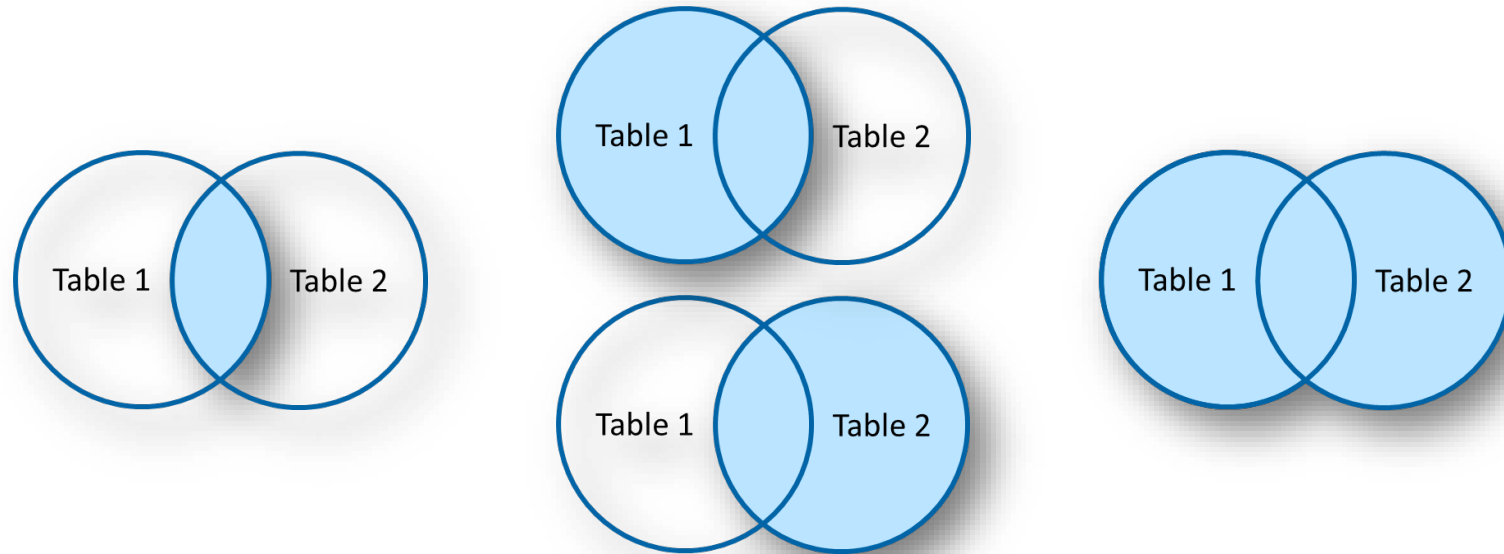
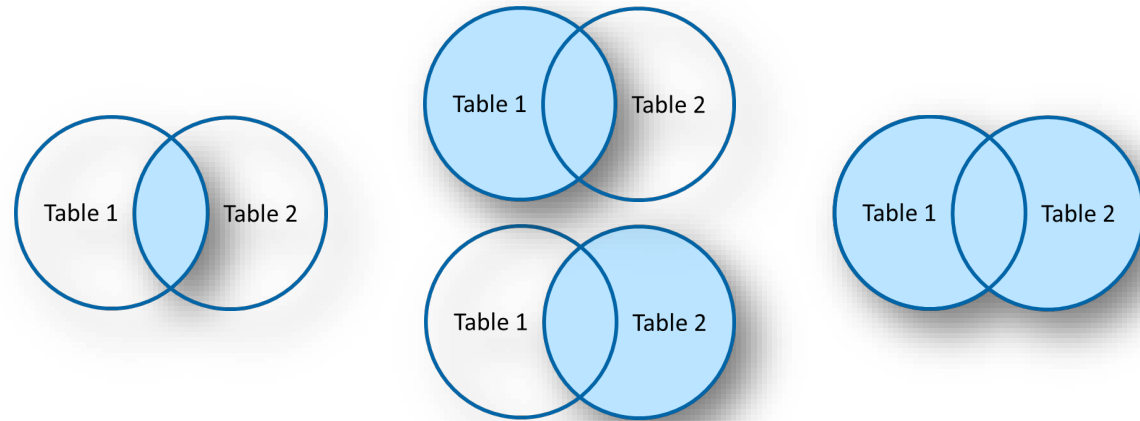


