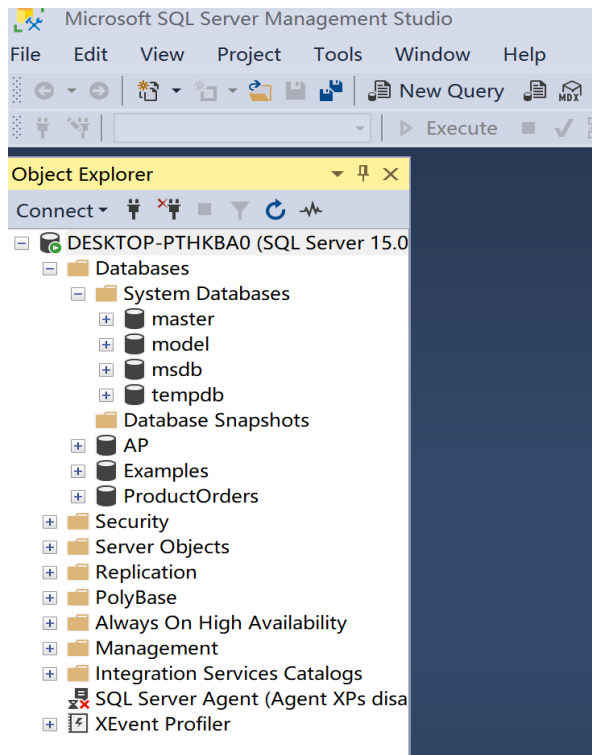


# Lab 1: Introduction to DBs, SQL, Management Studio

**1. Set up SQL Management Studio with all the databases needed in this course (i.e AP, Examples, and ProductOrders) and view all the databases that are available from the server. (All creation scripts of databases can be downloaded from Blackboard under Lab 1 directory.)**

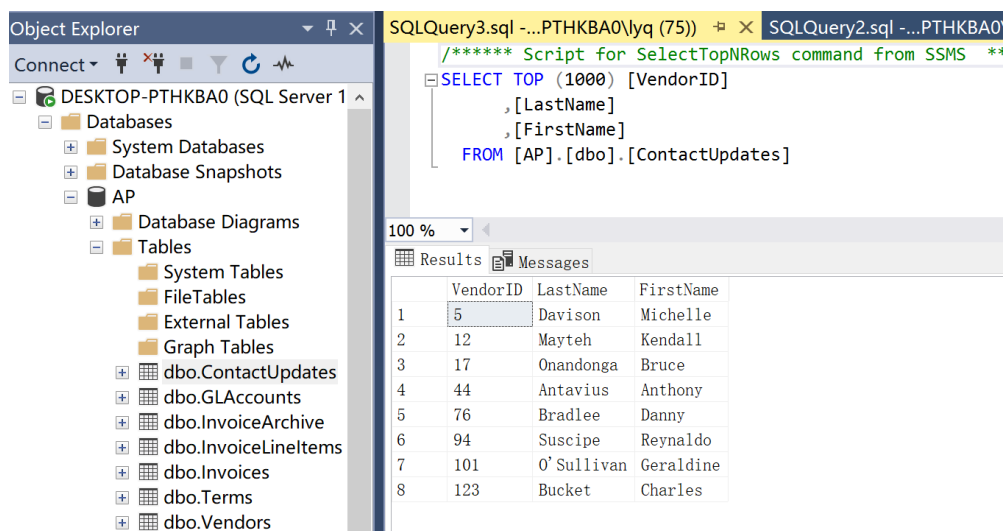
The screenshot is as follow:



