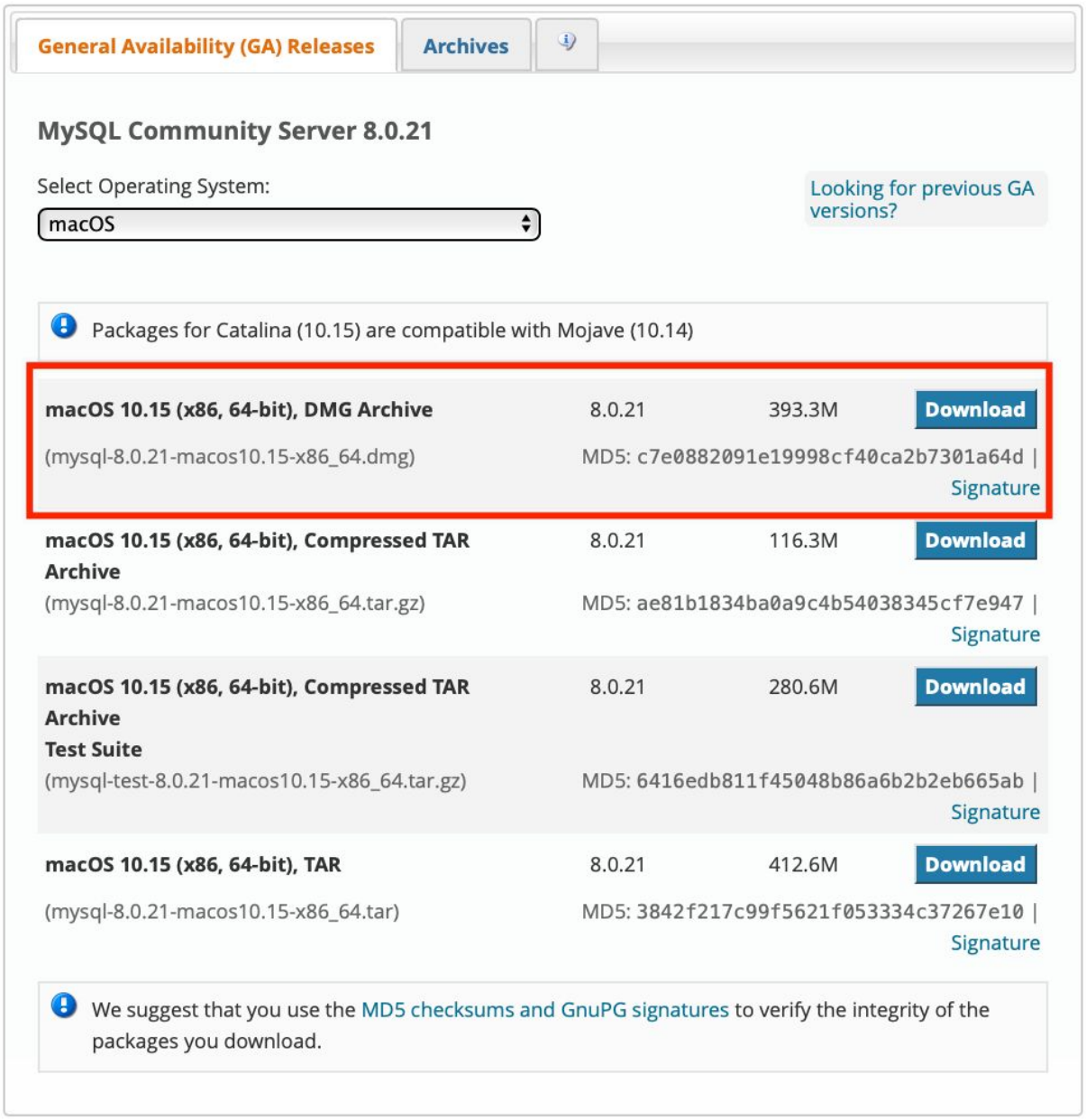
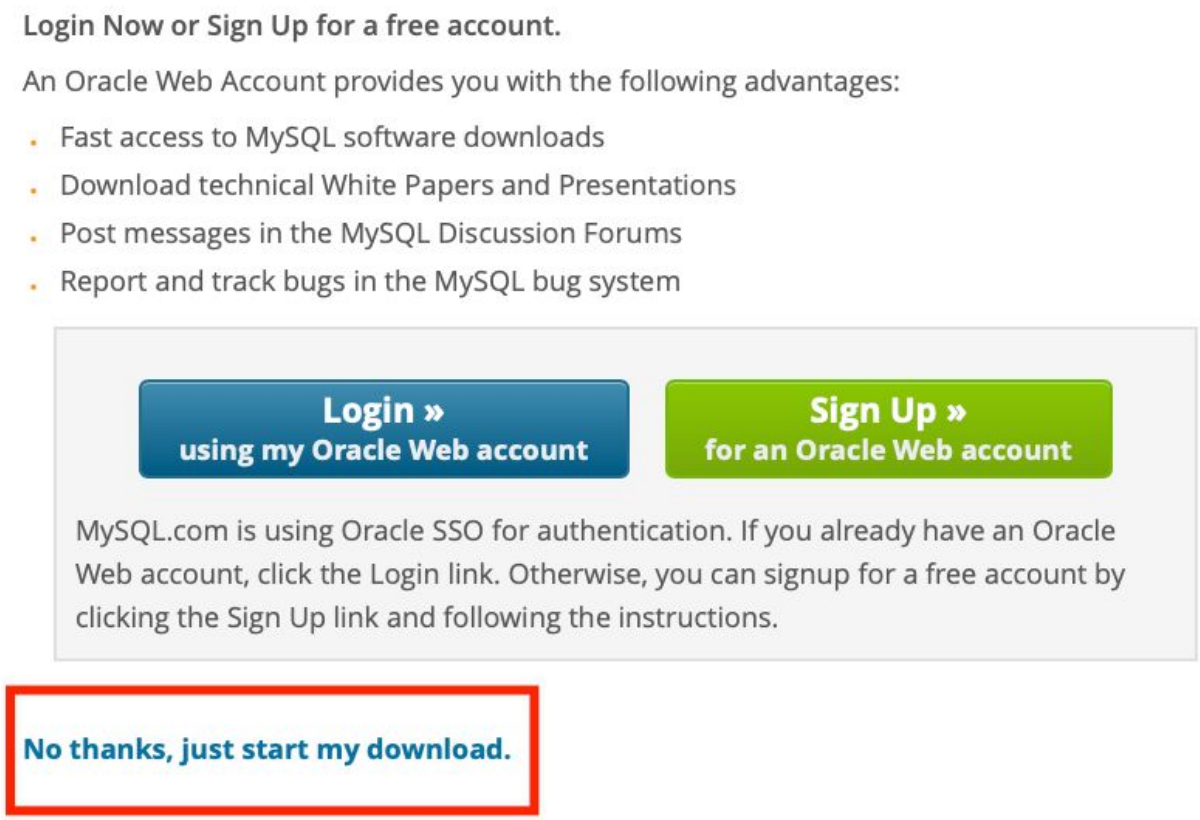
MySQL Installation Guide (OS X)

Step1- Install MySQL

Go to MySQL download page (http://dev.mysql.com/downloads/mysql/). Download the **DMG archive** version. Select the correct installer based on your system.

