Fresh Reset And Install MySQL 5.7

⚠️Before going through the guide try this command if it gonna install MySQL 5.7 correctly, when you see the white windows you can jump to step 9, and see what to choose :

```
sudo wget -O mysql57
https://raw.githubusercontent.com/nuuxcode/alx-system_engineering-devops/master/scripts/
mysql57 && sudo chmod +x mysql57 &&  sudo ./mysql57
```

If this command did not install 5.7 correctly you can continue reading the guide.

Note: during this guide, don't go to the next step if you have errors in the current step you are in, make sure there are no errors.

Some steps can be skipped if they don't apply to your case:

Very rare but following this guide, you may find some errors. You can try to copy-paste errors to AI WEBSITES, to help you debug them...
> https://chat.openai.com/
> https://poe.com/
> https://you.com/
> https://www.phind.com/

Follow the guide, if you need clarity check this video :
> https://youtu.be/if0DBq9OqtE

1- Clean Running MySQL Processes

```
ubuntu@392319-web-01:~$ sudo ps aux | grep mysql
mysql      9072 1.4 18.0 1120888 176660 ?      Sl   09:26   0:00 /usr/sbin/mysqld --daemonize --pid-file=/var/run/mysqld/mysqld.pid
ubuntu     9106 0.0  0.0  8168   724 pts/0    S+   09:26   0:00 grep --color=auto mysql
ubuntu@392319-web-01:~$
```

Check for any running MySQL processes:
> **sudo ps aux | grep mysql**

If MySQL is running, try stopping it:
> **sudo service mysql stop**

Double-check if MySQL is no longer running:
> **sudo ps aux | grep mysql**

If MySQL processes are still running, terminate them:
> **sudo kill -9 <PID>**
> > **Example : sudo kill -9 9072**

Note: if you have this grep --color something, you can ignore it and continue.

```
ubuntu@361797-web-02:~$ sudo ps aux | grep mysql
ubuntu     86836 0.0 0.0  8168   720 pts/0   S+   12:08   0:00 grep --color=auto mysql
ubuntu@361797-web-02:~$
```

Proceed to the next step when MySQL is not running.

2-Remove Existing MySQL Versions

Remove MySQL packages

sudo apt-get remove --purge mysql-server mysql-client mysql-common -y && sudo apt-get autoremove -y

```
ubuntu@392319-web-01:~$ sudo apt-get remove --purge mysql-server mysql-client mysql-common -y && sudo apt-get autoremove -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libmecab2 libtinfo5
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  mysql-client* mysql-common* mysql-community-client* mysql-community-server* mysql-server*
0 upgraded, 0 newly installed, 5 to remove and 65 not upgraded.
After this operation, 325 MB disk space will be freed.
(Reading database ... 124136 files and directories currently installed.)
Removing mysql-server (5.7.42-1ubuntu18.04) ...
Removing mysql-community-server (5.7.42-1ubuntu18.04) ...
update-alternatives: using /etc/mysql/my.cnf.fallback to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Removing mysql-client (5.7.42-1ubuntu18.04) ...
Removing mysql-community-client (5.7.42-1ubuntu18.04) ...
Removing mysql-common (5.8+1.0.5ubuntu2) ...
Processing triggers for man-db (2.9.1-1) ...
(Reading database ... 123927 files and directories currently installed.)
Purging configuration files for mysql-community-client (5.7.42-1ubuntu18.04) ...
Purging configuration files for mysql-common (5.8+1.0.5ubuntu2) ...
Purging configuration files for mysql-community-server (5.7.42-1ubuntu18.04) ...
.
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages will be REMOVED:
  libmecab2 libtinfo5
0 upgraded, 0 newly installed, 2 to remove and 65 not upgraded.
After this operation, 2399 kB disk space will be freed.
(Reading database ... 123890 files and directories currently installed.)
Removing libmecab2:amd64 (0.996-10build1) ...
Removing libtinfo5:amd64 (6.2-0ubuntu2.1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
```

If no errors occur, proceed to the next step.

