National University of Computer and Emerging Sciences

Lab Manual 01
Database Systems Lab

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Objectives

After performing this lab, students shall be able to:
- ✓ Tables Definition through Design view
- ✓ Getting to know SQL Server 2008 Import Export
- ✓ Data population through Query and Design view
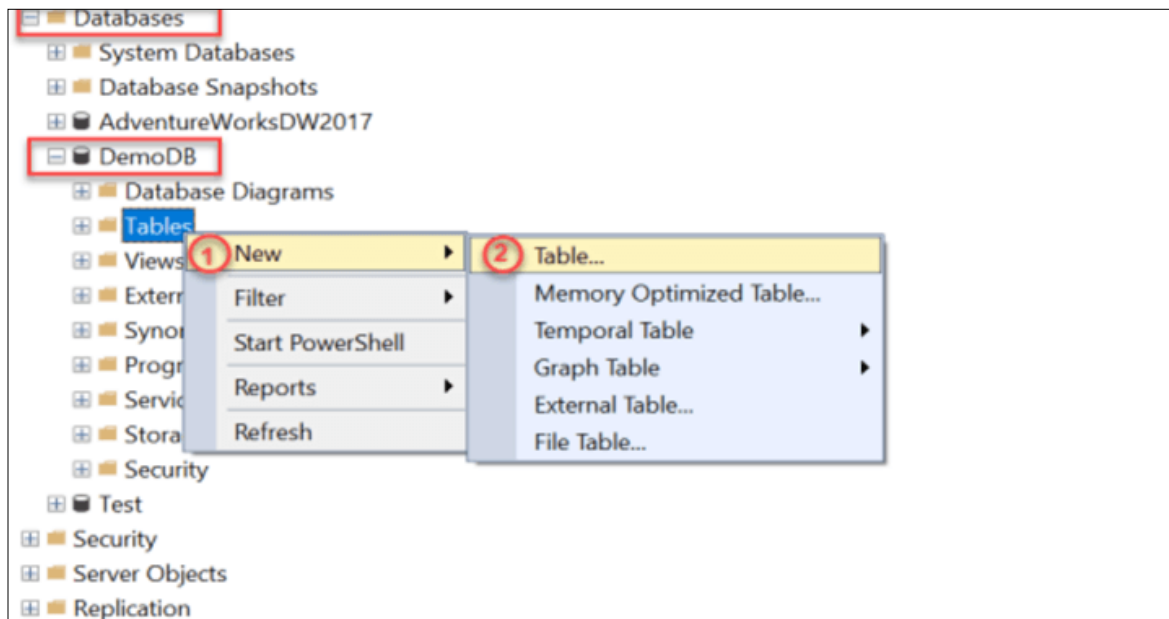- ✓ Data Import from Files. i-e Flat file, excel.
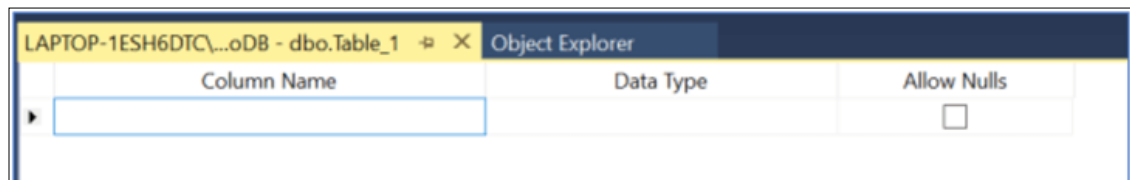
Lab Manual

1. Creating Database:

- Right-click the **Databases** node in the Object Explorer and select the **New Database**… menu item
- Enter the Database name and click the OK button to create the new database.

2. Create Table Via Design View:

- Expand **Databases** and **DemoDB**, right-click the Tables folder, select New > Table

