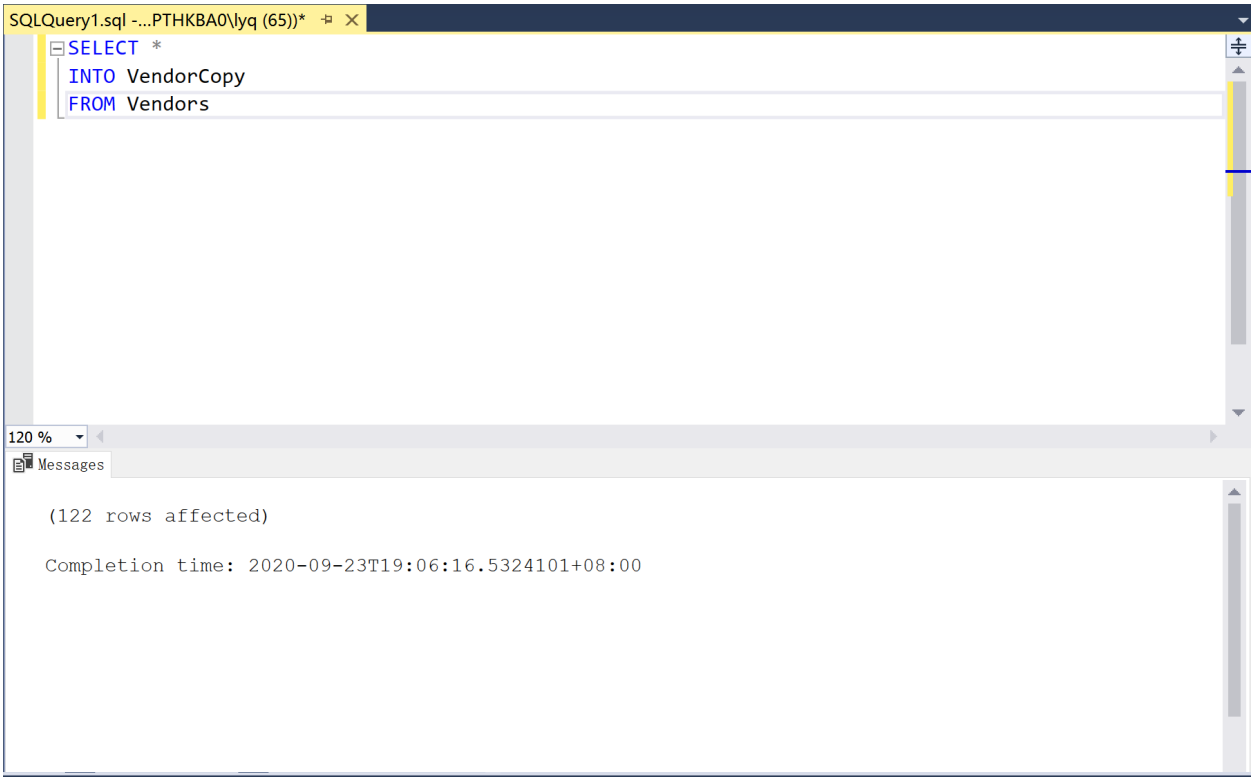
