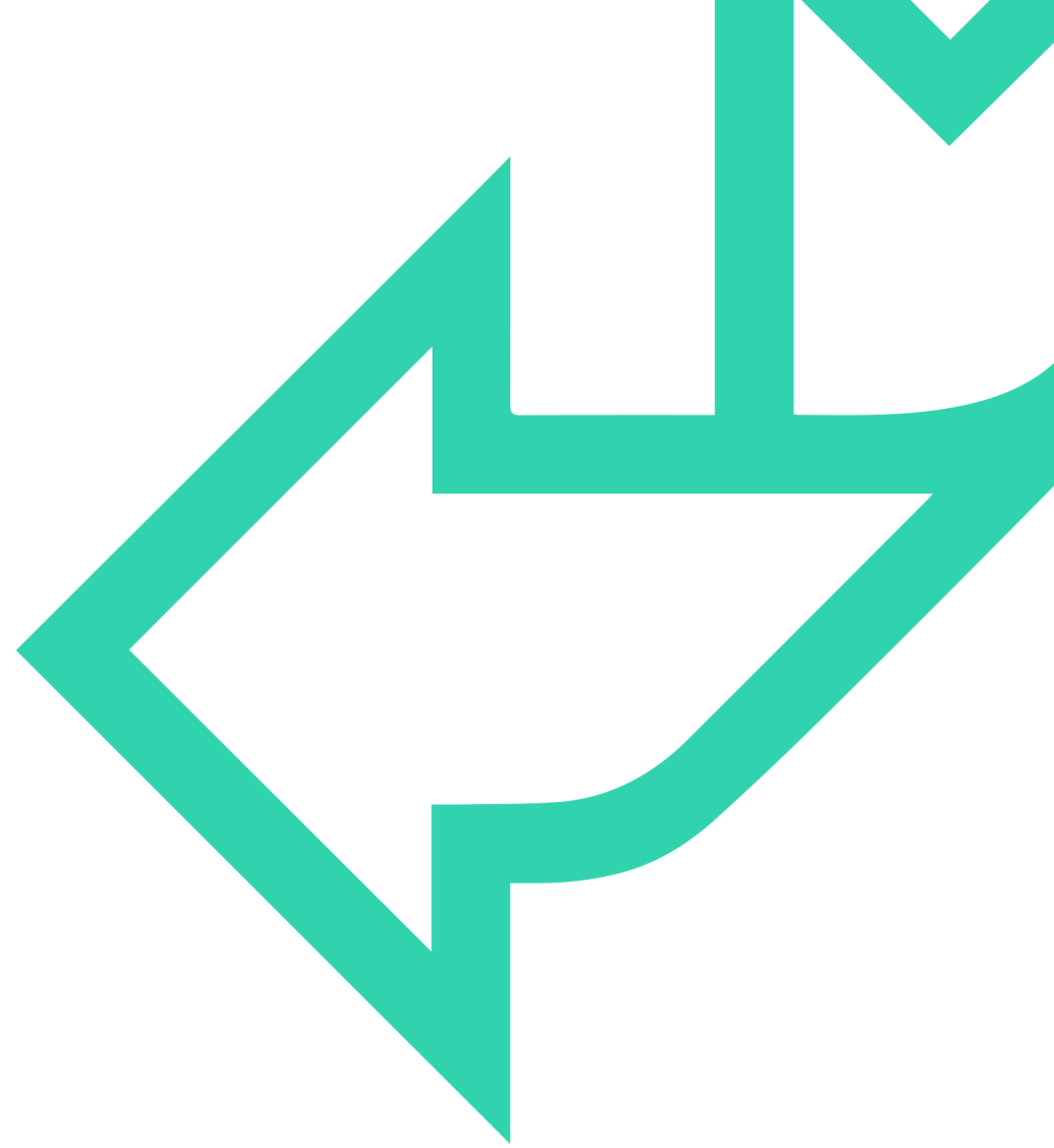




SQL: Joins





SQL

Lesson Objectives and Contents

Joins

- Inner
- Left
- Right
- Outer



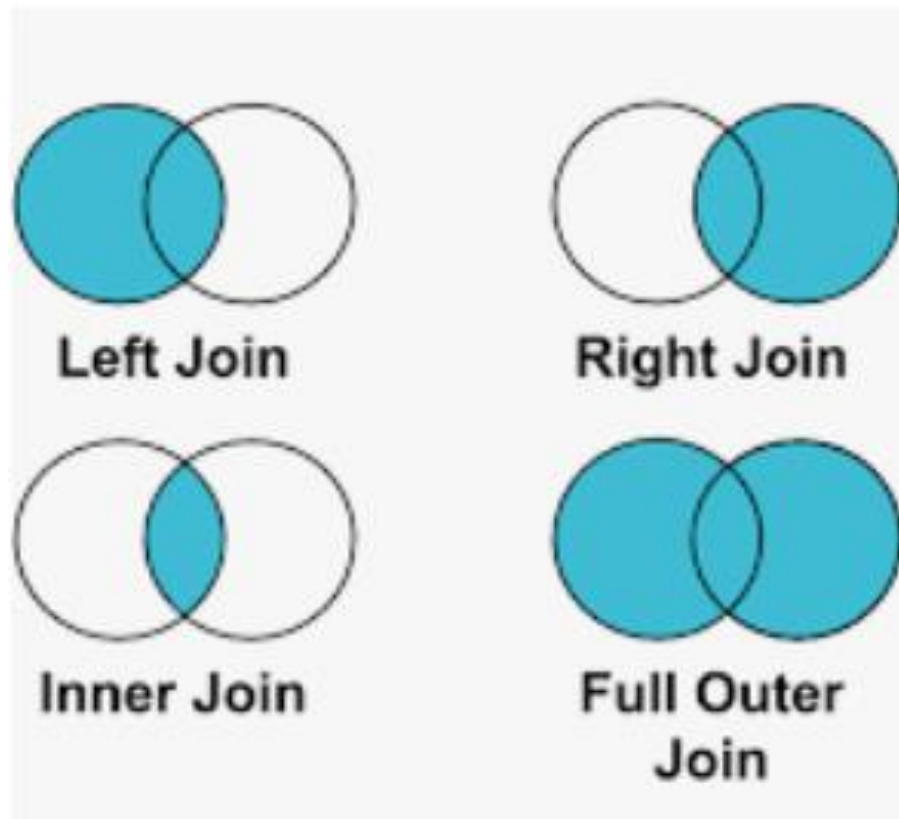


JOINS

```
SELECT <<field(s)>>  
FROM <<table1>>  
type-ofJOIN <<table2>> ON <<predicate>>  
WHERE <<condition(s)>>  
