

LEFT JOIN

In this lesson, we will discuss the LEFT JOIN keyword.

WE'LL COVER THE FOLLOWING ^

- LEFT JOIN
 - Syntax
 - Example
 - Quick quiz!

LEFT JOIN

The **LEFT JOIN** keyword returns all records from the left table (table1), and the matched records from the right table (table2). The result is **NULL** from the right side if there is no match.

Syntax

```
SELECT table1.column1, table2.column2...  
  
FROM table1  
  
LEFT JOIN table2  
  
ON table1.common_field = table2.common_field;
```

Note: In some databases, LEFT JOIN is called LEFT OUTER JOIN.

Example

We want to select all customers and any orders they might have placed:

The CUSTOMERS table contains information regarding the customers, while the ORDERS table contains information regarding orders placed by customers. As we want the customer information even if they have not placed an order, so we will use LEFT JOIN.

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

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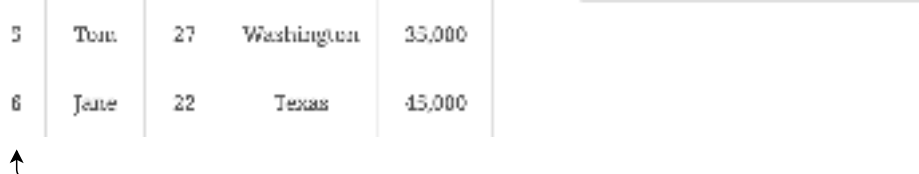
Similar to INNER JOIN, if we want to use LEFT JOIN we must specify a common column between the two tables.

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



This column is common between the two tables

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The LEFT JOIN returns all of the records in the CUSTOMERS table along with the matched records in the ORDERS table. If there is no match i.e. customer has not placed an order that particular record will have NULL values.

ID	NAME	AMOUNT	DATE
1	Mark	1000	2019-05-12
2	John	5000	2019-09-08
2	John	2000	2019-02-02
3	Emily	NULL	NULL
4	Bill	NULL	NULL
5	Tom	3000	2019-08-20
6	Jane	NULL	NULL

Like before we use SELECT to display the desired columns only.

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The SQL query to retrieve all customers whether or not they have placed an order:

```
SELECT CUSTOMERS.ID, CUSTOMERS.NAME, ORDERS.AMOUNT, ORDERS.DATE
FROM CUSTOMERS
LEFT JOIN ORDERS
ON CUSTOMERS.ID = ORDERS.CUSTOMER_ID
ORDER BY CUSTOMERS.ID;
```



As you can see, the LEFT JOIN keyword returns all records from the left table (Customers), even if there are no matches in the right table (Orders).

Quick quiz! #



Which of the following queries will return the NAME and ADDRESS of all customers?

Will the following query return the customer NAME and ADDRESS along with the AMOUNT they purchased?

```
SELECT CUSTOMERS.NAME, CUSTOMERS.ADDRESS , ORDERS.AMOUNT  
FROM CUSTOMERS  
LEFT JOIN ORDERS  
ON CUSTOMERS.ID = ORDERS.CUSTOMER_ID;
```

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In the next lesson, we will discuss the RIGHT JOIN keyword.