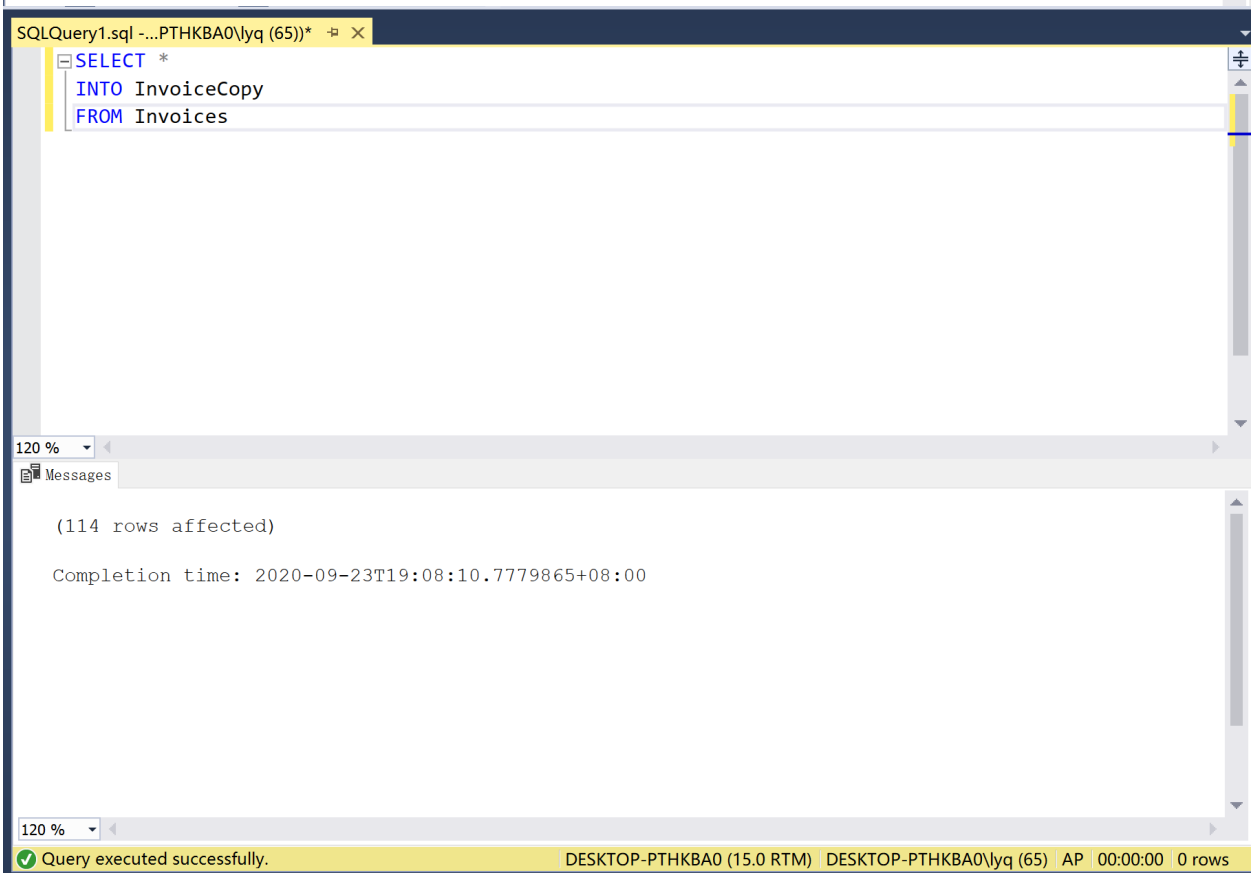
Lab 4: Data manipulation, Data types

