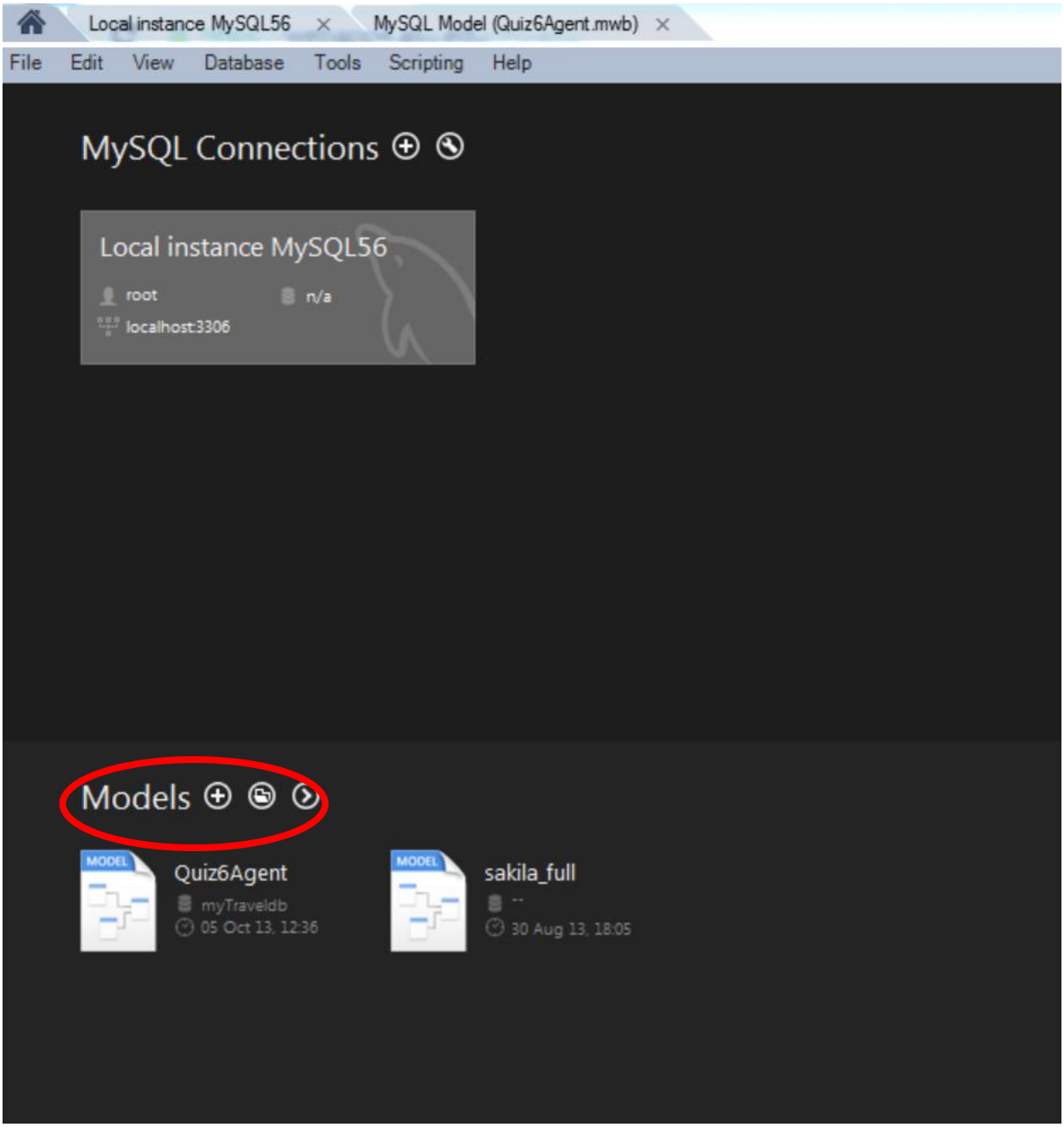
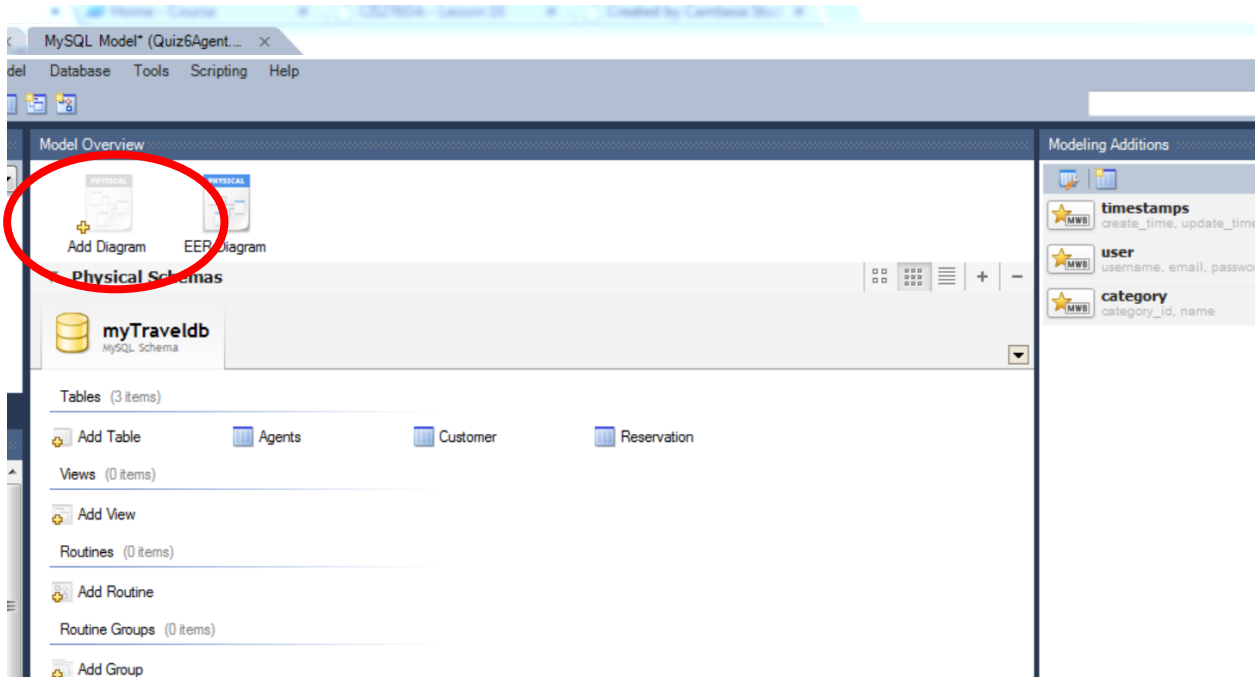
Create ER Diagram in MySQL for Sale-Fast Real Estate Agency

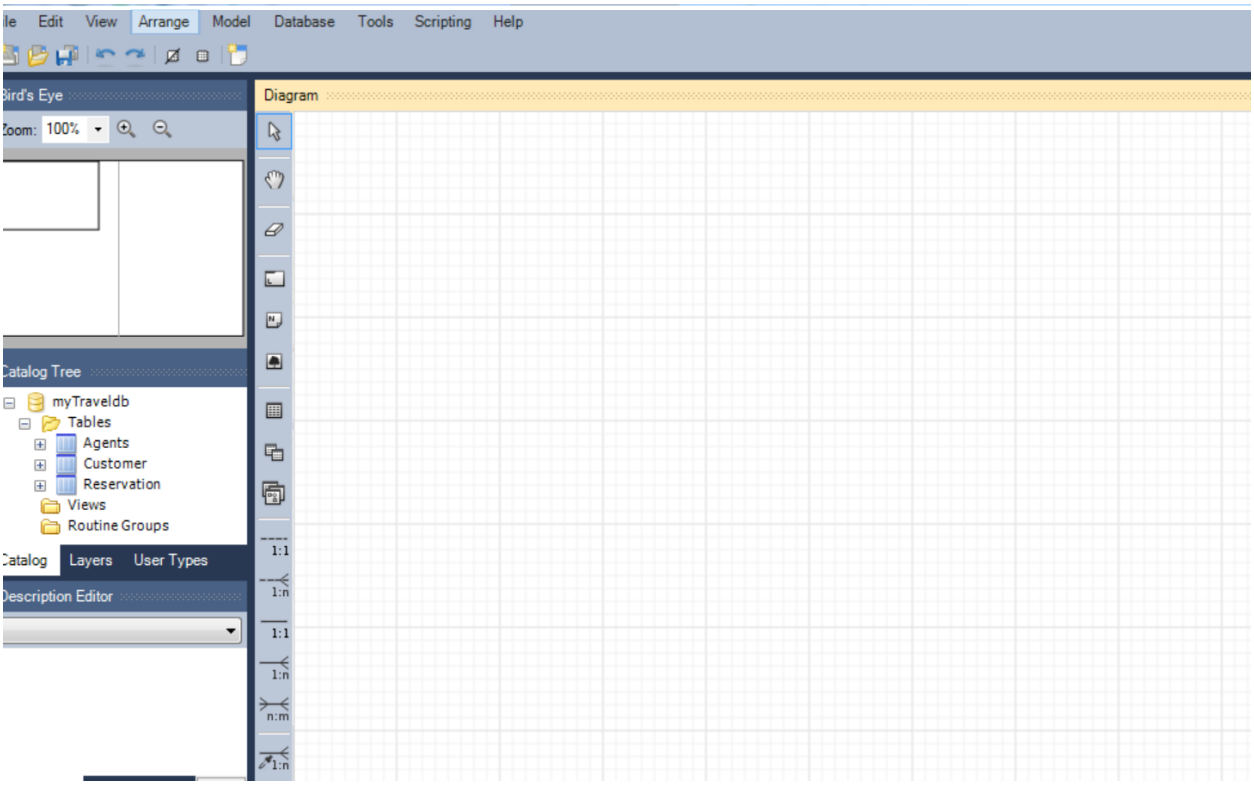
When you are in MySQL Workbench, click on the Models (left-bottom) of the workbench.



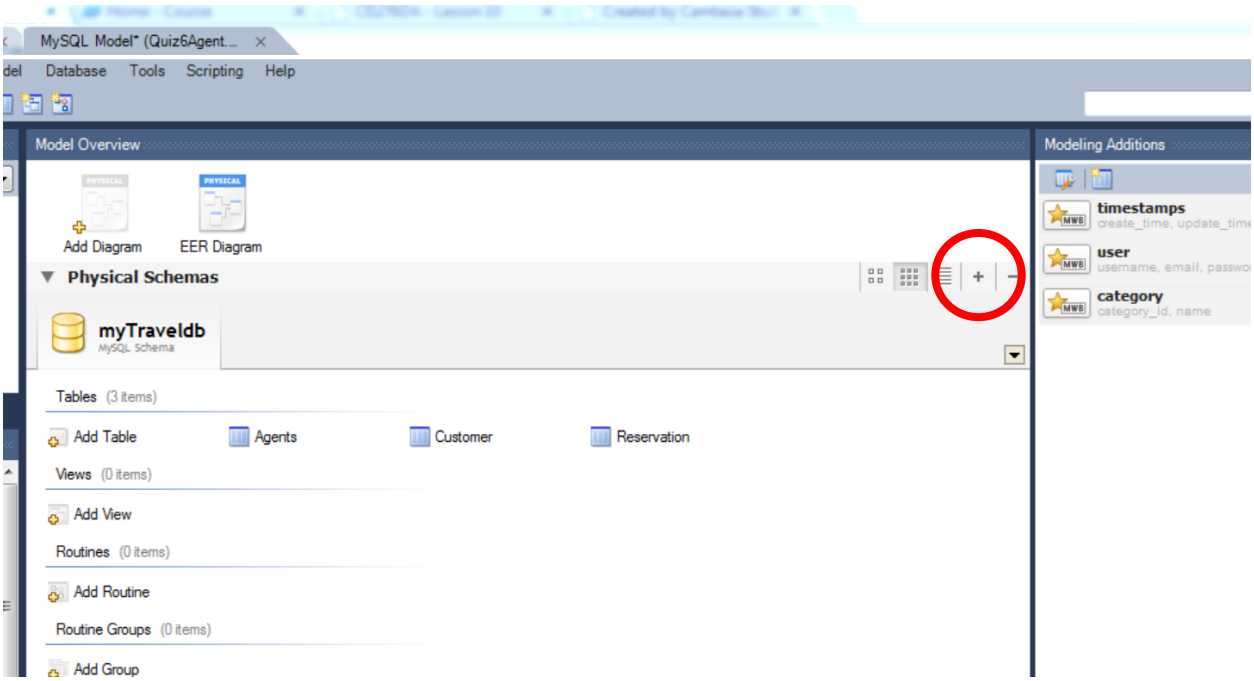
In the next screen, enter your password to login to MySQL Models screen. In the screen, click on Add Diagram.