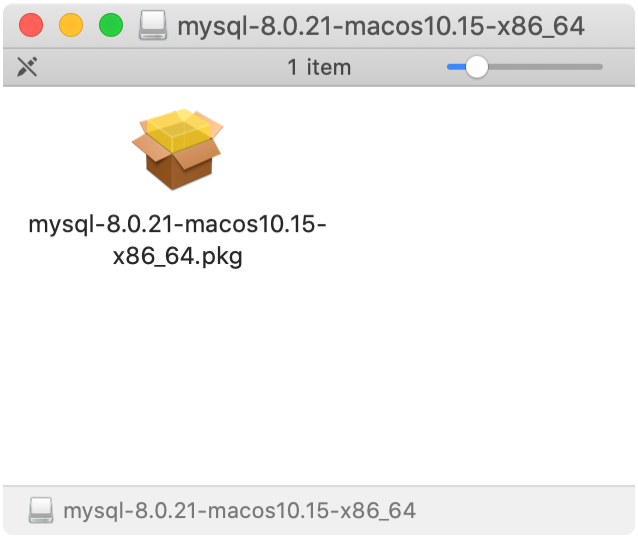


If the website asks you to login, you can just ignore it by clicking the left bottom link.



The following description is based on MySQL 8.0.21 for macOS.

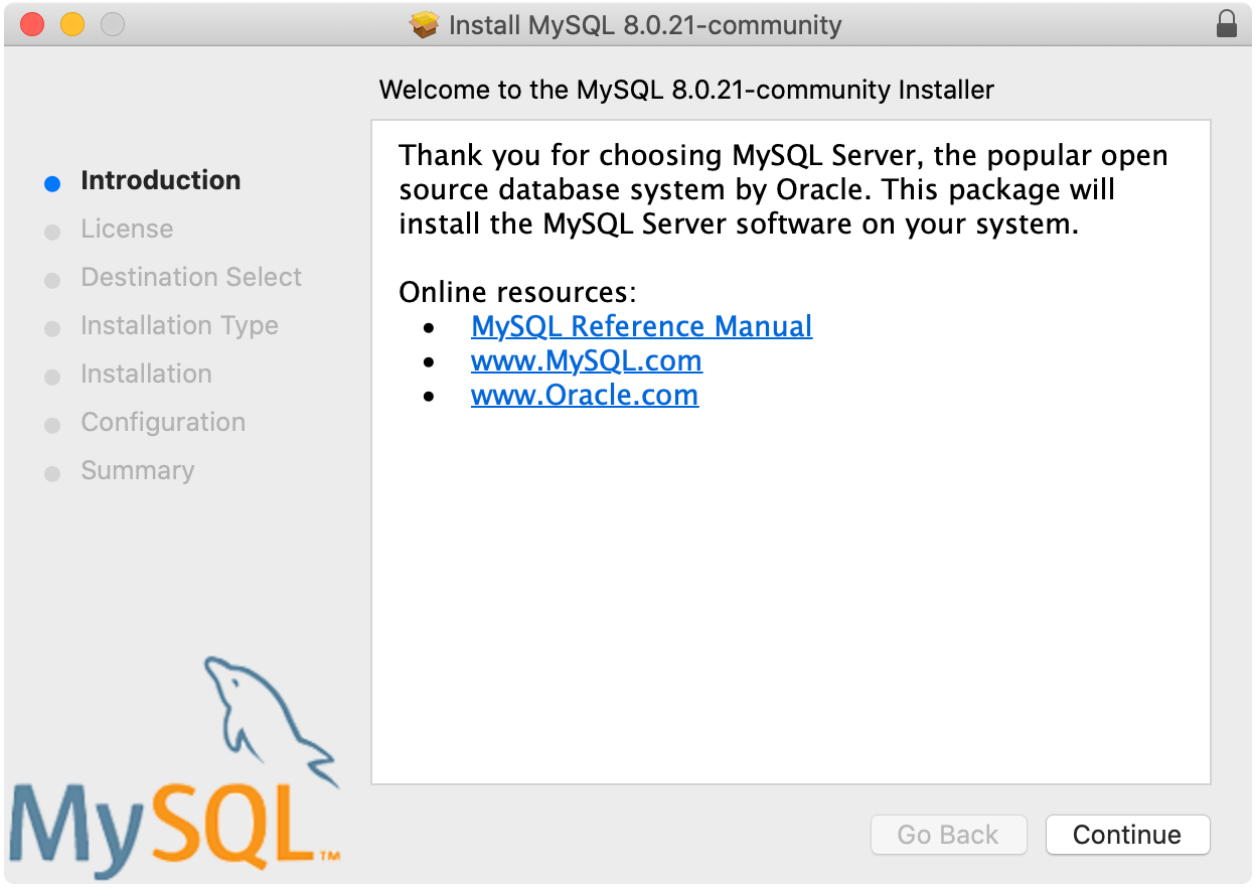
1. Open the downloaded image.



2. Double click the file and install mysql. Using the default setting in the installation process.

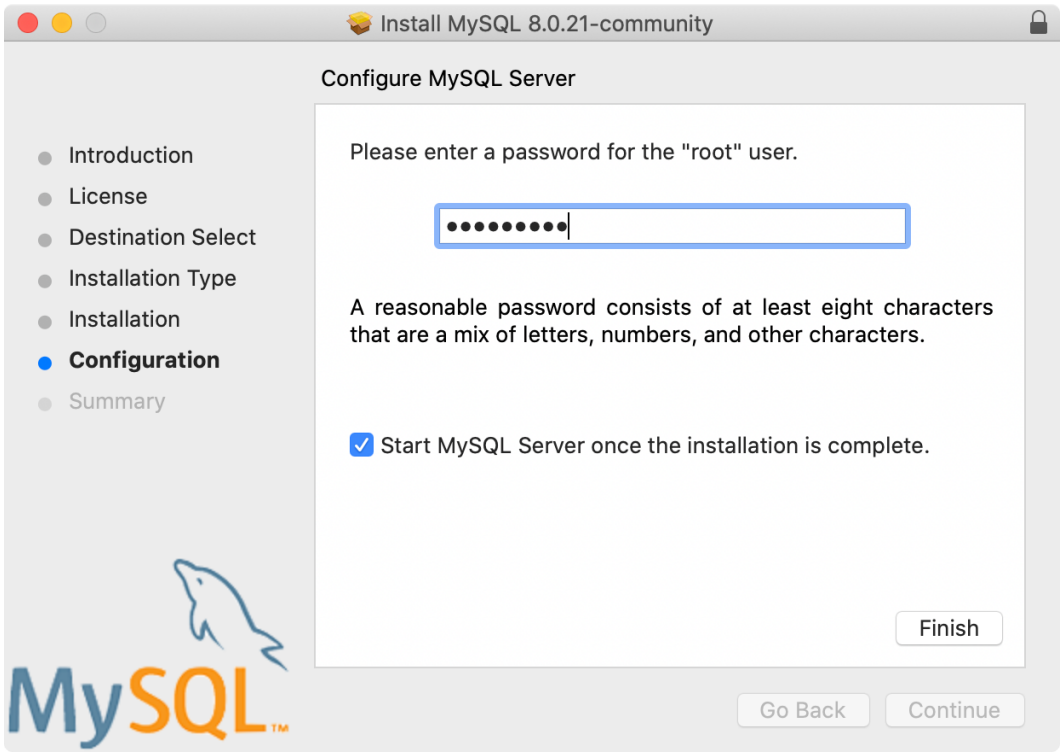
For detailed information, refer to the following page.