GROUP BY <<field(s)>>  
HAVING <<condition(s)>>  
ORDER BY <<field(s)>>
```



JOIN TYPES





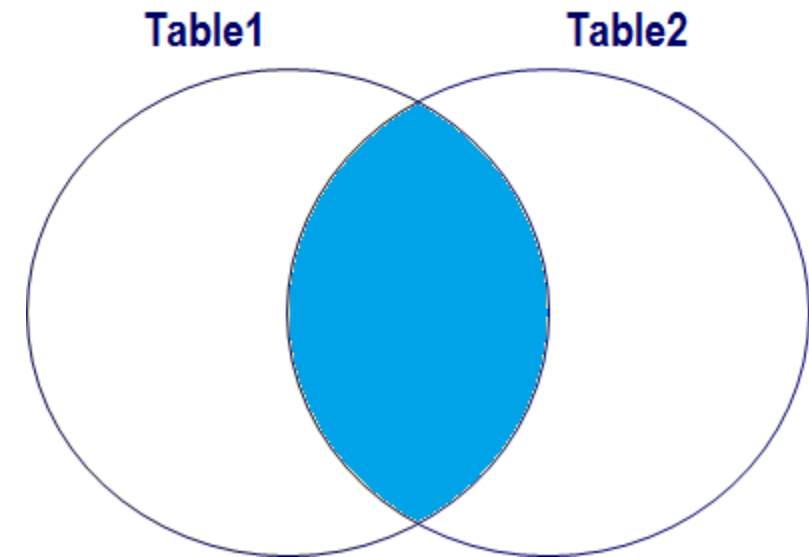
INNER JOIN

Returns only rows where the
ON clause is true.

```
SELECT *
```

```
FROM Table1 INNER JOIN Table2
```

```
ON Table1.Col1 = Table2.Col2
```





