3- Activity Perform a SQL query

Task 1: Retrieving Employee Device Data

The goal of this task was to gather information about employee devices to facilitate necessary updates. The data needed was located in the `machines` table within the `organization` database.

Steps Taken:

1- Retrieve All Device Data:
I executed the query `SELECT * FROM machines;` to retrieve all records from the `machines` table, as shown in the screenshot. The asterisk (`*`) is used to select all columns from the table. It's important to note that table names in SQL are case-sensitive.

```
MariaDB [organization]> SELECT *
    -> FROM machines;
+--------------+------------------+----------------+---------------+-------------+
| device_id    | operating_system | email_client   | OS_patch_date | employee_id |
+--------------+------------------+----------------+---------------+-------------+
| a184b775c707 | OS 1             | Email Client 1 | 2021-09-01    |        1156 |
| a192b174c940 | OS 2             | Email Client 1 | 2021-06-01    |        1052 |
| a305b818c708 | OS 3             | Email Client 2 | 2021-06-01    |        1182 |
| a317b635c465 | OS 1             | Email Client 2 | 2021-03-01    |        1130 |
| a320b137c219 | OS 2             | Email Client 2 | 2021-03-01    |        1000 |
| a398b471c573 | OS 3             | Email Client 2 | 2021-12-01    |           0 |
| a667b270c984 | OS 1             | Email Client 1 | 2021-03-01    |        1078 |
| a821b452c176 | OS 2             | Email Client 2 | 2021-12-01    |        1104 |
| a998b568c863 | OS 3             | Email Client 1 | 2021-12-01    |        1026 |
| b157c491d493 | OS 2             | Email Client 1 | 2021-03-01    |           0 |
| b239c825d303 | OS 1             | Email Client 1 | 2021-03-01    |        1001 |
| b264c773d977 | OS 2             | Email Client 2 | 2021-03-01    |        1157 |
| b265c937d713 | OS 2             | Email Client 1 | 2021-09-01    |        1131 |
| b433c245d868 | OS 1             | Email Client 1 | 2021-06-01    |        1079 |
| b551c837d758 | OS 3             | Email Client 1 | 2021-03-01    |        1105 |
| b566c710d544 | OS 1             | Email Client 1 | 2021-06-01    |        1183 |
| b806c503d354 | OS 2             | Email Client 1 | 2021-12-01    |        1027 |
| b979c871d361 | OS 2             | Email Client 1 | 2021-03-01    |        1053 |
| c116d593e558 | OS 3             | Email Client 1 | 2021-09-01    |        1002 |
| c150d982e144 | OS 2             | Email Client 2 | 2021-06-01    |        1132 |
| c185d679e493 | OS 1             | Email Client 2 | 2021-09-01    |           0 |
| c406d877e950 | OS 2             | Email Client 1 | 2021-06-01    |        1158 |
| c547d140e477 | OS 2             | Email Client 1 | 2021-03-01    |        1054 |
| c568d742e974 | OS 2             | Email Client 2 | 2021-09-01    |        1080 |
| c597d792e215 | OS 2             | Email Client 1 | 2021-09-01    |        1106 |
| c603d749e374 | OS 1             | Email Client 1 | 2021-12-01    |        1028 |
| c986d200e170 | OS 2             | Email Client 2 | 2021-09-01    |        1184 |
| d168e758f876 | OS 2             | Email Client 1 | 2021-09-01    |        1107 |
| d280e557f635 | OS 3             | Email Client 1 | 2021-03-01    |           0 |
| d336e475f676 | OS 2             | Email Client 2 | 2021-06-01    |        1029 |
| d394e816f943 | OS 3             | Email Client 2 | 2021-03-01    |        1003 |
| d647e310f618 | OS 2             | Email Client 2 | 2021-06-01    |        1081 |
| d693e351f221 | OS 2             | Email Client 2 | 2021-09-01    |        1133 |
| d790e839f461 | OS 1             | Email Client 1 | 2021-06-01    |        1185 |
| d831e972f553 | OS 1             | Email Client 1 | 2021-09-01    |        1055 |
| d881e710f732 | OS 3             | Email Client 2 | 2021-03-01    |        1159 |
| e113f288g203 | OS 2             | Email Client 2 | 2021-03-01    |        1108 |
| e121f851g827 | OS 3             | Email Client 2 | 2021-06-01    |           0 |
```