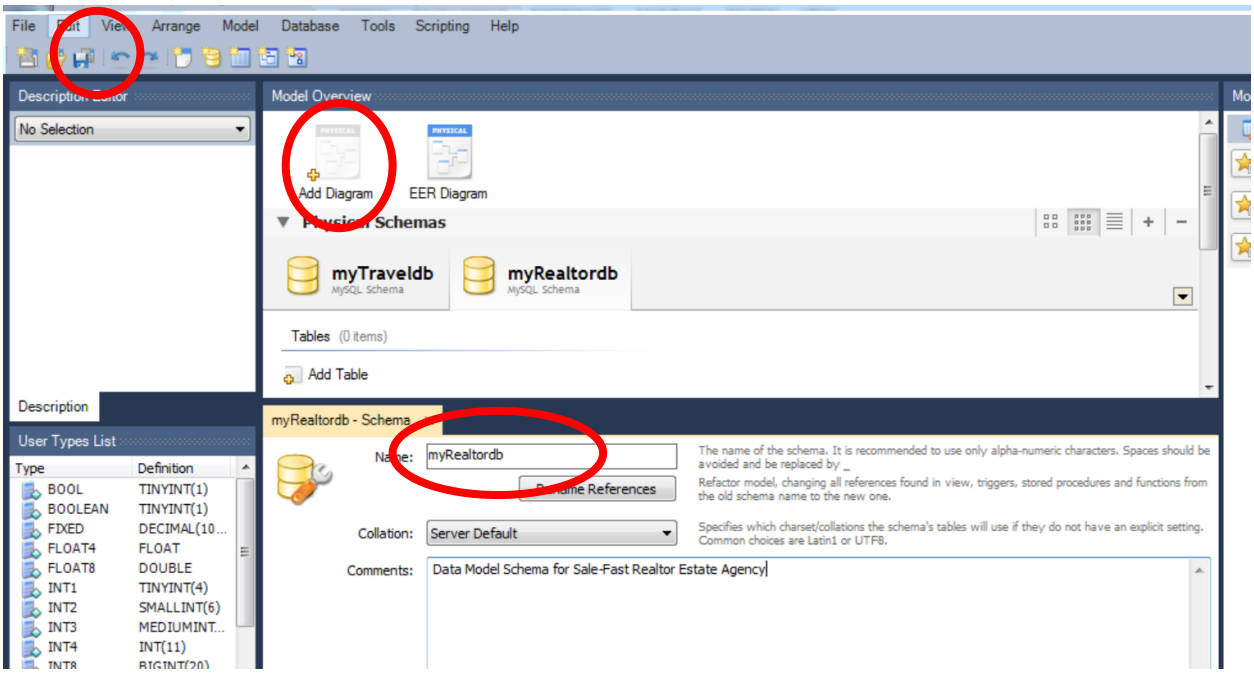
If this is your first ER diagram in MySQL, then start drawing the Diagram in the window as shown in below.



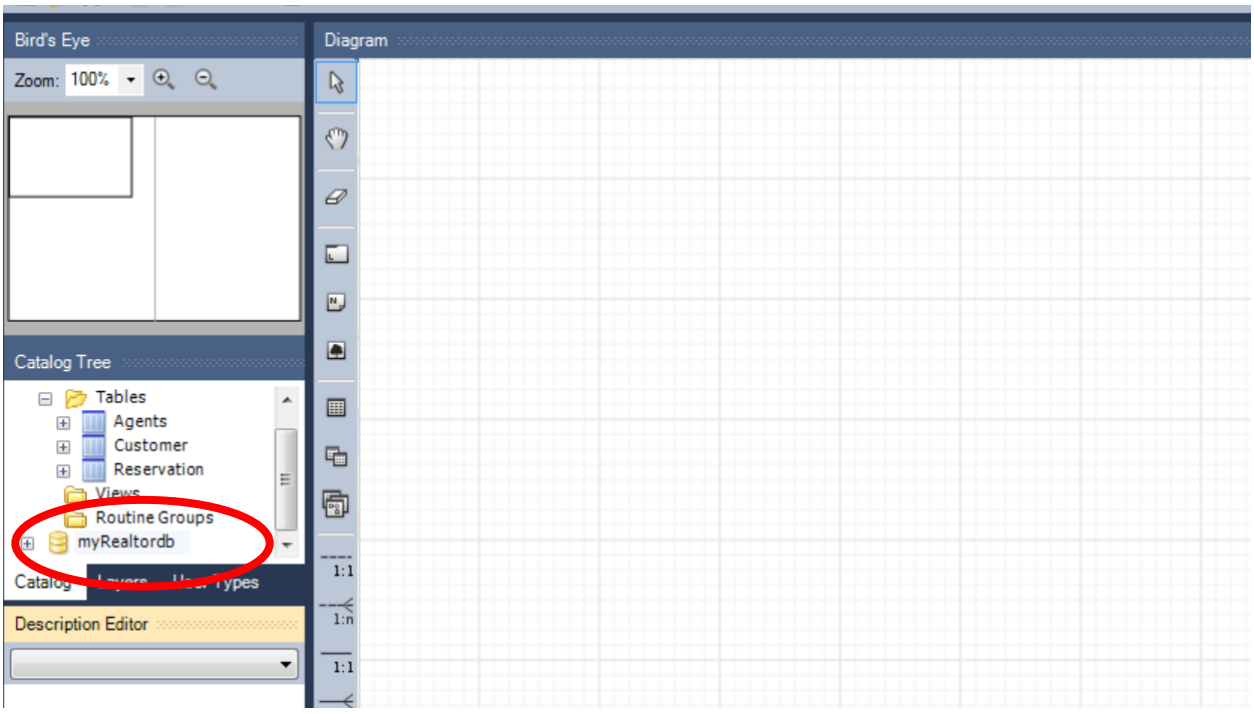
To create another ER diagram, click on the + sign as shown below to add another MySQL Schema.



Since I have already created myTraveldb data schema, I will click the + sign to create myRealtordb data schema. In the new_schema – Schema section, enter the name of the schema and Save it. Then, click Add Diagram to create the new ER diagram.

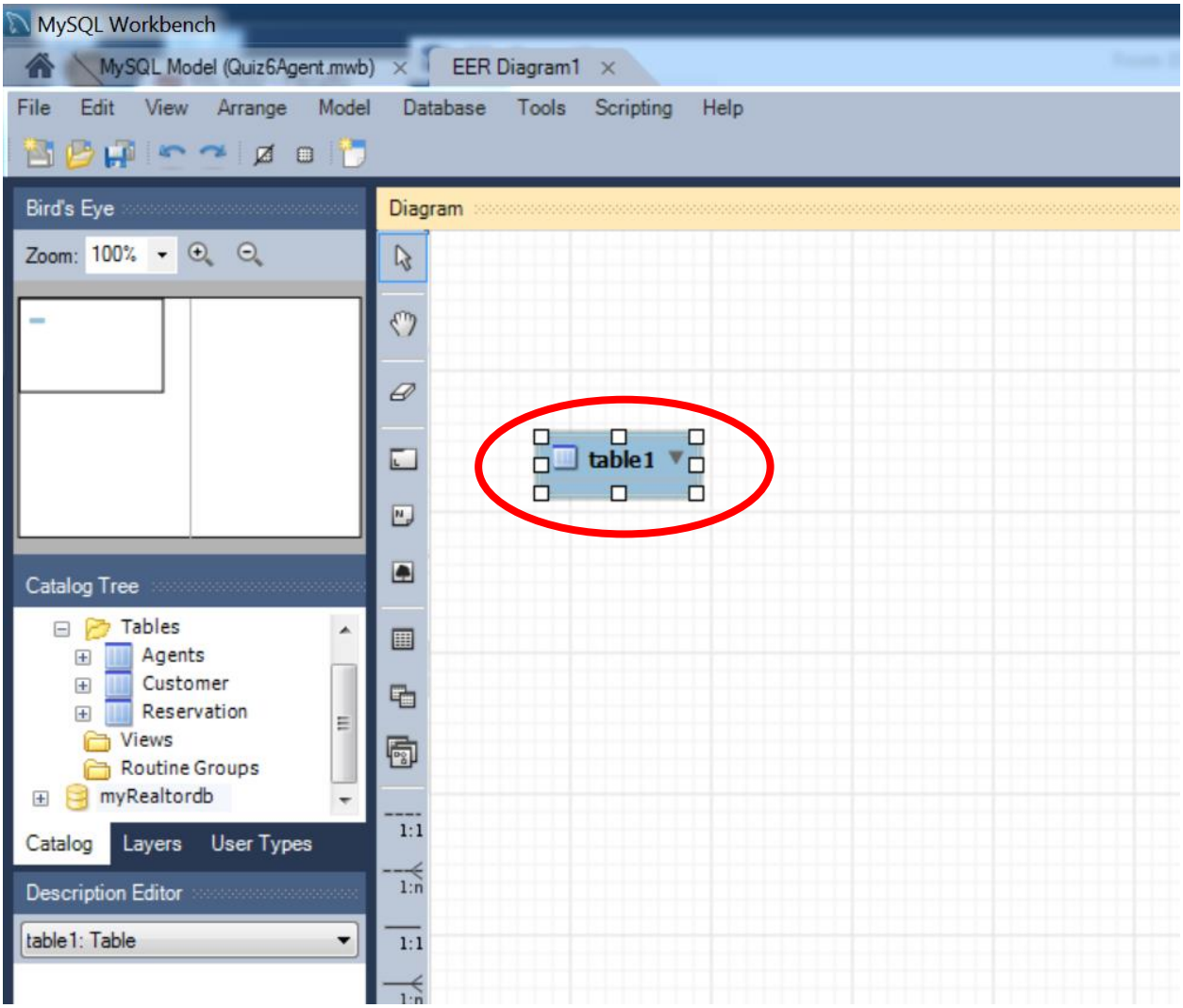


After click the Add Diagram option, you need to select the right Catalog in the Catalog Tree, as shown in the following diagram.



Now, let's start adding new tables to the ER diagram

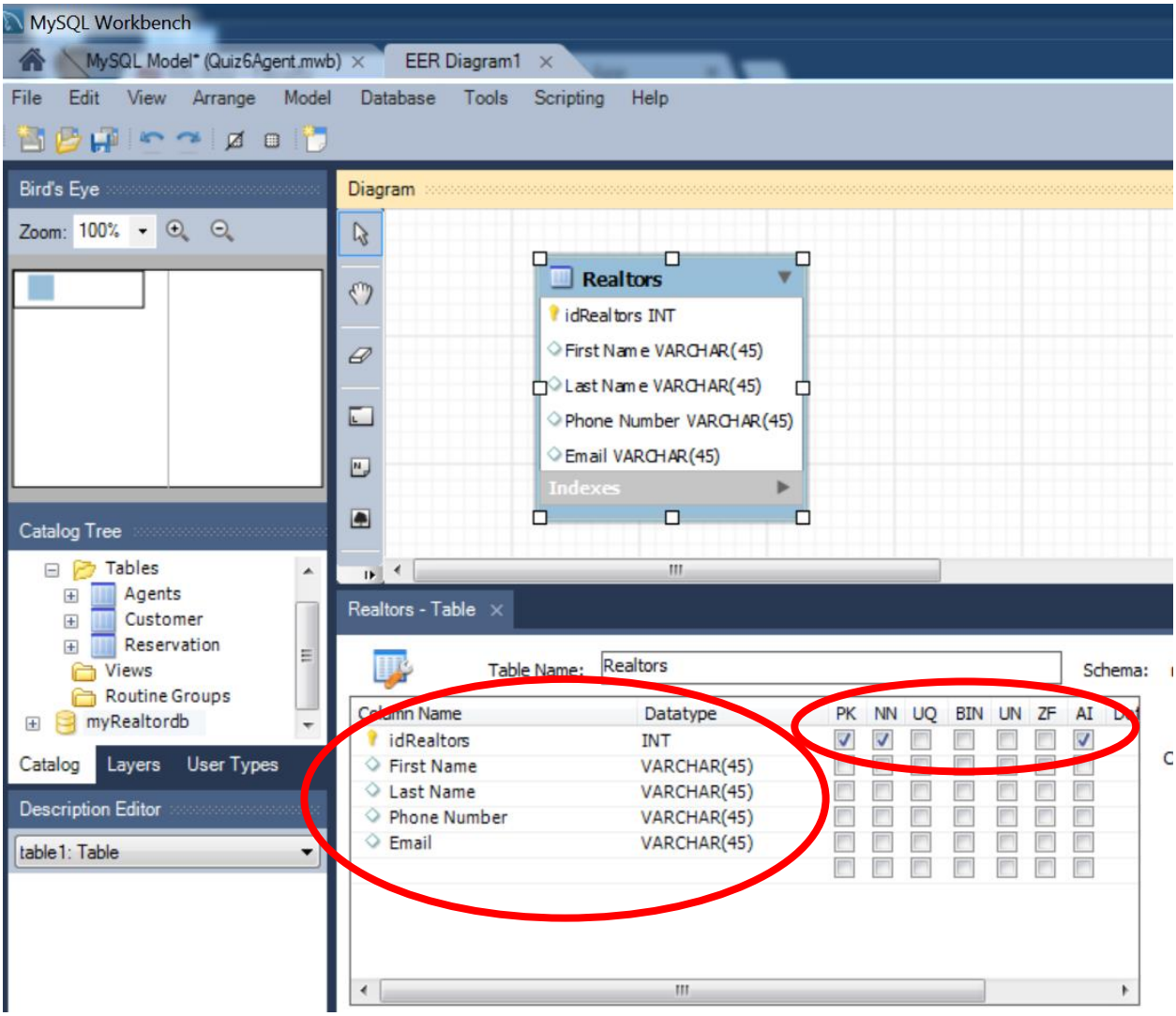
Double click the 7th icon from the top Pointer icon to create a new table and drag it to the gridded area. Then, a table symbol will be added to the gridded area. Then, double click on the table symbol.



