TASK 5 (SALES TREND ANALYSIS USING AGGREGATION)
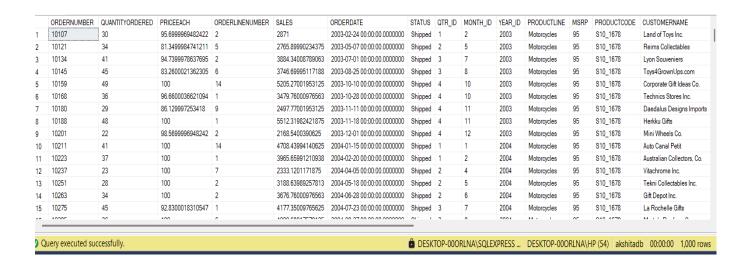
1) INPORTING DATA INTO SQL

```
SELECT TOP (1000) [ORDERNUMBER]
    ,[QUANTITYORDERED]
    ,[PRICEEACH]
    ,[ORDERLINENUMBER]
    ,[SALES]
    ,[ORDERDATE]
    ,[STATUS]
    ,[QTR_ID]
    ,[MONTH_ID]
    ,[YEAR_ID]
    ,[PRODUCTLINE]
    ,[MSRP]
    ,[PRODUCTCODE]
    ,[CUSTOMERNAME]
    ,[PHONE]
    ,[ADDRESSLINE1]
    ,[ADDRESSLINE2]
    ,[CITY]
    ,[STATE]
    ,[POSTALCODE]
    ,[COUNTRY]
    ,[TERRITORY]
    ,[CONTACTLASTNAME]
    ,[CONTACTFIRSTNAME]
    ,[DEALSIZE]
  FROM [akshitadb].[dbo].[TASK 6]
```

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	STATUS	QTR_ID	MONTH_ID	YEAR_ID	PRODUCTLINE	MSRP	PRODUCTCODE	CUSTOMERNAME
1	10107	30	95.6999969482422	2	2871	2003-02-24 00:00:00.0000000	Shipped	1	2	2003	Motorcycles	95	S10_1678	Land of Toys Inc.
2	10121	34	81.3499984741211	5	2765.89990234375	2003-05-07 00:00:00.0000000	Shipped	2	5	2003	Motorcycles	95	S10_1678	Reims Collectables
3	10134	41	94.7399978637695	2	3884.34008789063	2003-07-01 00:00:00.0000000	Shipped	3	7	2003	Motorcycles	95	S10_1678	Lyon Souveniers
4	10145	45	83.2600021362305	6	3746.69995117188	2003-08-25 00:00:00.0000000	Shipped	3	8	2003	Motorcycles	95	S10_1678	Toys4GrownUps.com
5	10159	49	100	14	5205.27001953125	2003-10-10 00:00:00.0000000	Shipped	4	10	2003	Motorcycles	95	S10_1678	Corporate Gift Ideas Co.
6	10168	36	96.6600036621094	1	3479.76000976563	2003-10-28 00:00:00.0000000	Shipped	4	10	2003	Motorcycles	95	S10_1678	Technics Stores Inc.
7	10180	29	86.129997253418	9	2497.77001953125	2003-11-11 00:00:00.0000000	Shipped	4	11	2003	Motorcycles	95	S10_1678	Daedalus Designs Imports
8	10188	48	100	1	5512.31982421875	2003-11-18 00:00:00.0000000	Shipped	4	11	2003	Motorcycles	95	S10_1678	Herkku Gifts
9	10201	22	98.5699996948242	2	2168.5400390625	2003-12-01 00:00:00.0000000	Shipped	4	12	2003	Motorcycles	95	S10_1678	Mini Wheels Co.
10	10211	41	100	14	4708.43994140625	2004-01-15 00:00:00.0000000	Shipped	1	1	2004	Motorcycles	95	S10_1678	Auto Canal Petit
11	10223	37	100	1	3965.65991210938	2004-02-20 00:00:00.0000000	Shipped	1	2	2004	Motorcycles	95	S10_1678	Australian Collectors, Co.
12	10237	23	100	7	2333.1201171875	2004-04-05 00:00:00.0000000	Shipped	2	4	2004	Motorcycles	95	S10_1678	Vitachrome Inc.
13	10251	28	100	2	3188.63989257813	2004-05-18 00:00:00.0000000	Shipped	2	5	2004	Motorcycles	95	S10_1678	Tekni Collectables Inc.
14	10263	34	100	2	3676.76000976563	2004-06-28 00:00:00.0000000	Shipped	2	6	2004	Motorcycles	95	S10_1678	Gift Depot Inc.
15	10275	45	92.8300018310547	1	4177.35009765625	2004-07-23 00:00:00.0000000	Shipped	3	7	2004	Motorcycles	95	S10_1678	La Rochelle Gifts

