Bölüm 2 Komutlar:

1. Aggregate Komutları
2. GROUP BY Komutu
3. GROUP BY Komutu diğer komut (TOP,ORDER BY..) çeşitleri ile kullanımı
4. Veri türünü değiştirme ve Alies ile tabloda gösterme
5. Tabloya yeni sütun ekleme ve Veri türünü değiştirme
6. Excel Tablosu içerisinde pivot table oluşturmak (GROUP BY kullanmaya gerek kalmaması için)
7. Örnek 2
8. Örnek 3
9. Örnek 4
10. Örnek 5
11. Örnek 6
12. Örnek 7
13. Örnek 8

Sales Tablosu:

Results | Messages

	DATE_	ITEMCODE	ITEMNAME	BRAND	CATEGORY1	CATEGORY2	CATEGORY3	CATEGORY4	AMOUNT	PRICE	TOTALPRICE	CUSTOMERCODE	CUSTOMER
1	)1 2019-08-02 10:55:50.000	8658	GEZER 9768.00 AIR BLOW ZENNE"12"	GEZER	EV	TEKSTIL-GIYIM-AKSESUAR	AYAKKABI-TERLIK	AYAK GIYIM	1	17,99	17,99	2456844	Enver ÇOKY
2	)1 2019-07-26 10:55:50.000	25500	FRITOLOY LAYS BAH.PARTI 150 GR "12"	FRITOLAY	GIDA	BISKUVI-CEREZ	CIPS	CIPSLER	4	6	24	2456844	Enver ÇOKY
3	)1 2019-01-06 10:55:50.000	2869	FABER KURSUN KALEM 4LU"18	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	9	5,5	49,5	2456844	Enver ÇOKY
4	)2 2019-12-30 08:18:28.000	14756	MILUPA APTAMIL 900 GR 2	MILUPA	BEBEK	HAZIR YEMEK-MAMA	HAZIR COCUK YEMEKLERI	HAZIR MAMALAR	3	125,95	377,85	1705209	Esma nur AÇ
5	)2 2019-10-07 08:18:28.000	27283	CEM PROMO 24 CM SERAMIK K.YARIK TAVA	CEM	EV	MUTFAK GERECLERI	MUTFAK ESYA-GERECLERI	TAVA	7	39,36	275,52	1705209	Esma nur AÇ
6	)2 2019-04-22 08:18:28.000	20159	CTONA METAL KALEM TRAS	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	7	1,2	8,4	1705209	Esma nur AÇ
7	)2 2019-07-21 08:18:28.000	11323	SERVE BOLD 0,7 VERSATIL KALEM	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	5	1,2	6	1705209	Esma nur AÇ
8	)3 2019-01-14 13:13:49.000	20571	TUTKU BAYAN THERMAL ALT XL SIYAH	TUTKU	EV	TEKSTIL-GIYIM-AKSESUAR	CAMASIRLAR	BAYAN CAMASIR	9	21,95	197,55	163298	Esmanur BÜ
9	)3 2019-09-16 13:13:49.000	24905	ATASOZLERI DEYIMLER	KITAPLAR	EV	KITAP-DERGI-KIRTASIYE	KITAP	KITAPLAR	6	4,75	28,5	163298	Esmanur BÜ
10	)3 2019-08-29 13:13:49.000	24566	YAYLA BULGUR GURME 360 GR KINOALI "8"	YAYLA	GIDA	BAKLIYAT-MAKARNA	BAKLIYAT	DIGER BAKLIYATLAR	3	5,2	15,6	163298	Esmanur BÜ
11	)3 2019-09-21 13:13:49.000	1965	BIBER SIVRI- 2	BIBER	SEBZE	MALATYA MANAV	MANAV	SEBZELER	5	4,75	23,75	163298	Esmanur BÜ
12	)3 2019-08-22 13:13:49.000	12706	OHTO PRIVE KALEM	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	10	3,5	35	163298	Esmanur BÜ
13	)3 2019-11-13 13:13:49.000	19745	CARPEX ZINCIR YAGLAYICI 200 ML.	CARPEX	EV	KISISEL ILGI-EGLENCE	OTO BAKIM-AKSESUARLARI	OTO MALZEMELERI	9	7,128	64,152	163298	Esmanur BÜ
14	)3 2019-02-19 13:13:49.000	22454	TAMEK RECEL 380 GR AYVA "12"	TAMEK	KAHVALTILIK	BAL-RECEL	RECEL	AYVA	5	3,144	15,72	163298	Esmanur BÜ

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:01 | 115.024 rows

Aggregate Komutları:

Aggregate fonksiyonları tek başına kullanıldığına bir sütunun tüm satırlar okuduktan sonra tek satır halinde çıktı vermesi ile çalışır:

SUM(Column1)
AVG(Column1)
MAX(Column1)
MIN(Column1)
COUNT(*)

- **Örnekler:**

Mesela tek bir toplam, ortalama, min, max sonucu

```
SELECT
SUM(TOTALPRICE),
COUNT(*),
AVG(TOTALPRICE),

MAX(TOTALPRICE),
MIN(TOTALPRICE)
```

```
FROM SALES
```

100 %

Results | Messages

	(No column name)	(No column name)	(No column name)	(No column name)	(No column name)
1	8092816,07012243	115024	70,3576303216932	9990	0,16

```
SELECT
SUM(TOTALPRICE),
COUNT(*),
AVG(TOTALPRICE),

MAX(TOTALPRICE),
MIN(TOTALPRICE)

FROM SALES

WHERE CITY='Gümüşhane'
--
SELECT
SUM(TOTALPRICE),
COUNT(*),
AVG(TOTALPRICE),

MAX(TOTALPRICE),
MIN(TOTALPRICE)

FROM SALES

WHERE CITY='Trabzon'
```

100 %

Results | Messages

	(No column name)	(No column name)	(No column name)	(No column name)	(No column name)
1	66989,252189564	977	68,566276550219	2240,1	0,456

	(No column name)	(No column name)	(No column name)	(No column name)	(No column name)
1	60802,322189564	868	70,0487582829078	2240,1	0,456

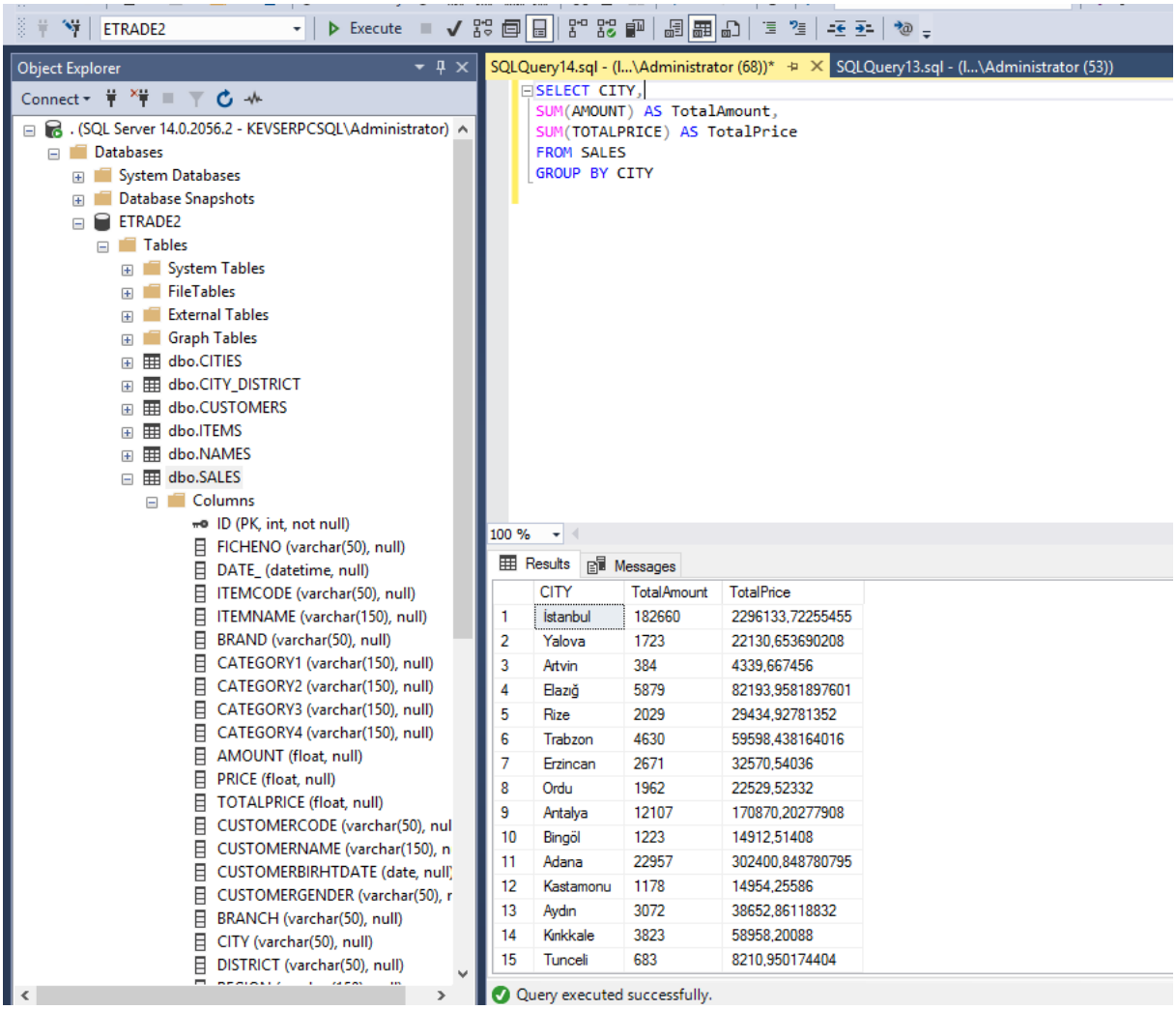
Group By komutları:

Grouped By komutları, bir sütuna göre gruplandırma yapıldıktan sonra o gruplandırmaya göre Aggregate yapmanızı sağlar.

- **Örnekler:**

Mesela Ay sütunundaki verilere göre toplam, ortalama, min max sonucu

```
SELECT CITY,
SUM(AMOUNT) AS TotalAmount,
SUM(TOTALPRICE) AS TotalPrice
FROM SALES
GROUP BY CITY
```



```sql
SELECT CITY,
SUM(AMOUNT) AS TotalAmount,
SUM(TOTALPRICE) AS TotalPrice
FROM SALES
GROUP BY CITY
ORDER BY TotalPrice DESC
```

100 %

Results | Messages

	CITY	TotalAmount	TotalPrice
1	İstanbul	182660	2296133,72255455
2	Ankara	66193	835993,485745193
3	İzmir	46202	581251,928174803
4	Bursa	25096	316313,689674403
5	Adana	22957	302400,848780795
6	Gaziantep	18915	263505,025985796
7	Konya	15893	194161,152828068
8	Antalya	12107	170870,20277908
9	Kayseri	11333	153899,52013066
10	Mersin	11339	142572,732462016
11	Diyarbakır	11080	137759,585574692
12	Eskişehir	10292	134230,250739404
13	Şanlıurfa	8767	105817,645017052
14	Samsun	7334	104266,22201128
15	Malatya	7765	101697,926355912

Query executed successfully.

```sql
SELECT TOP 7 CITY,
SUM(AMOUNT) AS TotalAmount,
SUM(TOTALPRICE) AS TotalPrice
FROM SALES
GROUP BY CITY
ORDER BY TotalPrice DESC
```

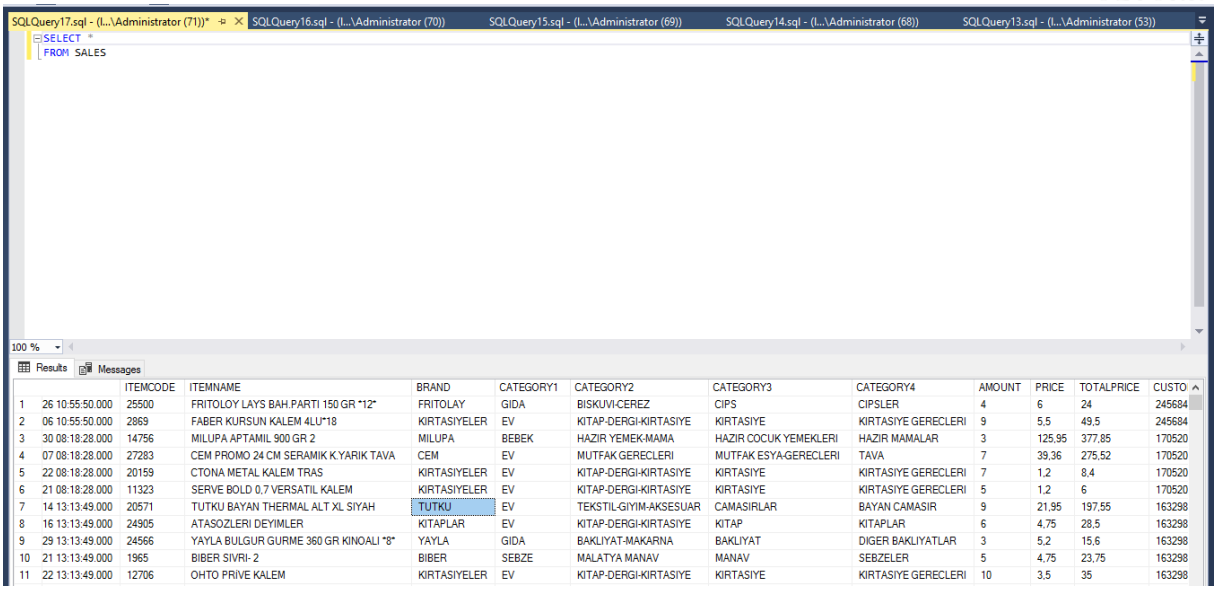
100 %

Results | Messages

	CITY	TotalAmount	TotalPrice
1	İstanbul	182660	2296133,72255455
2	Ankara	66193	835993,485745193
3	İzmir	46202	581251,928174803
4	Bursa	25096	316313,689674403
5	Adana	22957	302400,848780795
6	Gaziantep	18915	263505,025985796
7	Konya	15893	194161,152828068

- 81 ilden bir mağazanın gün bazlı amount ve total price değerlerini bastıralım:

Mesela Tutku markasının günlük cirosunu gösterelim:



SQLQuery17.sql - (l...\Administrator (71))* | SQLQuery16.sql - (l...\Administrator (70)) | SQLQuery15.sql - (l...\Administrator (69)) | SQLQuery14.sql - (l...\Administrator (68)) | SQLQuery13.sql - (l...\Administrator (53))

```
SELECT *
FROM SALES
```

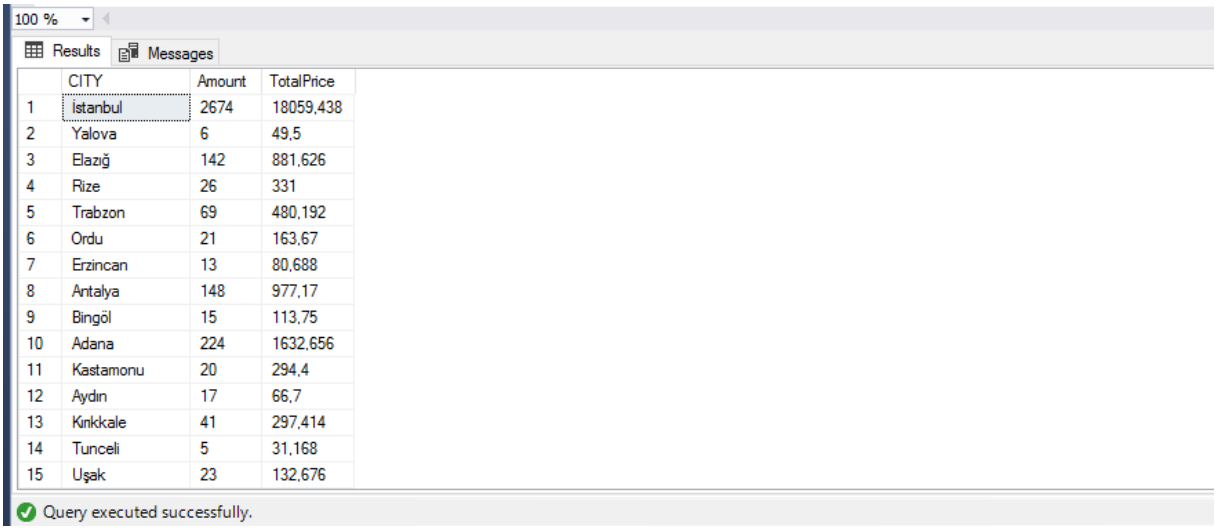
100 %

Results | Messages

		ITEMCODE	ITEMNAME	BRAND	CATEGORY1	CATEGORY2	CATEGORY3	CATEGORY4	AMOUNT	PRICE	TOTALPRICE	CUSTO
1	26 10:55:50.000	25500	FRITOLOY LAYS BAH.PARTI 150 GR *12*	FRITOLAY	GIDA	BISKUVI-CEREZ	CIPS	CIPSLER	4	6	24	245684
2	06 10:55:50.000	2869	FABER KURSUN KALEM 4LU*18	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	9	5,5	49,5	245684
3	30 08:18:28.000	14756	MILUPA APTAMIL 900 GR 2	MILUPA	BEBEK	HAZIR YEMEK-MAMA	HAZIR COCUK YEMEKLERI	HAZIR MAMALAR	3	125,95	377,85	170520
4	07 08:18:28.000	27283	CEM PROMO 24 CM SERAMIK K.YARIK TAVA	CEM	EV	MUTFAK GERECLERI	MUTFAK ESYA-GERECLERI	TAVA	7	39,36	275,52	170520
5	22 08:18:28.000	20159	CTONA METAL KALEM TRAS	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	7	1,2	8,4	170520
6	21 08:18:28.000	11323	SERVE BOLD 0,7 VERSATIL KALEM	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	5	1,2	6	170520
7	14 13:13:49.000	20571	TUTKU BAYAN THERMAL ALT XL SIYAH	TUTKU	EV	TEKSTIL-GIYIM-AKSESUAR	CAMASIRLAR	BAYAN CAMASIR	9	21,95	197,55	163298
8	16 13:13:49.000	24905	ATASOZLERI DEYIMLER	KITAPLAR	EV	KITAP-DERGI-KIRTASIYE	KITAP	KITAPLAR	6	4,75	28,5	163298
9	29 13:13:49.000	24566	YAYLA BULGUR GURME 360 GR KINOALI *8*	YAYLA	GIDA	BAKLIYAT-MAKARNA	BAKLIYAT	DIGER BAKLIYATLAR	3	5,2	15,6	163298
10	21 13:13:49.000	1965	BIBER SIVRI- 2	BIBER	SEBZE	MALATYA MANAV	MANAV	SEBZELER	5	4,75	23,75	163298
11	22 13:13:49.000	12706	OHTO PRİVE KALEM	KIRTASIYELER	EV	KITAP-DERGI-KIRTASIYE	KIRTASIYE	KIRTASIYE GERECLERI	10	3,5	35	163298