Enter Table name and attributes information in the bottom section of the screen.

Please NOTE: the Table name and attributes will be added into the Table Diagram by MySQL.

In the idRealtor row, check PK, NN (Not Null), and AI (Auto Increment) fields because it is the PK for the Realtor table.



Click on the new table icon again to add other two Tables, Customer and Transaction.

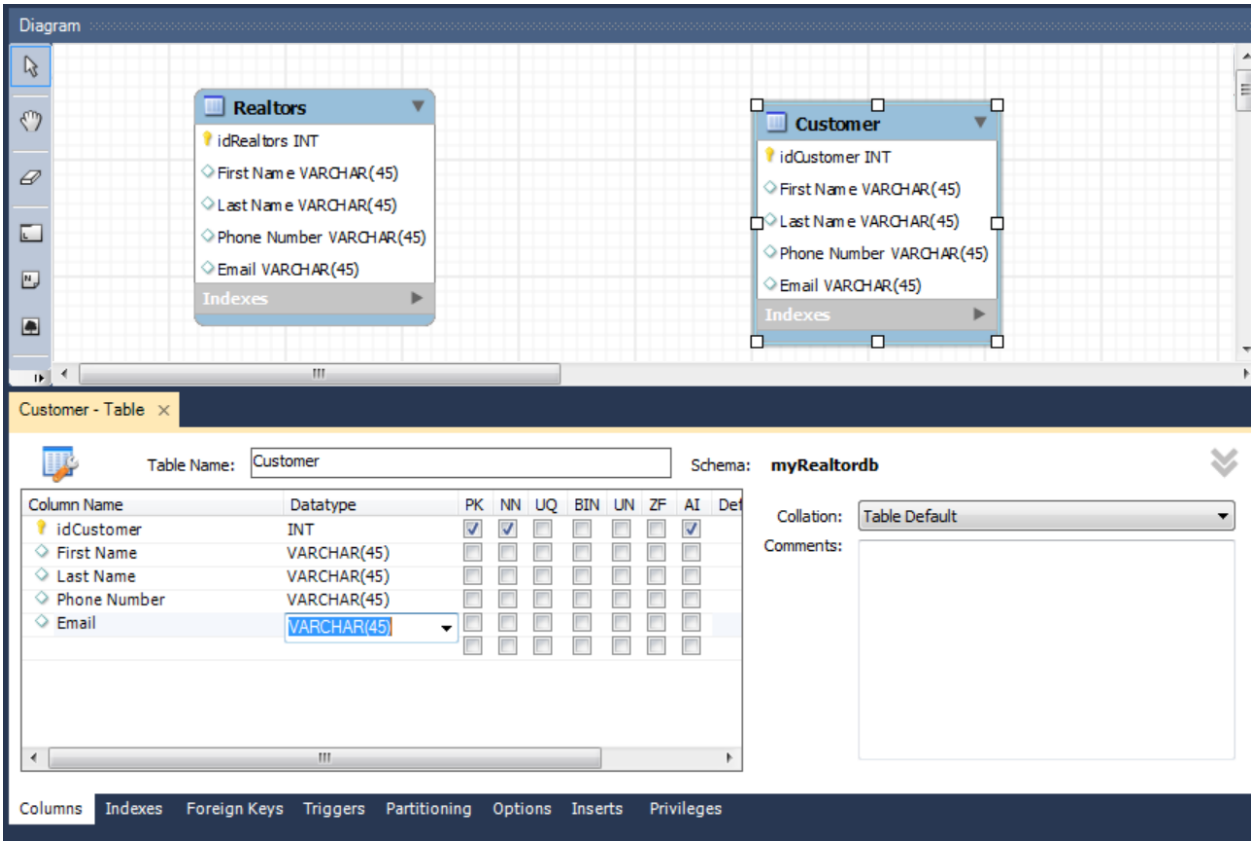


Diagram
Realtors
idRealtors INT
First Name VARCHAR(45)
Last Name VARCHAR(45)
Phone Number VARCHAR(45)
Email VARCHAR(45)
Indexes
Customer
idCustomer INT
First Name VARCHAR(45)
Last Name VARCHAR(45)
Phone Number VARCHAR(45)
Email VARCHAR(45)
Indexes
Customer - Table
Table Name: Customer
Schema: myRealtordb
Column Name
Datatype
PK
NN
UQ
BIN
UN
ZF
AI
idCustomer
INT
First Name
VARCHAR(45)
Last Name
VARCHAR(45)
Phone Number
VARCHAR(45)
Email
VARCHAR(45)
Collation: Table Default
Comments:
Columns
Indexes
Foreign Keys
Triggers
Partitioning
Options
Inserts
Privileges

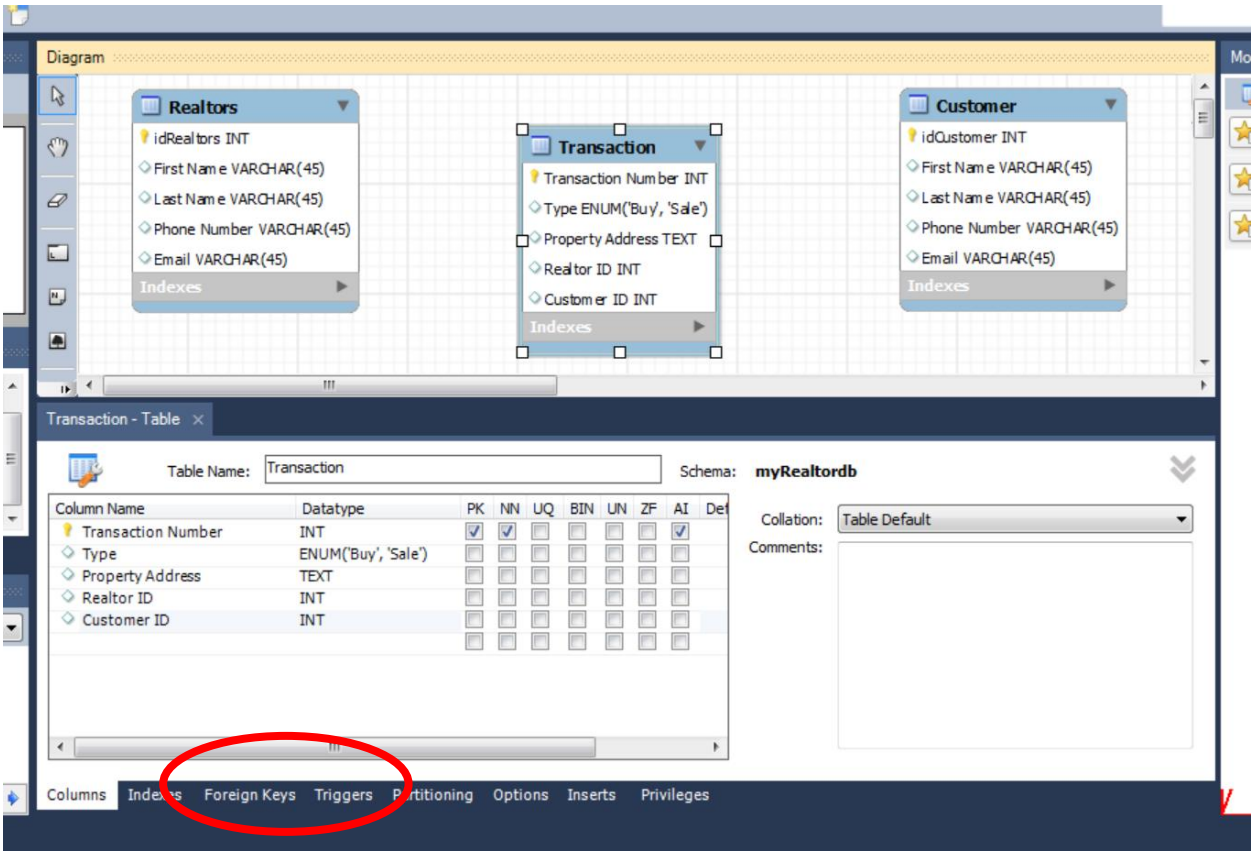
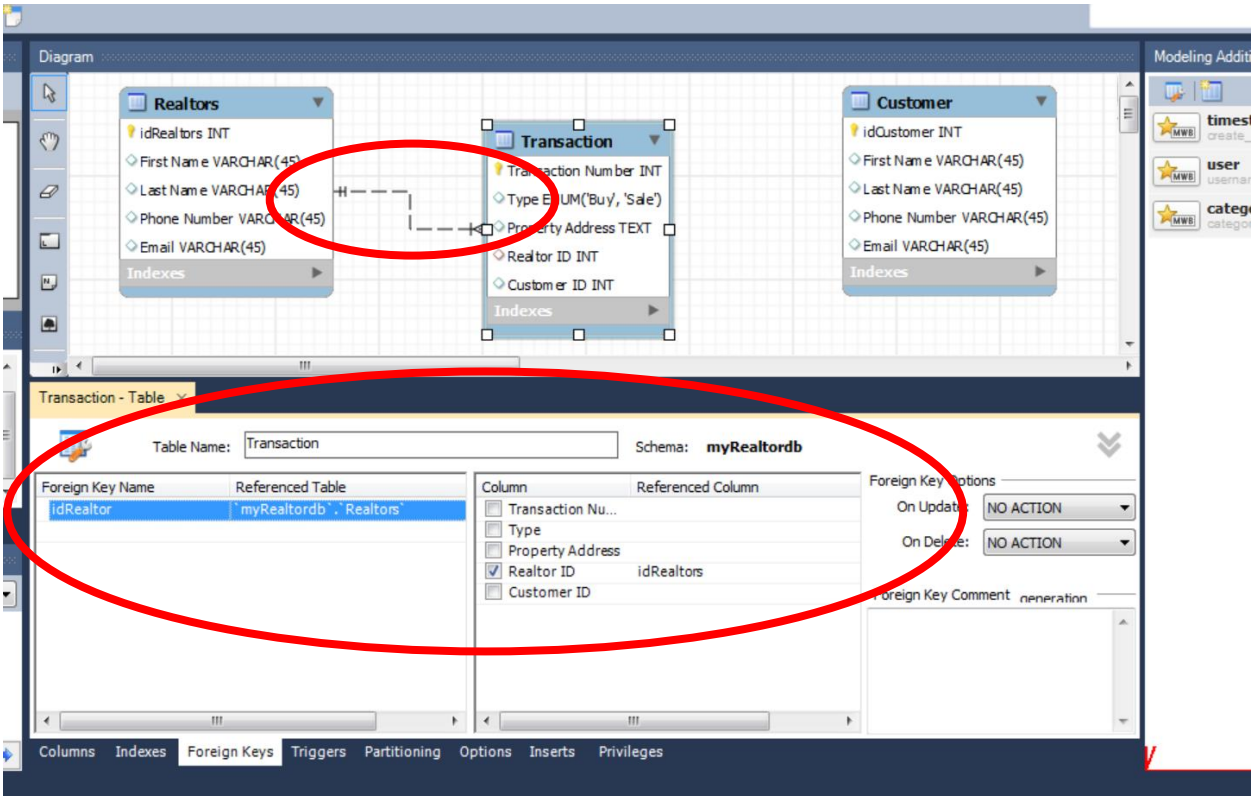
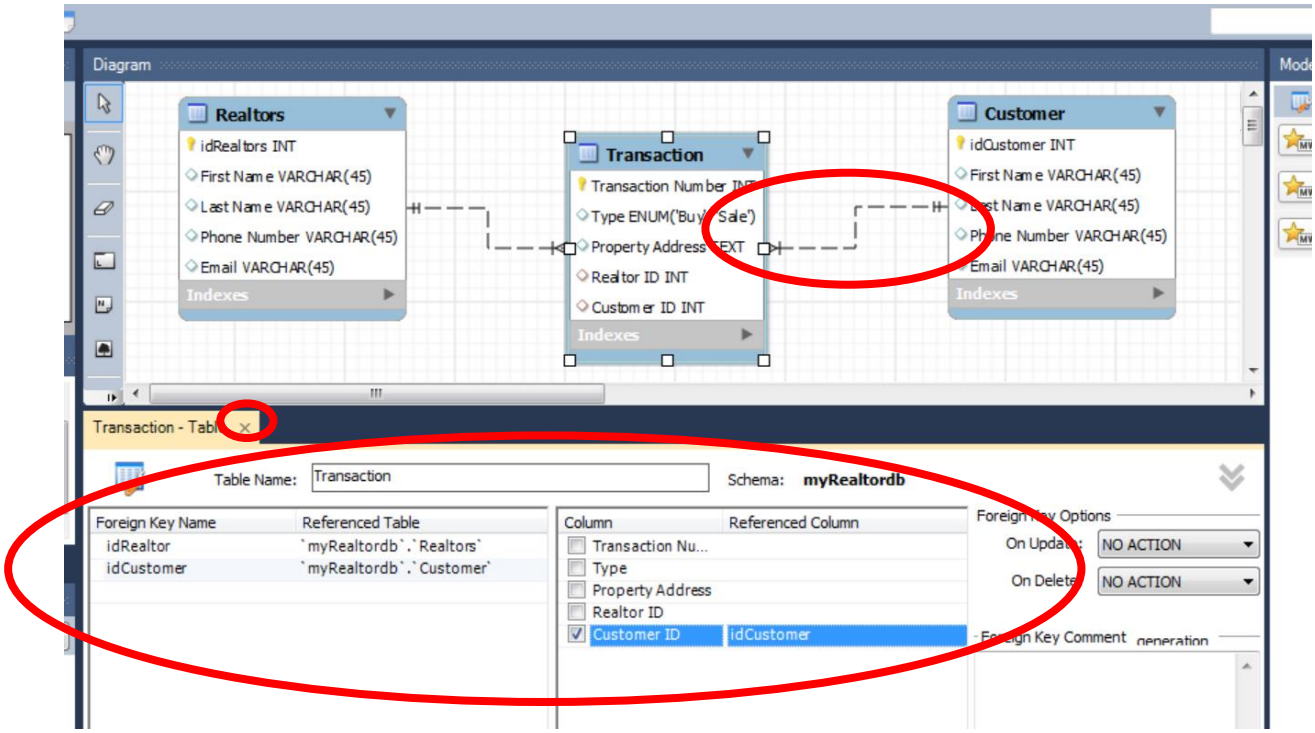