Query executed successfully.   DESKTOP-00ORLNA\SQLEXPRESS ... | DESKTOP-00ORLNA\HP (54) | akshitadb | 00:00:00 | 1,000 rows

2) EXTRACTING MONTH FROM ORDER DATE:

```
SELECT
    ORDERDATE,
    MONTH(ORDERDATE) AS OrderMonth
FROM
    [akshitadb].[dbo].[TASK 6];
```

	ORDERDATE	OrderMonth
1	2003-02-24 00:00:00.0000000	2
2	2003-05-07 00:00:00.0000000	5
3	2003-07-01 00:00:00.0000000	7
4	2003-08-25 00:00:00.0000000	8
5	2003-10-10 00:00:00.0000000	10
6	2003-10-28 00:00:00.0000000	10
7	2003-11-11 00:00:00.0000000	11
8	2003-11-18 00:00:00.0000000	11
9	2003-12-01 00:00:00.0000000	12
10	2004-01-15 00:00:00.0000000	1
11	2004-02-20 00:00:00.0000000	2
12	2004-04-05 00:00:00.0000000	4
13	2004-05-18 00:00:00.0000000	5
14	2004-06-28 00:00:00.0000000	6
15	2004-07-23 00:00:00.0000000	7
16	2004-08-27 00:00:00.0000000	8
17	2004-09-30 00:00:00.0000000	9

✅ Query executed successfully.

3)TO ALTER TABLE AND ADD VALUES OF [OrderMonth] in table

ALTER TABLE [akshitadb].[dbo].[TASK 6]

ADD OrderMonth INT;

UPDATE [akshitadb].[dbo].[TASK 6]

SET OrderMonth = MONTH(ORDERDATE);

4)USING GROUPBY FOR GETTING TOTAL SALES

TASK 5 (SALES TREND ANALYSIS USING AGGREGATION)

SELECT OrderMonth,COUNT([SALES]) AS QuantitySold

FROM

[akshitadb].[dbo].[TASK 6]

GROUP BY OrderMonth

ORDER BY OrderMonth;

	OrderMonth	QuantitySold
1	1	229
2	2	224
3	3	212
4	4	178
5	5	252
6	6	131
7	7	141
8	8	191
9	9	171
10	10	317
11	11	597
12	12	180

✅ Query executed successfully.

5)USING SUM FOR REVENUE

SELECT

SUM([SALES])

FROM

[akshitadb].[dbo].[TASK 6]

	(No column name)
1	10032628.8493042

6) COUNT(DISTINCT orderid) for volume

SELECT

   OrderMonth,

   COUNT(DISTINCT ORDERNUMBER) AS OrderVolume

FROM

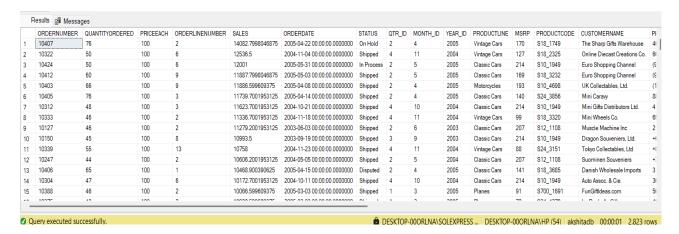   [akshitadb].[dbo].[TASK 6]

GROUP BY

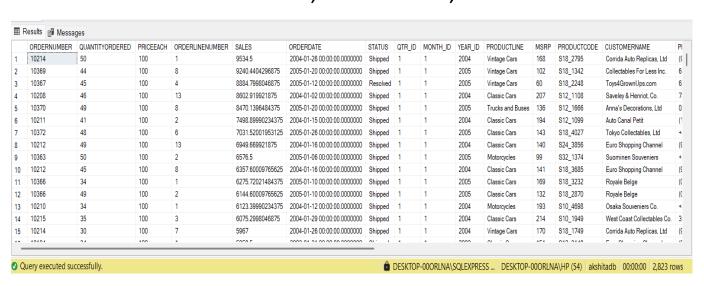   OrderMonth

ORDER BY

   OrderMonth;

	OrderMonth	OrderVolume
1	1	25
2	2	25
3	3	25
4	4	26
5	5	28
6	6	16
7	7	16
8	8	17
9	9	20
10	10	30
11	11	61
12	12	18

7)Use ORDER BY for sorting:

SELECT *

FROM [akshitadb].[dbo].[TASK 6]

ORDER BY SALES DESC;

