



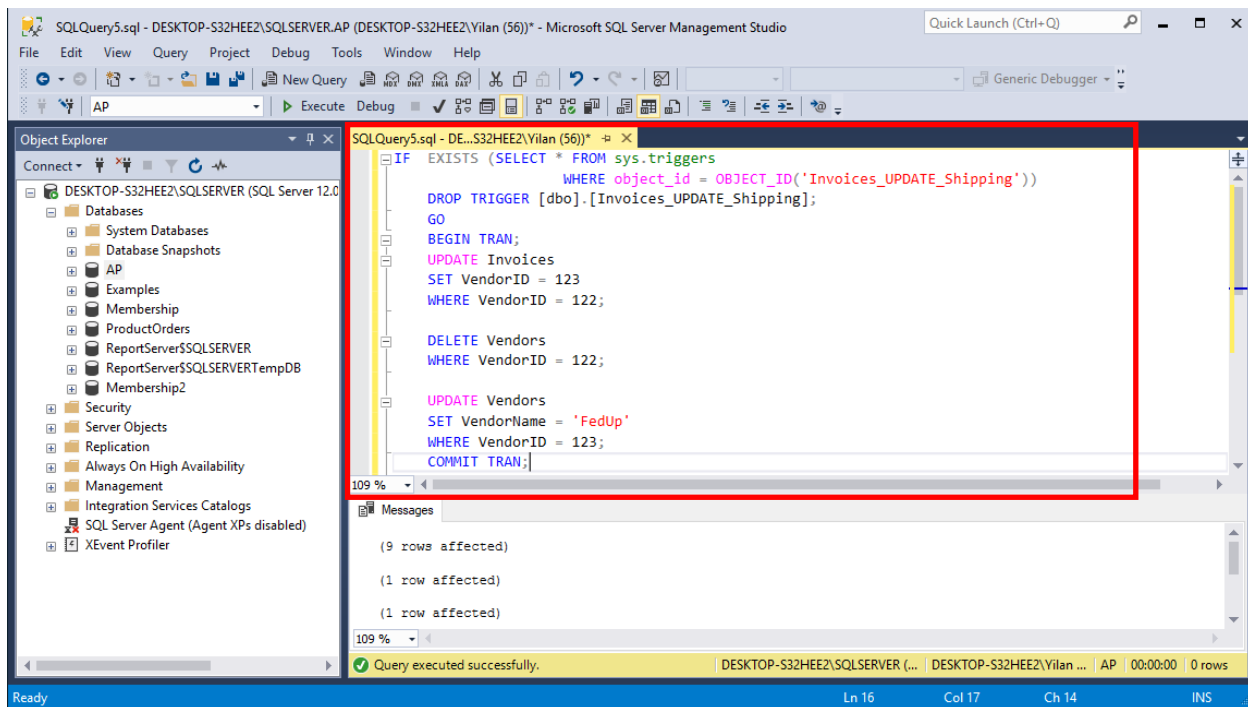
Lab 10: Transactions, Locking Solution

1. Write a set of action queries coded as a transaction to reflect the following change: United Parcel Service has been purchased by Federal Express Corporation and the new company is named FedUp. Rename one of the vendors and delete the other after updating the VendorID column in the Invoices table. Use SELECT statement to verify the results.

