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# Консоль

### Задание 1
Команда или последовательность команд, которой удалось получить нужные логи:
 $ grep -R ^233.201. ~/logs/2019/12

Логи:
/home/morty/logs/2019/12/apache_2019-12-18.txt:233.201.188.154 - - [18/12/2019:21:46:01 +0000] "DELETE /events HTTP/1.1" 403 3971
/home/morty/logs/2019/12/apache_2019-12-21.txt:233.201.182.9 - - [21/12/2019:21:56:20 +0000] "PATCH /users HTTP/1.1" 400 4118


### Задание 2
Команды, которые создают директории bug1 и events:
mkdir bug1
cd bug1
mkdir events
Команда, которой выбираешь запросы за указанный период. Это те запросы, которыми ты отбираешь логи в файл main.txt:
grep 31/12/2019:21:3 logs/2019/12/apache_2019-12-31.txt > ~/bug1/main.txt
grep 30/12/2019:21:3 logs/2019/12/apache_2019-12-30.txt >> ~/bug1/main.txt
Команды, которыми ты кладёшь логи в файлы 400.txt и 500.txt из main.txt:
grep -w 400 bug1/main.txt > ~/bug1/events/400.txt
grep -w 500 bug1/main.txt > ~/bug1/events/500.txt
400.txt
86.34.86.182 - - [31/12/2019:21:35:10 +0000] "POST /auth HTTP/1.1" 400 3626
167.37.16.117 - - [31/12/2019:21:35:17 +0000] "PATCH /customers HTTP/1.1" 400 3294
199.128.92.19 - - [31/12/2019:21:35:43 +0000] "PUT /users HTTP/1.1" 400 4180
162.152.99.143 - - [31/12/2019:21:35:59 +0000] "PUT /users HTTP/1.1" 400 4606
83.115.59.224 - - [31/12/2019:21:37:26 +0000] "GET /alerts HTTP/1.1" 400 3489
194.10.97.226 - - [31/12/2019:21:37:31 +0000] "DELETE /lists HTTP/1.1" 400 2447
180.99.214.40 - - [31/12/2019:21:37:44 +0000] "DELETE /alerts HTTP/1.1" 400 2077
154.152.205.4 - - [31/12/2019:21:37:50 +0000] "GET /playbooks HTTP/1.1" 400 3324
197.82.125.54 - - [31/12/2019:21:37:52 +0000] "PUT /fieldsets HTTP/1.1" 400 4365
115.89.87.219 - - [31/12/2019:21:38:06 +0000] "PUT /playbooks HTTP/1.1" 400 2589
100.77.15.14 - - [31/12/2019:21:38:07 +0000] "GET /fieldsets HTTP/1.1" 400 4911
22.33.159.242 - - [31/12/2019:21:38:07 +0000] "GET /playbooks HTTP/1.1" 400 3955
149.148.229.11 - - [31/12/2019:21:39:16 +0000] "GET /users HTTP/1.1" 400 2071
236.107.64.192 - - [31/12/2019:21:39:17 +0000] "PATCH /users HTTP/1.1" 400 2791
24.156.105.39 - - [31/12/2019:21:39:23 +0000] "GET /lists HTTP/1.1" 400 2902
193.50.164.254 - - [31/12/2019:21:39:23 +0000] "PUT /playbooks HTTP/1.1" 400 3296
18.123.104.91 - - [31/12/2019:21:39:52 +0000] "GET /collectors HTTP/1.1" 400 4372

