

Нуркельды Талаев, 33-я когорт - 4 спринт

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:

```
$ cd  
$ mkdir bug1  
$ mkdir bug1/events
```

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

```
$ cd  
$ grep "3./12/2019:21:3:..." logs/2019/12/apache_2019-12-3*.txt > bug1/main.txt
```

Команды, которыми ты кладёшь логи в файлы 400.txt и 500.txt из main.txt:

```
$ grep " 400 " bug1/main.txt > bug1/events/400.txt  
$ grep " 500 " bug1/main.txt > bug1/events/500.txt
```

400.txt

```
$ cat bug1/events/400.txt
```

```
logs/2019/12/apache_2019-12-30.txt:80.57.170.51 - - [30/12/2019:21:35:12 +0000]  
"DELETE /users HTTP/1.1" 400 3623  
logs/2019/12/apache_2019-12-30.txt:204.235.176.118 - - [30/12/2019:21:35:13 +0000]  
"POST /users HTTP/1.1" 400 4704  
logs/2019/12/apache_2019-12-30.txt:82.95.203.67 - - [30/12/2019:21:35:19 +0000]  
"DELETE /lists HTTP/1.1" 400 3737
```

logs/2019/12/apache_2019-12-30.txt:155.242.215.46 - - [30/12/2019:21:35:38 +0000]
"POST /playbooks HTTP/1.1" 400 4450
logs/2019/12/apache_2019-12-30.txt:189.176.85.0 - - [30/12/2019:21:35:39 +0000]
"PATCH /alerts HTTP/1.1" 400 2732
logs/2019/12/apache_2019-12-30.txt:13.108.71.71 - - [30/12/2019:21:35:43 +0000]
"PATCH /events HTTP/1.1" 400 3410
logs/2019/12/apache_2019-12-30.txt:195.213.133.182 - - [30/12/2019:21:35:46 +0000]
"PUT /customers HTTP/1.1" 400 3085
logs/2019/12/apache_2019-12-30.txt:235.243.133.78 - - [30/12/2019:21:35:47 +0000]
"PATCH /customers HTTP/1.1" 400 3264
logs/2019/12/apache_2019-12-30.txt:192.57.115.49 - - [30/12/2019:21:35:55 +0000]
"POST /parsers HTTP/1.1" 400 2457
logs/2019/12/apache_2019-12-30.txt:71.0.49.244 - - [30/12/2019:21:35:55 +0000] "PUT
/collectors HTTP/1.1" 400 2785
logs/2019/12/apache_2019-12-30.txt:224.159.206.126 - - [30/12/2019:21:36:02 +0000]
"DELETE /customers HTTP/1.1" 400 4569
logs/2019/12/apache_2019-12-30.txt:131.35.106.246 - - [30/12/2019:21:36:04 +0000]
"DELETE /lists HTTP/1.1" 400 2578
logs/2019/12/apache_2019-12-30.txt:216.24.42.208 - - [30/12/2019:21:36:06 +0000] "GET
/parsers HTTP/1.1" 400 4597
logs/2019/12/apache_2019-12-30.txt:123.53.150.160 - - [30/12/2019:21:37:19 +0000]
"PATCH /events HTTP/1.1" 400 4379
logs/2019/12/apache_2019-12-30.txt:61.129.127.103 - - [30/12/2019:21:37:32 +0000]
"GET /lists HTTP/1.1" 400 2575
logs/2019/12/apache_2019-12-30.txt:90.216.4.78 - - [30/12/2019:21:37:34 +0000]
"PATCH /lists HTTP/1.1" 400 3899
logs/2019/12/apache_2019-12-30.txt:204.250.214.208 - - [30/12/2019:21:37:36 +0000]
"PATCH /parsers HTTP/1.1" 400 4742
logs/2019/12/apache_2019-12-30.txt:79.214.240.98 - - [30/12/2019:21:37:37 +0000]
"POST /fieldsets HTTP/1.1" 400 4441
logs/2019/12/apache_2019-12-30.txt:65.47.42.12 - - [30/12/2019:21:37:39 +0000]
"PATCH /customers HTTP/1.1" 400 2500
logs/2019/12/apache_2019-12-30.txt:251.118.141.34 - - [30/12/2019:21:37:41 +0000]
"POST /customers HTTP/1.1" 400 3519
logs/2019/12/apache_2019-12-30.txt:205.20.166.196 - - [30/12/2019:21:37:51 +0000]
"POST /users HTTP/1.1" 400 4032
logs/2019/12/apache_2019-12-30.txt:156.217.3.46 - - [30/12/2019:21:37:52 +0000]
"PATCH /parsers HTTP/1.1" 400 2020
logs/2019/12/apache_2019-12-30.txt:48.240.198.167 - - [30/12/2019:21:37:57 +0000]
"PATCH /playbooks HTTP/1.1" 400 4100
logs/2019/12/apache_2019-12-30.txt:101.255.159.211 - - [30/12/2019:21:37:59 +0000]
"GET /auth HTTP/1.1" 400 2324
logs/2019/12/apache_2019-12-30.txt:80.76.98.203 - - [30/12/2019:21:38:00 +0000]
"POST /playbooks HTTP/1.1" 400 3045
logs/2019/12/apache_2019-12-30.txt:85.64.63.255 - - [30/12/2019:21:38:13 +0000]
"PATCH /collectors HTTP/1.1" 400 2291
logs/2019/12/apache_2019-12-30.txt:184.79.247.161 - - [30/12/2019:21:38:13 +0000]
"PUT /alerts HTTP/1.1" 400 3557

