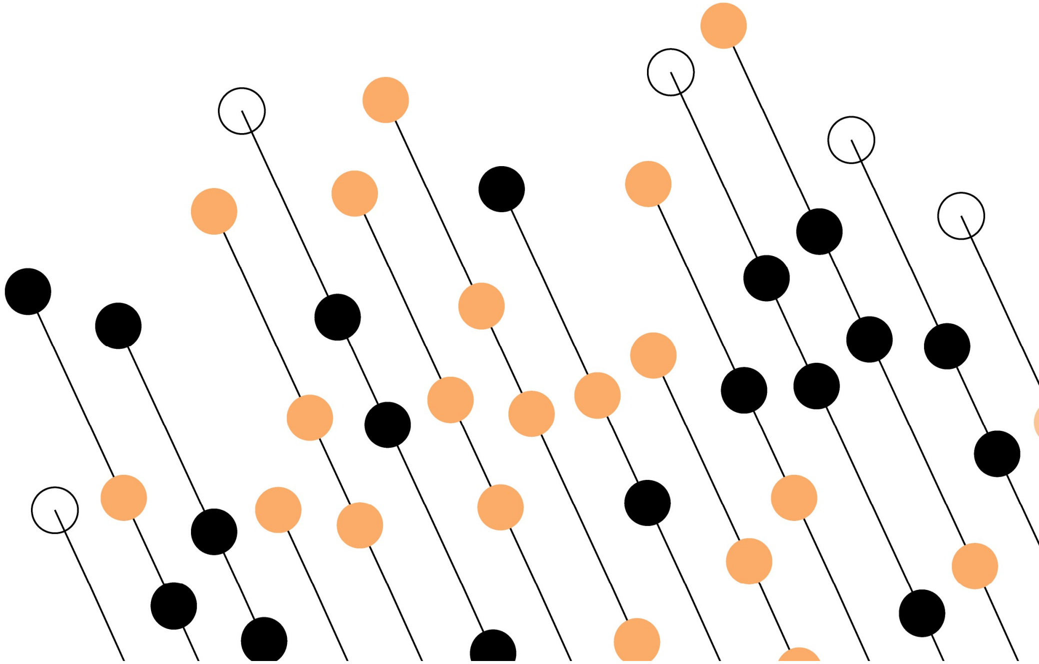
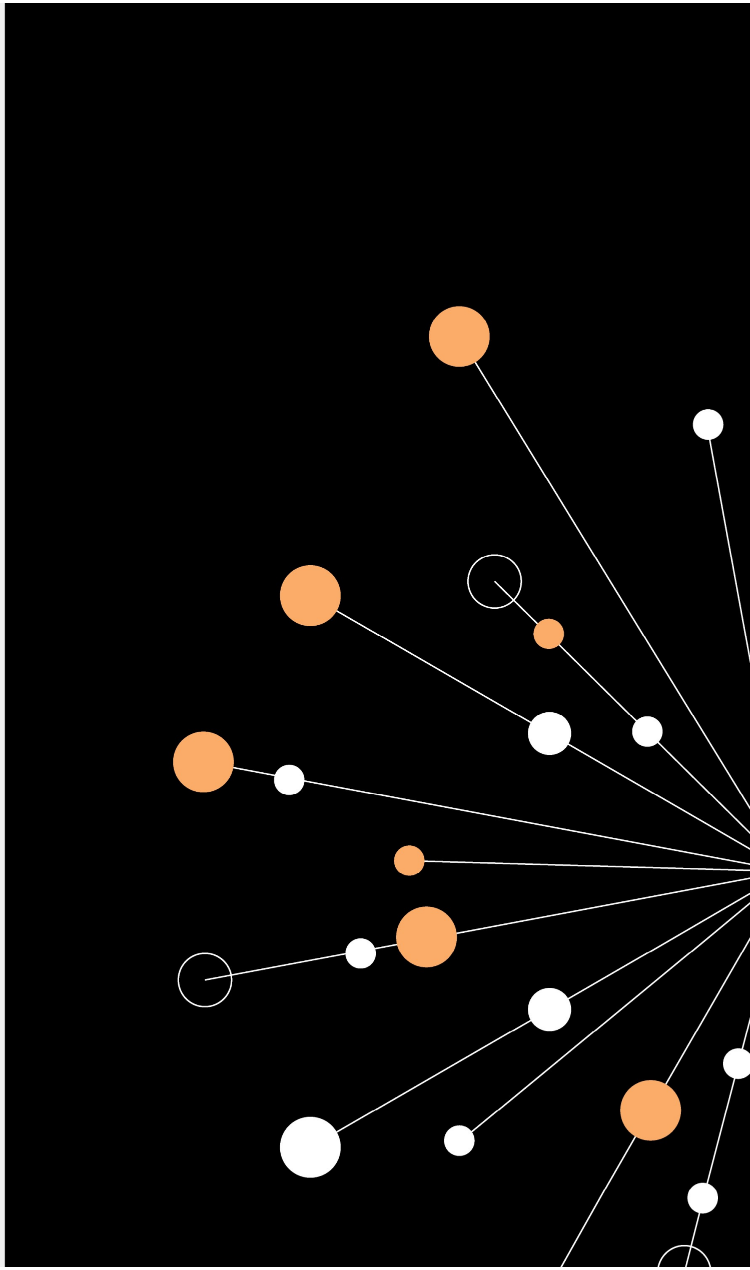
SQL: Sorting Rows