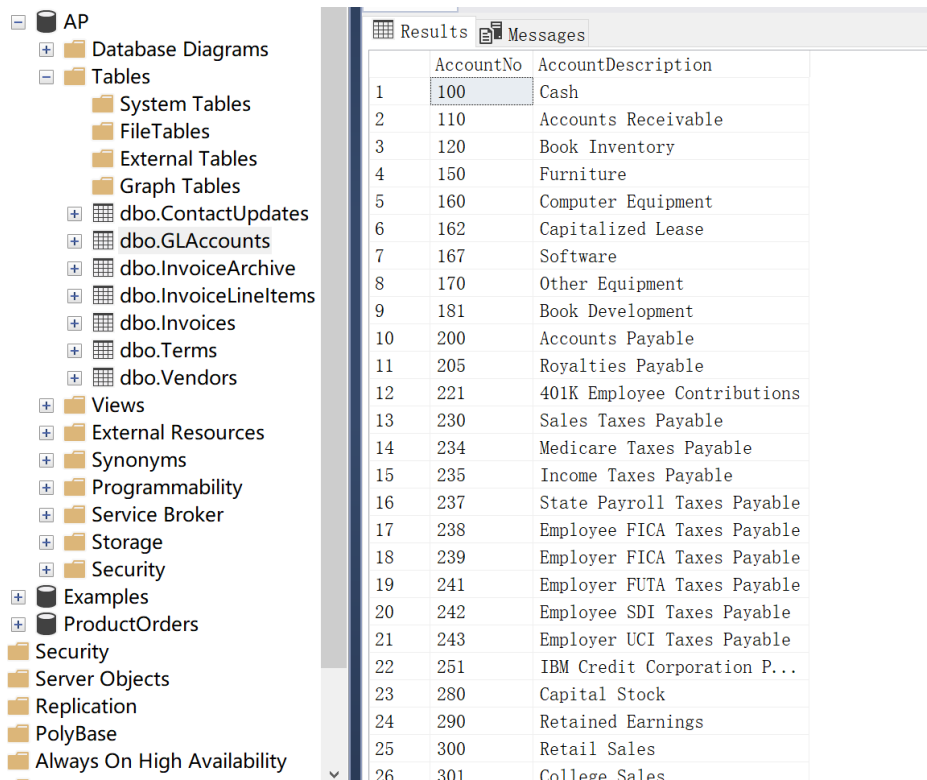
**2. View the tables that are available from the AP database and columns that are available in Invoices table of AP database.**

The screenshots are as follows:

2.1 Table of Contacts:



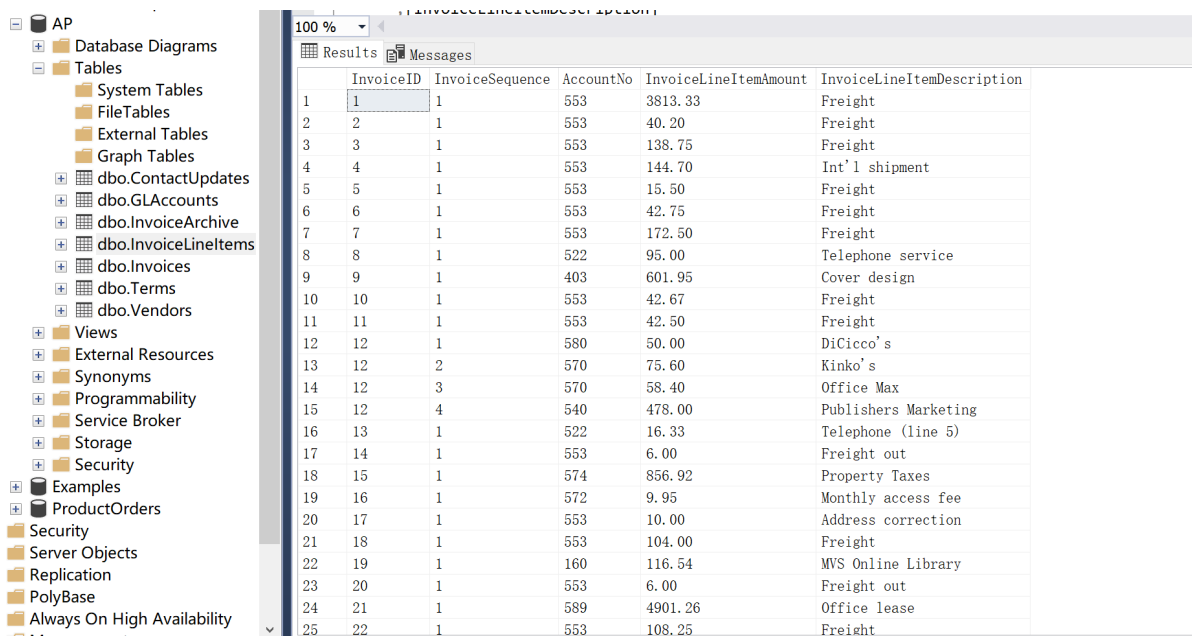
## 2.2 Table of GLAccounts:



