

MySQL Installation Guide (Linux)

Step 0 - Remove older MySQL version and update MySQL repo

If you have installed an older version of MySQL, you can remove it using the following command:

```
$ sudo apt-get remove --purge mysql-*
```

Next, you should run the following two commands to point APT to the newer version of MySQL:

```
$ wget -c https://repo.mysql.com//mysql-apt-config\_0.8.15-1\_all.deb
```

```
$ sudo dpkg -i mysql-apt-config_0.8.13-1_all.deb
```

Step 1 - Installing MySQL

To install it, simply update the package index on your server and install the default package with apt-get.

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

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

The password will be set in the next step.

Next, we'll finish configuring MySQL.

Step 2: Configuring MySQL

Run the security script.

```
$ sudo mysql_secure_installation
```

You can press Y and then ENTER to accept the defaults for all the subsequent questions, with the exception of the one that asks if you'd like to change the root password.

Step 3: Testing MySQL

To test MySQL, check its status.

\$ systemctl status mysql.service

You'll see output similar to the following:

```
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; ven
   Active: active (running) since Sat 2020-04-04 15:26:29 PDT; 5mi
 Main PID: 2506 (mysqld)
    Tasks: 28 (limit: 4666)
   CGroup: /system.slice/mysql.service
           └─2506 /usr/sbin/mysqld --daemonize --pid-file=/run/mys

Apr 04 15:26:29 hao-VirtualBox systemd[1]: Starting MySQL Communit
Apr 04 15:26:29 hao-VirtualBox systemd[1]: Started MySQL Community
```

Step 4 - Instal MySQL Workbench

Update repositories and upgrade if necessary by typing the following line into the terminal:

\$ sudo apt update && sudo apt upgrade

Install MySQL Workbench using the APT package manager:

\$ sudo apt install mysql-workbench

Step 5 - Launch MySQL

1. Launch MySQL Workbench from the terminal:

\$ mysql-workbench

Double click “Local instance 3306” to connect to the instance. Provide the root password when prompted for it. If you don’t see a connection, you can create it by clicking the “+” button and referencing the following window. You need to provide the connection name and the password by clicking “Store in Vault”. You can click “Test connection” to see whether it works fine or not.

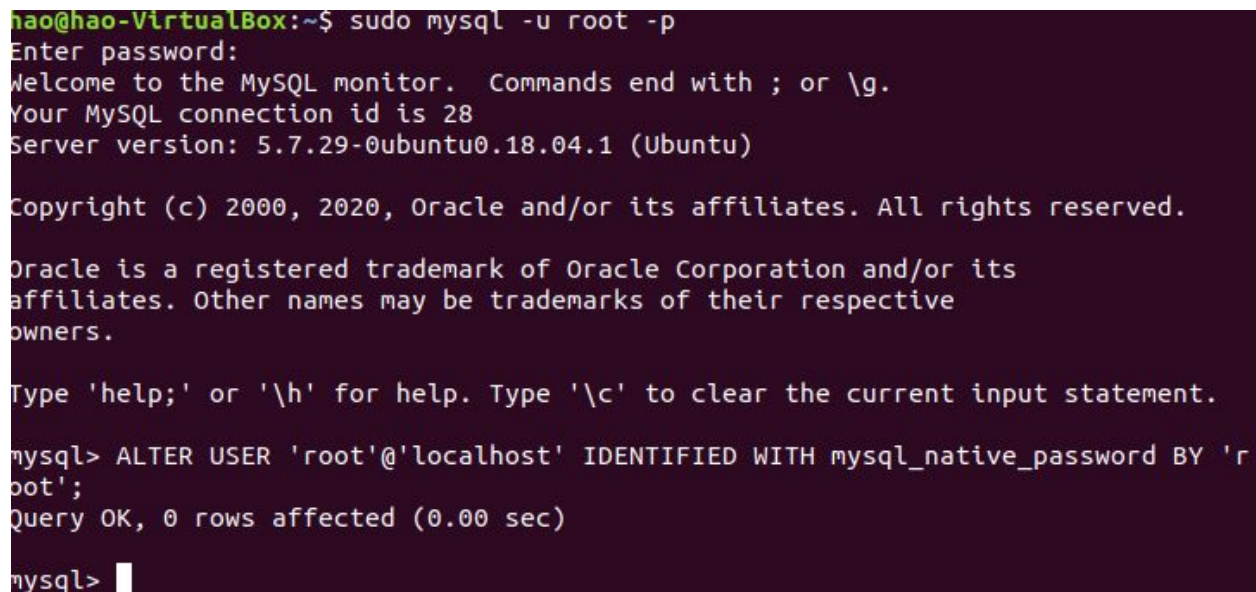
If you cannot connect the MySQL, try to look at this:

<https://stackoverflow.com/questions/50169576/mysql-8-0-11-error-connect-to-caching-sha2-password-the-specified-module-could-not-load>

You need to open your terminal and run the following commands (by default the username is root):

\$ sudo mysql -u root -p

mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'yourpassword';

A terminal window with a dark purple background. The prompt is 'hao@hao-VirtualBox:~\$'. The user enters 'sudo mysql -u root -p'. The prompt changes to 'Enter password:'. The user enters a password. The terminal shows the MySQL welcome message: 'Welcome to the MySQL monitor. Commands end with ; or \g. Your MySQL connection id is 28 Server version: 5.7.29-0ubuntu0.18.04.1 (Ubuntu) Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners. Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.' The user enters the command 'mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'root';'. The terminal responds with 'Query OK, 0 rows affected (0.00 sec)'. The prompt returns to 'mysql>'.

```
hao@hao-VirtualBox:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 28
Server version: 5.7.29-0ubuntu0.18.04.1 (Ubuntu)

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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> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'r
oot';
Query OK, 0 rows affected (0.00 sec)

mysql>
```

After this you can try again to connect to MySQL.

Step6- Create a Database and Tables, and Insert tuples

Given below is the schema for the example data. There are three tables.

- Boats (bid, bname, color) - Reserves (sid, bid, date) - Sailors (sid, sname, rating, age)

The field types are as follows:

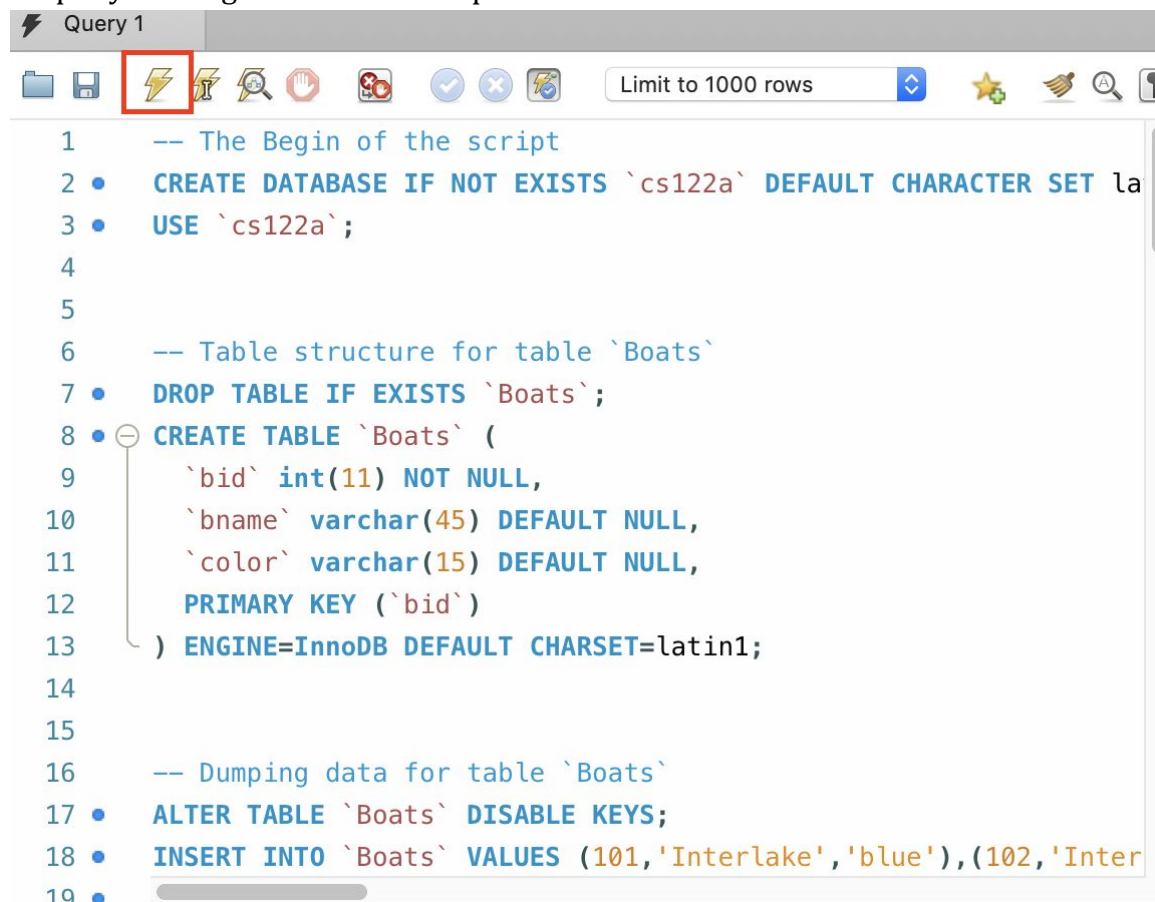
bid: INTEGER, bname: VARCHAR, color: VARCHAR,

