

Apply filters to SQL queries

Project description

Utilizando filtros para ajudar na busca de informações importantes para a segurança da empresa.

Retrieve after hours failed login attempts

Utilizei os comandos abaixo para recuperar os dados depois das 18:00 :

```
MariaDB [organization]> SELECT *  
-> FROM log_in_attempts  
-> WHERE login_time > '18:00' AND success = FALSE;  
+-----+-----+-----+-----+-----+-----+-----+  
| event_id | username | login_date | login_time | country | ip_address | success |  
+-----+-----+-----+-----+-----+-----+-----+  
| 2 | apatel | 2022-05-10 | 20:27:27 | CAN | 192.168.205.12 | 0 |  
| 18 | pwashing | 2022-05-11 | 19:28:50 | US | 192.168.66.142 | 0 |  
| 20 | tshah | 2022-05-12 | 18:56:36 | MEXICO | 192.168.109.50 | 0 |  
| 28 | aestrada | 2022-05-09 | 19:28:12 | MEXICO | 192.168.27.57 | 0 |  
| 34 | drosas | 2022-05-11 | 21:02:04 | US | 192.168.45.93 | 0 |  
| 42 | cgriffin | 2022-05-09 | 23:04:05 | US | 192.168.4.157 | 0 |  
| 52 | cjakson | 2022-05-10 | 22:07:07 | CAN | 192.168.58.57 | 0 |  
| 69 | wjaffrey | 2022-05-11 | 19:55:15 | USA | 192.168.100.17 | 0 |  
| 82 | abernard | 2022-05-12 | 23:38:46 | MEX | 192.168.234.49 | 0 |  
| 87 | apatel | 2022-05-08 | 22:38:31 | CANADA | 192.168.132.153 | 0 |  
| 96 | ivelasco | 2022-05-09 | 22:36:36 | CAN | 192.168.84.194 | 0 |  
| 104 | asundara | 2022-05-11 | 18:38:07 | US | 192.168.96.200 | 0 |  
| 107 | bisles | 2022-05-12 | 20:25:57 | USA | 192.168.116.187 | 0 |  
| 111 | aestrada | 2022-05-10 | 22:00:26 | MEXICO | 192.168.76.27 | 0 |  
| 127 | abellmas | 2022-05-09 | 21:20:51 | CANADA | 192.168.70.122 | 0 |  
| 131 | bisles | 2022-05-09 | 20:03:55 | US | 192.168.113.171 | 0 |  
| 155 | cgriffin | 2022-05-12 | 22:18:42 | USA | 192.168.236.176 | 0 |  
| 160 | jclark | 2022-05-10 | 20:49:00 | CANADA | 192.168.214.49 | 0 |  
| 199 | yappiah | 2022-05-11 | 19:34:48 | MEXICO | 192.168.44.232 | 0 |  
+-----+-----+-----+-----+-----+-----+-----+  
19 rows in set (0.005 sec)
```

```
SELECT *  
FROM log_in_attempts  
WHERE login_time > '18:00' AND success = FALSE;
```

Retrieve login attempts on specific dates

Para recuperar tentativas de login em datas específicas utilizei:

```
MariaDB [organization]> SELECT *
-> FROM log_in_attempts
-> WHERE login_date = '2022-05-09' OR login_date = '2022-05-08';
+-----+-----+-----+-----+-----+-----+
| 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 |
| 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 |
| 8 | bisles | 2022-05-08 | 01:30:17 | US | 192.168.119.173 | 0 |
| 12 | dkot | 2022-05-08 | 09:11:34 | USA | 192.168.100.158 | 1 |
| 15 | lyamamot | 2022-05-09 | 17:17:26 | USA | 192.168.183.51 | 0 |
| 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 |

```

```
SELECT *
FROM log_in_attempts
WHERE login_date = '2022-05-09' OR login_date = '2022-05-08';
```