2- Focus on Email Client Information:

To focus specifically on the email client data, I refined the query to target the requested information.

```
MariaDB [organization]> SELECT device_id, email_client
    -> FROM machines;
+--------------+----------------+
| device_id    | email_client   |
+--------------+----------------+
| a184b775c707 | Email Client 1 |
| a192b174c940 | Email Client 1 |
| a305b818c708 | Email Client 2 |
| a317b635c465 | Email Client 2 |
| a320b137c219 | Email Client 2 |
| a398b471c573 | Email Client 2 |
| a667b270c984 | Email Client 1 |
| a821b452c176 | Email Client 2 |
| a998b568c863 | Email Client 1 |
| b157c491d493 | Email Client 1 |
| b239c825d303 | Email Client 1 |
| b264c773d977 | Email Client 2 |
| b265c937d713 | Email Client 1 |
| b433c245d868 | Email Client 1 |
| b551c837d758 | Email Client 1 |
| b566c710d544 | Email Client 1 |
| b806c503d354 | Email Client 1 |
| b979c871d361 | Email Client 1 |
| c116d593e558 | Email Client 1 |
| c150d982e144 | Email Client 2 |
| c185d679e493 | Email Client 2 |
| c406d877e950 | Email Client 1 |
| c547d140e477 | Email Client 1 |
| c568d742e974 | Email Client 2 |
| c597d792e215 | Email Client 1 |
| c603d749e374 | Email Client 1 |
| c986d200e170 | Email Client 2 |
| d168e758f876 | Email Client 1 |
| d280e557f635 | Email Client 1 |
| d336e475f676 | Email Client 2 |
| d394e816f943 | Email Client 2 |
| d647e310f618 | Email Client 2 |
| d693e351f221 | Email Client 2 |
| d790e839f461 | Email Client 1 |
| d831e972f553 | Email Client 1 |
| d881e710f732 | Email Client 2 |
```

3- Retrieve Operating System and Patch Date

Next, I needed to gather details about the operating systems used across devices and their respective last patch dates. This was accomplished using the query:

SELECT device_id, operating_system, OS_patch_date FROM machines;

```
MariaDB [organization]> SELECT device_id, operating_system,OS_patch_date
    -> FROM machines;
+--------------+------------------+---------------+
| device_id    | operating_system | OS_patch_date |
+--------------+------------------+---------------+
| a184b775c707 | OS 1             | 2021-09-01    |
| a192b174c940 | OS 2             | 2021-06-01    |
| a305b818c708 | OS 3             | 2021-06-01    |
| a317b635c465 | OS 1             | 2021-03-01    |
| a320b137c219 | OS 2             | 2021-03-01    |
| a398b471c573 | OS 3             | 2021-12-01    |
| a667b270c984 | OS 1             | 2021-03-01    |
| a821b452c176 | OS 2             | 2021-12-01    |
| a998b568c863 | OS 3             | 2021-12-01    |
| b157c491d493 | OS 2             | 2021-03-01    |
| b239c825d303 | OS 1             | 2021-03-01    |
| b264c773d977 | OS 2             | 2021-03-01    |
| b265c937d713 | OS 2             | 2021-09-01    |
| b433c245d868 | OS 1             | 2021-06-01    |
| b551c837d758 | OS 3             | 2021-03-01    |
| b566c710d544 | OS 1             | 2021-06-01    |
| b806c503d354 | OS 2             | 2021-12-01    |
| b979c871d361 | OS 2             | 2021-03-01    |
| c116d593e558 | OS 3             | 2021-09-01    |
| c150d982e144 | OS 2             | 2021-06-01    |
| c185d679e493 | OS 1             | 2021-09-01    |
| c406d877e950 | OS 2             | 2021-06-01    |
| c547d140e477 | OS 2             | 2021-03-01    |
| c568d742e974 | OS 2             | 2021-09-01    |
| c597d792e215 | OS 2             | 2021-09-01    |
| c603d749e374 | OS 1             | 2021-12-01    |
| c986d200e170 | OS 2             | 2021-09-01    |
```

Task 2. Investigating Login Activity

This task involved analyzing the `log_in_attempts` table to detect any unusual login activity.

