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Debian Linux Install MySQL Database Server

by VIVEK GITE on JANUARY 23, 2012 *last updated* NOVEMBER 13, 2013

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How do I install mysql database server on Debian Linux operating system running on an HP server? How do I install MySQL on Debian or Ubuntu server?



MySQL is a powerful and popular database management system for Linux and Unix like operating systems. You need to install the following packages on Debian:

1. **mysql-server** – Install the latest stable MySQL database server binaries and system database setup on Debian.
2. **mysql-client** – Install the latest stable MySQL database client binaries.

Installing MySQL server+client on Debian Linux

First, you need to type the following [apt-get command](#) or aptitude command to bring Debian to up to date state:

```
# aptitude update && aptitude upgrade
```

OR

```
# apt-get update && apt-get upgrade
```

Install MySQL

Open a terminal or login to the remote server using ssh client. Type the following [apt-get command](#) to install the MySQL:

```
# apt-get install mysql-server mysql-client
```

Sample outputs:

```
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

```

The following packages were automatically installed and are no longer re
  libxcb-render-util0-dev xulrunner-1.9.1 libxcb-render-util0
Use 'apt-get autoremove' to remove them.
Selecting previously deselected package libnet-daemon-perl.
(Reading database ... 159847 files and directories currently installed.)
Unpacking libnet-daemon-perl (from .../libnet-daemon-perl_0.43-1_all.deb
Selecting previously deselected package libplrpc-perl.
Unpacking libplrpc-perl (from .../libplrpc-perl_0.2020-2_all.deb) ...
Selecting previously deselected package libdbi-perl.
Unpacking libdbi-perl (from .../libdbi-perl_1.612-1_amd64.deb) ...
Selecting previously deselected package libdbd-mysql-perl.
Unpacking libdbd-mysql-perl (from .../libdbd-mysql-perl_4.016-1_amd64.de
Selecting previously deselected package mysql-client-5.1.
Unpacking mysql-client-5.1 (from .../mysql-client-5.1_5.1.49-3_amd64.deb
Selecting previously deselected package mysql-server-core-5.1.
Unpacking mysql-server-core-5.1 (from .../mysql-server-core-5.1_5.1.49-3
...
, ...

```

During installation you will be promoted to setup a password for mysql admin “root” user:

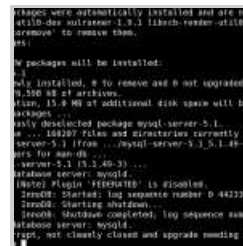
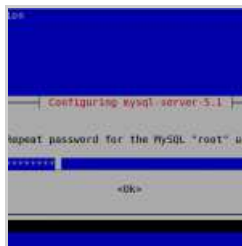
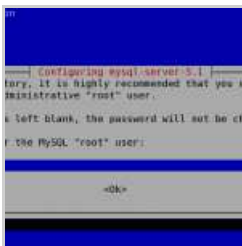


Fig.01: Setting up admin root user password Fig.02: Setup root password Fig.03: Installation completed

Warning: if you are not asked to input MySQL root user's password during installation, type the following command to set/change MySQL root user's password on Debian Linux:

```
mysqladmin -u root password NEWPASSWORDNameHere
```

How Do I Start / Stop / Restart MySQL Server?

MySQL will start on boot time. You can also type the following commands as root user to start / stop / restart the server:

```

# /etc/init.d/mysql start
# /etc/init.d/mysql stop
# /etc/init.d/mysql restart
# /etc/init.d/mysql status

```

OR

```
# service mysql start
# service mysql stop
# service mysql restart
# service mysql status
```

MySQL server configuration

The MySQL database server configuration file is located at `/etc/mysql/my.cnf`. Edit the file using a text editor such as `vi`, type:

```
# vi /etc/mysql/my.cnf
```

Sample outputs:

```
#
# The MySQL database server configuration file.
#
# You can copy this to one of:
# - "/etc/mysql/my.cnf" to set global options,
# - "~/.my.cnf" to set user-specific options.
#
# One can use all long options that the program supports.
# Run program with --help to get a list of available options and with
# --print-defaults to see which it would actually understand and use.
#
# For explanations see
# http://dev.mysql.com/doc/mysql/en/server-system-variables.html
#
# This will be passed to all mysql clients
# It has been reported that passwords should be enclosed with ticks/quotes
# especially if they contain "#" chars...
# Remember to edit /etc/mysql/debian.cnf when changing the socket location.
[client]
port                = 3306
socket              = /var/run/mysqld/mysqld.sock

# Here is entries for some specific programs
# The following values assume you have at least 32M ram

# This was formally known as [safe_mysqld]. Both versions are currently parsed.
[mysqld_safe]
socket              = /var/run/mysqld/mysqld.sock
nice                = 0