logs/2019/12/apache_2019-12-30.txt:93.2.134.22 - - [30/12/2019:21:39:39 +0000]
"DELETE /alerts HTTP/1.1" 400 3701
logs/2019/12/apache_2019-12-31.txt:86.34.86.182 - - [31/12/2019:21:35:10 +0000]
"POST /auth HTTP/1.1" 400 3626
logs/2019/12/apache_2019-12-31.txt:167.37.16.117 - - [31/12/2019:21:35:17 +0000]
"PATCH /customers HTTP/1.1" 400 3294
logs/2019/12/apache_2019-12-31.txt:199.128.92.19 - - [31/12/2019:21:35:43 +0000] "PUT
/users HTTP/1.1" 400 4180
logs/2019/12/apache_2019-12-31.txt:162.152.99.143 - - [31/12/2019:21:35:59 +0000]
"PUT /users HTTP/1.1" 400 4606
logs/2019/12/apache_2019-12-31.txt:83.115.59.224 - - [31/12/2019:21:37:26 +0000] "GET
/alerts HTTP/1.1" 400 3489
logs/2019/12/apache_2019-12-31.txt:194.10.97.226 - - [31/12/2019:21:37:31 +0000]
"DELETE /lists HTTP/1.1" 400 2447
logs/2019/12/apache_2019-12-31.txt:180.99.214.40 - - [31/12/2019:21:37:44 +0000]
"DELETE /alerts HTTP/1.1" 400 2077
logs/2019/12/apache_2019-12-31.txt:154.152.205.4 - - [31/12/2019:21:37:50 +0000] "GET
/playbooks HTTP/1.1" 400 3324
logs/2019/12/apache_2019-12-31.txt:197.82.125.54 - - [31/12/2019:21:37:52 +0000] "PUT
/fieldsets HTTP/1.1" 400 4365
logs/2019/12/apache_2019-12-31.txt:115.89.87.219 - - [31/12/2019:21:38:06 +0000] "PUT
/playbooks HTTP/1.1" 400 2589
logs/2019/12/apache_2019-12-31.txt:100.77.15.14 - - [31/12/2019:21:38:07 +0000] "GET
/fieldsets HTTP/1.1" 400 4911
logs/2019/12/apache_2019-12-31.txt:22.33.159.242 - - [31/12/2019:21:38:07 +0000] "GET
/playbooks HTTP/1.1" 400 3955
logs/2019/12/apache_2019-12-31.txt:149.148.229.11 - - [31/12/2019:21:39:16 +0000]
"GET /users HTTP/1.1" 400 2071
logs/2019/12/apache_2019-12-31.txt:236.107.64.192 - - [31/12/2019:21:39:17 +0000]
"PATCH /users HTTP/1.1" 400 2791
logs/2019/12/apache_2019-12-31.txt:24.156.105.39 - - [31/12/2019:21:39:23 +0000] "GET
/lists HTTP/1.1" 400 2902
logs/2019/12/apache_2019-12-31.txt:193.50.164.254 - - [31/12/2019:21:39:23 +0000]
"PUT /playbooks HTTP/1.1" 400 3296
logs/2019/12/apache_2019-12-31.txt:18.123.104.91 - - [31/12/2019:21:39:52 +0000] "GET
/collectors HTTP/1.1" 400 4372
logs/2019/12/apache_2019-12-31.txt:234.218.148.4 - - [31/12/2019:21:39:54 +0000] "PUT
/users HTTP/1.1" 400 2509