Steps Taken:

1-Investigate Login Locations

I initially retrieved the relevant data using the query:
SELECT event_id, country FROM log_in_attempts;

```
MariaDB [organization]> SELECT event_id, country FROM log_in_attempts;
+----------+---------+
| event_id | country |
+----------+---------+
|        1 | CAN     |
|        2 | CAN     |
|        3 | USA     |
|        4 | USA     |
|        5 | CANADA  |
|        6 | MEXICO  |
|        7 | CAN     |
|        8 | US      |
|        9 | MEX     |
|       10 | CANADA  |
|       11 | CANADA  |
|       12 | USA     |
|       13 | USA     |
|       14 | US      |
|       15 | USA     |
|       16 | CAN     |
|       17 | USA     |
|       18 | US      |
|       19 | US      |
|       20 | MEXICO  |
|       21 | US      |
|       22 | MEX     |
|       23 | MEXICO  |
|       24 | MEXICO  |
|       25 | US      |
|       26 | CANADA  |
|       27 | MEX     |
|       28 | MEXICO  |
|       29 | US      |
|       30 | MEX     |
|       31 | CANADA  |
|       32 | CANADA  |
|       33 | US      |
|       34 | US      |
|       35 | MEX     |
|       36 | US      |
|       37 | CANADA  |
|       38 | USA     |
|       39 | MEXICO  |
```

To enhance clarity, I refined the query by ordering the results alphabetically by country:
SELECT event_id, country FROM log_in_attempts ORDER BY country;

This helped confirm that no unexpected countries, such as Australia, were present in the list.

```
MariaDB [organization]> SELECT event_id, country FROM log_in_attempts Order by country;
+----------+---------+
| event_id | country |
+----------+---------+
|        1 | CAN     |
|      161 | CAN     |
|       71 | CAN     |
|      150 | CAN     |
|      137 | CAN     |
|       74 | CAN     |
|       76 | CAN     |
|      126 | CAN     |
|       46 | CAN     |
|      139 | CAN     |
|       84 | CAN     |
|       56 | CAN     |
|      115 | CAN     |
|      113 | CAN     |
|       96 | CAN     |
|      105 | CAN     |
|      164 | CAN     |
|      167 | CAN     |
|        2 | CAN     |
|      196 | CAN     |
|      194 | CAN     |
|       58 | CAN     |
```

2- Check for Logins Outside Working Hours:

I examined login attempts outside of working hours by querying the `log_in_attempts` table: SELECT username, login_date, login_time FROM log_in_attempts;

