

Apply filters to SQL queries

Project description

This document is about the activity we went through accessing the database using SQL and performing various operations on it. In this activity we focus on applying filters for the data query such as AND, OR and NOT.

Retrieve after hours failed login attempts

```
MariaDB [organization]> select * from log_in_attempts where login_time > '18:00:00' AND success = 0;
```

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	astrada	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	cjackson	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

This query retrieves all failed login attempts after the office hours i.e. 18:00:00.

Retrieve login attempts on specific dates

```
MariaDB [organization]> select * from log_in_attempts where login_date = '2022-05-08' OR login_date = '2022-05-09';
```

event_id	username	login_date	login_time	country	ip_address	success
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This query retrieves all login attempts that were made on date 2022-05-08 or 2022-05-09.

Retrieve login attempts outside of Mexico

```
MariaDB [organization]> select * from log_in_attempts where country not like 'MEX%';
```

event_id	username	login_date	login_time	country	ip_address	success
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This query retrieves all login attempts that were made out of Mexico.

Retrieve employees in Marketing

```
MariaDB [organization]> select * from employees where department = 'Marketing' and office like 'East%';
```

employee_id	device_id	username	department	office
1000	a320b137c219	el Larson	Marketing	East-170
1052	a192b174c940	jd Arrosa	Marketing	East-195
1075	x573y883z772	fbautist	Marketing	East-267
1088	k865l965m233	rgosh	Marketing	East-157
1103	NULL	rander ss	Marketing	East-460
1156	a184b775c707	dellery	Marketing	East-417
1163	h679i515j339	cwilliam	Marketing	East-216

7 rows in set (0.001 sec)

This query retrieves data of employees which are in marketing department and from office in EAST.

Retrieve employees in Finance or 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	k242l212m542	jlansky	Finance	South-109
1011	l748m120n401	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	iuduike	Sales	South-215
1025	z381a365b233	jhill	Sales	North-115
1029	d336e475f676	ivelasco	Finance	East-156
1035	j236k303l245	bisles	Sales	South-171
1039	n253o917p623	cjackson	Sales	East-378
1041	p929q222r778	cgriffin	Sales	North-208

This query retrieves data of employees which are currently in the department of sales or finance.

Retrieve all employees not in IT

```
MariaDB [organization]> select * from employees where NOT department = 'Information Technology';
```

employee_id	device_id	username	department	office
1000	a320b137c219	elarson	Marketing	East-170
1001	b239c825d303	bmoreno	Marketing	Central-276
1002	c116d593e558	tsbah	Human Resources	North-434

This query retrieves all employees who are not in the IT department.

Summary

Here i learned how to filter out data according to the need and retrieve only the required information from big databases.