500.txt.

\$ cat bug1/events/500.txt

8:logs/2019/12/apache_2019-12-30.txt:64.250.112.189 - - [30/12/2019:21:35:13 +0000]
"PUT /parsers HTTP/1.1" 500 4639

30:logs/2019/12/apache_2019-12-30.txt:193.253.101.180 - - [30/12/2019:21:35:31 +0000]
"PATCH /alerts HTTP/1.1" 500 2944
31:logs/2019/12/apache_2019-12-30.txt:197.106.117.194 - - [30/12/2019:21:35:31 +0000]
"PATCH /parsers HTTP/1.1" 500 3519
48:logs/2019/12/apache_2019-12-30.txt:247.124.71.67 - - [30/12/2019:21:35:45 +0000]
"PUT /alerts HTTP/1.1" 500 2746
60:logs/2019/12/apache_2019-12-30.txt:62.88.204.119 - - [30/12/2019:21:35:51 +0000]
"PUT /auth HTTP/1.1" 500 2666
80:logs/2019/12/apache_2019-12-30.txt:125.156.142.26 - - [30/12/2019:21:36:01 +0000]
"PATCH /events HTTP/1.1" 500 3460
84:logs/2019/12/apache_2019-12-30.txt:144.170.212.70 - - [30/12/2019:21:36:04 +0000]
"DELETE /parsers HTTP/1.1" 500 2599
87:logs/2019/12/apache_2019-12-30.txt:59.39.200.252 - - [30/12/2019:21:36:05 +0000]
"GET /alerts HTTP/1.1" 500 2650
111:logs/2019/12/apache_2019-12-30.txt:150.136.200.100 - - [30/12/2019:21:37:24
+0000] "POST /lists HTTP/1.1" 500 2684
112:logs/2019/12/apache_2019-12-30.txt:84.81.25.45 - - [30/12/2019:21:37:25 +0000]
"POST /auth HTTP/1.1" 500 2052
117:logs/2019/12/apache_2019-12-30.txt:30.222.160.141 - - [30/12/2019:21:37:30 +0000]
"PATCH /parsers HTTP/1.1" 500 2017
124:logs/2019/12/apache_2019-12-30.txt:117.87.158.36 - - [30/12/2019:21:37:34 +0000]
"POST /fieldsets HTTP/1.1" 500 4056
138:logs/2019/12/apache_2019-12-30.txt:212.153.128.212 - - [30/12/2019:21:37:42
+0000] "PUT /fieldsets HTTP/1.1" 500 3259
145:logs/2019/12/apache_2019-12-30.txt:58.188.83.217 - - [30/12/2019:21:37:46 +0000]
"POST /playbooks HTTP/1.1" 500 3947
147:logs/2019/12/apache_2019-12-30.txt:193.123.131.146 - - [30/12/2019:21:37:47
+0000] "PUT /lists HTTP/1.1" 500 3902
149:logs/2019/12/apache_2019-12-30.txt:182.7.179.91 - - [30/12/2019:21:37:48 +0000]
"GET /users HTTP/1.1" 500 2950
176:logs/2019/12/apache_2019-12-30.txt:10.25.168.164 - - [30/12/2019:21:38:05 +0000]
"PATCH /playbooks HTTP/1.1" 500 3858
185:logs/2019/12/apache_2019-12-30.txt:215.201.210.173 - - [30/12/2019:21:38:11
+0000] "PATCH /customers HTTP/1.1" 500 3277
196:logs/2019/12/apache_2019-12-30.txt:179.241.103.167 - - [30/12/2019:21:39:23
+0000] "POST /lists HTTP/1.1" 500 3669
207:logs/2019/12/apache_2019-12-30.txt:147.188.170.252 - - [30/12/2019:21:39:33
+0000] "POST /fieldsets HTTP/1.1" 500 3313
216:logs/2019/12/apache_2019-12-30.txt:1.249.123.189 - - [30/12/2019:21:39:36 +0000]
"PATCH /alerts HTTP/1.1" 500 4734
224:logs/2019/12/apache_2019-12-30.txt:124.114.135.105 - - [30/12/2019:21:39:41
+0000] "PATCH /customers HTTP/1.1" 500 3348
228:logs/2019/12/apache_2019-12-30.txt:35.215.100.202 - - [30/12/2019:21:39:43 +0000]
"PUT /alerts HTTP/1.1" 500 4345
229:logs/2019/12/apache_2019-12-30.txt:86.222.23.128 - - [30/12/2019:21:39:44 +0000]
"PATCH /alerts HTTP/1.1" 500 2230
235:logs/2019/12/apache_2019-12-30.txt:20.161.75.95 - - [30/12/2019:21:39:48 +0000]
"DELETE /users HTTP/1.1" 500 2412

