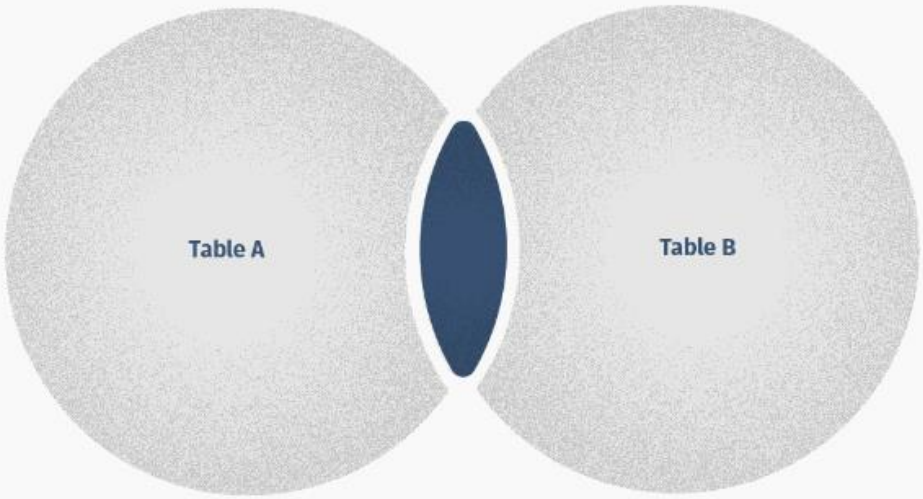
INNER JOIN

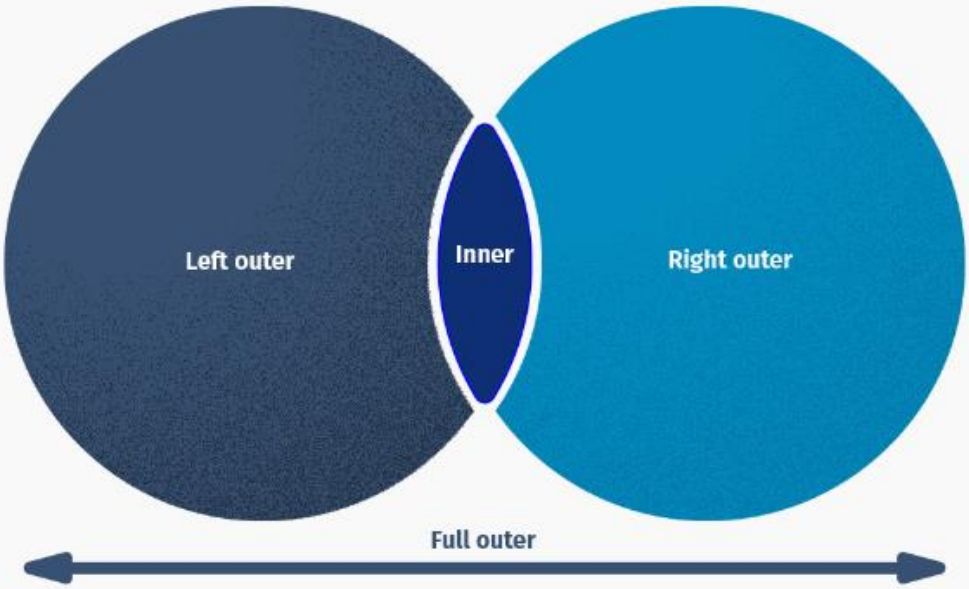
INNER JOIN statement returns only those records or rows that have matching values and is used to retrieve data that appears in both tables.



Inner Join

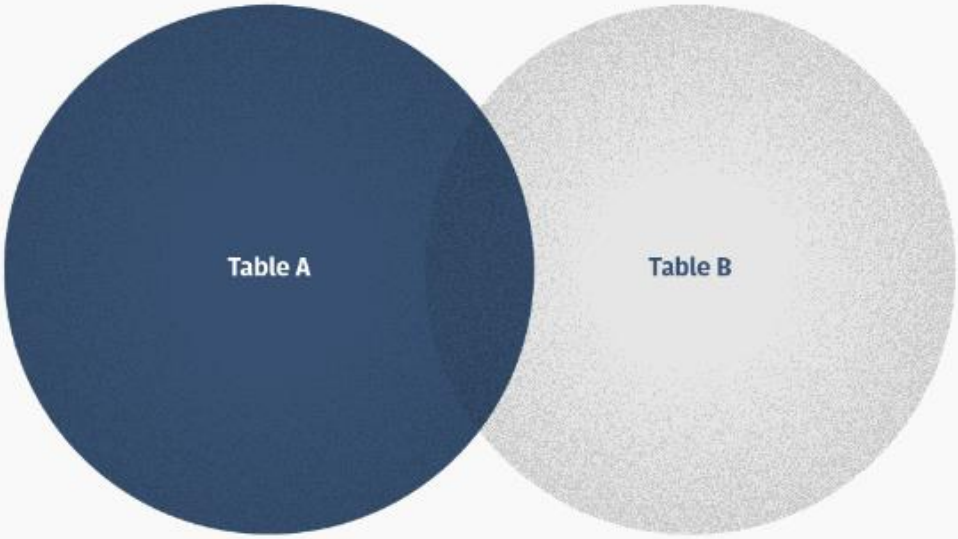
OUTER JOIN

When applying an SQL INNER JOIN, the output returns only matching rows from the stated tables. In contrast, if you use an SQL **OUTER JOIN**, it will retrieve not only the matching rows but also the unmatched rows as well.



