MariaDB(MySql) sous Centos

Instalation de MariaDb

1) Entrer la commande suivante pour installer MariaDB (Sous Ubuntu : apt-get install mariadb-server)

```
[root@localhost ~]# yum install mariadb-server mariadb
```

2) Le serveur MariaDB est installé

```
Installé :
  mariadb.x86_64 1:5.5.60-1.el7_5                mariadb-server.x86_64 1:5.5.60-1.el7_5

Dépendances installées :
  perl.x86_64 4:5.16.3-294.el7_6                    perl-Carp.noarch 0:1.26-244.el7
  perl-Compress-Raw-Bzip2.x86_64 0:2.061-3.el7      perl-Compress-Raw-Zlib.x86_64 1:2.061-4.el7
  perl-DBD-MySQL.x86_64 0:4.023-6.el7               perl-DBI.x86_64 0:1.627-4.el7
  perl-Data-Dumper.x86_64 0:2.145-3.el7             perl-Encode.x86_64 0:2.51-7.el7
  perl-Exporter.noarch 0:5.68-3.el7                 perl-File-Path.noarch 0:2.09-2.el7
  perl-File-Temp.noarch 0:0.23.01-3.el7             perl-Filter.x86_64 0:1.49-3.el7
  perl-Getopt-Long.noarch 0:2.40-3.el7              perl-HTTP-Tiny.noarch 0:0.033-3.el7
  perl-IO-Compress.noarch 0:2.061-2.el7             perl-Net-Daemon.noarch 0:0.48-5.el7
  perl-PathTools.x86_64 0:3.40-5.el7                perl-PlRPC.noarch 0:0.2020-14.el7
  perl-Pod-Escapes.noarch 1:1.04-294.el7_6          perl-Pod-Perldoc.noarch 0:3.20-4.el7
  perl-Pod-Simple.noarch 1:3.28-4.el7               perl-Pod-Usage.noarch 0:1.63-3.el7
  perl-Scalar-List-Utils.x86_64 0:1.27-248.el7      perl-Socket.x86_64 0:2.010-4.el7
  perl-Storable.x86_64 0:2.45-3.el7                 perl-Text-ParseWords.noarch 0:3.29-4.el7
  perl-Time-HiRes.x86_64 4:1.9725-3.el7             perl-Time-Local.noarch 0:1.2300-2.el7
  perl-constant.noarch 0:1.27-2.el7                 perl-libs.x86_64 4:5.16.3-294.el7_6
  perl-macros.x86_64 4:5.16.3-294.el7_6             perl-parent.noarch 1:0.225-244.el7
  perl-podlators.noarch 0:2.5.1-3.el7               perl-threads.x86_64 0:1.87-4.el7
  perl-threads-shared.x86_64 0:1.43-6.el7

Dépendances mises à jour :
  mariadb-libs.x86_64 1:5.5.60-1.el7_5

Terminé !
```

3) Activer et Démarrer le service

```
[root@localhost ~]# systemctl enable mariadb
Created symlink from /etc/systemd/system/multi-user.target.wants/mariadb.service to /usr/lib/systemd
/system/mariadb.service.
[root@localhost ~]# systemctl start mariadb
[root@localhost ~]#
```

Sécuriser sa base de données

- Changer le Mot de passe de la base de donnée. (Par défaut le mot de passe est *sois* rien sois *« root ».*

```
[root@localhost ~]# 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
you haven't set the root password yet, the password will be blank,
so you should just press enter here.

Enter current password for root (enter for none):
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
Enter current password for root (enter for none):
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
Enter current password for root (enter for none):
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
Enter current password for root (enter for none):
OK, successfully used password, moving on...

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

Set root password? [Y/n] Y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
 ... Success!
```

- Adapter les options en fonction de votre choix

```
Remove anonymous users? [Y/n] Y
 ... Success!

Normally, root should only be allowed to connect from 'localhost'.  This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y
 ... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access.  This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] Y
 - Dropping test database...
 ... Success!
 - Removing privileges on test database...
 ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] n
 ... skipping.

Cleaning up...

All done!  If you've completed all of the above steps, your MariaDB
installation should now be secure.
```