If something like this shows up, Choose 'yes' and press Enter.
(if it didn't show up it ok, continue)

```
┌─────────────────────────┤ Configuring mysql-community-server ├─────────────────────────┐
│                                                                                          │
│ This operation will remove the data directory at '/var/lib/mysql' that stores all the    │
│ databases, tables and related meta-data.                                                 │
│ Additionally, any import or export files stored at '/var/lib/mysql-files' will be        │
│ removed along with directory. Finally, any files in                                      │
│ '/var/lib/mysql-keyring' will be deleted. It is highly recommended to take data backup   │
│ before removing the data directories.                                                    │
│                                                                                          │
│ Remove data directories ?                                                                │
│                                                                                          │
│                  <Yes>                                    <No>                            │
│                                                                                          │
└──────────────────────────────────────────────────────────────────────────────────────────┘
```

After it finishes, it should show something like this:

```
The following packages will be REMOVED:
  mysql-client* mysql-common* mysql-community-client* mysql-community-server* mysql-server*
0 upgraded, 0 newly installed, 5 to remove and 65 not upgraded.
After this operation, 325 MB disk space will be freed.
(Reading database ... 124136 files and directories currently installed.)
Removing mysql-server (5.7.42-1ubuntu18.04) ...
Removing mysql-community-server (5.7.42-1ubuntu18.04) ...
update-alternatives: using /etc/mysql/my.cnf.fallback to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Removing mysql-client (5.7.42-1ubuntu18.04) ...
Removing mysql-community-client (5.7.42-1ubuntu18.04) ...
Removing mysql-common (5.8+1.0.5ubuntu2) ...
Processing triggers for man-db (2.9.1-1) ...
(Reading database ... 123927 files and directories currently installed.)
Purging configuration files for mysql-community-client (5.7.42-1ubuntu18.04) ...
Purging configuration files for mysql-common (5.8+1.0.5ubuntu2) ...
Purging configuration files for mysql-community-server (5.7.42-1ubuntu18.04) ...
.
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages will be REMOVED:
  libmecab2 libtinfo5
0 upgraded, 0 newly installed, 2 to remove and 65 not upgraded.
After this operation, 2399 kB disk space will be freed.
(Reading database ... 123890 files and directories currently installed.)
Removing libmecab2:amd64 (0.996-10build1) ...
Removing libtinfo5:amd64 (6.2-0ubuntu2.1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
ubuntu@392319-web-01:~$
```

If no errors occur, proceed to the next step.

3-Remove MySQL Apt Configuration

sudo rm -rf /etc/apt/sources.list.d/mysql.list*
sudo rm -rf /var/lib/mysql-apt-config
sudo dpkg --purge mysql-apt-config

Double-check that everything related to MySQL is removed:
dpkg -l | grep mysql

It should be empty as in the image below, if not try redoing the previous steps.

```
ubuntu@392319-web-01:~$ dpkg -l | grep mysql
ubuntu@392319-web-01:~$
```

4-Remove MySQL Configuration Files

sudo rm -rf /etc/mysql /var/lib/mysql

5-Edit sources.list to Remove MySQL Repositories

Check the sources.list file for MySQL repository entries (example: deb http://repo.mysql.com/apt/ubuntu bionic main),

there should be none like the picture below:

`cat /etc/apt/sources.list | grep mysql`

```
ubuntu@392319-web-01:~$ cat /etc/apt/sources.list | grep mysql
ubuntu@392319-web-01:~$
```

If there are entries, open the sources.list file:

`sudo vi /etc/apt/sources.list`

Look for (example: deb http://repo.mysql.com/apt/ubuntu bionic main) and delete lines referencing MySQL repositories.

```
## N.B. software from this repository may not have been tested as
## extensively as that contained in the main release, although it includes
## newer versions of some applications which may provide useful features.
## Also, please note that software in backports WILL NOT receive any review
## or updates from the Ubuntu security team.
deb http://us-east-1.ec2.archive.ubuntu.com/ubuntu/ focal-backports main restricte
# deb-src http://us-east-1.ec2.archive.ubuntu.com/ubuntu/ focal-backports main res

## Uncomment the following two lines to add software from Canonical's
## 'partner' repository.
## This software is not part of Ubuntu, but is offered by Canonical and the
## respective vendors as a service to Ubuntu users.
# deb http://archive.canonical.com/ubuntu focal partner
# deb-src http://archive.canonical.com/ubuntu focal partner

deb http://security.ubuntu.com/ubuntu focal-security main restricted
# deb-src http://security.ubuntu.com/ubuntu focal-security main restricted
deb http://security.ubuntu.com/ubuntu focal-security universe
# deb-src http://security.ubuntu.com/ubuntu focal-security universe
deb http://security.ubuntu.com/ubuntu focal-security multiverse
# deb-src http://security.ubuntu.com/ubuntu focal-security multiverse
deb [arch=amd64] https://download.docker.com/linux/ubuntu focal stable
# deb-src [arch=amd64] https://download.docker.com/linux/ubuntu focal stable
deb http://repo.mysql.com/apt/ubuntu/ focal mysql-8.0
```

If no errors occur, proceed to the next step.

6-Update Packages

sudo apt update

```
ubuntu@392319-web-01:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease
Fetched 222 kB in 1s (293 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
64 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

If you got an error like this (if no error skip to step7) :

```
                            sudo vi /etc/apt/sources.list
ubuntu@361797-web-02:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Error: Timeout was reached
^Z
[3]+  Stopped                 sudo apt update
ubuntu@361797-web-02:~$ sudo apt update
Reading package lists... Done
E: Could not get lock /var/lib/apt/lists/lock. It is held by process 87244 (apt)
N: Be aware that removing the lock file is not a solution and may break your system.
E: Unable to lock directory /var/lib/apt/lists/
ubuntu@361797-web-02:~$
```

Do this command and kill all running processes (ignore grep color) :

ps aux | grep apt

In this case, we have to kill this running process using their PID :

```
                    directory /var/lib/apt/lists/
ubuntu@361797-web-02:~$ ps aux | grep -i ant
root      87243  0.0  0.4  11028  4560 pts/0    T    12:17   0:00 sudo apt update
root      87244  0.0  0.9  19036  9652 pts/0    T    12:17   0:00 apt update
root      87497  0.0  0.4  19036  4200 pts/0    T    12:17   0:00 apt update
root      87631  0.2  7.0  81432 69760 pts/0    TN   12:17   0:01 /usr/bin/python3 /usr/lib/update-notifier/apt-check --human-readable
ubuntu    87642  0.0  0.0   8164   858 pts/0    S+   12:25   0:00 grep --color=auto -i apt
ubuntu@361797-web-02:~$
```

You can kill them by sudo kill -9 <PID>
So in our case gonna be :

sudo kill -9 87243
sudo kill -9 87243
sudo kill -9 87497
sudo kill -9 87631

Again do ps aux | grep apt :

Now it is good, we can skip that grep color process

```
                    such process
ubuntu@361797-web-02:~$ ps aux | grep -i apt
ubuntu    87654  0.0  0.0   8164   724 pts/0    S+   12:28   0:00 grep --color=auto -i apt
ubuntu@361797-web-02:~$
```

Do again sudo apt update

```
ubuntu@361797-web-02:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Error: Timeout was reached
Reading package lists... Done
Building dependency tree
Reading state information... Done
All packages are up to date.
```

Perfect, continue to step 7.

7-Clean APT Cache

sudo apt clean

```
ubuntu@392319-web-01:~$ sudo apt clean
ubuntu@392319-web-01:~$
```

8-Configure Any Pending Packages

sudo dpkg --configure -a