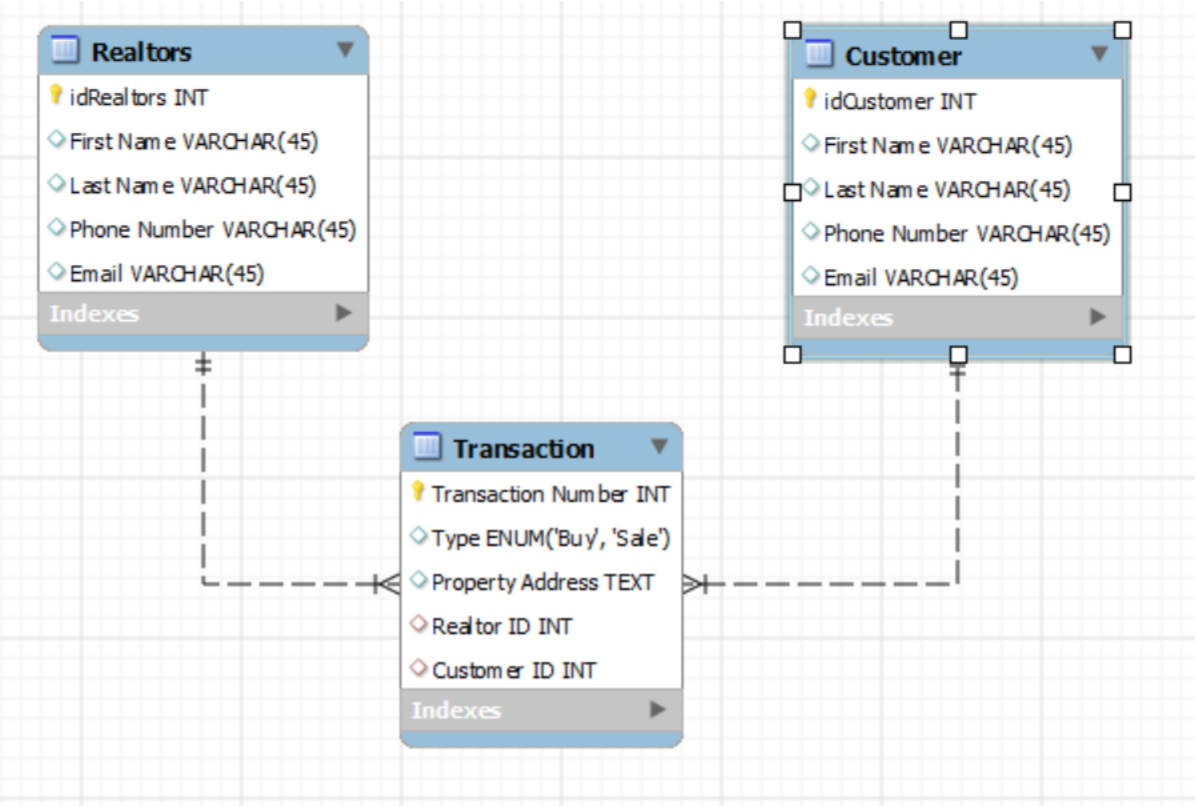
Diagram
Realtors
idRealtors INT
First Name VARCHAR(45)
Last Name VARCHAR(45)
Phone Number VARCHAR(45)
Email VARCHAR(45)
Indexes
Transaction
Transaction Number INT
Type ENUM('Buy', 'Sale')
Property Address TEXT
Realtor ID INT
Customer ID INT
Indexes
Customer
idCustomer INT
First Name VARCHAR(45)
Last Name VARCHAR(45)
Phone Number VARCHAR(45)
Email VARCHAR(45)
Indexes
Transaction - Table
Table Name: Transaction
Schema: myRealtordb
Column Name
Datatype
PK
NN
UQ
BIN
UN
ZF
AI
Transaction Number
INT
Type
ENUM('Buy', 'Sale')
Property Address
TEXT
Realtor ID
INT
Customer ID
INT
Collation: Table Default
Comments:
Columns
Foreign Keys
Triggers
Options
Inserts
Privileges

Click on the Foreign Keys Option on the bottom to specify Realtor ID and Customer ID as the FKs for Transaction Table. The Relationship line will be generated by MySQL after the Foreign Key is identified.





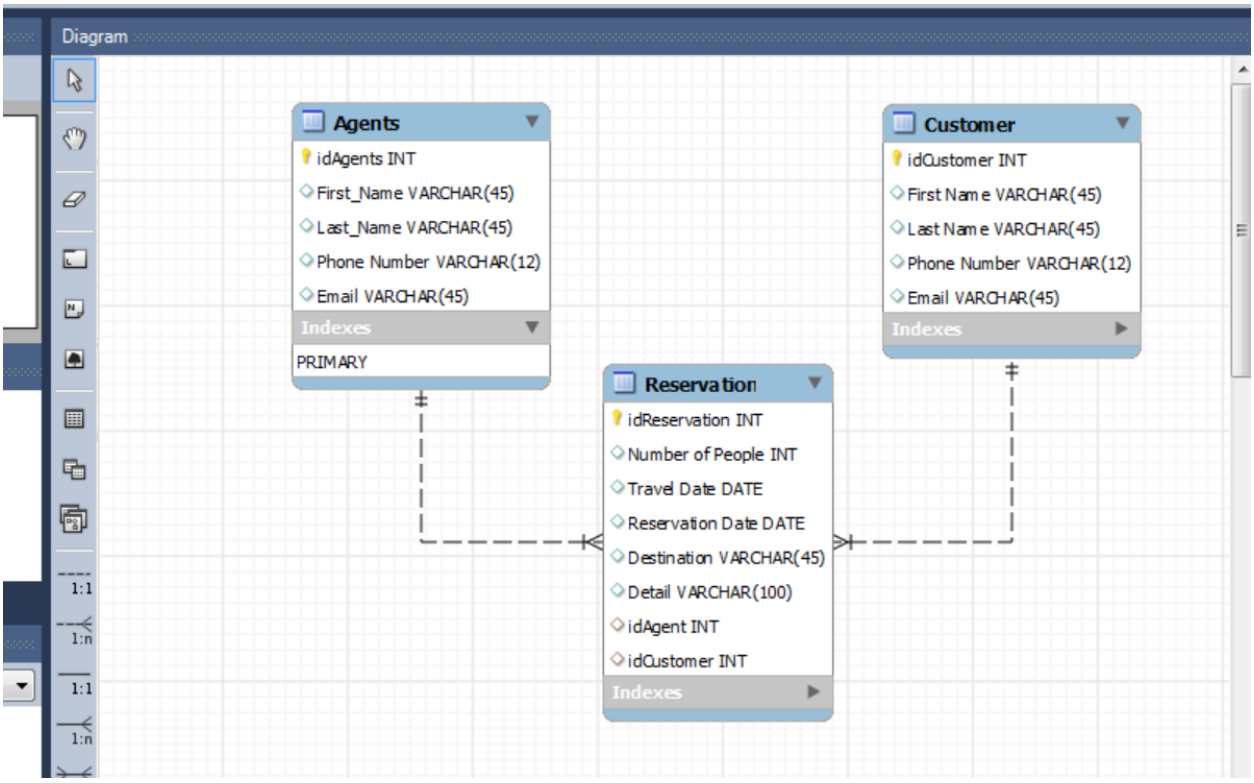
Close the Transaction – Table section by clicking on the x. Now you have created the ER diagram for the Sale-Fast Real Estate Agency.



Export ER diagram to SQL Script:

NOTE: The Quiz 6 case, Exploring Travel Agency, will be used as an example in this section.

ER diagram for Exploring Travel Agency:

