

# Getting Started with MySQL

## Installing MySQL and a Sample Database on Linux Mint



*Linux Mint* is a Linux distribution, based on Debian and Ubuntu, that presents a modern, easy-to-use interface. *MySQL* is a widely-used open source relational database management system. This guide shows you how to install MySQL on Linux Mint and how to set up a sample database that can be used for exploring MySQL capabilities.

Before you begin, ensure the following prerequisites are satisfied:

- Linux Mint 17.3 or later
- Linux user account with administrator privileges
- Familiarity with Bash shell commands.

## Installing MySQL

MySQL requires the installation of two components: *MySQL Server* and *MySQL Client*. The server component is a platform for hosting multiple databases and provides data management services. The client component provides capabilities for accessing databases. It also has utilities for administering databases, including backup and restore operations.

On Linux Mint, you can download and install the server and client components using `apt-get`. Before installing the components, login using an account with administrator privileges.

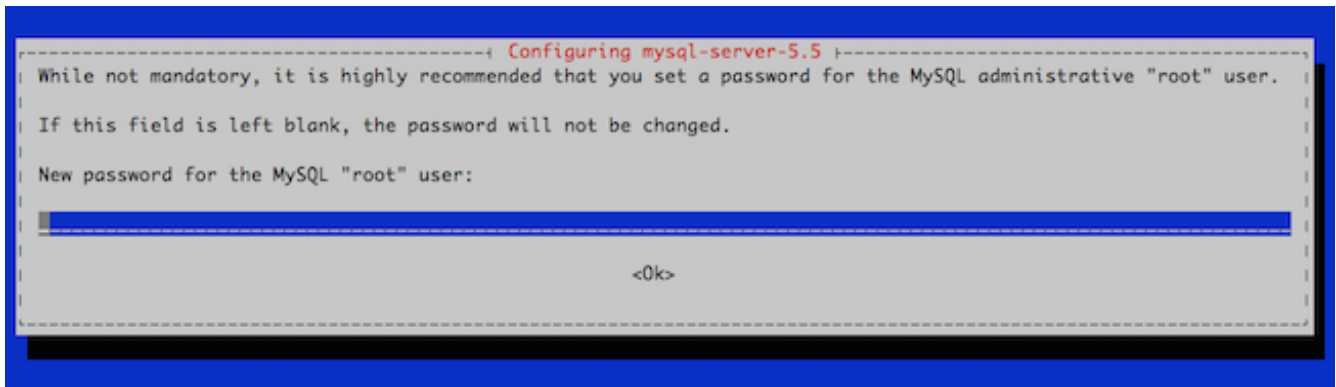
### Download and Install MySQL Server

Use `apt-get install` to download and install the `mysql-server` package. The `sudo` command may prompt for your user account password.

```
$ sudo apt-get install mysql-server
```

During installation, the system will prompt for a password for the database server *root* account (note that this is a new MySQL database account; it is not the Linux *root* account). Enter the password and then enter it again to confirm.

A screen shot of the password prompt window is shown below.



## Download and Install MySQL Client

Use `apt-get install` to download and install the `mysql-client` package.

```
$ sudo apt-get install mysql-client
```

## Verify the Installation

To ensure the installation was successful, use the `mysql` command line tool to query the database server. Start the `mysql` tool using the command below. At the prompt, enter the database root account password, which is the password created during the installation of MySQL Server.

```
$ mysql -u root -p
Enter password:
```

Upon successful authentication, the system will display MySQL information followed by the `mysql` command prompt.

```
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 37
Server version: 5.5.49-0ubuntu0.14.04.1 (Ubuntu)

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owners.

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

mysql>
```

At the mysql prompt, execute a query to display database version information.

```
mysql> select version();
+-----+
| version() |
+-----+
| 5.5.49-0ubuntu0.14.04.1 |
+-----+
1 row in set (0.00 sec)
```

Exit the MySQL command line tool.

```
mysql> exit
```

## Importing a Sample Database

Giuseppe Maxia maintains a sample “Employees” database containing records for about 300,000 individuals on GitHub that can be used for testing. To download and import the sample database into MySQL, follow the procedures below.

### Download and Unzip the Sample Database

Download the sample database file from GitHub into the current directory using wget.

```
$ wget "https://github.com/datacharmer/test_db/archive/master.zip"
```

Unzip the file to the current directory using unzip.

```
$ unzip master.zip
```

Change the default directory to the unzipped sample database directory.

```
$ cd test_db-master
```

### Import the Sample Database

Start the mysql command line tool. At the prompt, enter the database root account password, which is the password created during the installation of MySQL Server.

```
$ mysql -u root -p
Enter password:
```

Import the sample database by executing the SQL commands in the file employees.sql.

```
mysql> use employees
mysql> mysql < employees.sql -u root -p
```

## Executing Queries on the Sample Database

Now that MySQL is installed and the sample database has been imported, use the `mysql` command line tool to run queries and view employee information. Execute the following select statement to get a list of departments.

```
mysql> select dept_name from departments;
```

dept_name
Customer Service
Development
Finance
Human Resources
Marketing
Production
Quality Management
Research
Sales

```
9 rows in set (0.00 sec)
```

Execute the following select statement to get a list of all employees with a first name of “Elvis”.

```
mysql> select first_name, Last_name from employees where first_name like 'elvis';
```

first_name	Last_name
Elvis	Demeyer
Elvis	Katiyar
Elvis	Pfau
Elvis	Thorelli
.	.
.	.
.	.
Elvis	Cannard
Elvis	Zykh
Elvis	Kohling

```
246 rows in set (0.00 sec)
```

## Next Steps

To further explore the sample database, download and install *MySQL Workbench* from the [MySQL website](#). MySQL Workbench is a graphic user interface application for database architects, developers, and administrators providing data modeling, SQL development, and administration capabilities.

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