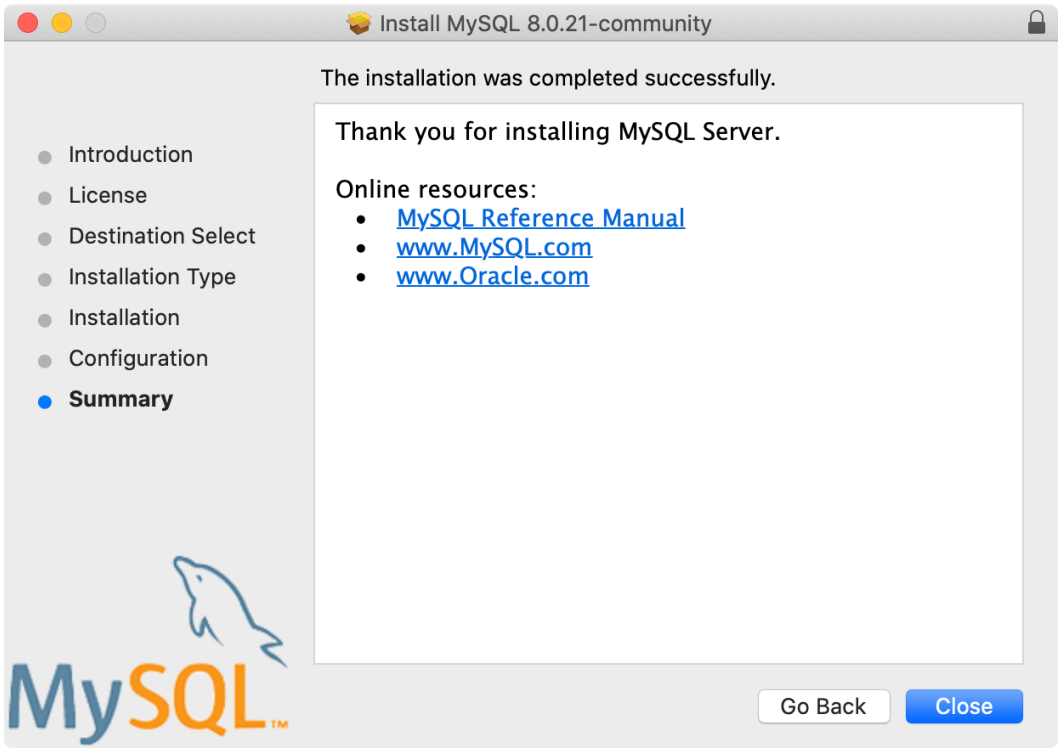
http://dev.mysql.com/doc/refman/8.0/en/osx-installation-pkg.html



3. MySQL introduced a stronger authentication method. For new MySQL users, you may choose the 1st option. **If you are on High Sierra, you should choose the 2nd.**

4. When you see the following pop-up, **please write down root password somewhere while you're creating one**. You need to create a root password and make sure that you keep track of this password.

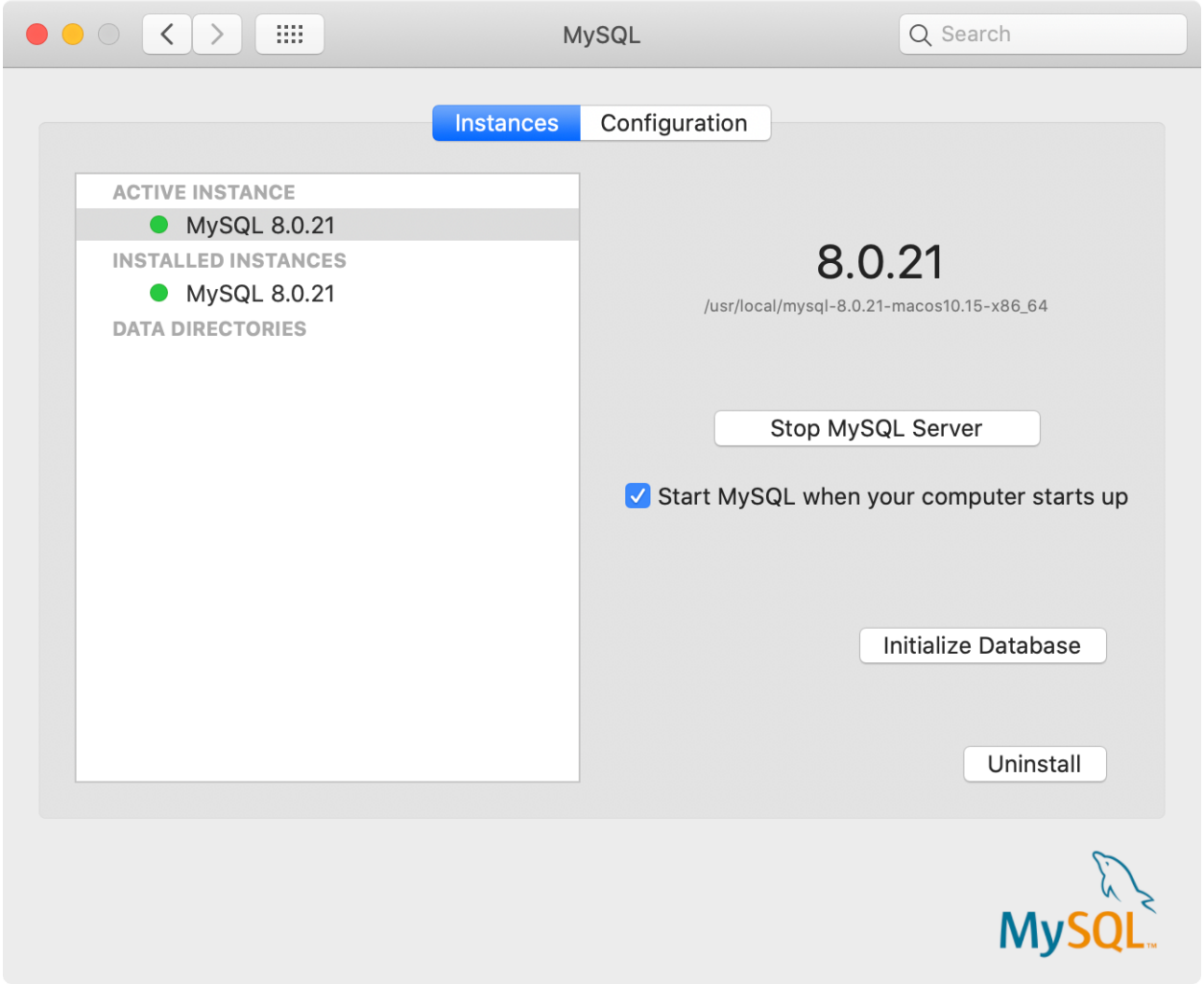




4. After the installation is finished, you can see the MySql icon in '**System Preferences**'.

It will be running once it is installed successfully.

