

# Microsoft SQL Server 2019

## Design & Develop



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**Senior DW/ ETL/ BI Architect**

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# Sub Query



- 
- Scalar
    - 1 Column, 1 Row
  - Multivalued
    - 1 Column, n Rows
  - Set
    - n Columns, n Rows

SELECT

(Expression)

FROM

(Set)

(Condition)

WHERE

(Condition)

GROUP BY

(Expression)

HAVING

(Condition)

ORDER BY

(Expression)

# SELECT Statement



Expression	Scalar	
Condition	Scalar	Equation
	Multi Valued	IN, NOT IN
	Set	EXISTS, NOT EXISTS
Set	Set	

# Sub Query



- 
- Self Contained
    - Sub Query is independent.
  - Correlated
    - Sub Query is dependent on Main Query

# Sub Query

	Scalar	Multi Valued	Set
Self Contained	Percent of Total	Person who are Employee Person who are not Employee	Sales: Year, Q1,Q2,Q3,Q4
Correlated	Sales: Year, Q1,Q2,Q3,Q4		Person who are Employee Person who are not Employee  Top Two Customer for each year

# Inter SELECT Operator



- 
- UNION (+ DISTINCT)
  - UNION ALL
  - EXCEPT (+ DISTINCT)
  - **EXCEPT ALL**
  - INTERSECT (+ DISTINCT)
  - **INTERSECT ALL**

# Inter SELECT Operator

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- **Same Column Quantity**
- **Last SELECT Statement allows ORDER BY**
  - Sort Final Result
- **First SELECT Statement defines Column Names**
- **Same Column have same Data Type**
  - Implicit CONVERT
  - Base on Data Type Priority