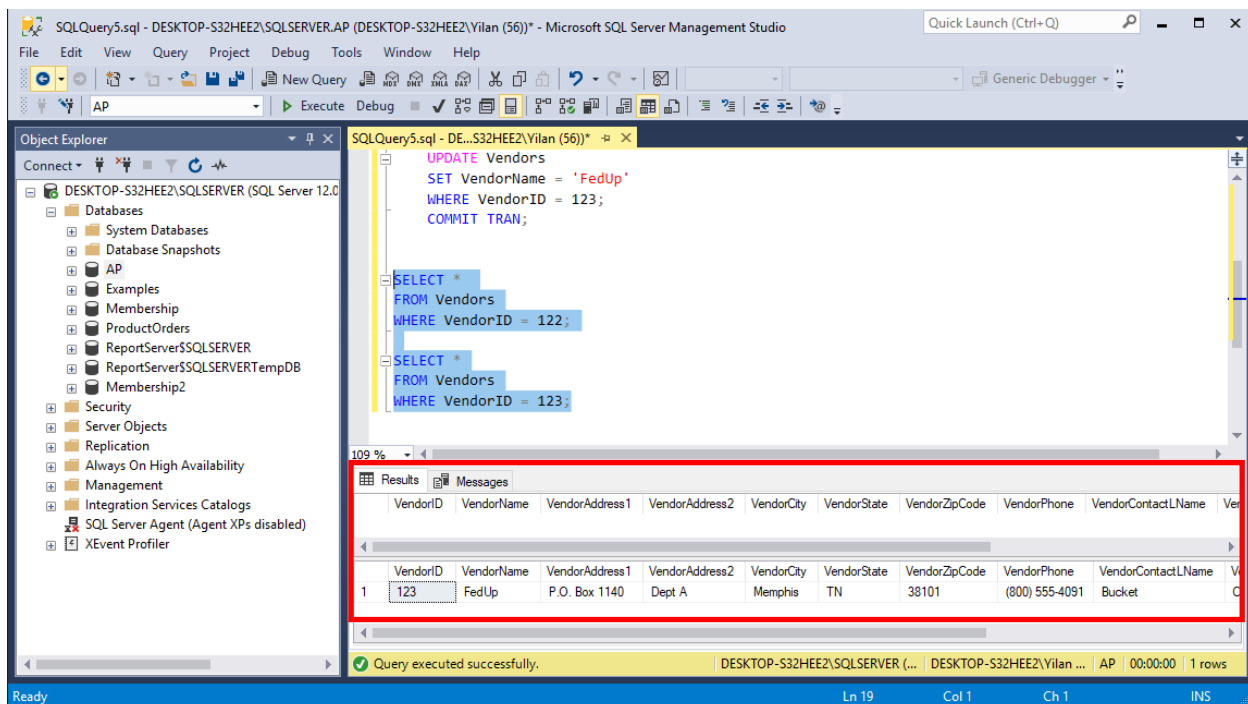
```
IF EXISTS (SELECT * FROM sys.triggers
           WHERE object_id = OBJECT_ID('Invoices_UPDATE_Shipping'))
DROP TRIGGER [dbo].[Invoices_UPDATE_Shipping];
GO
BEGIN TRAN;
UPDATE Invoices
SET VendorID = 123
WHERE VendorID = 122;

DELETE Vendors
WHERE VendorID = 122;

UPDATE Vendors
SET VendorName = 'FedUp'
WHERE VendorID = 123;
COMMIT TRAN;
```



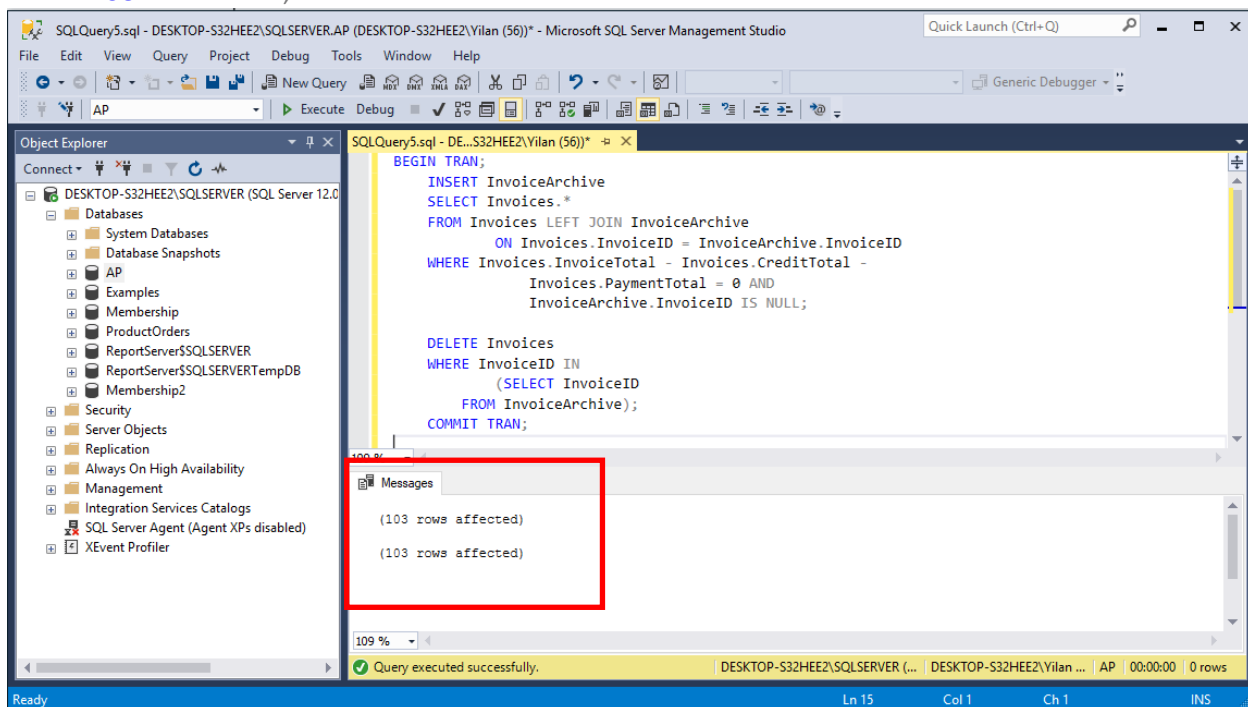
Verify results:



