

Антон Ледовский, тесты БД и консоли (MacOS)

## Консоль

### Задание 1

Команда или последовательность команд, которой удалось получить нужные логи:

```
cd logs/2019/12
```

```
ls
```

```
nano
```

```
grep -r "^233.201" ~/logs/2019/12
```

Логи:

```
233.201.188.154 - - [18/12/2019:21:46:01 +0000] "DELETE /events HTTP/1.1" 403 3$
```

```
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 events
```

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

```
nano apache_2019-12-30.txt
```

```
grep -i -w "500" test.txt > bug/event/500.txt
```

```
grep -i -w "400" test.txt > bug/event/400.txt
```

```
nano apache_2019-12-31.txt
```

```
grep -i -w "500" test.txt > bug/event/500.txt
```

```
grep -i -w "400" test.txt > bug/event/500.txt
```

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

```
cp ../morty/bug1/main.txt ../events
```

```
cat main.txt
```

```
400
```

```
cat main.txt
```

```
500
```

```
nano main.txt
```

400.txt

```
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.

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

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

## База данных

### Задание 1

Число автомобилей:

5529

Запрос, которым тебе удалось решить задачу.

```
SELECT COUNT(1) FROM cabs;
```

### Задание 2

Список компаний с числом автомобилей меньше 100.

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.

```
SELECT company_name ,COUNT(vehicle_id) AS cnt FROM cars GROUP BY
company_name HAVING COUNT(vehicle_id) < 100 ORDER BY count(vehicle_id) 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_conditions FROM weather_records WHERE ts  
BETWEEN '2017-11-05' AND '2017-11-06';
```

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