LEFT OUTER JOIN

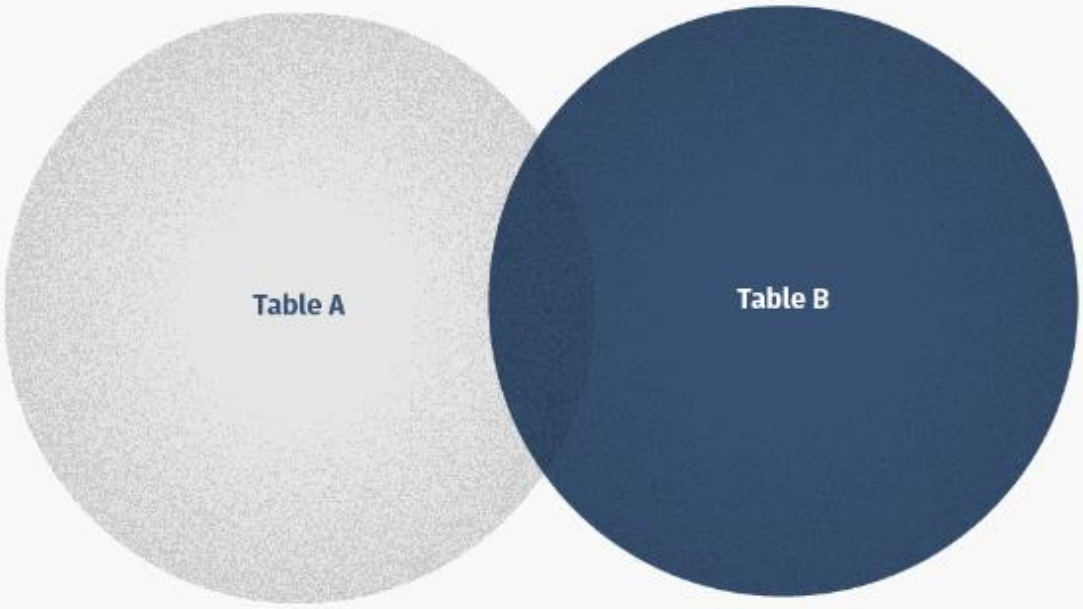
The **LEFT OUTER JOIN** gives the output of the matching rows between both tables. In case, no records match from the left table, it shows those records with null values.



Left Outer Join

RIGHT OUTER JOIN

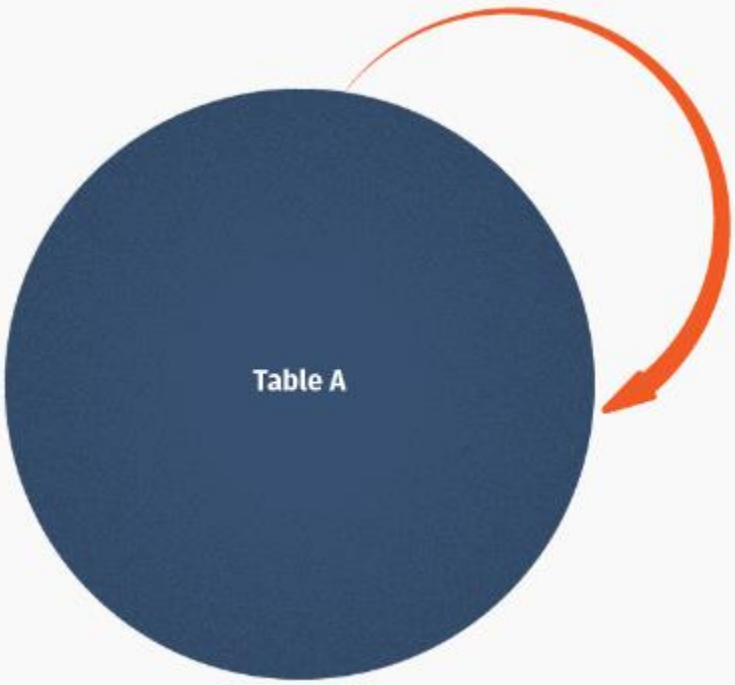
The **RIGHT OUTER JOIN** works by the same principle as the LEFT OUTER JOIN. The **RIGHT OUTER JOIN** selects data from the right table (Table B) and matches this data with the rows from the left table (Table A). The RIGHT JOIN returns a result set that includes all rows in the right table, whether or not they have matching rows from the left table. In case, a row in the right table does not have any matching rows in the left table, the column of the left table in the result set will have nulls.



Right Outer Join

SELF JOIN

The **SELF JOIN** allows you to join a table to itself. This implies that each row of the table is combined with itself and with every other row of the table. The SELF JOIN can be viewed as a join of two copies of the same table. The table is not actually copied, but SQL performs the command as though it were. This is accomplished by using table name aliases to give each instance of the table a separate name. It is most useful for extracting hierarchical data or comparing rows within the same table.



CROSS JOIN

The **CROSS JOIN** command in SQL, also known as a cartesian join, returns all combinations of rows from each table. Envision that you need to find all combinations of size and color. In that case, a CROSS JOIN will be an asset. Note, that this join does not need any condition to join two tables. In fact, CROSS JOIN joins every row from the first table with every row from the second table and its result comprises all combinations of records in two tables.