Automation Testing

SQL Joins

simplilearn

A Day in the Life of an Automation Test Engineer

Jake is now able to work with various SQL commands.

Now he has decided to learn about various joins in SQL that will help him combine different tables.

To achieve the above, he will learn a few concepts in this lesson that will help him to learn and implement various SQL joins.

Learning Objectives

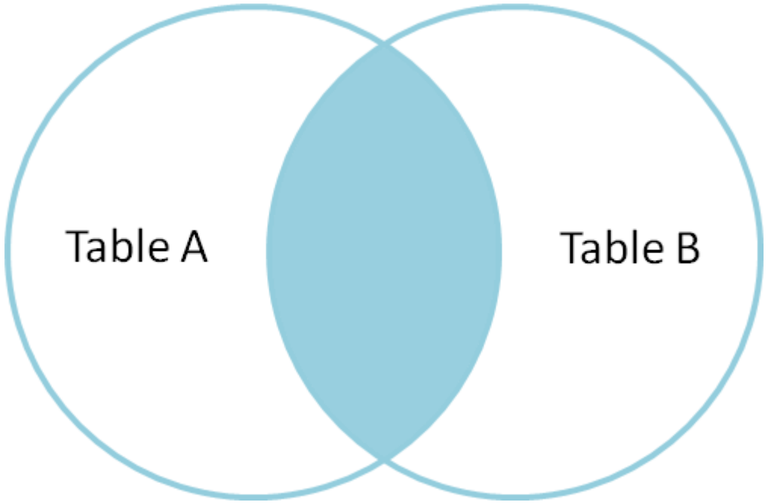
By the end of this lesson, you will be able to:

- Describe Inner Join
- Compare the difference between Left Outer Join and Right Outer Join
- Define the concept of Cartesian Join

Inner Join or Simple Join

Inner Join or Simple Join

The INNER Join retrieves common records from the tables that have matching values.



Inner Join or Simple Join

The following is the syntax for the Inner Join:

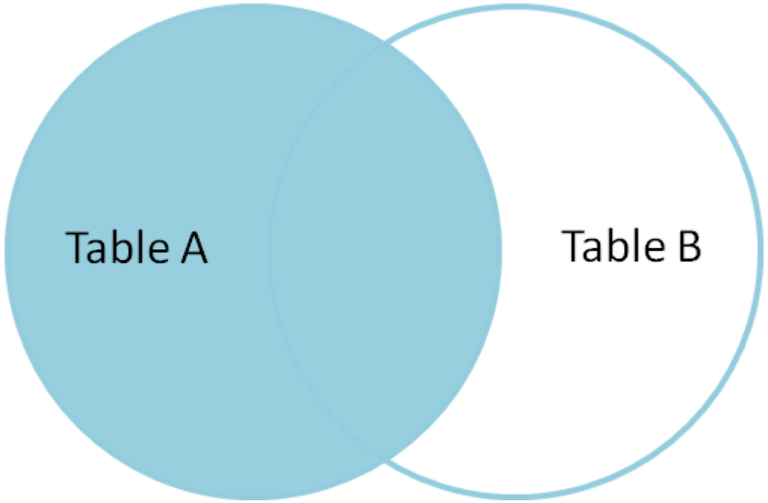
SQL Query

```
SELECT column_name(s)
FROM table1
INNER JOIN table2
ON table1.column_name = table2.column_name;
```

Left Outer Join or Left Join

Left Outer Join or Left Join

The LEFT JOIN retrieves all values from the left table as well as the matching values from the right table.



Note:

If a row is present in the left table but not in the right, the result will retain the row but with NULL values in the right column.

Left Outer Join or Left Join

The following is the syntax for the Left Join:

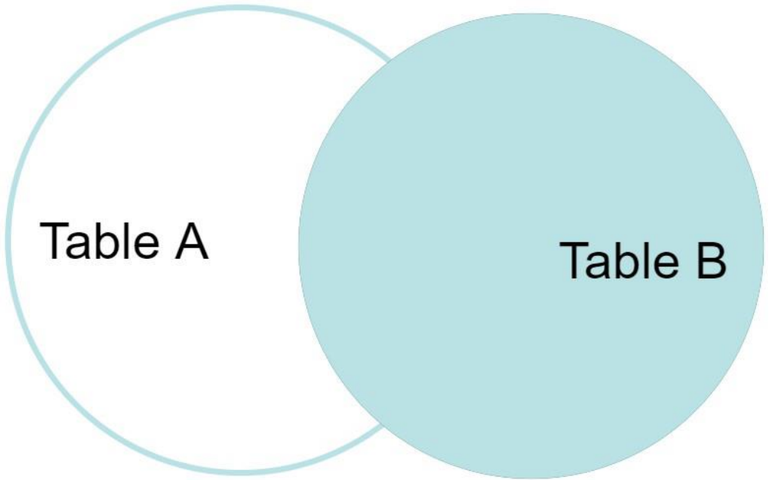
SQL Query

```
SELECT column_name(s)
FROM table1
LEFT JOIN table2
ON table1.column_name = table2.column_name;
```

Right Outer Join or Right Join

Right Outer Join or Right Join

The Right Join retrieves all values from the right table as well as the matching values from the left table.



Note:

If a row is present in the right table but not in the left, the result will retain the row but with NULL values in the left column.

Right Outer Join or Right Join

The following is the syntax for the Right Join:

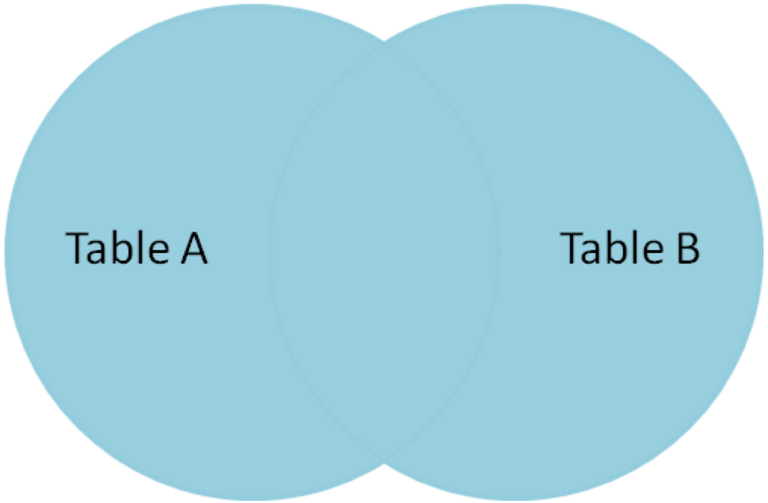
SQL Query

```
SELECT column_name(s)
FROM table1
RIGHT JOIN table2
ON table1.column_name = table2.column_name;
```

Full Outer Join or Full Join

Full Outer Join or Full Join

The Full Join retrieves all values from the left table as well as from the right table.



Full Outer Join or Full Join

The following is the syntax for the Full Join:

SQL Query

```
SELECT column_name(s)
FROM table1
FULL OUTER JOIN table2
ON table1.column_name = table2.column_name
WHERE condition;
```

Cross Join

Cartesian Join or Cross Join

A Cross Join provides the Cartesian product of the sets of values from two or more connected tables.

Cartesian Join or Cross Join

The following is the syntax for the Cross Join:

SQL Query

```
SELECT table1.column1 , table1.column2, table2.column1...
FROM table1
CROSS JOIN table2;
```

Self Join

Self Join

A Self Join is a standard join in which the table is linked to itself.

Self Join

The following is the syntax for the Self Join:

SQL Query

```
SELECT column_name(s)
FROM table1 T1, table1 T2
WHERE condition;
```

Working with Related Tables

Problem Statement:

You have been asked to work with related tables.

ASSISTED PRACTICE

Assisted Practice: Guidelines

Steps to work with related tables are:

1. Work with related tables

Joins on Tables

Problem Statement:

You are required to use joins on tables.

ASSISTED PRACTICE

Assisted Practice: Guidelines

Steps to use joins on tables are:

1. Use joins on tables

Key Takeaways

- The INNER Join retrieves common records from the tables that have matching values.
- The LEFT JOIN retrieves all values from the left table as well as the matching values from the right table.
- A Cross Join provides the Cartesian product of the sets of values form two or more connected tables.
- A Self Join is a standard join in which the table is linked to itself.