2. Write a set of action queries coded as a transaction to move rows from the Invoices table to the InvoiceArchive table. Insert all paid invoices from Invoices into InvoiceArchive, but only if the invoice doesn't already exist in the InvoiceArchive table. Then, delete all paid invoices from the Invoices table, but only if the invoice exists in the InvoiceArchive table. Use SELECT statement to verify the results.

```
BEGIN TRAN;
INSERT InvoiceArchive
SELECT Invoices.*
FROM Invoices LEFT JOIN InvoiceArchive
ON Invoices.InvoiceID = InvoiceArchive.InvoiceID
WHERE Invoices.InvoiceTotal - Invoices.CreditTotal -
      Invoices.PaymentTotal = 0 AND
      InvoiceArchive.InvoiceID IS NULL;

DELETE Invoices
WHERE InvoiceID IN
      (SELECT InvoiceID
FROM InvoiceArchive);
COMMIT TRAN;
```



```

SELECT *
FROM Invoices;
SELECT *
FROM InvoiceArchive;

SELECT *
FROM Invoices JOIN InvoiceArchive
ON Invoices.InvoiceID = InvoiceArchive.InvoiceID;

```

SQLQuery5.sql - DESKTOP-S32HEE2\SQLSERVER.AP (DESKTOP-S32HEE2\Vilan (56)) - Microsoft SQL Server Management Studio

Object Explorer: DESKTOP-S32HEE2\SQLSERVER (SQL Server 12.0)

SQLQuery5.sql - DE...S32HEE2\Vilan (56))

```

SELECT *
FROM Invoices;
SELECT *
FROM InvoiceArchive;

SELECT *
FROM Invoices JOIN InvoiceArchive
ON Invoices.InvoiceID = InvoiceArchive.InvoiceID;

```

Results

	InvoiceID	VendorID	InvoiceNumber	InvoiceDate	InvoiceTotal	PaymentTotal	CreditTotal	TermsID	InvoiceDueDate	Paym
1	89	72	39104	2016-03-10 00:00:00	85.31	0.00	0.00	3	2016-04-09 00:00:00	NUL
2	94	123	963253264	2016-03-18 00:00:00	52.25	0.00	0.00	3	2016-04-17 00:00:00	NUL

	InvoiceID	VendorID	InvoiceNumber	InvoiceDate	InvoiceTotal	PaymentTotal	CreditTotal	TermsID	InvoiceDueDate	Paym
1	1	123	989319-457	2015-12-08 00:00:00	3813.33	3813.33	0.00	3	2016-01-08 00:00:00	2016
2	2	123	263253241	2015-12-10 00:00:00	40.20	40.20	0.00	3	2016-01-10 00:00:00	2016
3	3	123	263253241	2015-12-10 00:00:00	40.20	40.20	0.00	3	2016-01-10 00:00:00	2016

Query executed successfully. DESKTOP-S32HEE2\SQLSERVER (DESKTOP-S32HEE2\Vilan (56)) AP 00:00:00 114 rows

No joined results in Invoices table and InvoiceArchive.