- Afin de se logger en route taper la commande suivante puis votre mot de pas administrateur

```
[root@localhost ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 2
Server version: 5.5.60-MariaDB MariaDB Server

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

MariaDB [(none)]>
```

- Une fois connecté si l'on veut manupuler la base de donnée il faut utiliser la commande *« use mysql ; »* Vous pouvez regarder les compte utilisateur de votre base de données afin d'en réaliser la gestion (Select user…). Il est conseiller de supprimer les accès inutiles (Commande : « delete.. »).

```
MariaDB [(none)]> use mysql;
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
MariaDB [mysql]> select user, host, password from user;
+------+-----------+-------------------------------------------+
| user | host      | password                                  |
+------+-----------+-------------------------------------------+
| root | localhost | *C57D00C836A4871F76760DE7BB998AB7BCE9DCAB |
| root | 127.0.0.1 | *C57D00C836A4871F76760DE7BB998AB7BCE9DCAB |
| root | ::1       | *C57D00C836A4871F76760DE7BB998AB7BCE9DCAB |
+------+-----------+-------------------------------------------+
3 rows in set (0.00 sec)

MariaDB [mysql]> delete from user where host !='localhost';
Query OK, 2 rows affected (0.00 sec)

MariaDB [mysql]> select user, host, password from user;
+------+-----------+-------------------------------------------+
| user | host      | password                                  |
+------+-----------+-------------------------------------------+
| root | localhost | *C57D00C836A4871F76760DE7BB998AB7BCE9DCAB |
+------+-----------+-------------------------------------------+
1 row in set (0.01 sec)

MariaDB [mysql]>
```

Exemple de création d'une base de données

1) Crer une base de données et verifier qu'elle exite bien grace à la commande *« show databases ; »*

```
3 rows in set (0.00 sec)

MariaDB [mysql]> delete from user where host !='localhost';
Query OK, 2 rows affected (0.00 sec)

MariaDB [mysql]> select user, host, password from user;
+------+-----------+-------------------------------------------+
| user | host      | password                                  |
+------+-----------+-------------------------------------------+
| root | localhost | *C57D00C836A4871F76760DE7BB998AB7BCE9DCAB |
+------+-----------+-------------------------------------------+
1 row in set (0.01 sec)

MariaDB [mysql]> create database testII
    -> ;
Query OK, 1 row affected (0.00 sec)
```

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your
MariaDB server version for the right syntax to use near 'database' at line 1
MariaDB [mysql]> show database;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your
MariaDB server version for the right syntax to use near 'database' at line 1
MariaDB [mysql]> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| testII             |
+--------------------+
4 rows in set (0.00 sec)