➢ Hatta Tutku markasının illere göre cirosunu gösterebiliriz:

```
SELECT CITY,

SUM(AMOUNT) AS Amount,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE BRAND='TUTKU'
GROUP BY CITY
```



100 %

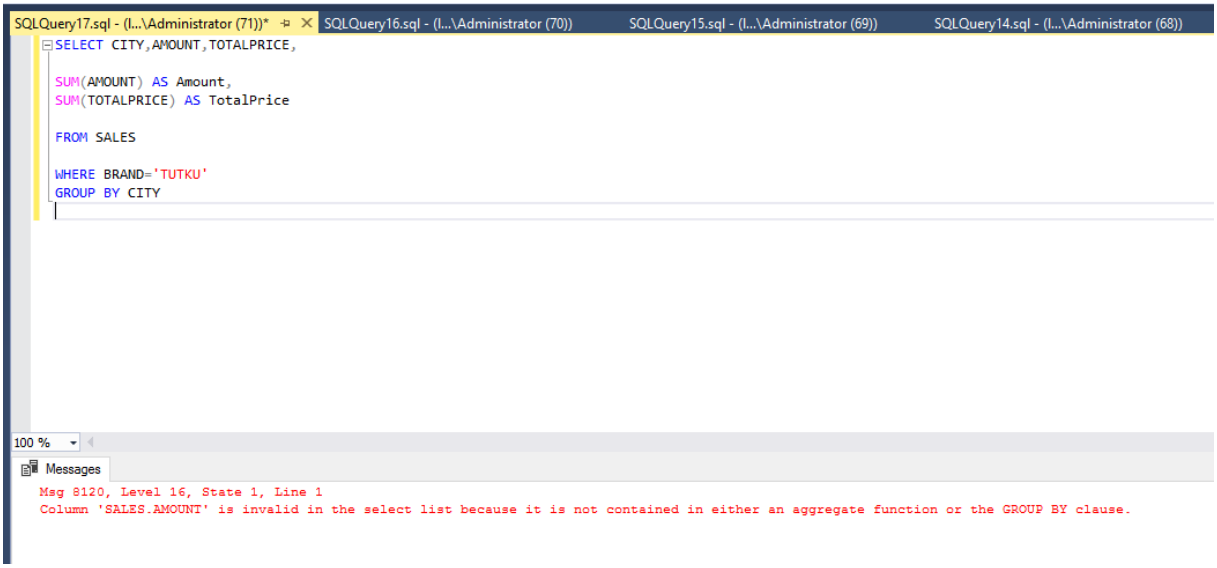
Results | Messages

	CITY	Amount	TotalPrice
1	İstanbul	2674	18059,438
2	Yalova	6	49,5
3	Elazığ	142	881,626
4	Rize	26	331
5	Trabzon	69	480,192
6	Ordu	21	163,67
7	Erzincan	13	80,688
8	Antalya	148	977,17
9	Bingöl	15	113,75
10	Adana	224	1632,656
11	Kastamonu	20	294,4
12	Aydın	17	66,7
13	Kırıkkale	41	297,414
14	Tunceli	5	31,168
15	Uşak	23	132,676

Query executed successfully.

HATA ! Msg 8120, Level 16, State 1, Line 1

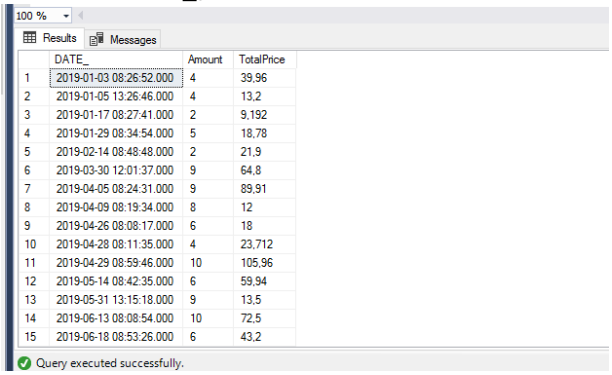
Column 'SALES.AMOUNT' is invalid in the select list because it is not contained in either an aggregate function or the GROUP BY clause.



Bu hata, SELECT ifadesindeki sütunların GROUP BY ifadesi ile uyumlu olmadığından kaynaklanmaktadır. GROUP BY kullanıldığında, SELECT ifadesindeki tüm sütunların ya GROUP BY içinde yer alması ya da bir toplama (aggregate) fonksiyonu içinde kullanılması gerekir.

Sizin durumunuzda, CITY dışındaki sütunlar (AMOUNT ve TOTALPRICE) GROUP BY içinde değil ve aynı zamanda toplama fonksiyonu içinde yer almıyorlar. Bu yüzden bu sütunları ya GROUP BY içine almalısınız ya da toplama fonksiyonu içinde kullanmalısınız. Ancak, bu sütunların GROUP BY içinde olmaması, verilerin toplama fonksiyonu ile toplanarak gösterilmesini gerektirir.

```
SELECT DATE_,

SUM(AMOUNT) AS Amount,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE BRAND='TUTKU'
GROUP BY DATE_, CITY
```



100 %

Results | Messages

	DATE_	Amount	TotalPrice
1	2019-01-03 08:26:52.000	4	39,96
2	2019-01-05 13:26:46.000	4	13,2
3	2019-01-17 08:27:41.000	2	9,192
4	2019-01-29 08:34:54.000	5	18,78
5	2019-02-14 08:48:48.000	2	21,9
6	2019-03-30 12:01:37.000	9	64,8
7	2019-04-05 08:24:31.000	9	89,91
8	2019-04-09 08:19:34.000	8	12
9	2019-04-26 08:08:17.000	6	18
10	2019-04-28 08:11:35.000	4	23,712
11	2019-04-29 08:59:46.000	10	105,96
12	2019-05-14 08:42:35.000	6	59,94
13	2019-05-31 13:15:18.000	9	13,5
14	2019-06-13 08:08:54.000	10	72,5
15	2019-06-18 08:53:26.000	6	43,2

Query executed successfully.

```sql
SELECT DATE_,

CONVERT(DATE,DATE_) AS DATEjustDAY,

SUM(AMOUNT) AS Amount,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE BRAND='TUTKU'
GROUP BY DATE_
```

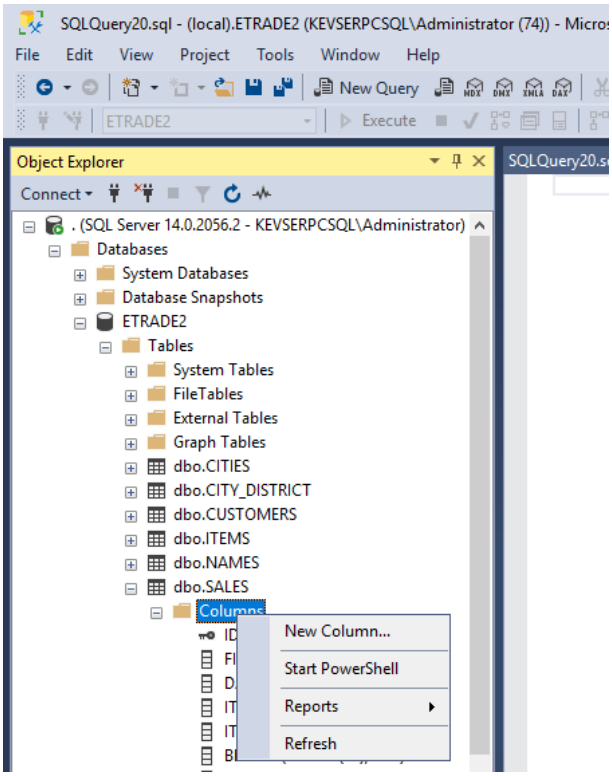
100 %

Results | Messages

	DATE_	DATEjustDAY	Amount	TotalPrice
1	2019-01-01 08:20:48.000	2019-01-01	3	6,192
2	2019-01-01 10:16:58.000	2019-01-01	10	99,9
3	2019-01-02 08:10:20.000	2019-01-02	7	69,93
4	2019-01-02 08:20:03.000	2019-01-02	4	15,168
5	2019-01-02 08:33:52.000	2019-01-02	8	19,584
6	2019-01-02 16:52:27.000	2019-01-02	9	62,1
7	2019-01-03 08:26:52.000	2019-01-03	4	39,96
8	2019-01-03 08:35:27.000	2019-01-03	9	49,788
9	2019-01-03 08:36:58.000	2019-01-03	3	32,7
10	2019-01-03 08:56:31.000	2019-01-03	10	37,5
11	2019-01-03 10:34:56.000	2019-01-03	7	48,3
12	2019-01-03 13:05:30.000	2019-01-03	4	39,96
13	2019-01-04 08:31:14.000	2019-01-04	8	41,76
14	2019-01-04 10:13:09.000	2019-01-04	4	30
15	2019-01-04 10:50:10.000	2019-01-04	6	9

Query executed successfully.

Tabloya yeni sütun ekleme ve Veri türünü değiştirme:



KEVSERPCSQL.ETRADE2 - dbo.SALES* | SQLQuery20.sql - (l...\Admini

Column Name	Data Type	Allow Nulls
ITEMCODE	varchar(50)	☑
ITEMNAME	varchar(150)	☑
BRAND	varchar(50)	☑
CATEGORY1	varchar(150)	☑
CATEGORY2	varchar(150)	☑
CATEGORY3	varchar(150)	☑
CATEGORY4	varchar(150)	☑
AMOUNT	float	☑
PRICE	float	☑
TOTALPRICE	float	☑
CUSTOMERCODE	varchar(50)	☑
CUSTOMERNAME	varchar(150)	☑
CUSTOMERBIRHTDATE	date	☑
CUSTOMERGENDER	varchar(50)	☑
BRANCH	varchar(50)	☑
CITY	varchar(50)	☑
DISTRICT	varchar(50)	☑
REGION	varchar(150)	☑
DATEday	nchar(10)	☑

```sql
SELECT DATE_, DATEday
FROM SALES
```

100 %

Results | Messages

	DATE_	DATEday
1	2019-07-26 10:55:50.000	NULL
2	2019-01-06 10:55:50.000	NULL
3	2019-12-30 08:18:28.000	NULL
4	2019-10-07 08:18:28.000	NULL
5	2019-04-22 08:18:28.000	NULL
6	2019-07-21 08:18:28.000	NULL
7	2019-01-14 13:13:49.000	NULL
8	2019-09-16 13:13:49.000	NULL
9	2019-08-29 13:13:49.000	NULL
10	2019-09-21 13:13:49.000	NULL
11	2019-08-22 13:13:49.000	NULL
12	2019-11-13 13:13:49.000	NULL
13	2019-02-19 13:13:49.000	NULL
14	2019-10-15 19:03:29.000	NULL
15	2019-05-18 19:03:29.000	NULL

Query executed successfully.

```sql
UPDATE SALES
SET DATEday= CONVERT(DATE,DATE_)
```

100 %

Messages

```
(103439 rows affected)
```

```sql
SELECT DATE_, DATEday
FROM SALES
```

100 %

Results | Messages

	DATE_	DATEday
1	2019-07-26 10:55:50.000	2019-07-26
2	2019-01-06 10:55:50.000	2019-01-06
3	2019-12-30 08:18:28.000	2019-12-30
4	2019-10-07 08:18:28.000	2019-10-07
5	2019-04-22 08:18:28.000	2019-04-22
6	2019-07-21 08:18:28.000	2019-07-21
7	2019-01-14 13:13:49.000	2019-01-14
8	2019-09-16 13:13:49.000	2019-09-16
9	2019-08-29 13:13:49.000	2019-08-29
10	2019-09-21 13:13:49.000	2019-09-21
11	2019-08-22 13:13:49.000	2019-08-22
12	2019-11-13 13:13:49.000	2019-11-13
13	2019-02-19 13:13:49.000	2019-02-19
14	2019-10-15 19:03:29.000	2019-10-15
15	2019-05-18 19:03:29.000	2019-05-18

Query executed successfully.

```sql
SELECT DATEday,

SUM(TOTALPRICE),
SUM(AMOUNT)

FROM SALES

WHERE CITY='Gümüşhane'
GROUP BY DATEday
```

100 %

Results | Messages

	DATEday	(No column name)	(No column name)
1	2019-01-03	37,584	6
2	2019-01-13	34,65	9
3	2019-01-14	164,5	5
4	2019-01-17	87,6	8
5	2019-01-19	9,6	5
6	2019-01-29	145,584	9
7	2019-01-30	64,75	7
8	2019-02-04	269,9	10
9	2019-02-05	9,84	2
10	2019-02-10	146,88	8
11	2019-02-19	26,028	9
12	2019-02-26	64	8
13	2019-02-28	8,25	3
14	2019-03-01	44	2
15	2019-03-02	88,976	18

Query executed successfully. (lo

```sql
SELECT DATEday,CITY,

SUM(AMOUNT) AS Amount,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE BRAND='TUTKU'
GROUP BY DATEday, CITY
```

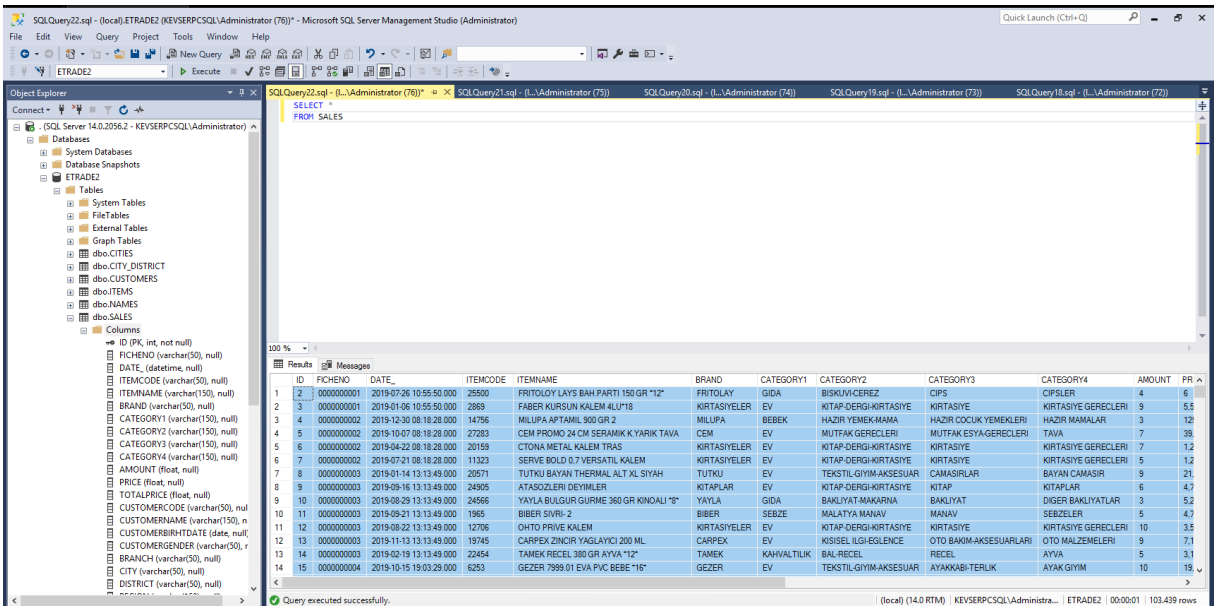
100 %

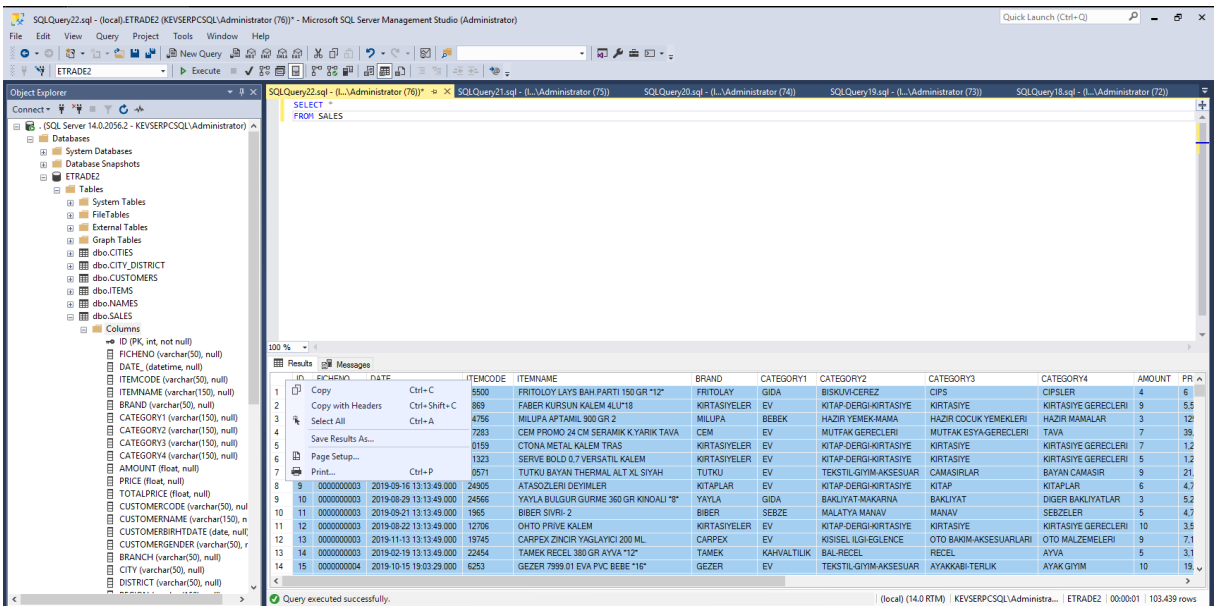
Results | Messages

	DATEday	CITY	Amount	TotalPrice
1	2019-01-03	Adana	4	39,96
2	2019-01-05	Adana	4	13,2
3	2019-01-17	Adana	2	9,192
4	2019-01-29	Adana	5	18,78
5	2019-02-14	Adana	2	21,9
6	2019-03-30	Adana	9	64,8
7	2019-04-05	Adana	9	89,91
8	2019-04-09	Adana	8	12
9	2019-04-26	Adana	6	18
10	2019-04-28	Adana	4	23,712
11	2019-04-29	Adana	10	105,96
12	2019-05-14	Adana	6	59,94
13	2019-05-31	Adana	9	13,5
14	2019-06-13	Adana	10	72,5
15	2019-06-18	Adana	6	43,2

Query executed successfully. (local) (14.0 RTM)

Excel Tablosu içerisinde pivot table oluşturmak:





SQLQuery22.sql - (l...\Administrator (76))* | SQLQuery21.sql - (l...\Administrator (75)) | SQLQuery20.sql - (l...\Administrator (7

