Apply filters to SQL queries

Project description

In this lab, I used SQL filters to retrieve information and analyze potential security vulnerabilities.

Retrieve after hours failed login attempts

The image below shows the operator, >, being used to find failed login attempts after 1800.

```
MariaDB [organization]> clear
MariaDB [organization]> SELECT *
    ->
    -> FROM log_in_attempts
    ->
    -> WHERE login_time > '18:00' AND success = FALSE;
```

Retrieve login attempts on specific dates

To find login attempts on these specific dates, May 8, 2022 and May 9, 2022, I used the `OR` filter.

```
MariaDB [organization]> SELECT *
    ->
    -> FROM log_in_attempts
    ->
    -> WHERE login_date = '2022-05-09' OR login_date = '2022-05-08';
```

Retrieve login attempts outside of Mexico

In order to retrieve login attempts outside of Mexico, I used the `WHERE NOT` and `LIKE` filters

```
MariaDB [organization]> SELECT *
    ->
    -> FROM log_in_attempts
    ->
    -> WHERE NOT country LIKE 'MEX%';
```

Retrieve employees in Marketing

To get security updates on employee machines, I used the following to filter the data. I was specifically looking in the East building which is why I used `LIKE` and `%`

```
MariaDB [organization]> SELECT *
    ->
    -> FROM employees
    ->
    -> WHERE department = 'Marketing' AND office LIKE 'East%';
```

Retrieve employees in Finance or Sales

A separate security update needed to be done in the Finance and Sales department so I needed to retrieve this data using `OR`

```
MariaDB [organization]> SELECT *
    ->
    -> FROM employees
    ->
    -> WHERE department = 'Finance' OR department = 'Sales';
```

Retrieve all employees not in IT

A final update to employee machines consisted of looking through every other department aside from the Information Technology department since it was already completed.

```
MariaDB [organization]> SELECT *
    ->
    -> FROM employees
    ->
    -> WHERE NOT department = 'Information Technology';
```

Summary

These tasks were completed using a VM in addition to an hour timeframe.