```
ubuntu@392319-web-01:~$ sudo dpkg --configure -a
ubuntu@392319-web-01:~$
```
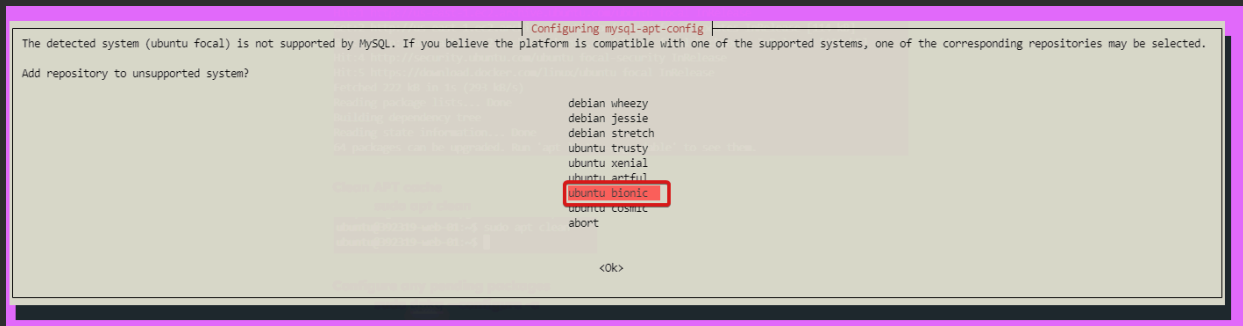
9-Install MySQL 5.7

Let's install MySQL 5.7 now (the next command is one line command) :

```
sudo wget -O mysql57
https://raw.githubusercontent.com/nuuxcode/alx-system_engineering-devops/master/scripts/
mysql57 && sudo chmod +x mysql57 && sudo ./mysql57
```
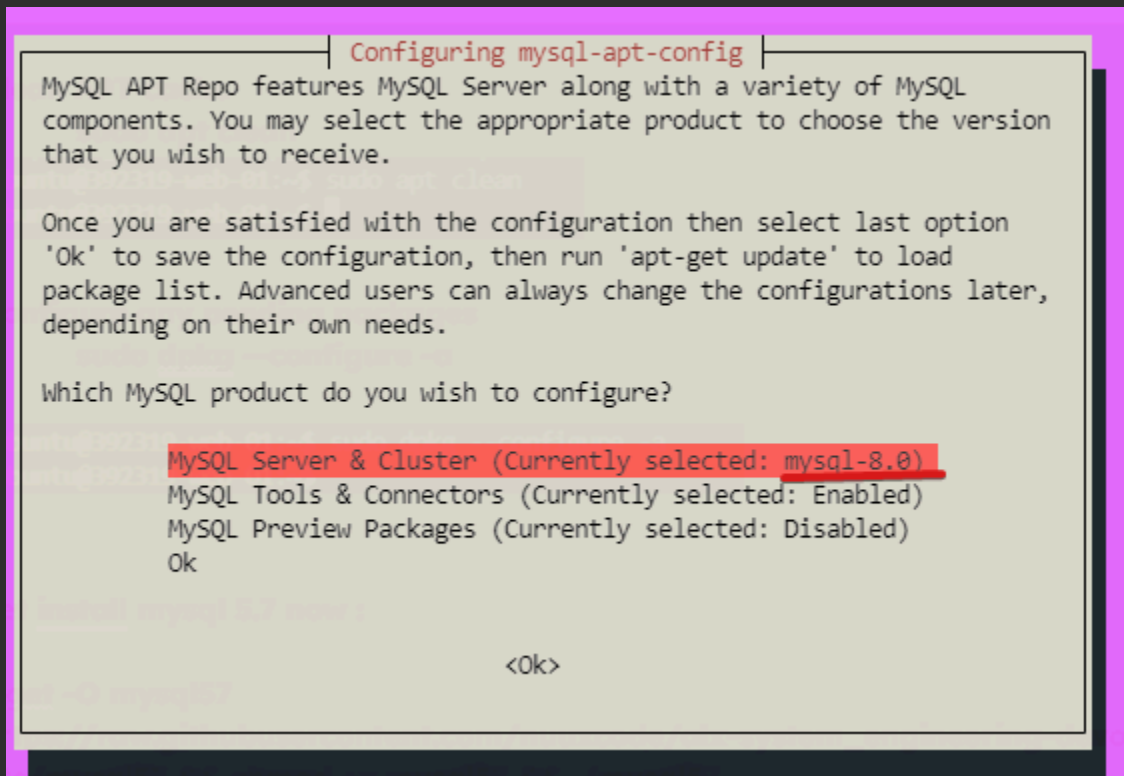
Note: **I updated the script to select Bionic and 5.7 by default, so if you find them already selected, you can just press enter and OK... if they are not selected by default, follow with the pictures below.**

A few windows are going to show up. Follow the prompts to select Ubuntu Bionic, change to MySQL 5.7, and set a password if needed.

Select Ubuntu bionic and press enter:

```
                          ┤ Configuring mysql-apt-config ├
  The detected system (ubuntu focal) is not supported by MySQL. If you believe the platform is compatible with one of the supported systems, one of the corresponding repositories may be selected.