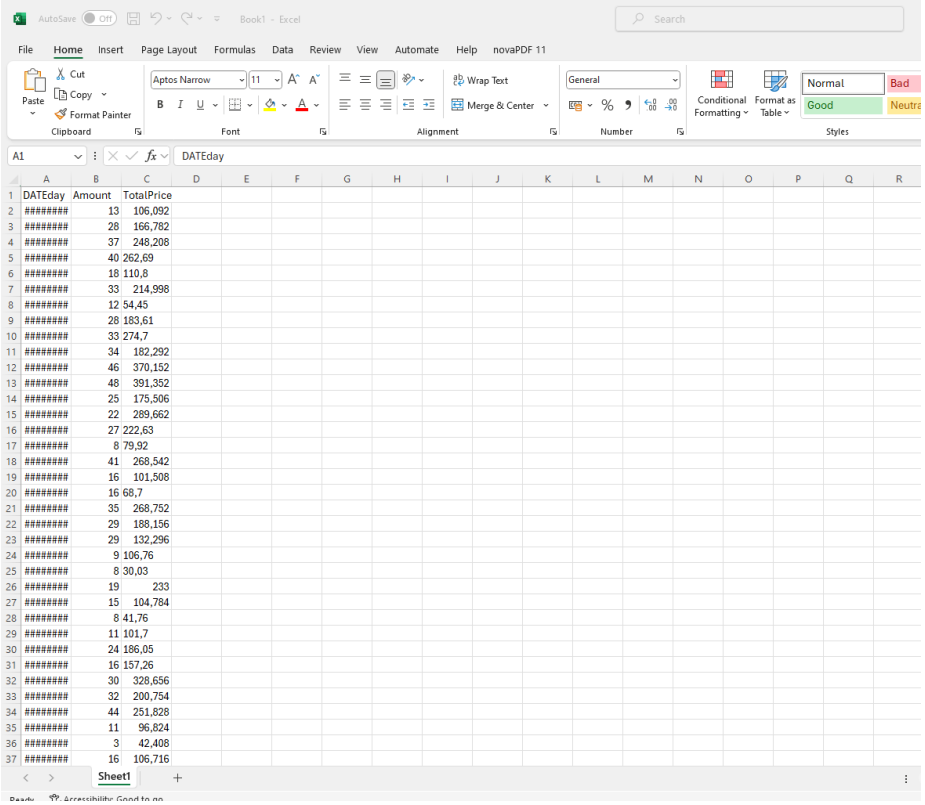
```sql
SELECT DATEday,

SUM(AMOUNT) AS Amount,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE BRAND='TUTKU'
GROUP BY DATEday
```

100 %

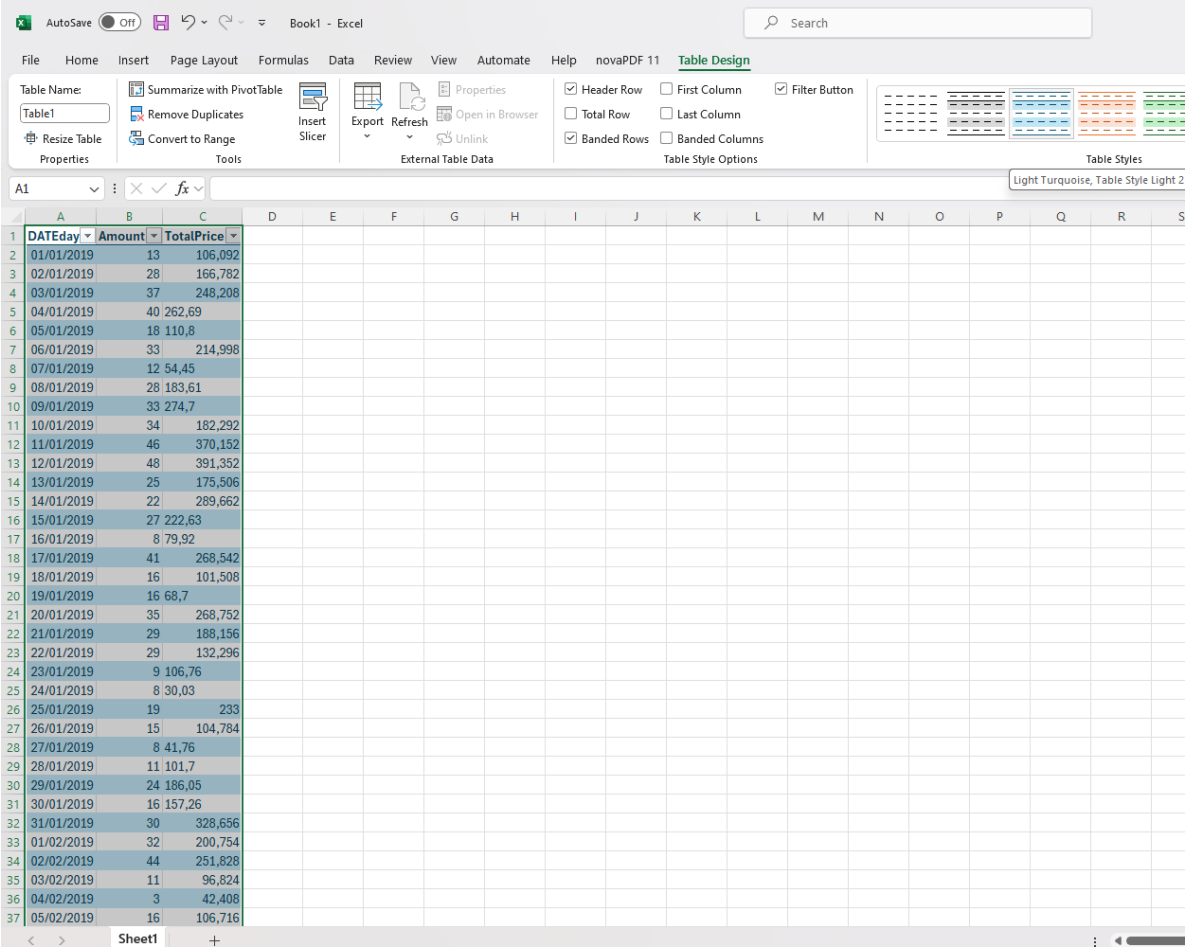
Results | Messages

	DATEday	Amount	TotalPrice
1	2019-01-01	13	106,092
2	2019-01-02	28	166,782
3	2019-01-03	37	248,208
4	2019-01-04	40	262,69
5	2019-01-05	18	110,8
6	2019-01-06	33	214,998
7	2019-01-07	12	54,45
8	2019-01-08	28	183,61
9	2019-01-09	33	274,7
10	2019-01-10	34	182,292
11	2019-01-11	46	370,152
12	2019-01-12	48	391,352
13	2019-01-13	25	175,506
14	2019-01-14	22	289,662
15	2019-01-15	27	222,63

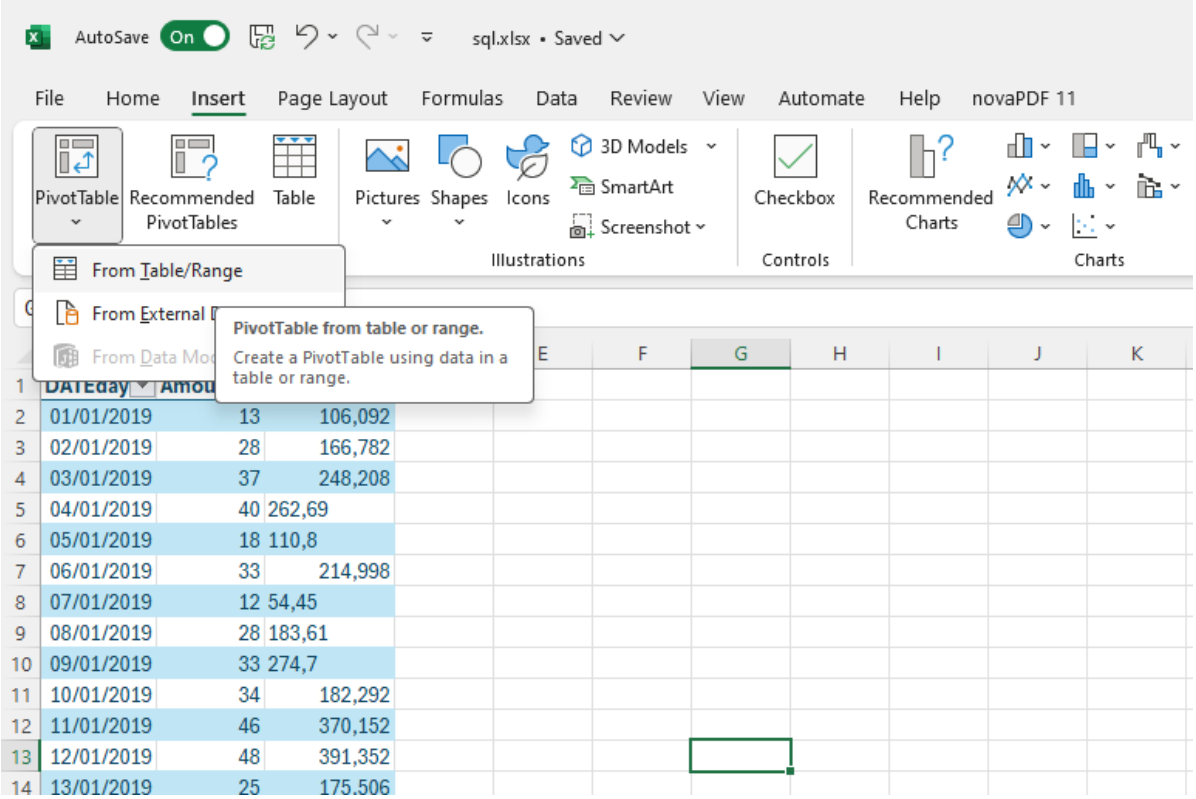
Query executed successfully.



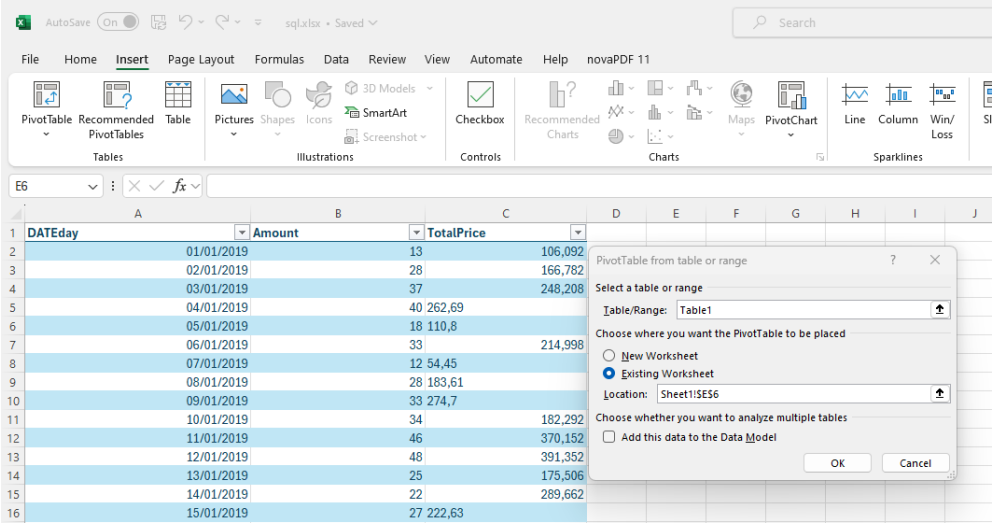
	A	B	C
1	DATEday	Amount	TotalPrice
2	########	13	106,092
3	########	28	166,782
4	########	37	248,208
5	########	40	262,69
6	########	18	110,8
7	########	33	214,998
8	########	12	54,45
9	########	28	183,61
10	########	33	274,7
11	########	34	182,292
12	########	46	370,152
13	########	48	391,352
14	########	25	175,506
15	########	22	289,662
16	########	27	222,63
17	########	8	79,92
18	########	41	268,542
19	########	16	101,508
20	########	16	68,7
21	########	35	268,752
22	########	29	188,156
23	########	29	132,296
24	########	9	106,76
25	########	8	30,03
26	########	19	233
27	########	15	104,784
28	########	8	41,76
29	########	11	101,7
30	########	24	186,05
31	########	16	157,26
32	########	30	328,656
33	########	32	200,754
34	########	44	251,828
35	########	11	96,824
36	########	3	42,408
37	########	16	106,716



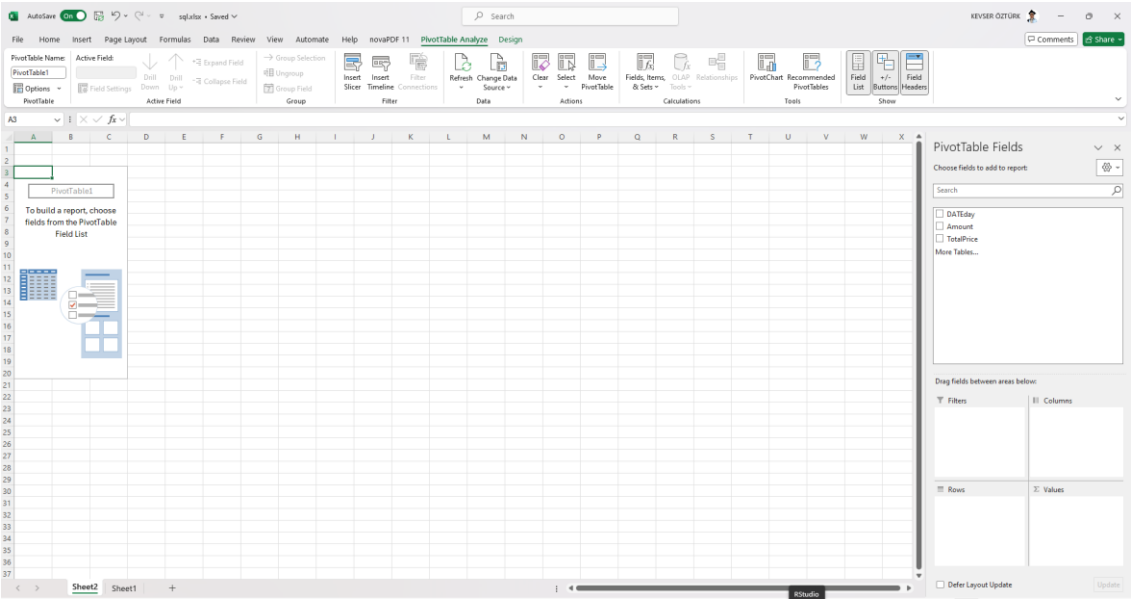
DATEday	Amount	TotalPrice
01/01/2019	13	106,092
02/01/2019	28	166,782
03/01/2019	37	248,208
04/01/2019	40	262,69
05/01/2019	18	110,8
06/01/2019	33	214,998
07/01/2019	12	54,45
08/01/2019	28	183,61
09/01/2019	33	274,7
10/01/2019	34	182,292
11/01/2019	46	370,152
12/01/2019	48	391,352
13/01/2019	25	175,506
14/01/2019	22	289,662
15/01/2019	27	222,63
16/01/2019	8	79,92
17/01/2019	41	268,542
18/01/2019	16	101,508
19/01/2019	16	68,7
20/01/2019	35	268,752
21/01/2019	29	188,156
22/01/2019	29	132,296
23/01/2019	9	106,76
24/01/2019	8	30,03
25/01/2019	19	233
26/01/2019	15	104,784
27/01/2019	8	41,76
28/01/2019	11	101,7
29/01/2019	24	186,05
30/01/2019	16	157,26
31/01/2019	30	328,656
01/02/2019	32	200,754
02/02/2019	44	251,828
03/02/2019	11	96,824
04/02/2019	3	42,408
05/02/2019	16	106,716

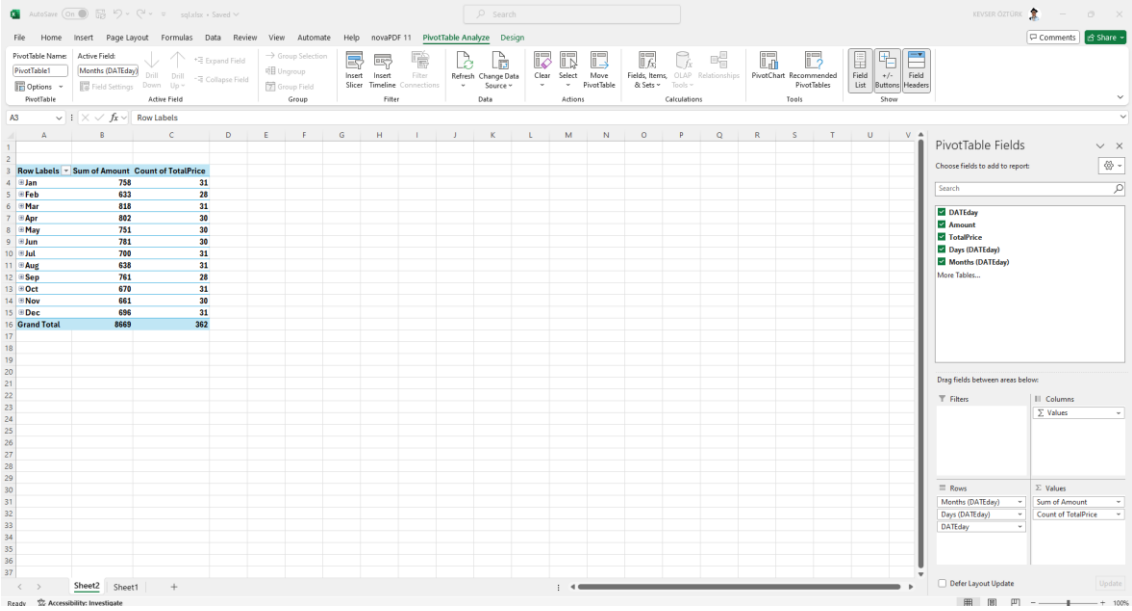


DATEday	Amou	
01/01/2019	13	106,092
02/01/2019	28	166,782
03/01/2019	37	248,208
04/01/2019	40	262,69
05/01/2019	18	110,8
06/01/2019	33	214,998
07/01/2019	12	54,45
08/01/2019	28	183,61
09/01/2019	33	274,7
10/01/2019	34	182,292
11/01/2019	46	370,152
12/01/2019	48	391,352
13/01/2019	25	175,506