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	STATUS	QTR_ID	MONTH_ID	YEAR_ID	PRODUCTLINE	MSRP	PRODUCTCODE	CUSTOMERNAME	P
1	10407	76	100	2	14082.7998046875	2005-04-22 00:00:00.0000000	On Hold	2	4	2005	Vintage Cars	170	S18_1749	The Sharp Gifts Warehouse	4(
2	10322	50	100	6	12536.5	2004-11-04 00:00:00.0000000	Shipped	4	11	2004	Vintage Cars	127	S18_2325	Online Diecast Creations Co.	6(
3	10424	50	100	6	12001	2005-05-31 00:00:00.0000000	In Process	2	5	2005	Classic Cars	214	S10_1949	Euro Shopping Channel	(9
4	10412	60	100	9	11887.7998046875	2005-05-03 00:00:00.0000000	Shipped	2	5	2005	Classic Cars	169	S18_3232	Euro Shopping Channel	(9
5	10403	66	100	9	11886.599609375	2005-04-08 00:00:00.0000000	Shipped	2	4	2005	Motorcycles	193	S10_4698	UK Collectables, Ltd.	(1
6	10405	76	100	3	11739.7001953125	2005-04-14 00:00:00.0000000	Shipped	2	4	2005	Classic Cars	140	S24_3856	Mini Caravy	8:
7	10312	48	100	3	11623.7001953125	2004-10-21 00:00:00.0000000	Shipped	4	10	2004	Classic Cars	214	S10_1949	Mini Gifts Distributors Ltd.	4
8	10333	46	100	2	11336.7001953125	2004-11-18 00:00:00.0000000	Shipped	4	11	2004	Vintage Cars	99	S18_3320	Mini Wheels Co.	6!
9	10127	46	100	2	11279.2001953125	2003-06-03 00:00:00.0000000	Shipped	2	6	2003	Classic Cars	207	S12_1108	Muscle Machine Inc	2
10	10150	45	100	8	10993.5	2003-09-19 00:00:00.0000000	Shipped	3	9	2003	Classic Cars	214	S10_1949	Dragon Souveniers, Ltd.	+(
11	10339	55	100	13	10758	2004-11-23 00:00:00.0000000	Shipped	4	11	2004	Vintage Cars	88	S24_3151	Tokyo Collectables, Ltd	+:
12	10247	44	100	2	10606.2001953125	2004-05-05 00:00:00.0000000	Shipped	2	5	2004	Classic Cars	207	S12_1108	Suominen Souveniers	+:
13	10406	65	100	1	10468.900390625	2005-04-15 00:00:00.0000000	Disputed	2	4	2005	Classic Cars	141	S18_3685	Danish Wholesale Imports	3
14	10304	47	100	6	10172.7001953125	2004-10-11 00:00:00.0000000	Shipped	4	10	2004	Classic Cars	214	S10_1949	Auto Assoc. & Cie.	3(
15	10388	46	100	2	10066.599609375	2005-03-03 00:00:00.0000000	Shipped	1	3	2005	Planes	91	S700_1691	FunGiftIdeas.com	5(

Query executed successfully.   DESKTOP-00ORLNA\SOLEXPRESS ...   DESKTOP-00ORLNA\HP (54)   akshitadb   00:00:01   2,823 rows

SELECT *

FROM [akshitadb].[dbo].[TASK 6]

ORDER BY OrderMonth ASC, SALES DESC;

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	STATUS	QTR_ID	MONTH_ID	YEAR_ID	PRODUCTLINE	MSRP	PRODUCTCODE	CUSTOMERNAME	PI
1	10214	50	100	1	9534.5	2004-01-26 00:00:00.0000000	Shipped	1	1	2004	Vintage Cars	168	S18_2795	Corrida Auto Replicas, Ltd	(9
2	10369	44	100	8	9240.4404296875	2005-01-20 00:00:00.0000000	Shipped	1	1	2005	Vintage Cars	102	S18_1342	Collectables For Less Inc.	6
3	10367	45	100	4	8884.7998046875	2005-01-12 00:00:00.0000000	Resolved	1	1	2005	Vintage Cars	60	S18_2248	Toys4GrownUps.com	6
4	10208	46	100	13	8602.919921875	2004-01-02 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	207	S12_1108	Saveley & Henriot, Co.	7
5	10370	49	100	8	8470.1396484375	2005-01-20 00:00:00.0000000	Shipped	1	1	2005	Trucks and Buses	136	S12_1666	Anna's Decorations, Ltd	0
6	10211	41	100	2	7498.89990234375	2004-01-15 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	194	S12_1099	Auto Canal Petit	(1
7	10372	48	100	6	7031.52001953125	2005-01-26 00:00:00.0000000	Shipped	1	1	2005	Classic Cars	143	S18_4027	Tokyo Collectables, Ltd	+
8	10212	49	100	13	6949.669921875	2004-01-16 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	140	S24_3856	Euro Shopping Channel	(9
9	10363	50	100	2	6576.5	2005-01-06 00:00:00.0000000	Shipped	1	1	2005	Motorcycles	99	S32_1374	Suominen Souveniers	+
10	10212	45	100	8	6357.60009765625	2004-01-16 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	141	S18_3685	Euro Shopping Channel	(9
11	10366	34	100	1	6275.72021484375	2005-01-10 00:00:00.0000000	Shipped	1	1	2005	Classic Cars	169	S18_3232	Royale Belge	(0
12	10366	49	100	2	6144.60009765625	2005-01-10 00:00:00.0000000	Shipped	1	1	2005	Classic Cars	132	S18_2870	Royale Belge	(0
13	10210	34	100	1	6123.39990234375	2004-01-12 00:00:00.0000000	Shipped	1	1	2004	Motorcycles	193	S10_4698	Osaka Souveniers Co.	+
14	10215	35	100	3	6075.2998046875	2004-01-29 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	214	S10_1949	West Coast Collectables Co.	3
15	10214	30	100	7	5967	2004-01-26 00:00:00.0000000	Shipped	1	1	2004	Vintage Cars	170	S18_1749	Corrida Auto Replicas, Ltd	(9