234.218.148.4 - - [31/12/2019:21:39:54 +0000] "PUT /users HTTP/1.1" 400 2509
80.57.170.51 - - [30/12/2019:21:35:12 +0000] "DELETE /users HTTP/1.1" 400 3623
204.235.176.118 - - [30/12/2019:21:35:13 +0000] "POST /users HTTP/1.1" 400 4704
82.95.203.67 - - [30/12/2019:21:35:19 +0000] "DELETE /lists HTTP/1.1" 400 3737
155.242.215.46 - - [30/12/2019:21:35:38 +0000] "POST /playbooks HTTP/1.1" 400 4450
189.176.85.0 - - [30/12/2019:21:35:39 +0000] "PATCH /alerts HTTP/1.1" 400 2732
13.108.71.71 - - [30/12/2019:21:35:43 +0000] "PATCH /events HTTP/1.1" 400 3410
195.213.133.182 - - [30/12/2019:21:35:46 +0000] "PUT /customers HTTP/1.1" 400 3085
235.243.133.78 - - [30/12/2019:21:35:47 +0000] "PATCH /customers HTTP/1.1" 400 3264
192.57.115.49 - - [30/12/2019:21:35:55 +0000] "POST /parsers HTTP/1.1" 400 2457
71.0.49.244 - - [30/12/2019:21:35:55 +0000] "PUT /collectors HTTP/1.1" 400 2785
224.159.206.126 - - [30/12/2019:21:36:02 +0000] "DELETE /customers HTTP/1.1" 400 4569
131.35.106.246 - - [30/12/2019:21:36:04 +0000] "DELETE /lists HTTP/1.1" 400 2578
216.24.42.208 - - [30/12/2019:21:36:06 +0000] "GET /parsers HTTP/1.1" 400 4597
123.53.150.160 - - [30/12/2019:21:37:19 +0000] "PATCH /events HTTP/1.1" 400 4379
61.129.127.103 - - [30/12/2019:21:37:32 +0000] "GET /lists HTTP/1.1" 400 2575
90.216.4.78 - - [30/12/2019:21:37:34 +0000] "PATCH /lists HTTP/1.1" 400 3899
204.250.214.208 - - [30/12/2019:21:37:36 +0000] "PATCH /parsers HTTP/1.1" 400 4742
79.214.240.98 - - [30/12/2019:21:37:37 +0000] "POST /fieldsets HTTP/1.1" 400 4441
65.47.42.12 - - [30/12/2019:21:37:39 +0000] "PATCH /customers HTTP/1.1" 400 2500
251.118.141.34 - - [30/12/2019:21:37:41 +0000] "POST /customers HTTP/1.1" 400 3519
205.20.166.196 - - [30/12/2019:21:37:51 +0000] "POST /users HTTP/1.1" 400 4032
156.217.3.46 - - [30/12/2019:21:37:52 +0000] "PATCH /parsers HTTP/1.1" 400 2020
48.240.198.167 - - [30/12/2019:21:37:57 +0000] "PATCH /playbooks HTTP/1.1" 400 4100
101.255.159.211 - - [30/12/2019:21:37:59 +0000] "GET /auth HTTP/1.1" 400 2324
80.76.98.203 - - [30/12/2019:21:38:00 +0000] "POST /playbooks HTTP/1.1" 400 3045
85.64.63.255 - - [30/12/2019:21:38:13 +0000] "PATCH /collectors HTTP/1.1" 400 2291
184.79.247.161 - - [30/12/2019:21:38:13 +0000] "PUT /alerts HTTP/1.1" 400 3557
93.2.134.22 - - [30/12/2019:21:39:39 +0000] "DELETE /alerts HTTP/1.1" 400 3701
500.txt.
208.205.133.127 - - [31/12/2019:21:35:17 +0000] "DELETE /alerts HTTP/1.1" 500 4561
20.145.255.91 - - [31/12/2019:21:35:30 +0000] "GET /parsers HTTP/1.1" 500 3051
91.66.134.13 - - [31/12/2019:21:35:53 +0000] "POST /lists HTTP/1.1" 500 3319
31.88.211.206 - - [31/12/2019:21:35:57 +0000] "DELETE /events HTTP/1.1" 500 2325
171.37.114.114 - - [31/12/2019:21:37:39 +0000] "DELETE /fieldsets HTTP/1.1" 500 3253