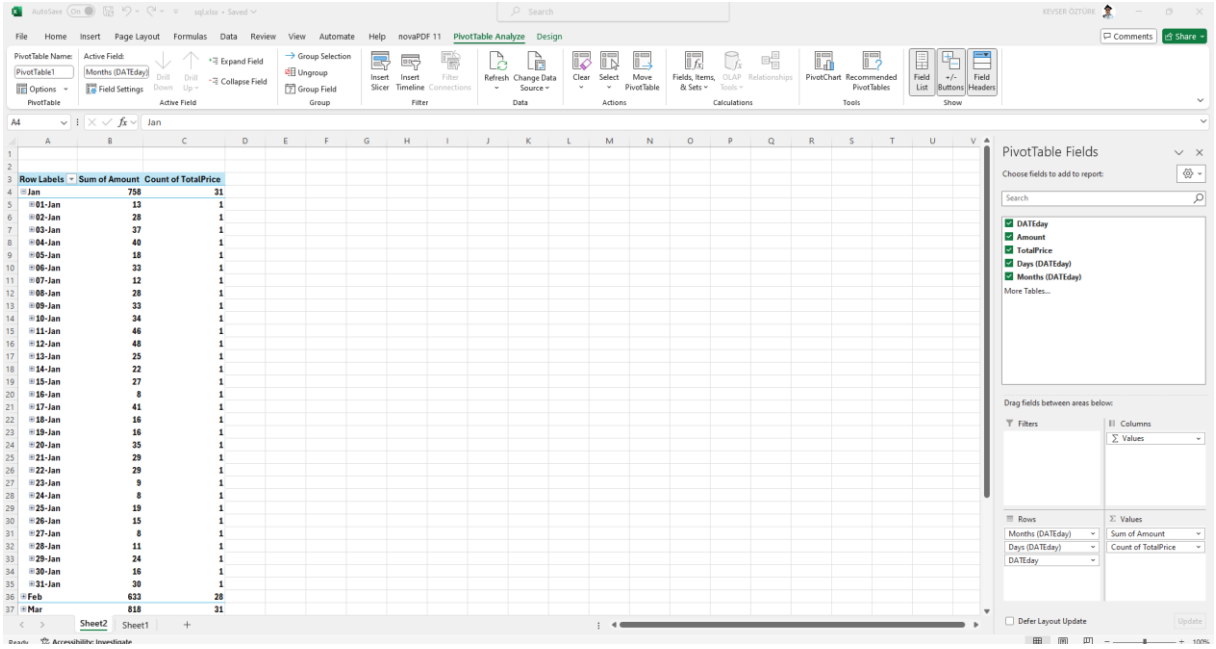


DATEday	Amount	TotalPrice
01/01/2019	13	106,092
02/01/2019	28	166,782
03/01/2019	37	248,208
04/01/2019	40	262,69
05/01/2019	18	110,8
06/01/2019	33	214,998
07/01/2019	12	54,45
08/01/2019	28	183,61
09/01/2019	33	274,7
10/01/2019	34	182,292
11/01/2019	46	370,152
12/01/2019	48	391,352
13/01/2019	25	175,506
14/01/2019	22	289,662
15/01/2019	27	222,63





Row Labels	Sum of Amount	Count of TotalPrice
Jan	758	31
Feb	633	28
Mar	818	31
Apr	802	30
May	751	30
Jun	781	30
Jul	700	31
Aug	638	31
Sep	761	28
Oct	670	31
Nov	661	30
Dec	696	31
Grand Total	8669	362



Row Labels	Sum of Amount	Count of TotalPrice
Jan	758	31
01-Jan	13	1
02-Jan	28	1
03-Jan	37	1
04-Jan	40	1
05-Jan	18	1
06-Jan	33	1
07-Jan	12	1
08-Jan	28	1
09-Jan	33	1
10-Jan	34	1
11-Jan	46	1
12-Jan	48	1
13-Jan	25	1
14-Jan	22	1
15-Jan	27	1
16-Jan	8	1
17-Jan	41	1
18-Jan	16	1
19-Jan	16	1
20-Jan	35	1
21-Jan	29	1
22-Jan	29	1
23-Jan	9	1
24-Jan	8	1
25-Jan	19	1
26-Jan	15	1
27-Jan	8	1
28-Jan	11	1
29-Jan	24	1
30-Jan	16	1
31-Jan	30	1
Feb	633	28
Mar	818	31

ÖRNEK 2:

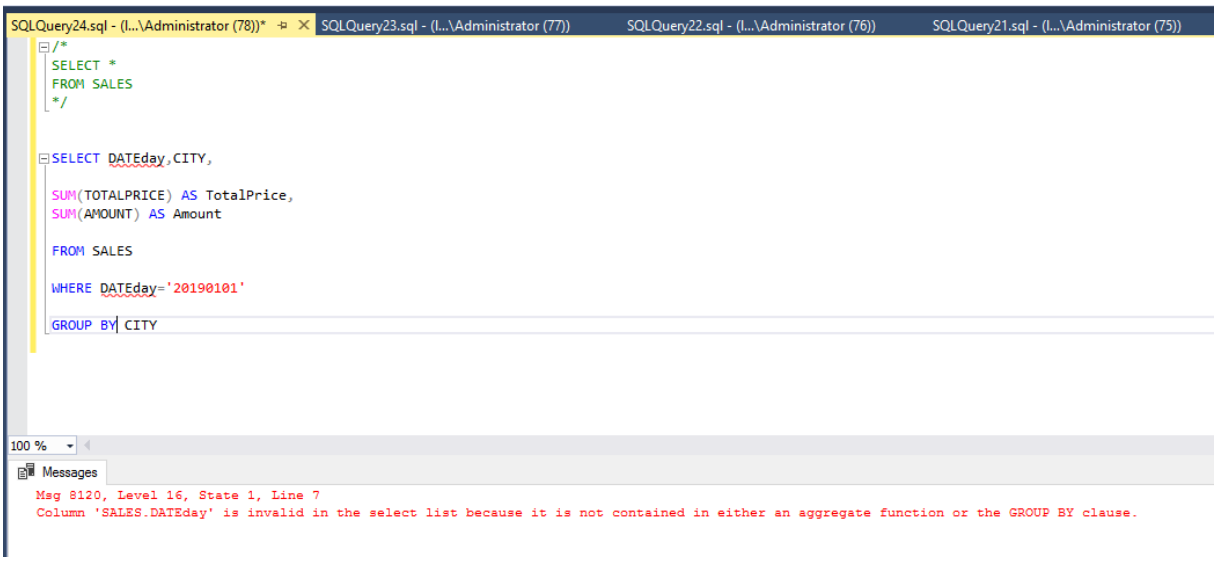
Bir günün mağaza bazlı satış fiyatlarını görmek:

```
/*
SELECT *
FROM SALES
*/

SELECT DATEday,CITY,

SUM(TOTALPRICE),
SUM(AMOUNT)

FROM SALES

GROUP BY DATEday, CITY
```

	DATEday	CITY	(No column name)	(No column name)
1	2019-09-07	Mersin	913,892	44
2	2019-08-22	Şanlıurfa	196,516	28
3	2019-12-08	Osmaniye	17,25	5
4	2019-06-03	Malatya	16,2	3
5	2019-09-29	Adıyaman	146,19	19
6	2019-10-24	Bilecik	3,6	3
7	2019-05-26	Hatay	95,07	15
8	2019-05-21	Bursa	968,02	45
9	2019-01-26	Muş	27,6	4
10	2019-03-25	Kütahya	89,7	3
11	2019-02-17	Aksaray	198,28	24
12	2019-09-10	Elazığ	585,528	50
13	2019-07-30	Çorum	495,9	39
14	2019-03-19	Trabzon	477,34	41
15	2019-10-31	Antalya	73,2	14

Query executed successfully. (local) (14.0 RTM)

```sql
/*
SELECT *
FROM SALES
*/


SELECT DATEday,CITY,

SUM(TOTALPRICE) AS TotalPrice,
SUM(AMOUNT) AS Amount

FROM SALES

WHERE DATEday='20190101'

GROUP BY CITY
```

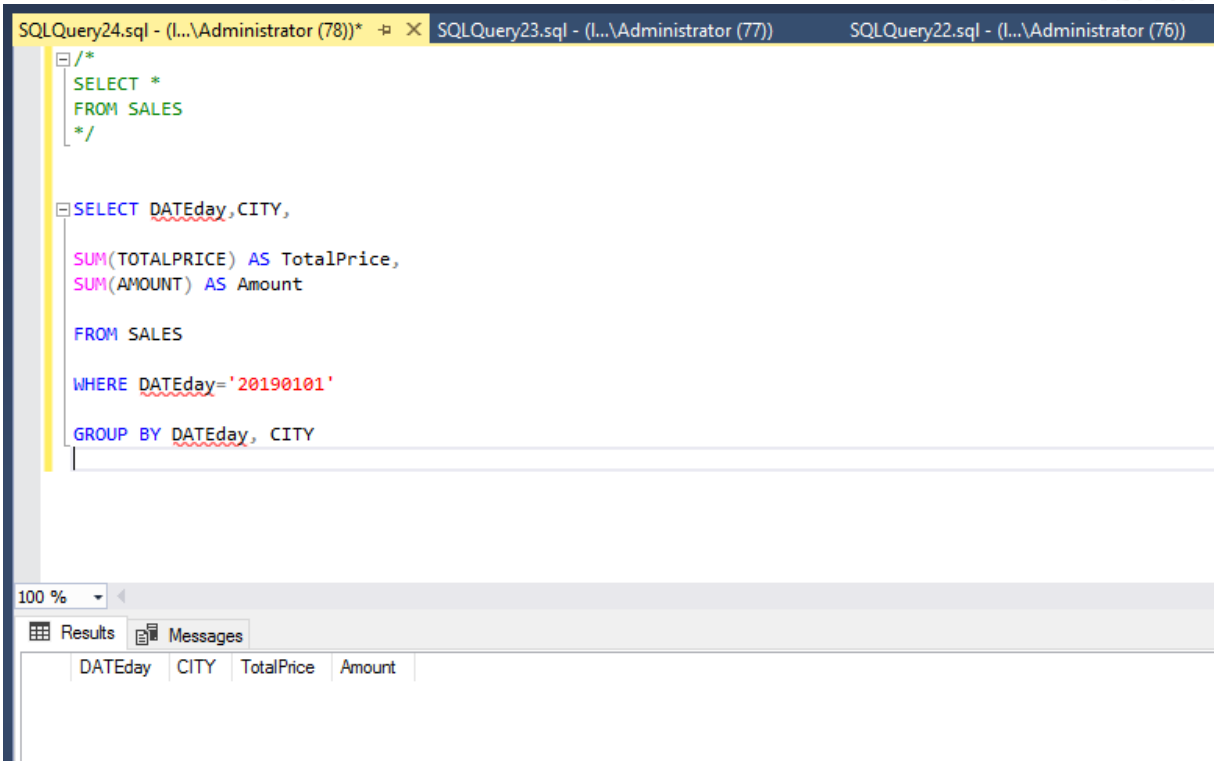


HATA ! `Msg 8120, Level 16, State 1, Line 7`
`Column 'SALES.DATEday' is invalid in the select list because it is not contained in either an aggregate function or the GROUP BY clause.`

AÇIKLAMA !

Çünkü SELECT içerisinde DATEday kullandıysan bu DATEday, ya Aggregate fonksiyonlarının (SUM, AVG,MAX, MIN) içerisinde kullanılmalı ya da GROUP BY fonksiyonunda kullanılmalı.

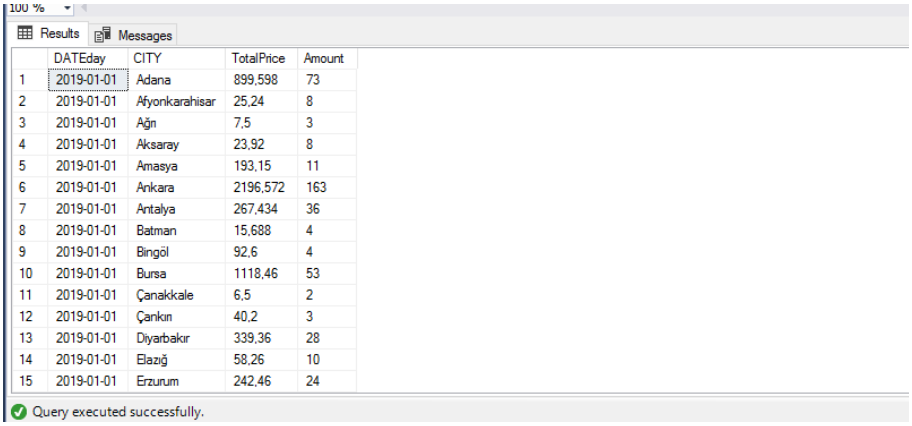
Şimdi Aggregate fonksiyonuyla DATEday için bir toplama, max veya min değerini alma söz konusu değil; o zaman gruplandırma için kullanılacak ve yeni hatasız kod aşağıdaki gibi olmalıdır:



HATA ! Bu sefer de hata vermedi ama ekran boş döndü çünkü tarihi 2019-01-01 olarak girmeli. Normalde resimdeki kullanım da doğru fakat DATEday formatını DATE olarak ayarladığın için içindeki tarih tipleri – kullanarak geldi.

O zaman tarih yazımını da komutta değiştirelim:

```
SELECT DATEday,CITY,

SUM(TOTALPRICE) AS TotalPrice,
SUM(AMOUNT) AS Amount

FROM SALES

WHERE DATEday='2019-01-01'

GROUP BY DATEday, CITY
```



	DATEday	CITY	TotalPrice	Amount
1	2019-01-01	Adana	899,598	73
2	2019-01-01	Afyonkarahisar	25,24	8
3	2019-01-01	Ağrı	7,5	3
4	2019-01-01	Aksaray	23,92	8
5	2019-01-01	Amasya	193,15	11
6	2019-01-01	Ankara	2196,572	163
7	2019-01-01	Antalya	267,434	36
8	2019-01-01	Batman	15,688	4
9	2019-01-01	Bingöl	92,6	4
10	2019-01-01	Bursa	1118,46	53
11	2019-01-01	Çanakkale	6,5	2
12	2019-01-01	Çankırı	40,2	3
13	2019-01-01	Diyarbakır	339,36	28
14	2019-01-01	Elazığ	58,26	10
15	2019-01-01	Erzurum	242,46	24

Query executed successfully.

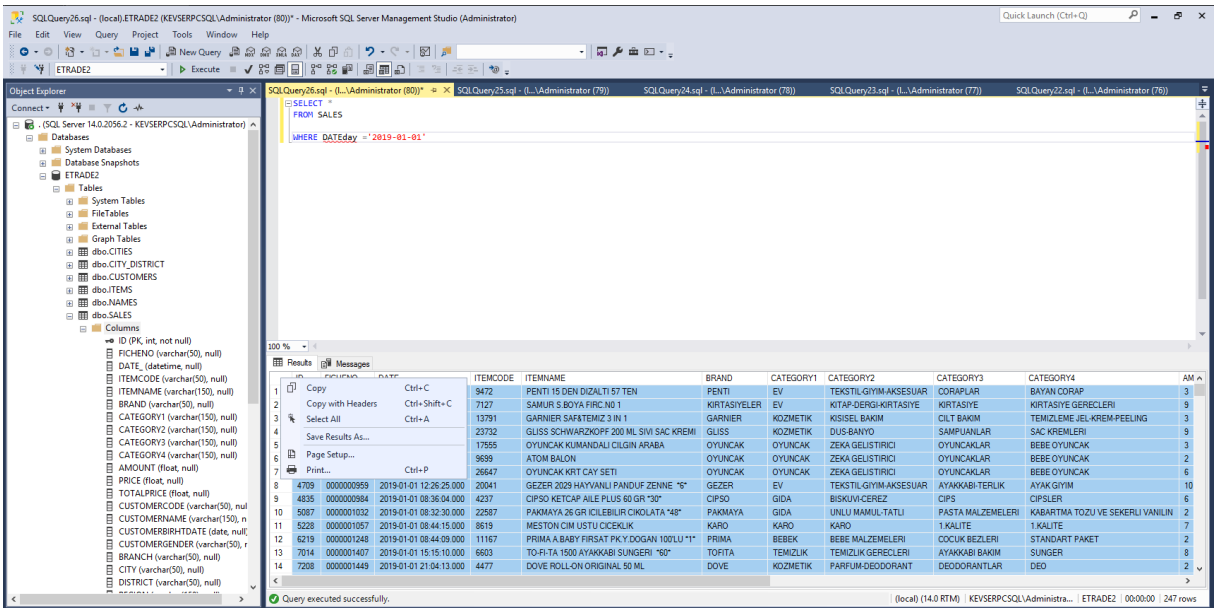
➢

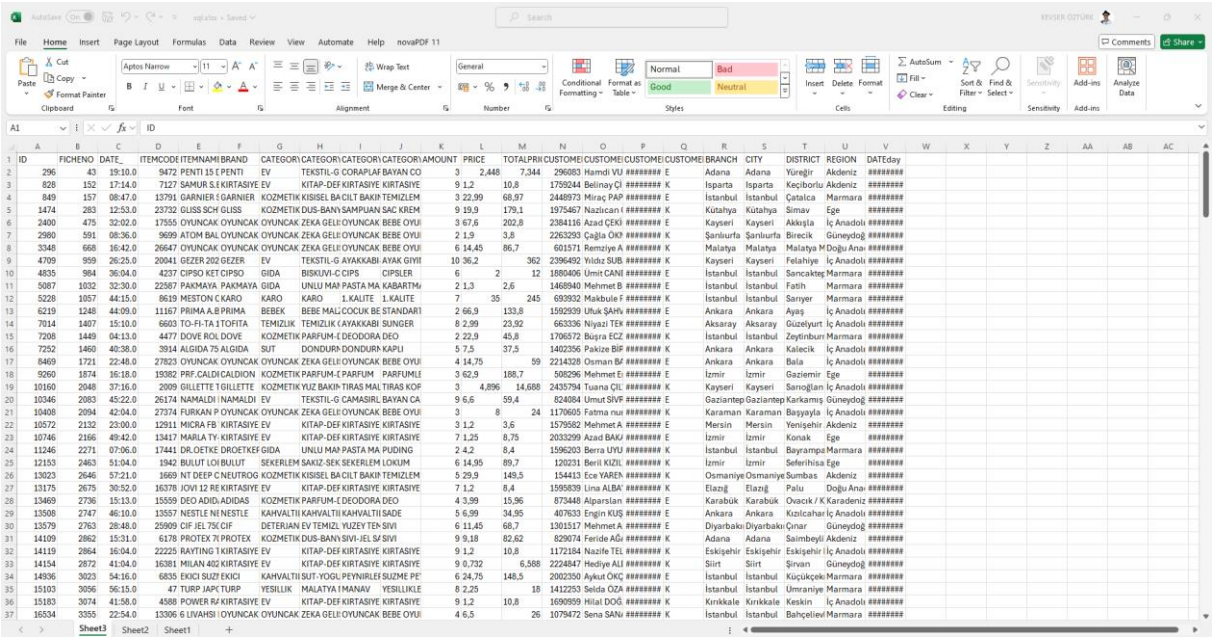
SQL'de DEFAULT olarak sıralama ASC (artan) şeklindedir. Eğer ORDER BY ifadesini kullanıyorsanız ve sıralama yönergesi belirtmezseniz, otomatik olarak küçükten büyüğe sıralama yapılır.

