SQL Lesson 3: Queries with constraints (Pt. 2)

When writing **WHERE** clauses with columns containing text data, SQL supports a number of useful operators to do things like case-insensitive string comparison and wildcard pattern matching. We show a few common text-data specific operators below:

Operator	Condition	Example
=	Case sensitive exact string comparison (**notice the single equals**)	col_name **=** "abc"
!= or <>	Case sensitive exact string inequality comparison	col_name **!=** "abcd"
LIKE	Case insensitive exact string comparison	col_name **LIKE** "ABC"
NOT LIKE	Case insensitive exact string inequality comparison	col_name **NOT LIKE** "ABCD"
%	Used anywhere in a string to match a sequence of zero or more characters (only with LIKE or NOT LIKE)	col_name **LIKE** "%AT%" (matches "AT", "ATTIC", "CAT" or even "BATS")
_	Used anywhere in a string to match a single character (only with LIKE or NOT LIKE)	col_name **LIKE** "AN_" (matches "AND", but not "AN")
IN (...)	String exists in a list	col_name **IN** ("A", "B", "C")
NOT IN (...)	String does not exist in a list	col_name **NOT IN** ("D", "E", "F")

Did you know?

All strings must be quoted so that the query parser can distinguish words in the string from SQL keywords.

We should note that while most database implementations are quite efficient when using these operators, full-text search is best left to dedicated libraries like Apache Lucene (http://lucene.apache.org/) or Sphinx (http://sphinxsearch.com/). These libraries are designed specifically to do full text search, and as a result are more efficient and can support a wider variety of search features including internationalization and advanced queries.

Exercise

Here's the definition of a query with a **WHERE** clause again, go ahead and try and write some queries with the operators above to limit the results to the information we need in the tasks below.

Select query with constraints

```
SELECT column, another_column, …
FROM mytable
WHERE condition
    AND/OR another_condition
    AND/OR …;
```

Table: Movies

Id	Title	Director	Year	Length_minutes
1	Toy Story	John Lasseter	1995	81
2	A Bug's Life	John Lasseter	1998	95
3	Toy Story 2	John Lasseter	1999	93

4	Monsters, Inc.	Pete Docter	2001	92
5	Finding Nemo	Andrew Stanton	2003	107
6	The Incredibles	Brad Bird	2004	116
7	Cars	John Lasseter	2006	117

```
SELECT * FROM movies;
```

RESET

Exercise 3 — Tasks

1. Find all the Toy Story movies
2. Find all the movies directed by John Lasseter
3. Find all the movies (and director) not directed by John Lasseter
4. Find all the WALL-* movies

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Finish above Tasks (/lesson/filtering_sorting_query_results)

Next – SQL Lesson 4: Filtering and sorting Query results (/lesson/filtering_sorting_query_results)
Previous – SQL Lesson 2: Queries with constraints (Pt. 1) (/lesson/select_queries_with_constraints)