223.157.242.167 - - [31/12/2019:21:37:59 +0000] "POST /users HTTP/1.1" 500 2283
98.181.102.34 - - [31/12/2019:21:38:06 +0000] "PATCH /fieldsets HTTP/1.1" 500 4672
254.74.22.79 - - [31/12/2019:21:38:06 +0000] "PUT /lists HTTP/1.1" 500 2259
103.46.238.3 - - [31/12/2019:21:38:09 +0000] "PUT /lists HTTP/1.1" 500 3992
41.62.205.107 - - [31/12/2019:21:39:20 +0000] "PATCH /alerts HTTP/1.1" 500 3631
22.53.105.197 - - [31/12/2019:21:39:31 +0000] "DELETE /collectors HTTP/1.1" 500 4202
178.22.133.42 - - [31/12/2019:21:39:43 +0000] "PUT /alerts HTTP/1.1" 500 4648
102.247.13.50 - - [31/12/2019:21:39:55 +0000] "PATCH /auth HTTP/1.1" 500 3736
64.250.112.189 - - [30/12/2019:21:35:13 +0000] "PUT /parsers HTTP/1.1" 500 4639
193.253.101.180 - - [30/12/2019:21:35:31 +0000] "PATCH /alerts HTTP/1.1" 500 2944
197.106.117.194 - - [30/12/2019:21:35:31 +0000] "PATCH /parsers HTTP/1.1" 500 3519
247.124.71.67 - - [30/12/2019:21:35:45 +0000] "PUT /alerts HTTP/1.1" 500 2746
62.88.204.119 - - [30/12/2019:21:35:51 +0000] "PUT /auth HTTP/1.1" 500 2666

```
125.156.142.26 - - [30/12/2019:21:36:01 +0000] "PATCH /events HTTP/1.1" 500 3460
144.170.212.70 - - [30/12/2019:21:36:04 +0000] "DELETE /parsers HTTP/1.1" 500 2599
59.39.200.252 - - [30/12/2019:21:36:05 +0000] "GET /alerts HTTP/1.1" 500 2650
150.136.200.100 - - [30/12/2019:21:37:24 +0000] "POST /lists HTTP/1.1" 500 2684
84.81.25.45 - - [30/12/2019:21:37:25 +0000] "POST /auth HTTP/1.1" 500 2052
30.222.160.141 - - [30/12/2019:21:37:30 +0000] "PATCH /parsers HTTP/1.1" 500 2017
117.87.158.36 - - [30/12/2019:21:37:34 +0000] "POST /fieldsets HTTP/1.1" 500 4056
212.153.128.212 - - [30/12/2019:21:37:42 +0000] "PUT /fieldsets HTTP/1.1" 500 3259
58.188.83.217 - - [30/12/2019:21:37:46 +0000] "POST /playbooks HTTP/1.1" 500 3947
193.123.131.146 - - [30/12/2019:21:37:47 +0000] "PUT /lists HTTP/1.1" 500 3902
182.7.179.91 - - [30/12/2019:21:37:48 +0000] "GET /users HTTP/1.1" 500 2950
10.25.168.164 - - [30/12/2019:21:38:05 +0000] "PATCH /playbooks HTTP/1.1" 500 3858
215.201.210.173 - - [30/12/2019:21:38:11 +0000] "PATCH /customers HTTP/1.1" 500 3277
179.241.103.167 - - [30/12/2019:21:39:23 +0000] "POST /lists HTTP/1.1" 500 3669
147.188.170.252 - - [30/12/2019:21:39:33 +0000] "POST /fieldsets HTTP/1.1" 500 3313
1.249.123.189 - - [30/12/2019:21:39:36 +0000] "PATCH /alerts HTTP/1.1" 500 4734
124.114.135.105 - - [30/12/2019:21:39:41 +0000] "PATCH /customers HTTP/1.1" 500 3348
35.215.100.202 - - [30/12/2019:21:39:43 +0000] "PUT /alerts HTTP/1.1" 500 4345
86.222.23.128 - - [30/12/2019:21:39:44 +0000] "PATCH /alerts HTTP/1.1" 500 2230
20.161.75.95 - - [30/12/2019:21:39:48 +0000] "DELETE /users HTTP/1.1" 500 2412
196.18.151.117 - - [30/12/2019:21:39:55 +0000] "PUT /events HTTP/1.1" 500 4439
77.101.138.151 - - [30/12/2019:21:39:57 +0000] "PUT /lists HTTP/1.1" 500 2194
```