1. **Create VendorCopy table and InvoiceCopy table.**

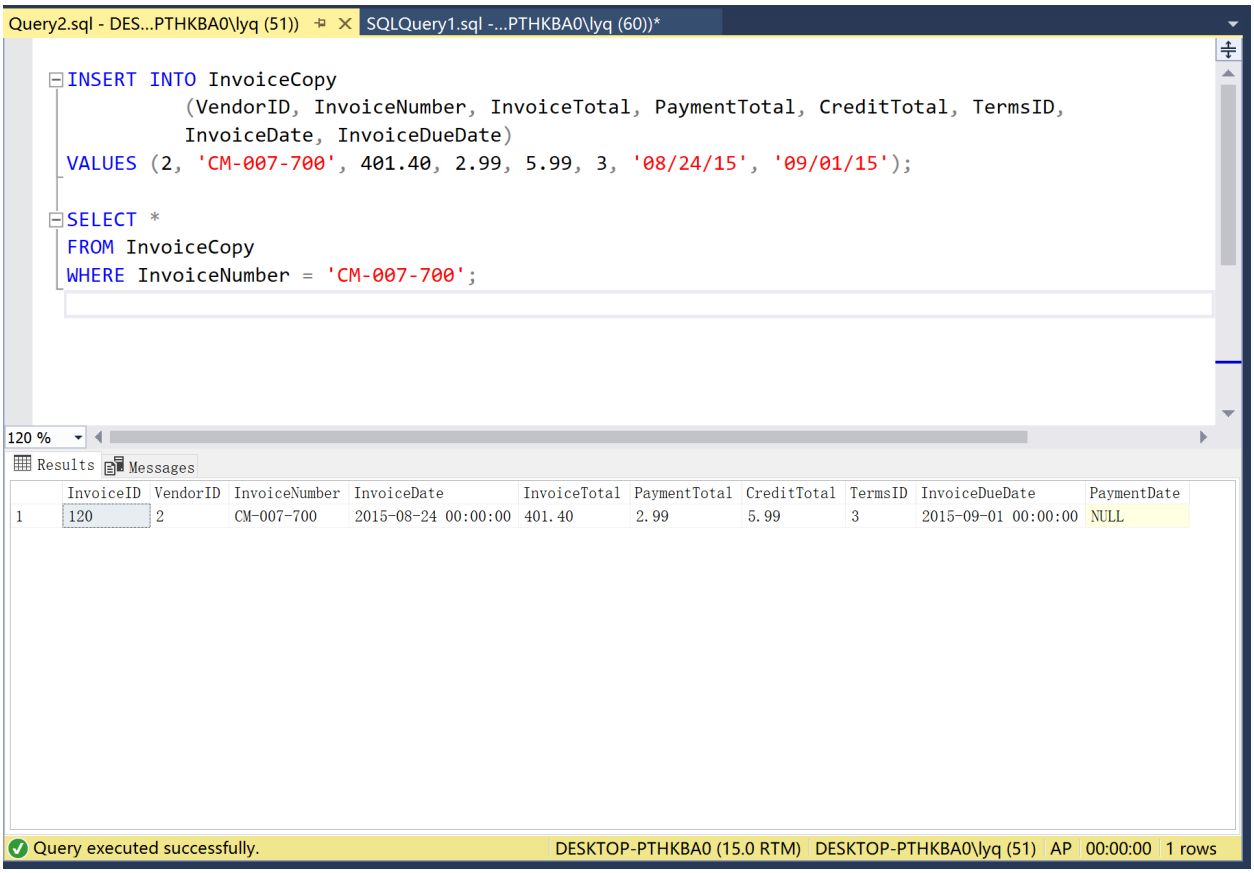
As you can see as below, the two table are created.





