# Chapter 1- Sql - Update Delete & Insert

## Objectives

The primary objective of this lab is to gain familiarisation with the SQL UPDATE, DELETE and INSERT statements.

## Reference Material

This practical is based on material in the chapter.

## Overview

In this exercise you will use the QAStore database created in the previous lab and write SQL UPDATE, INSERT and DELETE statements to update the contents of its tables.

## Estimated duration

The estimated duration for this lab is 30 minutes.

## Completed solution

A Visual Studio 2010 solution containing the fully completed code for this lab is located in *CoursewareFolder*\1 SQL - UPDATE DELETE & INSERT \Solutions.

## Step by Step

1. Start SQL Server Management studio from the Windows Start button.
2. Enter .\SQLEXPRESS as the Server name in the Connect to Server dialog box.
3. Choose QAStore from the drop down list of available databases located on the standard toolbar to ensure that it is selected as the current database.
4. Click the New Query button on the standard toolbar.

### Part 1 (Update, Deletes and Inserts)

### Exercise 1

You are going to INSERT 1 row into the contact table. We are not going to bother to type in the full comma separated list of column names, simply the right number of column values (6) in the CORRECT sequence.

* Check the sequence matches the schema.
* The contact is in company 4000, with a contact code of 'MM'.
* A name and job-title have been invented and the last 2 cols are set to NULL

Enter the following:

INSERT INTO contact

VALUES (4000, 'MM', 'Moody Mo', 'Magician', NULL, NULL)

Check the new contact is in the table by entering and running this code:

SELECT \*

FROM contact

The results should look like the following:

cmpno code name job title tel

notes

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1000 MM Munching Mike Accounts Officer (0207)223-9887

We first visited her in January 2006

2000 NN Naughty Nick Bought Ledger Manager 01546-456566 Ext 22

Works only on Monday and Wednesdays

2000 OO Ollie Octopus Chief Executive Officer 0207-341-566670 ext 10

3000 PP Purposeful Peter Development Director 0131 324545 ext 213

Insists on personally signing all orders

3000 QQ Quentin Quail Electrical Manager 01456 802071 ext 44

Has been in his job a long time

3000 RR Robber Red Federal Reporting Officer 0356-345345

Has a preference for Apple Macs

4000 MM Moody Mo Magician NULL

NULL

4000 RR Sammy Snake Gourmet Foods Purchaser 0207-988-0777

4000 TT Terrible Tim Head of Inter Office Systems 05673-476878 ext 221

Is listed in Whos Who 2005 onwards

4000 UU Uppy Umbrella Accounts Officer 0823-598494 ext 1

Is upset because he is not chief executive!

### Exercise 2

DELETE any department whose manager's name contains the character 'x'. We can check who should be deleted before running the DELETE, by using the proposed WHERE clause in a SELECT first.

Enter and run the following code:

SELECT manager

FROM dept

WHERE manager LIKE '%X%'

The results should look like the following:

manager

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Xavier Xylophone

Enter and run the following code (one row should be affected):

DELETE FROM dept

WHERE manager LIKE '%X%'

Enter and run the following code:

SELECT \*

FROM dept

The results should look like the following:

dept\_no dept\_name manager sales\_tgt

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1 Animal Products Adam Apricot 5.00

2 Business Systems Barbara Banana 15.00

3 Credit Control Paul Peach 25.00

4 Desktop Systems Diver Dan 5.00

### Exercise 3

Departments have sales\_targets, so do salespeople.We want to change the sales\_targets of each DEPT.

Each dept's target is to be be INCREASED by 5 'units'(you don't care what the 'unit' is).The code has been inserted BETWEEN the 2 SELECT statements that follow

Enter and run the following 3 statements TOGETHER, ONCE and ONCE ONLY. This will enable you (one time only) to see the 'before' and 'after' version of the row(s) you change.