241:logs/2019/12/apache_2019-12-30.txt:196.18.151.117 - - [30/12/2019:21:39:55 +0000]
"PUT /events HTTP/1.1" 500 4439
245:logs/2019/12/apache_2019-12-30.txt:77.101.138.151 - - [30/12/2019:21:39:57 +0000]
"PUT /lists HTTP/1.1" 500 2194
258:logs/2019/12/apache_2019-12-31.txt:208.205.133.127 - - [31/12/2019:21:35:17
+0000] "DELETE /alerts HTTP/1.1" 500 4561
269:logs/2019/12/apache_2019-12-31.txt:20.145.255.91 - - [31/12/2019:21:35:30 +0000]
"GET /parsers HTTP/1.1" 500 3051
286:logs/2019/12/apache_2019-12-31.txt:91.66.134.13 - - [31/12/2019:21:35:53 +0000]
"POST /lists HTTP/1.1" 500 3319
291:logs/2019/12/apache_2019-12-31.txt:31.88.211.206 - - [31/12/2019:21:35:57 +0000]
"DELETE /events HTTP/1.1" 500 2325
330:logs/2019/12/apache_2019-12-31.txt:171.37.114.114 - - [31/12/2019:21:37:39 +0000]
"DELETE /fieldsets HTTP/1.1" 500 3253
341:logs/2019/12/apache_2019-12-31.txt:223.157.242.167 - - [31/12/2019:21:37:59
+0000] "POST /users HTTP/1.1" 500 2283
347:logs/2019/12/apache_2019-12-31.txt:98.181.102.34 - - [31/12/2019:21:38:06 +0000]
"PATCH /fieldsets HTTP/1.1" 500 4672
348:logs/2019/12/apache_2019-12-31.txt:254.74.22.79 - - [31/12/2019:21:38:06 +0000]
"PUT /lists HTTP/1.1" 500 2259
352:logs/2019/12/apache_2019-12-31.txt:103.46.238.3 - - [31/12/2019:21:38:09 +0000]
"PUT /lists HTTP/1.1" 500 3992
359:logs/2019/12/apache_2019-12-31.txt:41.62.205.107 - - [31/12/2019:21:39:20 +0000]
"PATCH /alerts HTTP/1.1" 500 3631
369:logs/2019/12/apache_2019-12-31.txt:22.53.105.197 - - [31/12/2019:21:39:31 +0000]
"DELETE /collectors HTTP/1.1" 500 4202
378:logs/2019/12/apache_2019-12-31.txt:178.22.133.42 - - [31/12/2019:21:39:43 +0000]
"PUT /alerts HTTP/1.1" 500 4648
390:logs/2019/12/apache_2019-12-31.txt:102.247.13.50 - - [31/12/2019:21:39:55 +0000]
"PATCH /auth HTTP/1.1" 500 3736