INNER JOIN

SupplierID	SupplierName
S1	supplier_1
S2	supplier_2
S3	supplier_3
S4	supplier_4

OrderID	SupplierID	OrderDate
1001	S1	2021-01-01 00:00:00.000
1002	S2	2021-02-01 00:00:00.000
1005	S5	2021-03-01 00:00:00.000

```
SELECT o.OrderID, o.SupplierID, s.SupplierName, o.OrderDate
FROM orders o INNER JOIN suppliers s ON o.SupplierID =
s.SupplierID
```

OrderID	SupplierID	SupplierName	OrderDate
1001	S1	supplier_1	2021-01-01 00:00:00.000
1002	S2	supplier_2	2021-02-01 00:00:00.000



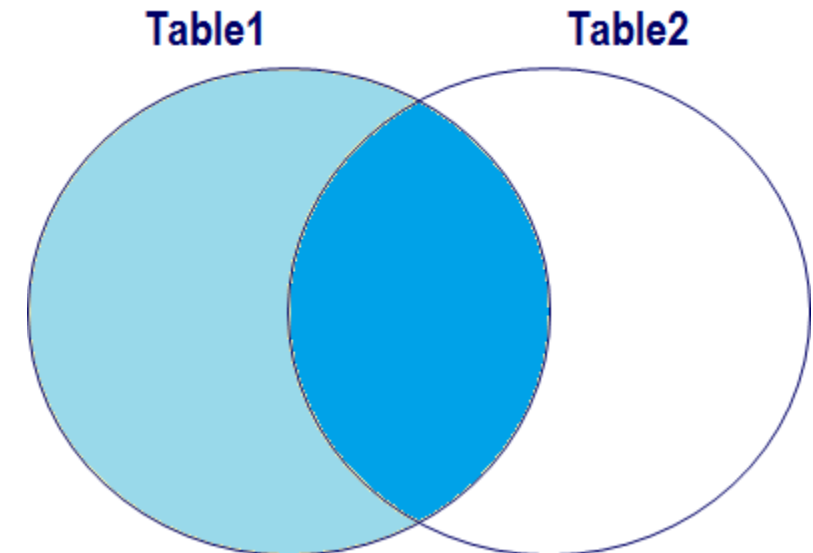
LEFT JOIN

Returns all rows from Table1 and the rows from Table2 where the ON clause is true.

```
SELECT *
```

```
FROM Table1 LEFT JOIN Table2
```

```
ON Table1.Col1 = Table2.Col2
```





LEFT JOIN

SupplierID	SupplierName
S1	supplier_1
S2	supplier_2
S3	supplier_3
S4	supplier_4

OrderID	SupplierID	OrderDate
1001	S1	2021-01-01 00:00:00.000
1002	S2	2021-02-01 00:00:00.000
1005	S5	2021-03-01 00:00:00.000

```
SELECT o.OrderID, o.SupplierID, s.SupplierName, o.OrderDate
FROM orders o LEFT JOIN suppliers s ON o.SupplierID =
s.SupplierID
```

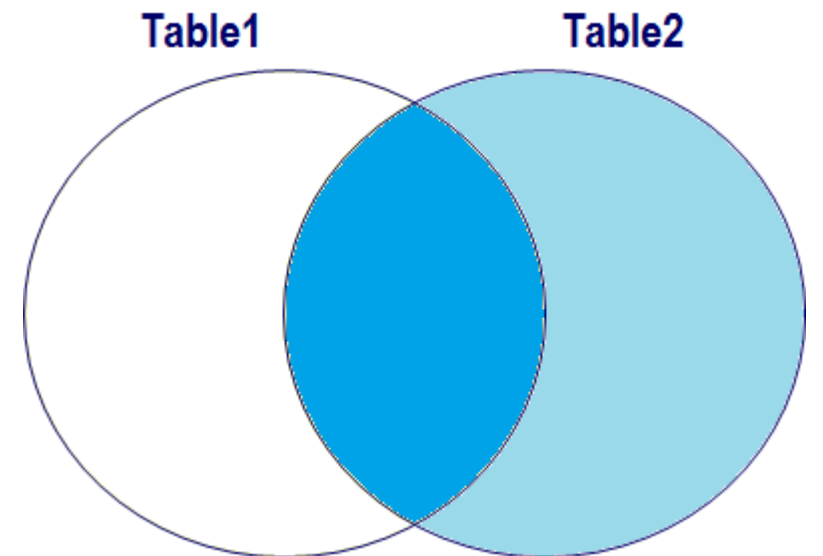
OrderID	SupplierID	SupplierName	OrderDate
1001	S1	supplier_1	2021-01-01 00:00:00.000
1002	S2	supplier_2	2021-02-01 00:00:00.000
1005	S5	NULL	2021-03-01 00:00:00.000