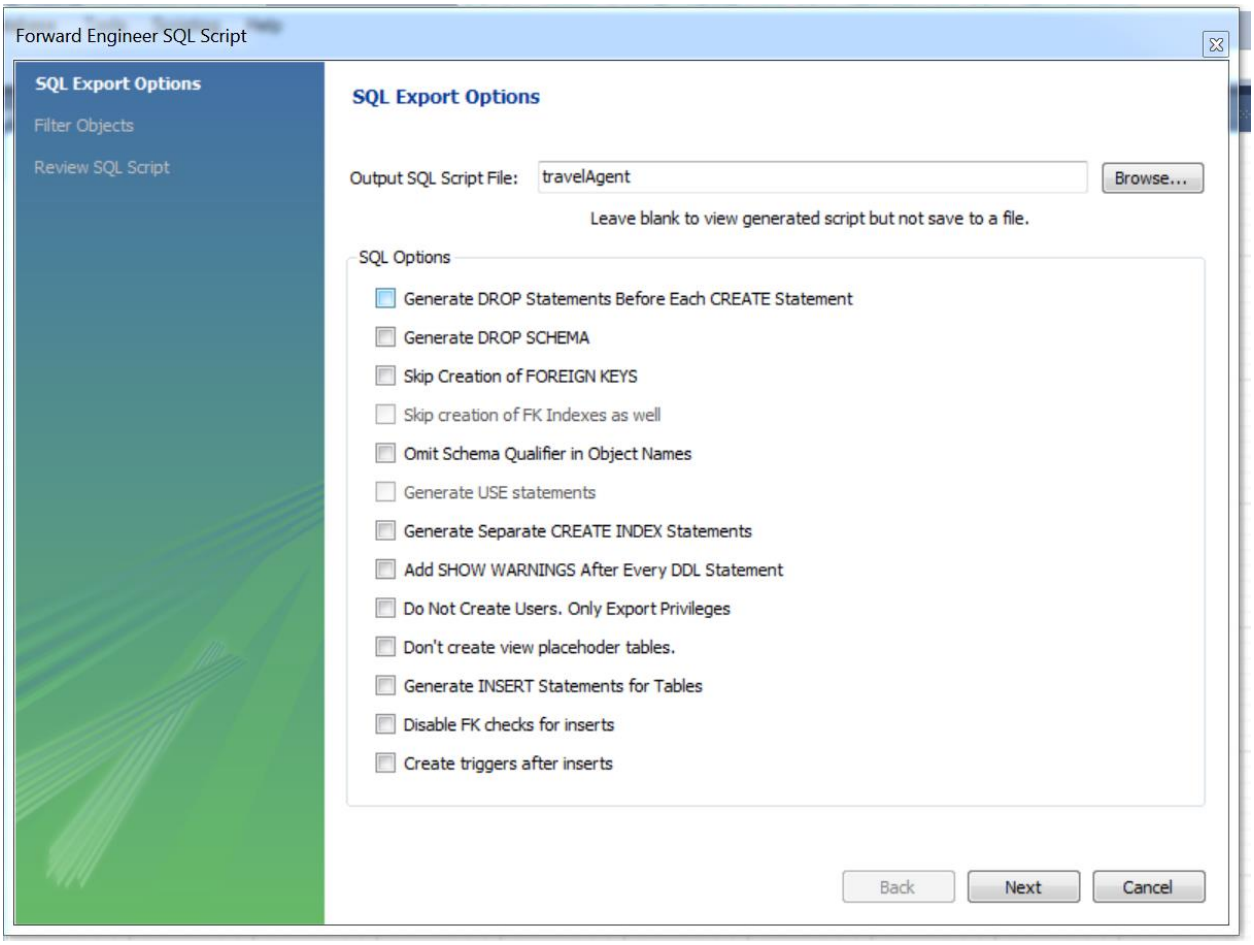


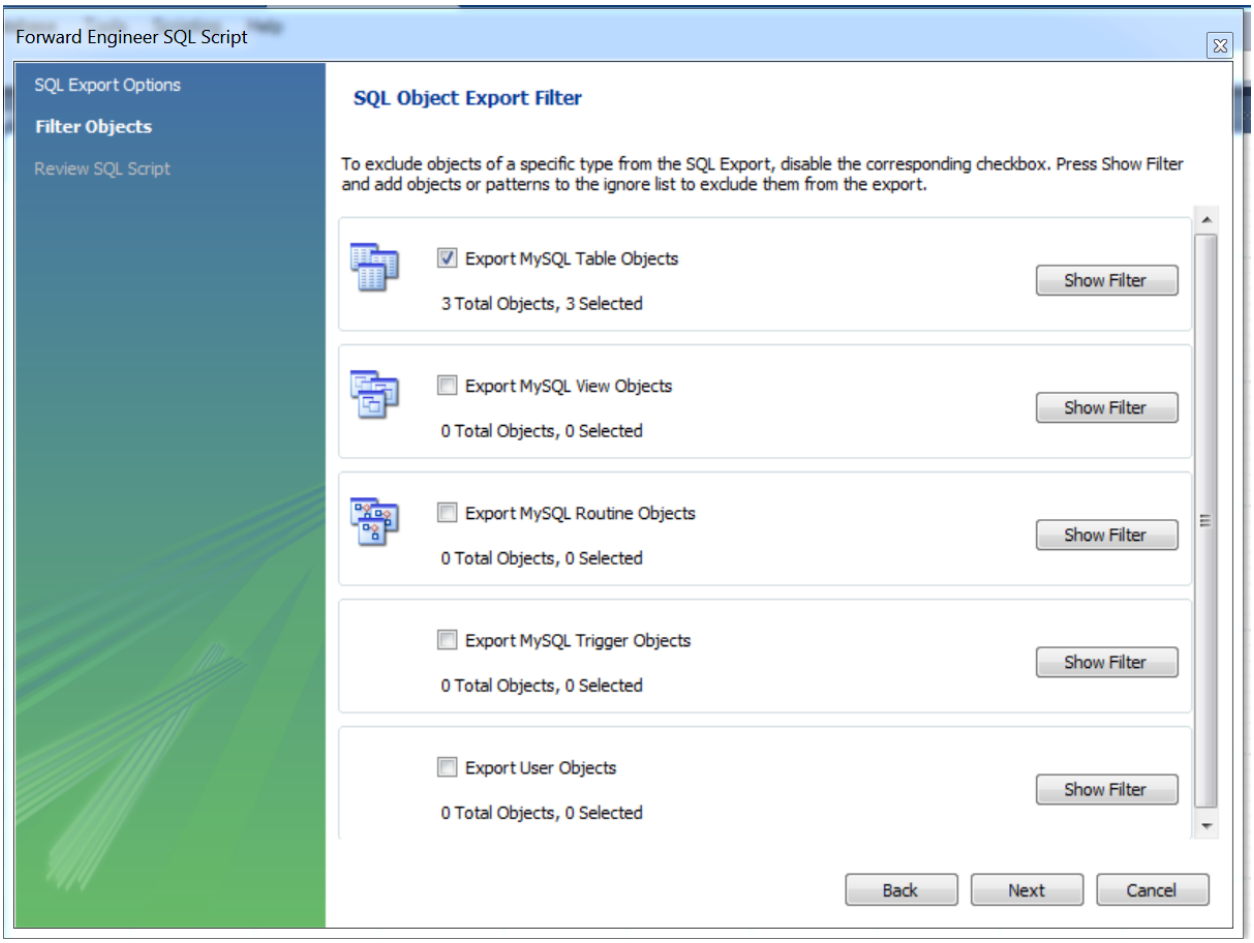
Export ER diagram to SQL Script:

Go to the Menu Bar, select File, Export, Forward Engineer SQL Create Script, then the diagram below will be displayed on screen.

NOTE: If you select File, Export, Export as PNG or Export as a single page PDF, you can save the ER diagram to a PNG or a PDF file.

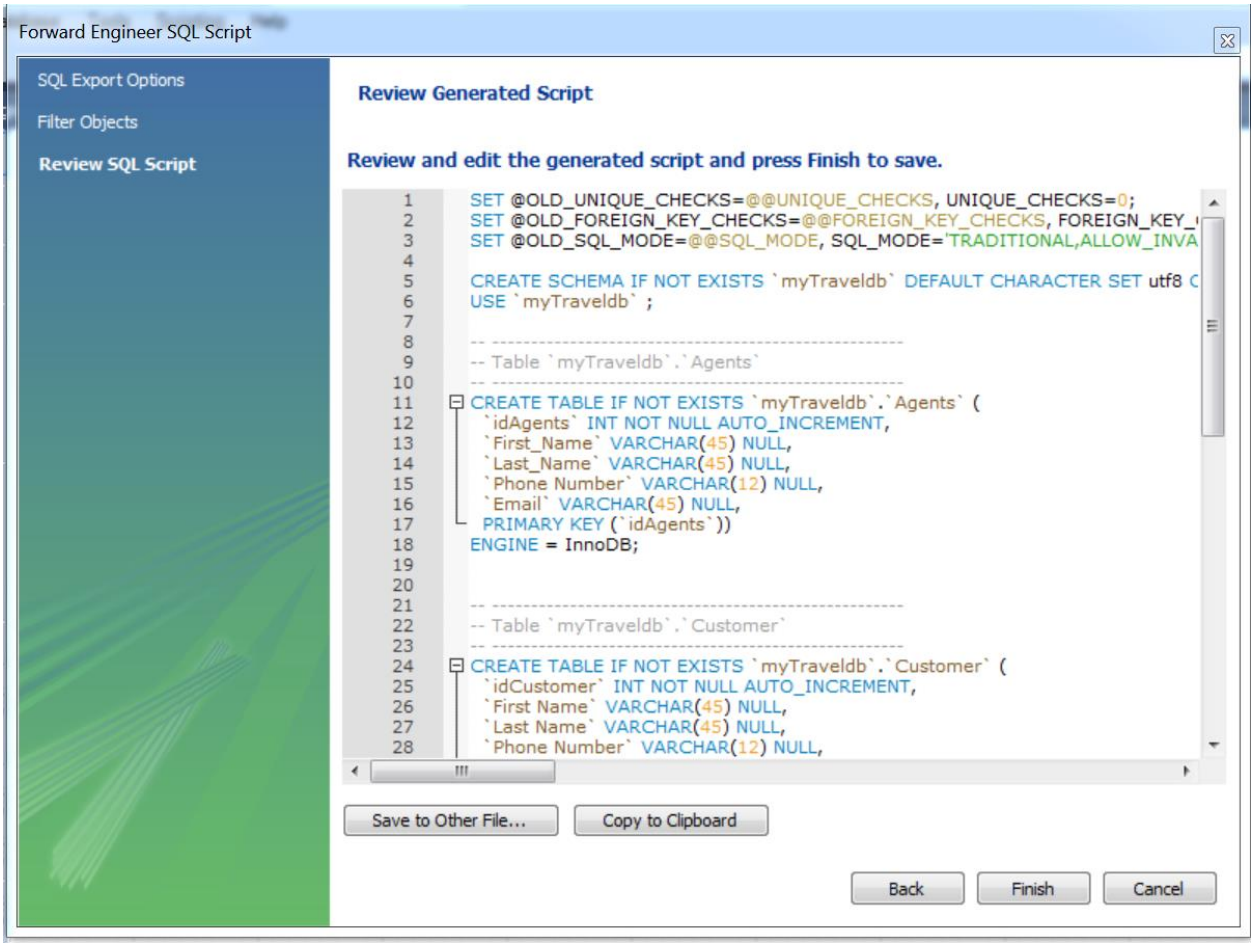
Give a script name in the Forward Engineer SQL Script Window. In this case, I entered “travelAgent” as the SQL Script file. Click on Browse button to save the script file to the file folder you like.


Forward Engineer SQL Script
SQL Export Options
Filter Objects
Review SQL Script
SQL Export Options
Output SQL Script File:
travelAgent
Browse...
Leave blank to view generated script but not save to a file.
SQL Options
Generate DROP Statements Before Each CREATE Statement
Generate DROP SCHEMA
Skip Creation of FOREIGN KEYS
Skip creation of FK Indexes as well
Omit Schema Qualifier in Object Names
Generate USE statements
Generate Separate CREATE INDEX Statements
Add SHOW WARNINGS After Every DDL Statement
Do Not Create Users. Only Export Privileges
Don't create view placehoder tables.
Generate INSERT Statements for Tables
Disable FK checks for inserts
Create triggers after inserts
Back
Next
Cancel



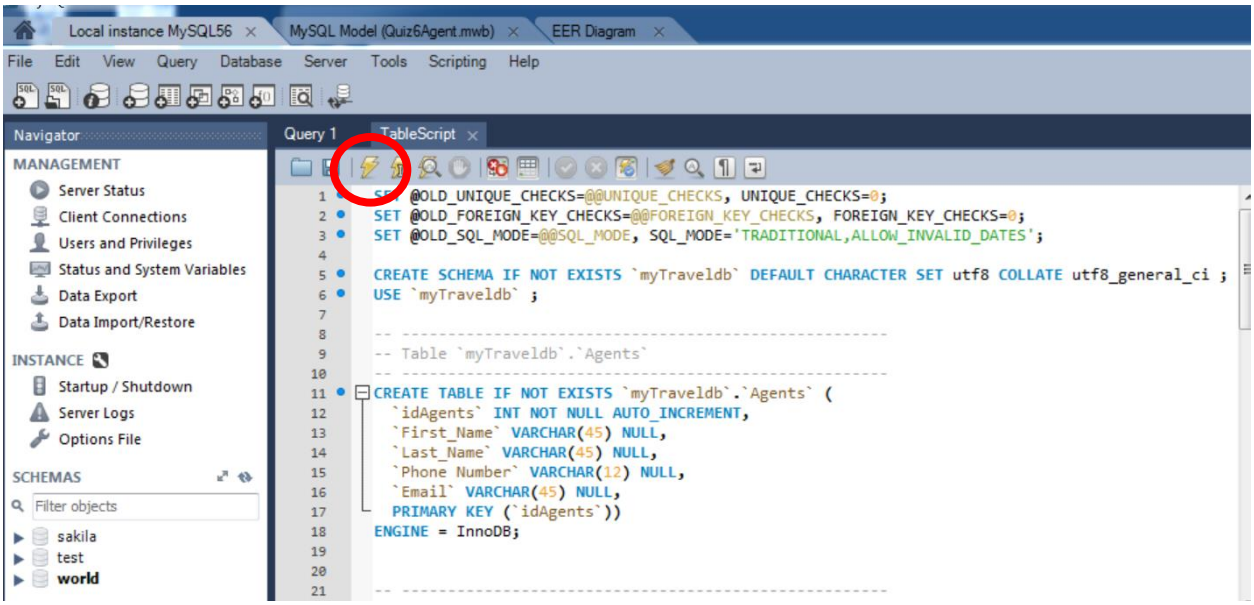
It shows how many tables will be created in the exported SQL script.

Click Next and the SQL statements are displayed as shown in below:



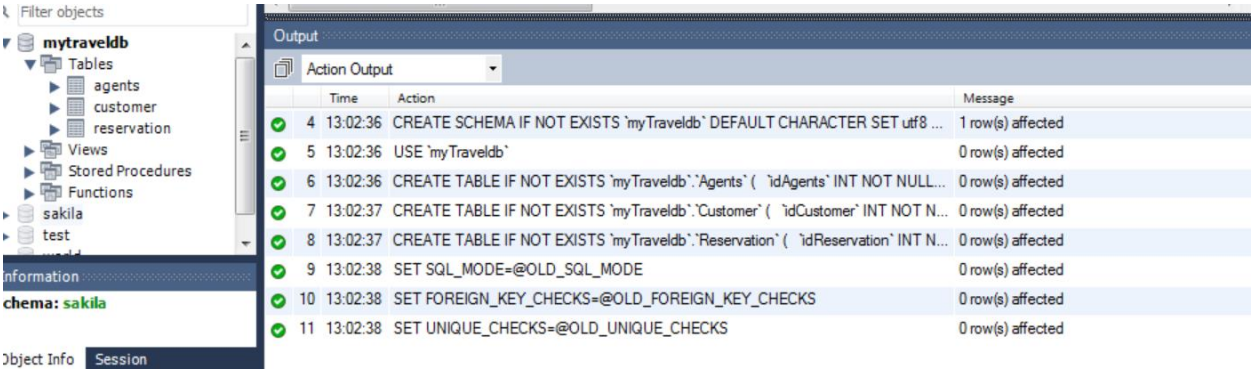
Save the script by clicking “Finish” button.

