

## Консоль

### Задание 1

Команда или последовательность команд, которой удалось получить нужные логи:

- 1) `grep -R "^233.201." ~/logs/2019/12` (Нашел нужный ключ)

Логи:

- 1) 233.201.188.154 - - [18/12/2019:21:46:01 +0000] "DELETE /events HTTP/1.1" 403 3971
- 2) 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
mkdir bug1/events
```

Команда, которой выбираешь запросы за указанный период. Это те запросы, которыми ты отбираешь логи в файл main.txt:

```
grep "21:3" ~/logs/2019/12/apache_2019-12-30.txt > ~/bug1/main.txt
grep "21:3" ~/logs/2019/12/apache_2019-12-31.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

```
cd bug1; cd events; cat 400.txt
```

\*Текст файла

```
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

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

500.txt.

cd bug1; cd events; cat 500.txt

\*Текст файла

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  
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

102.247.13.50 - - [31/12/2019:21:39:55 +0000] "PATCH /auth HTTP/1.1" 500 3736

SELECT

```
COUNT(*) AS cnt  
  
FROM cabs;
```

## Задание 2

Список компаний с числом автомобилей меньше 100.

\*Напиши тут список

company_name	cnt
-----+-----	
Nova Taxi Affiliation Llc	97
Patriot Taxi Dbа 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

Запрос, которым тебе удалось решить задачу.

\*Напиши тут запрос

```
SELECT

    company_name,

    COUNT(cab_id) AS cnt

FROM

    cabs

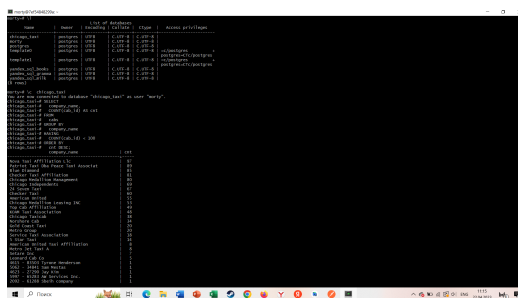
GROUP BY

    company_name

HAVING

    COUNT(cab_id) < 100

ORDER BY
```



cnt DESC;



### Задание 3

Таблица с данными за указанный период.

\*Вставь сюда таблицу — например, картинкой. Главное, чтобы всё было хорошо видно

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

2017-11-06 00:00:00 | Good

(25 rows)

[illegible]

Запрос, которым удалось решить задачу.

\*Напиши тут запрос

SELECT

ts,

## CASE

WHEN description LIKE '%rain%' OR description LIKE '%storm%' THEN 'Bad'

ELSE 'Good'

END AS weather\_conditions

FROM

weather\_records

WHERE

ts BETWEEN '2017-11-05 00:00:00' AND '2017-11-06 00:00:00';

#### Задание 4

Таблица с данными за указанный период.\*Вставь сюда таблицу — например, картинкой. Главное, чтобы всё было хорошо видно

Blue Ribbon Taxi Association Inc.		5953
Choice Taxi Association		5015
Globe Taxi		4383
Dispatch Taxi Affiliation		3355
Nova Taxi Affiliation Llc		3175
Patriot Taxi Dbа 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)

```
morty@968f6f8216f3: ~
Blue Ribbon Taxi Association Inc. | 5953
Choice Taxi Association | 5015
Globe Taxi | 4383
Dispatch Taxi Affiliation | 3355
Nova Taxi Affiliation LLC | 3175
Patriot Taxi Dis 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
KDM 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 Lubak 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 Shell 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
3006 - 39261 Salifu Bawa | 14
2192 - 73487 Zeymane Corp | 13
6057 - 24657 Richard Addo | 13
3997 - 65283 Am Services Inc. | 12
Metro Group | 11
5062 - 34841 Sam Westas | 8
4031 - 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.

\*Напиши тут запрос

```
SELECT

    cabs.company_name AS company_name,

    COUNT(trips.trip_id) AS trips_amount

FROM

    cabs

INNER JOIN trips ON trips.cab_id = cabs.cab_id

WHERE

    CAST(trips.start_ts AS date) BETWEEN '2017-11-15' AND '2017-11-16'
```

GROUP BY

company\_name

ORDER BY

trips\_amount DESC;

```
morty@9ffc892aea88: ~
(0 rows)

morty=# \c chicago_taxi
You are now connected to database "chicago_taxi" as user "morty".
chicago_taxi=# \dt
          List of relations
   Schema | Name          | Type  | Owner
   ---
 public   | cabs           | table | postgres
 public   | neighborhoods  | table | postgres
 public   | trips          | table | postgres
 public   | weather_records | table | postgres
(4 rows)

chicago_taxi=# SELECT
chicago_taxi=#   cabs.company_name AS company_name,
chicago_taxi=#   COUNT(trips.trip_id) AS trips_amount
chicago_taxi=# FROM
chicago_taxi=#   cabs
chicago_taxi=# INNER JOIN trips ON trips.cab_id = cabs.cab_id
chicago_taxi=# WHERE
chicago_taxi=#   CAST(trips.ts AS date) BETWEEN '2017-11-15' AND '2017-11-16'
chicago_taxi=# GROUP BY
chicago_taxi=#   company_name
chicago_taxi=# ORDER BY
chicago_taxi=#   trips_amount DESC;
ERROR: column "trips.ts" does not exist
LINE 8:  CAST(trips.ts AS date) BETWEEN '2017-11-15' AND '2017-11-1...
          ^
HINT: Perhaps you meant to reference the column "trips.trip_id".
chicago_taxi=# SELECT
chicago_taxi=#   cabs.company_name AS company_name,
chicago_taxi=#   COUNT(trips.cab_id) AS trips_amount
chicago_taxi=# FROM
chicago_taxi=#   cabs
chicago_taxi=# INNER JOIN trips ON trips.cab_id = cabs.cab_id
chicago_taxi=# WHERE
chicago_taxi=#   CAST(trips.ts AS date) BETWEEN '2017-11-15' AND '2017-11-16'
chicago_taxi=# GROUP BY
chicago_taxi=#   company_name
chicago_taxi=# ORDER BY
chicago_taxi=#   trips_amount DESC;
```