If you want to automatically start it whenever the machine is up, check “**Start MySQL when your computer starts up**”.



5. To verify that you have installed MySQL successfully, try to enter the following command in your command line.

mysql -u root -p

If your terminal cannot recognize command ‘mysql’, try the following command:

/usr/local/mysql/bin/mysql -u root -p

Enter password: **type your password here and press Enter.** If you see the following screen, that means MySQL is installed successfully.

```
yh@bogon ~ % /usr/local/mysql/bin/mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.21 MySQL Community Server - GPL

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owners.

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

mysql>
```
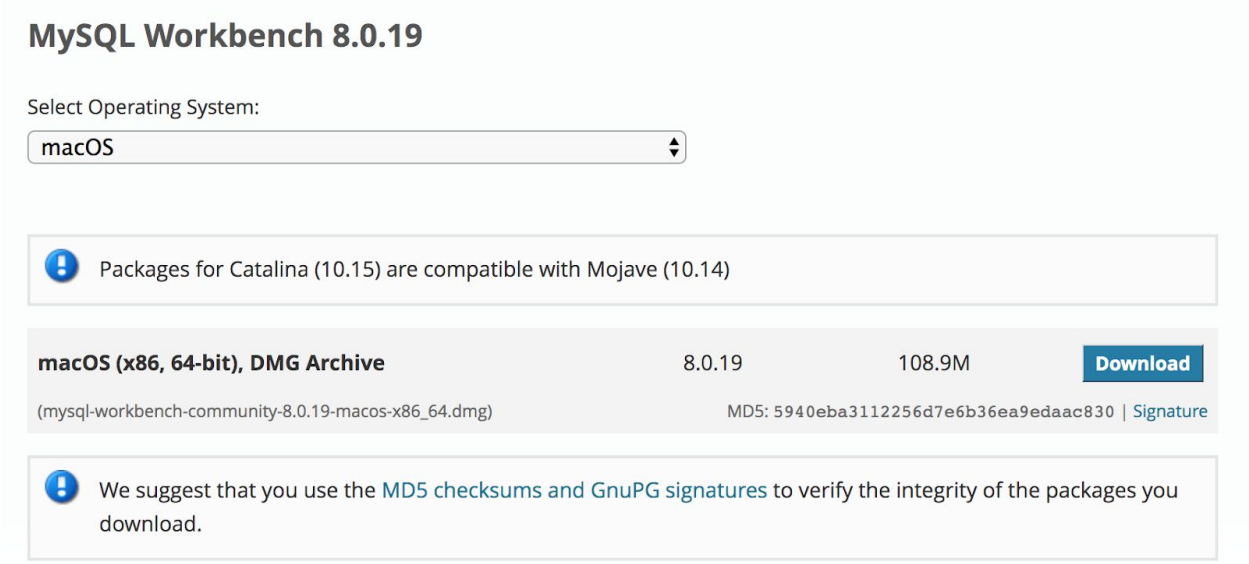

After connecting to mysql, you can use this terminal to dive into your databases and there are several command lines you might want to use: https://dev.mysql.com/doc/refman/8.0/en/mysql-commands.html. But usually we will use other tools to manipulate our databases and execute sqls. Terminal is not the best way to use databases.

Step2- Install MySQL Workbench

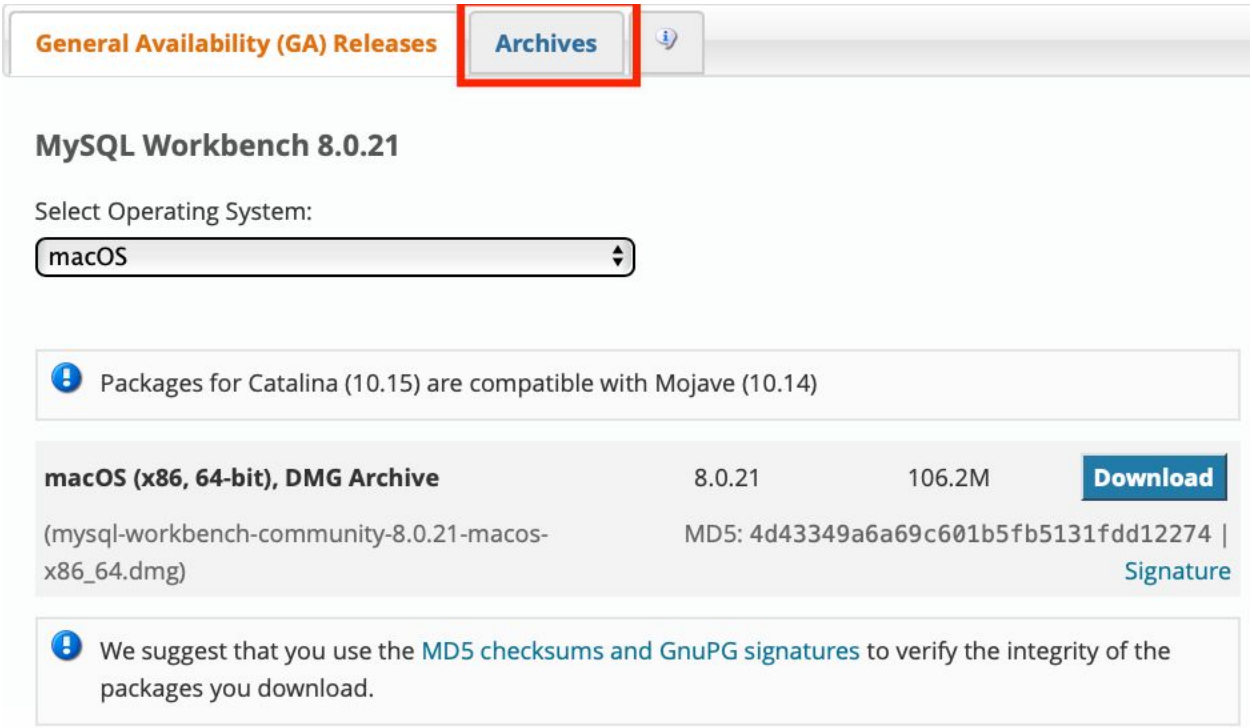
1. Download the MySQL workbench by visiting the download site (http://dev.mysql.com/downloads/workbench/). Download the DMG archive version.

Select the correct installer based on your system and download it.