Then in MySQL “Local instance MySQL56 screen, click File, then Open SQL Script, find the SQL statement you have just saved.



Click the Thunder run icon, as shown in the above figure.

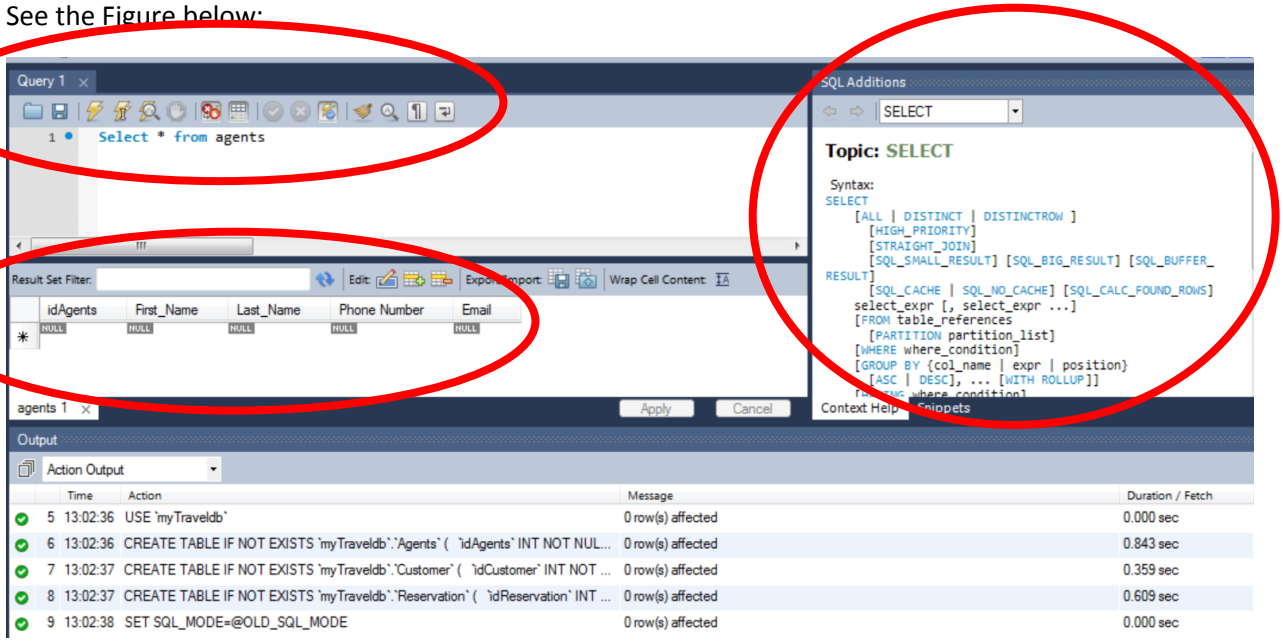
In the Output window, it will show all the SQL statements are successfully executed.



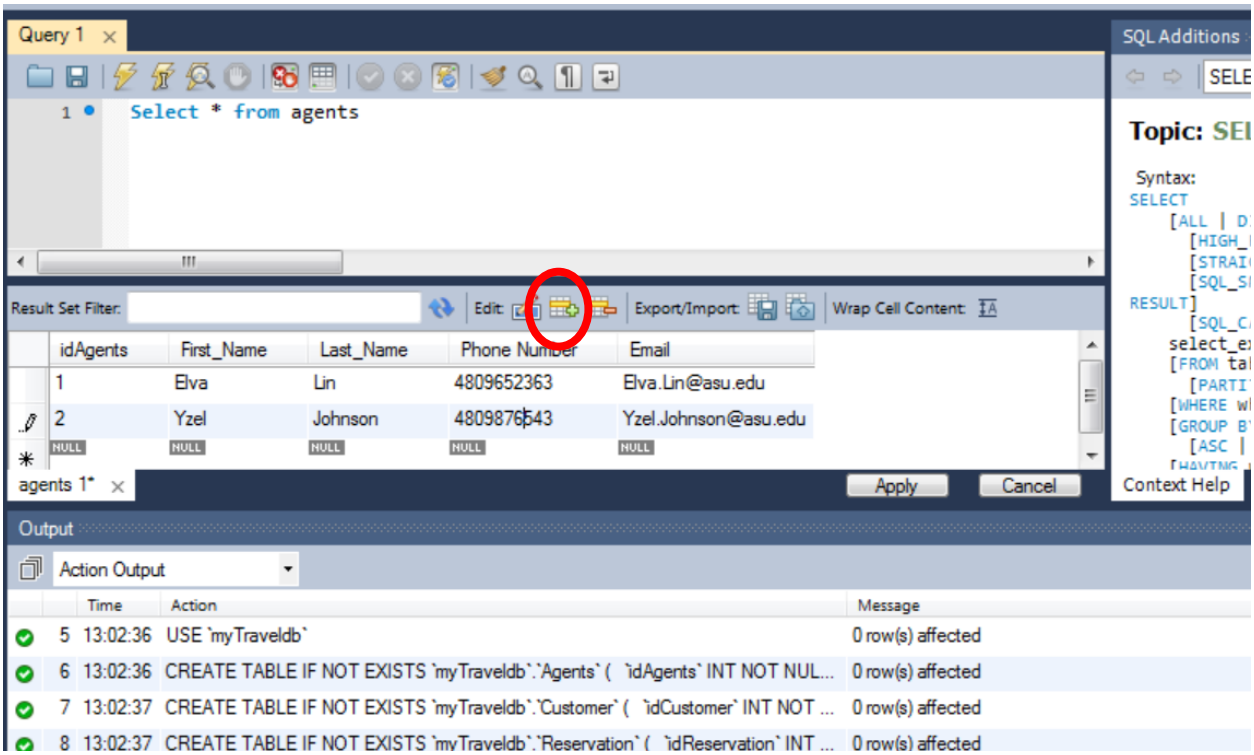
On the left-hand side of the Output window, right click on any of the database name, and select "Refresh All", you will see the mytraveldb has been created.

In the Query1 window, enter "Select * from agents". The result will be displayed in the Result Set Filter section. On the right-hand side, you will find SQL Additions where you can select the SQL statement that you would like to have more info, e.g. SELECT, and the syntax of the SELECT statement will be displayed.

See the Figure below:

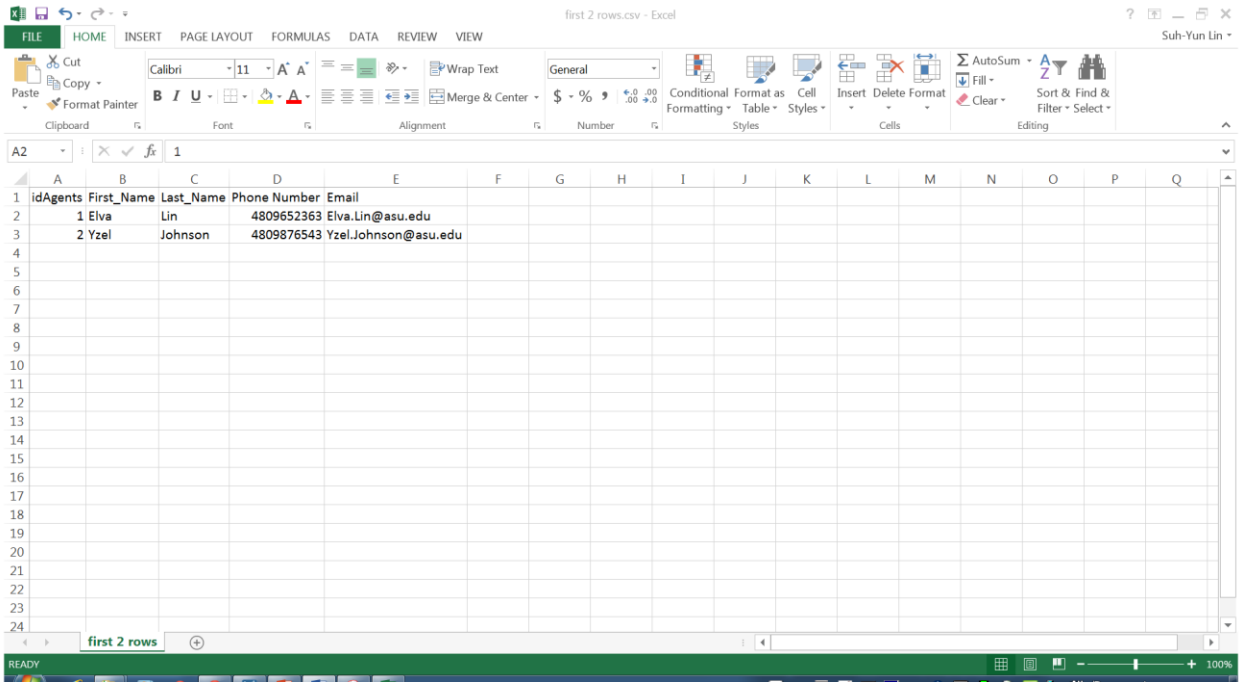


Enter the data in the Result Set Filter Section:

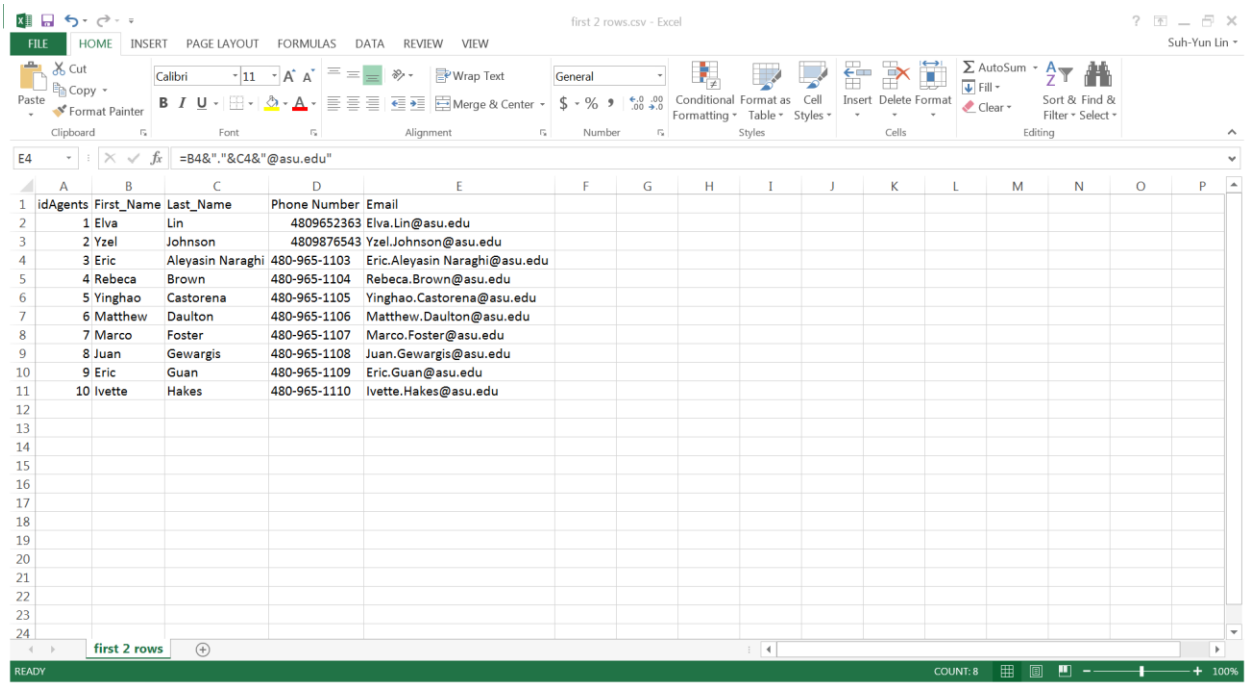


Then click on the “Insert New Row” icon, as shown in the above figure, to insert the two new rows.

Click on the Export option, on the right hand side of the “Insert New Row” icon, to export the new rows data into a .csv file, which can be opened with Excel.