JOINS



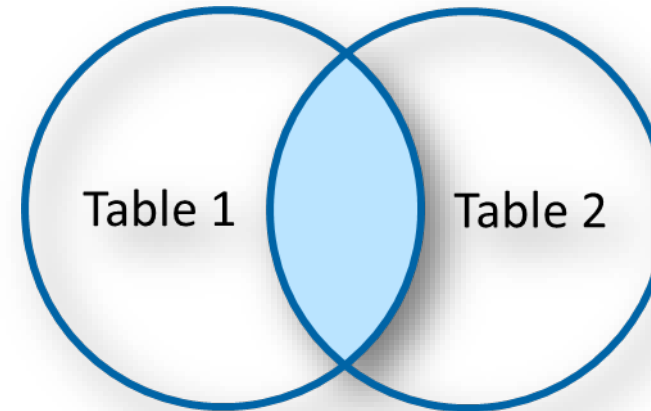
Content

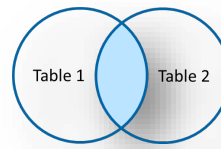
- INNER JOIN
- LEFT / RIGHT JOIN
- FULL OUTER JOIN



Content

- INNER JOIN
- LEFT / RIGHT JOIN
- FULL OUTER JOIN





INNER JOIN

The INNER JOIN command is used to select records that have matching values in both tables.

Syntax

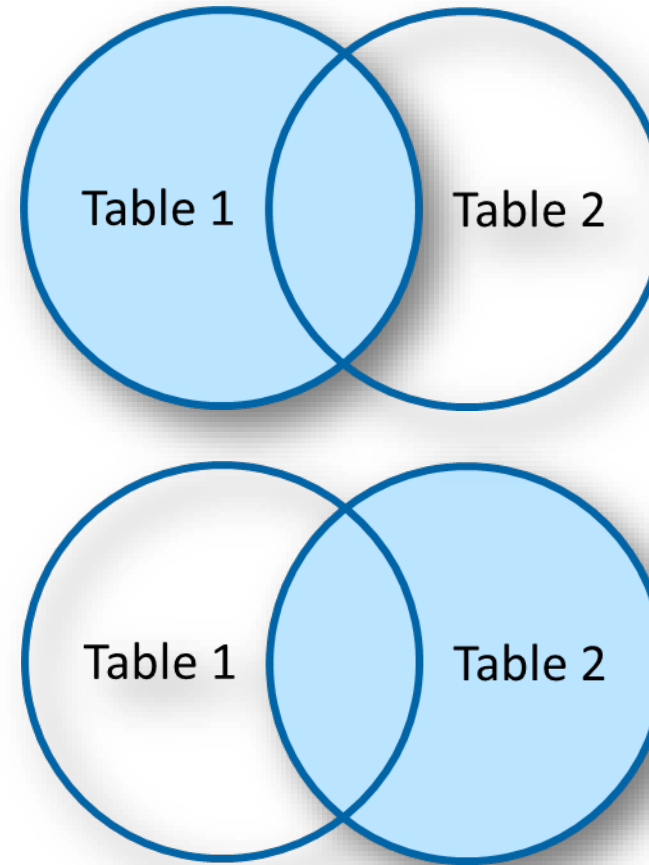
```
SELECT table1.attribute1, table1.attribute2, ..., table2.attribute1, table2.attribute2, ...  
FROM table1  
INNER JOIN table2 ON table1.attributeN = table2.attributeM1  
WHERE condition;
```

