

Защита лабораторной работы №6

дисциплина: администрирование сетевых подсистем

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Постановка задачи

- Приобретение практических навыков по установке и конфигурированию системы управления базами данных на примере программного обеспечения MariaDB.

Установка MariaDB

```
[root@server.yassine.net my.cnf.d]# systemctl start mariadb
[root@server.yassine.net my.cnf.d]# systemctl enable mariadb
Created symlink /etc/systemd/system/mysql.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/mysqld.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service → /usr/lib/systemd/system/mariadb.service.
[root@server.yassine.net my.cnf.d]#
```

```
[root@server.yassine.net my.cnf.d]# ss -tulpen | grep mysql
[root@server.yassine.net my.cnf.d]# mysql_secure_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.

Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password or using the unix_socket ensures that nobody
can log into the MariaDB root user without the proper authorisation.

You already have your root account protected, so you can safely answer 'n'.

Switch to unix_socket authentication [Y/n]
```

```
[root@server.yassine.net server]# dnf -y install mariadb mariadb-server
Extra Packages for Enterprise Linux 9 - x86_64 17 kB/s | 20 kB 00:01
Extra Packages for Enterprise Linux 9 - x86_64 2.7 MB/s | 12 MB 00:04
Rocky Linux 9 - BaseOS 3.3 kB/s | 3.6 kB 00:01
Rocky Linux 9 - BaseOS 0.78 kB/s | 1.7 MB 00:01
```

Конфигурация кодировки символов

```
[root@server.yassine.net my.cnf.d]# mysql -u root -p
Enter password:
Welcome to the
Your MariaDB co
Server version:
Copyright (c) 2
Type 'help;' or

MariaDB [(none)]> status
-----
mysql Ver 15.1 Distrib 10.5.16-MariaDB, for Linux (x86_64) using EditLine wrap
per

Connection id:          14
Current database:
Current user:            root@localhost
SSL:                    Not in use
Current pager:           stdout
Using outfile:           ''
Using delimiter:         ;
Server:                 MariaDB
Server version:          10.5.16-MariaDB MariaDB Server
Protocol version:        10
Connection:              Localhost via UNIX socket
Server characterset:     latin1
Db      characterset:     latin1
Client characterset:     utf8
Conn.  characterset:     utf8
UNIX socket:             /var/lib/mysql/mysql.sock
Uptime:                  9 min 24 sec

Threads: 1  Questions: 28  Slow queries: 0  Opens: 20  Open tables: 13  Queries
per second avg: 0.049
```

others.

t input statement.

Создание базы данных

```
MariaDB [addressbook]> INSERT INTO city(name,city) VALUES ('Ivanov','Moscow');
Query OK, 1 row affected (0.240 sec)

MariaDB [addressbook]> INSERT INTO city(name,city) VALUES ('Petrov','Sochi');
Query OK, 1 row affected (0.002 sec)

MariaDB [addressbook]> INSERT INTO city(name,city) VALUES ('Cidrov','Dobna');
Query OK, 1 row affected (0.002 sec)

MariaDB [addressbook]>
```

```
MariaDB [addressbook]> SELECT * FROM city;
+-----+-----+
| name  | city  |
+-----+-----+
| Ivanov | Moscow |
| Petrov | Sochi  |
| Cidrov | Dobna  |
+-----+-----+
3 rows in set (0.010 sec)

MariaDB [addressbook]>
```

```
MariaDB [(none)]> CREATE DATABASE addressbook CHARACTER SET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]>
```

Создание базы данных

```
[root@server.yassine.net ~]# mysqlshow -u root -p
Enter password:
```

```
+-----+
|      Databases      |
+-----+
| addressbook         |
| information_schema   |
| mysql               |
| performance_schema  |
+-----+
[root@server.yassine.net ~]#
```

```
MariaDB [addressbook]> DESCRIBE city;
+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| name  | varchar(40)   | YES  |     | NULL    |       |
| city  | varchar(40)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
2 rows in set (0.005 sec)

MariaDB [addressbook]>
```

Резервные копии

```
Enter password:  
[root@server.yassine.net ~]# mysqldump -u root -p addressbook > /var/backup/addressbook.sql  
Enter password:  
[root@server.yassine.net ~]#
```

```
[root@server.yassine.net ~]#  
[root@server.yassine.net ~]# mysql -u root -p addressbook < /var/backup/addressbook.sql  
Enter password:  
[root@server.yassine.net ~]#
```

```
[root@server.yassine.net ~]# zcat /var/backup/addressbook.sql.gz | mysql -u root -p addressbook  
Enter password:  
[root@server.yassine.net ~]#
```

```
Enter password:  
[root@server.yassine.net ~]# mysqldump -u root -p addressbook | gzip > /var/backup/addressbook.sql.gz  
Enter password:  
[root@server.yassine.net ~]#
```

Внесение изменений в настройки внутреннего окружения виртуальной машины

```
root@server:/vagrant/provision/server

root@server:/vagrant/provision/server

#! /bin/bash

echo "Provisioning script $0"

systemctl restart named

echo "Install needed packages"
dnf -y install mariadb mariadb-server

echo "Copy configuration files"
cp -R /vagrant/provision/server/mysql/etc/* /etc
mkdir -p /var/backup
cp -R /vagrant/provision/server/mysql/var/backup/* /var/backup

echo "Start mysql service"
systemctl enable mariadb
system start mariadb

if [[ ! -d /var/lib/mysql/mysql ]]
then
    echo "Securing mariadb"
    mysql_secure_installation <<EOF
y
123456
123456
y
y
y
y
EOF
echo "Create database"
mysql -u root -p123456 <<EOF
CREATE DATABASE addressbook CHARACTER SET utf8 COLLATE utf8_general_ci;
EOF
mysql -u root -p123456 addressbook < /var/backup/addressbook.sql

fi

-- INSERT --
```

```
enter password.
[root@server.yassine.net ~]# cd /vagrant/provision/server
[root@server.yassine.net server]# ls
dhcp.sh dns.sh httpd httpd.sh http.sh
[root@server.yassine.net server]# mkdir -p /vagrant/provision/server/mysql/etc/my.cnf.d
[root@server.yassine.net server]# mkdir -p /vagrant/provision/server/mysql/var/backup
[root@server.yassine.net server]# cp -R /etc/my.cnf.d/utf8.cnf /vagrant/provision/server/mysql/etc/my.cnf.d/
[root@server.yassine.net server]# cp -R /var/backup/* /vagrant/provision/server/mysql/var/backup/
[root@server.yassine.net server]#
```


Вывод

- Приобрел практические навыки по установке и конфигурированию системы управления базами данных на примере программного обеспечения MariaDB.