База данных

Задание 1

Число автомобилей:

5529

Запрос, которым тебе удалось решить задачу.

```
psql
\c chicago_taxi
chicago_taxi=# SELECT COUNT(*) AS cab_count FROM cabs;
```

Задание 2

Список компаний с числом автомобилей меньше 100.

cnt	company_name
-----+	-----
97	Nova Taxi Affiliation Llc
89	Patriot Taxi Dbа Peace Taxi Associat
85	Blue Diamond
81	Checker Taxi Affiliation
80	Chicago Medallion Management
69	Chicago Independents
67	24 Seven Taxi
60	Checker Taxi
55	American United
53	Chicago Medallion Leasing INC
49	Top Cab Affiliation
48	KOAM Taxi Association
38	Chicago Taxicab
34	Norshore Cab
20	Gold Coast Taxi
20	Metro Group
18	Service Taxi Association
14	5 Star Taxi
8	American United Taxi Affiliation
8	Metro Jet Taxi A
7	Setare Inc
5	Leonard Cab Co
1	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.

Запрос, которым тебе удалось решить задачу.

```

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

Задание 3

Таблица с данными за указанный период.

ts	weather_conditions	case
2017-11-05 00:00:00	mist	Good
2017-11-05 01:00:00	moderate rain	Bad
2017-11-05 02:00:00	fog	Good
2017-11-05 03:00:00	fog	Good
2017-11-05 04:00:00	light rain	Bad
2017-11-05 05:00:00	moderate rain	Bad

2017-11-05 06:00:00	fog	Good
2017-11-05 07:00:00	fog	Good
2017-11-05 08:00:00	light intensity drizzle	Good
2017-11-05 09:00:00	fog	Good
2017-11-05 10:00:00	fog	Good
2017-11-05 11:00:00	fog	Good
2017-11-05 12:00:00	fog	Good
2017-11-05 13:00:00	drizzle	Good
2017-11-05 14:00:00	moderate rain	Bad
2017-11-05 15:00:00	fog	Good
2017-11-05 16:00:00	proximity thunderstorm	Bad
2017-11-05 17:00:00	light intensity drizzle	Good
2017-11-05 18:00:00	proximity thunderstorm with rain	Bad
2017-11-05 19:00:00	proximity thunderstorm	Bad
2017-11-05 20:00:00	light rain	Bad
2017-11-05 21:00:00	mist	Good
2017-11-05 22:00:00	mist	Good
2017-11-05 23:00:00	overcast clouds	Good
2017-11-06 00:00:00	overcast clouds	Good

(25 rows)

Запрос, которым удалось решить задачу.

```

SELECT
    ts AS ts,
    description AS weather_conditions,
CASE
    WHEN description LIKE '%rain%' OR description LIKE '%storm%'
    THEN 'Bad' ELSE 'Good'
END
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)

Запрос, которым удалось решить задачу.

```

SELECT
    cabs.company_name AS company_name,
    COUNT(trips.cab_id) as trips_amount
FROM trips
INNER JOIN cabs ON cabs.cab_id = trips.cab_id
WHERE start_ts >= '2017-11-15 00:00' AND start_ts <= '2017-11-16 23:59'
GROUP BY company_name
ORDER BY trips_amount DESC;

```