## База данных

### Задание 1
Число автомобилей:
5500

Запрос, которым тебе удалось решить задачу.
SELECT COUNT (DISTINCT vehicle_id) AS cnt_vehicle_id FROM cabs;

### Задание 2

Список компаний с числом автомобилей меньше 100.

```
          company_name          | cnt
--------------------------------+-----
 Nova Taxi Affiliation Llc       | 97
 Patriot Taxi Dba Peace Taxi Associat    | 89
 Blue Diamond                    | 85
 Checker Taxi Affiliation         | 81
 Chicago Medallion Management         | 80
 Chicago Independents              | 69
 24 Seven Taxi                    | 67
```

```
Checker Taxi                              | 60
American United                           | 55
Chicago Medallion Leasing INC             | 53
Top Cab Affiliation                       | 49
KOAM Taxi Association                     | 48
Chicago Taxicab                           | 38
Norshore Cab                              | 34
Gold Coast Taxi                           | 20
Metro Group                               | 20
Service Taxi Association                  | 18
5 Star Taxi                               | 14
American United Taxi Affiliation          |  8
Metro Jet Taxi A                          |  8
Setare Inc                                |  7
Leonard Cab Co                            |  5
4615 - 83503 Tyrone Henderson            |  1
5062 - 34841 Sam Mestas                   |  1
4623 - 27290 Jay Kim                      |  1
5997 - 65283 AW Services Inc.             |  1
2092 - 61288 Sbeih company                |  1
1469 - 64126 Omar Jada                    |  1
2733 - 74600 Benny Jona                   |  1
2192 - 73487 Zeymane Corp                 |  1
5006 - 39261 Salifu Bawa                  |  1
3556 - 36214 RC Andrews Cab               |  1
3721 - Santamaria Express, Alvaro Santamaria |  1
2809 - 95474 C & D Cab Co Inc.            |  1
2241 - 44667 - Felman Corp, Manuel Alonso |  1
3620 - 52292 David K. Cab Corp.           |  1
2823 - 73307 Lee Express Inc              |  1
6057 - 24657 Richard Addo                 |  1
6742 - 83735 Tasha ride inc               |  1
1085 - 72312 N and W Cab Co               |  1
3591 - 63480 Chuks Cab                    |  1
0118 - 42111 Godfrey S.Awir               |  1
6574 - Babylon Express Inc.               |  1
3094 - 24059 G.L.B. Cab Co                |  1
5874 - 73628 Sergey Cab Corp.             |  1
6743 - 78771 Luhak Corp                   |  1
5074 - 54002 Ahzmi Inc                    |  1
3623 - 72222 Arrington Enterprises        |  1
4053 - 40193 Adwar H. Nikola              |  1
Chicago Star Taxicab                      |  1
3011 - 66308 JBL Cab Inc.                 |  1
(51 rows)
```
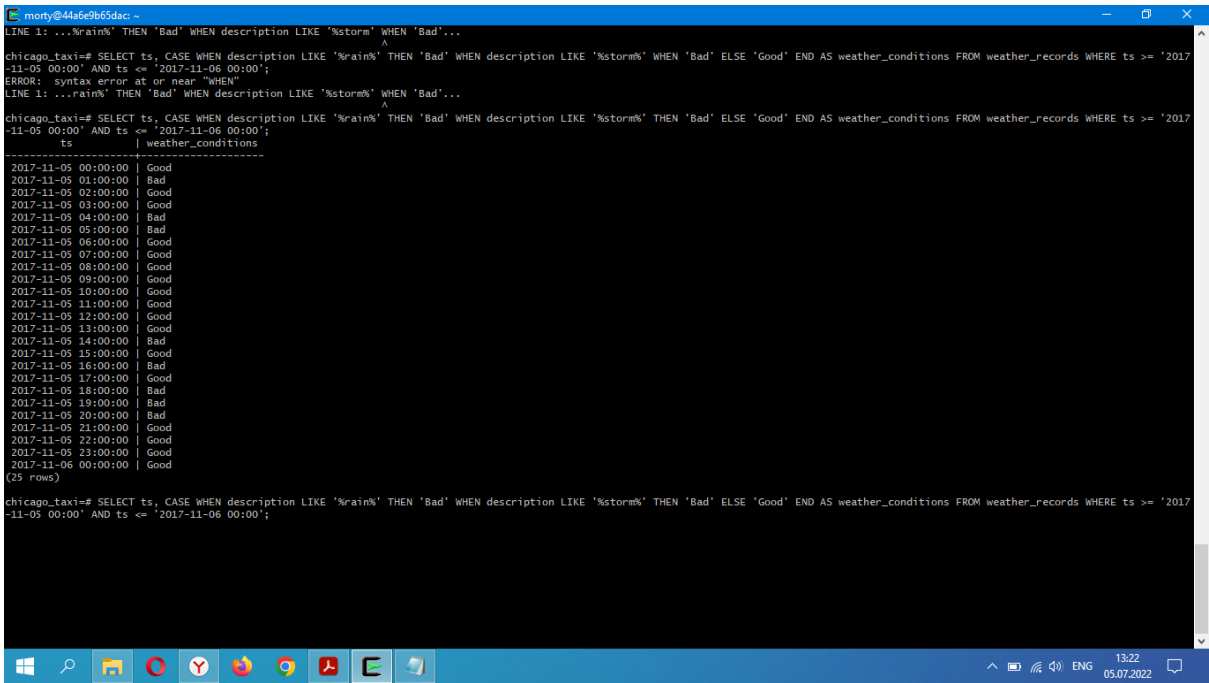
Запрос, которым тебе удалось решить задачу.

