

Практическое задание по теме “Управление БД”

1. Установите СУБД MySQL. Создайте в домашней директории файл `.my.cnf`, задав в нем логин и пароль, который указывался при установке.

```
ubuntu@ip-172-31-39-13: ~  
reading /usr/share/mecab/dic/ipadic/Verb.csv ... 130750  
reading /usr/share/mecab/dic/ipadic/Noun.verbal.csv ... 12146  
reading /usr/share/mecab/dic/ipadic/Prefix.csv ... 221  
reading /usr/share/mecab/dic/ipadic/Noun.adjv.csv ... 3328  
reading /usr/share/mecab/dic/ipadic/Adnominal.csv ... 135  
reading /usr/share/mecab/dic/ipadic/Noun.proper.csv ... 27327  
reading /usr/share/mecab/dic/ipadic/Noun.name.csv ... 34202  
reading /usr/share/mecab/dic/ipadic/Noun.nai.csv ... 42  
reading /usr/share/mecab/dic/ipadic/Suffix.csv ... 1393  
reading /usr/share/mecab/dic/ipadic/Noun.adverbial.csv ... 795  
reading /usr/share/mecab/dic/ipadic/Adj.csv ... 27210  
reading /usr/share/mecab/dic/ipadic/Adverb.csv ... 3032  
reading /usr/share/mecab/dic/ipadic/Filler.csv ... 19  
reading /usr/share/mecab/dic/ipadic/Symbol.csv ... 208  
reading /usr/share/mecab/dic/ipadic/Noun.place.csv ... 72999  
reading /usr/share/mecab/dic/ipadic/Noun.number.csv ... 42  
reading /usr/share/mecab/dic/ipadic/Auxil.csv ... 199  
reading /usr/share/mecab/dic/ipadic/Noun.csv ... 60477  
reading /usr/share/mecab/dic/ipadic/Others.csv ... 2  
emitting double-array: 100% |#####|  
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316  
emitting matrix : 100% |#####|  
  
done!  
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in  
auto mode  
Setting up mysql-community-server (8.0.17-lubuntul8.04) ...  
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode  
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib/systemd/system/mysql.service.  
Setting up mysql-server (8.0.17-lubuntul8.04) ...  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
ubuntu@ip-172-31-39-13:~$ sudo service mysql status  
● mysql.service - MySQL Community Server  
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)  
   Active: active (running) since Thu 2019-08-08 08:42:59 UTC; 30s ago  
     Docs: man:mysqld(8)  
           http://dev.mysql.com/doc/refman/en/using-systemd.html  
   Process: 19615 ExecStartPre=/usr/share/mysql-8.0/mysql-systemd-start pre (code=exited, status=0/SUCCESS)  
  Main PID: 19665 (mysqld)  
    Status: "Server is operational"  
   Tasks: 39 (limit: 1152)  
   CGroup: /system.slice/mysql.service  
           └─19665 /usr/sbin/mysqld  
  
Aug 08 08:42:58 ip-172-31-39-13 systemd[1]: Starting MySQL Community Server...  
Aug 08 08:42:59 ip-172-31-39-13 systemd[1]: Started MySQL Community Server.  
ubuntu@ip-172-31-39-13:~$
```

```
ubuntu@ip-172-31-39-13:~$ cat .my.cnf  
[client]  
user=root  
password=" "   
ubuntu@ip-172-31-39-13:~$
```

2. Создайте базу данных example, разместите в ней таблицу users, состоящую из двух столбцов, числового id и строкового name.

Exam.sql

```
CREATE DATABASE IF NOT EXISTS example
DROP TABLE IF EXISTS users;
CREATE TABLE users (
  id SERIAL PRIMARY KEY,
  name VARCHAR(100) COMMENT 'Имя пользователя'
) COMMENT = 'Пользователи';
```

```
ubuntu@ip-172-31-39-13: ~
Your MySQL connection id is 19
Server version: 8.0.17 MySQL Community Server - GPL

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> \. exam.sql
Query OK, 1 row affected (0.02 sec)

Database changed
Query OK, 0 rows affected, 1 warning (0.01 sec)

Query OK, 0 rows affected (0.15 sec)

mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| example |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.00 sec)

mysql> SHOW TABLES FROM example;
+-----+
| Tables_in_example |
+-----+
| users |
+-----+
1 row in set (0.00 sec)

mysql>
```

```
mysql> DESCRIBE users;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | bigint(20) unsigned | NO | PRI | NULL | auto_increment |
| name | varchar(100) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

3. Создайте дамп базы данных example из предыдущего задания, разверните содержимое дампа в новую базу данных sample.

```
ubuntu@ip-172-31-39-13: ~  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
mysql> CREATE DATABASE sample;  
Query OK, 1 row affected (0.02 sec)  
  
mysql> \q  
Bye  
ubuntu@ip-172-31-39-13:~$ mysqldump example > users.sql  
ubuntu@ip-172-31-39-13:~$ mysql sample < users.sql  
ubuntu@ip-172-31-39-13:~$ mysql  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 31  
Server version: 8.0.17 MySQL Community Server - GPL  
  
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owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> USE sample  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> SHOW TABLES;  
+-----+  
| Tables_in_sample |  
+-----+  
| users            |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> DESCRIBE users;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type                | Null | Key | Default | Extra          |  
+-----+-----+-----+-----+-----+-----+  
| id    | bigint(20) unsigned | NO   | PRI | NULL    | auto_increment |  
| name  | varchar(100)        | YES  |     | NULL    |                |  
+-----+-----+-----+-----+-----+-----+  
2 rows in set (0.00 sec)  
  
mysql> █
```

4. (по желанию) Ознакомьтесь более подробно с документацией утилиты mysqldump. Создайте дамп единственной таблицы help_keyword базы данных mysql. Причем добейтесь того, чтобы дамп содержал только первые 100 строк таблицы.

```
ubuntu@ip-172-31-39-13:~$ mysqldump --where="true limit 100" mysql --tables help_keyword > mysql_help_keyword.sql  
ubuntu@ip-172-31-39-13:~$ █
```