

Configuration of Mariadb



What is Mariadb?

MariaDB is a free and open source database management system. It acts as a drop replacement for Oracle MySQL server. It is a community drive and developed branch of Oracle MySQL. MariaDB is a multi-user, multi-threaded SQL database server.

It is a fork of famous database server MySQL, developed by MariaDB Corporation Ab, led by original developers of MySQL.

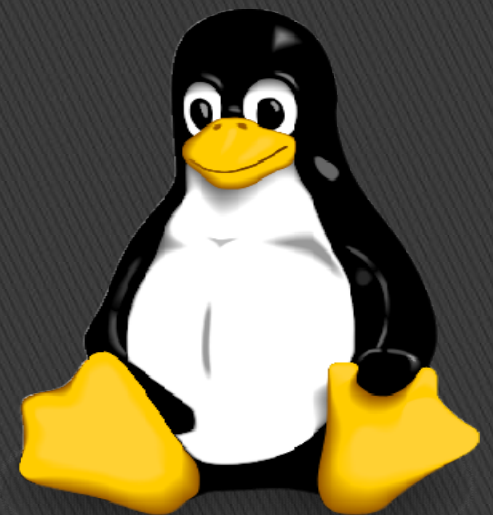
A relational Database is a mechanism that allows persistence data in organized way.

Databases data item organized as set of tables which table represent an entity in a given tables column correspondence to an attribute of that record.



Install Package

```
#yum      install      mariadb      mariadb-server
```



Start and enable service

```
#systemctl
```

```
start
```

```
mariadb.service
```

```
#systemctl
```

```
restart
```

```
mariadb.service
```

```
#systemctl
```

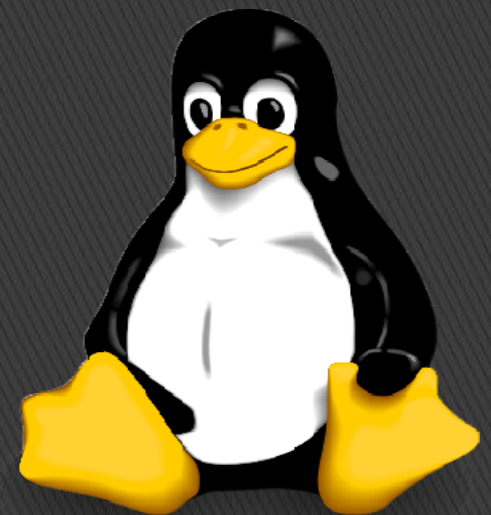
```
status
```

```
mariadb.service
```

```
#systemctl
```

```
enable
```

```
mariadb.service
```



Set firewall rule

```
#firewall-cmd --permanent --add-service=mysql  
#firewall-cmd --reload
```



Secure the MariaDB Server

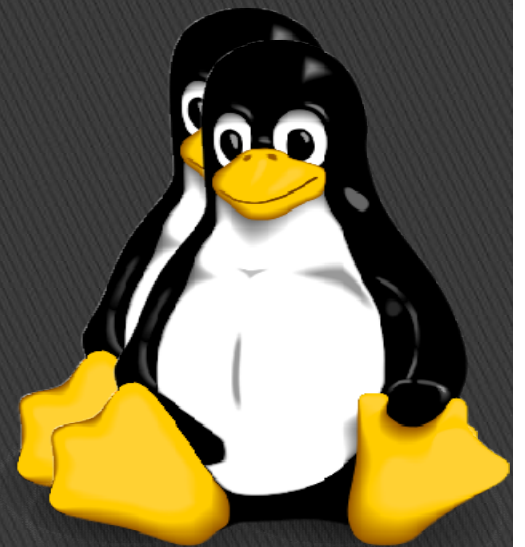
For login into database

```
#mysql -u root  
>show databases;  
>exit;
```

Note:

If we want secure installation of database perform following command

```
#mysql_secure_installation
```



login in the mysql

```
#mysql -u root -p
```

```
>show databases;
```

```
>exit
```



