

Module 18: Selection Commands – Ordering


1. Commenting in SQL

Purpose:

Comments are used to **add notes or explanations** inside your SQL queries. These are **ignored by the SQL engine**.

Types of Comments:

Type	Syntax Example	Use Case
Single Line	-- This is a comment	Quick notes or explanations
Multi-line	/* This is a multi-line comment */	Document blocks or disable code

 **Visual Tip:** Comments appear **green** in SSMS (SQL Server Management Studio).

```
/*  
  
Multiline comments I  
  
*/  
  
Select * from Sales  
  
--Single line Comment  
  
Select * from Sales
```



Reference Table Used in This Module

48	Select * from Sales
49	
50	
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59	
60	
61	
62	

OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1 2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2 2018-01-23	Central	Hermann	Shelli	Home Theater	50	500	25000
3 2018-02-09	Central	Hermann	Luis	Television	36	1198	43128
4 2018-02-26	Central	Timothy	David	Cell Phone	27	225	6075
5 2018-03-15	West	Timothy	Stephen	Television	56	1198	67088
6 2018-04-01	East	Martha	Alexander	Home Theater	60	500	30000
7 2018-04-18	Central	Martha	Steven	Television	75	1198	89850

2. ORDER BY Clause

✓ Definition:

ORDER BY is used to **sort result rows** by one or more columns.

- **ASC** = Ascending (default)
- **DESC** = Descending

✓ Syntax:

```
SELECT column1, column2
FROM table_name
ORDER BY column1 ASC, column2 DESC;
```

📌 Examples (Using Sales Table):

a) Sort by Order Date (Oldest to Newest):

```
SELECT * FROM Sales
ORDER BY OrderDate ASC;
```

49
50
51
52
53
54
55
56
57
58
59
60
61
62

```
SELECT * FROM SALES ORDER BY ORDERDATE ASC;
```

145 %

Results Messages

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2	2018-01-23	Central	Hermann	Shelli	Home Theater	50	500	25000
3	2018-02-09	Central	Hermann	Luis	Television	36	1198	43128
4	2018-02-26	Central	Timothy	David	Cell Phone	27	225	6075
5	2018-03-15	West	Timothy	Stephen	Television	56	1198	67088
6	2018-04-01	East	Martha	Alexander	Home Theater	60	500	30000
7	2018-04-18	Central	Martha	Steven	Television	75	1198	89850
8	2018-05-05	Central	Hermann	Luis	Television	90	1198	107820
9	2018-05-22	West	Douglas	Michael	Television	32	1198	38336
10	2018-06-08	East	Martha	Alexander	Home Theater	60	500	30000

b) Sort by Date Ascending, Units Descending:

SELECT * FROM Sales

ORDER BY OrderDate ASC, Units DESC;

52
53
54
55
56
57
58
59
60
61
62

```
SELECT * FROM SALES ORDER BY ORDERDATE ASC, UNITS DESC;
```

145 %

Results Messages

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2	2018-01-23	Central	Hermann	Shelli	Home Theater	50	500	25000
3	2018-02-09	Central	Hermann	Luis	Television	36	1198	43128
4	2018-02-26	Central	Timothy	David	Cell Phone	27	225	6075
5	2018-03-15	West	Timothy	Stephen	Television	56	1198	67088
6	2018-04-01	East	Martha	Alexander	Home Theater	60	500	30000
7	2018-04-18	Central	Martha	Steven	Television	75	1198	89850
8	2018-05-05	Central	Hermann	Luis	Television	90	1198	107820
9	2018-05-22	West	Douglas	Michael	Television	32	1198	38336
10	2018-06-08	East	Martha	Alexander	Home Theater	60	500	30000

c) Filter and Sort by Units:

```
SELECT * FROM Sales
```

```
WHERE Units > 50
```

```
ORDER BY Units DESC;
```

The screenshot shows a SQL query window with the following text: `Select * from sales where units>50 order by units desc;`. Below the query window, the 'Results' tab is active, displaying a table with 14 rows and 9 columns. The columns are: OrderDate, Region, Manager, SalesMan, Item, Units, Unit_price, and Sale_amt. The data is sorted by Units in descending order. A status bar at the bottom indicates 'Query executed successfully.'

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	98	1198	113810
2	2018-11-25	Central	Hermann	Shelli	Video Games	96	58.5	5616
3	2019-04-27	East	Martha	Diana	Cell Phone	96	225	21600
4	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
5	2019-12-04	Central	Hermann	Luis	Home Theater	94	500	47000
6	2018-05-05	Central	Hermann	Luis	Television	90	1198	107820
7	2018-06-25	Central	Hermann	Sigal	Television	90	1198	107820
8	2019-02-01	Central	Douglas	John	Home Theater	87	500	43500
9	2018-07-29	East	Douglas	Karen	Home Theater	81	500	40500
10	2019-05-31	Central	Timothy	David	Home Theater	80	500	40000
11	2019-09-27	West	Timothy	Stephen	Cell Phone	76	225	17100
12	2018-04-18	Central	Martha	Steven	Television	75	1198	89850
13	2018-12-29	East	Douglas	Karen	Video Games	74	58.5	4329
14	2018-12-12	Central	Douglas	John	Television	67	1198	80266

3. TOP Keyword (SQL Server Equivalent of LIMIT)

✓ Definition:

TOP is used to **limit the number of rows** returned.