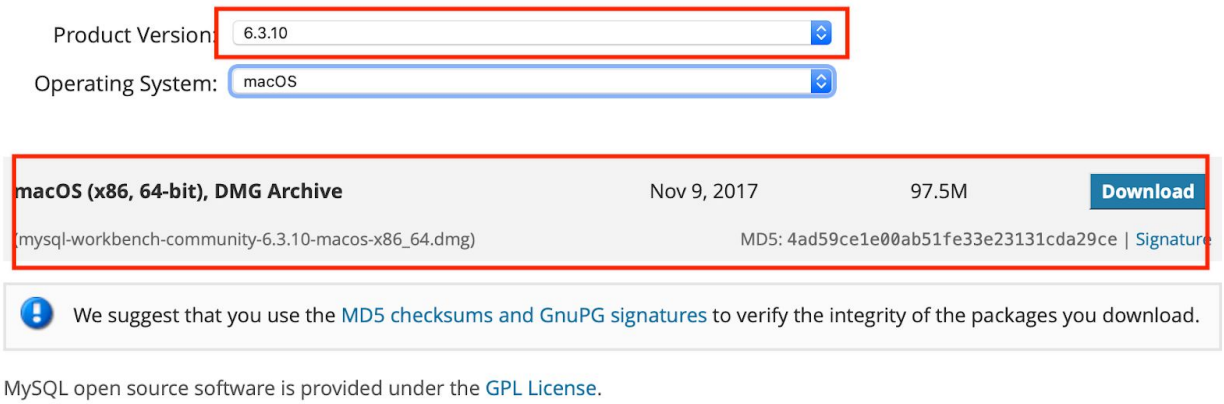


If your system is not the latest version, for example, High Sierra, then the latest version doesn't support your system. You probably need to download an older version.

(1) Click Archives on the top.



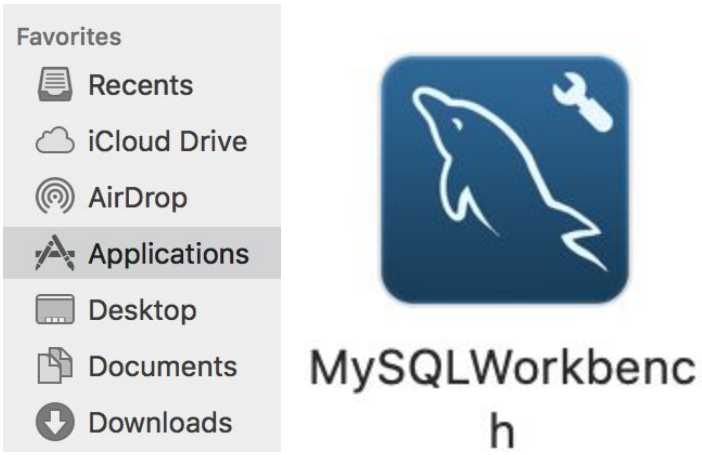
(2) Try to use the version of 6.3.10.



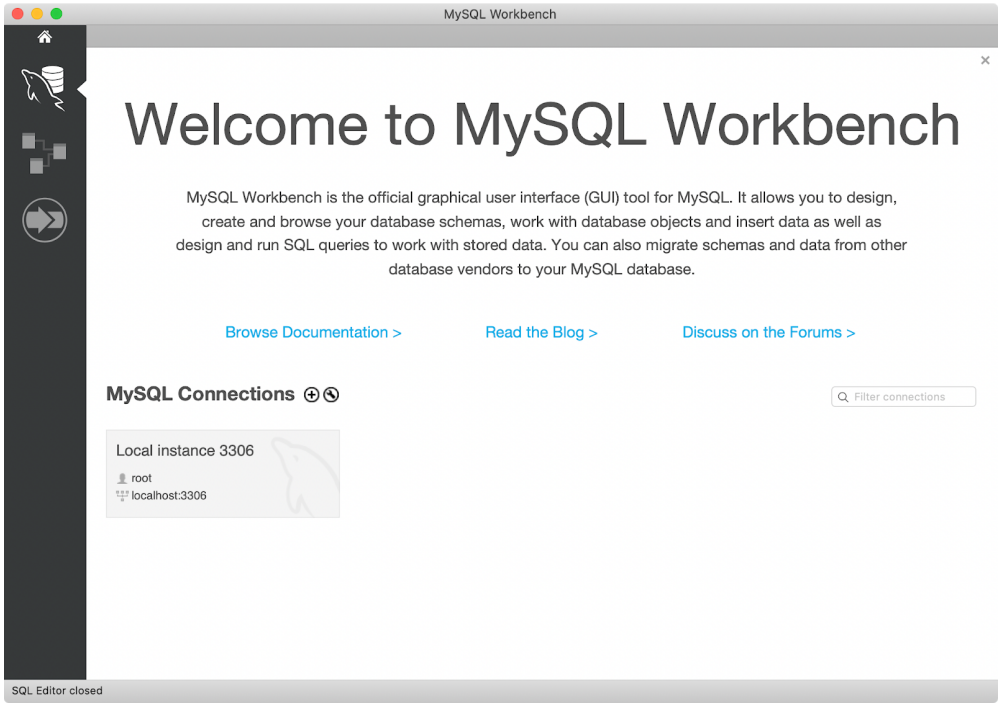
2. Open the image that you just downloaded. You will see the following.

3. Drag the MySQL Workbench icon to the Applications folder.

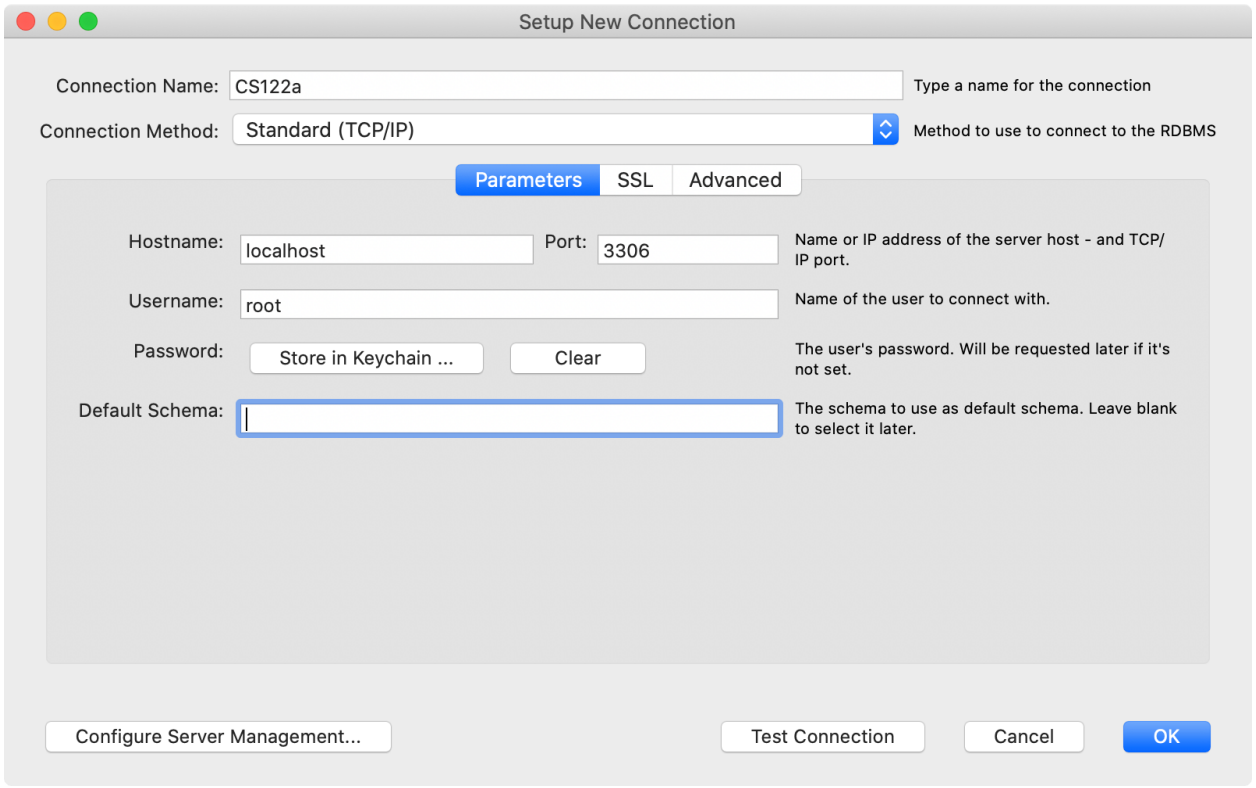
4. In the Applications folder, you can see the MySQLWorkbench. Execute it.