SELECT company_name, COUNT (vehicle_id) AS cnt FROM cabs GROUP BY company_name HAVING COUNT (vehicle_id) < 100 ORDER BY cnt DESC;

## Задание 3

Таблица с данными за указанный период.



```
       ts         | weather_conditions
--------------------+--------------------
 2017-11-05 00:00:00 | Good
 2017-11-05 01:00:00 | Bad
 2017-11-05 02:00:00 | Good
 2017-11-05 03:00:00 | Good
 2017-11-05 04:00:00 | Bad
 2017-11-05 05:00:00 | Bad
 2017-11-05 06:00:00 | Good
 2017-11-05 07:00:00 | Good
 2017-11-05 08:00:00 | Good
 2017-11-05 09:00:00 | Good
 2017-11-05 10:00:00 | Good
 2017-11-05 11:00:00 | Good
 2017-11-05 12:00:00 | Good
```

2017-11-05 13:00:00 | Good
2017-11-05 14:00:00 | Bad
2017-11-05 15:00:00 | Good
2017-11-05 16:00:00 | Bad
2017-11-05 17:00:00 | Good
2017-11-05 18:00:00 | Bad
2017-11-05 19:00:00 | Bad
2017-11-05 20:00:00 | Bad
2017-11-05 21:00:00 | Good
2017-11-05 22:00:00 | Good
2017-11-05 23:00:00 | Good
2017-11-06 00:00:00 | Good
(25 rows)

Запрос, которым удалось решить задачу.