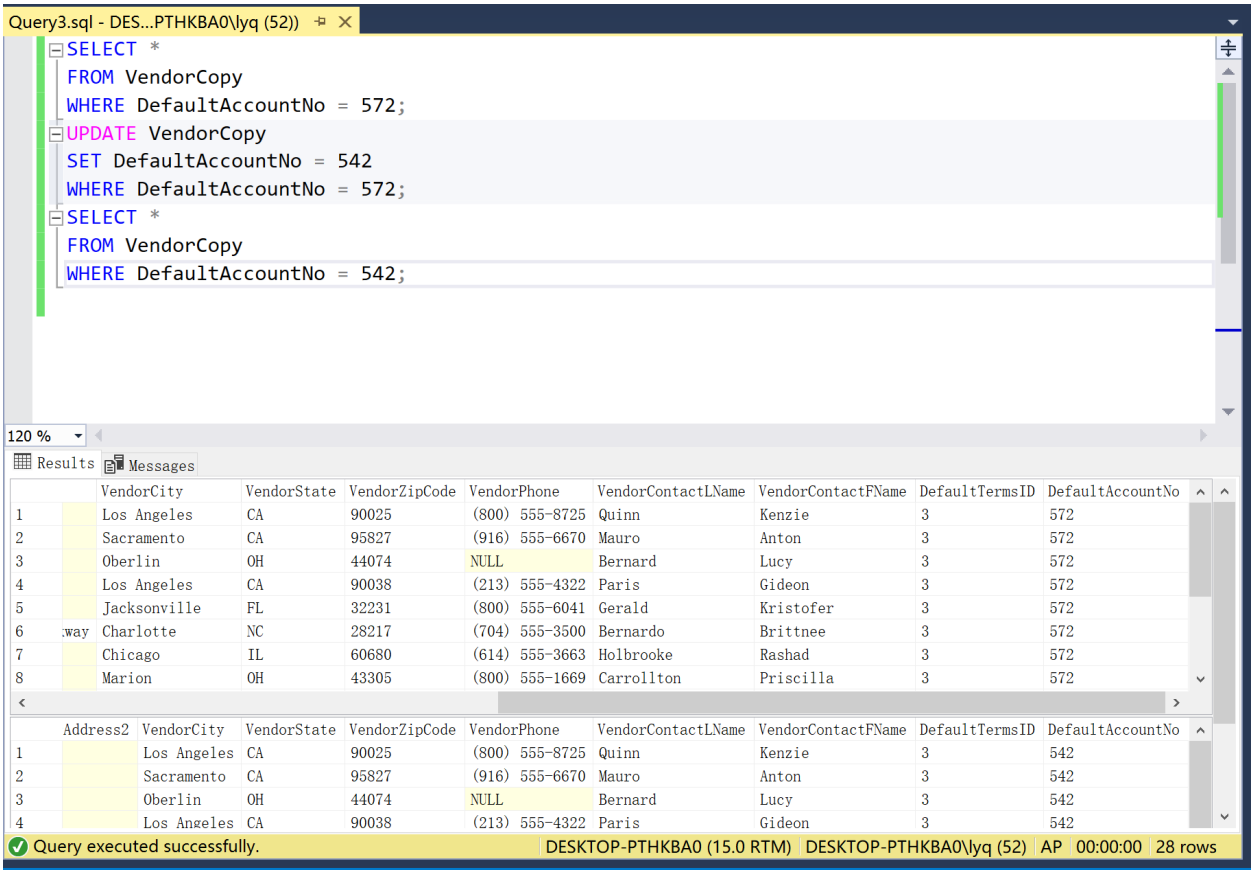
2. Write an INSERT statement that adds a row to the InvoiceCopy table with the following values (USE SELECT statement to verify data changes in the table before and after the modification):

The screenshot is as below:
And we actually do not need insert InvoiceID because it would display automatically.



3. Write an UPDATE statement that modifies the VendorCopy table. Change the default account number to 542 for each vendor that has a default account number of 572. (USE SELECT statement to verify data changes in the table before and after the modification).

The screenshot is as below and the default account number have changed from 572 to 542.