- To create a basic SQL table, we need to provide a Column Name, Data Type and if the column will Allow Nulls.
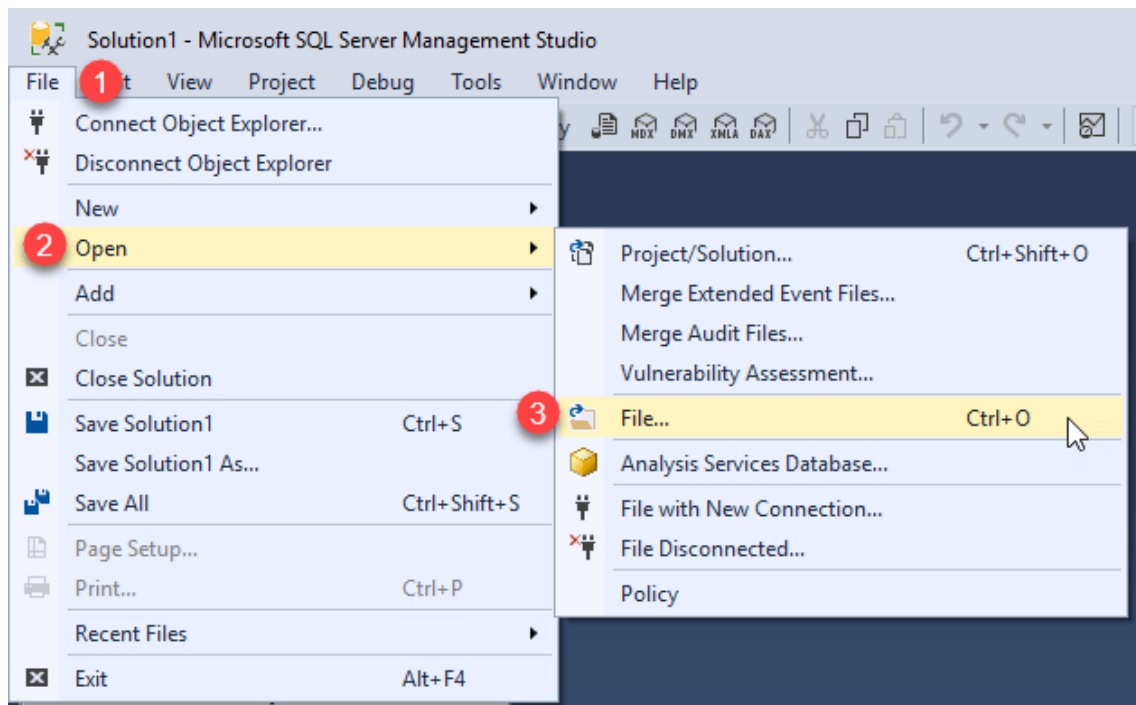

3. Data population through Design view

- Expand **Databases** and Right click on the desired table
- Select **Edit Top 200 Rows** and enter data as required. Then click the X to close and save the records.

4. Data population through Query

- Create a database.
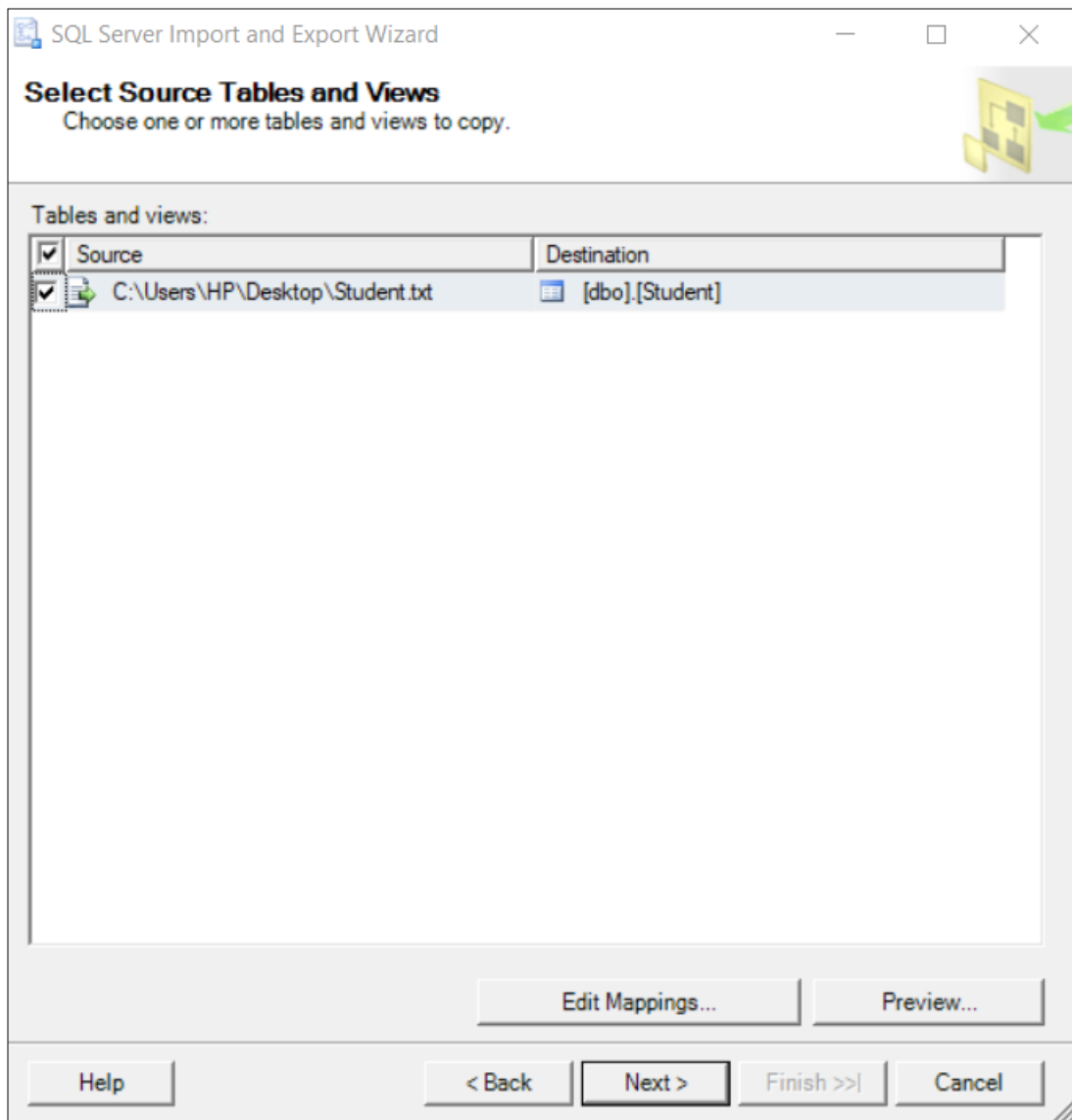- From the File menu, choose Open > File… menu item to open a script file.

