How to Install MySQL 5.7 on Ubuntu 20.04

Step 1: Add MySQL APT repository in Ubuntu

```
$ sudo apt update
$ sudo apt install wget
$ wget https://dev.mysql.com/get/mysql-apt-config_0.8.12-1_all.deb

$ sudo dpkg -i mysql-apt-config_0.8.12-1_all.deb
```

-In the prompt, choose Ubuntu Bionic and click Ok

-The next prompt shows MySQL 8.0 chosen by default. Choose the first option and click OK

-In the next prompt, select MySQL 5.7 server and click OK.

-The next prompt selects MySQL5.7 by default. Choose the last otpion Ok and click OK

Step 2: Update MySQL Repository on Ubuntu

Run the below command to update your system packages

```
$ sudo apt-get update
```

-Now search for MySQL 5,7 using apt-cache as shown below:

```
$ sudo apt-cache policy mysql-server
mysql-server:
  Installed: (none)
  Candidate: 8.0.26-0ubuntu0.20.04.2
  Version table:
     8.0.26-0ubuntu0.20.04.2 500
        500 http://kr.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages
        500 http://kr.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages
     8.0.19-0ubuntu5 500
        500 http://kr.archive.ubuntu.com/ubuntu focal/main amd64 Packages
     5.7.35-1ubuntu18.04 500
        500 http://repo.mysql.com/apt/ubuntu bionic/mysql-5.7 amd64 Packages
```

Step 3: Install MySQL 5.7 on Ubuntu 20.04 Linux machine

-Having found MySQL 5.7 in our system, we are going to install MySQL 5.7 client, MySQL 5.7 server with the below command:

```
$ sudo apt install -f mysql-client=5.7* mysql-community-server=5.7* mysql-server=5.7*

   Reading package lists... Done
   Building dependency tree
   Reading state information... Done
   Selected version '5.7.35-1ubuntu18.04' (MySQL:repo.mysql.com [amd64]) for
   'mysql-client'
   Selected version '5.7.35-1ubuntu18.04' (MySQL:repo.mysql.com [amd64]) for
   'mysql-community-server'
   Selected version '5.7.35-1ubuntu18.04' (MySQL:repo.mysql.com [amd64]) for
   'mysql-server'
   The following additional packages will be installed:
     libmecab2 libtinfo5 mysql-common mysql-community-client
   The following NEW packages will be installed:
     libmecab2 libtinfo5 mysql-client mysql-common mysql-community-client
     mysql-community-server mysql-server
   0 upgraded, 7 newly installed, 0 to remove and 75 not upgraded.
   Need to get 51.6 MB of archives.
   After this operation, 315 MB of additional disk space will be used.
   Do you want to continue? [Y/n] y
```

-Enter and re-enter root password when prompted

```
    --mymysql


Step 4: Secure MySQL 5.7 Installation on Ubuntu 20.04
  -Run the command below to secure MySQL
  $ sudo mysql_secure_installation
  Securing the MySQL server deployment.
  Enter password for user root:

  VALIDATE PASSWORD PLUGIN can be used to test passwords
  and improve security. It checks the strength of password
  and allows the users to set only those passwords which are
  secure enough. Would you like to setup VALIDATE PASSWORD plugin?

  Press y|Y for Yes, any other key for No: y

  There are three levels of password validation policy:

  LOW    Length >= 8
  MEDIUM Length >= 8, numeric, mixed case, and special characters
  STRONG Length >= 8, numeric, mixed case, special characters and dictionary
  file

  Please enter 0 = LOW, 1 = MEDIUM and 2 = STRONG: 0
  Using existing password for root.

  Estimated strength of the password: 25
  Change the password for root ? ((Press y|Y for Yes, any other key for No) : No

   ... skipping.
  By default, a MySQL installation has an anonymous user,
  allowing anyone to log into MySQL without having to have
  a user account created for them. This is intended only for
  testing, and to make the installation go a bit smoother.
  You should remove them before moving into a production
  environment.

  Remove anonymous users? (Press y|Y for Yes, any other key for No) : No

   ... skipping.


  Normally, root should only be allowed to connect from
  'localhost'. This ensures that someone cannot guess at
  the root password from the network.

  Disallow root login remotely? (Press y|Y for Yes, any other key for No) : No

   ... skipping.
  By default, MySQL comes with a database named 'test' that
  anyone can access. This is also intended only for testing,
  and should be removed before moving into a production
  environment.


  Remove test database and access to it? (Press y|Y for Yes, any other key for No) : No

   ... skipping.
  Reloading the privilege tables will ensure that all changes
  made so far will take effect immediately.
```

```
    Reload privilege tables now? (Press y|Y for Yes, any other key for No) : y
    Success.

    All done!


Step 5: Check MySQL 5.7 version on Ubuntu 20.04
    $ mysql
    ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)

    $ mysql -h localhost -u root -p
    Enter password:

    Welcome to the MySQL monitor.  Commands end with ; or \g.
    Your MySQL connection id is 5
    Server version: 5.7.35 MySQL Community Server (GPL)

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    affiliates. Other names may be trademarks of their respective
    owners.

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

    mysql>SELECT VERSION();


Step 6: Enable MySQL remote access
    -By default, MySQL remote access is disabled.
    -To enable it we need to edit mysqld.cnf file as below:

        $ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
        Look for the line 'bind_address' and change as below:

        # By default we only accept connections from localhost
        #bind-address   = 127.0.0.1
        bind-address   = 0.0.0.0

    -Create root user
        $ mysql -u root -p
        Enter password:

        mysql> CREATE USER 'root'@'%' IDENTIFIED BY 'mymysql';
        ERROR 1819 (HY000): Your password does not satisfy the current policy requirements

        mysql> CREATE USER 'root'@'%' IDENTIFIED BY 'P@$$W0rd';
        Query OK, 0 rows affected (0.01 sec)

        mysql> GRANT ALL PRIVILEGES ON *.* TO 'root'@'%' WITH GRANT OPTION;
        Query OK, 0 rows affected (0.02 sec)

        mysql> FLUSH PRIVILEGES;
        Query OK, 0 rows affected (0.02 sec)

    -Save the file and restart mysql

        $ sudo systemctl restart mysql
        $ sudo systemctl enable mysql
```

```
$ sudo systemctl status mysql

-Allow remote connections through the firewall

$ sudo ufw allow from <remote_IP_address> to any port 3306
$ sudo ufw enable

-To access the database from a remote machine, run the following command:

$ mysql -u user -h database_server_ip -p
```

You have successfully installed MySQL 5.7 on Ubuntu 20.04.