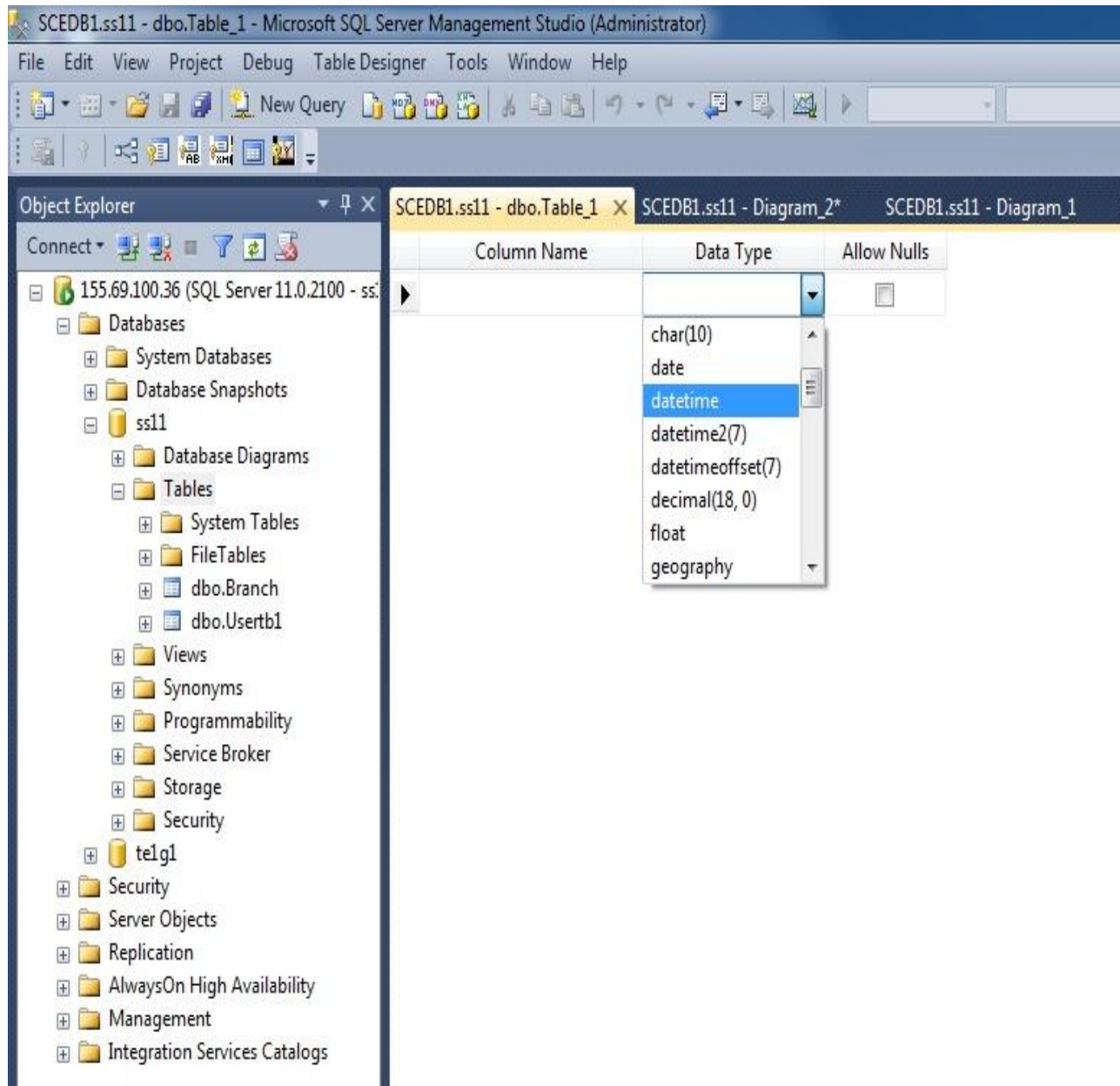
17

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

What are the Data Types in MSSQL 2012?

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

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 2012