- Select the sql file and click the `Open` button.
- Click the **Execute** button to execute the SQL script.
- Go to Design View and see what tables are created and what data is populated.

5. Importing Data from File

- Expand **Databases**.
- Right-click a database.
- Point to **Tasks**.
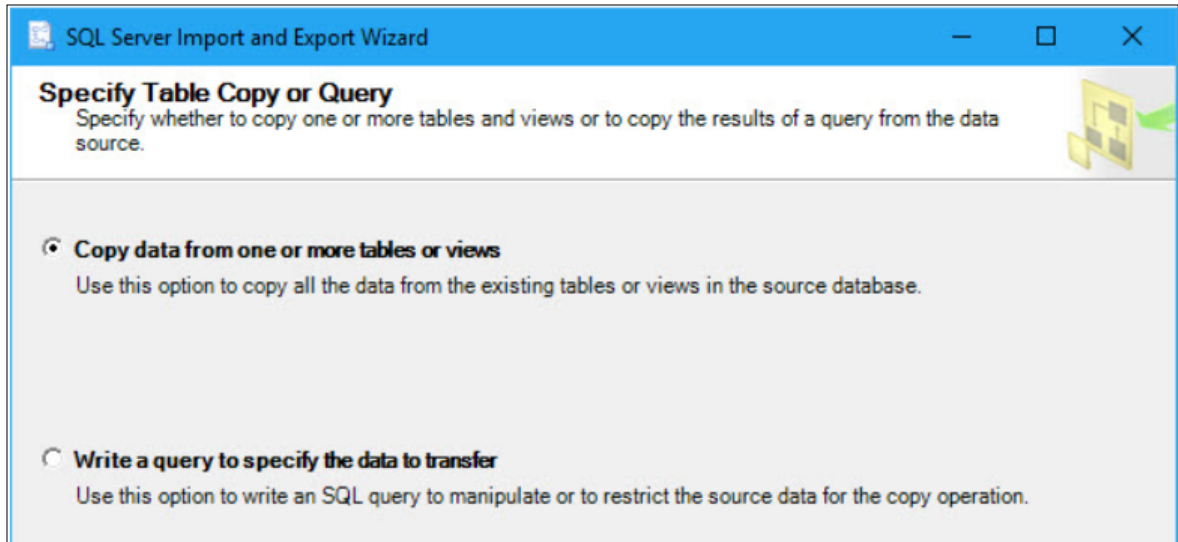- Click on **Import Data**

- On the next page, **Choose a Data Source.** i.e. Flat File or Excel. Carefully select the format of source file i.e. delimited or not, if there are column names in first row etc.
- Next, Review the data of file in wizard.
- On the next page, **Choose a Destination** and **Server Name**, you can pick Microsoft SQL Server as your destination.
- Review the mapping of source file and destination table.

Click the **Edit Mappings** button to open the **Column Mappings** dialog box. Here, in the **Mappings** table, you see how the wizard is going to map columns in the source worksheet to columns in the new destination table. You can preview the table as well.

- Select Copy Data from one or more tables or views.

- **Select Source Tables and Views**, pick the table or tables that you want to copy from the data source.
- Run and finish the wizard.

Lab Exercise

1. Create a new database in named 20L-5894_Lab01.
2. Create the following Tables using Design View.

Student:

RollNum	Name	Gender	Phone
L164123	Ali Ahmad	Male	0333-3333333
L164124	Rafia Ahmed	Female	0333-3456789
L164125	Basit Junaid	Male	0345-3243567

Attendance:

RollNum	Date	Status	ClassVenue
L164123	2-22-2016	P	2
L164124	2-23-2016	A	1
L164125	3-4-2016	P	2

ClassVenue:

ID	Building	RoomNum	TeacherId
1	CS	2	1
2	Civil	7	2

Teacher:

ID	Name	Designation	Department
1	Ali Ahmed	Assistant Prof.	Computer Science
2	Saman Ayyaz	Lecturer	Civil Eng.
3	Bilal Haider	Professor	Electrical Eng.

3. Populate Student and Attendance via Design View (RollNum should not be nullable).
4. Populate Table **ClassVenue** and **Teacher** via Importing ClassVenue.txt and Teacher.csv (ID of either table should not be nullable).
5. Create another database using scripts provided in BikeStores-create objects.sql and BikeStores–load data.sql