Specifically, I focused on the login activity of the user `jrafael`, as requested.

```
MariaDB [organization]> SELECT username, login_date, login_time from log_in_attempts
+----------+------------+------------+
| username | login_date | login_time |
+----------+------------+------------+
| jrafael  | 2022-05-09 | 04:56:27   |
| apatel   | 2022-05-10 | 20:27:27   |
| dkot     | 2022-05-09 | 06:47:41   |
| dkot     | 2022-05-08 | 02:00:39   |
| jrafael  | 2022-05-11 | 03:05:59   |
| arutley  | 2022-05-12 | 17:00:59   |
| eraab    | 2022-05-11 | 01:45:14   |
| bisles   | 2022-05-08 | 01:30:17   |
| yappiah  | 2022-05-11 | 13:47:29   |
| jrafael  | 2022-05-12 | 09:33:19   |
| sgilmore | 2022-05-11 | 10:16:29   |
| dkot     | 2022-05-08 | 09:11:34   |
| mrah     | 2022-05-11 | 09:29:34   |
| sbaelish | 2022-05-10 | 10:20:18   |
| lyamamot | 2022-05-09 | 17:17:26   |
| mcouliba | 2022-05-11 | 06:44:22   |
| pwashing | 2022-05-11 | 02:33:02   |
| pwashing | 2022-05-11 | 19:28:50   |
| jhill    | 2022-05-12 | 13:09:04   |
| tshah    | 2022-05-12 | 18:56:36   |
| iuduike  | 2022-05-11 | 17:50:00   |
| rjensen  | 2022-05-11 | 00:59:26   |
| yappiah  | 2022-05-10 | 18:11:53   |
| arusso   | 2022-05-09 | 06:49:39   |
| sbaelish | 2022-05-09 | 07:04:02   |
| apatel   | 2022-05-08 | 17:27:00   |
| aalonso  | 2022-05-10 | 01:55:35   |
| aestrada | 2022-05-09 | 19:28:12   |
| bisles   | 2022-05-11 | 01:21:22   |
| yappiah  | 2022-05-09 | 03:22:22   |
| acook    | 2022-05-12 | 17:36:45   |
| acook    | 2022-05-09 | 02:52:02   |
| zbernal  | 2022-05-11 | 02:52:10   |
| drosas   | 2022-05-11 | 21:02:04   |
| tshah    | 2022-05-10 | 15:26:08   |
| asundara | 2022-05-08 | 09:00:42   |
| eraab    | 2022-05-10 | 06:03:41   |
| sbaelish | 2022-05-09 | 14:40:01   |
| yappiah  | 2022-05-09 | 07:56:40   |
```

3- Retrieve All Login Attempts:

To get a complete view of login activity, I used:

SELECT * FROM log_in_attempts;

This query returned all columns, providing a comprehensive dataset for review.

```
MariaDB [organization]> SELECT *                                    -> FROM log_in_attempts;
+----------+----------+------------+------------+---------+-----------------+---------+
| event_id | username | login_date | login_time | country | ip_address      | success |
+----------+----------+------------+------------+---------+-----------------+---------+
|        1 | jrafael  | 2022-05-09 | 04:56:27   | CAN     | 192.168.243.140 |       1 |
