SQL

Class 4

Agenda

SubQueries

Joins in SQL

SubQueries

SubQuery is a Query within a Query

SubQuery has 2 parts:

1. Outer Query
2. Inner Query

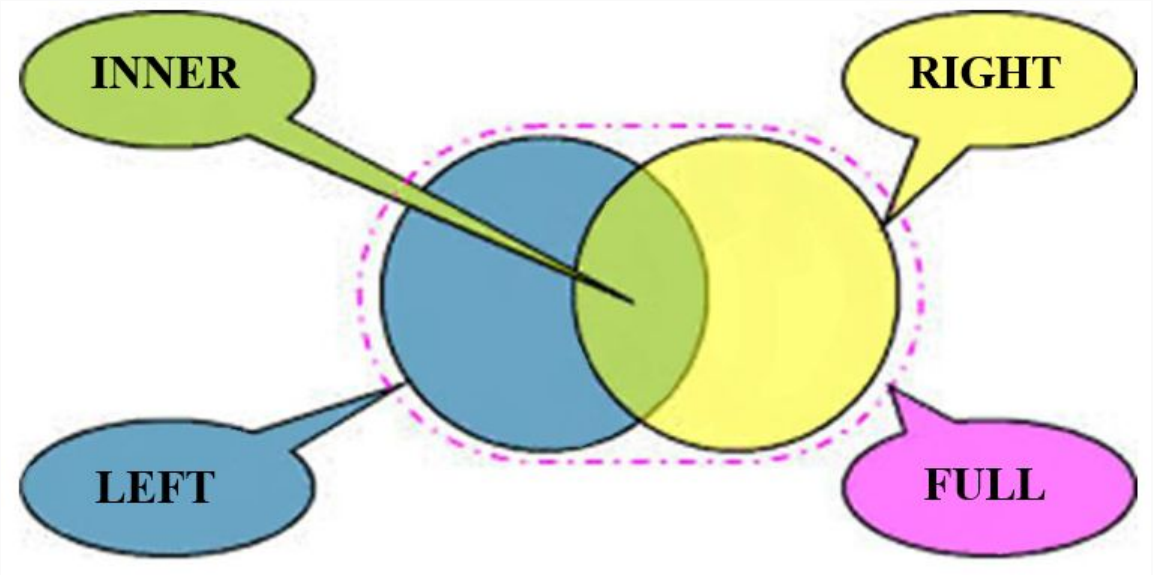
Result/Output of inner query will be used as an input for the outer query

Syntax

```
Select column name
From Table Name
Where column name Comparison Operator
(Select column name From Table Name);
```

JOINS in SQL

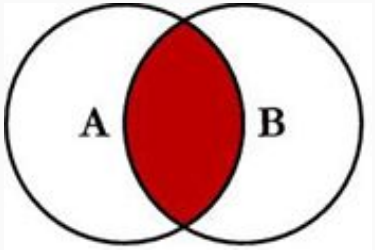
HOW TO JOIN AND VIEW DATA FROM MULTIPLE TABLES



JOINS in SQL

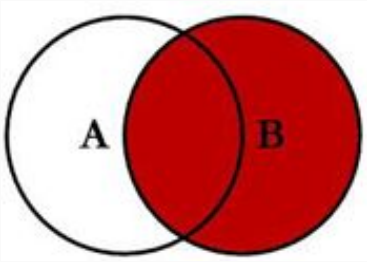
Used to combine rows from two or more tables, based on a related column between them.

INNER JOIN



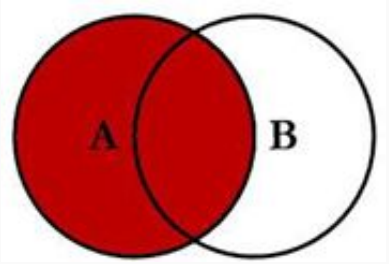

```
SELECT <select_list>
FROM TableA A
INNER JOIN TableB B
ON A.Key = B.Key
```

RIGHT JOIN



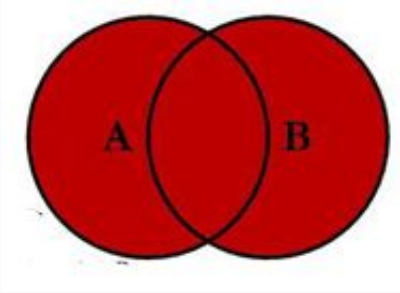

```
SELECT <select_list>
FROM TableA A
RIGHT JOIN TableB B
ON A.Key = B.Key
```