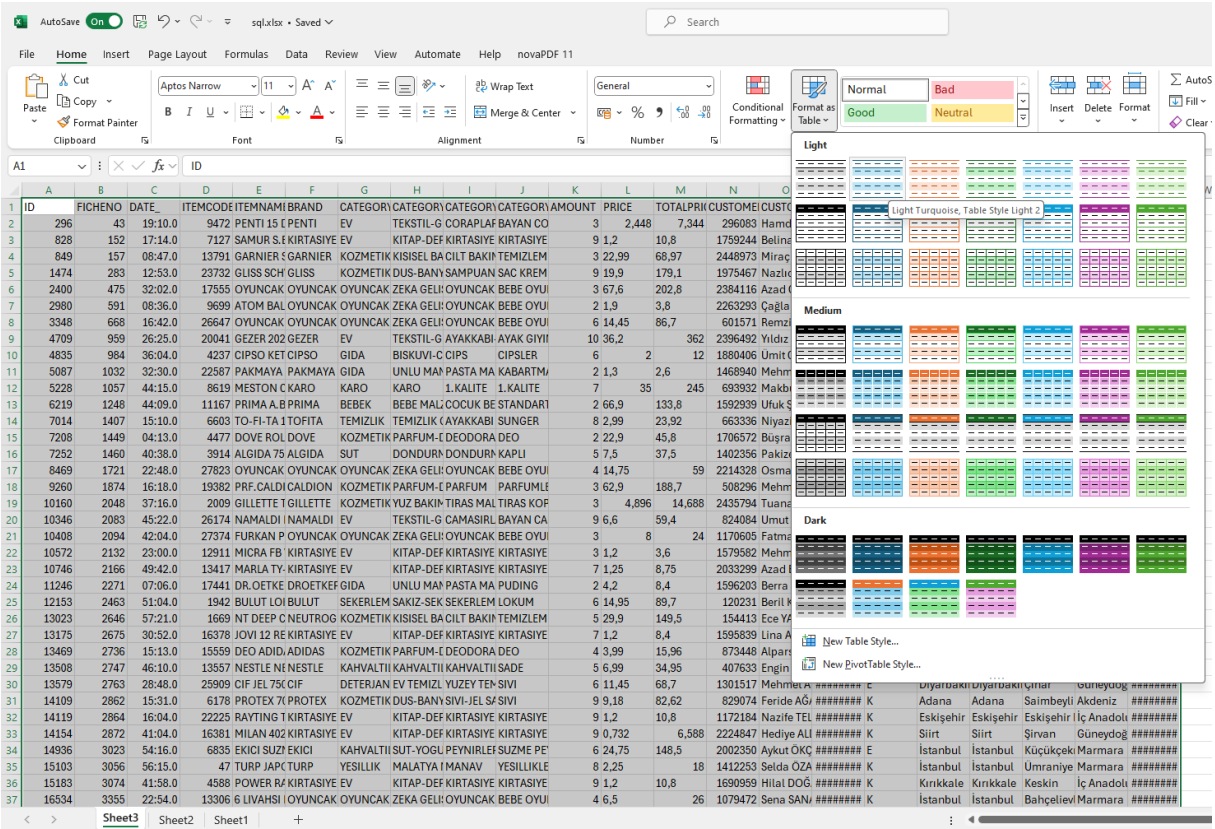
```
SELECT DATEday,CITY,

SUM(TOTALPRICE) AS TotalPrice,
SUM(AMOUNT) AS Amount

FROM SALES

WHERE DATEday='2019-01-01'

-- GROUP BY DATEday, CITY ASC olarak sıralanmıştı, şimdi  o gün içinde en çok satış yapan ile göre sıralama yapsın
GROUP BY DATEday, CITY
ORDER BY SUM(TOTALPRICE) DESC
```

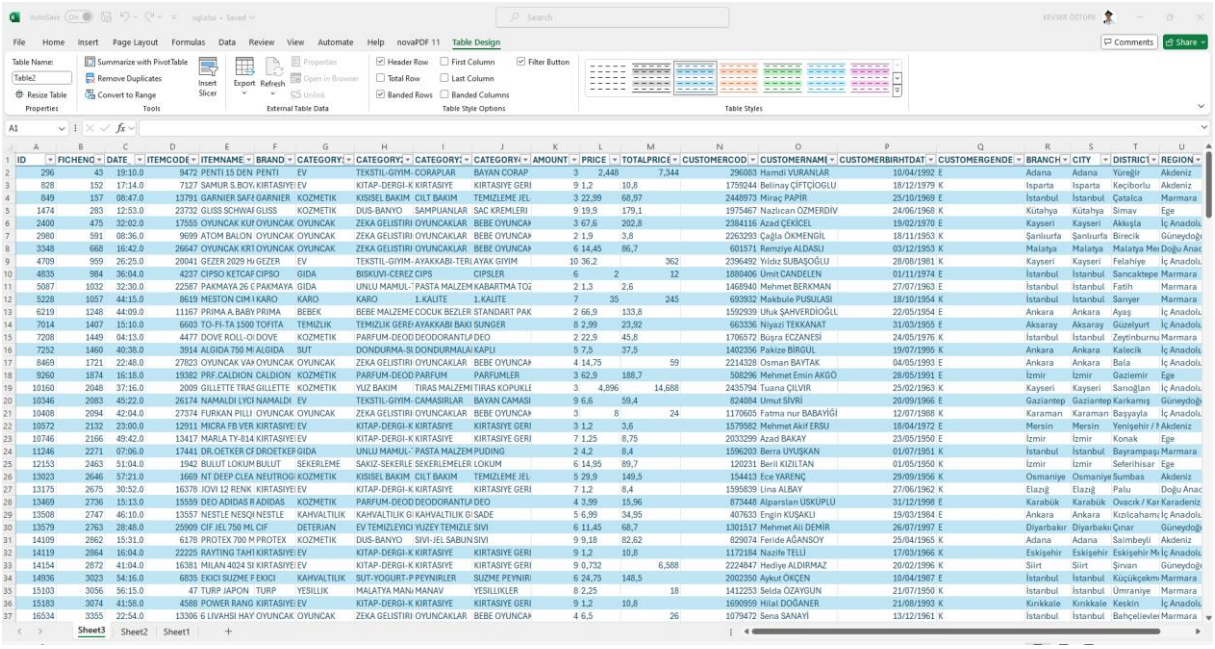
	DATEday	CITY	TotalPrice	Amount
1	2019-01-01	Istanbul	4722,20032	389
2	2019-01-01	Ankara	2196,572	163
3	2019-01-01	Gaziantep	1715,31	56
4	2019-01-01	Izmir	1317,8	110
5	2019-01-01	Bursa	1118,46	53
6	2019-01-01	Adana	899,598	73
7	2019-01-01	Malatya	806,188	36
8	2019-01-01	Kayseri	740,354	33
9	2019-01-01	Niğde	449,12	11
10	2019-01-01	Kütahya	403,496	24
11	2019-01-01	Mersin	401,71	44
12	2019-01-01	Siirt	341,788	17
13	2019-01-01	Diyarbakır	339,36	28
14	2019-01-01	Konya	276,65	30
15	2019-01-01	Antalya	267,434	36

Bu sorguyu pivot table kullanarak nasıl yapardık:

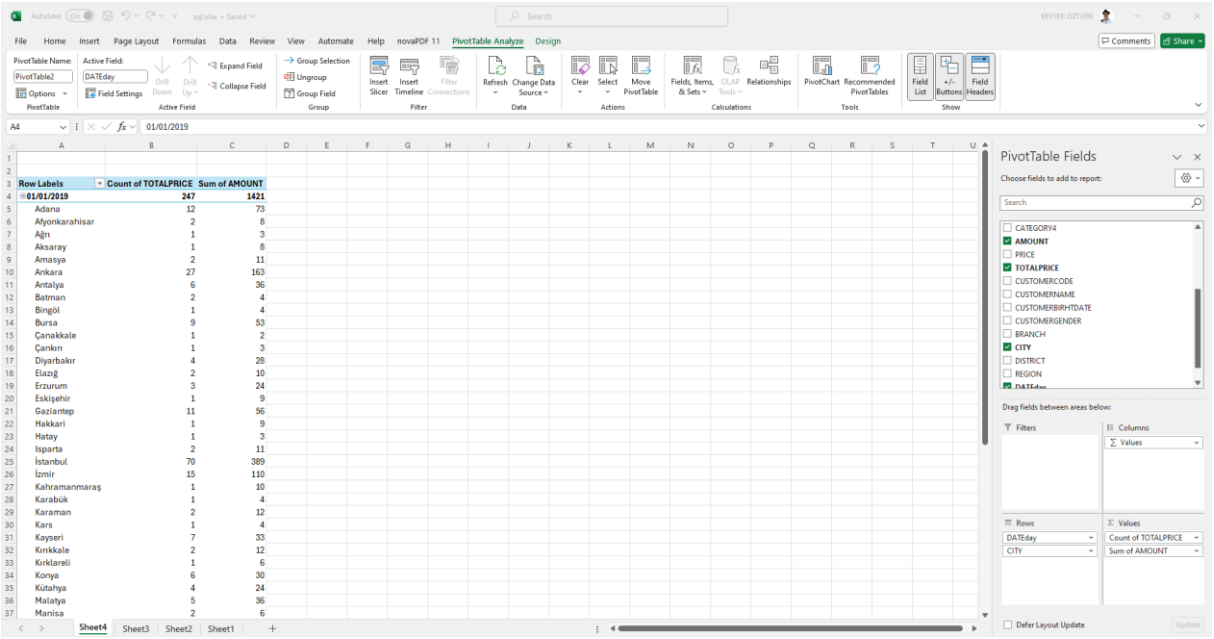




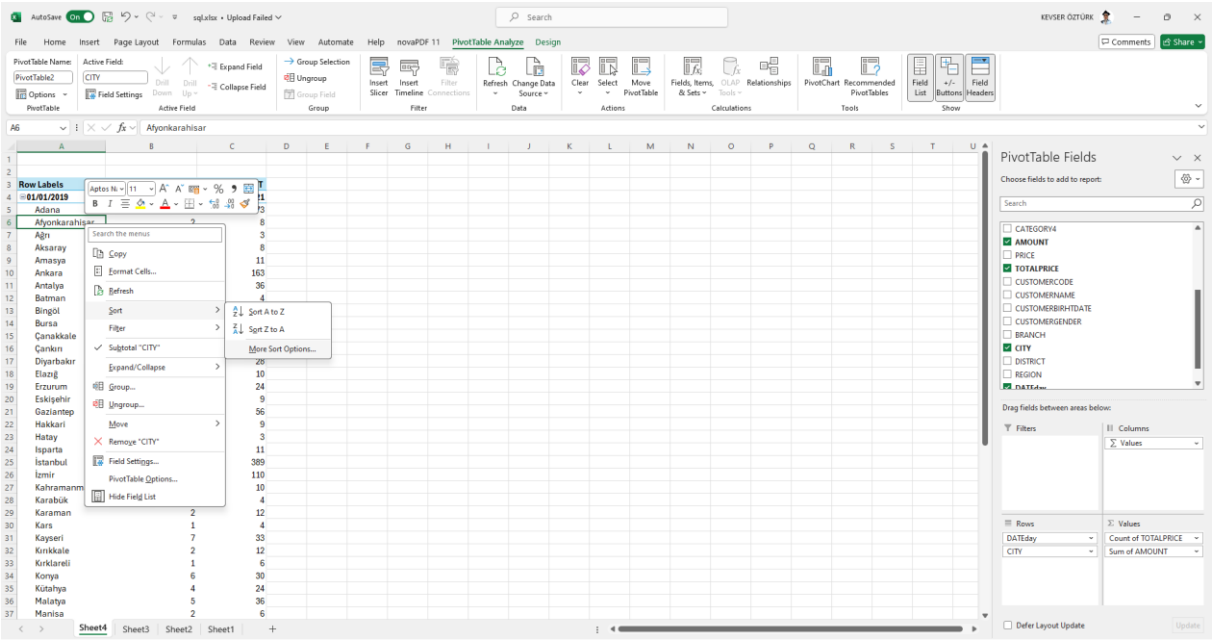

AutoSave On
sql.xlsx • Saved
Search
File Home Insert Page Layout Formulas Data Review View Automate Help novaPDF 11
Paste Cut Copy Format Painter
Clipboard
Aptos Narrow 11
Font
Wrap Text
Merge & Center
Alignment
General
Number
Conditional Formatting
Format as Table
Normal Bad Good Neutral
Insert Delete Format
Light
Light Turquoise, Table Style Light 2
Medium
Dark
New Table Style...
New PivotTable Style...
A1
ID
Sheet3 Sheet2 Sheet1

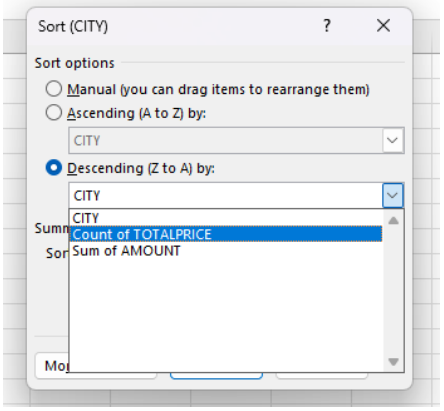


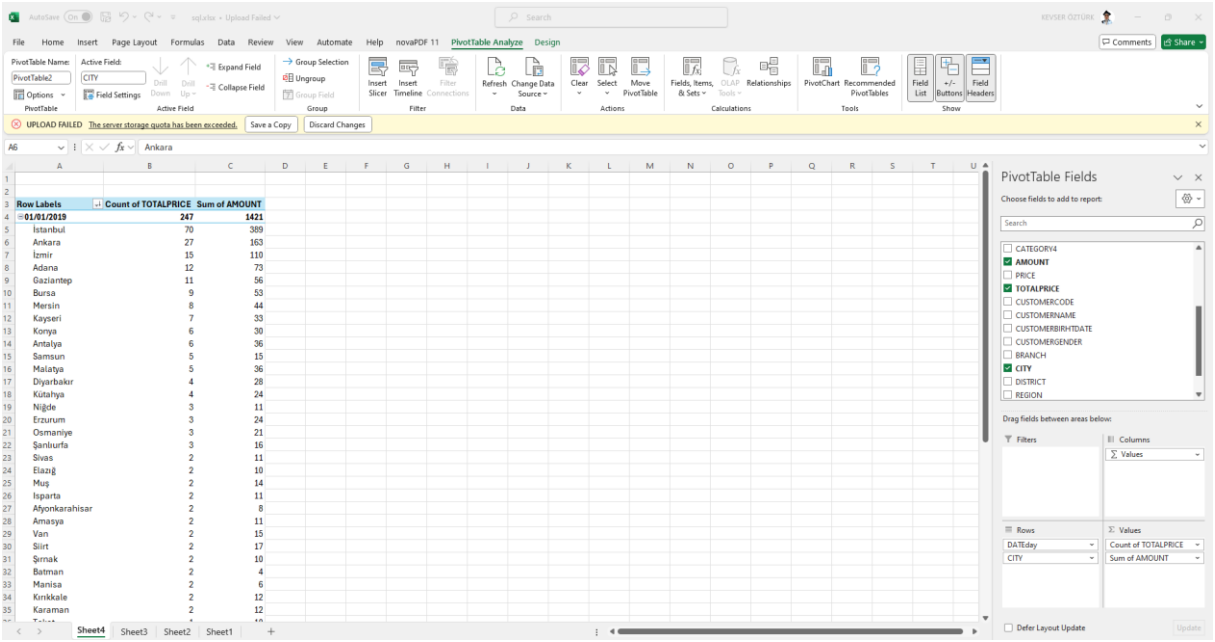
ID	FICHENO	DATE	ITEMCODE	ITEMNAME	BRAND	CATEGORY1	CATEGORY2	CATEGORY3	CATEGORY4	AMOUNT	PRICE	TOTALPRICE	CUSTOMERCOD	CUSTOMERNAME	CUSTOMERBIRHTDAT	CUSTOMERGENDE	BRANCH	CITY	DISTRICT	REGION
296	43	19:10.0	9472	PENTI 15 DEN	PENTI	EV	TEKSTIL-GIYIM-	CORAPLAR	BAYAN CORAP	3	2,448	7,344	296083	Hamdi VURANLAR	10/04/1992	E	Adana	Adana	Yüreğir	Akdeniz
828	152	17:14.0	7127	SAMUR S.BOY	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	9	1,2	10,8	1759244	Belinay ÇİFTÇİOGLU	18/12/1979	K	Isparta	Isparta	Keçiborlu	Akdeniz
849	157	08:47.0	13791	GARNIER SAF3	GARNIER	KOZMETIK	KISISEL BAKIM	CILT BAKIM	TEMIZLEME JEL	3	22,99	68,97	2448973	Miraç PAPİR	25/10/1969	E	İstanbul	İstanbul	Çatalca	Marmara
1474	283	12:53.0	23732	GLISS SCHWAI	GLISS	KOZMETIK	DUS-BANYO	SAMPUANLAR	SAC KREMLERI	9	19,9	179,1	1975467	Nazlıcan ÖZMERDİV	24/06/1968	K	Kütahya	Kütahya	Simav	Ege
2400	475	32:02.0	17555	OYUNCAK KUI	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	3	67,6	202,8	2384116	Azad ÇEKİCEL	19/02/1970	E	Kayseri	Kayseri	Akkışla	İç Anadolu
2980	591	08:36.0	9699	ATOM BALON	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	2	1,9	3,8	2263293	Çağla OKMENGİL	18/11/1953	K	Şanlıurfa	Şanlıurfa	Birecik	Güneydoğ
3348	668	16:42.0	26647	OYUNCAK KR1	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	6	14,45	86,7	601571	Remziye ALDABİJI	03/12/1953	K	Malatya	Malatya	Malatya Mer	Doğu Anad
4709	959	26:25.0	20041	GEZER 2029 H	GEZER	EV	TEKSTIL-GIYIM-	AYAKKABI-TERI	AYAK GIYIM	10	36,2	362	2396492	Yıldız SUBAŞOĞLU	28/08/1981	K	Kayseri	Kayseri	Felahiye	İç Anadolu
4835	984	36:04.0	4237	CIPSO KETCAF	CIPSO	GIDA	BISKUVI-CEREZ	CIPS	CIPSLER	6	2	12	1880406	Umit CANDELEN	01/11/1974	E	İstanbul	İstanbul	Sancaktepe	Marmara
5087	1032	32:30.0	22587	PAKMAYA 26 G	PAKMAYA	GIDA	UNLU MAMUL-	PASTA MALZEM	KABARTMA TOZ	2	1,3	2,6	1468940	Mehmet BERKMAN	27/07/1963	E	İstanbul	İstanbul	Fatih	Marmara
5228	1057	44:15.0	8619	MESTON CIM I	KARO	KARO	KARO	1.KALITE	1.KALITE	7	35	245	693932	Makbule PUSULASI	18/10/1954	K	İstanbul	İstanbul	Sarıyer	Marmara
6219	1248	44:09.0	11167	PRIMA A.BABY	PRIMA	BEBEK	BEBE MALZEME	COCUK BEZLER	STANDART PAK	2	66,9	133,8	1592939	Ufuk ŞAHVERDİOĞLL	22/05/1954	E	Ankara	Ankara	Ayaş	İç Anadolu
7014	1407	15:10.0	6603	TO-FI-TA 1500	TOFITA	TEMIZLIK	TEMIZLIK GERE	AYAKKABI BAKI	SUNGER	8	2,99	23,92	663336	Niyazi TEKKANAT	31/03/1955	E	Aksaray	Aksaray	Güzelyurt	İç Anadolu
7208	1449	04:13.0	4477	DOVE ROLL-O	DOVE	KOZMETIK	PARFUM-DEOD	DEODORANTLA	DEO	2	22,9	45,8	1706572	Büşra ECZANESİ	24/05/1976	K	İstanbul	İstanbul	Zeytinburnu	Marmara
7252	1460	40:38.0	3914	ALGIDA 750 Ml	ALGIDA	SÜT	DONDURMA-SI	DONDURMALA	KAPLI	5	7,5	37,5	1402336	Pakize BİRGÜL	19/07/1995	K	Ankara	Ankara	Kalecik	İç Anadolu
8469	1721	22:48.0	27823	OYUNCAK VA	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	4	14,75	59	2214328	Osman BAYTAK	04/05/1993	E	Ankara	Ankara	Bala	İç Anadolu
9260	1874	16:18.0	19382	PRF.CALDION	CALDION	KOZMETIK	PARFUM-DEOD	PARFUM	PARFUMLER	3	62,9	188,7	508296	Mehmet Emin AKGÖ	28/05/1991	E	İzmir	İzmir	Gaziemir	Ege
10160	2048	37:16.0	2009	GILLETTE TRAS	GILLETTE	KOZMETIK	YUZ BAKIM	TIRAS MALZEMI	TIRAS KOPUKLE	3	4,896	14,688	2435794	Tuana ÇILVIR	25/02/1963	K	Kayseri	Kayseri	Sarıoğlan	İç Anadolu
10346	2083	45:22.0	26174	NAMALDI LYCI	NAMALDI	EV	TEKSTIL-GIYIM-	CAMASIRLAR	BAYAN CAMASI	9	6,6	59,4	824084	Umut SİVRİ	20/09/1966	E	Gaziantep	Gaziantep	Karkamış	Güneydoğ
10408	2094	42:04.0	27374	FURKAN PILLI	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	3	8	24	1170605	Fatma nur BABAYİĞİ	12/07/1988	K	Karaman	Karaman	Başyayla	İç Anadolu
10572	2132	23:00.0	12911	MICRA FB VER	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	3	1,2	3,6	1579582	Mehmet Akif ERSU	18/04/1972	E	Mersin	Mersin	Yenişehir / M	Akdeniz
10746	2166	49:42.0	13417	MARLA TY-814	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	7	1,25	8,75	2033299	Azad BAKAY	23/05/1950	E	İzmir	İzmir	Konak	Ege
11246	2271	07:06.0	17441	DR.OETKER CI	DROETKEP	GIDA	UNLU MAMUL-	PASTA MALZEM	PUDING	2	4,2	8,4	1596203	Berra UYUŞKAN	01/07/1951	K	İstanbul	İstanbul	Bayrampaşı	Marmara
12153	2463	51:04.0	1942	BULUT LOKUM	BULUT	SEKERLEME	SAKIZ-SEKERLE	SEKERLEMELER	LOKUM	6	14,95	89,7	120231	Beril KIZILTAN	01/05/1950	K	İzmir	İzmir	Seferihisar	Ege
13023	2646	57:21.0	1669	NT DEEP CLEA	NEUTROG	KOZMETIK	KISISEL BAKIM	CILT BAKIM	TEMIZLEME JEL	5	29,9	149,5	154413	Ece YARENÇ	29/09/1956	K	Osmaniye	Osmaniye	Sumbas	Akdeniz
13175	2675	30:52.0	16378	JOVI 12 RENK	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	7	1,2	8,4	1595839	Lina ALBAY	27/06/1962	K	Elazığ	Elazığ	Palu	Doğu Anad
13469	2736	15:13.0	15559	DEO ADIDAS R	ADIDAS	KOZMETIK	PARFUM-DEOD	DEODORANTLA	DEO	4	3,99	15,96	873448	Alparslan UŞKUPLU	31/12/1998	E	Karabük	Karabük	Ovacık / Kar	Karadeniz
13508	2747	46:10.0	13557	NESTLE NESQI	NESTLE	KAHVALTILIK	KAHVALTILIK G	KAHVALTILIK G	SADE	5	6,99	34,95	407633	Engin KUŞAKLI	19/03/1984	E	Ankara	Ankara	Kızılcahamı	İç Anadolu
13579	2763	28:48.0	25909	CIF JEL 750 ML	CIF	DETERJAN	EV TEMIZLEYICI	YUZEY TEMIZLE	SIVI	6	11,45	68,7	1301517	Mehmet ALI DEMİR	26/07/1997	E	Diyarbakır	Diyarbakır	Çınar	Güneydoğ
14109	2862	15:31.0	6178	PROTEX 700 M	PROTEX	KOZMETIK	DUS-BANYO	SIVI-JEL SABUN	SIVI	9	9,18	82,62	829074	Feride AĞANSOY	25/04/1965	K	Adana	Adana	Saimbeyli	Akdeniz
14119	2864	16:04.0	22225	RAYTING TAHI	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	9	1,2	10,8	1172184	Nazife TELLI	17/03/1966	K	Eskişehir	Eskişehir	Eskişehir Mı	İç Anadolu
14154	2872	41:04.0	16381	MILAN 4024 SI	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	9	0,732	6,588	2224847	Hediye ALDIRMAZ	20/02/1996	K	Siirt	Siirt	Şirvan	Güneydoğ
14936	3023	54:16.0	6835	EKICI SUZME F	EKICI	KAHVALTILIK	SUT-YOGURT-P	PEYNIRLER	SUZME PEYNIRI	6	24,75	148,5	2002350	Aykut ÖKÇEN	10/04/1987	E	İstanbul	İstanbul	Küçükçekmı	Marmara
15103	3056	56:15.0	47	TURP JAPON	TURP	YESILLIK	MALATYA MAN	MANAV	YESILLIKLER	8	2,25	18	1412253	Selda ÖZAYGUN	21/07/1950	K	İstanbul	İstanbul	Ümraniye	Marmara
15183	3074	41:58.0	4588	POWER RANG	KIRTASIYE	EV	KITAP-DERGI-K	KIRTASIYE	KIRTASIYE GERI	9	1,2	10,8	1690959	Hilal DOĞANER	21/08/1993	K	Kırıkkale	Kırıkkale	Keskin	İç Anadolu
16534	3355	22:54.0	13306	6 LIVAHSI HAY	OYUNCAK	OYUNCAK	ZEKA GELISTIRI	OYUNCAKLAR	BEBE OYUNCA	4	6,5	26	1079472	Sena SANAYİ	13/12/1961	K	İstanbul	İstanbul	Bahçelievler	Marmara