[mysqld]
#
# * Basic Settings
#
user                = mysql
pid-file            = /var/run/mysqld/mysqld.pid
socket              = /var/run/mysqld/mysqld.sock
port                = 3306
basedir             = /usr
datadir             = /var/lib/mysql
tmpdir              = /tmp
language            = /usr/share/mysql/english
skip-external-locking
#
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address        = 127.0.0.1
#
# * Fine Tuning
#
key_buffer          = 16M
max_allowed_packet  = 16M
thread_stack        = 192K
thread_cache_size   = 8
# This replaces the startup script and checks MyISAM tables if needed
```

```

# the first time they are touched
myisam-recover      = BACKUP
#max_connections    = 100
#table_cache        = 64
#thread_concurrency = 10
#
# * Query Cache Configuration
#
query_cache_limit   = 1M
query_cache_size    = 16M
#
# * Logging and Replication
#
# Both location gets rotated by the cronjob.
# Be aware that this log type is a performance killer.
# As of 5.1 you can enable the log at runtime!
#general_log_file    = /var/log/mysql/mysql.log
#general_log         = 1
#
# Error logging goes to syslog due to /etc/mysql/conf.d/mysqld_safe_syslog.cnf.
#
# Here you can see queries with especially long duration
#log_slow_queries    = /var/log/mysql/mysql-slow.log
#long_query_time = 2
#log-queries-not-using-indexes
#
# The following can be used as easy to replay backup logs or for replication.
# note: if you are setting up a replication slave, see README.Debian about
#       other settings you may need to change.
#server-id           = 1
#log_bin             = /var/log/mysql/mysql-bin.log
expire_logs_days     = 10
max_binlog_size       = 100M
#binlog_do_db        = include_database_name
#binlog_ignore_db     = include_database_name
#
# * InnoDB
#
# InnoDB is enabled by default with a 10MB datafile in /var/lib/mysql/.
# Read the manual for more InnoDB related options. There are many!
#
# * Security Features
#
# Read the manual, too, if you want chroot!
# chroot = /var/lib/mysql/
#
# For generating SSL certificates I recommend the OpenSSL GUI "tinyca".
#
# ssl-ca=/etc/mysql/cacert.pem
# ssl-cert=/etc/mysql/server-cert.pem
# ssl-key=/etc/mysql/server-key.pem

[mysqldump]
quick
quote-names
max_allowed_packet = 16M

[mysql]
#no-auto-rehash # faster start of mysql but no tab completion

[isamchk]
key_buffer          = 16M

#
# * IMPORTANT: Additional settings that can override those from this file!
#   The files must end with '.cnf', otherwise they'll be ignored.
#
!includedir /etc/mysql/conf.d/

```

How do I connect to MySQL server?

Type the following command:

```
$ mysql -u root -p
```

Sample outputs:

```
Enter password:
```

```
Welcome to the MySQL monitor.  Commands end with ; or \g.
```

```
Your MySQL connection id is 37
```

```
Server version: 5.1.49-3 (Debian)
```

```
Copyright (c) 2000, 2010, Oracle and/or its affiliates. All rights reserved.
```

```
This software comes with ABSOLUTELY NO WARRANTY. This is free software,  
and you are welcome to modify and redistribute it under the GPL v2 license.
```

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

```
mysql>
```

Where,

- -u root: Login as admin root user.
- -p : Prompt for root user password.

What next?

See [how to setup a MySQL new user accounts](#) and [create a database/table to store your data](#) for more information.

See also

- Man pages: [mysql\(1\)](#), [mysqld\(8\)](#), [apt-get\(8\)](#)

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Vamsi February 6, 2012, 12:14 pm

Hi !

do you recommend the use of mysql_secure_installation after installing mysql ?

Thanks !

[REPLY](#) [LINK](#)

Kurt Krueckeberg March 9, 2012, 2:57 pm

The last lines of /etc/mysql/my.cnf are

```
# * IMPORTANT: Additional settings that can override those from this file!
```

```
# The files must end with '.cnf', otherwise they'll be ignored.
```

```
#
```

```
!includedir /etc/mysql/conf.d/
```

Can't you simply supply a .cnf file in /etc/mysql/conf.d/ that has your custom settings—like, for example, copying /usr/share/doc/mysql-server-5.1/examples/my-medium.cnf to /etc/mysql/conf.d ?

[REPLY](#) [LINK](#)

wtreker April 26, 2013, 3:26 am

Thanks. Great reference material. It helped a lot.

[REPLY](#) [LINK](#)

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