MariaDB [mysql]>
```

2) Créer un utilisateur ratacher à la base de données.

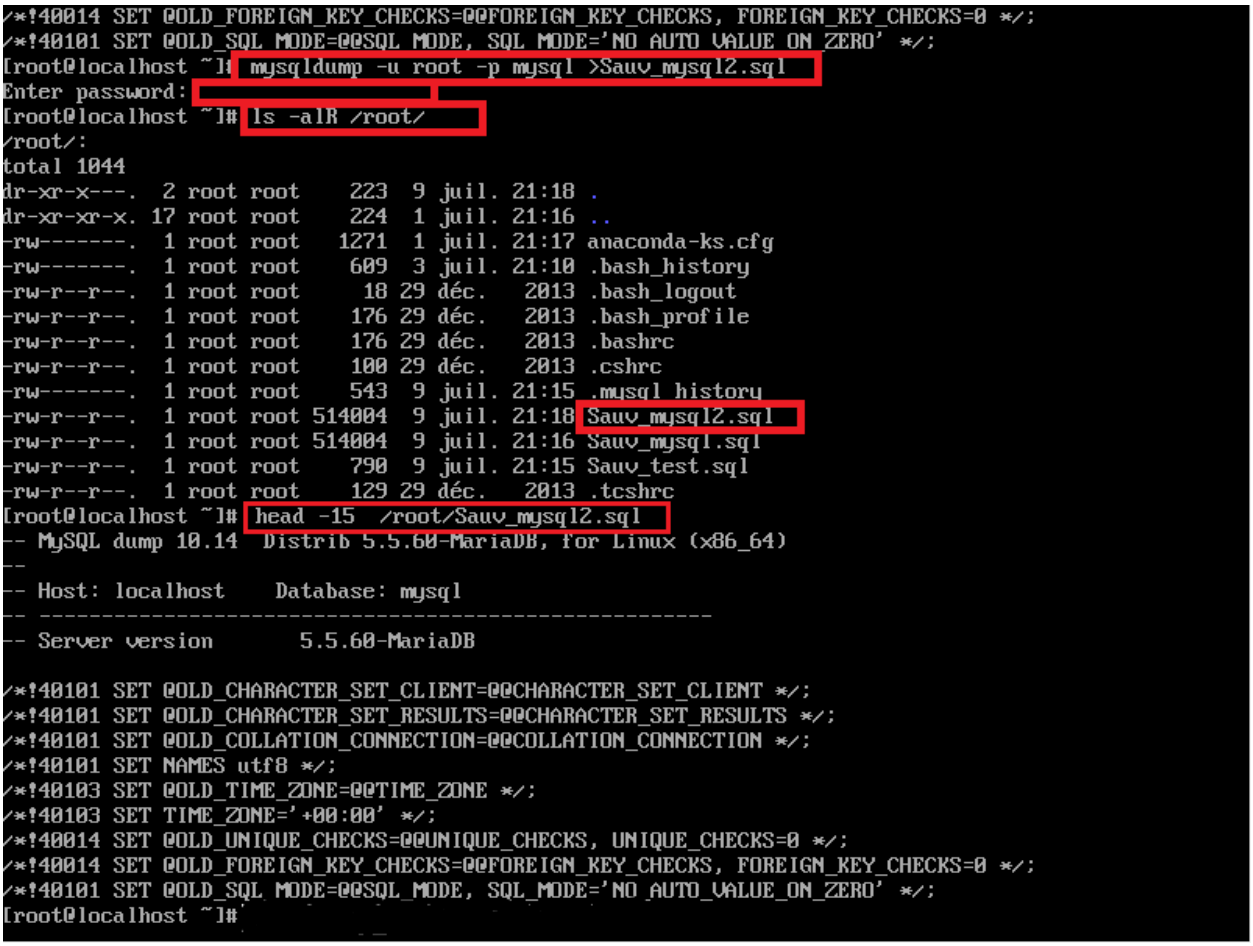
```
MariaDB [mysql]> grant all on testII.* to TestUser@localhost
    -> identified by 'motdepasse';
Query OK, 0 rows affected (0.00 sec)
```

3) Enfin vous pouvez supprimer une base de données comme çela :

