CentOS7 安装 MySQL5.7

参考：MySQL 官网

制作日期：2019-04-10

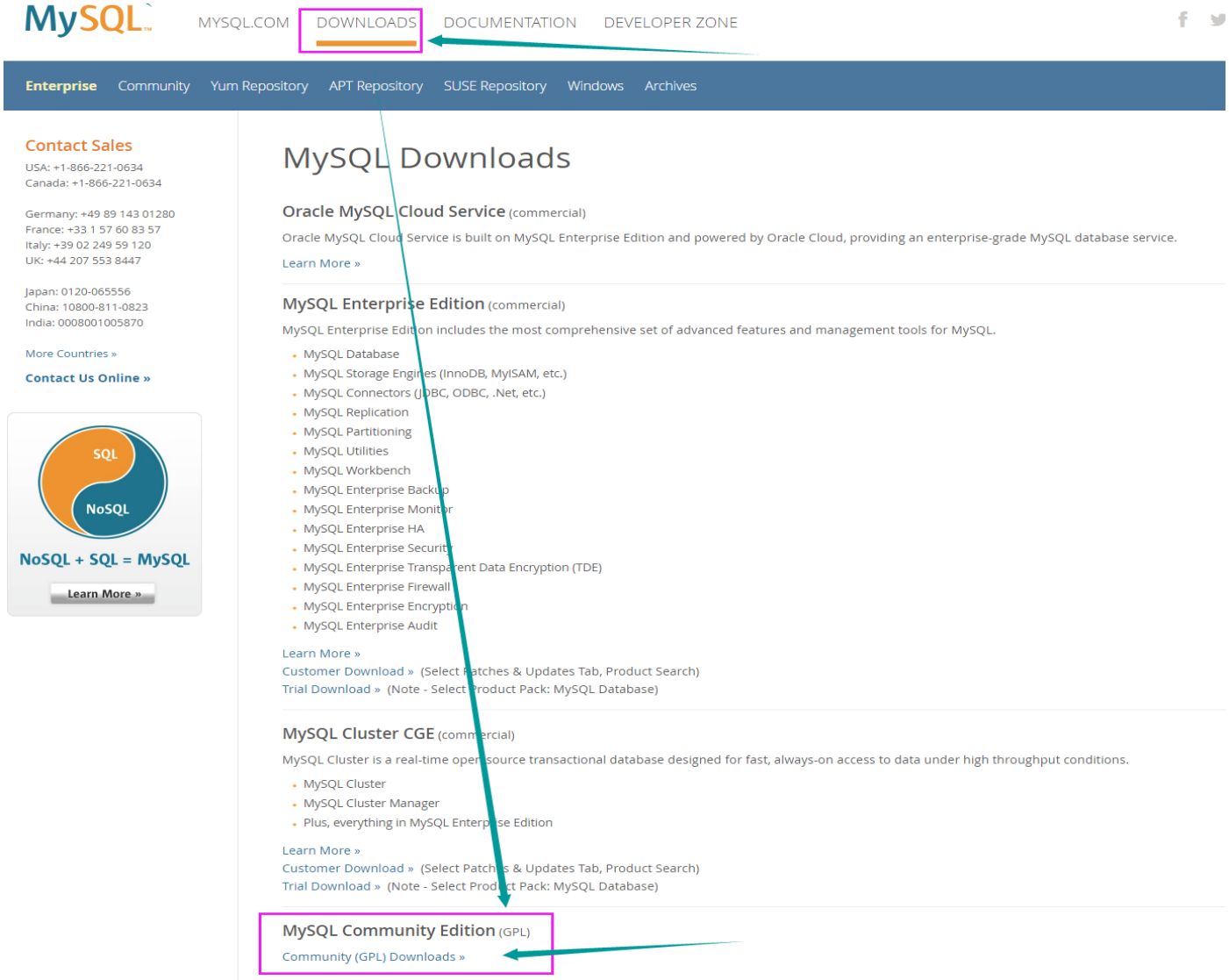
制作人：小桅[yw_forgit@163.com]

1、找 yum 源下载链接

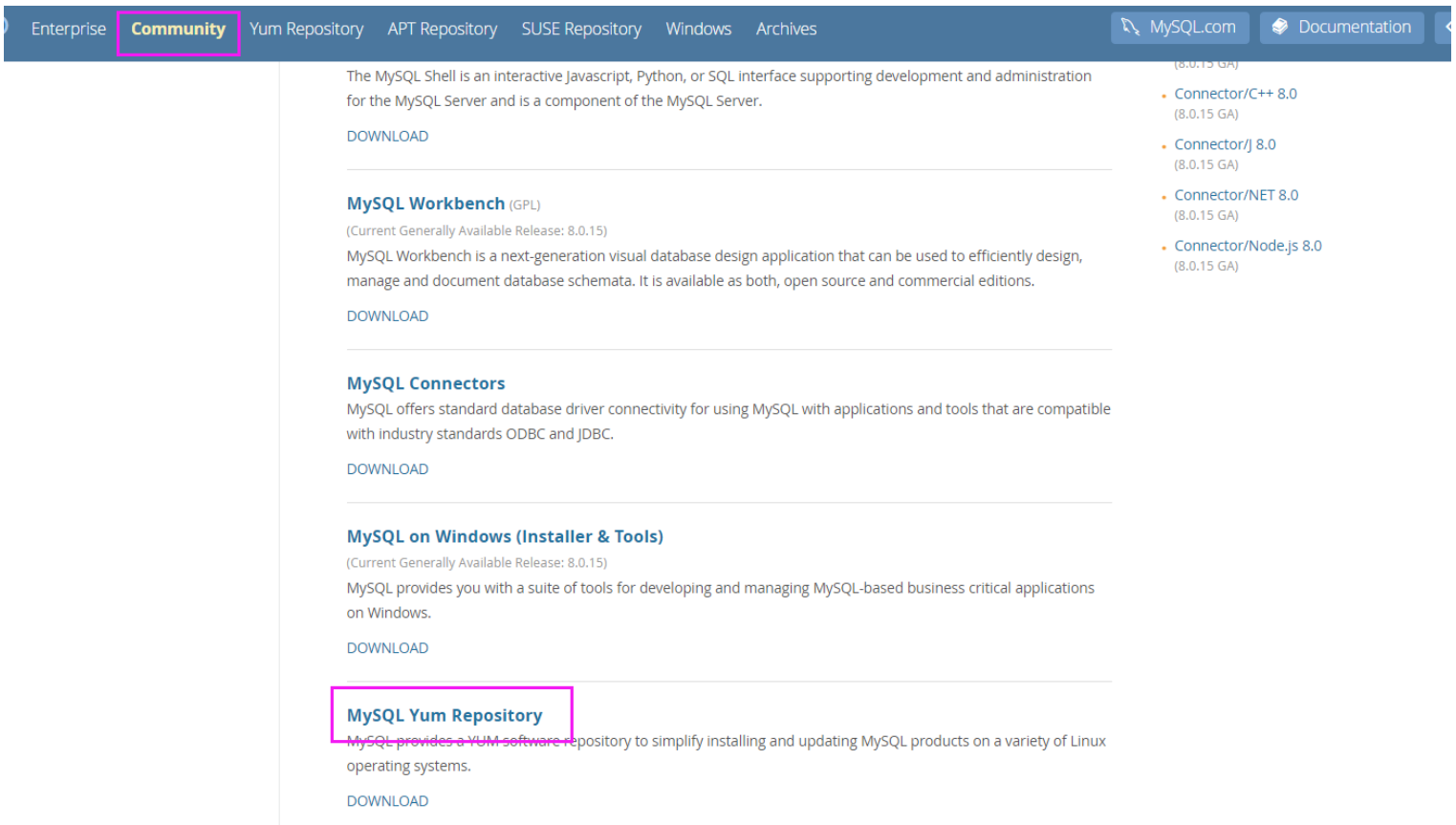
CentOS7 直接 yum 安装，会安装 mariadb，这是 mysql 的一个分支。

```
[root@localhost ~]# yum install mysql
Loaded plugins: fastestmirror
Determining fastest mirrors
 * base: mirrors.nju.edu.cn
 * extras: ftp.sjtu.edu.cn
 * updates: mirror.xtom.com.hk
base                                                                                                                                                | 3.6 kB  00:00:00
docker-ce-stable                                                                                                                                    | 3.5 kB  00:00:00
extras                                                                                                                                              | 3.4 kB  00:00:00
updates                                                                                                                                             | 3.4 kB  00:00:00
(1/3): extras/7/x86_64/primary_db                                                                                                                   | 187 kB  00:00:00
(2/3): docker-ce-stable/x86_64/primary_db                                                                                                           |  26 kB  00:00:01
(3/3): updates/7/x86_64/primary_db                                                                                                                  | 3.4 MB  00:00:02
Resolving Dependencies
--> Running transaction check
---> Package mariadb.x86_64 1:5.5.60-1.el7_5 will be installed
--> Processing Dependency: mariadb-libs(x86-64) = 1:5.5.60-1.el7_5 for package: 1:mariadb-5.5.60-1.el7_5.x86_64
--> Running transaction check
---> Package mariadb-libs.x86_64 1:5.5.56-2.el7 will be updated
---> Package mariadb-libs.x86_64 1:5.5.60-1.el7_5 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================================================================================================
 Package                                          Arch                                  Version                                  Repository                    Size
================================================================================================================================================================
Installing:
 mariadb                                          x86_64                                1:5.5.60-1.el7_5                         base                         8.9 M
Updating for dependencies:
 mariadb-libs                                     x86_64                                1:5.5.60-1.el7_5                         base                         758 k

Transaction Summary
================================================================================================================================================================
Install  1 Package
Upgrade             ( 1 Dependent package)

Total download size: 9.6 M
Is this ok [y/d/N]: n
```

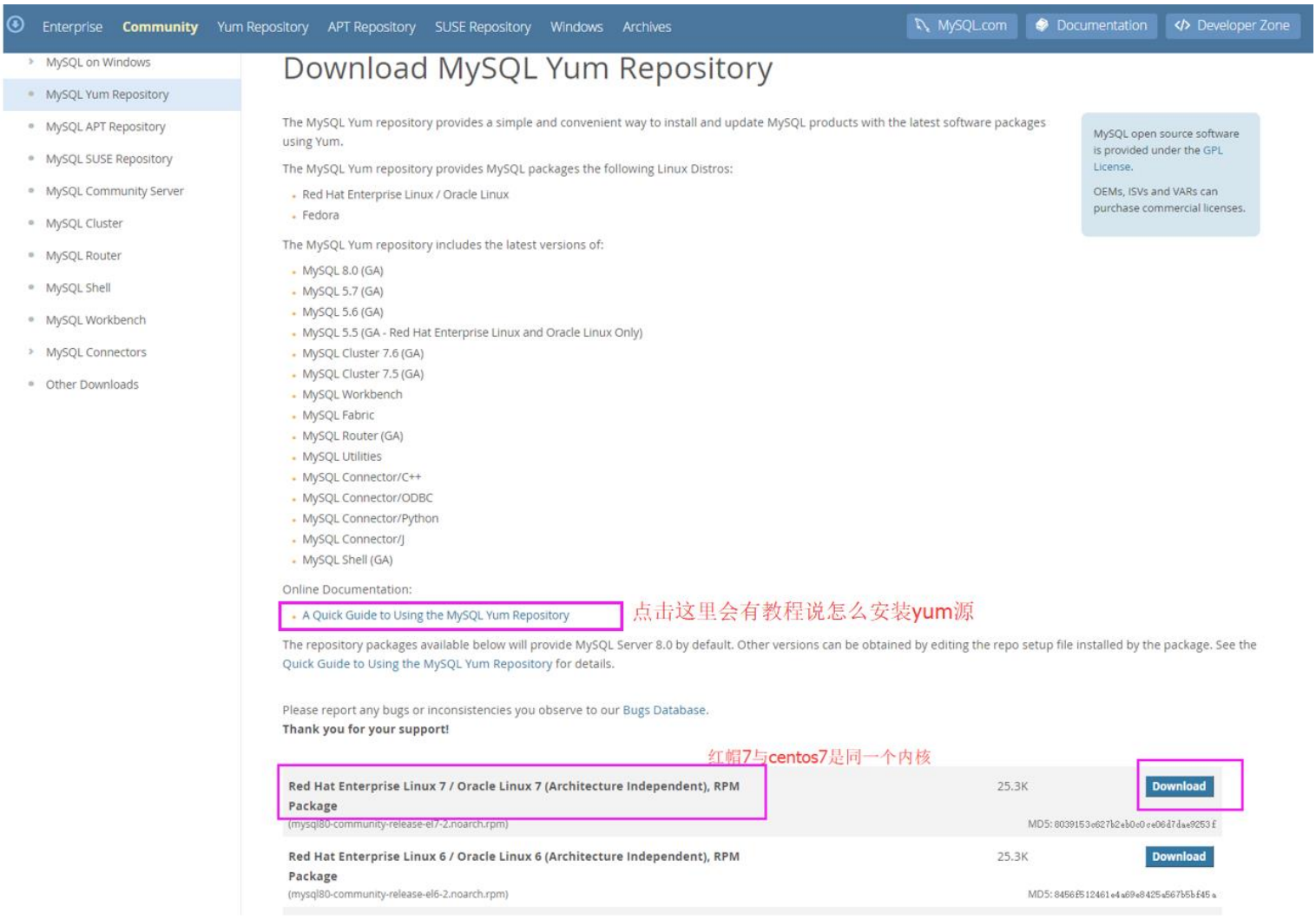
进入官网之后，点击 Download，进入下图，找到社区办的 MySQL


MySQL
MYSQL.COM
DOWNLOADS
DOCUMENTATION
DEVELOPER ZONE
Enterprise
Community
Yum Repository
APT Repository
SUSE Repository
Windows
Archives
Contact Sales
USA: +1-866-221-0634
Canada: +1-866-221-0634
Germany: +49 89 143 01280
France: +33 1 57 60 83 57
Italy: +39 02 249 59 120
UK: +44 207 553 8447
Japan: 0120-065556
China: 10800-811-0823
India: 0008001005870
More Countries »
Contact Us Online »
SQL
NoSQL
NoSQL + SQL = MySQL
Learn More »
MySQL Downloads
Oracle MySQL Cloud Service (commercial)
Oracle MySQL Cloud Service is built on MySQL Enterprise Edition and powered by Oracle Cloud, providing an enterprise-grade MySQL database service.
Learn More »
MySQL Enterprise Edition (commercial)
MySQL Enterprise Edition includes the most comprehensive set of advanced features and management tools for MySQL.
MySQL Database
MySQL Storage Engines (InnoDB, MyISAM, etc.)
MySQL Connectors (JDBC, ODBC, .Net, etc.)
MySQL Replication
MySQL Partitioning
MySQL Utilities
MySQL Workbench
MySQL Enterprise Backup
MySQL Enterprise Monitor
MySQL Enterprise HA
MySQL Enterprise Security
MySQL Enterprise Transparent Data Encryption (TDE)
MySQL Enterprise Firewall
MySQL Enterprise Encryption
MySQL Enterprise Audit
Learn More »
Customer Download » (Select Patches & Updates Tab, Product Search)
Trial Download » (Note - Select Product Pack: MySQL Database)
MySQL Cluster CGE (commercial)
MySQL Cluster is a real-time open source transactional database designed for fast, always-on access to data under high throughput conditions.
MySQL Cluster
MySQL Cluster Manager
Plus, everything in MySQL Enterprise Edition
Learn More »
Customer Download » (Select Patches & Updates Tab, Product Search)
Trial Download » (Note - Select Product Pack: MySQL Database)
MySQL Community Edition (GPL)
Community (GPL) Downloads »

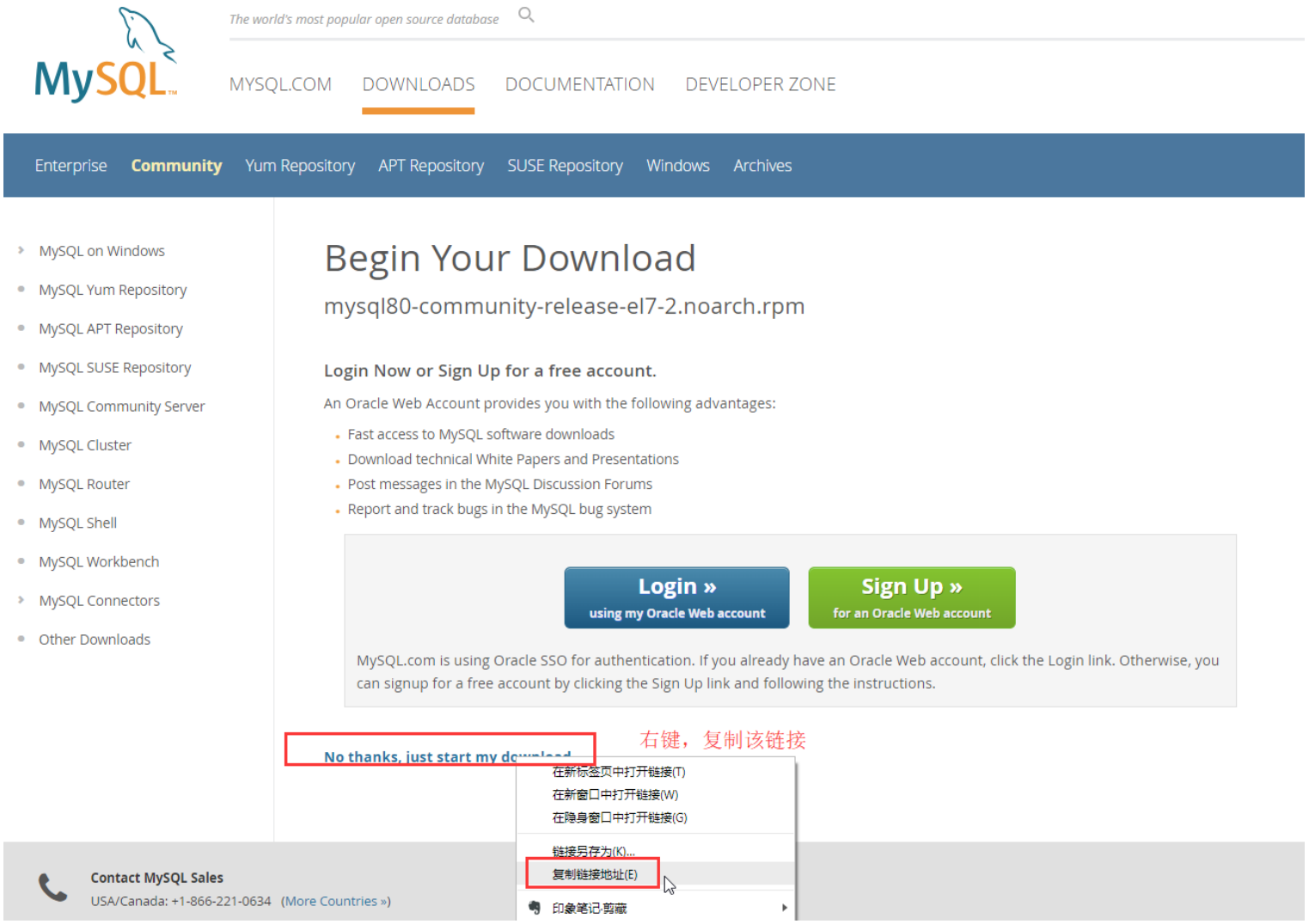
找到 yum 源


Enterprise
Community
Yum Repository
APT Repository
SUSE Repository
Windows
Archives
MySQL.com
Documentation
The MySQL Shell is an interactive Javascript, Python, or SQL interface supporting development and administration for the MySQL Server and is a component of the MySQL Server.
DOWNLOAD
MySQL Workbench (GPL)
(Current Generally Available Release: 8.0.15)
MySQL Workbench is a next-generation visual database design application that can be used to efficiently design, manage and document database schemata. It is available as both, open source and commercial editions.
DOWNLOAD
MySQL Connectors
MySQL offers standard database driver connectivity for using MySQL with applications and tools that are compatible with industry standards ODBC and JDBC.
DOWNLOAD
MySQL on Windows (Installer & Tools)
(Current Generally Available Release: 8.0.15)
MySQL provides you with a suite of tools for developing and managing MySQL-based business critical applications on Windows.
DOWNLOAD
MySQL Yum Repository
MySQL provides a YUM software repository to simplify installing and updating MySQL products on a variety of Linux operating systems.
DOWNLOAD
Connector/C++ 8.0
(8.0.15 GA)
Connector/J 8.0
(8.0.15 GA)
Connector/NET 8.0
(8.0.15 GA)
Connector/Node.js 8.0
(8.0.15 GA)

找到 centos7 的 yum 的 rpm，点击下载（这个 yum 包含多个版本，最新版是 8.0 的）



最后这个链接就是我们要的



复制的链接

https://dev.mysql.com/get/mysql80-community-release-el7-2.noarch.rpm

2、安装 yum 源

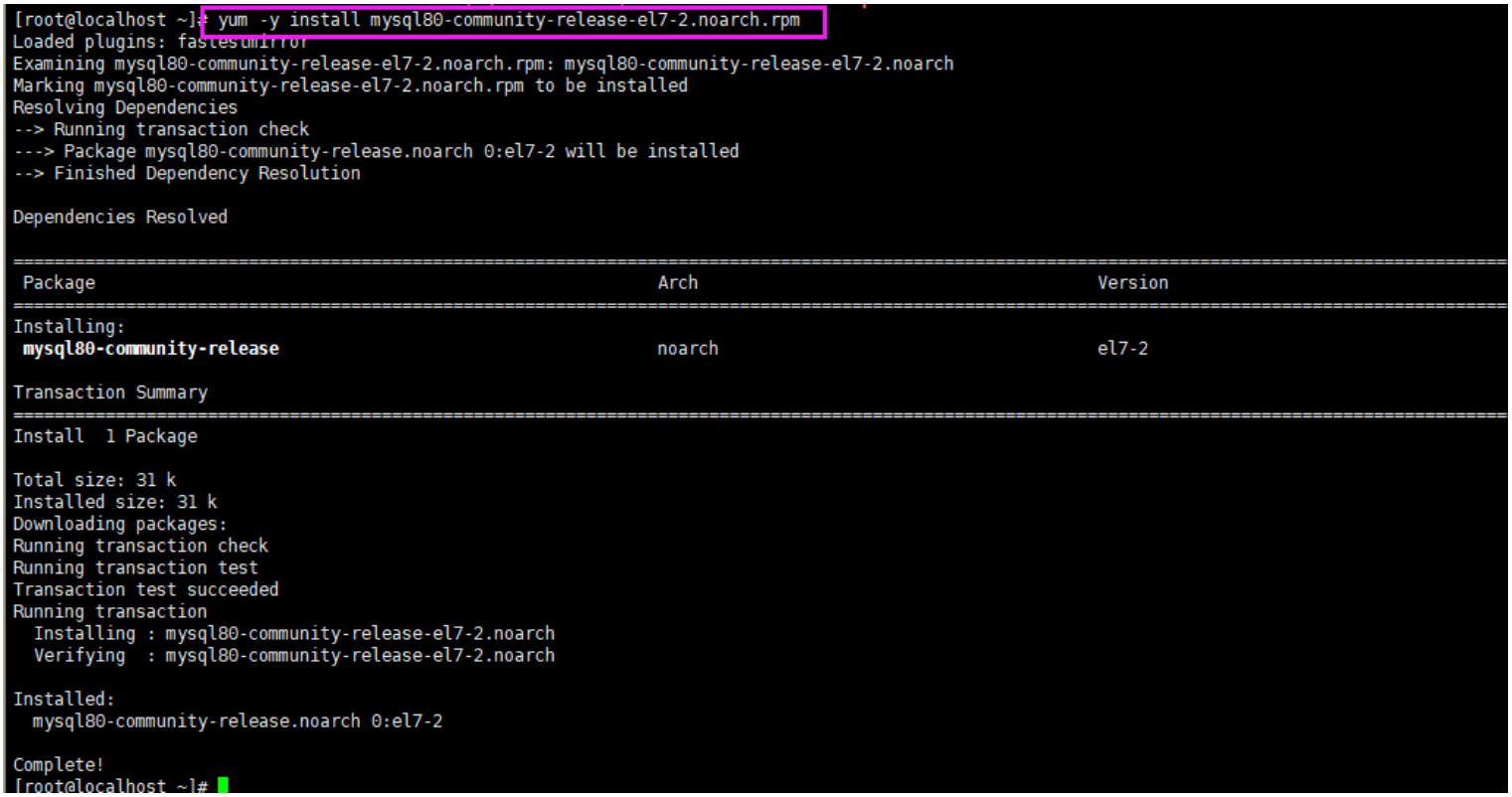
下载 yum 源的 rpm 包

```
[root@localhost ~]# wget https://dev.mysql.com/get/mysql80-community-release-el7-2.noarch.rpm
--2019-04-09 21:47:39--  https://dev.mysql.com/get/mysql80-community-release-el7-2.noarch.rpm
Resolving dev.mysql.com (dev.mysql.com)... 137.254.60.11
Connecting to dev.mysql.com (dev.mysql.com)|137.254.60.11|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://repo.mysql.com//mysql80-community-release-el7-2.noarch.rpm [following]
--2019-04-09 21:47:40--  https://repo.mysql.com//mysql80-community-release-el7-2.noarch.rpm
Resolving repo.mysql.com (repo.mysql.com)... 23.45.157.167
Connecting to repo.mysql.com (repo.mysql.com)|23.45.157.167|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 25892 (25K) [application/x-redhat-package-manager]
Saving to: 'mysql80-community-release-el7-2.noarch.rpm'

100%[======================================================================>] 25,892      --.-K/s   in 0.1s

2019-04-09 21:47:41 (199 KB/s) - 'mysql80-community-release-el7-2.noarch.rpm' saved [25892/25892]
```

可以看到下载当前目录了

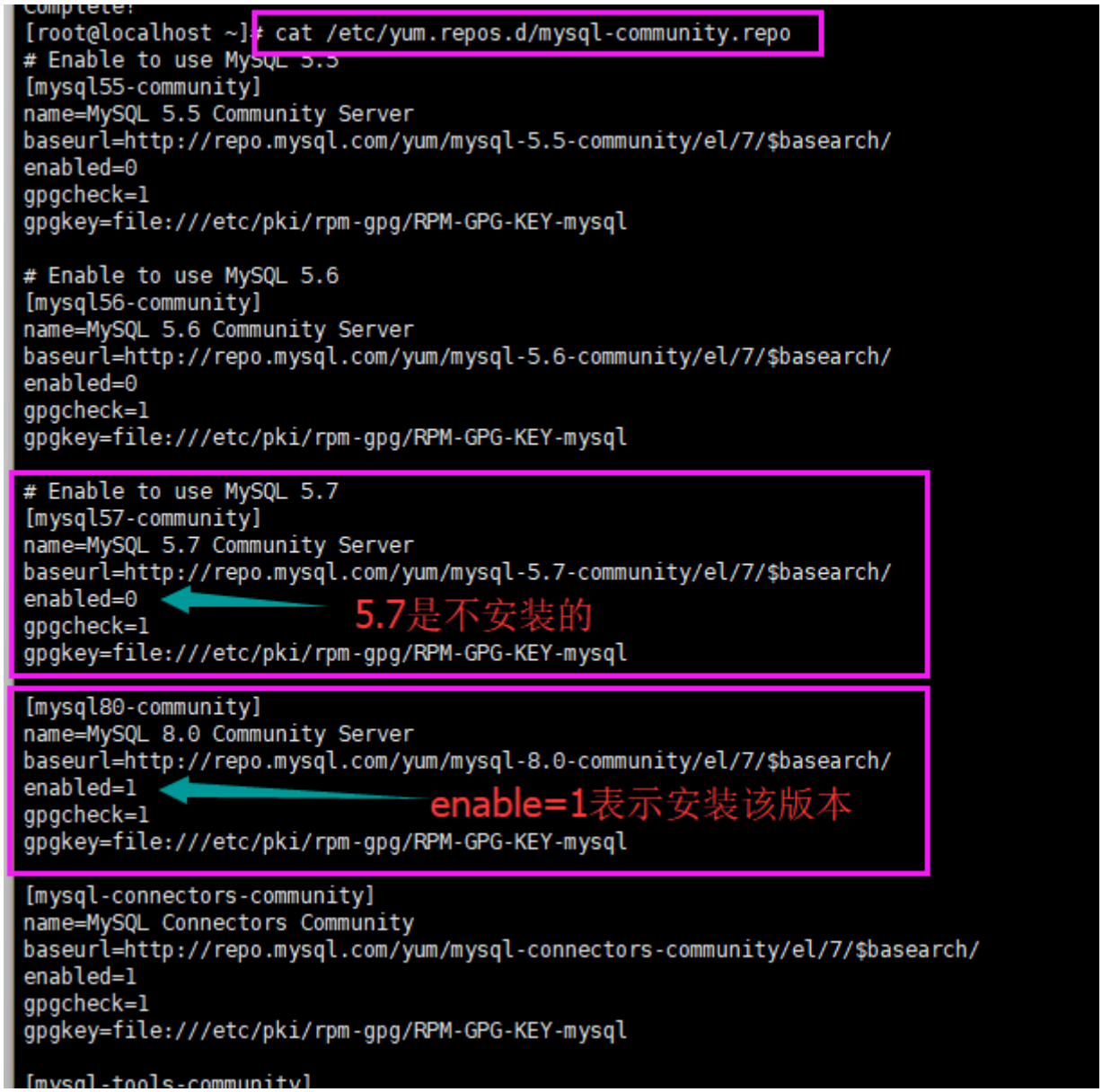
```
[root@localhost ~]# ll
total 32
-rw-------. 1 root root  1258 Aug 22  2018 anaconda-ks.cfg
-rw-r--r--. 1 root root 25892 Jan 18 01:02 mysql80-community-release-el7-2.noarch.rpm
[root@localhost ~]#
```

安装 yum 的 rpm



3、修改默认的安装版本

然后就能查看一下 yum



但是这里我安装 5.7 版的，故要做一些修改，可以直接把 8.0 的 enable 设置为 0，把 5.7 的 enable 设置为 1，这样子使用 `yum install mysql-community-server` 安装就默认安装 5.7 了，否则会安装 8.0。

除了上面的方法，官方还提供了另外的命令操作

```
// 不启用8.0版本的
yum-config-manager --disable mysql80-community
// 启用5.7版本的
yum-config-manager --enable mysql57-community
```

操作这两条命令

```
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
[root@localhost ~]# yum-config-manager --disable mysql80-community
Loaded plugins: fastestmirror
================================================================================
[mysql80-community]
async = True
bandwidth = 0
base_persistdir = /var/lib/yum/repos/x86_64/7
baseurl = http://repo.mysql.com/yum/mysql-8.0-community/el/7/x86_64/
cache = 0
cachedir = /var/cache/yum/x86_64/7/mysql80-community
check_config_file_age = True
compare_providers_priority = 80
cost = 1000
deltarpm_metadata_percentage = 100
deltarpm_percentage =
enabled = 0
enablegroups = True
exclude =
failovermethod = priority
ftp_disable_epsv = False
gpgcadir = /var/lib/yum/repos/x86_64/7/mysql80-community/gpgcadir
gpgcakey =
gpgcheck = True
gpgdir = /var/lib/yum/repos/x86_64/7/mysql80-community/gpgdir
gpgkey = file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
hdrdir = /var/cache/yum/x86_64/7/mysql80-community/headers
http_caching = all
includepkgs =
ip_resolve =
```

```
[root@localhost ~]# yum-config-manager --enable mysql57-community
Loaded plugins: fastestmirror
================================================================================
[mysql57-community]
async = True
bandwidth = 0
base_persistdir = /var/lib/yum/repos/x86_64/7
baseurl = http://repo.mysql.com/yum/mysql-5.7-community/el/7/x86_64/
cache = 0
cachedir = /var/cache/yum/x86_64/7/mysql57-community
check_config_file_age = True
compare_providers_priority = 80
cost = 1000
deltarpm_metadata_percentage = 100
deltarpm_percentage =
enabled = 1
enablegroups = True
exclude =
failovermethod = priority
ftp_disable_epsv = False
gpgcadir = /var/lib/yum/repos/x86_64/7/mysql57-community/gpgcadir
gpgcakey =
gpgcheck = True
gpgdir = /var/lib/yum/repos/x86_64/7/mysql57-community/gpgdir
gpgkey = file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
hdrdir = /var/cache/yum/x86_64/7/mysql57-community/headers
http_caching = all
```

再 cat 一下，可以看到 5.7 是 enable=1 了

```
[root@localhost ~]# cat /etc/yum.repos.d/mysql-community.repo
# Enable to use MySQL 5.5
[mysql55-community]
name=MySQL 5.5 Community Server
baseurl=http://repo.mysql.com/yum/mysql-5.5-community/el/7/$basearch/
enabled=0
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql

# Enable to use MySQL 5.6
[mysql56-community]
name=MySQL 5.6 Community Server
baseurl=http://repo.mysql.com/yum/mysql-5.6-community/el/7/$basearch/
enabled=0
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql

# Enable to use MySQL 5.7
[mysql57-community]
name=MySQL 5.7 Community Server
baseurl=http://repo.mysql.com/yum/mysql-5.7-community/el/7/$basearch/
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql

[mysql80-community]
name=MySQL 8.0 Community Server
baseurl=http://repo.mysql.com/yum/mysql-8.0-community/el/7/$basearch/
enabled=0
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql

[mysql-connectors-community]
name=MySQL Connectors Community
```

也可以使用如下命令，看看启用了哪个版本

```
[root@localhost ~]# yum repolist enabled | grep mysql
mysql-connectors-community/x86_64       MySQL Connectors Community          95
mysql-tools-community/x86_64            MySQL Tools Community               84
mysql57-community/x86_64                MySQL 5.7 Community Server         327
[root@localhost ~]#
```

4、安装 5.7

安装

```
yum install mysql-community-server
```

5、启动 MySQL

有个 EL7 的概念，EL 是 Red Hat Enterprise Linux 的缩写，EL7 就是 Red Hat7 版本、CentOS7 版本。

对于 EL7 平台，官方推荐首选用如下命令启动

```
systemctl start mysqld.service
```

查看状态命令（首选）

```
systemctl status mysqld.service
```

```
Complete!
[root@localhost ~]# systemctl start mysqld.service
[root@localhost ~]# systemctl status mysqld.service
● mysqld.service - MySQL Server
   Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled; vendor preset: disabled)
   Active: active (running) since Tue 2019-04-09 22:38:01 EDT; 13s ago
     Docs: man:mysqld(8)
           http://dev.mysql.com/doc/refman/en/using-systemd.html
  Process: 19651 ExecStart=/usr/sbin/mysqld --daemonize --pid-file=/var/run/mysqld/mysqld.pid $MYSQLD_OPTS (code=exited, status=0/SUCCESS)
  Process: 19561 ExecStartPre=/usr/bin/mysqld_pre_systemd (code=exited, status=0/SUCCESS)
 Main PID: 19654 (mysqld)
   CGroup: /system.slice/mysqld.service
           └─19654 /usr/sbin/mysqld --daemonize --pid-file=/var/run/mysqld/mysqld.pid

Apr 09 22:37:53 localhost.localdomain systemd[1]: Starting MySQL Server...
Apr 09 22:38:01 localhost.localdomain systemd[1]: Started MySQL Server.
[root@localhost ~]#
```

6、设置 root 密码

5.7 版本开始，默认会给我们一个 root 账户的临时密码，通过 mysqld.log 可以查看到。注意，xshell 的显示可能不能肉眼区分零或者大写字母 O，复制到其他文本查看即可。

```
[root@localhost ~]# grep 'temporary password' /var/log/mysqld.log
2019-04-10T02:37:55.428325Z 1 [Note] A temporary password is generated for root@localhost: Yy?XJv8;lE!O
```

使用 root 账户登录 mysql，密码就是那个临时密码。登录成功会进入 MySQL 的交互 shell。

```
[root@localhost ~]# mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.7.25

Copyright (c) 2000, 2019, 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.

mysql>
```

更改 root 的密码（准确来说是本地访问数据库的 root 里面，即 `root'@'localhost`），注意，MySQL 默认使用 validate_password 插件，密码至少一个大写字母、一个小写字母、一个数字、一个特殊字符，并且总长度至少为 8 个字符。

```
ALTER USER 'root'@'localhost' IDENTIFIED BY 'xxxxxx';
```

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY '@[illegible]3.';
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
[root@localhost ~]# mysql -uroot -p
```

修改完了，可以试下重新登录。

```
[root@localhost ~]# mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 7
Server version: 5.7.25 MySQL Community Server (GPL)

Copyright (c) 2000, 2019, 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.

mysql>
```

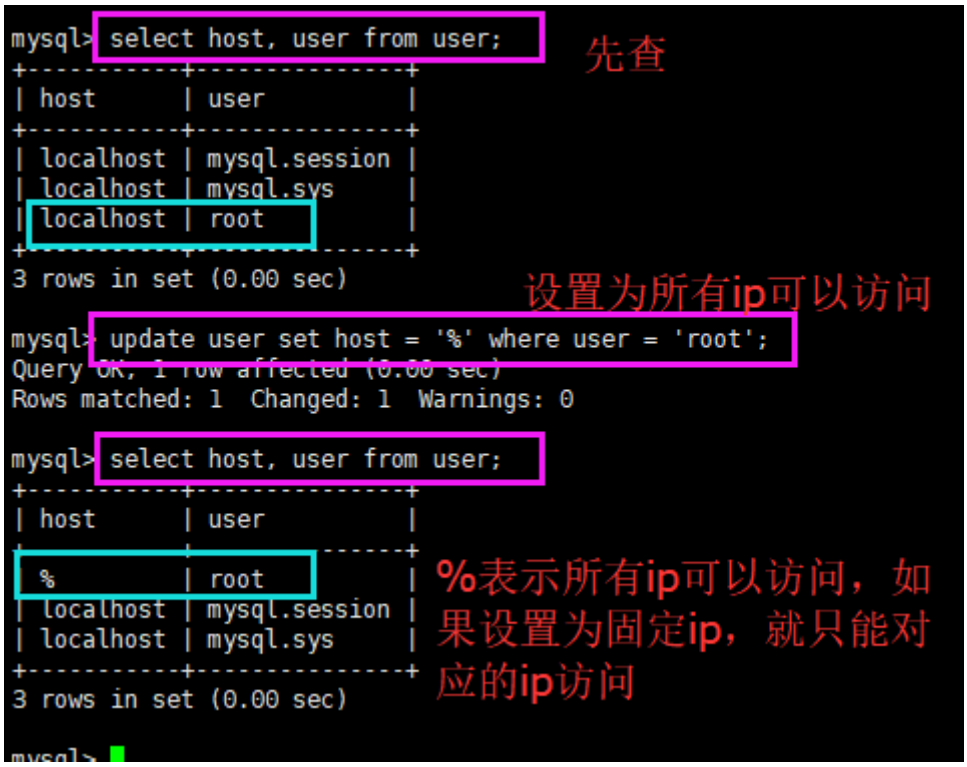
7、数据库授权

如果没有进行授权，那么只能是 mysql 所在的本机访问 mysql，而我的 mysql 在 centos7 的物理机上，我的 win10 要访问就无法访问了，故要授权。

root 用户本地登录之后，可以看到有个 user 表

```
mysql> use mysql;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+---------------------------+
| Tables_in_mysql           |
+---------------------------+
| columns_priv              |
| db                        |
| engine_cost               |
| event                     |
| func                      |
| general_log               |
| gtid_executed             |
| help_category             |
| help_keyword              |
| help_relation             |
| help_topic                |
| innodb_index_stats        |
| innodb_table_stats        |
| ndb_binlog_index          |
| plugin                    |
| proc                      |
| procs_priv                |
| proxies_priv              |
| server_cost               |
| servers                   |
| slave_master_info         |
| slave_relay_log_info      |
| slave_worker_info         |
| slow_log                  |
| tables_priv               |
| time_zone                 |
| time_zone_leap_second     |
| time_zone_name            |
| time_zone_transition      |
| time_zone_transition_type |
| user                      |
+---------------------------+
31 rows in set (0.00 sec)
```

操作数据库，进行授权。由于是开发用于测试，所以我这都设置为%，即所有 ip 都可以访问。



最后要清理一下缓存。

```
mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)
```

8、开放 3306 端口

查看已开放的端口列表

```
[root@localhost ~]# firewall-cmd --zone=public --list-ports
3690/tcp 9999/tcp
```

永久开放 3306 端口

```
[root@localhost ~]# firewall-cmd --zone=public --add-port=3306/tcp --permanent
success
```

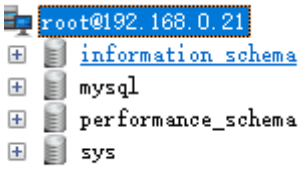
重新载入防火墙配置

```
[root@localhost ~]# firewall-cmd --reload
success
```

再查看。

```
[root@localhost ~]# firewall-cmd --zone=public --list-ports
3690/tcp 9999/tcp 3306/tcp
```

然后就可以在我的 win10 上访问 mysql 了。



结束日期：2019-04-10