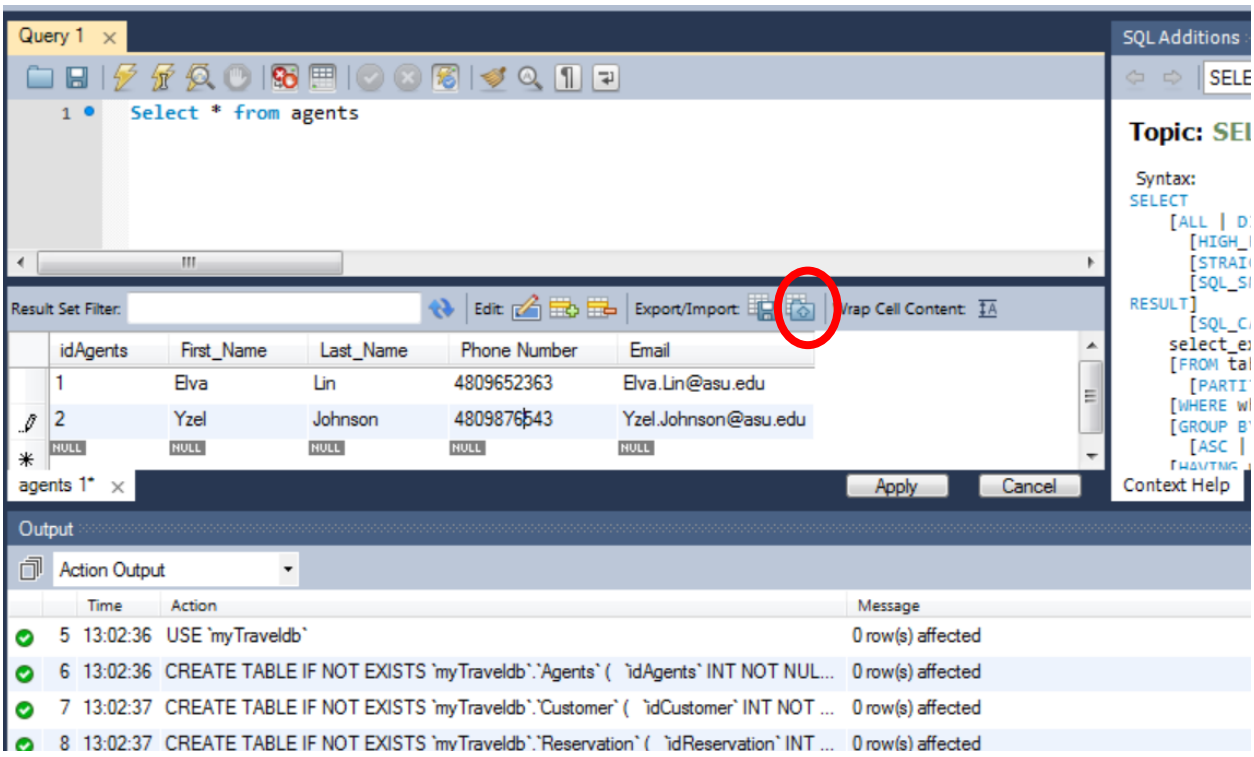
Add more information to the file and then save it, in .csv format.



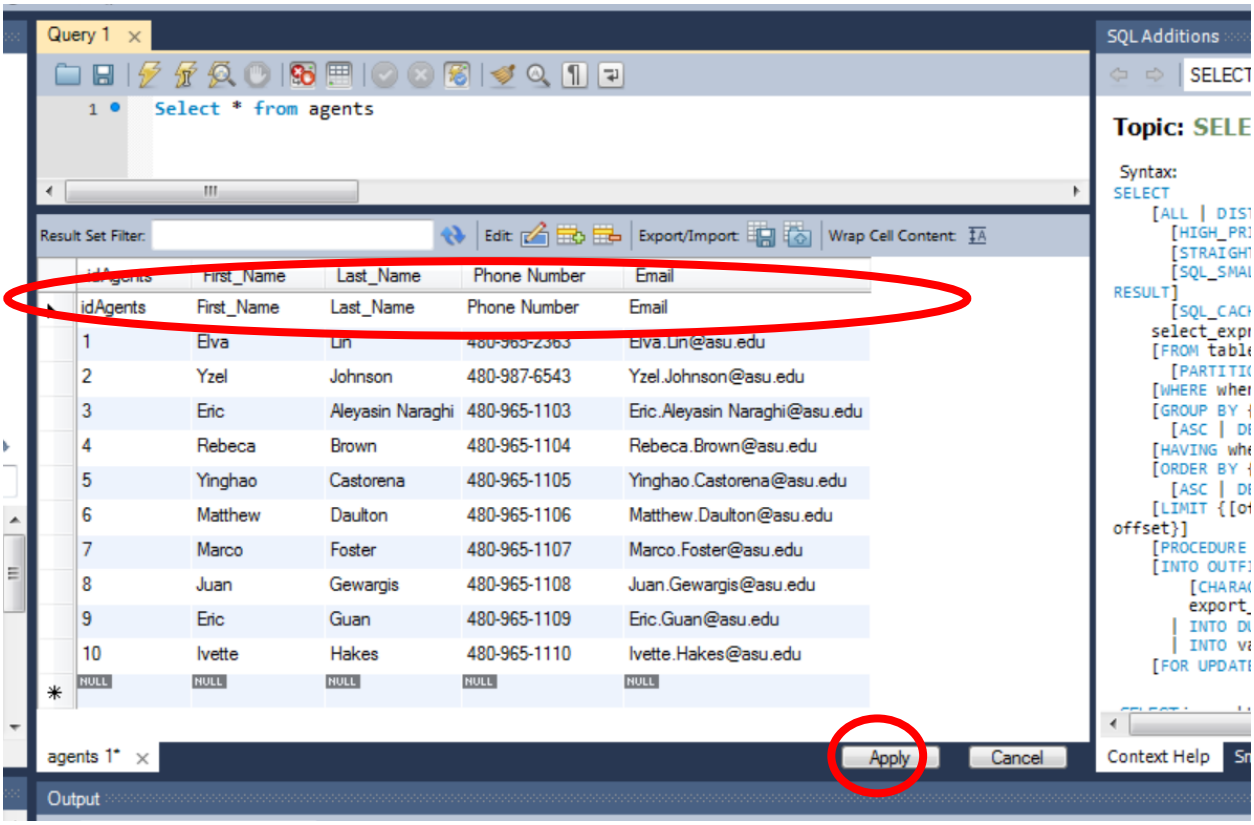
idAgents	First_Name	Last_Name	Phone Number	Email
1	Elva	Lin	4809652363	Elva.Lin@asu.edu
2	Yzel	Johnson	4809876543	Yzel.Johnson@asu.edu
3	Eric	Aleyasin Naraghi	480-965-1103	Eric.Aleyasin Naraghi@asu.edu
4	Rebeca	Brown	480-965-1104	Rebeca.Brown@asu.edu
5	Yinghao	Castorena	480-965-1105	Yinghao.Castorena@asu.edu
6	Matthew	Daulton	480-965-1106	Matthew.Daulton@asu.edu
7	Marco	Foster	480-965-1107	Marco.Foster@asu.edu
8	Juan	Gewargis	480-965-1108	Juan.Gewargis@asu.edu
9	Eric	Guan	480-965-1109	Eric.Guan@asu.edu
10	Ivette	Hakes	480-965-1110	Ivette.Hakes@asu.edu

Now you can import this file from MySQL to add the new rows to Agent table.

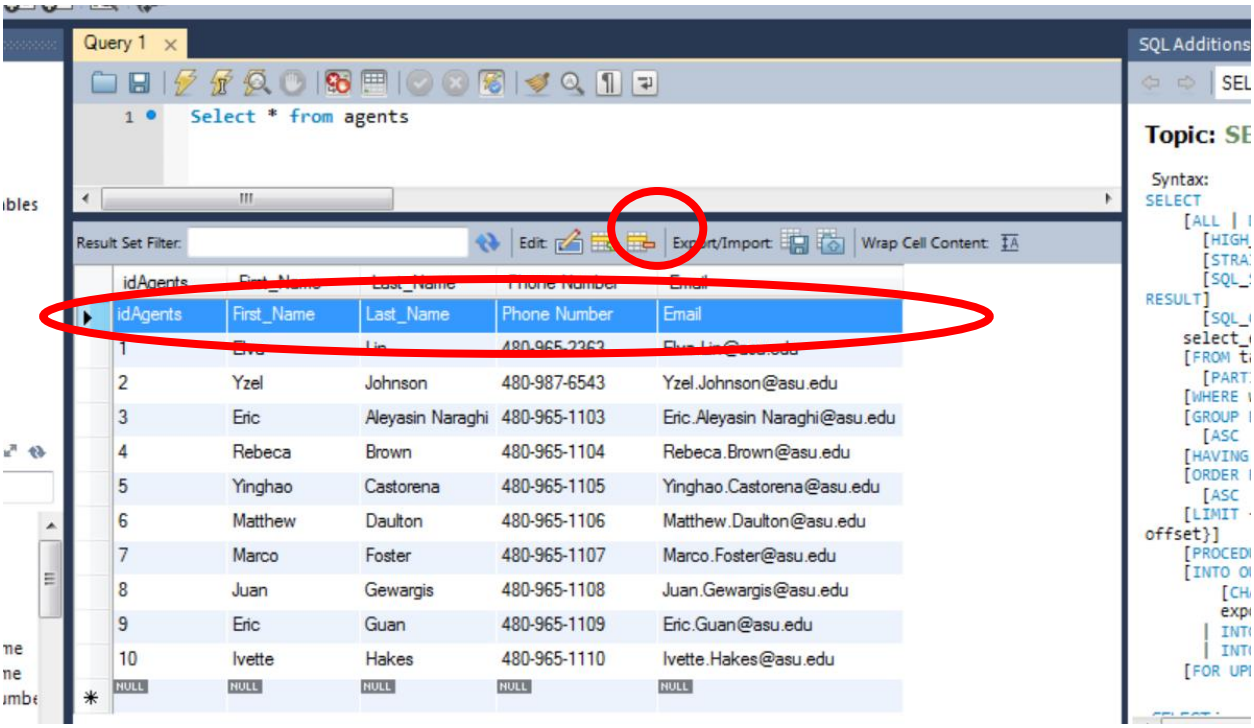
Click on the Import option as shown in the following diagram.



Select the Excel file that you just created.

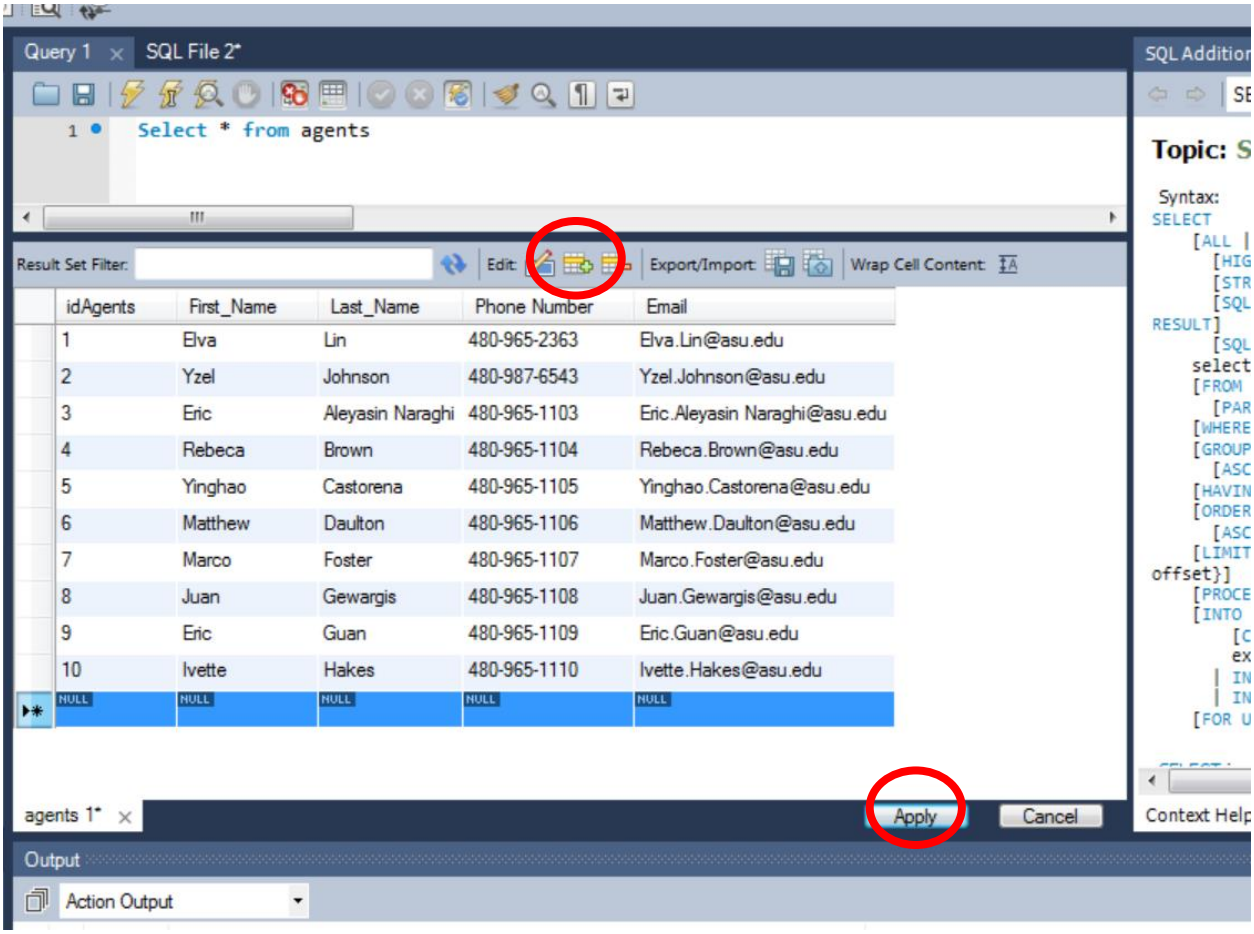


Before you click the Apply button, select the heading rows and the first 2 rows you first inserted (if they are still in the Result Set Filter window, as shown in the diagram below.