Row Labels	Count of TOTALPRICE	Sum of AMOUNT
01/01/2019	247	1421
Adana	12	73
Afyonkarahisar	2	8
Ağrı	1	3
Aksaray	1	8
Amasya	2	11
Ankara	27	163
Antalya	6	36
Batman	2	4
Bingöl	1	4
Bursa	9	53
Çanakkale	1	2
Çankırı	1	3
Diyarbakır	4	28
Elazığ	2	10
Erzurum	3	24
Eskişehir	1	9
Gaziantep	11	56
Hakkari	1	9
Hatay	1	3
Isparta	2	11
İstanbul	70	389
İzmir	15	110
Kahramanmaraş	1	10
Karabük	1	4
Karaman	2	12
Kars	1	4
Kayseri	7	33
Kırıkkale	2	12
Kırklareli	1	6
Konya	6	30
Kütahya	4	24
Malatya	5	36
Manisa	2	6

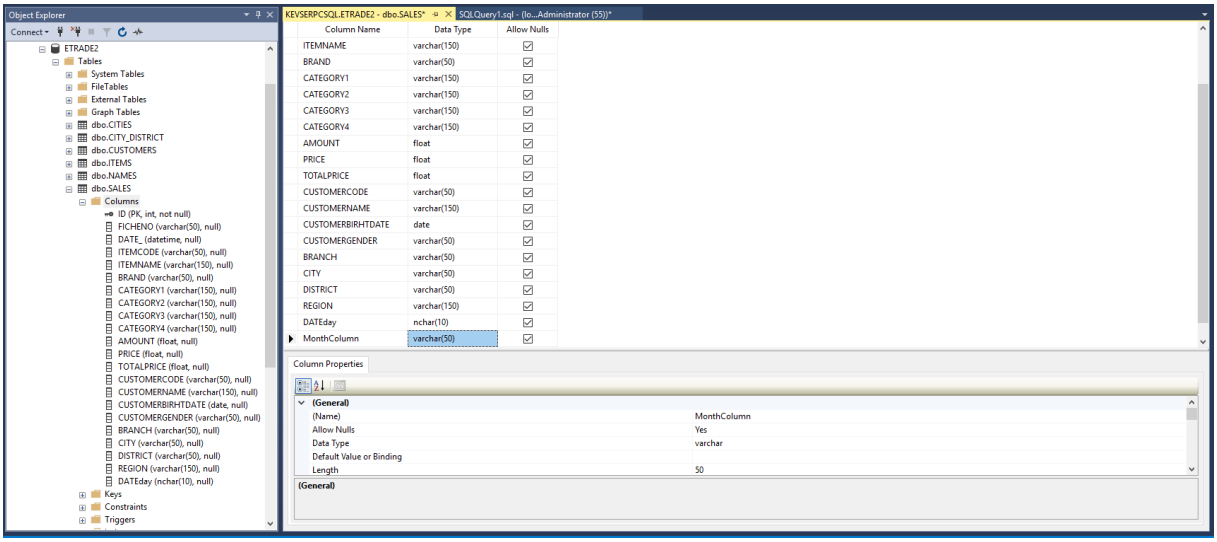

PivotTable Fields
Choose fields to add to report:
CATEGORY4
AMOUNT
PRICE
TOTALPRICE
CUSTOMERCODE
CUSTOMERNAME
CUSTOMERBIRHTDATE
CUSTOMERGENDER
BRANCH
CITY
DISTRICT
REGION
Drag fields between areas below:
Filters
Columns
Values
Rows
DATEday
CITY
Count of TOTALPRICE
Sum of AMOUNT
Defer Layout Update
Sort A to Z
Sort Z to A
More Sort Options...

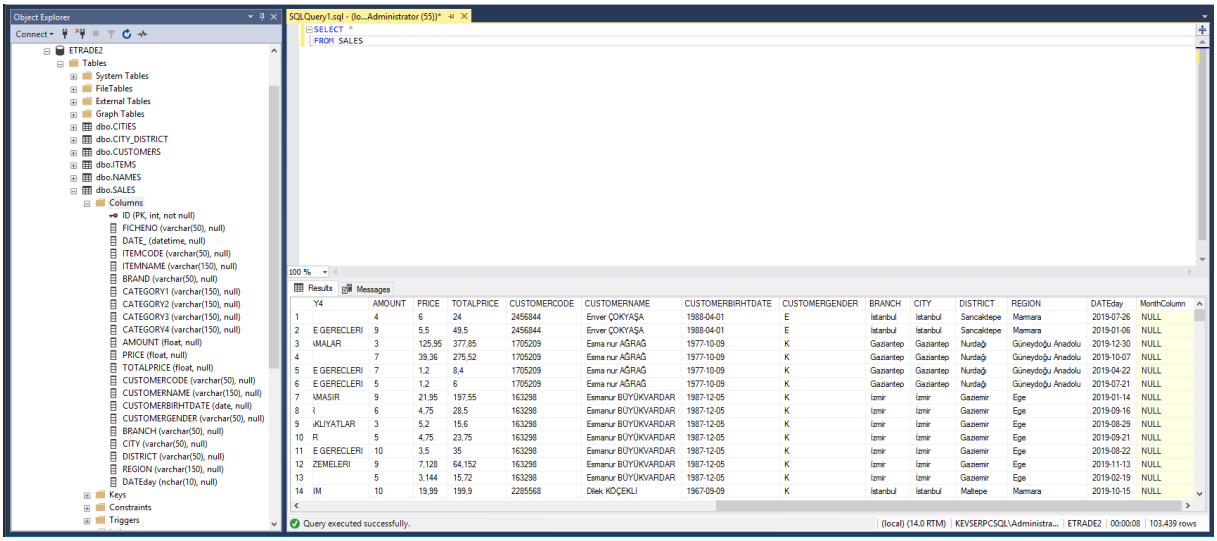

Sort (CITY)
Sort options
Manual (you can drag items to rearrange them)
Ascending (A to Z) by:
CITY
Descending (Z to A) by:
CITY
CITY
Count of TOTALPRICE
Sum of AMOUNT


UPLOAD FAILED
The server storage quota has been exceeded.
Save a Copy
Discard Changes
PivotTable Fields
Choose fields to add to report:
Drag fields between areas below:
Filters
Columns
Values
Rows
DATEday
CITY
Count of TOTALPRICE
Sum of AMOUNT
Defer Layout Update

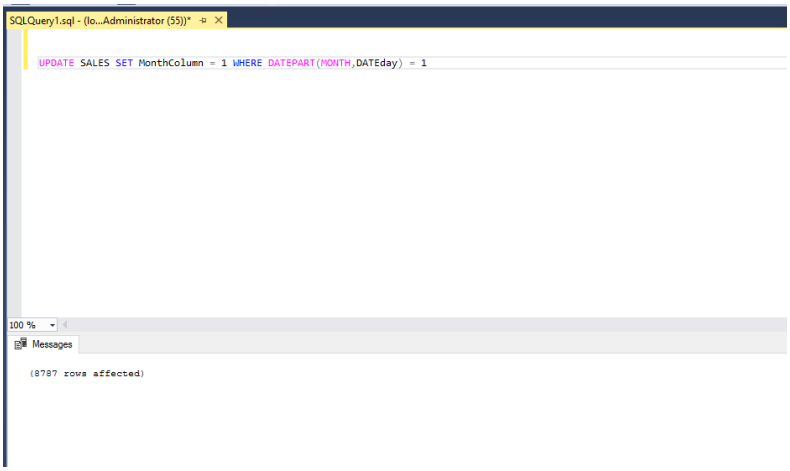
Örnek 3:

Mazağaların aylara göre satış rakamını getirmesi:






```
UPDATE SALES SET MonthColumn = 1 WHERE DATEPART(MONTH,DATEday) = 1
```



```sql
select *
from sales
```

100 %

Results | Messages

	Y4	AMOUNT	PRICE	TOTALPRICE	CUSTOMERCODE	CUSTOMERNAME	CUSTOMERBIRHTDATE	CUSTOMERGENDER	BRANCH	CITY	DISTRICT	REGION	DATEday	MonthColumn
1		4	6	24	2456844	Enver ÇOKYAŞA	1988-04-01	E	İstanbul	İstanbul	Sancaktepe	Marmara	2019-07-26	NULL
2	E GERECLERI	9	5,5	49,5	2456844	Enver ÇOKYAŞA	1988-04-01	E	İstanbul	İstanbul	Sancaktepe	Marmara	2019-01-06	1
3	MALAR	3	125,95	377,85	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-12-30	NULL
4		7	39,36	275,52	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-10-07	NULL
5	E GERECLERI	7	1,2	8,4	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-04-22	NULL
6	E GERECLERI	5	1,2	6	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-07-21	NULL
7	MASIR	9	21,95	197,55	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-01-14	1
8		6	4,75	28,5	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-09-16	NULL
9	KLIYATLAR	3	5,2	15,6	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-08-29	NULL
10	R	5	4,75	23,75	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-09-21	NULL
11	E GERECLERI	10	3,5	35	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-08-22	NULL
12	ZEMELERI	9	7,128	64,152	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-11-13	NULL
13		5	3,144	15,72	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-02-19	NULL
14	IM	10	19,99	199,9	2285568	Dilek KÖÇEKLİ	1967-09-09	K	İstanbul	İstanbul	Maltepe	Marmara	2019-10-15	NULL

```sql
UPDATE SALES SET MonthColumn = 1 WHERE DATEPART(MONTH,DATEday) = 1
UPDATE SALES SET MonthColumn = 2 WHERE DATEPART(MONTH,DATEday) = 2
UPDATE SALES SET MonthColumn = 3 WHERE DATEPART(MONTH,DATEday) = 3
UPDATE SALES SET MonthColumn = 4 WHERE DATEPART(MONTH,DATEday) = 4
UPDATE SALES SET MonthColumn = 5 WHERE DATEPART(MONTH,DATEday) = 5
UPDATE SALES SET MonthColumn = 6 WHERE DATEPART(MONTH,DATEday) = 6
UPDATE SALES SET MonthColumn = 7 WHERE DATEPART(MONTH,DATEday) = 7
UPDATE SALES SET MonthColumn = 8 WHERE DATEPART(MONTH,DATEday) = 8
UPDATE SALES SET MonthColumn = 9 WHERE DATEPART(MONTH,DATEday) = 9
UPDATE SALES SET MonthColumn = 10 WHERE DATEPART(MONTH,DATEday) = 10
UPDATE SALES SET MonthColumn = 11 WHERE DATEPART(MONTH,DATEday) = 11
UPDATE SALES SET MonthColumn = 12 WHERE DATEPART(MONTH,DATEday) = 12
```

SQLQuery1.sql - (lo...Administrator (55))*

```sql
UPDATE SALES SET MonthColumn = 1 WHERE DATEPART(MONTH,DATEday) = 1
UPDATE SALES SET MonthColumn = 2 WHERE DATEPART(MONTH,DATEday) = 2
UPDATE SALES SET MonthColumn = 3 WHERE DATEPART(MONTH,DATEday) = 3
UPDATE SALES SET MonthColumn = 4 WHERE DATEPART(MONTH,DATEday) = 4
UPDATE SALES SET MonthColumn = 5 WHERE DATEPART(MONTH,DATEday) = 5
UPDATE SALES SET MonthColumn = 6 WHERE DATEPART(MONTH,DATEday) = 6
UPDATE SALES SET MonthColumn = 7 WHERE DATEPART(MONTH,DATEday) = 7
UPDATE SALES SET MonthColumn = 8 WHERE DATEPART(MONTH,DATEday) = 8
UPDATE SALES SET MonthColumn = 9 WHERE DATEPART(MONTH,DATEday) = 9
UPDATE SALES SET MonthColumn = 10 WHERE DATEPART(MONTH,DATEday) = 10
UPDATE SALES SET MonthColumn = 11 WHERE DATEPART(MONTH,DATEday) = 11
UPDATE SALES SET MonthColumn = 12 WHERE DATEPART(MONTH,DATEday) = 12
```

100 %

Messages

```
(8787 rows affected)

(7989 rows affected)

(8861 rows affected)

(8568 rows affected)

(8683 rows affected)

(8458 rows affected)

(8835 rows affected)

(8740 rows affected)

(8509 rows affected)
```

100 %

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:00 | 0 rows

```sql
SELECT MonthColumn
FROM SALES
```

