Apply filters to SQL queries

Project description

I will use SQL with various filters to extract relevant data for each section.

Retrieve after hours failed login attempts

```
MariaDB [organization]> SELECT *
    -> FROM log_in_attempts
    -> WHERE login_time > '18:00' AND success = 0;
```

The office closes at 6 PM, meaning that login attempts after hours that fail could be signs of security threats. We use the AND filter to require both conditions to be true.

Retrieve login attempts on specific dates

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

There was a security issue on 2022-05-09 so we pulled login attempts from both that day and the day before to check for anomalies. SQL can filter for dates and times when using the proper format of yyyy-mm-dd.

Retrieve login attempts outside of Mexico

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

Here we use the not operator to view login attempts from all countries other than Mexico. There are entries in the database with MEX as their country as well as MEXICO. We use the LIKE operator combined with the % to tell SQL we want any country name starting with MEX.

Retrieve employees in Marketing in the East offices

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

Using AND again combined with LIKE to find employees in any east office that are in the marketing department.

Retrieve employees in Finance or Sales

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

Here we use OR to combine the finance and sales departments into one query.

Retrieve all employees not in IT

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

Much like the Mexico example we want to exclude IT employees from this query, and return all other employees.

Summary

SQL was used with various filter conditions to find relevant data for a security analyst.