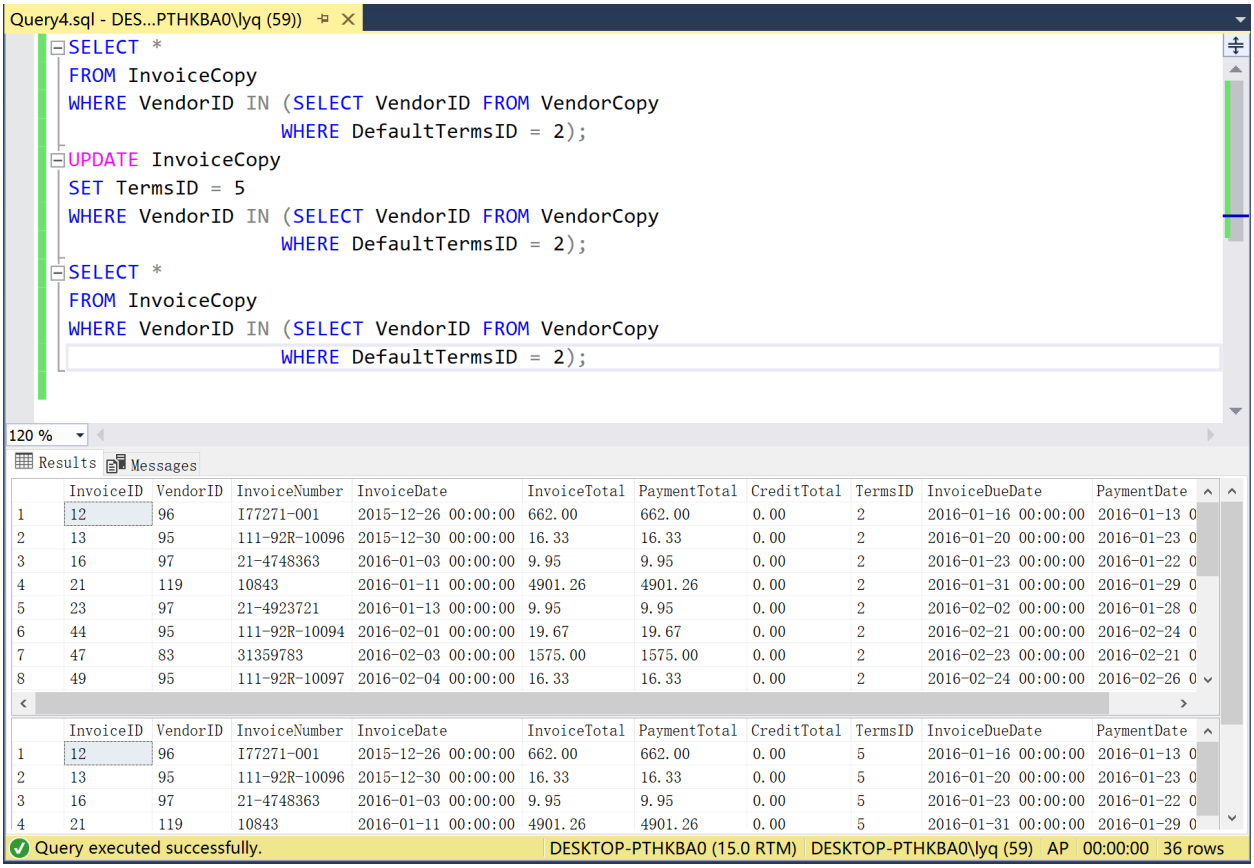


	VendorCity	VendorState	VendorZipCode	VendorPhone	VendorContactLName	VendorContactFName	DefaultTermsID	DefaultAccountNo
1	Los Angeles	CA	90025	(800) 555-8725	Quinn	Kenzie	3	572
2	Sacramento	CA	95827	(916) 555-6670	Mauro	Anton	3	572
3	Oberlin	OH	44074	NULL	Bernard	Lucy	3	572
4	Los Angeles	CA	90038	(213) 555-4322	Paris	Gideon	3	572
5	Jacksonville	FL	32231	(800) 555-6041	Gerald	Kristofer	3	572
6	Charlotte	NC	28217	(704) 555-3500	Bernardo	Brittnee	3	572
7	Chicago	IL	60680	(614) 555-3663	Holbrooke	Rashad	3	572
8	Marion	OH	43305	(800) 555-1669	Carrollton	Priscilla	3	572

	Address2	VendorCity	VendorState	VendorZipCode	VendorPhone	VendorContactLName	VendorContactFName	DefaultTermsID	DefaultAccountNo
1		Los Angeles	CA	90025	(800) 555-8725	Quinn	Kenzie	3	542
2		Sacramento	CA	95827	(916) 555-6670	Mauro	Anton	3	542
3		Oberlin	OH	44074	NULL	Bernard	Lucy	3	542
4		Los Angeles	CA	90038	(213) 555-4322	Paris	Gideon	3	542