Retrieve login attempts outside of Mexico

Para recuperar entradas de fora do México utilizei o comando:

```
MariaDB [organization]> SELECT *
-> FROM log_in_attempts
-> WHERE NOT country LIKE 'MEX%';
+-----+-----+-----+-----+-----+-----+
| 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 |
| 7 | oraab | 2022-05-11 | 01:45:14 | CAN | 192.168.170.243 | 1 |

```

```
SELECT *
FROM log_in_attempts
WHERE NOT country LIKE 'MEX%';
```

Retrieve employees in Marketing

Para revelar dados de funcionários fora do departamento de marketing utilizei:

```
MariaDB [organization]> SELECT *
->   FROM employees
-> WHERE department = 'Marketing' AND office LIKE 'East%';
+-----+-----+-----+-----+-----+
| employee_id | device_id      | username | department | office    |
+-----+-----+-----+-----+-----+
|     1000    | a320b137c219  | elarson  | Marketing  | East-170  |
|     1052    | a192b174c940  | jdarosa   | Marketing  | East-195  |
|     1075    | x573y883z772  | fbautist  | Marketing  | East-267  |
|     1088    | k8651965m233  | rgosh     | Marketing  | East-157  |
|     1103    | NULL           | randerss  | Marketing  | East-460  |
|     1156    | a184b775c707  | dellery   | Marketing  | East-417  |
|     1163    | h679i515j339  | cwilliam  | Marketing  | East-216  |
+-----+-----+-----+-----+-----+
```

```
SELECT *
FROM employees
WHERE department = 'Marketing' AND office LIKE 'East%';
```

Retrieve employees in Finance or Sales

O comando para visualizar os dados de todos os funcionários não trabalhando em finanças ou em vendas é o abaixo:

```
SELECT *
FROM employees
WHERE department = 'Finance' OR department = 'Sales';
```

```
MariaDB [organization]> SELECT *
->   FROM employees
-> WHERE department = 'Finance' OR department = 'Sales';
+-----+-----+-----+-----+-----+
| employee_id | device_id      | username | department | office    |
+-----+-----+-----+-----+-----+
|     1003    | d394e816f943  | sgilmore | Finance   | South-153 |
|     1007    | h174i497j413  | wjaffrey | Finance   | North-406 |
|     1008    | i858j583k571  | abernard | Finance   | South-170 |
|     1009    | NULL           | lrodriqu | Sales     | South-134 |
|     1010    | k2421212m542  | jlansky   | Finance   | South-109 |
|     1011    | 1748m120n401  | drosas    | Sales     | South-292 |
|     1015    | p611q262r945  | jsoto     | Finance   | North-271 |
|     1017    | r550s824t230  | jclark    | Finance   | North-188 |
|     1018    | s310t540u653  | abellmas  | Finance   | North-403 |
|     1022    | w237x430y567  | arusso    | Finance   | West-465  |
|     1024    | y976z753a267  | iudurike  | Sales     | South-215 |
|     1025    | z381a365b233  | jhill     | Sales     | North-115 |
|     1029    | d336e475f676  | ivelasco  | Finance   | East-156  |
|     1035    | j236k3031245  | bisles    | Sales     | South-171 |
|     1036    | 853_017_602    |          |          |          |
+-----+-----+-----+-----+-----+
```

Retrieve all employees not in IT

Para recuperação de dados de todos os funcionários fora do ti utilizei:

```
SELECT *  
FROM employees  
WHERE NOT department = 'Information Technology';
```

Summary

Recuperei Vários tipos de dados com vários estilos de filtros como AND, OR, NOT e LIKE.

AND: AND é usado para filtrar duas condições. AND especifica que ambas as condições devem ser atendidas simultaneamente.

OR: O operador OR também conecta duas condições, mas OR especifica que qualquer uma delas pode ser atendida. Ele retorna resultados em que a primeira condição, a segunda condição ou ambas são atendidas.

NOT: O operador NOT funciona apenas em uma única condição, e não em múltiplas. O operador NOT nega uma condição. Isso significa que o SQL retorna todos os registros que não correspondem à condição especificada na consulta.

LIKE: LIKE é usado com WHERE para procurar um padrão em uma coluna.