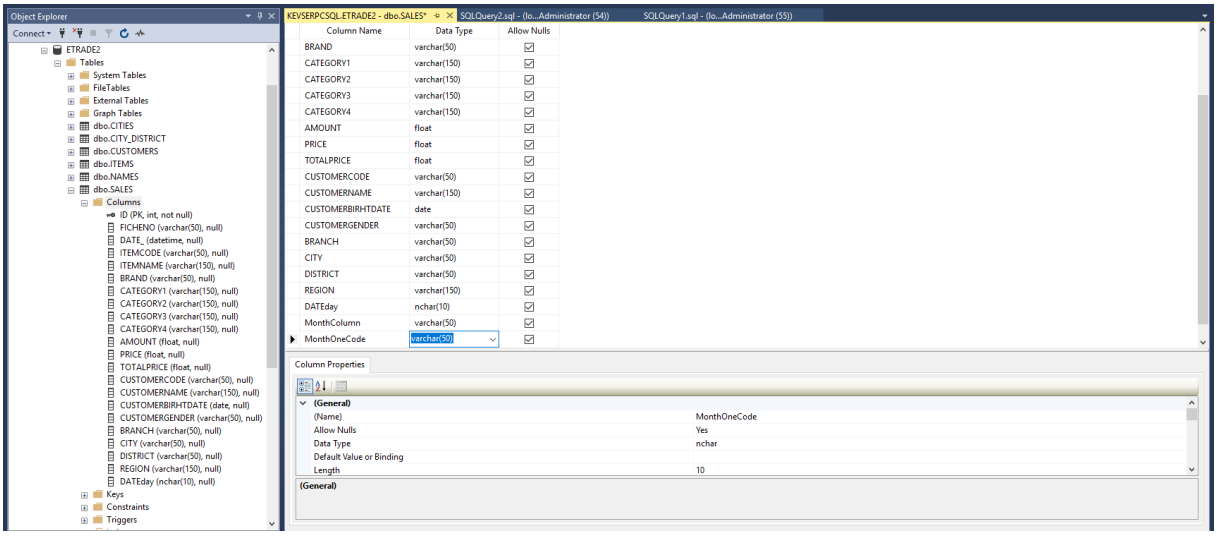
100 %

Results | Messages

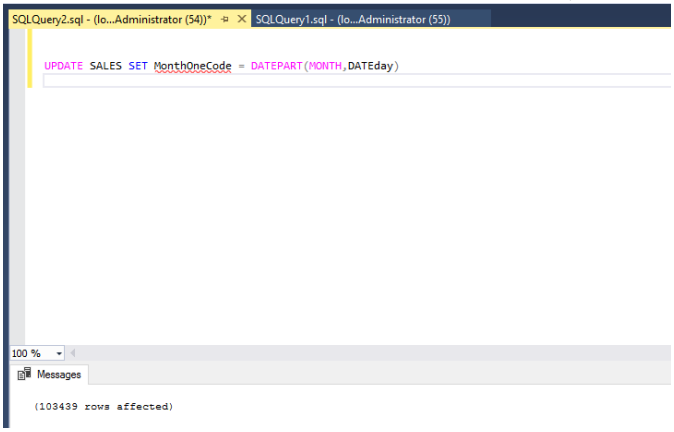
	MonthColumn
1	7
2	1
3	12
4	10
5	4
6	7
7	1
8	9
9	8
10	9
11	8
12	11
13	2
14	10
15	5

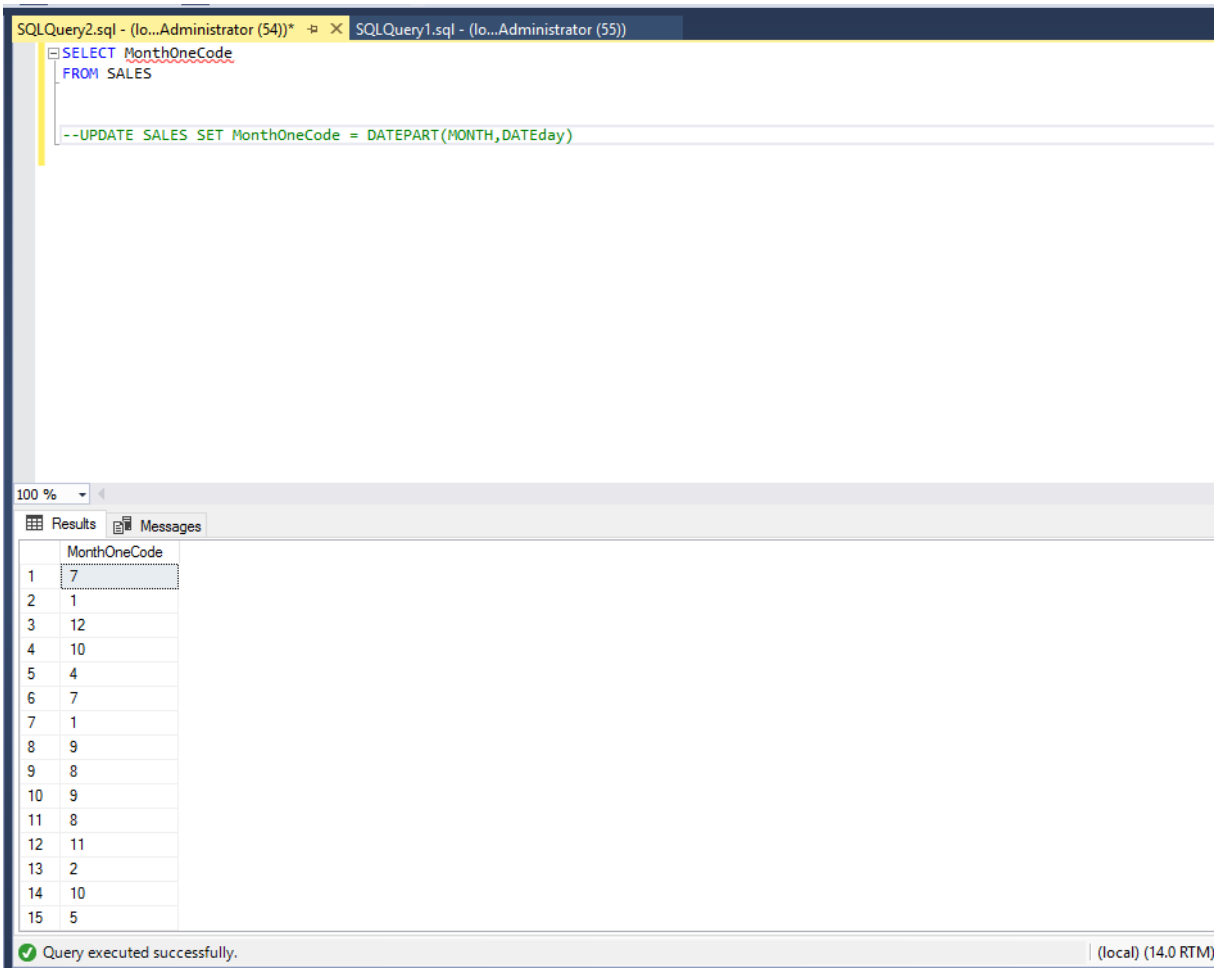
Query executed successfully.

- Fakat tüm ayları tek tek seçmek uğraştırıcı, o yüzden yeni bir kolon daha oluşturup tek UPDATE ile yapacağım ayları

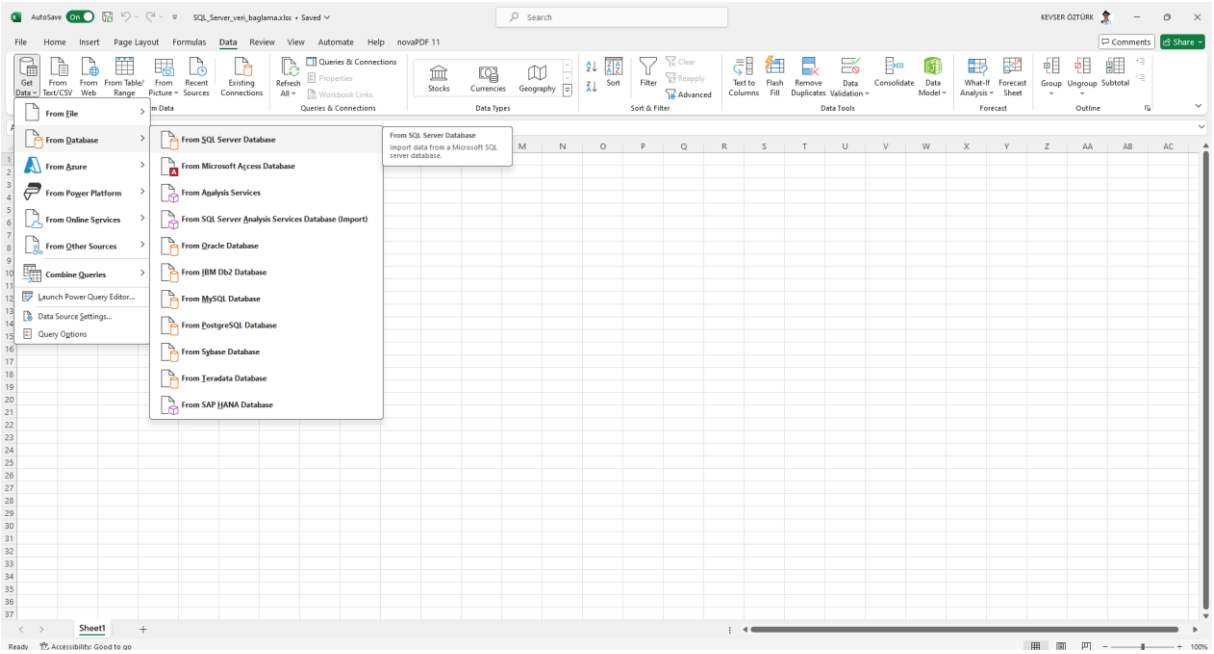


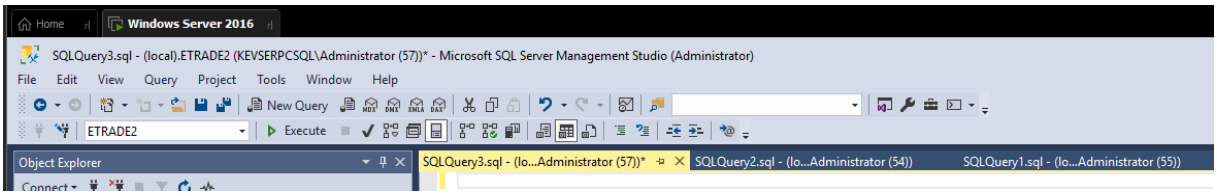
```
UPDATE SALES SET MonthOneCode = DATEPART(MONTH,DATEday)
```

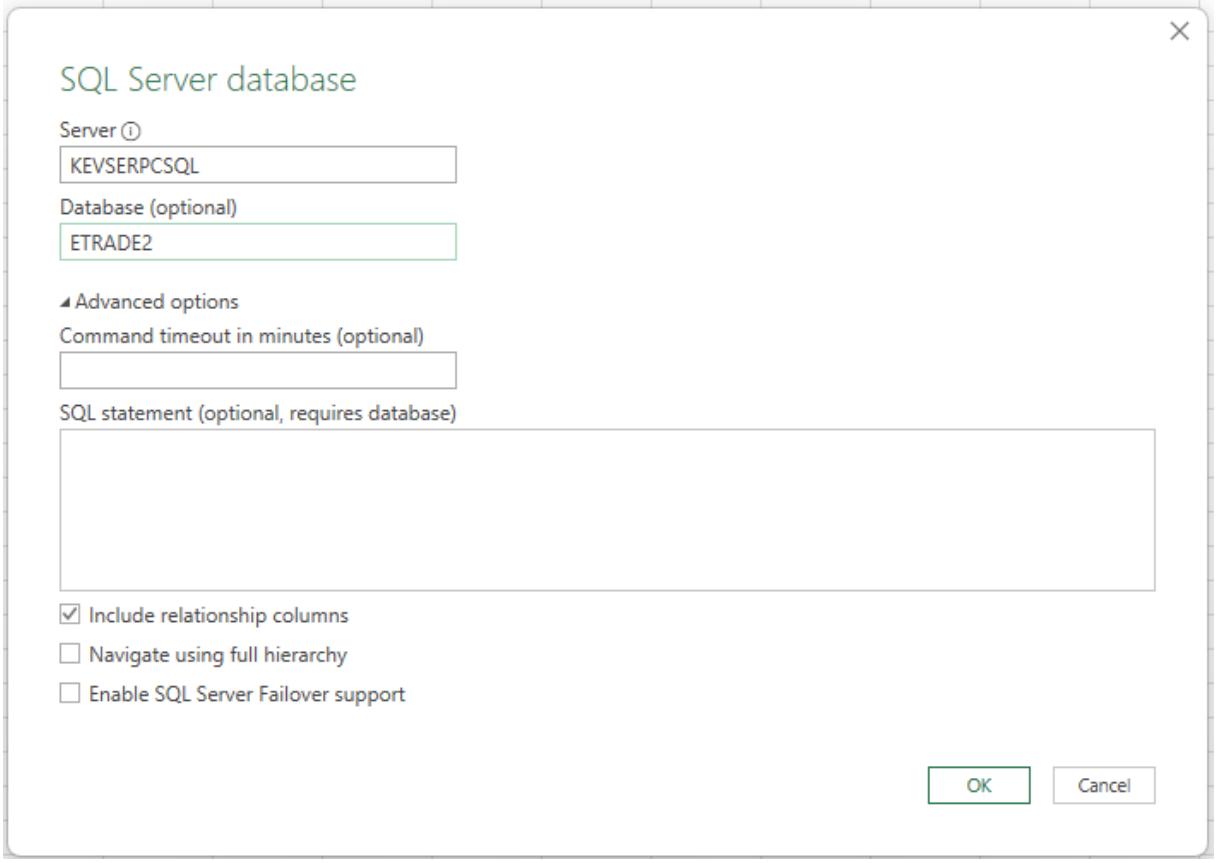


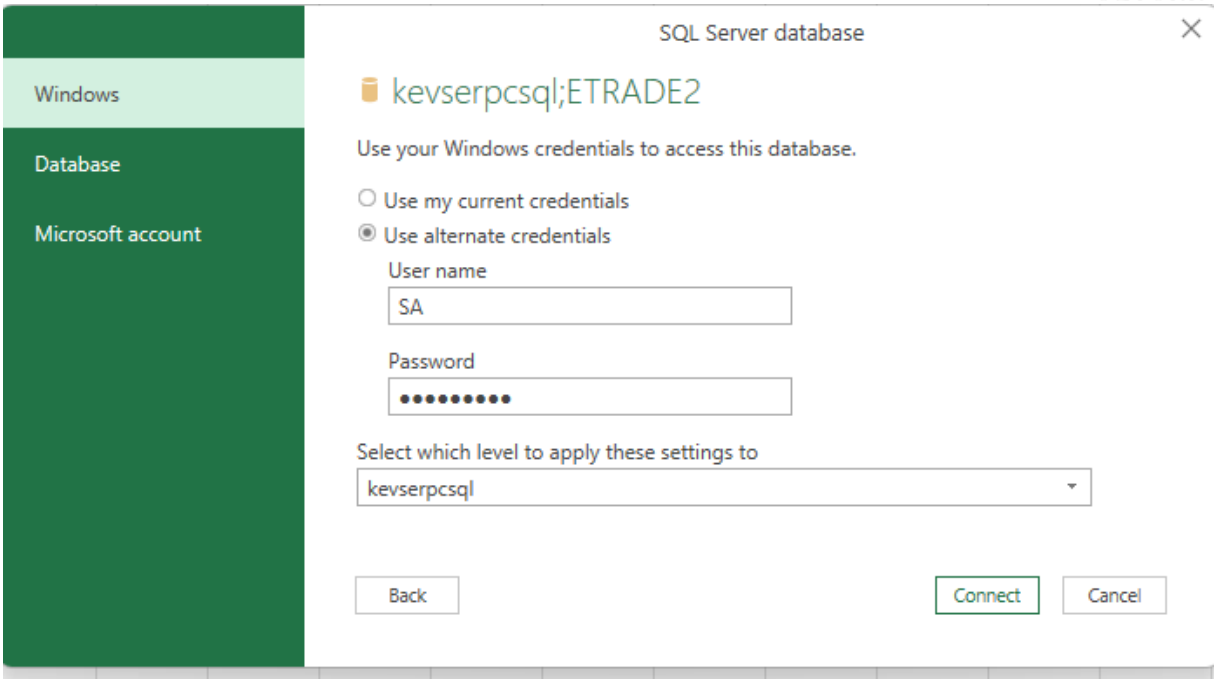


- Peki bu işlemi pivot table ile yapmak istersek, ama SQL Server üzerinden veri setimizi kopyalayıp excel içerisine yapıştırarak değil Excel uygulamasına veri bağlama işlemi yapacağız:


Get Data
From File
From Database
From Azure
From Power Platform
From Online Services
From Other Sources
Combine Queries
Launch Power Query Editor...
Data Source Settings...
Query Options
From SQL Server Database
From Microsoft Access Database
From Analysis Services
From SQL Server Analysis Services Database (Import)
From Oracle Database
From IBM Db2 Database
From MySQL Database
From PostgreSQL Database
From Sybase Database
From Teradata Database
From SAP HANA Database
From SQL Server Database
Import data from a Microsoft SQL server database.