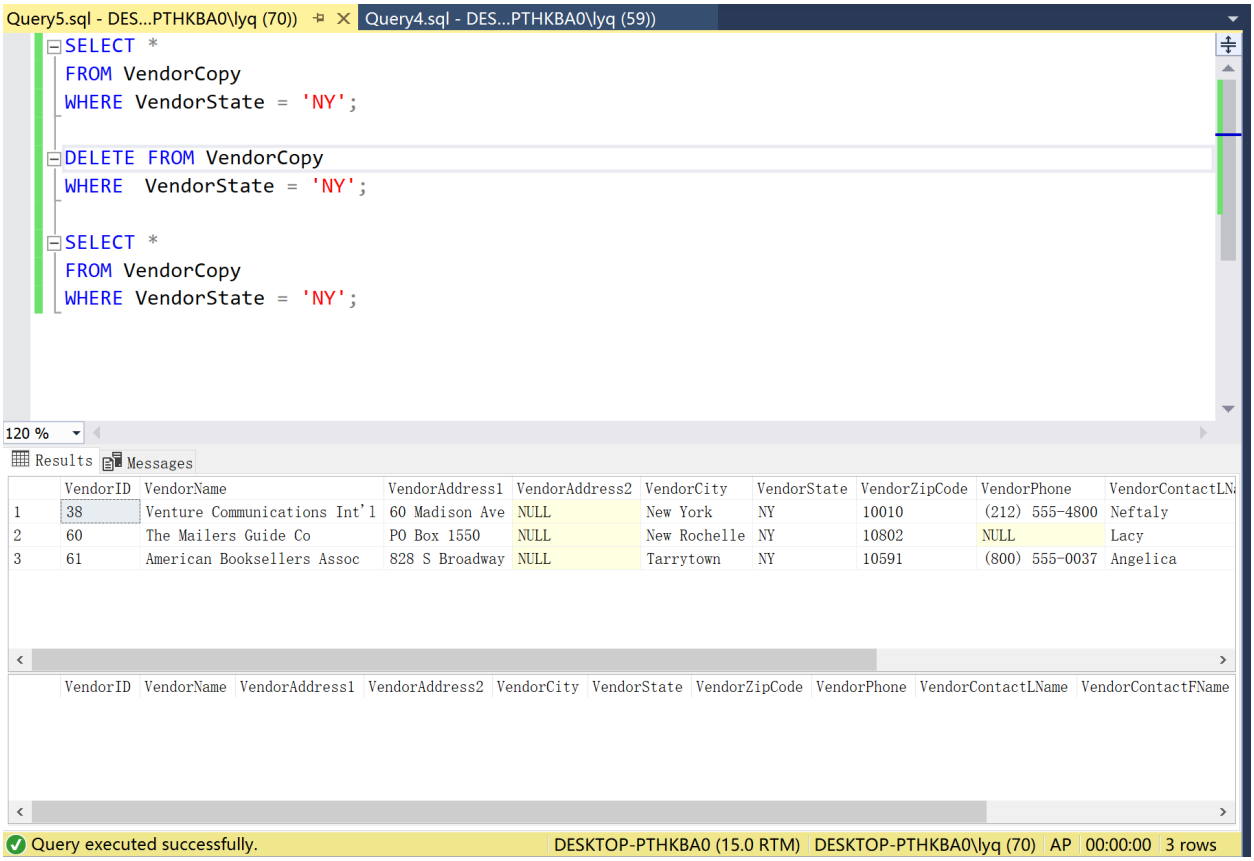
4. Write an UPDATE statement that modifies the InvoiceCopy table. Change the TermsID to 5 for each invoice that's from a vendor with a defaultTermsID of 2. Use a subquery. (USE SELECT statement to verify data changes in the table before and after the modification).

As you can see in the screenshot the 'TermsID' have changed to 5.



