SQL Joins

In this lesson, we will highlight the different types of joins in SQL.

WE'LL COVER THE FOLLOWING

SQL JOIN

A `JOIN` clause is used to combine rows from two or more tables, based on a common column.

We will be using the CUSTOMER and ORDER tables as shown below:

Customer Table

ID	NAME	AGE	ADDRESS	SALARY
1	Mark	32	Texas	50,000
2	John	25	NY	65,000
3	Emily	23	Ohio	20,000
4	Bill	25	Chicago	75,000
5	Tom	27	Washington	35,000
6	Jane	22	Texas	45,000

Orders Table

ORDER_ID	DATE	CUSTOMER_ID	AMOUNT
100	2019-09-08	2	5000
101	2019-08-20	5	3000
102	2019-05-12	1	1000
103	2019-02-02	2	2000

Notice that the `CUSTOMER_ID` in the ORDER table references `ID` in the CUSTOMER table.

Now, what if we need to query something that is the combination of information in both tables?

For example, we want to:

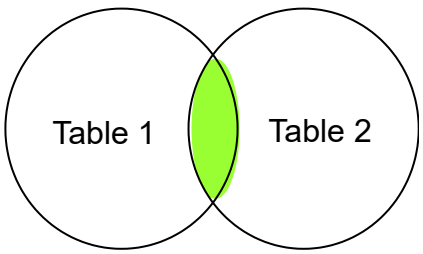
- Find information on customers who ordered an item.
- Find the number of customers who ordered a certain item.
- Find the address of a customer in order to dispatch the order.

The joins in SQL can help you do that using the `JOIN` clause.

Different types of SQL JOINs

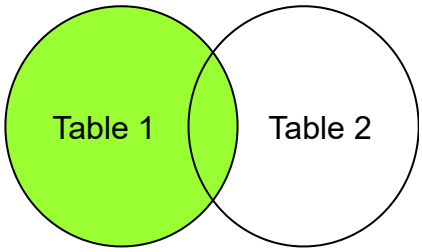
Here are the three different types of the JOINs we will be discussing in this chapter:

- **INNER JOIN / JOIN**: Returns records that have matching values in both tables.



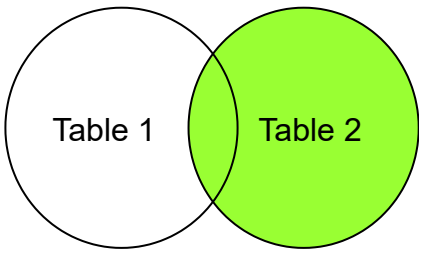
The values that are a match in both tables will be returned in the result-set.

- **LEFT JOIN/ LEFT OUTER JOIN**: Returns all records from the left table, and the matched records from the right table.



All the values from the left table and matching values will be returned in the result-set.

- **RIGHT JOIN/ RIGHT OUTER**: Returns all records from the right table, and the matched records from the left table.



All the values from the right table and matching values will be returned in the result-set.

In the next lesson, we will discuss the inner join in more detail.