Windows Server 2016
SQLQuery3.sql - (local).ETRADE2 (KEVSERPCSQL\Administrator (57))* - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
New Query
ETRADE2
Execute
Object Explorer
SQLQuery3.sql - (lo...Administrator (57))*
SQLQuery2.sql - (lo...Administrator (54))
SQLQuery1.sql - (lo...Administrator (55))

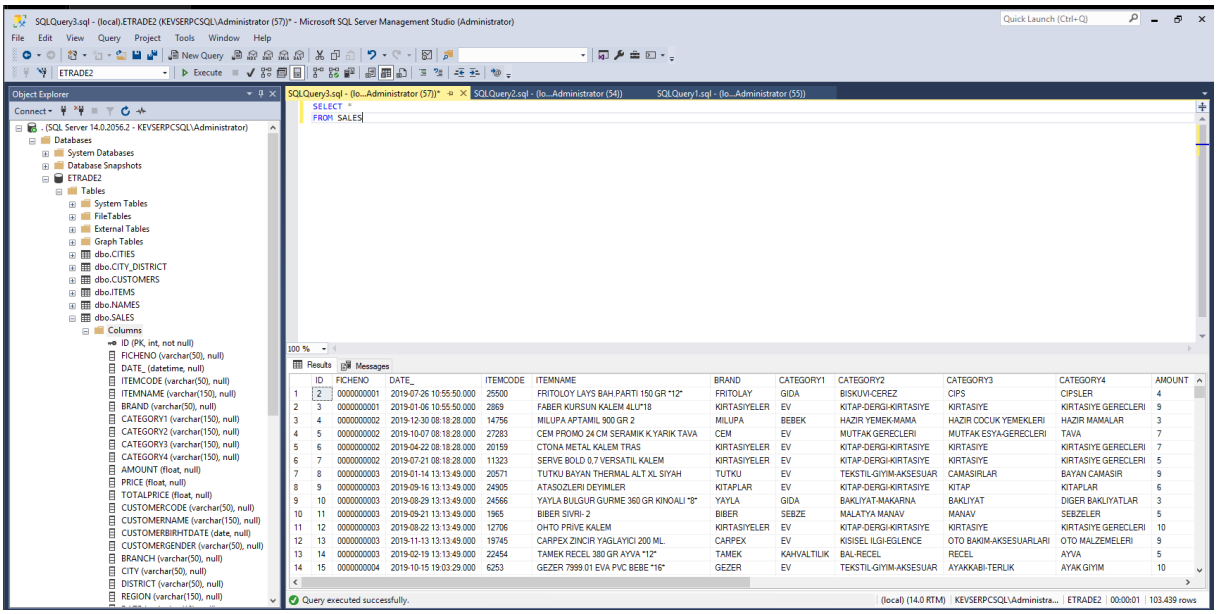

SQL Server database
Server
KEVSERPCSQL
Database (optional)
ETRADE2
Advanced options
Command timeout in minutes (optional)
SQL statement (optional, requires database)
Include relationship columns
Navigate using full hierarchy
Enable SQL Server Failover support
OK
Cancel



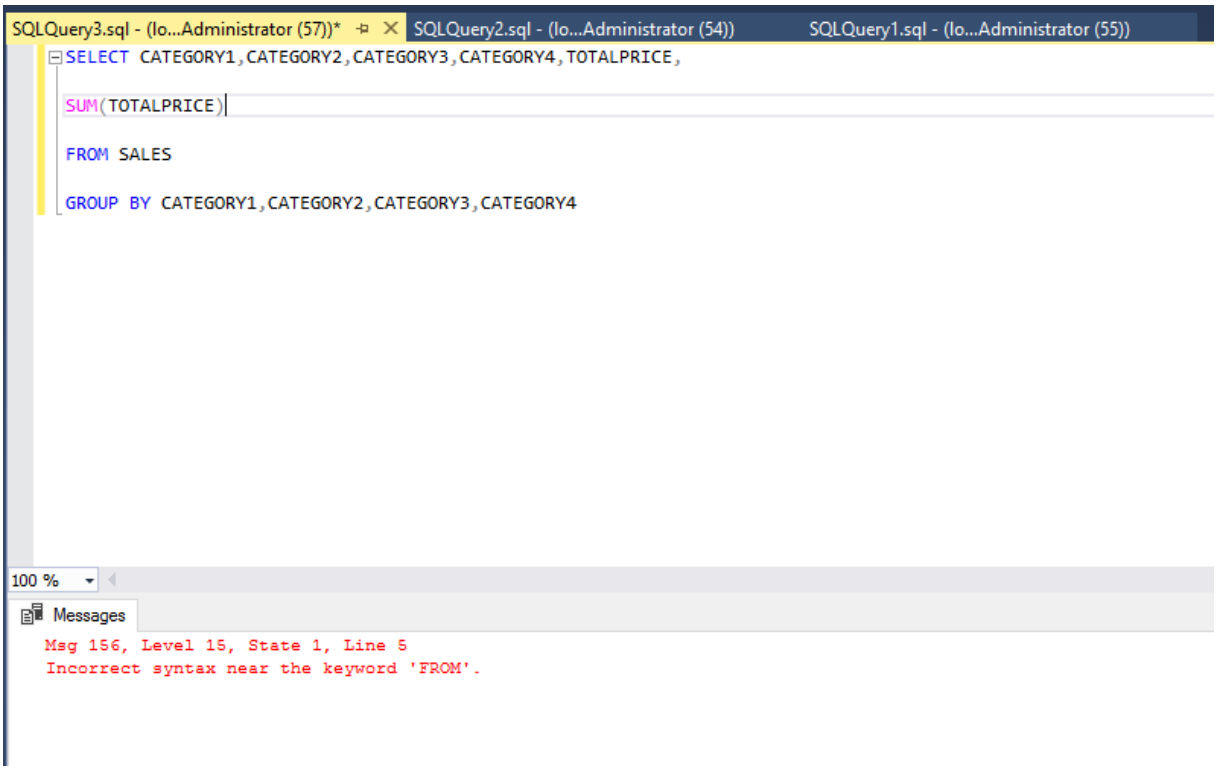
HATA !

ÖRNEK 4:

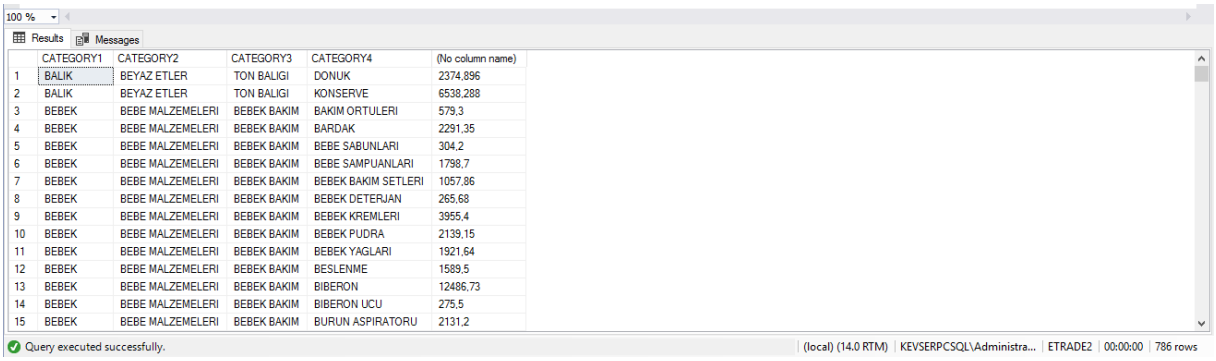
Ürün kategorilerine göre satış miktarlarını belirleme:



HATA ! Burada TotalPrice hem SELECT içinde hem de Aggregate function içerisinde 2 defa çağrıldı sanırım hata ondan kaynaklı:



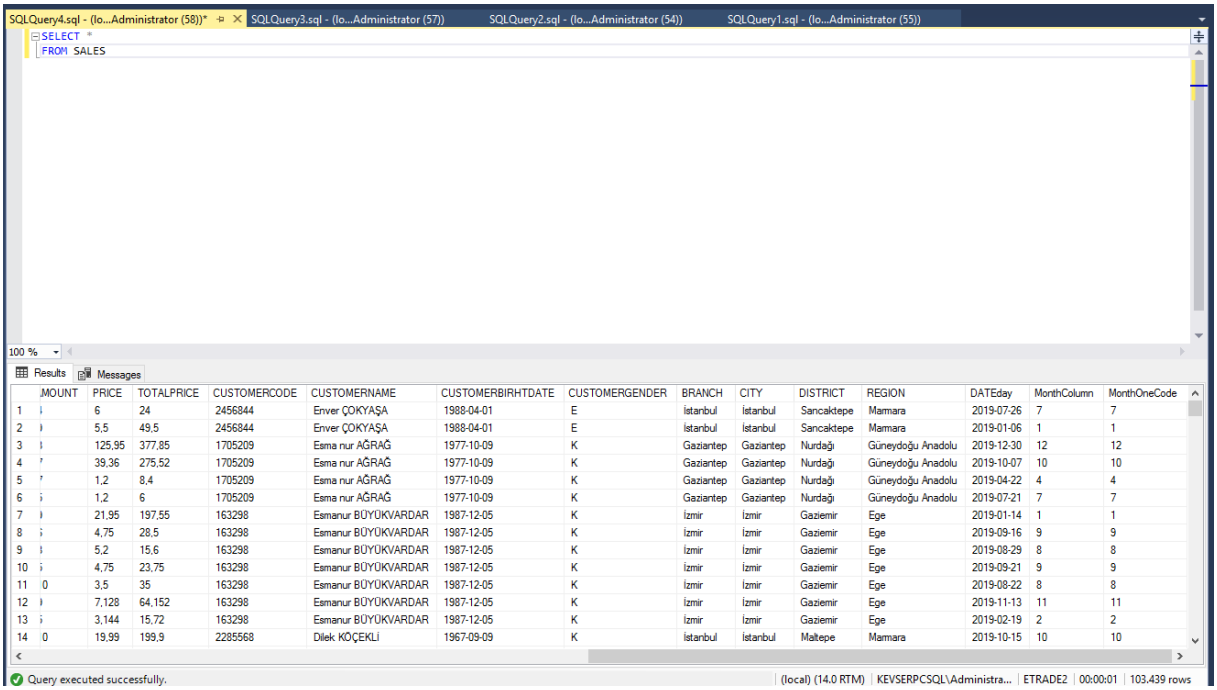

```sql
SELECT CATEGORY1,CATEGORY2,CATEGORY3,CATEGORY4,

SUM(TOTALPRICE)

FROM SALES

GROUP BY CATEGORY1,CATEGORY2,CATEGORY3,CATEGORY4
ORDER BY CATEGORY1,CATEGORY2,CATEGORY3,CATEGORY4
```



	CATEGORY1	CATEGORY2	CATEGORY3	CATEGORY4	(No column name)
1	BALIK	BEYAZ ETLER	TON BALIGI	DONUK	2374,896
2	BALIK	BEYAZ ETLER	TON BALIGI	KONSERVE	6538,288
3	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BAKIM ORTULERI	579,3
4	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BARDAK	2291,35
5	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBE SABUNLARI	304,2
6	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBE SAMPUANLARI	1798,7
7	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBEK BAKIM SETLERI	1057,86
8	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBEK DETERJAN	265,68
9	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBEK KREMLERI	3955,4
10	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBEK PUDRA	2139,15
11	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BEBEK YAGLARI	1921,64
12	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BESLENME	1589,5
13	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BIBERON	12486,73
14	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BIBERON UCU	275,5
15	BEBEK	BEBE MALZEMELERI	BEBEK BAKIM	BURUN ASPIRATORU	2131,2

ÖRNEK 5:

Her markanın müşteri sayısını getirme (COUNT(CUSTOMERCODE)):

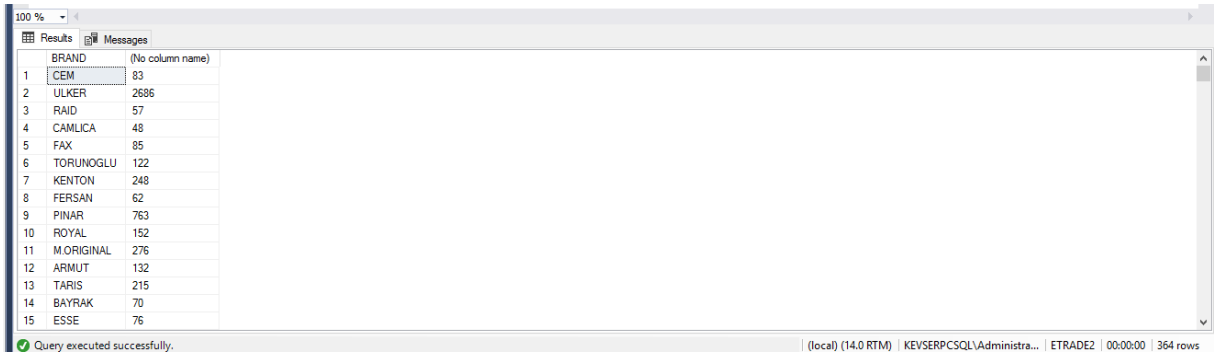


```
SELECT *
FROM SALES
```

	MOUNT	PRICE	TOTALPRICE	CUSTOMERCODE	CUSTOMERNAME	CUSTOMERBIRHTDATE	CUSTOMERGENDER	BRANCH	CITY	DISTRICT	REGION	DATEday	MonthColumn	MonthOneCode
1	[illegible]	6	24	2456844	Enver ÇOKYAŞA	1988-04-01	E	İstanbul	İstanbul	Sancaktepe	Marmara	2019-07-26	7	7
2	[illegible]	5,5	49,5	2456844	Enver ÇOKYAŞA	1988-04-01	E	İstanbul	İstanbul	Sancaktepe	Marmara	2019-01-06	1	1
3	[illegible]	125,95	377,85	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-12-30	12	12
4	[illegible]	39,36	275,52	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-10-07	10	10
5	[illegible]	1,2	8,4	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-04-22	4	4
6	[illegible]	1,2	6	1705209	Esma nur AĞRAĞ	1977-10-09	K	Gaziantep	Gaziantep	Nurdağı	Güneydoğu Anadolu	2019-07-21	7	7
7	[illegible]	21,95	197,55	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-01-14	1	1
8	[illegible]	4,75	28,5	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-09-16	9	9
9	[illegible]	5,2	15,6	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-08-29	8	8
10	[illegible]	4,75	23,75	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-09-21	9	9
11	0	3,5	35	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-08-22	8	8
12	[illegible]	7,128	64,152	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-11-13	11	11
13	[illegible]	3,144	15,72	163298	Esmanur BÜYÜKVARDAR	1987-12-05	K	İzmir	İzmir	Gaziemir	Ege	2019-02-19	2	2
14	0	19,99	199,9	2285568	Dilek KÖÇEKLİ	1967-09-09	K	İstanbul	İstanbul	Maltepe	Marmara	2019-10-15	10	10

Query executed successfully. (local) (14.0 RTM) KEVSERPCSQL\Administra... ETRADE2 00:00:01 103.439 rows

```
SELECT BRAND, COUNT(CUSTOMERCODE)
FROM SALES

GROUP BY BRAND
```



	BRAND	(No column name)
1	CEM	83
2	ULKER	2686
3	RAID	57
4	CAMLICA	48
5	FAX	85
6	TORUNOGLU	122
7	KENTON	248
8	FERSAN	62
9	PINAR	763
10	ROYAL	152
11	M.ORIGINAL	276
12	ARMUT	132
13	TARIS	215
14	BAYRAK	70
15	ESSE	76

Query executed successfully. (local) (14.0 RTM) KEVSERPCSQL\Administra... ETRADE2 00:00:00 364 rows

Görüyoruz ki 324 marka var ve her markanın müşteri sayısını bize unique olarak verecek olan şey müşterilen adı değil kodudur(CUSTOMERCODE), bu kodları saydırmak için de COUNT() fonksiyonunu kullanıyoruz.

ÖRNEK 6:

Belirli bir ayda tüm şehirlerdeki şubelerin satış toplam ücretlerini görmek:

```
SELECT CITY,FICHENO,

SUM(TOTALPRICE)

FROM SALES

WHERE MonthOneCode = 5

GROUP BY CITY, FICHENO
ORDER BY CITY DESC
```

100 %

Results | Messages

	CITY	FICHENO	(No column name)
1	Zonguldak	0000000081	30,336
2	Zonguldak	0000000827	78,12
3	Zonguldak	0000001731	91,6
4	Zonguldak	0000002942	314,5
5	Zonguldak	0000003894	79,8
6	Zonguldak	0000004160	93,75
7	Zonguldak	0000005776	20,16
8	Zonguldak	0000005987	5
9	Zonguldak	0000008016	22,02
10	Zonguldak	0000008789	126,3
11	Zonguldak	0000010186	248,7
12	Zonguldak	0000010242	16,05
13	Zonguldak	0000011259	107,37
14	Zonguldak	0000012473	14,76
15	Zonguldak	0000012663	61,6

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:00 | 7.175 rows

ÖRNEK 7:

Belirli bir toplam satış ücretinin üzerinde satış yapan mağaza şubelerini getirme:

HATA !

SQLQuery6.sql - (lo...Administrator (61))* | SQLQuery5.sql - (lo...Administrator (60)) | SQLQuery4.sql - (lo...Administrator (58)) | SQLQuery3.sql - (lo...Administrator (57))

```
SELECT CITY, SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE SUM(TOTALPRICE) > 50000

GROUP BY CITY
ORDER BY SUM(TOTALPRICE) DESC
```

100 %

Messages

```
Msg 147, Level 15, State 1, Line 5
An aggregate may not appear in the WHERE clause unless it is in a subquery contained in a HAVING clause or a select list, and the column being aggregated is an outer reference.
```

```
Msg 147, Level 15, State 1, Line 5
An aggregate may not appear in the WHERE clause unless it is in a subquery contained
in a HAVING clause or a select list, and the column being aggregated is an outer
reference.
```

Bu hatanın sebebi Aggregate fonksiyonlarının where şartı içerisinde kullanılamamasıdır. Yani bu kullanım hatalıdır: `WHERE SUM(TOTALPRICE) > 50000`

Bunun yerine Aggregate fonksiyonlarıyla şartlı işlem yapılacaksa HAVING komutu kullanılmalıdır.

HAVING fonksiyonu GROUP BY komutundan sonra kullanılmalıdır !!!

```
SELECT CITY, SUM(TOTALPRICE) AS TotalPrice

FROM SALES

GROUP BY CITY
HAVING SUM(TOTALPRICE) > 80000

ORDER BY SUM(TOTALPRICE) DESC
```

100 %

Results | Messages

	CITY	TotalPrice
1	Istanbul	2296133,72255455
2	Ankara	835993,485745193
3	Izmir	581251,928174803
4	Bursa	316313,689674403
5	Adana	302400,848780795
6	Gaziantep	263505,025985796
7	Konya	194161,152828068
8	Antalya	170870,20277908
9	Kayseri	153899,52013066
10	Mersin	142572,732462016
11	Diyarbakir	137759,585574692
12	Eskisehir	134230,250739404
13	Sanliurfa	105817,645017052
14	Samsun	104266,22201128
15	Malatya	101697,926355912

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:00 | 18 rows

ÖRNEK 7:

Belirli bir ayda Erzurum ve Gümüşhane illeri için toplam cirosu 30000 aşan şehirleri ciroları ile birlikte bastır:

```
SELECT DISTINCT CITY,
SUM(TOTALPRICE) AS TotalPrice

FROM SALES

WHERE CITY IN ('Erzurum', 'Gümüşhane')

GROUP BY CITY

HAVING SUM(TOTALPRICE)>80000
ORDER BY CITY DESC
```

100 %

Results | Messages

	CITY	TotalPrice
1	Erzurum	81818,0422756241

Örnek 6 ve 7 karşılaştırılırsa, Örnek 6 çıktısında bakılarak aslında 80000 ciro üzerinde yapan 18 şehir var fakat Örnek 7'de bu şehirler arasında Erzurum ve Gümüşhane varsa getir komutu çalışıtırıldığında, sadece Erzurum'un olduğu görülüyor.

ÖRNEK 8:

Belirli bir aydaki fiyat ortalaması 3000 ile 10000 arasında olan markaları bastır:

```
SELECT BRAND
FROM SALES
WHERE MonthOneCode= 12

GROUP BY BRAND

HAVING SUM(TOTALPRICE) BETWEEN 3000 AND 10000

ORDER BY SUM(TOTALPRICE)
```

100 %

Results | Messages

	BRAND
1	KOMILI
2	PINAR
3	SLEEPY
4	NEFISO
5	KARLIDAG
6	FAIRY
7	PENTI
8	ELSEVE
9	REBUL
10	WEE
11	DIADERMINE
12	KUTAHYA
13	KOLESTON
14	ORAL B
15	TARIS

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:00 | 31 rows

```
SELECT BRAND, SUM(TOTALPRICE) AS TotalPrice
FROM SALES
WHERE MonthOneCode= 12

GROUP BY BRAND

HAVING SUM(TOTALPRICE) BETWEEN 3000 AND 10000

ORDER BY SUM(TOTALPRICE) DESC
```

100 %

Results | Messages

	BRAND	TotalPrice
1	ELIT	8782,87
2	ELITE	7336,326
3	ALGIDA	6959,042
4	PRIMA	6397,852
5	SOLEN	6391,718
6	KENT	6111,11
7	TUTKU	5624,296
8	COLGATE	5301,6962212
9	ULKER	5200,94108
10	MILUPA	5123,054
11	NEUTROGENA	4952,14
12	GARNIER	4951,8
13	PALETTE	4906,75
14	SEBAMED	4856,39
15	GILLETTE	4835,404

Query executed successfully. | (local) (14.0 RTM) | KEVSERPCSQL\Administra... | ETRADE2 | 00:00:00 | 31 rows