|        2 | apatel   | 2022-05-10 | 20:27:27   | CAN     | 192.168.205.12  |       0 |
|        3 | dkot     | 2022-05-09 | 06:47:41   | USA     | 192.168.151.162 |       1 |
|        4 | dkot     | 2022-05-08 | 02:00:39   | USA     | 192.168.178.71  |       0 |
|        5 | jrafael  | 2022-05-11 | 03:05:59   | CANADA  | 192.168.86.232  |       0 |
|        6 | arutley  | 2022-05-12 | 17:00:59   | MEXICO  | 192.168.3.24    |       0 |
|        7 | eraab    | 2022-05-11 | 01:45:14   | CAN     | 192.168.170.243 |       1 |
|        8 | bisles   | 2022-05-08 | 01:30:17   | US      | 192.168.119.173 |       0 |
|        9 | yappiah  | 2022-05-11 | 13:47:29   | MEX     | 192.168.59.136  |       1 |
|       10 | jrafael  | 2022-05-12 | 09:33:19   | CANADA  | 192.168.228.221 |       0 |
|       11 | sgilmore | 2022-05-11 | 10:16:29   | CANADA  | 192.168.140.81  |       0 |
|       12 | dkot     | 2022-05-08 | 09:11:34   | USA     | 192.168.100.158 |       1 |
|       13 | mrah     | 2022-05-11 | 09:29:34   | USA     | 192.168.246.135 |       1 |
|       14 | sbaelish | 2022-05-10 | 10:20:18   | US      | 192.168.16.99   |       1 |
|       15 | lyamamot | 2022-05-09 | 17:17:26   | USA     | 192.168.183.51  |       0 |
|       16 | mcouliba | 2022-05-11 | 06:44:22   | CAN     | 192.168.172.189 |       1 |
|       17 | pwashing | 2022-05-11 | 02:33:02   | USA     | 192.168.81.89   |       1 |
|       18 | pwashing | 2022-05-11 | 19:28:50   | US      | 192.168.66.142  |       0 |
|       19 | jhill    | 2022-05-12 | 13:09:04   | US      | 192.168.142.245 |       1 |
|       20 | tshah    | 2022-05-12 | 18:56:36   | MEXICO  | 192.168.109.50  |       0 |
|       21 | iuduike  | 2022-05-11 | 17:50:00   | US      | 192.168.131.147 |       1 |
|       22 | rjensen  | 2022-05-11 | 00:59:26   | MEX     | 192.168.213.128 |       0 |
|       23 | yappiah  | 2022-05-10 | 18:11:53   | MEXICO  | 192.168.200.48  |       1 |
|       24 | arusso   | 2022-05-09 | 06:49:39   | MEXICO  | 192.168.171.192 |       1 |
|       25 | sbaelish | 2022-05-09 | 07:04:02   | US      | 192.168.33.137  |       1 |
|       26 | apatel   | 2022-05-08 | 17:27:00   | CANADA  | 192.168.123.105 |       1 |
|       27 | aalonso  | 2022-05-10 | 01:55:35   | MEX     | 192.168.103.210 |       0 |
|       28 | aestrada | 2022-05-09 | 19:28:12   | MEXICO  | 192.168.27.57   |       0 |
```