```
MariaDB [mysql]> drop database testII;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> _
```

Sauvegarde de la base de données

1) Crée un fichier de sauvegarde d'une base de donnée



2) Crée un fichier de sauvegarde de toutes les base de donnée.

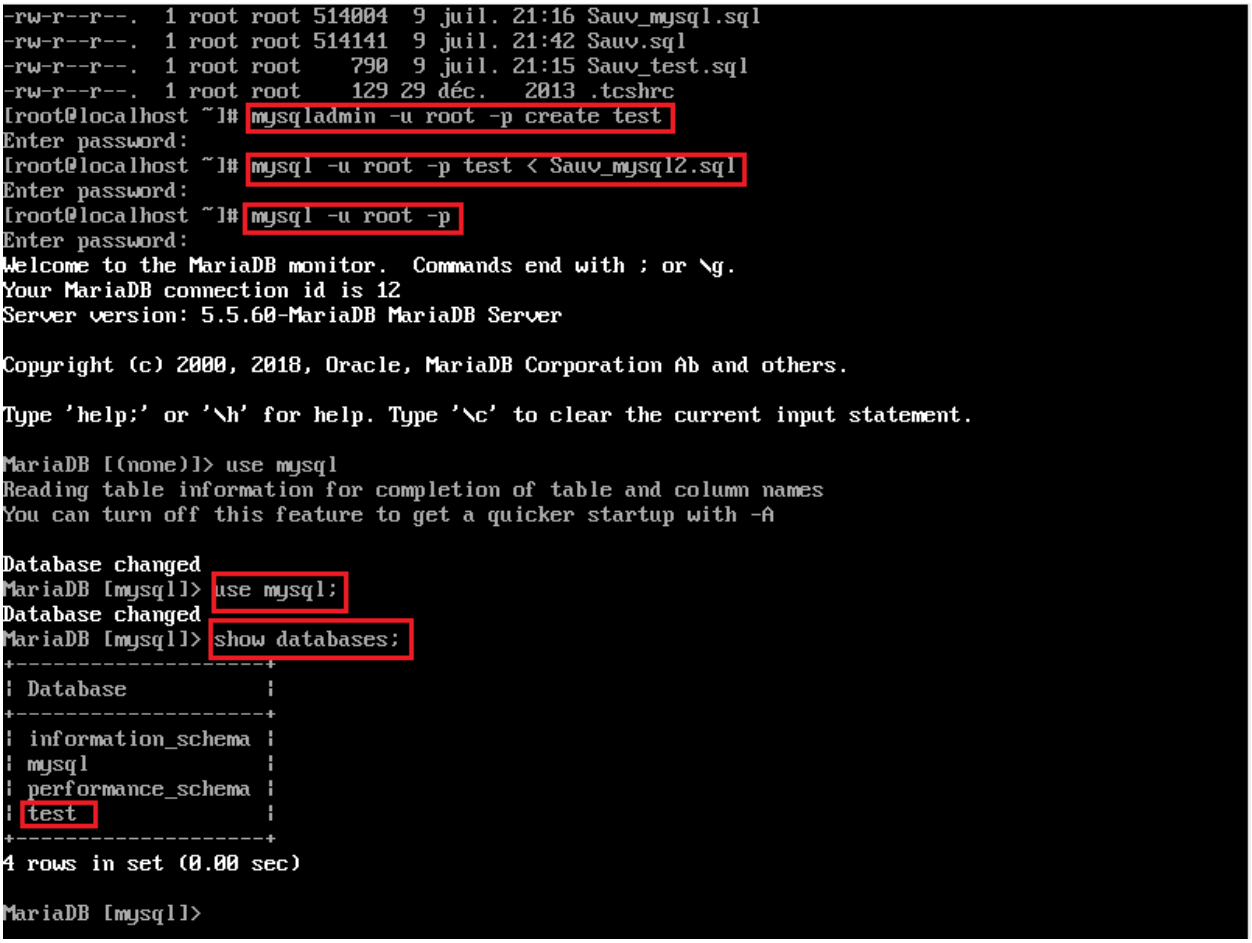
```
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
[root@localhost ~]# mysqldump -u root -p --all-databases >Sauv.sql
Enter password:
[root@localhost ~]# ls -alR /root/
/root/:
total 1548
dr-xr-x---.  2 root root    239  9 juil. 21:42 .
dr-xr-xr-x. 17 root root    224  1 juil. 21:16 ..
-rw-------.  1 root root   1271  1 juil. 21:17 anaconda-ks.cfg
-rw-------.  1 root root    609  3 juil. 21:10 .bash_history
-rw-r--r--.  1 root root     18 29 déc.   2013 .bash_logout
-rw-r--r--.  1 root root    176 29 déc.   2013 .bash_profile
-rw-r--r--.  1 root root    176 29 déc.   2013 .bashrc
-rw-r--r--.  1 root root    100 29 déc.   2013 .cshrc
-rw-------.  1 root root    543  9 juil. 21:15 .mysql_history
-rw-r--r--.  1 root root 514004  9 juil. 21:18 Sauv_mysql2.sql
-rw-r--r--.  1 root root 514004  9 juil. 21:16 Sauv_mysql.sql
-rw-r--r--.  1 root root 514141  9 juil. 21:42 Sauv.sql
-rw-r--r--.  1 root root    790  9 juil. 21:15 Sauv_test.sql
-rw-r--r--.  1 root root    129 29 déc.   2013 .tcshrc
[root@localhost ~]# head -15  /root/Sauv.sql
-- MySQL dump 10.14  Distrib 5.5.60-MariaDB, for Linux (x86_64)
--
-- Host: localhost    Database:
-- ------------------------------------------------------
-- Server version       5.5.60-MariaDB

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
[root@localhost ~]# _
```

3) Si jamais la ou les base de donnée sont trop lourde vous pouvez les sauvegarder en les compréssant.