sid: INTEGER, bid: INTEGER, date: date ,

sname: VARCHAR, rating: INTEGER, age: DECIMAL

Use the provided script to create a database, tables and populate them.

1. In Query 1, download the above script and copy and paste the content from the file. If you can't see the "Query 1" tab, create one by clicking File -> New Query Tab. Execute the script by clicking "the thunder shaped icon".



```
1  -- The Begin of the script
2  • CREATE DATABASE IF NOT EXISTS `cs122a` DEFAULT CHARACTER SET latin1;
3  • USE `cs122a`;
4
5
6  -- Table structure for table `Boats`
7  • DROP TABLE IF EXISTS `Boats`;
8  • CREATE TABLE `Boats` (
9      `bid` int(11) NOT NULL,
10     `bname` varchar(45) DEFAULT NULL,
11     `color` varchar(15) DEFAULT NULL,
12     PRIMARY KEY (`bid`)
13 ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
14
15
16 -- Dumping data for table `Boats`
17 • ALTER TABLE `Boats` DISABLE KEYS;
18 • INSERT INTO `Boats` VALUES (101,'Interlake','blue'),(102,'Inter
19 •
```

2. Go to the "schemas" panel on the left. Click the "Refresh" button and you will see the "cs122a" schema and its Tables.

cs122a_project

Administration Schemas Query 1

SCHEMAS

Filter objects

cs122a

- Tables
- Views
- Stored Procedures
- Functions

sys

```
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7 • DROP TABLE IF
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10    `bname` varc
```

cs122a_project

Administration Schemas Query 1

SCHEMAS

Filter objects

cs122a

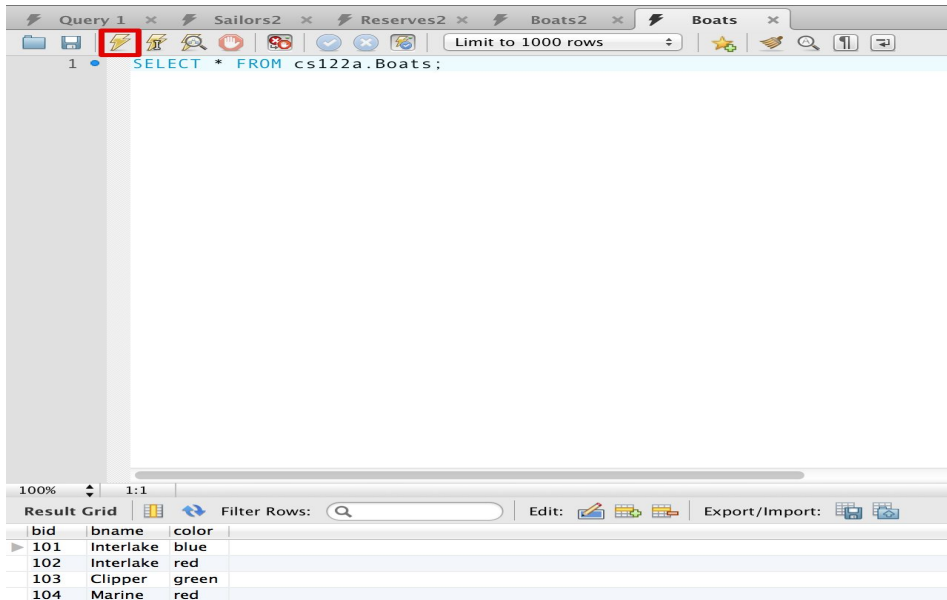
- Tables
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10    `bname` varchar(45) DEFAULT NU
11    `color` varchar(15) DEFAULT NU
12    PRIMARY KEY (`bid`)
```

Step4- SQL queries

1. In order to form queries, type in the query in the 'Query' tab and click on the thunder shaped icon. You can execute the following query by choosing "File" -> "New Query Tab", type "SELECT * FROM cs122a.Boats;", and then click on the thunder shaped icon. You will see your results in the box below.



2. (optional) You can export the result into a CSV file.

