

Apply filters to SQL queries

Project description

In this project I am using operators to filter my return results.

Retrieve after hours failed login attempts

```
MariaDB [organization]> select *
-> from log_in_attempts
-> where login_time > '18:00' 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	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	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
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 (0.753 sec)

MariaDB [organization]>
```

I selected to return all login attempts with the filters of 18:00 and success of 0, indicating that it was a failed attempt. I was then displayed 19 rows of failed login attempts.

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';
```

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
28	aestrada	2022-05-09	19:28:12	MEXICO	192.168.27.57	0
30	yappiah	2022-05-09	03:22:22	MEX	192.168.124.48	1
32	acook	2022-05-09	02:52:02	CANADA	192.168.142.239	0
36	asundara	2022-05-08	09:00:42	US	192.168.78.151	1
38	sbaelish	2022-05-09	14:40:01	USA	192.168.60.42	1
39	yappiah	2022-05-09	07:56:40	MEXICO	192.168.57.115	1
42	cgriffin	2022-05-09	23:04:05	US	192.168.4.157	0
43	mcouliba	2022-05-08	02:35:34	CANADA	192.168.16.208	0
44	daquino	2022-05-08	07:02:35	CANADA	192.168.168.144	0
47	dkot	2022-05-08	05:06:45	US	192.168.233.24	1
49	asundara	2022-05-08	14:00:01	US	192.168.173.213	0
53	nmason	2022-05-08	11:51:38	CAN	192.168.133.188	1
56	acook	2022-05-08	04:56:30	CAN	192.168.209.130	1
58	ivelasco	2022-05-09	17:20:54	CAN	192.168.57.162	0
61	dtanaka	2022-05-09	09:45:18	USA	192.168.98.221	1
65	aalonso	2022-05-09	23:42:12	MEX	192.168.52.37	1
66	aestrada	2022-05-08	21:58:32	MEX	192.168.67.223	1
67	abernard	2022-05-09	11:53:41	MEX	192.168.118.29	1

I used the command “where login_date =” plus “or login_date =” to filter between 2 dates, 2022-05-09 and 2022-05-08.

Retrieve login attempts outside of Mexico

```
MariaDB [organization]> select *
-> from log_in_attempts
-> where not country = '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
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	mrhah	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	iuidike	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

In this one I used the command “not” to return all primary keys that do not include “mex”. I filtered it by using Where not country = ‘mex%’

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	J. Darosa	Marketing	East-195
1075	x573y883z772	F. Bautist	Marketing	East-267
1088	k865l965m233	R. Gosh	Marketing	East-157
1103	NULL	R. Anders	Marketing	East-460
1156	a184b775c707	D. Lery	Marketing	East-417
1163	h679i515j339	C. William	Marketing	East-216

```
7 rows in set (0.027 sec)

MariaDB [organization]>
```

Here I filtered for department and office location. Using, Where department = 'marketing' and office like '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	S. Gilmore	Finance	South-153
1007	h174i1497j413	W. Jaffrey	Finance	North-406
1008	i858j583k571	A. Bernard	Finance	South-170
1009	NULL	L. Rodrigu	Sales	South-134
1010	k242l212m542	J. Lansky	Finance	South-109
1011	l748m120n401	D. Rosas	Sales	South-292
1015	p611q262r945	J. Soto	Finance	North-271
1017	r550s824t230	J. Clark	Finance	North-188
1018	s310t540u653	A. Bellmas	Finance	North-403
1022	w237x430y567	A. Russo	Finance	West-465
1024	y976z753a267	I. Duilke	Sales	South-215
1025	z381a365b233	J. Hill	Sales	North-115
1029	d336e475f676	I. Velasco	Finance	East-156
1035	j236k303l245	B. Sles	Sales	South-171
1039	n253o917p623	C. Jackson	Sales	East-378
1041	p929q222r778	C. Griffin	Sales	North-208
1044	s429t157u159	T. Barnes	Finance	West-415
1045	t567u844v434	P. Washing	Finance	East-115
1046	u429v921w138	D. Aquino	Finance	West-280
1047	v109w587x644	C. Ward	Finance	West-373
1048	w167x592y375	T. Mitchel	Finance	South-288
1049	NULL	J. Reckley	Finance	Central-295
1050	y132z930a114	C. Simmons	Finance	North-468
1057	f370g535h632	M. Scott	Sales	South-270
1062	k367l639m697	R. Edwards	Finance	North-180

Here I used filters to return all that had finance or sales consisted in their “departments”. Using the filter where department = 'finance' or department = 'sales'

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	tshah	Human Resources	North-434
1003	d394e816f943	sgillmore	Finance	South-153
1004	e218f877g788	eraab	Human Resources	South-127
1005	f551g340h864	gesparza	Human Resources	South-366
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
1016	q793r736s288	sbaelish	Human Resources	North-229
1017	r550s824t230	jclark	Finance	North-188
1018	s310t540u653	abellmas	Finance	North-403
1020	u899v381w363	arutley	Marketing	South-351
1022	w237x430y567	arusso	Finance	West-465
1024	y976z753a267	iudulke	Sales	South-215
1025	z381a365b233	jhill	Sales	North-115
1026	a998b568c863	apatel	Human Resources	West-320
1027	b806c503d354	mrah	Marketing	West-246
1028	c603d749e374	aestrada	Human Resources	West-121
1029	d336e475f676	ivelasco	Finance	East-156

Using the filter, where not department = 'information technology'; filters out all employees that are included in the IT department.

Summary

Using filters when searching for data in the database will help find the information needed. It shortens the time to search for each individual thing and piece.