  Add repository to unsupported system?

                                                          debian wheezy
                                                          debian jessie
                                                          debian stretch
                                                          ubuntu trusty
                                                          ubuntu xenial
                                                          ubuntu artful
                                                          ubuntu bionic
                                                          ubuntu cosmic
                                                          abort


                                                  <Ok>
```

See the picture below, notice it shows MySQL 8.0, we will need to **change it to 5.7**, press enter: **(if it shows 5.7 you can scroll down to OK and press enter)**


```
              ┤ Configuring mysql-apt-config ├
  MySQL APT Repo features MySQL Server along with a variety of MySQL
  components. You may select the appropriate product to choose the version
  that you wish to receive.

  Once you are satisfied with the configuration then select last option
  'Ok' to save the configuration, then run 'apt-get update' to load
  package list. Advanced users can always change the configurations later,
  depending on their own needs.

  Which MySQL product do you wish to configure?

          MySQL Server & Cluster (Currently selected: mysql-8.0)
          MySQL Tools & Connectors (Currently selected: Enabled)
          MySQL Preview Packages (Currently selected: Disabled)
          Ok


                              <Ok>
```

After you press enter, a list of versions will show up, **scroll up select 5.7,** and press enter:
(skip this if already have 5.7 selected)

After you press enter you will see something like this, just scroll down to ok and press enter, but notice that version did change to 5.7 :

The script will continue then another window gonna show up asking you about MySQL password, feel free to enter any password, *(for me to avoid problems I just leave it empty which means no password)* then press enter:

The script will continue installing

In the end will show something like this :

```
Selecting previously unselected package mysql-server.
Preparing to unpack .../6-mysql-server_5.7.42-1ubuntu18.04_amd64.deb ...
Unpacking mysql-server (5.7.42-1ubuntu18.04) ...
Setting up libmecab2:amd64 (0.996-10build1) ...
Setting up mysql-common (5.8+1.0.5ubuntu2) ...
update-alternatives: using /etc/mysql/my.cnf.fallback to provide /etc/mysql/my.cnf (my.cnf) in
Setting up libtinfo5:amd64 (6.2-0ubuntu2.1) ...
Setting up mysql-community-client (5.7.42-1ubuntu18.04) ...
Setting up mysql-client (5.7.42-1ubuntu18.04) ...
Setting up mysql-community-server (5.7.42-1ubuntu18.04) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib/systemd/syste
Setting up mysql-server (5.7.42-1ubuntu18.04) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
mysql  Ver 14.14 Distrib 5.7.42, for Linux (x86_64) using  EditLine wrapper
ubuntu@392319-web-01:~$
```

Congratulations, MySQL 5.7 is now installed correctly!

After installation, check MySQL status:
        sudo service mysql status

```
ubuntu@392319-web-01:~$ sudo service mysql status
● mysql.service - MySQL Community Server
    Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
    Active: active (running) since Wed 2023-10-18 09:55:55 UTC; 1min 52s ago
  Main PID: 12140 (mysqld)
     Tasks: 27 (limit: 1077)
    Memory: 168.1M
    CGroup: /system.slice/mysql.service
            └─12140 /usr/sbin/mysqld --daemonize --pid-file=/var/run/mysqld/mysqld.pid

Oct 18 09:55:53 392319-web-01 systemd[1]: Starting MySQL Community Server...
Oct 18 09:55:55 392319-web-01 systemd[1]: Started MySQL Community Server.
ubuntu@392319-web-01:~$
```

If issues persist, use the following commands to debug:

journalctl -u mysql.service

cat /var/log/mysql/error.log

journalctl -xe

Check this post to learn more about MySQL :
https://shazaali.substack.com/p/database-administration

Good luck!
You Got This ♥

Written by Mounssif nuuX BOUHLAOUI :
https://twitter.com/nuux_tv/