Add database on the MariaDB server

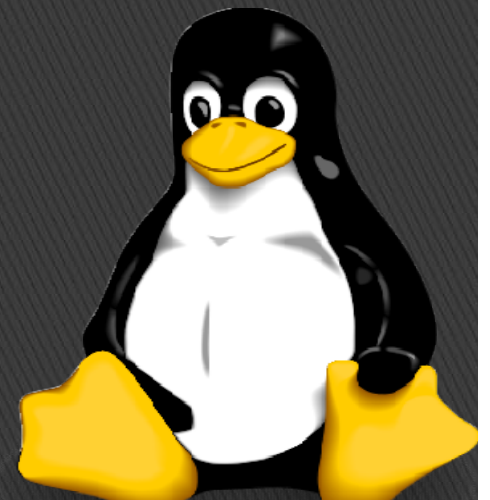
log in as root user:

```
#mysql -u root -p
```

Create a new MariaDB database called **mydb1**. Type the following command

```
>create database mydb1;
```

```
>show databases;
```



add users on the MariaDB server

Create a new user called suraj for database called mydb1:

```
>grant all on mydb1.* to suraj@localhost identified by 'secretpassword';
```

```
>exit
```

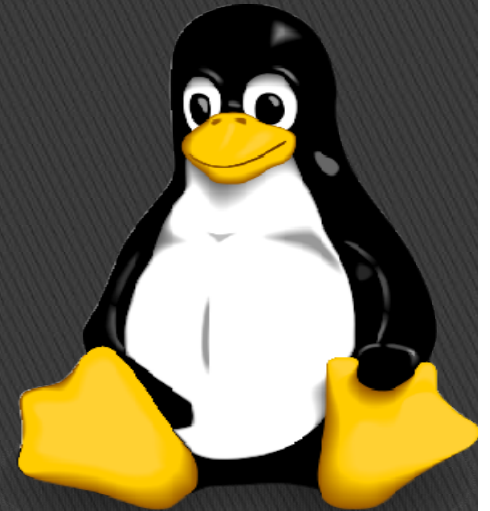


Connect to the MariaDB database using suraj account

```
#mysql -u suraj -p
```

```
>show databases;
```

```
>exit
```



Create a database, tables, and insert data

- ▶ **CREATE DATABASE –**

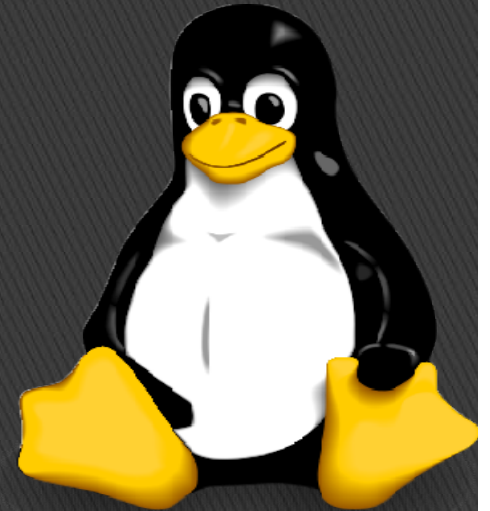
To Create database.

- ▶ **CREATE TABLE –**

To Create the table.

- ▶ **INSERT –**

To add/insert data to table i.e. inserts new rows into an existing table.

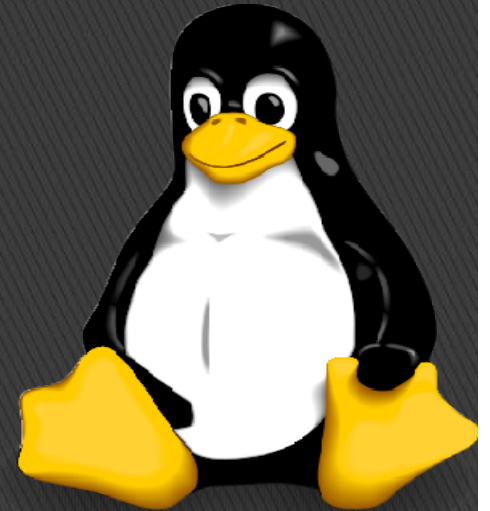


Login as the mysql root user to create database:

```
#mysql -u root -p
```

Sample outputs:

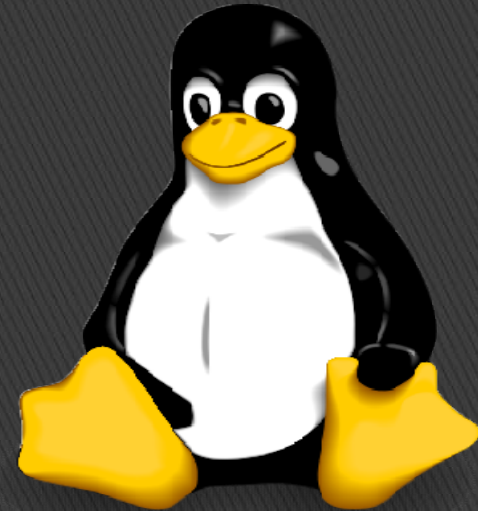
```
MariaDB [(none)]>
```



Add a database books:

```
MariaDB [(none)]> create database books;
```

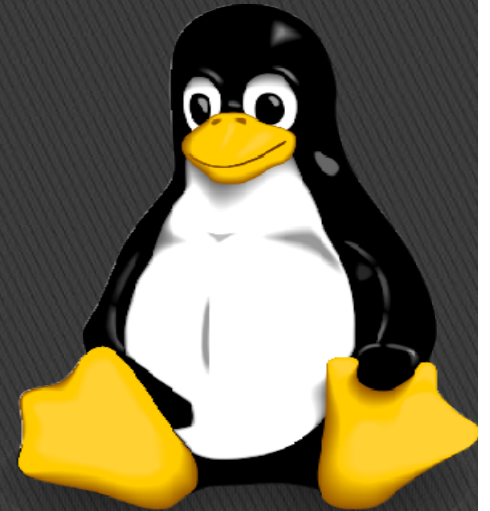
```
MariaDB [(none)]> show databases;
```



Now, database is created. Use a database with use command:

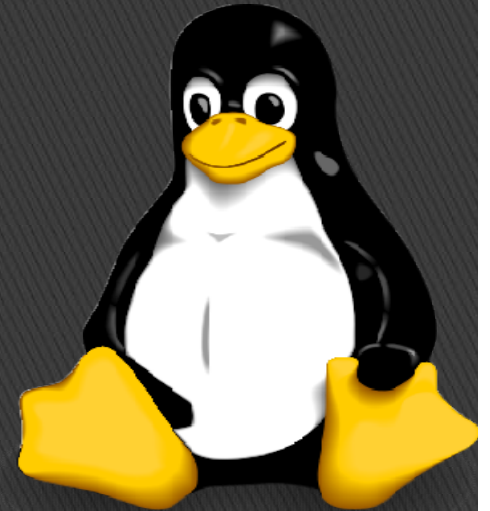
```
MariaDB [(none)]> use books;
```

```
MariaDB [(books)]>
```



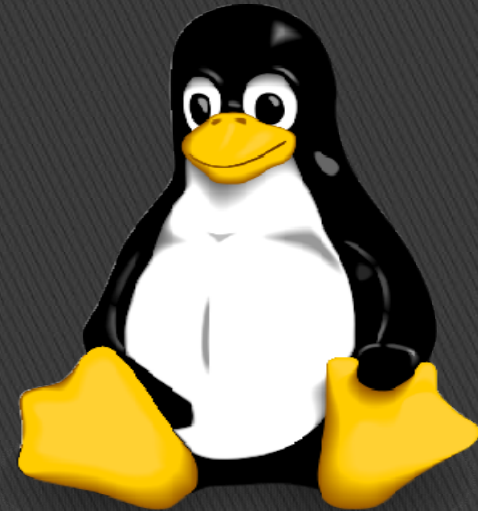
create a table called students with
id,name & email fields:

```
MariaDB[(books)]> create table students (id INT, name  
VARCHAR(20), email VARCHAR(20));
```



To display your tables in books database:

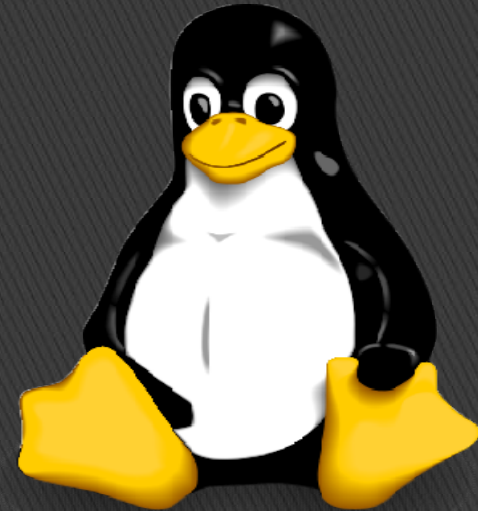
```
MariaDB[(books)]> show tables;
```



Sample outputs:

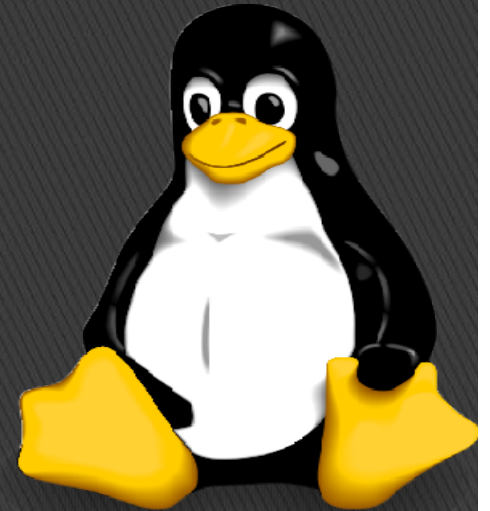
```
+-----+  
| Tables_in_books |  
+-----+  
|      students   |  
+-----+
```

1 row in set (0.00 sec)



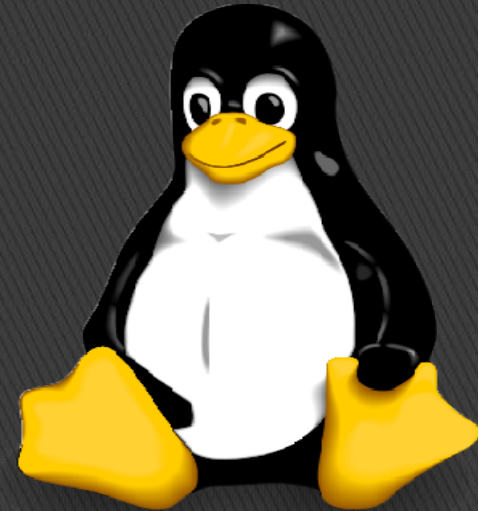
Finally, add a data i.e. row to table books using INSERT statement:

```
MariaDB[(books)]> insert into students (id,name,email)  
values(1,"Karan","karan@live.com");
```



Sample outputs:

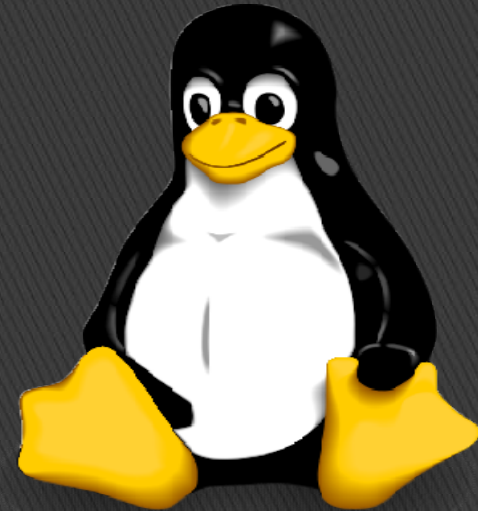
Query OK, 1 row affected (0.00 sec)



Try to add few more rows to your table:

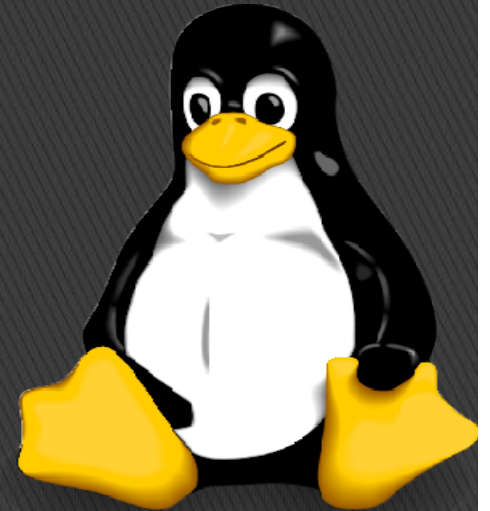
```
MariaDB[(books)]> insert into students (id,name,email)  
values(2,"Priya","priya@gmail.com");
```

```
MariaDB[(books)]> insert into students (id,name,email)  
values(3,"Sachin","sachin@yahoo.com");
```



To display all rows i.e. data stored in students table:

```
MariaDB[(books)]> select * from students;
```

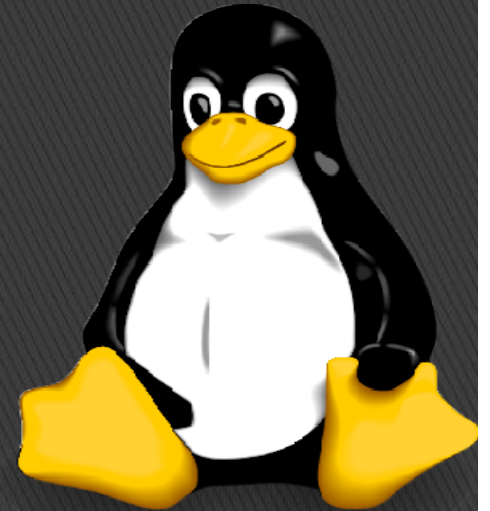


Sample outputs:

id	name	email
1	Kiran	kiran@live.com
2	Priya	priya@gmail.com
3	Sachin	sachin@yahoo.com

3 rows in set (0.00 sec)

MariaDB[(books)]>exit



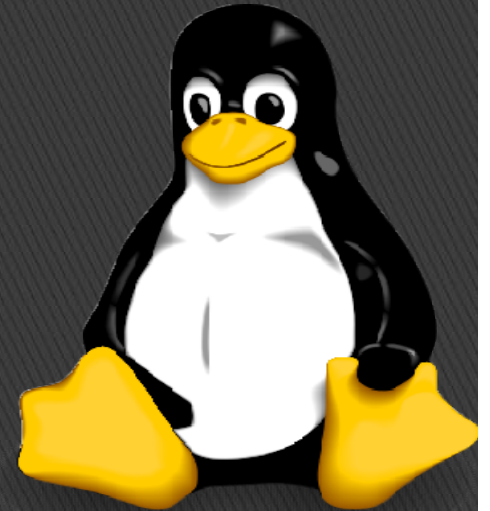
Backup Databases

```
#mysqldump -u root -p books > /root/booksdb.sql
```

```
#cd /root
```

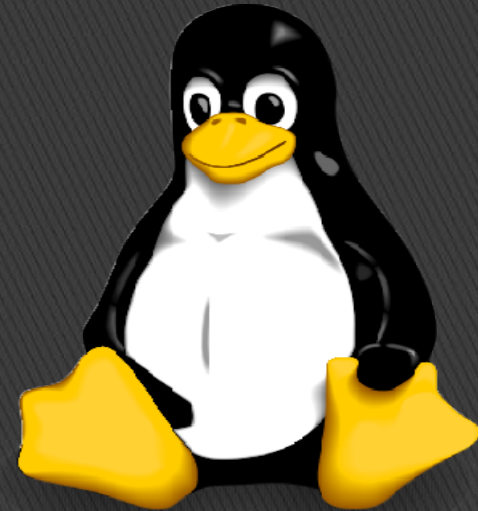
```
#ls
```

```
#cat booksdb.sql
```



Delete Databases

```
#mysql -u root -p  
>drop database books;  
>show databases;  
>exit
```



Restore Databases

```
#mysql -u root -p  
>create database books;  
>show databases;  
>use books;  
>show tables;  
>quit
```

For restore database

```
#mysql -u root -p books < /root/booksdb.sql
```



For verify

```
#mysql -u root -p
```

```
> use books;  
> show tables;  
> select * from students;  
> quit
```