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Database Diagrams' folder is expanded, showing the 'Tables' folder. The 'dbo.GLAccounts' table is selected. On the right, the 'Results' pane displays the data from the 'dbo.GLAccounts' table. The table has two columns: 'AccountNo' and 'AccountDescription'. The data is as follows:

	AccountNo	AccountDescription
1	100	Cash
2	110	Accounts Receivable
3	120	Book Inventory
4	150	Furniture
5	160	Computer Equipment
6	162	Capitalized Lease
7	167	Software
8	170	Other Equipment
9	181	Book Development
10	200	Accounts Payable
11	205	Royalties Payable
12	221	401K Employee Contributions
13	230	Sales Taxes Payable
14	234	Medicare Taxes Payable
15	235	Income Taxes Payable
16	237	State Payroll Taxes Payable
17	238	Employee FICA Taxes Payable
18	239	Employer FICA Taxes Payable
19	241	Employer FUTA Taxes Payable
20	242	Employee SDI Taxes Payable
21	243	Employer UCI Taxes Payable
22	251	IBM Credit Corporation P...
23	280	Capital Stock
24	290	Retained Earnings
25	300	Retail Sales
26	301	College Sales

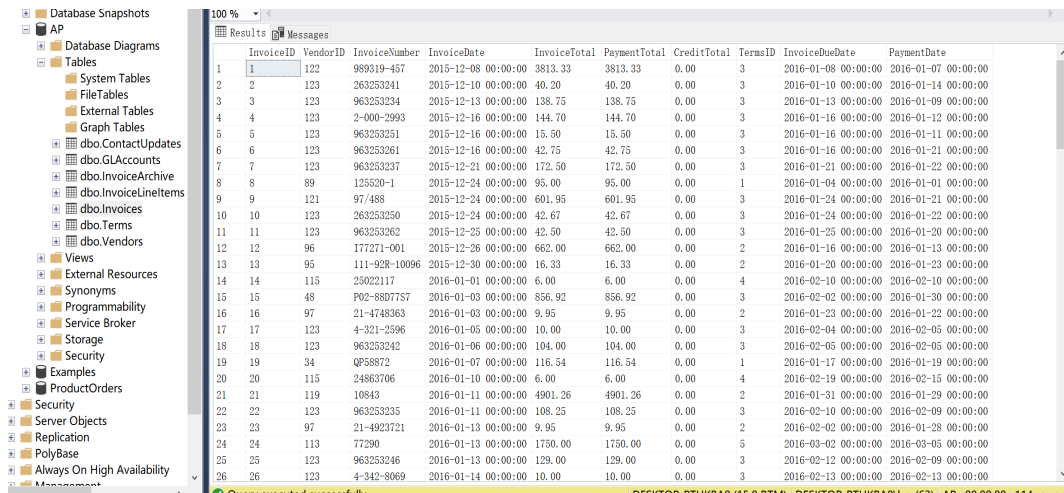
## 2.3 Table of InvoiceLineItems:



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the 'Database Diagrams' folder is expanded, showing the 'Tables' folder. The 'dbo.InvoiceLineItems' table is selected. On the right, the 'Results' pane displays the data from the 'dbo.InvoiceLineItems' table. The table has six columns: 'InvoiceID', 'InvoiceSequence', 'AccountNo', 'InvoiceLineItemAmount', and 'InvoiceLineItemDescription'. The data is as follows:

