Boolean logic consists of three operators: **AND**, **OR**, and **NOT**.

**AND**: The Boolean operator **AND** searches for documents that contain at least one occurrence of each of the query terms. In the case below, both cats and dogs must be in a document for it to come back as a search result. *This will lead to less results.*

![Diagram showing search results forcats AND dogs](search_results_cat_dog_overlap.png)

**OR**: The Boolean operator **OR** searches for documents that contain at least one occurrence of ***ANY*** of the query terms. *This will lead to more results.*

![Diagram showing search results for cats OR dogs](search_results_cat_dog_anywhere.png)

**NOT**: The Boolean operator **NOT** searches for documents that contain one query term and not another. *This will lead to less results.* For example, “Animals not dogs” would find any animals except for dog.

![Diagram showing search results forcats NOT dogs](search_results_cat_dog_only_cats.png)
**AND NOT:** By using a search such as “Animals And Not dogs” any documents that contain “dogs” will not be included in your results even if they include “animals.”

**NOTE:** Be careful with does not contain searches. **You will NOT** receive the same results by running the following searches:

- NOT (A and B)
- NOT A and NOT B

Based upon logic, NOT (A and B) = NOT A OR NOT B