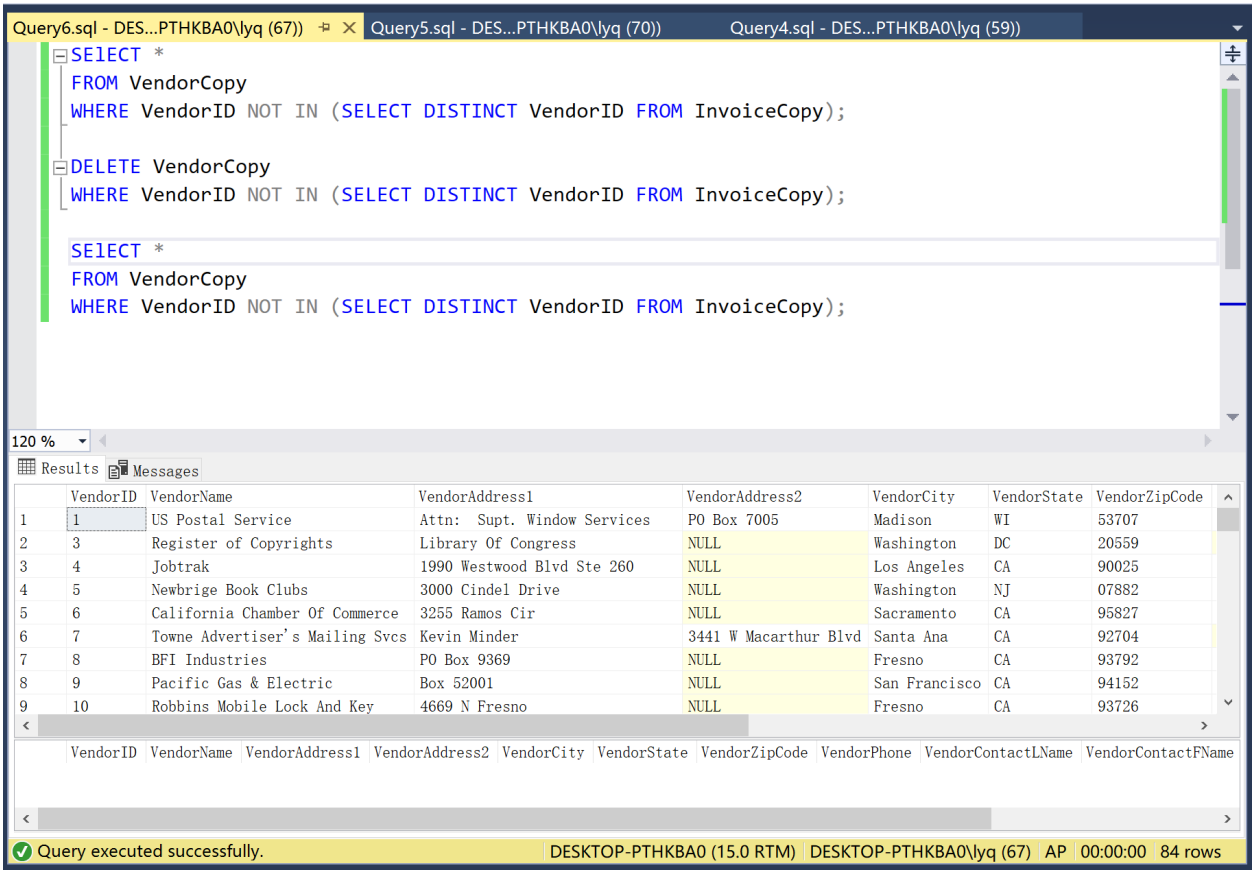
5. Write a DELETE statement that deletes all vendors in the state of 'New York' from the VendorCopy table. (USE SELECT statement to verify data changes in the table before and after the modification).

As you can see, the vendors in the state of New York have been delete and could not be searched any more.



