LAB - INTERSECT

In this lab, you will learn how to use SQL Server `INTERSECT` operator to combine result sets of two input queries and return the distinct rows that appear in both inputs.

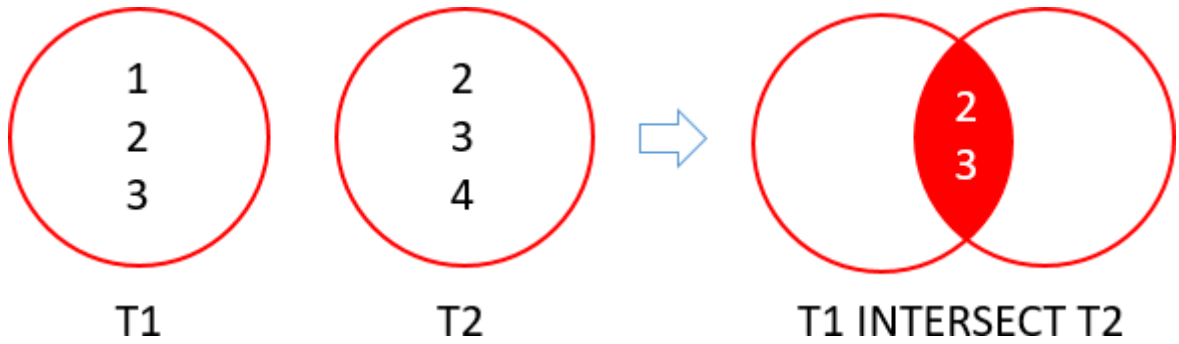
The SQL Server `INTERSECT` combines result sets of two or more queries and returns distinct rows that are output by both queries.

The following illustrates the syntax of the SQL Server `INTERSECT`:

```
query_1
INTERSECT
query_2
```

Similar to the `UNION` operator, the queries in the syntax above must conform to the following rules:

- Both queries must have the same number and order of columns.
- The data type of the corresponding columns must be the same or compatible.



The following picture illustrates the `INTERSECT` operation:

In this illustration, we had two result sets T1 and T2:

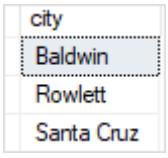
- T1 result set includes 1, 2, and 3.
- T2 result set includes 2, 3, and 4.

The intersection of T1 and T2 result sets returns the distinct rows which are 2 and 3.

Example

Consider the following query:

```
SELECT
    city
FROM
    sales.customers
INTERSECT
SELECT
    city
FROM
    sales.stores
ORDER BY
    city;
```



city
Baldwin
Rowlett
Santa Cruz

The first query finds all cities of the customers and the second query finds the cities of the stores. The whole query, which uses `INTERSECT`, returns the common cities of customers and stores, which are the cities output by both input queries.

Notice that we added the `ORDER BY` clause to the last query to sort the result set.

In this lab, you have learned how to use the SQL Server `INTERSECT` operator to return the intersection of the result sets of two queries.