

Lab Answer Key: Module 7: Using DML to Modify Data

Lab: Using DML to Modify Data

Exercise 1: Inserting Records with DML

Task 1: Prepare the Lab Environment

Note: The exercises will be performed within the TempDB database so that none of the real data is affected. Two scripts are used to set up the environment for the lab—both are included in the project for the lab, along with a sample solution for each exercise.
If you need to start again, open and execute the cleanup script, followed by the setup script; you have a clean environment and can try again.

1. Ensure that the **20761C-MIA-DC** and **20761C-MIA-SQL** virtual machines are both running, and then log on to **20761C-MIA-SQL** as **ADVENTUREWORKS\Student** with the password **Pa55w.rd**.
2. In the **D:\Labfiles\Lab07\Starter** folder, right-click **Setup.cmd**, and then click **Run as administrator**.
3. In the **User Account Control** dialog box, click **Yes**.
4. When the script has finished, press Enter.

Task 2: Insert a Row

1. Start SQL Server Management Studio and connect to the **MIA-SQL** database engine using Windows authentication.
2. In the **File** menu, point to **Open**, and click **Project/Solution**.
3. In the **Open Project** window, open the project **D:\Labfiles\Lab07\Starter\Project\Project.ssmssln**.
4. In Solution Explorer, expand **Queries**, and double-click **01 Setup.sql**.
5. On the toolbar, click **Execute**. When the script has executed, you should get the messages indicating (9 row(s) affected), (88 row(s) affected) and (3 row(s) affected).
6. Close the **01 Setup.sql** pane and open a new query window by clicking the **New Query** icon.
7. When the query window opens, type **USE TempDB**, followed by **GO** on the next line, and then, on the toolbar, click **Execute**.
8. Below the GO statement in the open window, type the following query:

```
INSERT INTO HR.Employees  
(
```

```

    Title
, titleofcourtesy
, FirstName
, Lastname
, hiredate
, birthdate
, address
, city
, country
, phone
)
VALUES
(
    'Sales Representative'
, 'Mr'
, 'Laurence'
, 'Grider'
, '04/04/2013'
, '10/25/1975'
, '1234 1st Ave. S.E. '
, 'Seattle'
, 'USA'
, '(206)555-0105'
);

```

9. Click **Execute**.
10. Make sure the row has been inserted, and then close the window. You will be asked if you want to save the query—you can choose where to save it and what to call it.

Task 3: Insert a Row with a SELECT Statement As the Data Provider

1. Click **New Query**.
2. In the query pane, type the following query:

```

USE TempDB
GO

INSERT INTO Sales.Customers
(
    Companyname
, contactname
, contacttitle

```

```
, address
, city
, region
, postalcode
, country
, phone
, fax
)
SELECT
    Companyname
, contactname
, contacttitle
, address
, city
, region
, postalcode
, country
, phone
, fax

FROM dbo.PotentialCustomers;
```

3. Click **Execute**.
4. Make sure that the rows have been inserted, and then close the window. You will be asked if you want to save the query—you can choose where to save it and what to call it.

How could you have checked the data as it was transferred by the query? Remember the OUTPUT command? If not, you can look at the exercise solution labeled **42 - Lab Exercise 1b Solution.sql**.

Result: After successfully completing this exercise, you will have one new employee and three new customers.

Exercise 2: Update and Delete Records Using DML

Task 1: Update Rows

1. Click **New Query**.
2. In the query pane, type the following query:

```
Use TempDB
GO

UPDATE Sales.Customers
```

```
SET contacttitle='Sales Consultant'  
WHERE city='Berlin'AND contacttitle='Sales Representative';
```

3. Click **Execute**.
4. Make sure the rows have been modified, and then close the window. You will be asked if you want to save the query—you can choose where to save it and what to call it.

How could you have checked the data as it was transferred by the query? Remember the OUTPUT command? If not, you can look at the exercise solution labeled **43 - Lab Exercise 2 Solution.sql**.

Task 2: Delete Rows

1. Click **New Query**.
2. In the query pane, type the following query:

```
USE TempDB  
GO  
  
DELETE FROM dbo.PotentialCustomers  
WHERE contactname  
IN( 'Taylor, Maurice', 'Mallit, Ken', 'Tiano, Mike' );
```

3. Click **Execute**.
4. Make sure the rows have been deleted, and then close the window. You will be asked if you want to save the query—you can choose where to save it and what to call it.

How could you have checked the data as it was transferred by the query? Remember the OUTPUT command? If not, you can look at the exercise solution labeled **44 - Lab Exercise 2b Solution.sql**.

Result: After successfully completing this exercise, you will have updated all the records in the Customers table that have a city of Berlin and a contacttitle of Sales Representative, to now have a contacttitle of Sales Consultant. You will also have deleted the three records in the PotentialCustomers table, which have already been added to the Customers table.