# Apply filters to SQL queries // Zakhar Medunytsia

## Project description

In this project, I used SQL queries to analyze login activity and retrieve employee information for security-related investigations. By filtering specific data patterns in the `log\_in\_attempts` and `employees` tables, I identified potential threats and optimized internal security procedures.

## Retrieve after hours failed login attempts

SELECT \*

FROM log\_in\_attempts

WHERE success = FALSE AND login\_time > '18:00:00';

This query retrieves all failed login attempts (where `success = FALSE`) that occurred after 6:00 PM (18:00:00) using a filter on the `login\_time` column. This helps identify suspicious login activity outside regular business hours.

## Retrieve login attempts on specific dates

SELECT \*

FROM log\_in\_attempts

WHERE login\_date = '2022-05-08' OR login\_date = '2022-05-09';

This query filters the `log\_in\_attempts` table to show all login activity on either May 8 or May 9, 2022. It uses the `OR` operator to specify both dates.

## Retrieve login attempts outside of Mexico

SELECT \*

FROM log\_in\_attempts

WHERE country NOT LIKE '%MEX%';

This query excludes all login attempts that occurred in Mexico by using the `NOT LIKE` operator with a wildcard to filter out both `MEX` and `MEXICO` in the `country` column.

## Retrieve employees in Marketing

SELECT \*

FROM employees

WHERE department = 'Marketing' AND office LIKE 'East%';

This query retrieves all employees who are in the Marketing department and located in any office within the East building. The `LIKE 'East%'` filter ensures only offices starting with 'East' are included.

## Retrieve employees in Finance or Sales

SELECT \*

FROM employees

WHERE department = 'Finance' OR department = 'Sales';

This query retrieves all employees whose department is either Finance or Sales using the `OR` logical operator to match either condition.

## Retrieve all employees not in IT

SELECT \*

FROM employees

WHERE department != 'Information Technology';

This query excludes employees in the Information Technology department using the `!=` operator to filter out that department from the results.

**Summary**

This analysis involved several SQL queries that demonstrated how to filter records using `AND`, `OR`, `NOT`, date, time, and string pattern matching. The queries helped retrieve failed login attempts after business hours, inspect specific login dates, identify activity outside of Mexico, and find employees based on department and office locations. These filters support targeted and timely security interventions.