LEFT JOIN




```
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
```

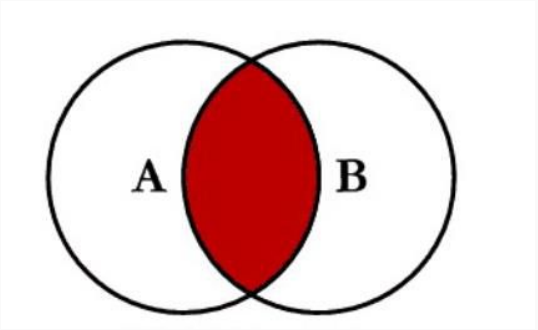
FULL JOIN




```
SELECT <select_list>
FROM TableA A
FULL OUTER JOIN TableB B
ON A.Key = B.Key
```

Inner Join

Returns Matching Data from Multiple Tables



Syntax

```
SELECT table1.column1, table2.column2...
From table1 JOIN / INNER JOIN table2
ON table1.common field = table2.common field;
```

Table Alias

→Assign short, easy name to Table

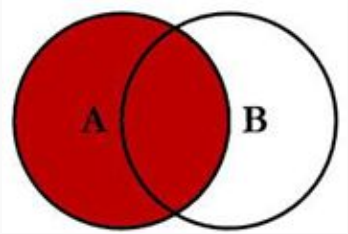
Syntax

```
SELECT column1, t2.column2...
From table1 t1 Join table2 t2
ON t1.common field = t2.common field;
```

Outer Join

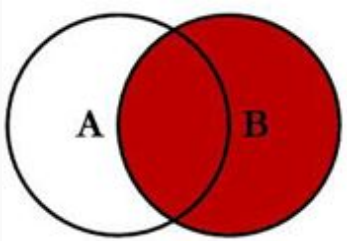
There are THREE types of Outer Joins

LEFT JOIN



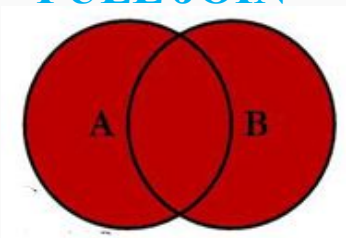

```
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
```

RIGHT JOIN




```
SELECT <select_list>
FROM TableA A
RIGHT JOIN TableB B
ON A.Key = B.Key
```

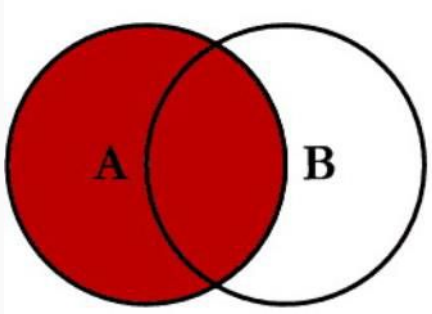
FULL JOIN




```
SELECT <select_list>
FROM TableA A
FULL OUTER JOIN TableB B
ON A.Key = B.Key
```

Left Outer Join or Left Join

Returns matching data from both tables
Return non matching data from all rows from the LEFT TABLE written in YOUR QUERY, even if there is NO MATCH in the right table

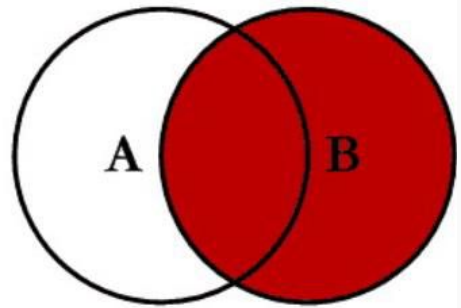


Syntax

```
SELECT t1.column1, t2.column2...
From table1 t1 Left Join / Left Outer Join
table2 t2
ON t1.common field = t2.common field;
```

Right Outer Join or Right Join

Returns matching data from both tables
Return non matching data from all rows from the RIGHT TABLE written in YOUR QUERY, even if there is NO MATCH in the left table



Syntax

```
SELECT t1.column1, t2.column2...
From table1 t1 Right Join / Right Outer
Join table2 t2
ON t1.common field = t2.common field;
```