```
[root@localhost ~]# mysqldump -u root -p --all-databases  | grep gzip -c > Sauv2.sql.gz
Enter password:
[root@localhost ~]# ls -alR /root/
/root/:
total 1552
dr-xr-x---.  2 root root    259  9 juil. 21:47 .
dr-xr-xr-x. 17 root root    224  1 juil. 21:16 ..
-rw-------.  1 root root   1271  1 juil. 21:17 anaconda-ks.cfg
-rw-------.  1 root root    609  3 juil. 21:10 .bash_history
-rw-r--r--.  1 root root     18 29 déc.   2013 .bash_logout
-rw-r--r--.  1 root root    176 29 déc.   2013 .bash_profile
-rw-r--r--.  1 root root    176 29 déc.   2013 .bashrc
-rw-r--r--.  1 root root    100 29 déc.   2013 .cshrc
-rw-------.  1 root root    543  9 juil. 21:15 .mysql_history
-rw-r--r--.  1 root root      2  9 juil. 21:48 Sauv2.sql.gz
-rw-r--r--.  1 root root 514004  9 juil. 21:18 Sauv_mysql2.sql
-rw-r--r--.  1 root root 514004  9 juil. 21:16 Sauv_mysql.sql
-rw-r--r--.  1 root root 514141  9 juil. 21:42 Sauv.sql
-rw-r--r--.  1 root root    790  9 juil. 21:15 Sauv_test.sql
-rw-r--r--.  1 root root    129 29 déc.   2013 .tcshrc
```

Restaurer une base de données

1) Créer une base de données et lui attribuer le fichier.sql correspondant à la sauvegarde de la BD



2) Ici pas besoin de créer les bases de données quant il s'agit d'une restauration de plusieurs bases de données(2ième solutions avec un fichier sql compréssé)

```
[root@localhost ~]# mysql -u root -p < Sauv.sql
Enter password:
[root@localhost ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 14
Server version: 5.5.60-MariaDB MariaDB Server

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

MariaDB [(none)]> use mysql;
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
MariaDB [mysql]> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| test               |
+--------------------+
```

```
CentOS Linux 7 (Core)
Kernel 3.10.0-514.el7.x86_64 on an x86_64

localhost login: root
Password:
Last login: Tue Jul  9 21:10:06 on tty1
[root@localhost ~]# gunzip -c Sauv2.sql.gz | mysql -u root -p

gzip: Sauv2.sql.gz: not in gzip format
Enter password:
[root@localhost ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 17
Server version: 5.5.60-MariaDB MariaDB Server

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

MariaDB [(none)]> use mysql;
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
MariaDB [mysql]> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| test               |
+--------------------+
4 rows in set (0.00 sec)

MariaDB [mysql]>
```

Accès distant

1) Aller dans le fichier de configuration « my.cnf » ou « my.ini » et modifiez/ajouter la ligne suivante de telle manière afin d'autoriser l'écoute sur tous les ports.

```
[mysqld]
datadir=C:/Program Files/MariaDB 10.1/data
port=3306
sql_mode="STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION"
default_storage_engine=innodb
innodb_buffer_pool_size=255M
innodb_log_file_size=50M
bind-address=0.0.0.0
[client]
port=3306
plugin-dir=C:/Program Files/MariaDB 10.1/lib/plugin
```

2) Connectez vous en local à la base de donnée et ajoutez un utilisateur qui peut acceder depuis l'exterieur à la base de donnée ('user'@'%' permet d'autoriser la connexion depuis n'importe quel réseau)

```
MariaDB [(none)]> create user 'WebUser'@'%' identified by 'StopVM//';
Query OK, 0 rows affected (0.00 sec)
```

3) Accorder les privilège souhaiter en fonction des utilisateurs ; Ici je donne tous les droit à l'utlisateur sur la base de données « stopvm »

```
MariaDB [(none)]> grant all privileges on stopvm.* to 'WebUser'@'%';
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> flush privileges;
Query OK, 0 rows affected (0.00 sec)
```

Sources

- https://www.skymac.org/Admin-Dev/article-d9178466-MySQL-MariaDB-Se-connecter-a-un-serveur-distant.htm
-