SELECT \* FROM dept

UPDATE dept

SET sales\_target = sales\_target + 5

SELECT \* FROM dept

The results should look like the following:

(before image)

dept\_no dept\_name manager sales\_target

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1 Animal Products Adam Apricot 5.00

2 Business Systems Barbara Banana 15.00

3 Credit Control Paul Peach 25.00

4 Desktop Systems Diver Dan 5.00

(4 row(s) affected)

(the UPDATE)

(4 row(s) affected)

(after image)

dept\_no dept\_name manager sales\_target

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1 Animal Products Adam Apricot 10.00

2 Business Systems Barbara Banana 20.00

3 Credit Control Paul Peach 30.00

4 Desktop Systems Diver Dan 10.00

(4 row(s) affected)

### Exercise 4

Now we are going to change the contact Sammy Snake's job title to 'VP of Development' and SIMULTANEOUSLY change his/her telephone number to '01242-112233 Ext 444'.

Do this in ONE statement. Again the code is INSERT'ed between the 2 precoded 'SELECTs' and so enter and run all 3 statements again.

SELECT \* FROM contact

UPDATE contact

SET job\_title = 'VP of Development', tel = '01242-112233 Ext 444'

WHERE name = 'Sammy Snake'

SELECT \* FROM contact

The results should look like the following:

(before image)

company\_no contact\_code name job\_title

tel notes

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1000 MM Munching Mike Accounts Officer

(0207)223-9887 We first visited her in January 2006

2000 NN Naughty Nick Bought Ledger Manager

01546-456566 Ext 22 Works only on Monday and Wednesdays

2000 OO Ollie Octopus Chief Executive Officer

0207-341-566670 ext 10

3000 PP Purposeful Peter Development Director

0131 324545 ext 213 Insists on personally signing all orders

3000 QQ Quentin Quail Electrical Manager

01456 802071 ext 44 Has been in his job a long time

3000 RR Robber Red Federal Reporting Officer

0356-345345 Has a preference for Apple Macs

4000 MM Marvellous Marvin Magician

NULL NULL

4000 RR Sammy Snake Gourmet Foods Purchaser

0207-988-0777

4000 TT Terrible Tim Head of Inter Office Systems

05673-476878 ext 221 Is listed in Whos Who 2005 onwards

4000 UU Uppy Umbrella Accounts Officer

0823-598494 ext 1 Is upset because he is not chief executive!

(10 row(s) affected)

(the UPDATE)

(1 row(s) affected)

(after image)

company\_no contact\_code name job\_title

tel notes

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1000 MM Munching Mike Accounts Officer

(0207)223-9887 We first visited her in January 2006

2000 NN Naughty Nick Bought Ledger Manager

01546-456566 Ext 22 Works only on Monday and Wednesdays

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05673-476878 ext 221 Is listed in Whos Who 2005 onwards

4000 UU Uppy Umbrella Accounts Officer

0823-598494 ext 1 Is upset because he is not chief executive!

(10 row(s) affected)

## When you have time

### Exercise 5

Enter and run the following:

SELECT \* FROM company

The results should look like the following:

(old image)

company\_no name tel county post\_code

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1000 Happy Heaters PLC (01306)345672 London SE3 89L

2000 Icicle Igloos Inc 0207-987-1265 London N1 4LH

3000 Judo Jeans PLC 0207-478-2990 London N9 2FG

4000 Kipper Kickers Inc 01254-987766 Devon PL4 9RT

'Icicle Igloos Inc' has just floated on the Stock Exchange. Let us change it's company name to 'Icicle Igloos PLC' by entering and running the following:

UPDATE company

SET name = 'Icicle Igloos PLC'

WHERE company\_no = 2000 -- or 'WHERE name = 'Icicle Igloos Inc'

(1 row(s) affected)

Re-Run the SELECT statement:

SELECT \* FROM company

The results should look like the following:

(new image)

company\_no name tel county post\_code

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1000 Happy Heaters PLC (01306)345672 London SE3 89L

2000 Icicle Igloos PLC 0207-987-1265 London N1 4LH

3000 Judo Jeans PLC 0207-478-2990 London N9 2FG

4000 Kipper Kickers Inc 01254-987766 Devon PL4 9RT

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