- **TOP N** → Return N rows
- **TOP N PERCENT** → Return N% of rows

✓ Syntax:

```
SELECT TOP N * FROM table_name;
```

```
SELECT TOP N PERCENT * FROM table_name;
```

📌 Examples:

a) Top 3 Sales Records:

```
SELECT TOP 3 *
```

```
FROM Sales;
```

62
63
64
65
66
67
68
69
70
71

```
SELECT TOP 3 * FROM SALES;
```

145 %

Results Messages

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2	2018-01-23	Central	Hermann	Shelli	Home Theater	50	500	25000
3	2018-02-09	Central	Hermann	Luis	Television	36	1198	43128

b) Top 5 Percent Records:

SELECT TOP 5 PERCENT *
FROM Sales;

63
64
65
66
67
68
69
70
71

```
SELECT TOP 5 PERCENT * FROM SALES;
```

145 %

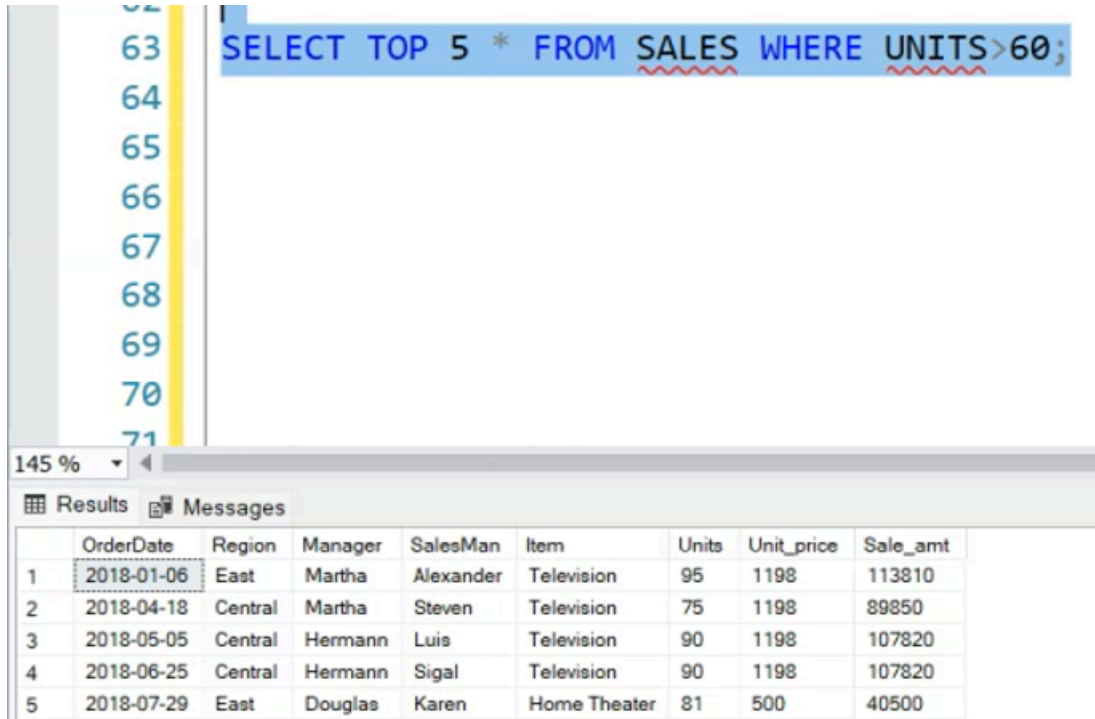
Results

Messages

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2	2018-01-23	Central	Hermann	Shelli	Home Theater	50	500	25000
3	2018-02-09	Central	Hermann	Luis	Television	36	1198	43128

c) Top 5 Sales where Units > 60:

```
SELECT TOP 5 * FROM Sales  
WHERE Units > 60;
```



The screenshot shows a SQL Server Enterprise Manager interface. At the top, a query window displays the SQL statement: `SELECT TOP 5 * FROM SALES WHERE UNITS > 60;`. Below the query window, the 'Results' tab is active, showing a table with 9 columns: OrderDate, Region, Manager, SalesMan, Item, Units, Unit_price, and Sale_amt. The table contains 5 rows of data, representing the top 5 sales by units.

	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
1	2018-01-06	East	Martha	Alexander	Television	95	1198	113810
2	2018-04-18	Central	Martha	Steven	Television	75	1198	89850
3	2018-05-05	Central	Hermann	Luis	Television	90	1198	107820
4	2018-06-25	Central	Hermann	Sigal	Television	90	1198	107820
5	2018-07-29	East	Douglas	Karen	Home Theater	81	500	40500



Summary Table

Command	Purpose	Example
--	Single-line comment	-- This filters sales
/* */	Multi-line comment	/* Ignore this block */
ORDER BY	Sort results	ORDER BY Units DESC
ASC	Ascending order	ORDER BY OrderDate ASC
DESC	Descending order	ORDER BY Sale_amt DESC
TOP	Return top N records	SELECT TOP 3 * FROM Sales
TOP N PERCENT	Return top % of rows	SELECT TOP 10 PERCENT * FROM Sales