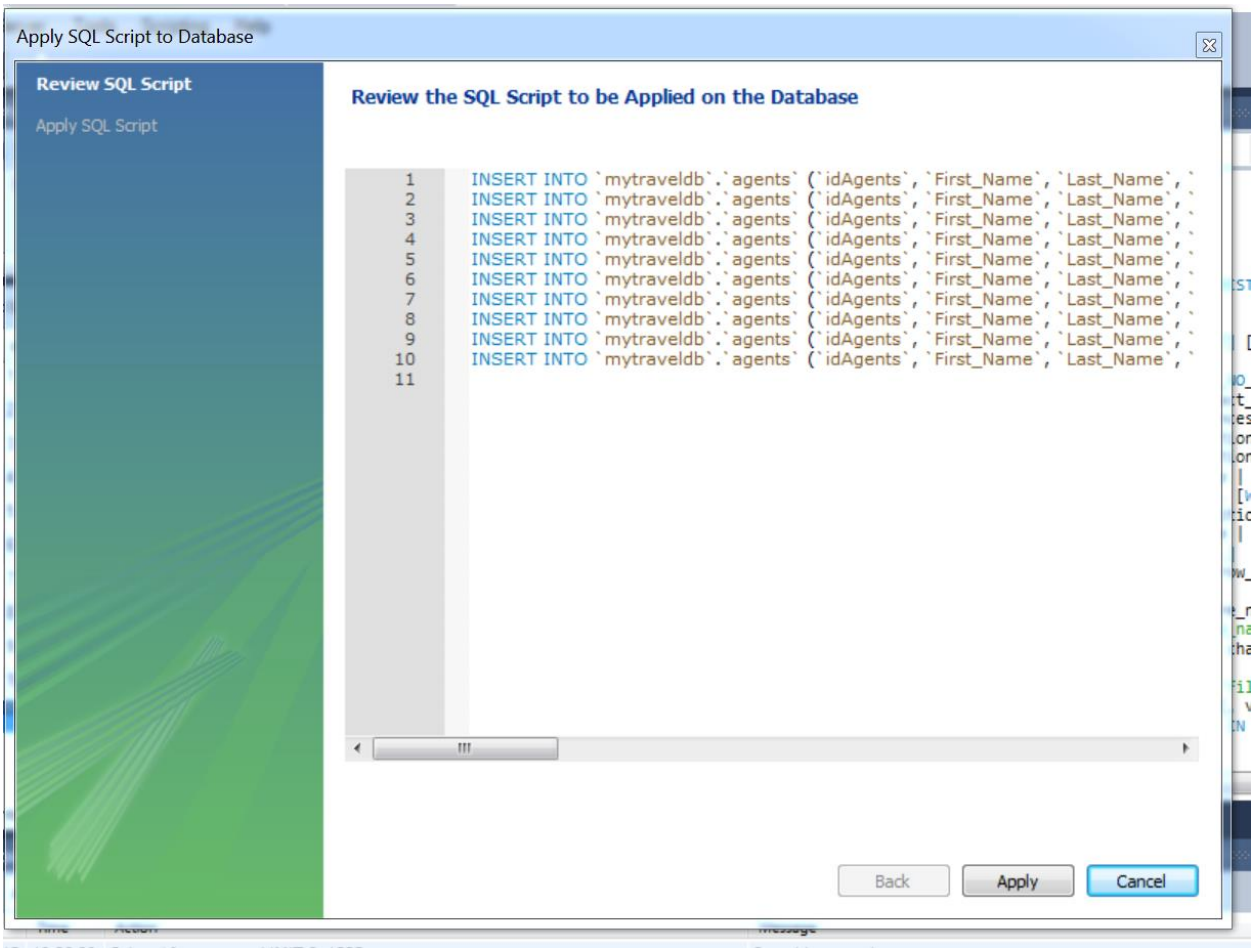


Then click on the Delete selected rows icon to delete those rows, as shown in the diagram above.

Then, click on the “Insert new rows” icon.

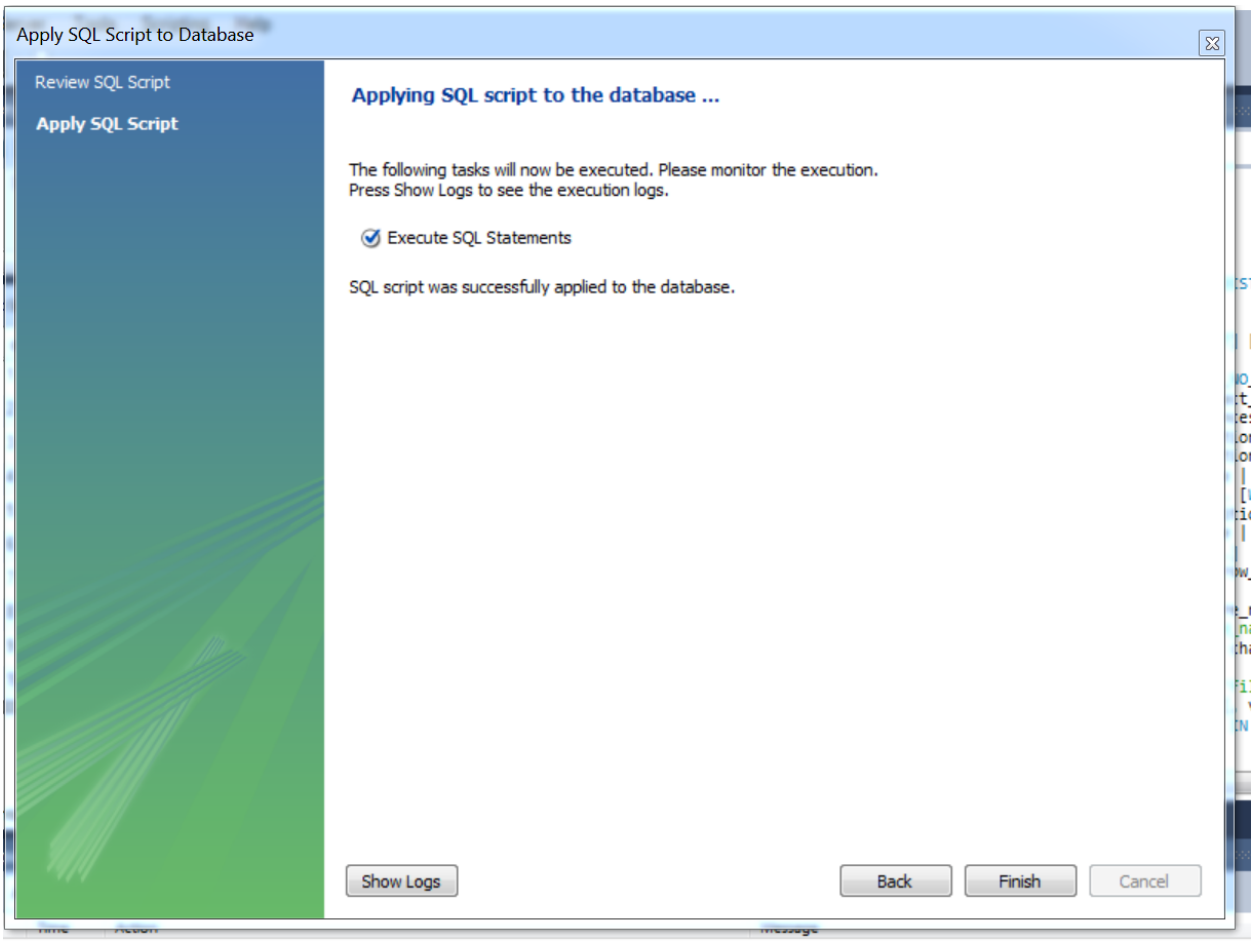


Then click on the Apply button. MySQL generates all the INSERT statements for these new rows, as shown in the diagram below.



Click Apply button.

The next screen will show those INSERT SQL statements are successfully executed.

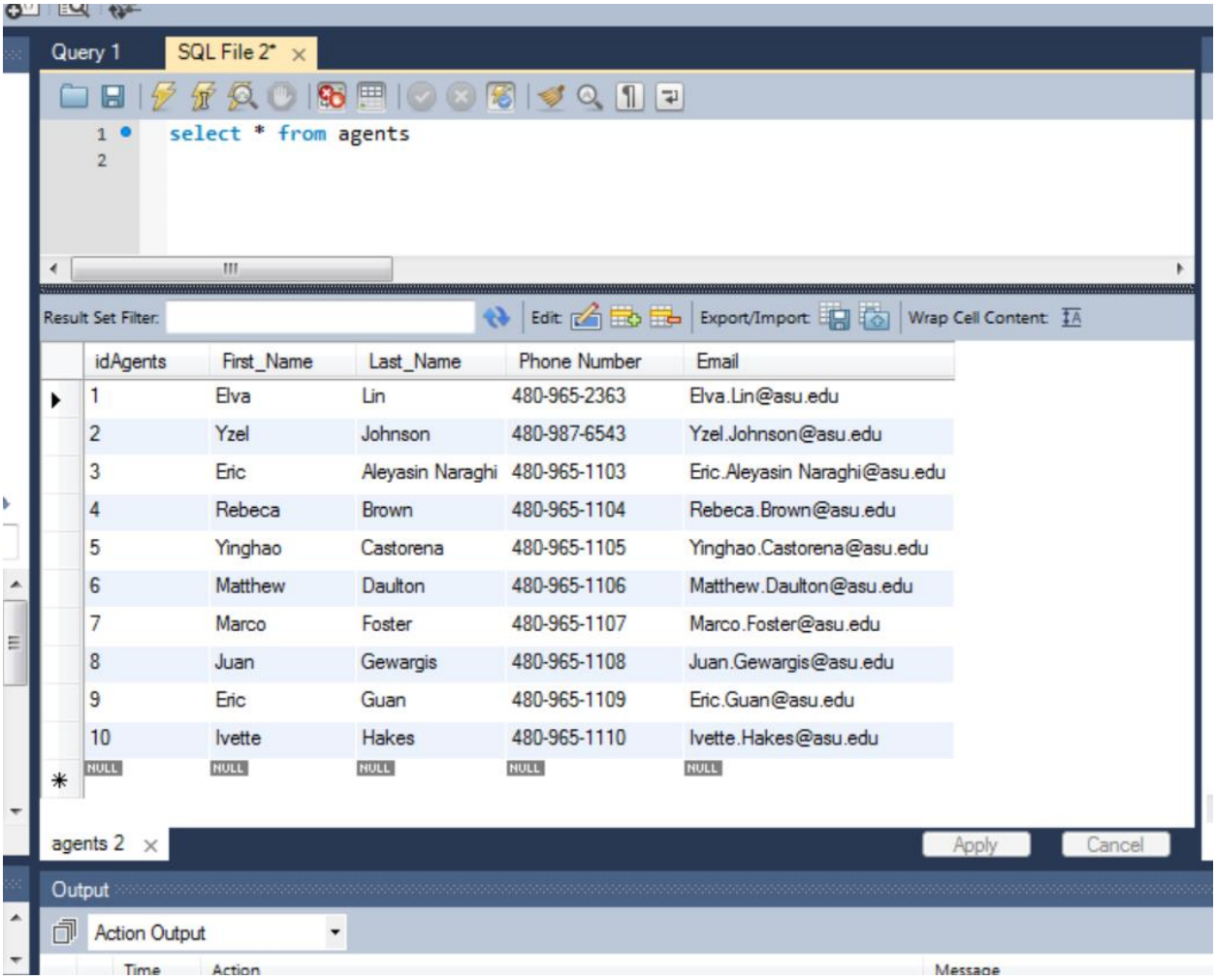


Click “Finish” button.

Go to File and open a new query tab. In the new query tab, enter

“Select * from agents” to see the inserted data.

You can see the data is inserted.


Query 1
SQL File 2*
select * from agents
Result Set Filter:
Edit:
Export/Import:
Wrap Cell Content:
idAgents First_Name Last_Name Phone Number Email
1 Elva Lin 480-965-2363 Elva.Lin@asu.edu
2 Yzel Johnson 480-987-6543 Yzel.Johnson@asu.edu
3 Eric Aleyasin Naraghi 480-965-1103 Eric.Aleyasin Naraghi@asu.edu
4 Rebeca Brown 480-965-1104 Rebeca.Brown@asu.edu
5 Yinghao Castorena 480-965-1105 Yinghao.Castorena@asu.edu
6 Matthew Daulton 480-965-1106 Matthew.Daulton@asu.edu
7 Marco Foster 480-965-1107 Marco.Foster@asu.edu
8 Juan Gewargis 480-965-1108 Juan.Gewargis@asu.edu
9 Eric Guan 480-965-1109 Eric.Guan@asu.edu
10 Ivette Hakes 480-965-1110 Ivette.Hakes@asu.edu
NULL NULL NULL NULL NULL
agents 2
Apply
Cancel
Output
Action Output
Time
Action
Message