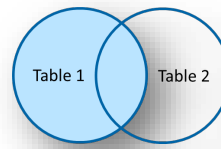
Example

```
-- Get the name and all orders from client with ID=35  
SELECT Clients.LastName, Orders.Product  
FROM Clients  
INNER JOIN Orders ON Clients.ID = Orders.ClientID  
WHERE Clients.ID=35;
```

Content

- INNER JOIN
- LEFT / RIGHT JOIN
- FULL OUTER JOIN





LEFT / RIGHT JOIN

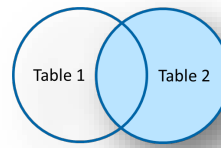
The LEFT JOIN command is used to select all records from the left (Table 1), while also getting data from the other table, if there is a match. If no match is found, the missing attributes are set to NULL.

Syntax

```
SELECT table1.attribute1, table1.attribute2, ..., table2.attribute1, table2.attribute2, ...  
FROM table1  
LEFT JOIN table2 ON table1.attributeN = table2.attributeM  
WHERE condition;
```

Example

```
-- Get all clients of age 55 if possible with city population  
SELECT Clients.LastName, Cities.Population  
FROM Clients  
LEFT JOIN Cities ON Clients.CityID = Cities.ID  
WHERE Clients.Age=55;
```



LEFT / RIGHT JOIN

The RIGHT JOIN command is used to select all records from the right (Table 2), while also getting data from the other table, if there is a match. If no match is found, the missing attributes are set to NULL.

Syntax

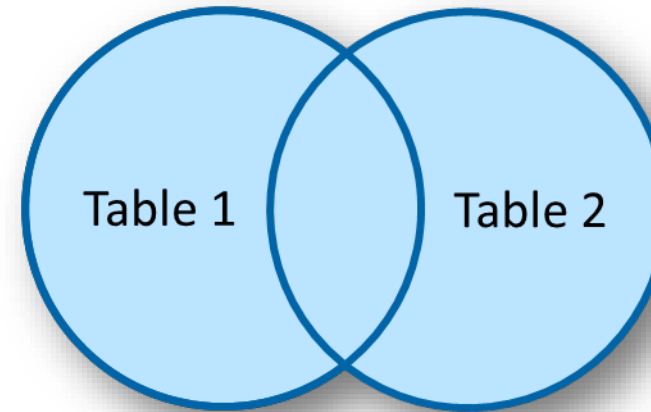
```
SELECT table1.attribute1, table1.attribute2, ..., table2.attribute1, table2.attribute2, ...  
FROM table1  
RIGHT JOIN table2 ON table1.attributeN = table2.attributeM  
WHERE condition;
```

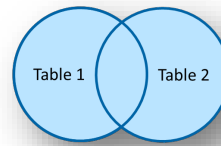
Example

```
-- Get all orders above 35$ if possible with client name  
SELECT Clients.LastName, Orders.Product  
FROM Clients  
RIGHT JOIN Orders ON Clients.ID = Orders.ClientID  
WHERE Orders.Price>35;
```

Content

- INNER JOIN
- LEFT / RIGHT JOIN
- FULL OUTER JOIN





INNER JOIN

The FULL OUTER JOIN command is used to select records when there is a match in either of the two tables.

Syntax

```
SELECT table1.attribute1, table1.attribute2, ..., table2.attribute1, table2.attribute2, ...  
FROM table1  
FULL OUTER JOIN table2 ON table1.attributeN = table2.attributeM  
WHERE condition;
```

Example

```
-- Get all clients younger than 45 years or below 100$  
SELECT Clients.LastName, Orders.Product  
FROM Clients  
FULL OUTER JOIN Orders ON Clients.ID = Orders.ClientID  
WHERE Clients.Age<45 AND Orders.Price<100;
```

SQL standard - but not available in MySQL and SQLite