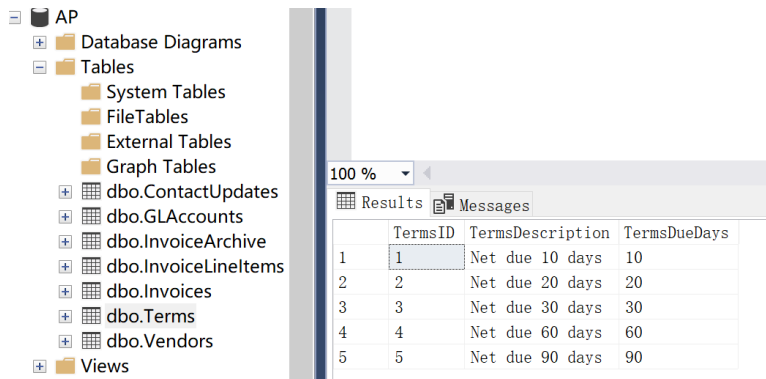
	InvoiceID	InvoiceSequence	AccountNo	InvoiceLineItemAmount	InvoiceLineItemDescription
1	1	1	553	3813.33	Freight
2	2	1	553	40.20	Freight
3	3	1	553	138.75	Freight
4	4	1	553	144.70	Int'l shipment
5	5	1	553	15.50	Freight
6	6	1	553	42.75	Freight
7	7	1	553	172.50	Freight
8	8	1	522	95.00	Telephone service
9	9	1	403	601.95	Cover design
10	10	1	553	42.67	Freight
11	11	1	553	42.50	Freight
12	12	1	580	50.00	DiCicco's
13	12	2	570	75.60	Kinko's
14	12	3	570	58.40	Office Max
15	12	4	540	478.00	Publishers Marketing
16	13	1	522	16.33	Telephone (line 5)
17	14	1	553	6.00	Freight out
18	15	1	574	856.92	Property Taxes
19	16	1	572	9.95	Monthly access fee
20	17	1	553	10.00	Address correction
21	18	1	553	104.00	Freight
22	19	1	160	116.54	MVS Online Library
23	20	1	553	6.00	Freight out
24	21	1	589	4901.26	Office lease
25	22	1	553	108.25	Freight

