

# DB Admin Tips

## Initial DB Setup

```
/usr/bin/mysql_secure_installation
```

## Change the root's password

```
ALTER USER 'root'@'localhost' IDENTIFIED BY 'MyN3wP4ssw0rd';
flush privileges;
exit;
```

# Tablespace Shrink

???????????????? Tablespace ?????????????????

```
mysql> OPTIMIZE table foo;
```

??????????

```
#!/bin/sh

echo -n "MySQL username: " ; read username

echo -n "MySQL password: " ; stty -echo ; read password ; stty echo ; echo

mysql -u $username -p"$password" -NBe "SHOW DATABASES;" | grep -v 'lost+found' | while read database ; do
mysql -u $username -p"$password" -NBe "SHOW TABLE STATUS;" $database | while read name engine version
rowformat rows avgrowlength datalength maxdatalength indexlength datafree autoincrement createtime
updatetime checktime collation checksum createoptions comment ; do
if [ "$datafree" -gt 0 ] ; then

    fragmentation=$((($datafree * 100 / $datalength))

    echo "$database.$name is $fragmentation% fragmented."

    mysql -u "$username" -p"$password" -NBe "OPTIMIZE TABLE $name;" "$database"

fi
done
done
```

## Mariadb Log ????

????

```
$> cat /dev/null > /var/log/mysql.log  
$> mysqladmin -uroot -p flush-logs
```

?? logrotate ??????

1. ?? /etc/logrotate.d/mariadb?

```
/var/log/mariadb/*.log {  
    create 660 mysql mysql  
    notifempty  
    daily  
    rotate 5  
    missingok  
    minsize 1M  
    maxsize 100M  
    compress  
    delaycompress  
    sharedscripts  
    olddir archive/  
    createolddir 770 mysql mysql  
    postrotate  
        # just if mysqld is really running  
        if test -x /usr/bin/mysqladmin && \  
            /usr/bin/mysqladmin ping &>/dev/null  
        then  
            /usr/bin/mysqladmin flush-logs  
        fi  
    endscript  
}
```

2. ?? mysql ???????

```
$> vi ~/.my.cnf  
  
[mysqladmin]  
user      = root  
password  = YourPass  
  
$> chmod 0600 ~/.my.cnf
```

????

```
mysql> show processlist;
+----+-----+-----+-----+-----+-----+-----+-----+
| Id | User | Host      | db   | Command | Time | State | Info          |
+----+-----+-----+-----+-----+-----+-----+-----+
| 3 | root | localhost | webapp | Query   | 0    | NULL  | show processlist |
| 5 | root | localhost:61704 | webapp | Sleep   | 208  |      | NULL          |
| 6 | root | localhost:61705 | webapp | Sleep   | 208  |      | NULL          |
| 7 | root | localhost:61706 | webapp | Sleep   | 208  |      | NULL          |
+----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> show status like '%onn%';
+-----+-----+
| Variable_name | Value |
+-----+-----+
| Aborted_connects | 0    |
| Connections      | 8    |
| Max_used_connections | 4    |
| Ssl_client_connects | 0    |
| Ssl_connect_renegotiates | 0    |
| Ssl_finished_connects | 0    |
| Threads_connected | 4    | << active connections
+-----+-----+
7 rows in set (0.00 sec)
```

## Connect with unix socket

```
# Locate the unix socket file
mysql -uroot -p -e "show variables like 'socket'"
Enter password:
+-----+-----+
| Variable_name | Value          |
+-----+-----+
| socket       | /var/lib/mysql/mysql.sock |
+-----+-----+

# Connect to DB without password via unix socket
```

```
mysql -S /var/lib/mysql/mysql.sock -u root
```

## User Management

??????

```
-- List All users
select host,user from mysql.user;

-- Check the privileges for specified user
SHOW GRANTS FOR 'user'@'host';
SHOW GRANTS FOR 'admin'@'%';
SHOW GRANTS FOR 'vivek'@'10.147.164.0/255.255.255.0';
```

????

1. **Data USAGE privileges** includes: SELECT, INSERT, UPDATE, DELETE, and FILE
2. **Structure privileges** includes: CREATE, ALTER, INDEX, DROP, CREATE TEMPORARY TABLES, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, EXECUTE, CREATE VIEW, EVENT, and TRIGGER
3. **Administration privileges** includes: GRANT, SUPER, PROCESS, RELOAD, SHUTDOWN, SHOW DATABASES, LOCK TABLES, REFERENCES, REPLICATION CLIENT, REPLICATION SLAVE, and CREATE USER
4. **SSL privileges** includes: REQUIRE NONE, REQUIRE SSL, REQUIRE X509
5. **ALL PRIVILEGES**: Shortcut to grants all privileges to a mysql user account.

???? superuser ??

```
CREATE USER 'admin'@'%' IDENTIFIED BY 'the_secure_password';
-- Or
CREATE USER 'admin'@'10.147.164.0/255.255.255.0' IDENTIFIED BY 'the_secure_password';

GRANT ALL PRIVILEGES ON *.* TO 'admin'@'%';
-- Or
GRANT ALL PRIVILEGES ON *.* TO 'admin'@'10.147.164.0/255.255.255.0';
```

??????? DDL

```
SHOW CREATE USER admin;
SHOW CREATE USER vivek;
```

????

```
REVOKE ALL PRIVILEGES ON *.* FROM 'user'@'%';
```

## Table Management

### Table's DDL

```
show create table <table_name>;
```

### Copy Table without data

```
create table new-table like old-table;
```

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