A Review of Boolean Operators

Boolean operators are used to combine multiple terms in a single search. Which operator you select will determine how inclusive your search will be.

AND

If all the terms are present in a record it will be included in the search results.

OR

If at least one of the terms is present in a record it will be included in the search results. All of the terms may be present in the retrieved record or only some of the terms.

NOT

If the first term is present and the second term is not present in a record it will be included in the search results.

XOR

If either, but not both, of the terms is present in a record it will be included in the search results.

A database includes these 75 records:

- 15 records include the word VANILLA
- 5 records include the word STRAWBERRY
- 20 records include the word CHOCOLATE
- 10 records include both VANILLA and STRAWBERRY
- 20 records include both VANILLA and CHOCOLATE
- 5 records include all 3 flavors

VANILLA or STRAWBERRY returns 55 records

- records including the word VANILLA
- 5 records including the word STRAWBERRY
- 10 records including both VANILLA and STRAWBERRY
- 20 records including both VANILLA and CHOCOLATE
- 5 records including all 3 flavors

VANILLA and STRAWBERRY returns 15 records

- 10 records including both VANILLA and STRAWBERRY
- 5 records including all 3 flavors

STRAWBERRY **not** VANILLA returns **5** records

5 records including the word STRAWBERRY

VANILLA **not** STRAWBERRY returns **25** records

- records including the word VANILLA
- 20 records including both VANILLA and CHOCOLATE

VANILLA xor STRAWBERRY returns 40 records

- 15 records including the word VANILLA
- 5 records including the word STRAWBERRY
- 20 records including both VANILLA and CHOCOLATE