## 2.4 Table of Invoices:



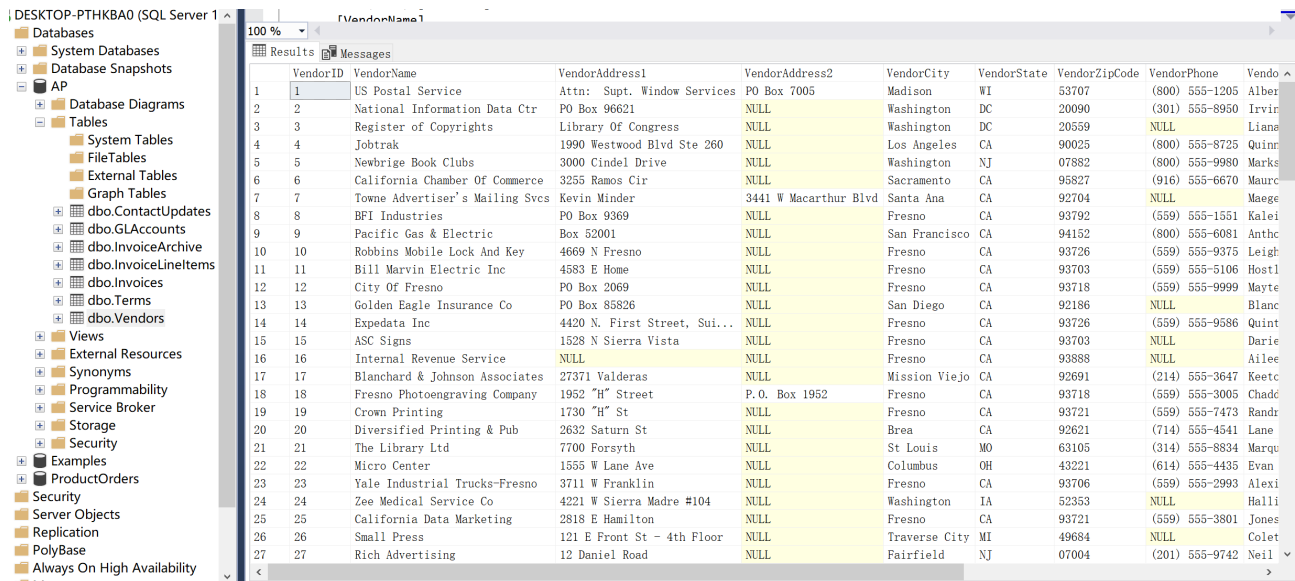
InvoiceID	VendorID	InvoiceNumber	InvoiceDate	InvoiceTotal	PaymentTotal	CreditTotal	TermsID	InvoiceDueDate	PaymentDate
1	122	989319-457	2015-12-08 00:00:00	3813.33	3813.33	0.00	3	2016-01-08 00:00:00	2016-01-07 00:00:00
2	123	263253241	2015-12-10 00:00:00	40.20	40.20	0.00	3	2016-01-10 00:00:00	2016-01-14 00:00:00
3	123	963253234	2015-12-13 00:00:00	138.75	138.75	0.00	3	2016-01-13 00:00:00	2016-01-09 00:00:00
4	123	2-000-2993	2015-12-16 00:00:00	144.70	144.70	0.00	3	2016-01-16 00:00:00	2016-01-12 00:00:00
5	123	963253251	2015-12-16 00:00:00	15.50	15.50	0.00	3	2016-01-16 00:00:00	2016-01-11 00:00:00
6	123	963253261	2015-12-16 00:00:00	42.75	42.75	0.00	3	2016-01-16 00:00:00	2016-01-21 00:00:00
7	123	963253237	2015-12-21 00:00:00	172.50	172.50	0.00	3	2016-01-21 00:00:00	2016-01-22 00:00:00
8	89	125520-1	2015-12-24 00:00:00	95.00	95.00	0.00	1	2016-01-04 00:00:00	2016-01-01 00:00:00
9	121	97/488	2015-12-24 00:00:00	601.95	601.95	0.00	3	2016-01-24 00:00:00	2016-01-21 00:00:00
10	123	263253250	2015-12-24 00:00:00	42.67	42.67	0.00	3	2016-01-24 00:00:00	2016-01-22 00:00:00
11	123	963253262	2015-12-25 00:00:00	42.50	42.50	0.00	3	2016-01-25 00:00:00	2016-01-20 00:00:00
12	96	177271-001	2015-12-26 00:00:00	662.00	662.00	0.00	2	2016-01-16 00:00:00	2016-01-13 00:00:00
13	95	111-928-10096	2015-12-30 00:00:00	16.33	16.33	0.00	2	2016-01-20 00:00:00	2016-01-23 00:00:00
14	115	25022117	2016-01-01 00:00:00	6.00	6.00	0.00	4	2016-02-10 00:00:00	2016-02-10 00:00:00
15	48	P02-8807757	2016-01-03 00:00:00	856.92	856.92	0.00	3	2016-02-02 00:00:00	2016-01-30 00:00:00
16	97	21-4748363	2016-01-03 00:00:00	9.95	9.95	0.00	2	2016-01-23 00:00:00	2016-01-22 00:00:00
17	123	4-321-2596	2016-01-05 00:00:00	10.00	10.00	0.00	3	2016-02-04 00:00:00	2016-02-05 00:00:00
18	123	963253242	2016-01-06 00:00:00	104.00	104.00	0.00	3	2016-02-05 00:00:00	2016-02-05 00:00:00
19	34	QF58872	2016-01-07 00:00:00	116.54	116.54	0.00	1	2016-01-17 00:00:00	2016-01-15 00:00:00
20	115	24863706	2016-01-10 00:00:00	6.00	6.00	0.00	4	2016-02-19 00:00:00	2016-02-15 00:00:00
21	119	10843	2016-01-11 00:00:00	4901.26	4901.26	0.00	2	2016-01-31 00:00:00	2016-01-29 00:00:00
22	123	963253235	2016-01-11 00:00:00	108.25	108.25	0.00	3	2016-02-10 00:00:00	2016-02-09 00:00:00
23	97	21-4923721	2016-01-13 00:00:00	9.95	9.95	0.00	2	2016-02-02 00:00:00	2016-01-28 00:00:00
24	113	77290	2016-01-13 00:00:00	1750.00	1750.00	0.00	5	2016-03-02 00:00:00	2016-03-05 00:00:00
25	123	963253246	2016-01-13 00:00:00	129.00	129.00	0.00	3	2016-02-12 00:00:00	2016-02-09 00:00:00
26	123	4-342-8069	2016-01-14 00:00:00	10.00	10.00	0.00	3	2016-02-13 00:00:00	2016-02-13 00:00:00