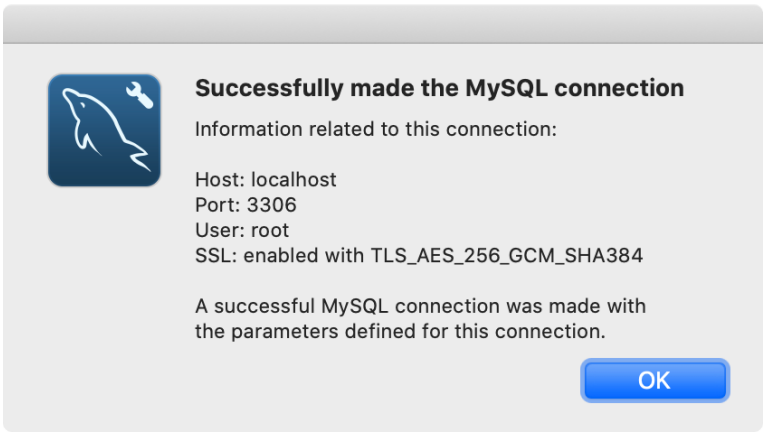
5. The following window will appear. Click on the '+' sign to set up a new connection. If you can see the default connection, you can use it instead of creating a new one.



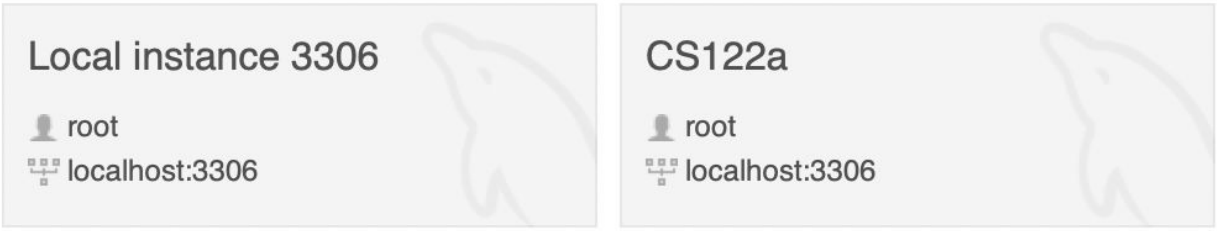
6. Give the connection a name (e.g., cs122a). Click the “Store in Keychain...” button to put the root password.



7. Click on “Test Connection” and type in your password. You will see the following message window. Click OK.



8. Click OK to close the “Setup New Connection” window. Now, you should see the new connection that you just created. Click it to start.



Step3- 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

Also, there are Boats2, Reserves2, and Sailors2 tables. These will contain slightly different data on the same schema to help you to practice SQL statements.

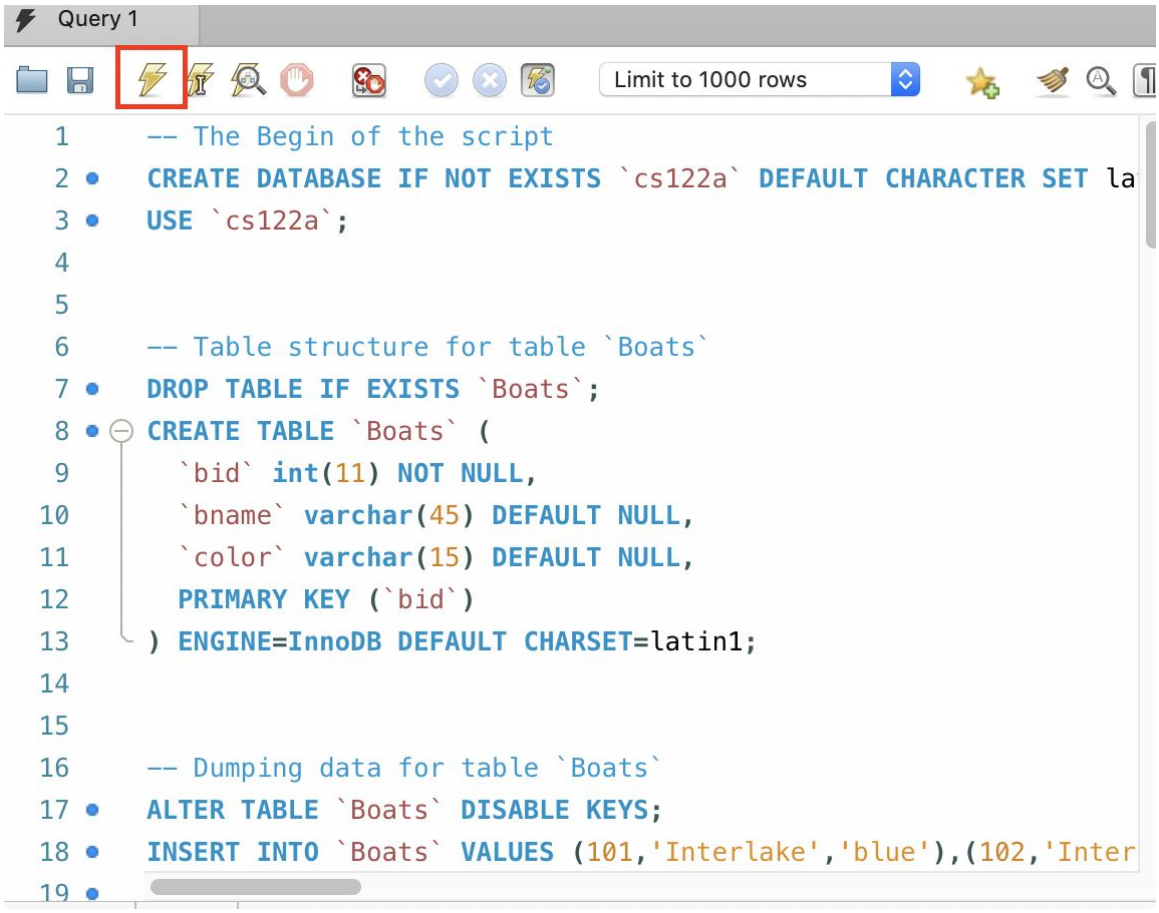
The following scripts will be used to create the schema named “cs122a”, three tables, and populate some data. **The script is also available on the class Web page. So do not copy and paste the following code since copying a text from this PDF file may not work well.**

```
-- The Begin of the script
CREATE DATABASE IF NOT EXISTS `cs122a` DEFAULT CHARACTER SET latin1;
USE `cs122a`;


-- Table structure for table `Boats`
DROP TABLE IF EXISTS `Boats`;
CREATE TABLE `Boats` (
  `bid` int(11) NOT NULL,
  `bname` varchar(45) DEFAULT NULL,
```