SELECT ts, CASE WHEN description LIKE '%rain%' THEN 'Bad' WHEN description LIKE '%storm%' THEN 'Bad' ELSE 'Good' END AS weather_conditions FROM weather_records WHERE ts >= '2017-11-05 00:00' AND ts <= '2017-11-06 00:00';

## Задание 4

Таблица с данными за указанный период.



| company_name | trips_amount |
|---|---|
| Flash Cab | 19558 |
| Taxi Affiliation Services | 11422 |
| Medallion Leasin | 10367 |
| Yellow Cab | 9888 |
| Taxi Affiliation Service Yellow | 9299 |

| | |
|---|---:|
| Chicago Carriage Cab Corp | 9181 |
| City Service | 8448 |
| Sun Taxi | 7701 |
| Star North Management LLC | 7455 |
| Blue Ribbon Taxi Association Inc. | 5953 |
| Choice Taxi Association | 5015 |
| Globe Taxi | 4383 |
| Dispatch Taxi Affiliation | 3355 |
| Nova Taxi Affiliation Llc | 3175 |
| Patriot Taxi Dba Peace Taxi Associat | 2235 |
| Checker Taxi Affiliation | 2216 |
| Blue Diamond | 2070 |
| Chicago Medallion Management | 1955 |
| 24 Seven Taxi | 1775 |
| Chicago Medallion Leasing INC | 1607 |
| Checker Taxi | 1486 |
| American United | 1404 |
| Chicago Independents | 1296 |
| KOAM Taxi Association | 1259 |
| Chicago Taxicab | 1014 |
| Top Cab Affiliation | 978 |
| Gold Coast Taxi | 428 |
| Service Taxi Association | 402 |
| 5 Star Taxi | 310 |
| 303 Taxi | 250 |
| Setare Inc | 230 |
| American United Taxi Affiliation | 210 |
| Leonard Cab Co | 147 |
| Metro Jet Taxi A | 146 |
| Norshore Cab | 127 |
| 6742 - 83735 Tasha ride inc | 39 |
| 3591 - 63480 Chuks Cab | 37 |
| 1469 - 64126 Omar Jada | 36 |
| 6743 - 78771 Luhak Corp | 33 |
| 0118 - 42111 Godfrey S.Awir | 33 |
| 6574 - Babylon Express Inc. | 31 |
| Chicago Star Taxicab | 29 |
| 1085 - 72312 N and W Cab Co | 29 |
| 2809 - 95474 C & D Cab Co Inc. | 29 |
| 2092 - 61288 Sbeih company | 27 |
| 3011 - 66308 JBL Cab Inc. | 25 |
| 3620 - 52292 David K. Cab Corp. | 21 |
| 4615 - 83503 Tyrone Henderson | 21 |
| 3623 - 72222 Arrington Enterprises | 20 |
| 5074 - 54002 Ahzmi Inc | 16 |
| 2823 - 73307 Lee Express Inc | 15 |
| 4623 - 27290 Jay Kim | 15 |
| 3721 - Santamaria Express, Alvaro Santamaria | 14 |

```
5006 - 39261 Salifu Bawa                    |        14
2192 - 73487 Zeymane Corp                   |        14
6057 - 24657 Richard Addo                   |        13
5997 - 65283 AW Services Inc.               |        12
Metro Group                                 |        11
5062 - 34841 Sam Mestas                     |         8
4053 - 40193 Adwar H. Nikola                |         7
2733 - 74600 Benny Jona                     |         7
5874 - 73628 Sergey Cab Corp.               |         5
2241 - 44667 - Felman Corp, Manuel Alonso   |         3
3556 - 36214 RC Andrews Cab                 |         2
(64 rows)

(END)
```

Запрос, которым удалось решить задачу.

```
SELECT cabs.company_name AS company_name, COUNT (trips.trip_id) AS trips_amount
FROM trips INNER JOIN cabs ON trips.cab_id = cabs.cab_id WHERE trips.start_ts::date >=
'2017-11-15' AND trips.start_ts::date <= '2017-11-16' GROUP BY company_name ORDER
BY trips_amount DESC;
```