## 2.5 Table of Terms:



TermsID	TermsDescription	TermsDueDays
1	Net due 10 days	10
2	Net due 20 days	20
3	Net due 30 days	30
4	Net due 60 days	60
5	Net due 90 days	90

## 2.6 Table of Vendors:



VendorID	VendorName	VendorAddress1	VendorAddress2	VendorCity	VendorState	VendorZipCode	VendorPhone	VendorEmail
1	US Postal Service	Attn: Supt. Window Services	PO Box 7005	Madison	WI	53707	(800) 555-1205	Alber
2	National Information Data Ctr	PO Box 96621	NULL	Washington	DC	20090	(301) 555-8950	Irrvin
3	Register of Copyrights	Library Of Congress	NULL	Washington	DC	20559	NULL	Liana
4	Jobtrak	1990 Westwood Blvd Ste 260	NULL	Los Angeles	CA	90025	(800) 555-8725	Quinn
5	Newbrige Book Clubs	3000 Cindel Drive	NULL	Washington	NJ	07882	(800) 555-9980	Marks
6	California Chamber Of Commerce	3255 Ramos Cir	NULL	Sacramento	CA	95827	(916) 555-6670	Maurc
7	Towne Advertiser's Mailing Svcs	Kevin Minder	3441 W Macarthur Blvd	Santa Ana	CA	92704	NULL	Maeege
8	BFI Industries	PO Box 9369	NULL	Fresno	CA	93792	(559) 555-1551	Kalei
9	Pacific Gas & Electric	Box 52001	NULL	San Francisco	CA	94152	(800) 555-6081	Antho
10	Robbins Mobile Lock And Key	4669 N Fresno	NULL	Fresno	CA	93726	(559) 555-9375	Leigh
11	Bill Marvin Electric Inc	4583 E Home	NULL	Fresno	CA	93703	(559) 555-5106	Hostl
12	City Of Fresno	PO Box 2069	NULL	Fresno	CA	93718	(559) 555-9999	Mayte
13	Golden Eagle Insurance Co	PO Box 85826	NULL	San Diego	CA	92186	NULL	Blanc
14	Expadata Inc	4420 N. First Street, Sui...	NULL	Fresno	CA	93726	(559) 555-9586	Quint
15	ASC Signs	1528 N Sierra Vista	NULL	Fresno	CA	93703	NULL	Darie
16	Internal Revenue Service	NULL	NULL	Fresno	CA	93888	NULL	Ailee
17	Blanchard & Johnson Associates	27371 Valderas	NULL	Mission Viejo	CA	92691	(214) 555-3647	Keetc
18	Fresno Photoengraving Company	1952 "H" Street	P. O. Box 1952	Fresno	CA	93718	(559) 555-3005	Chadd
19	Crown Printing	1730 "H" St	NULL	Fresno	CA	93721	(559) 555-7473	Randr
20	Diversified Printing & Pub	2632 Saturn St	NULL	Brea	CA	92621	(714) 555-4541	Lane
21	The Library Ltd	7700 Forsyth	NULL	St Louis	MO	63105	(314) 555-8834	Marqu
22	Micro Center	1555 W Lane Ave	NULL	Columbus	OH	43221	(614) 555-4435	Evan
23	Yale Industrial Trucks-Fresno	3711 W Franklin	NULL	Fresno	CA	93706	(559) 555-2993	Alexi
24	Zee Medical Service Co	4221 W Sierra Madre #104	NULL	Washington	IA	52353	NULL	Halli
25	California Data Marketing	2818 E Hamilton	NULL	Fresno	CA	93721	(559) 555-3801	Jones
26	Small Press	121 E Front St - 4th Floor	NULL	Traverse City	MI	49684	NULL	Colet
27	Rich Advertising	12 Daniel Road	NULL	Fairfield	NJ	07004	(201) 555-9742	Neil