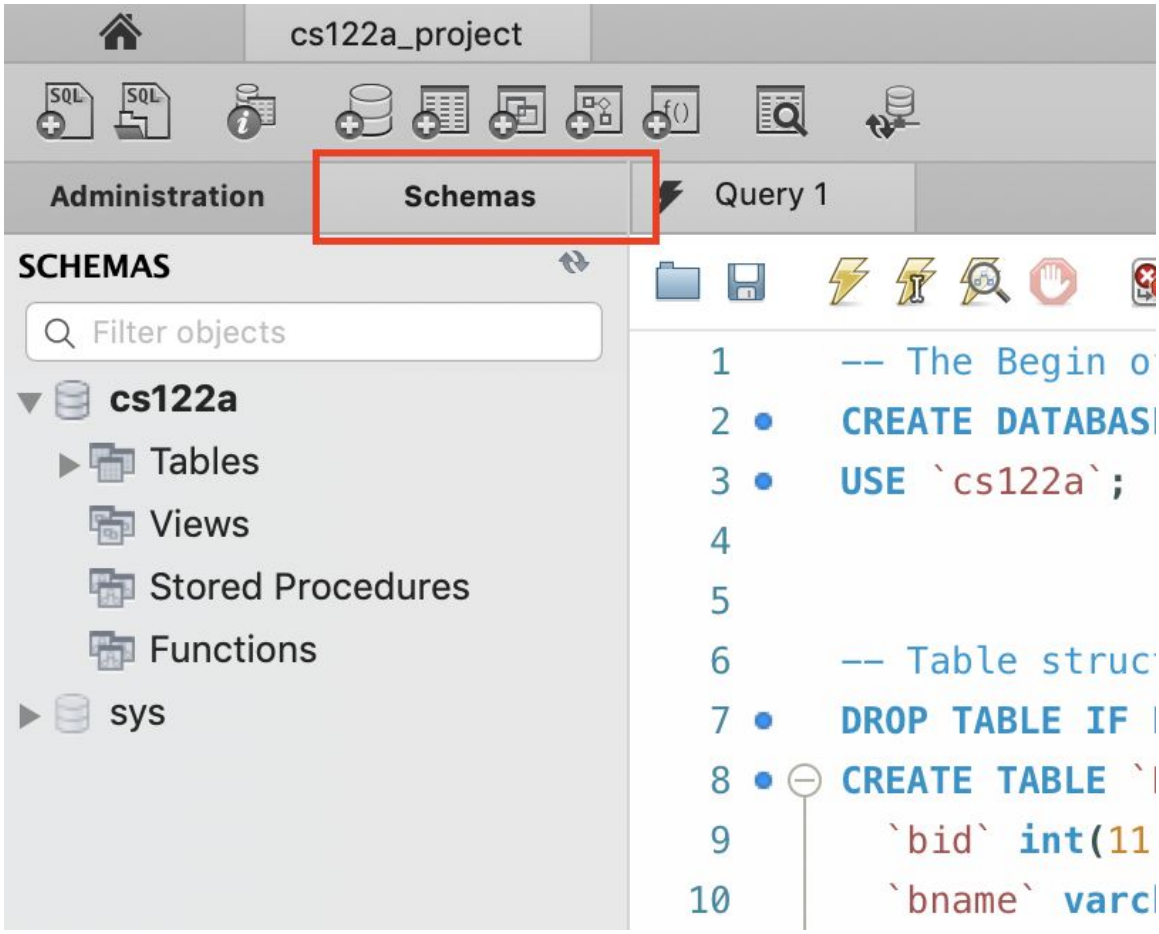
```
  `color` varchar(15) DEFAULT NULL,
  PRIMARY KEY (`bid`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Boats`
ALTER TABLE `Boats` DISABLE KEYS;
INSERT INTO `Boats` VALUES
(101,'Interlake','blue'),(102,'Interlake','red'),(103,'Clipper','green'),(104,'Marine','red');
ALTER TABLE `Boats` ENABLE KEYS;


-- Table structure for table `Boats2`
DROP TABLE IF EXISTS `Boats2`;
CREATE TABLE `Boats2` (
  `bid` int(11) NOT NULL,
  `bname` varchar(45) DEFAULT NULL,
  `color` varchar(15) DEFAULT NULL,
  PRIMARY KEY (`bid`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Boats2`
ALTER TABLE `Boats2` DISABLE KEYS;
INSERT INTO `Boats2` VALUES
(103,'Clipper','green'),(104,'Marine','red'),(105,'InterClipper','blue'),(106,'InterMarine','red');
ALTER TABLE `Boats2` ENABLE KEYS;


-- Table structure for table `Reserves`
DROP TABLE IF EXISTS `Reserves`;
CREATE TABLE `Reserves` (
  `sid` int(11) DEFAULT NULL,
  `bid` int(11) DEFAULT NULL,
  `date` date DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Reserves`
ALTER TABLE `Reserves` DISABLE KEYS;
INSERT INTO `Reserves` VALUES
(22,101,'1998-10-10'),(22,102,'1998-10-10'),(22,103,'1998-10-08'),(22,104,'1998-10-07'),(31,102,'1998-1
1-10'),(31,103,'1998-11-06'),(31,104,'1998-11-12'),(64,101,'1998-09-05'),(64,102,'1998-09-08'),(74,103,'
1998-09-08'),(NULL,103,'1998-09-09'),(1,NULL,'2001-01-11'),(1,NULL,'2002-02-02');
ALTER TABLE `Reserves` ENABLE KEYS;


-- Table structure for table `Reserves`
DROP TABLE IF EXISTS `Reserves2`;
CREATE TABLE `Reserves2` (
  `sid` int(11) DEFAULT NULL,
  `bid` int(11) DEFAULT NULL,
  `date` date DEFAULT NULL
```

