# Apply Filters to SQL Queries

## Project description

This project I utilized SQL to filter through data in the [organization] database utilizing the log\_in\_attempts and employee databases.

## Retrieve after hours failed login attempts

This task required that I filter for login attempts that occurred after normal operating hours. I accomplished this by writing an SQL query to filter login attempts that both occurred after ‘18:00:00’ (6pm) and that had failed. Below is the query I wrote:

[organization]> SELECT \*

-> FROM log\_in\_attempts

-> WHERE login\_time > ‘18:00:00’ AND success = 0;

## Retrieve login attempts on specific dates

This task required I filter for login attempts between one date and another. I accomplished this by writing the following query:

[organization]> SELECT \*

-> FROM log\_in\_attempts

-> WHERE login\_date = ‘2022-05-08’ OR login\_date = ‘2022-05-09’;

## Retrieve login attempts outside of Mexico

This task required that I filter for all the login attempts that occurred outside of the country of Mexico. To complete the task I wrote the following query:

[organization]> SELECT \*

-> FROM log\_in\_attempts

-> WHERE NOT country LIKE ‘MEX%’;

I utilized the ‘%’ wildcard and the LIKE operator since the country column had data values of the whole country name (MEXICO) or their 3 letter acronym (MEX).

## Retrieve employees in Marketing

For this task I was required to select employees who worked in the marketing department but only those who worked out of the East offices. To complete this task I utilized the following query:

[organization]> SELECT \*

-> FROM employees

-> WHERE department = ‘Marketing’ AND office LIKE ‘East%’;

## Retrieve employees in Finance or Sales

To complete this task I was required to find employees who worked in either the Sales department or the Finance department. To do that I used the following query:

[organization]> SELECT \*

-> FROM employees

-> WHERE department = ‘Sales’ OR department = ‘Finance’;

## Retrieve all employees not in IT

This task I was required to return all of the employees who were not a part of the Information Technology (IT) department. To complete this task I used the following query:

[organization]> SELECT \*

-> FROM employees

-> WHERE NOT department = ‘Information Technology’;

I also used the query:

[organization]> SELECT \*

-> FROM employees

-> WHERE department != ‘Information Technology’;

Both methods returned the correct results.

## Summary

By completing all the tasks I was able to grasp the fundamental concepts of filtering databases using SQL to make simple searches as well as more logical searches.