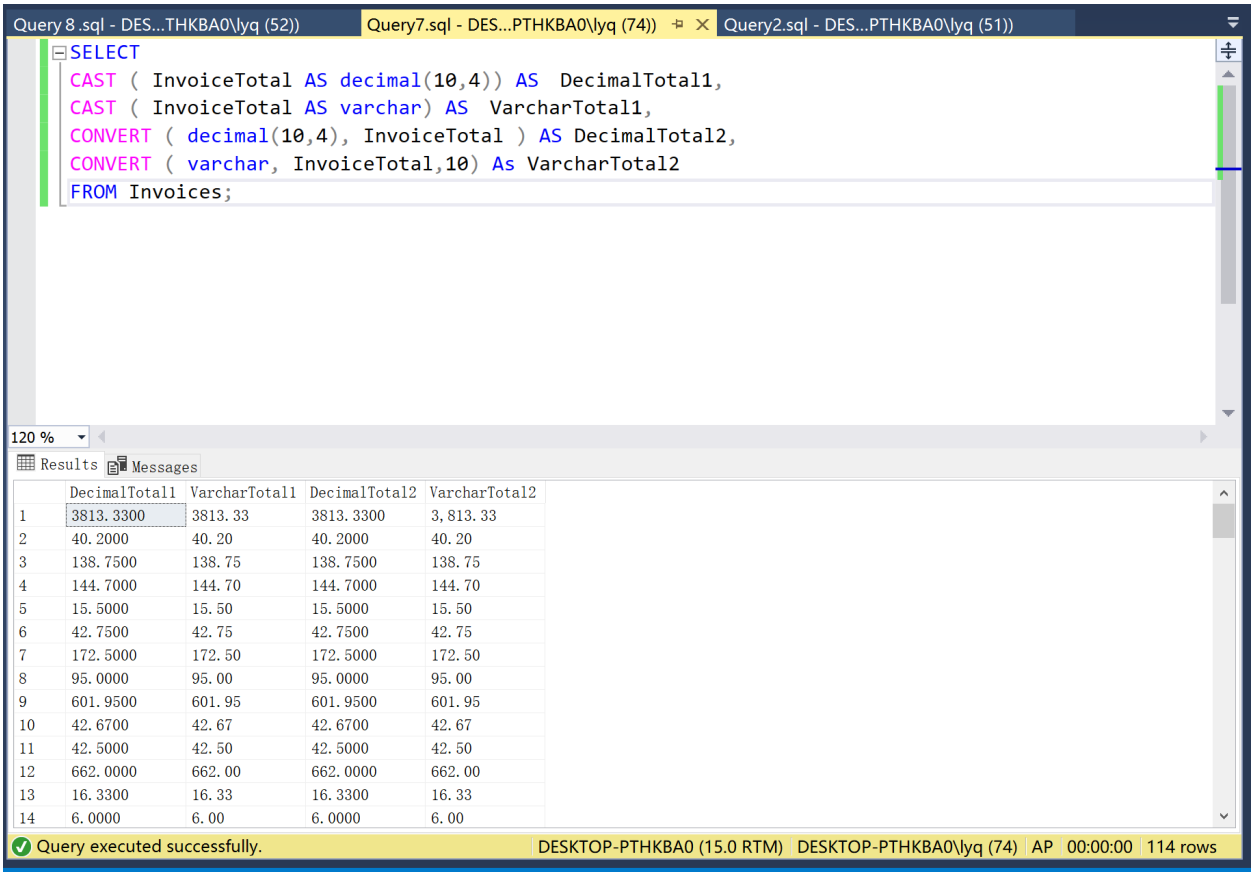
6. Write a DELETE statement for the VendorCopy table. Delete the vendors that are located in cities from which no vendor has ever sent an invoice. (USE SELECT statement to verify data changes in the table before and after the modification).

As you can see in the screenshot, the vendors that located in the cities from which no vendor has ever sent an invoice have been deleted.



7. Write a SELECT statement that returns four columns based on the InvoiceTotal column of the Invoices table:
1) Use CAST function to return the first column as data type decimal with 4 digits to the right of the decimal point.
2) Use CAST to return the second column as a VARCHAR.
3) Use CONVERT function to return third column as the same type as the first column.
4) Use CONVERT to return the fourth column as a VARCHAR, using style 10.

The screenshot is as below.



	DecimalTotal1	VarcharTotal1	DecimalTotal2	VarcharTotal2
1	3813.3300	3813.33	3813.3300	3,813.33
2	40.2000	40.20	40.2000	40.20
3	138.7500	138.75	138.7500	138.75
4	144.7000	144.70	144.7000	144.70
5	15.5000	15.50	15.5000	15.50
6	42.7500	42.75	42.7500	42.75
7	172.5000	172.50	172.5000	172.50
8	95.0000	95.00	95.0000	95.00
9	601.9500	601.95	601.9500	601.95
10	42.6700	42.67	42.6700	42.67
11	42.5000	42.50	42.5000	42.50
12	662.0000	662.00	662.0000	662.00
13	16.3300	16.33	16.3300	16.33
14	6.0000	6.00	6.0000	6.00

8. Write a SELECT statement that returns four columns based on the InvoiceDate column of the Invoices table:
1) Use the CAST function to return the first column as data type VARCHAR.
2) Use the CONVERT function to return the second and third columns as a VARCHAR, using style 5 and style 9, respectively.
3) Use the CAST function to return the fourth column as a data type real.

The screenshot is as below: