Portfolio Activity Apply filters to SQL queries

Project description

In this project, I utilized SQL filters to investigate potential security issues related to login attempts and employee machines at a large organization. By analyzing the organization's data from the employees and log_in_attempts tables, I retrieved relevant records using SQL queries with AND, OR, and NOT operators. This project showcases my experience in using SQL for security investigations and demonstrates my ability to identify and address potential security vulnerabilities.

Retrieve after hours failed login attempts

```
SELECT *
FROM log_in_attempts
WHERE success = 'FALSE' AND (login_time < '10:00:00' OR login_time >= '18:00:00');
```

Query Description:
The query retrieves failed login attempts that occurred either before 10:00:00 in the morning or after 18:00:00 in the evening, indicated by a 'FALSE' value in the 'success' column.

Retrieve login attempts on specific dates

```
Select *
 from log_in_attempts
WHERE login_date IN ('2023-06-01', '2023-06-05', '2023-06-10');
```

Query Description:

The query retrieves all records from the log_in_attempts table where the login_date matches any of the specified dates: '2023-06-01', '2023-06-05', or '2023-06-10'.

Retrieve login attempts outside of Mexico

```
Select *
 from log_in_attempts
WHERE country NOT LIKE ‘Mex%’;
```

Query Description:
The query retrieves all records from the log_in_attempts table where the country does not start with 'Mex'. It excludes login attempts from Mexico by using the NOT LIKE operator with the pattern 'Mex%'.

Retrieve employees in Marketing

```
Select *
 from employees
Where department like ‘Marketing’;
```

Query Description:

The query retrieves all records from the employees table where the department matches the exact value 'Marketing'. It filters the employees based on the department using the LIKE operator.

Retrieve employees in Finance or Sales

```
Select *
from employees
Where department like ‘finance’ or department like ‘sales’;
```

Query Description:
The query retrieves all records from the employees table where the department matches either 'finance' or 'sales'. It filters the employees based on the department using the LIKE operator with multiple conditions.

Retrieve all employees not in IT

```
Select *
 from employees
Where department not like ‘IT’;
```

Query Description:
The query retrieves all records from the employees table where the department does not match the value 'IT'. It excludes employees from the IT department using the NOT LIKE operator.

Summary

In this project, I utilized SQL filters to investigate security issues, such as after-hours failed login attempts and employee department filtering. This showcases my ability to use SQL for security investigations and filtering data efficiently.