## 2.7 Columns that are available in Invoices table of AP database:

Column Name
InvoiceID
VendorID
InvoiceNumber
InvoiceDate
InvoiceTotal
PaymentTotal
CreditTotal
TermsID
InvoiceDueDate
PaymentDate

There are 10 columns in this table.

**3. Right-click on the “Invoices” table in AP database and select “Design” command to display the “Invoices” table in a Table Designer tab. Review the properties for each column in this table and what is the Data type of “PaymentDate”? What is the identity column of “Vendors” table?**

As we could see in those two screenshot, here are the column properties and the Data type of “Paymentdate” is smalldatetime. The identity column of “Vendors” table is “VendorID”.

Column Name	Data Type	Allow Nulls
InvoiceID	int	<input type="checkbox"/>
VendorID	int	<input type="checkbox"/>
InvoiceNumber	varchar(50)	<input type="checkbox"/>
InvoiceDate	smalldatetime	<input type="checkbox"/>
InvoiceTotal	money	<input type="checkbox"/>
PaymentTotal	money	<input type="checkbox"/>
CreditTotal	money	<input type="checkbox"/>
TermsID	int	<input type="checkbox"/>
InvoiceDueDate	smalldatetime	<input type="checkbox"/>
PaymentDate	smalldatetime	<input checked="" type="checkbox"/>

Column Properties	
▼ (General)	
(Name)	PaymentDate
Allow Nulls	Yes
Data Type	smalldatetime
Default Value or Binding	
▼ Table Designer	
Collation	<database default>
Computed Column Specification	
Condensed Data Type	smalldatetime
Description	
Deterministic	Yes
DTS-published	No
Full-text Specification	No
Has Non-SQL Server Subscriber	No

Data type of “Paymentdate”.

Column Name	Data Type	Allow Nulls
VendorID	int	<input type="checkbox"/>
VendorName	varchar(50)	<input type="checkbox"/>
VendorAddress1	varchar(50)	<input checked="" type="checkbox"/>
VendorAddress2	varchar(50)	<input checked="" type="checkbox"/>
VendorCity	varchar(50)	<input type="checkbox"/>
VendorState	char(2)	<input type="checkbox"/>
VendorZipCode	varchar(20)	<input type="checkbox"/>
VendorPhone	varchar(50)	<input checked="" type="checkbox"/>
VendorContactLName	varchar(50)	<input checked="" type="checkbox"/>
VendorContactFName	varchar(50)	<input checked="" type="checkbox"/>
DefaultTermsID	int	<input type="checkbox"/>
DefaultAccountNo	int	<input type="checkbox"/>

Column Properties	
Deterministic	Yes
DTS-published	No
Full-text Specification	No
Has Non-SQL Server Subscriber	No
Identity Specification	Yes
Indexable	Yes
Is Columnset	No
Is Sparse	No
Merge-published	No
Not For Replication	No

