

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  
cd bug1  
mkdir events
```

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

```
grep -hR "3./12/2019:21:3:..." ~/logs/2019/12/ > 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:

5529

Запрос, которым тебе удалось решить задачу.

```
SELECT COUNT (DISTINCT vehicle_id) FROM cabs;
```

Задание 2

Список компаний с числом автомобилей меньше 100.

cnt	company_name
-----+-----	
97	Nova Taxi Affiliation Llc
89	Patriot Taxi DbA 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
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%' or description like '%storm%' Then 'Bad' Else
'Good' End as weather_description From weather_records Where Cast (ts as timestamp) >=
'2017-11-05 00:00:00' And Cast (ts as timestamp) <= '2017-11-06 00:00:00';
  
```

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 Db a 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 company_name, COUNT(CAST(start_ts AS date)) 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;
```