

# Set Operators: Takeaways

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## Syntax

- Stacking tables without duplicates:

```
SELECT *  
  FROM some_table  
UNION  
SELECT *  
  FROM another_table;
```

- Stacking tables including duplicates:

```
SELECT *  
  FROM some_table  
UNION ALL  
SELECT *  
  FROM another_table;
```

- Finding rows common to both tables:

```
SELECT *  
  FROM some_table  
INTERSECT  
SELECT *  
  FROM another_table;
```

- Filtering out the common rows from the top table:

```
SELECT *  
  FROM some_table  
EXCEPT  
SELECT *  
  FROM another_table;
```

- Selecting columns in a compound select statement:

```
SELECT a_column, another_column  
  FROM some_table  
SET_OPERATOR  
SELECT a_column, another_column  
  FROM another_table;
```

## Concepts

- Set operators combine results by stacking rows (vertically) and aligning columns.
- We use set operators to combine `SELECT` statement results.
- We call the combination of set operators with `SELECT` statements a compound select statement.

- Legal compound select statements must conform to some constraints:
  - Each SELECT statement must meet the following criteria:
    - Have the same number of columns
    - The columns should align on the datatype
  - The ORDER BY and LIMIT clauses can only occur after the last SELECT clause.
- The `UNION` operator doesn't keep duplicates. The `UNION ALL` operator does.
- We can use `UNION` and `UNION ALL` to rewrite queries using `OR` , thus boosting performance.

## Resources

- [Sets basic operations](#)
- [Venn diagram](#)
- [Compound select statement](#)
- [Why is an `OR` statement slower than `UNION` ?](#)