Task 3. Ordering Login Attempts Data

This task required the organization of login data using the `ORDER BY` keyword, first by login date and then by both date and time.

Steps Taken:

1- Order by Login Date:
I initially sorted the login attempts by date using:

SELECT * FROM log_in_attempts ORDER BY login_date;

The first record returned from this query showed:

- **Username**: `ivelasco`
- **Login Date**: `2022-05-08`

```
MariaDB [organization]> SELECT *
    -> FROM log_in_attempts
    -> ORDER BY login_date;
+----------+----------+------------+------------+---------+----------------+---------+
| event_id | username | login_date | login_time | country | ip_address     | success |
+----------+----------+------------+------------+---------+----------------+---------+
|      145 | ivelasco | 2022-05-08 | 09:06:02   | CANADA  | 192.168.39.196 |       1 |
|      163 | tmitchel | 2022-05-08 | 09:21:16   | MEX     | 192.168.119.29 |       0 |
|       36 | asundara | 2022-05-08 | 09:00:42   | US      | 192.168.78.151 |       1 |
|      165 | jreckley | 2022-05-08 | 15:28:43   | MEXICO  | 192.168.34.193 |       0 |
|      168 | jlansky  | 2022-05-08 | 13:25:42   | USA     | 192.168.210.94 |       1 |
|      169 | alevitsk | 2022-05-08 | 08:10:43   | CANADA  | 192.168.210.228|       0 |
|       72 | alevitsk | 2022-05-08 | 12:09:10   | CANADA  | 192.168.139.176|       1 |
|      101 | sbaelish | 2022-05-08 | 12:01:22   | US      | 192.168.145.158|       0 |
|      172 | mabadi   | 2022-05-08 | 08:06:50   | US      | 192.168.180.41 |       1 |
|      150 | nmason   | 2022-05-08 | 14:40:02   | CAN     | 192.168.204.124|       0 |
|       68 | mrah     | 2022-05-08 | 17:16:13   | US      | 192.168.42.248 |       1 |
|       66 | aestrada | 2022-05-08 | 21:58:32   | MEX     | 192.168.67.223 |       1 |
|       53 | nmason   | 2022-05-08 | 11:51:38   | CAN     | 192.168.133.188|       1 |
|      147 | yappiah  | 2022-05-08 | 06:04:34   | MEX     | 192.168.65.245 |       0 |
|      148 | daquino  | 2022-05-08 | 06:15:55   | CANADA  | 192.168.135.6  |       1 |
|       49 | asundara | 2022-05-08 | 14:00:01   | US      | 192.168.173.213|       0 |
|       47 | dkot     | 2022-05-08 | 05:06:45   | US      | 192.168.233.24 |       1 |
|       44 | daquino  | 2022-05-08 | 07:02:35   | CANADA  | 192.168.168.144|       0 |
|       43 | mcouliba | 2022-05-08 | 02:35:34   | CANADA  | 192.168.16.208 |       0 |
|       56 | acook    | 2022-05-08 | 04:56:30   | CAN     | 192.168.209.130|       1 |
|       80 | cjackson | 2022-05-08 | 02:18:10   | CANADA  | 192.168.33.140 |       1 |
|      117 | bsand    | 2022-05-08 | 00:19:11   | USA     | 192.168.197.187|       0 |
|       12 | dkot     | 2022-05-08 | 09:11:34   | USA     | 192.168.100.158|       1 |
|      189 | nmason   | 2022-05-08 | 05:37:24   | CANADA  | 192.168.168.117|       1 |
|      191 | cjackson | 2022-05-08 | 06:46:07   | CANADA  | 192.168.7.187  |       0 |
|        8 | bisles   | 2022-05-08 | 01:30:17   | US      | 192.168.119.173|       0 |
|      193 | lrodriqu | 2022-05-08 | 07:11:29   | US      | 192.168.125.240|       0 |
|        4 | dkot     | 2022-05-08 | 02:00:39   | USA     | 192.168.178.71 |       0 |
|      197 | jsoto    | 2022-05-08 | 09:05:09   | US      | 192.168.36.21  |       0 |
|       26 | apatel   | 2022-05-08 | 17:27:00   | CANADA  | 192.168.123.105|       1 |
|       92 | pwashing | 2022-05-08 | 00:36:12   | US      | 192.168.247.219|       0 |
|      178 | sgilmore | 2022-05-08 | 12:27:22   | CAN     | 192.168.52.216 |       0 |
|       83 | lrodriqu | 2022-05-08 | 08:10:23   | USA     | 192.168.67.69  |       1 |
|      184 | alevitsk | 2022-05-08 | 03:09:48   | CAN     | 192.168.33.70  |       0 |
|       87 | apatel   | 2022-05-08 | 22:38:31   | CANADA  | 192.168.132.153|       0 |
|       70 | tmitchel | 2022-05-09 | 10:55:17   | MEXICO  | 192.168.87.199 |       1 |
|       61 | dtanaka  | 2022-05-09 | 09:45:18   | USA     | 192.168.98.221 |       1 |
|       96 | ivelasco | 2022-05-09 | 22:36:36   | CAN     | 192.168.84.194 |       0 |
|       58 | ivelasco | 2022-05-09 | 17:20:54   | CAN     | 192.168.57.162 |       0 |
```

2- Order by Login Date and Time

I further refined the results by also ordering by login time:
SELECT * FROM log_in_attempts ORDER BY login_date, login_time;

The first record in this ordered list was:

- **Username**: `bsand`
- **Login Time**: `2022-05-08`

```
MariaDB [organization]> SELECT * FROM log_in_attempts ORDER BY login_date, login_time;
+----------+----------+------------+------------+---------+-----------------+---------+
| event_id | username | login_date | login_time | country | ip_address      | success |
+----------+----------+------------+------------+---------+-----------------+---------+
|      117 | bsand    | 2022-05-08 | 00:19:11   | USA     | 192.168.197.187 |       0 |
|       92 | pwashing | 2022-05-08 | 00:36:12   | US      | 192.168.247.219 |       0 |
|        8 | bisles   | 2022-05-08 | 01:30:17   | US      | 192.168.119.173 |       0 |
|        4 | dkot     | 2022-05-08 | 02:00:39   | USA     | 192.168.178.71  |       0 |
|       80 | cjackson | 2022-05-08 | 02:18:10   | CANADA  | 192.168.33.140  |       1 |
|       43 | mcouliba | 2022-05-08 | 02:35:34   | CANADA  | 192.168.16.208  |       0 |
|      184 | alevitsk | 2022-05-08 | 03:09:48   | CAN     | 192.168.33.70   |       0 |
|       56 | acook    | 2022-05-08 | 04:56:30   | CAN     | 192.168.209.130 |       1 |
|       47 | dkot     | 2022-05-08 | 05:06:45   | US      | 192.168.233.24  |       1 |
|      189 | nmason   | 2022-05-08 | 05:37:24   | CANADA  | 192.168.168.117 |       1 |
|      147 | yappiah  | 2022-05-08 | 06:04:34   | MEX     | 192.168.65.245  |       0 |
|      148 | daquino  | 2022-05-08 | 06:15:55   | CANADA  | 192.168.135.6   |       1 |
|      191 | cjackson | 2022-05-08 | 06:46:07   | CANADA  | 192.168.7.187   |       0 |
|       44 | daquino  | 2022-05-08 | 07:02:35   | CANADA  | 192.168.168.144 |       0 |
|      193 | lrodriqu | 2022-05-08 | 07:11:29   | US      | 192.168.125.240 |       0 |
|      172 | mabadi   | 2022-05-08 | 08:06:50   | US      | 192.168.180.41  |       1 |
|       83 | lrodriqu | 2022-05-08 | 08:10:23   | USA     | 192.168.67.69   |       1 |
|      169 | alevitsk | 2022-05-08 | 08:10:43   | CANADA  | 192.168.210.228 |       0 |
|       36 | asundara | 2022-05-08 | 09:00:42   | US      | 192.168.78.151  |       1 |
|      197 | jsoto    | 2022-05-08 | 09:05:09   | US      | 192.168.36.21   |       0 |
|      145 | ivelasco | 2022-05-08 | 09:06:02   | CANADA  | 192.168.39.196  |       1 |
|       12 | dkot     | 2022-05-08 | 09:11:34   | USA     | 192.168.100.158 |       1 |
|      163 | tmitchel | 2022-05-08 | 09:21:16   | MEX     | 192.168.119.29  |       0 |
|       53 | nmason   | 2022-05-08 | 11:51:38   | CAN     | 192.168.133.188 |       1 |
|      101 | sbaelish | 2022-05-08 | 12:01:22   | US      | 192.168.145.158 |       0 |
|       72 | alevitsk | 2022-05-08 | 12:09:10   | CANADA  | 192.168.139.176 |       1 |
|      178 | sgilmore | 2022-05-08 | 12:27:22   | CAN     | 192.168.52.216  |       0 |
|      168 | jlansky  | 2022-05-08 | 13:25:42   | USA     | 192.168.210.94  |       1 |
|       49 | asundara | 2022-05-08 | 14:00:01   | US      | 192.168.173.213 |       0 |
|      150 | nmason   | 2022-05-08 | 14:40:02   | CAN     | 192.168.204.124 |       0 |
|      165 | jreckley | 2022-05-08 | 15:28:43   | MEXICO  | 192.168.34.193  |       0 |
|       68 | mrah     | 2022-05-08 | 17:16:13   | US      | 192.168.42.248  |       1 |
|       26 | apatel   | 2022-05-08 | 17:27:00   | CANADA  | 192.168.123.105 |       1 |
|       66 | aestrada | 2022-05-08 | 21:58:32   | MEX     | 192.168.67.223  |       1 |
|       87 | apatel   | 2022-05-08 | 22:38:31   | CANADA  | 192.168.132.153 |       0 |
|      110 | mabadi   | 2022-05-09 | 00:01:54   | USA     | 192.168.90.124  |       1 |
|      187 | arusso   | 2022-05-09 | 00:36:26   | MEX     | 192.168.77.137  |       0 |
|       90 | gesparza | 2022-05-09 | 00:49:05   | CANADA  | 192.168.87.201  |       0 |
|       97 | jreckley | 2022-05-09 | 02:49:23   | MEXICO  | 192.168.32.231  |       1 |
```

Summary

In this project, I retrieved and analyzed employee device and login data from the organization's database. I started by gathering device information from the `machines` table, focusing on email clients and operating systems. Next, I investigated login activity by checking locations and times of login attempts in the `log_in_attempts` table. Finally, I ordered the login data by date and time to identify patterns and ensure compliance with the organization's security protocols. Each task was completed using targeted SQL queries to meet the specific requirements.