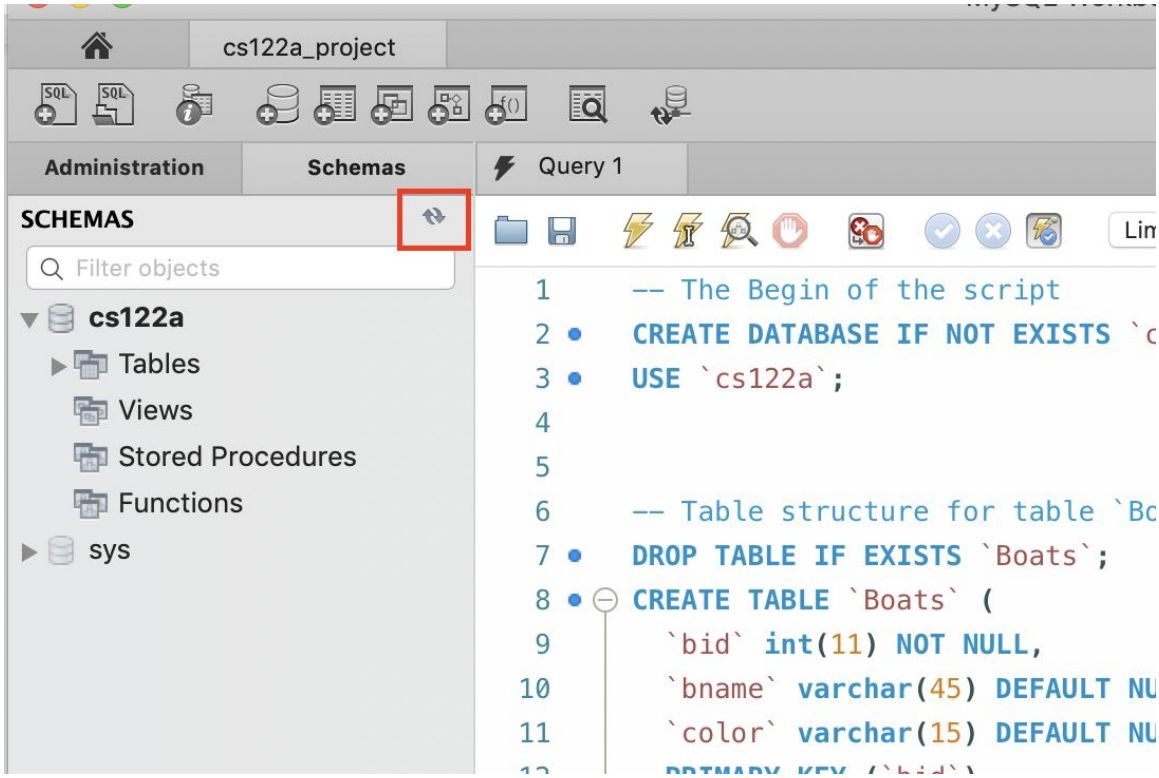
```
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Reserves2`
ALTER TABLE `Reserves2` DISABLE KEYS;
INSERT INTO `Reserves2` VALUES
(22,103,'1998-10-10'),(22,104,'1998-10-10'),(22,105,'1998-10-08'),(22,106,'1998-10-07'),(31,103,'1998-1
1-10'),(31,104,'1998-11-06'),(31,105,'1998-11-12'),(64,104,'1998-09-05'),(64,105,'1998-09-08'),(74,105,'
1998-09-08'),(NULL,104,'1998-09-09'),(108,NULL,'2001-01-11'),(108,NULL,'2002-02-02');
ALTER TABLE `Reserves2` ENABLE KEYS;


-- Table structure for table `Sailors`
DROP TABLE IF EXISTS `Sailors`;
CREATE TABLE `Sailors` (
  `sid` int(11) NOT NULL,
  `sname` varchar(45) NOT NULL,
  `rating` int(11) DEFAULT NULL,
  `age` decimal(5,1) DEFAULT NULL,
  PRIMARY KEY (`sid`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Sailors`
ALTER TABLE `Sailors` DISABLE KEYS;
INSERT INTO `Sailors` VALUES
(22,'Dustin',7,45.0),(29,'Brutus',1,33.0),(31,'Lubber',8,55.5),(32,'Andy',8,25.5),(58,'Rusty',10,35.0),(64,'H
oratio',7,35.0),(71,'Zorba',10,16.0),(74,'Horatio',9,35.0),(85,'Art',4,25.5),(95,'Bob',3,63.5),(101,'Joan',3,N
ULL),(107,'Johannes',NULL,35.0);
ALTER TABLE `Sailors` ENABLE KEYS;


-- Table structure for table `Sailors2`
DROP TABLE IF EXISTS `Sailors2`;
CREATE TABLE `Sailors2` (
  `sid` int(11) NOT NULL,
  `sname` varchar(45) NOT NULL,
  `rating` int(11) DEFAULT NULL,
  `age` decimal(5,1) DEFAULT NULL,
  PRIMARY KEY (`sid`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- Dumping data for table `Sailors2`
ALTER TABLE `Sailors2` DISABLE KEYS;
INSERT INTO `Sailors2` VALUES
(22,'Dustin',7,45.0),(31,'Lubber',8,55.5),(64,'Horatio',7,35.0),(71,'Zorba',10,16.0),(74,'Horatio',9,35.0),(85
,'Art',4,25.5),(95,'Bob',3,63.5),(101,'Joan',3,NULL),(107,'Johannes',NULL,35.0),(108,'Sandy',NULL,36.0),(1
09,'James',5,38.0);
ALTER TABLE `Sailors2` ENABLE KEYS;
-- The end of the script
```

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".



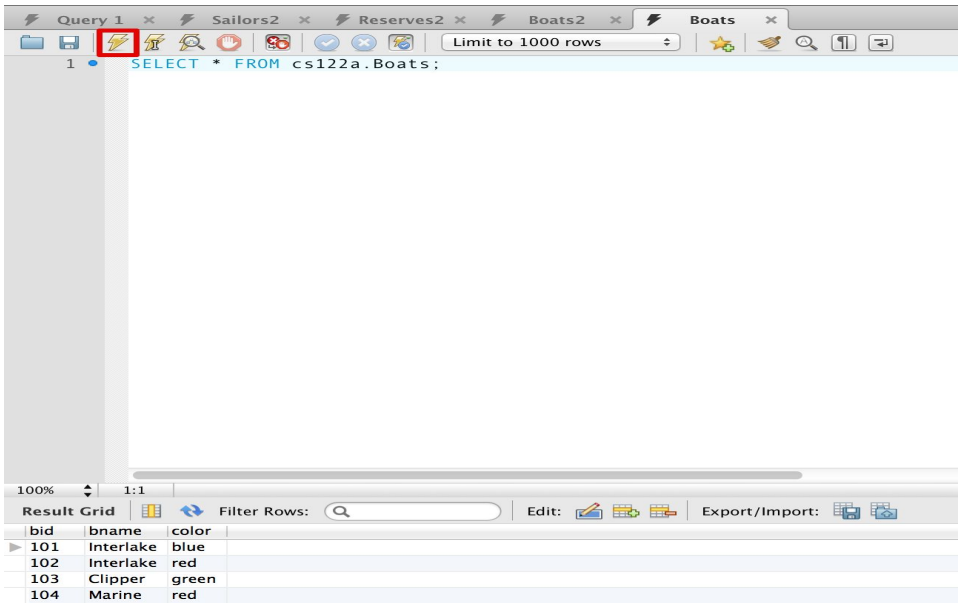
2. Go to the "schemas" panel on the left. Click the "Refresh" button and you will see the "cs122a" schema and its Tables.


cs122a_project
Administration
Schemas
Query 1
SCHEMAS
Filter objects
cs122a
Tables
Views
Stored Procedures
Functions
sys
1 -- The Begin o
2 CREATE DATABAS
3 USE `cs122a`;
4
5
6 -- Table struc
7 DROP TABLE IF
8 CREATE TABLE `
9 `bid` int(11
10 `bname` varc


cs122a_project
Administration
Schemas
Query 1
SCHEMAS
Filter objects
cs122a
Tables
Views
Stored Procedures
Functions
sys
-- The Begin of the script
CREATE DATABASE IF NOT EXISTS `c
USE `cs122a`;
-- Table structure for table `Bc
DROP TABLE IF EXISTS `Boats`;
CREATE TABLE `Boats` (
`bid` int(11) NOT NULL,
`bname` varchar(45) DEFAULT NU
`color` varchar(15) DEFAULT NU

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.