SQL

Contents

- Order By
- Where and Order By with Expressions



SELECT statement

SELECT <<field(s)>>

FROM <<table(s)>>

WHERE <<condition(s)>>

GROUP BY <<field(s)>>

HAVING <<condition(s)>>

ORDER BY <<field(s)>>

SELECT statement: Order by

- **Row ordering is done last – after all filtering and calculating**
- **ORDER BY is the last clause in the SELECT statement**
  - **ASC –** ascending - Default
  - **DESC** – descending

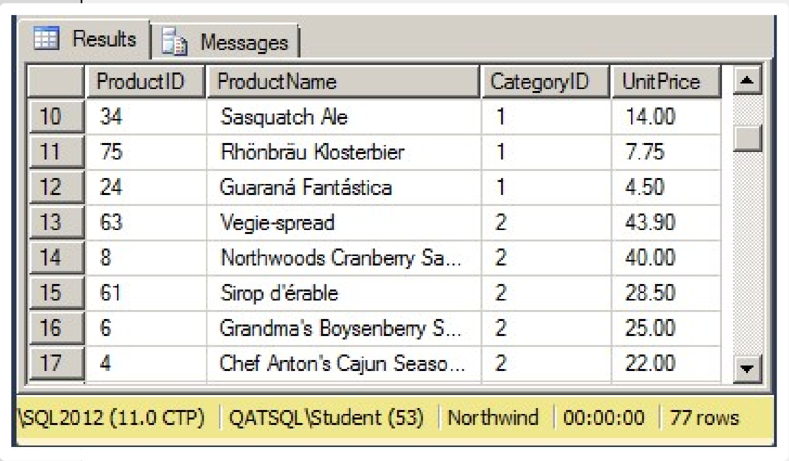
```
               USE Northwind
SELECT ProductName, UnitPrice FROM Products
ORDER By UnitPrice DESC


SELECT CategoryID, ProductName, UnitPrice
FROM Products
ORDER By CategoryID, UnitPrice DESC
```

Sort on multiple columns

- There can be up to 16 columns in ORDER BY clause.
- Sort columns do not have to be included in select list.

```
SELECT
  ProductID,
ProductName,
  CategoryID,
UnitPrice
FROM
  dbo.Products
ORDER BY
  CategoryID,
  UnitPrice DESC
```



	ProductID	ProductName	CategoryID	UnitPrice
10	34	Sasquatch Ale	1	14.00
11	75	Rhönbräu Klosterbier	1	7.75
12	24	Guaraná Fantástica	1	4.50
13	63	Vegie-spread	2	43.90
14	8	Northwoods Cranberry Sa...	2	40.00
15	61	Sirop d'érable	2	28.50
16	6	Grandma's Boysenberry S...	2	25.00
17	4	Chef Anton's Cajun Seaso...	2	22.00

\SQL2012 (11.0 CTP) | QATSQL\Student (53) | Northwind | 00:00:00 | 77 rows

SELECT statement: Order by With Expressions

```
SELECT ProductID, ProductName,
(UnitsInStock+UnitsOnOrder)*UnitPrice AS Revenue
FROM Products
WHERE (UnitsInStock+UnitsOnOrder)*UnitPrice > 1000
ORDER BY (UnitsInStock+UnitsOnOrder)*UnitPrice
```

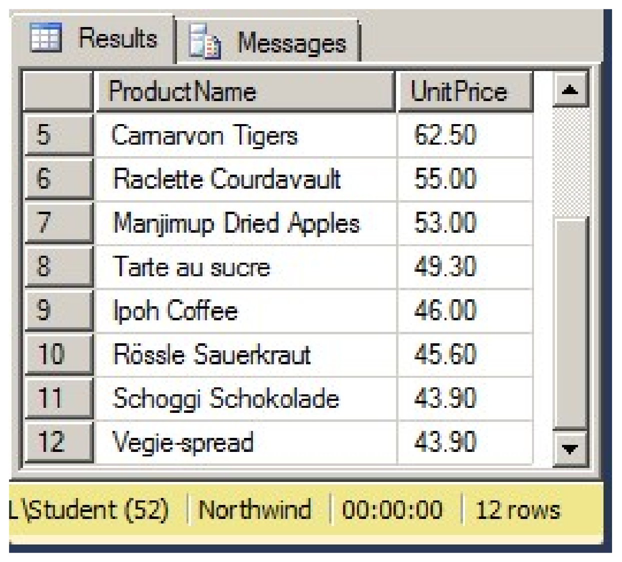
```
SELECT ProductID, ProductName,
(UnitsInStock+UnitsOnOrder)*UnitPrice AS Revenue
FROM Products
WHERE (UnitsInStock+UnitsOnOrder)*UnitPrice > 1000
ORDER BY Revenue
```

Alias can be used in ORDER BY but not in WHERE clause.

Ordering and filtering: select top

- **SELECT TOP *n***
- **SELECT TOP *n* PERCENT**
- **SELECT TOP *n* ... WITH TIES**

```
SELECT TOP 11 WITH TIES
  ProductName,
  UnitPrice
FROM
  dbo.Products
ORDER BY
  UnitPrice DESC
```



	ProductName	UnitPrice
5	Camarvon Tigers	62.50
6	Raclette Courdavault	55.00
7	Manjimup Dried Apples	53.00
8	Tarte au sucre	49.30
9	Ipoh Coffee	46.00
10	Rössle Sauerkraut	45.60
11	Schoggi Schokolade	43.90
12	Vegie-spread	43.90

L\Student (52) | Northwind | 00:00:00 | 12 rows

- What of the TOP n options would you use in your work?