RIGHT JOIN

Returns all rows from Table2 and the rows from Table1 where the ON clause is true.

```
SELECT *  
FROM Table1 RIGHT JOIN Table2  
ON Table1.Col1 = Table2.Col2
```





RIGHT JOIN

SupplierID	SupplierName
S1	supplier_1
S2	supplier_2
S3	supplier_3
S4	supplier_4

OrderID	SupplierID	OrderDate
1001	S1	2021-01-01 00:00:00.000
1002	S2	2021-02-01 00:00:00.000
1005	S5	2021-03-01 00:00:00.000

```
SELECT o.OrderID, o.SupplierID, s.SupplierName, o.OrderDate
FROM orders o RIGHT JOIN suppliers s ON o.SupplierID =
s.SupplierID
```

OrderID	SupplierID	SupplierName	OrderDate
1001	S1	supplier_1	2021-01-01 00:00:00.000
1002	S2	supplier_2	2021-02-01 00:00:00.000
NULL	NULL	supplier_3	NULL
NULL	NULL	supplier_4	NULL



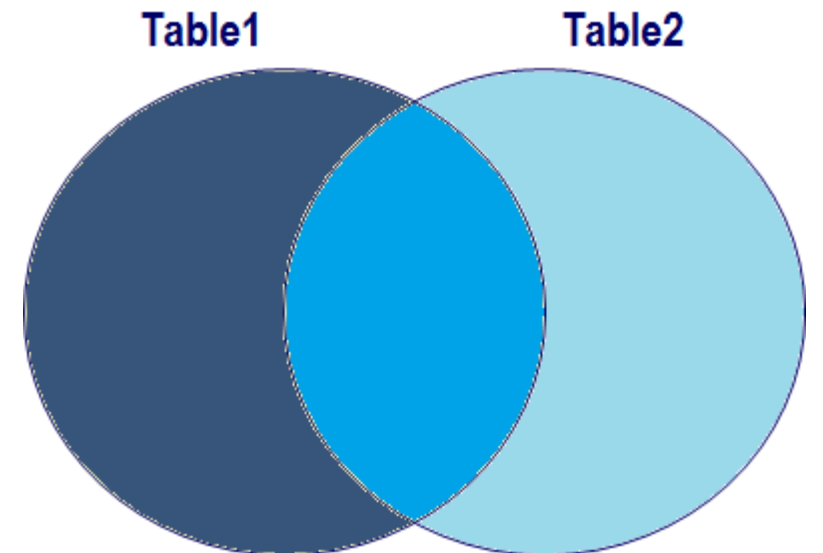
FULL JOIN

Returns from both tables rows where the ON clause is true and disjointed rows where matches are not found.

```
SELECT *
```

```
FROM Table1 FULL JOIN Table2
```

```
ON Table1.Col1 = Table2.Col2
```





FULL JOIN

SupplierID	SupplierName
S1	supplier_1
S2	supplier_2
S3	supplier_3
S4	supplier_4

OrderID	SupplierID	OrderDate
1001	S1	2021-01-01 00:00:00.000
1002	S2	2021-02-01 00:00:00.000
1005	S5	2021-03-01 00:00:00.000

```
SELECT o.OrderID, o.SupplierID, s.SupplierName, o.OrderDate
FROM orders o FULL JOIN suppliers s ON o.SupplierID =
s.SupplierID
```

OrderID	SupplierID	SupplierName	OrderDate
1001	S1	supplier_1	2021-01-01 00:00:00.000
1002	S2	supplier_2	2021-02-01 00:00:00.000
1005	S5	NULL	2021-03-01 00:00:00.000
NULL	NULL	supplier_3	NULL
NULL	NULL	supplier_4	NULL