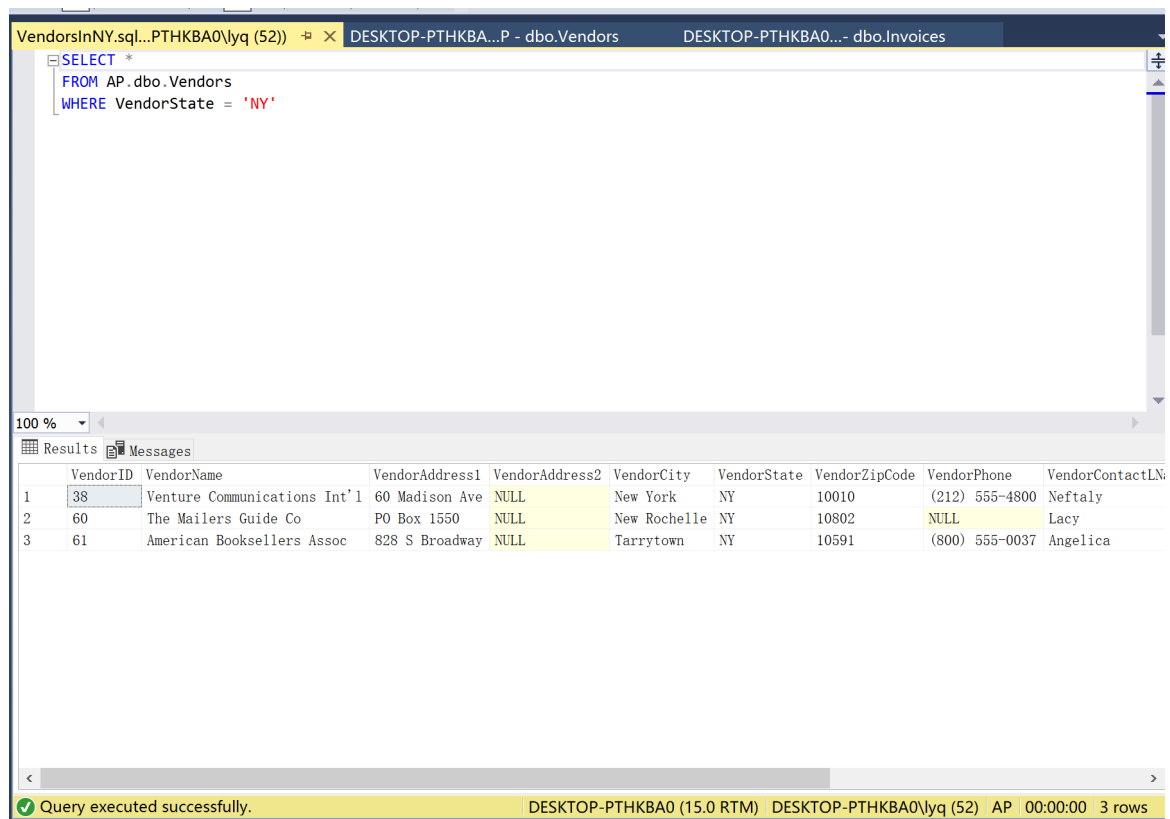
“VendorID” is the identity column

**4. Open a new Query Editor window and then enter this SELECT statement: SELECT \* FROM AP.dbo.Vendors WHERE VendorState = 'NY';**  
**Press F5 to execute the query and display the results. Then, save the query with a name of “VendorsInNY” and close it.**

I have attached the query file in the lab.

**5. Open the query named “VendorsInNY” that you saved previously in Problem 4. Then, click the Execute Query toolbar button to execute it and show the results.**

The result's screenshot is as follow:



The screenshot shows a SQL Server Enterprise Manager window with a query editor at the top and a results grid at the bottom. The query editor contains the following SQL statement:

```
SELECT *
FROM AP.dbo.Vendors
WHERE VendorState = 'NY'
```

The results grid displays the following data:

	VendorID	VendorName	VendorAddress1	VendorAddress2	VendorCity	VendorState	VendorZipCode	VendorPhone	VendorContactLN
1	38	Venture Communications Int'l	60 Madison Ave	NULL	New York	NY	10010	(212) 555-4800	Neftaly
2	60	The Mailers Guide Co	PO Box 1550	NULL	New Rochelle	NY	10802	NULL	Lacy
3	61	American Booksellers Assoc	828 S Broadway	NULL	Tarrytown	NY	10591	(800) 555-0037	Angelica

At the bottom of the window, a status bar indicates: "Query executed successfully. DESKTOP-PTHKBA0 (15.0 RTM) DESKTOP-PTHKBA0\lyq (52) AP 00:00:00 3 rows".