✅ Query executed successfully.   🔒 DESKTOP-00ORLNA\SQLEXPRESS … | DESKTOP-00ORLNA\HP (54) | akshitadb | 00:00:00 | 2,823 rows

8) LIMIT RESULTS FOR SPECIFIC TIME PERIODS:

SELECT *

FROM [akshitadb].[dbo].[TASK 6]

WHERE ORDERDATE BETWEEN '2004-01-01' AND
'2004-03-31';

TASK 5 (SALES TREND ANALYSIS USING AGGREGATION)

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	STATUS	QTR_ID	MONTH_ID	YEAR_ID	PRODUCTLINE	MSRP	PRODUCTCODE	CUSTOMERNAME	PHC
1	10211	41	100	14	4708.43994140625	2004-01-15 00:00:00.0000000	Shipped	1	1	2004	Motorcycles	95	S10_1678	Auto Canal Petit	(1)
2	10223	37	100	1	3965.65991210938	2004-02-20 00:00:00.0000000	Shipped	1	2	2004	Motorcycles	95	S10_1678	Australian Collectors, Co.	03
3	10215	35	100	3	6075.2998046875	2004-01-29 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	214	S10_1949	West Coast Collectables Co.	310
4	10228	29	100	2	6463.22998046875	2004-03-10 00:00:00.0000000	Shipped	1	3	2004	Classic Cars	214	S10_1949	Cambridge Collectables Co.	617
5	10210	23	100	2	3009.09008789063	2004-01-12 00:00:00.0000000	Shipped	1	1	2004	Motorcycles	118	S10_2016	Osaka Souveniers Co.	+81
6	10223	47	100	4	5422.39013671875	2004-02-20 00:00:00.0000000	Shipped	1	2	2004	Motorcycles	118	S10_2016	Australian Collectors, Co.	03
7	10210	34	100	1	6123.39990234375	2004-01-12 00:00:00.0000000	Shipped	1	1	2004	Motorcycles	193	S10_4698	Osaka Souveniers Co.	+81
8	10223	49	100	3	9774.0302734375	2004-02-20 00:00:00.0000000	Shipped	1	2	2004	Motorcycles	193	S10_4698	Australian Collectors, Co.	03
9	10209	39	100	8	5197.919921875	2004-01-09 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	136	S10_4757	Men 'R' US Retailers, Ltd.	215
10	10222	49	100	12	5997.60009765625	2004-02-19 00:00:00.0000000	Shipped	1	2	2004	Classic Cars	136	S10_4757	Collectable Mini Designs Co.	760
11	10217	48	100	4	7020.47998046875	2004-02-04 00:00:00.0000000	Shipped	1	2	2004	Classic Cars	147	S10_4962	Handji Gifts& Co	+65
12	10229	50	100	9	6426.5	2004-03-11 00:00:00.0000000	Shipped	1	3	2004	Classic Cars	147	S10_4962	Mini Gifts Distributors Ltd.	415
13	10211	41	100	2	7498.89990234375	2004-01-15 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	194	S12_1099	Auto Canal Petit	(1)
14	10225	27	100	9	4517.91015625	2004-02-22 00:00:00.0000000	Shipped	1	2	2004	Classic Cars	194	S12_1099	Vida Sport, Ltd	089
15	10208	46	100	13	8602.919921875	2004-01-02 00:00:00.0000000	Shipped	1	1	2004	Classic Cars	207	S12_1108	Saveley & Henriot, Co.	78.

✅ Query executed successfully.
🔒 DESKTOP-00ORLNA\SQLEXPRESS ... | DESKTOP-00ORLNA\HP (54) | akshitadb | 00:00:00 | 233 rows