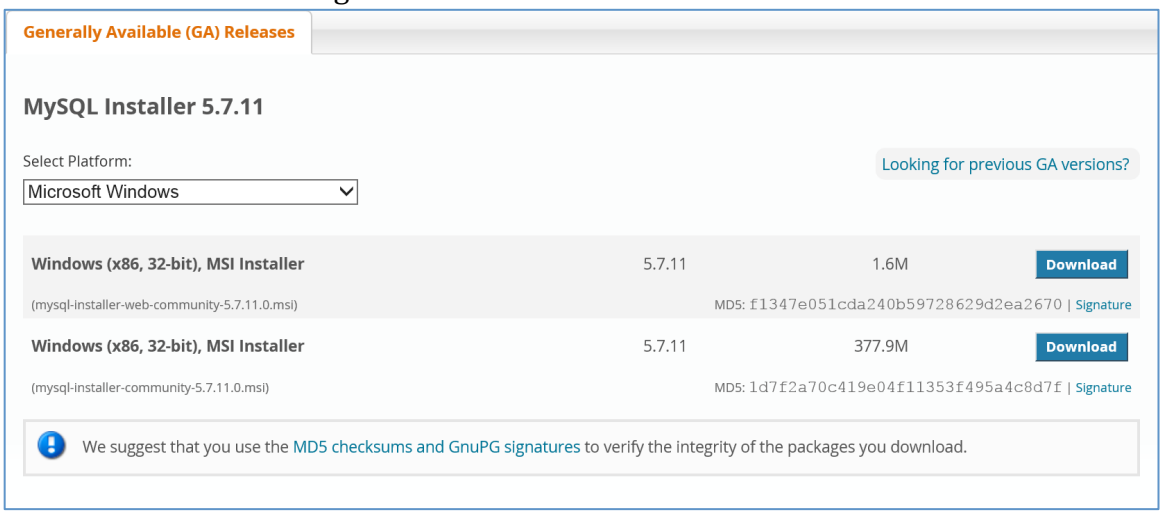
MySQL Installation Guide (Windows)

Step1- Install MySQL

The following description is based on **MySQL 5.7.11** for Windows. **Please download this version since the grading of your assignments will be done using this version**.

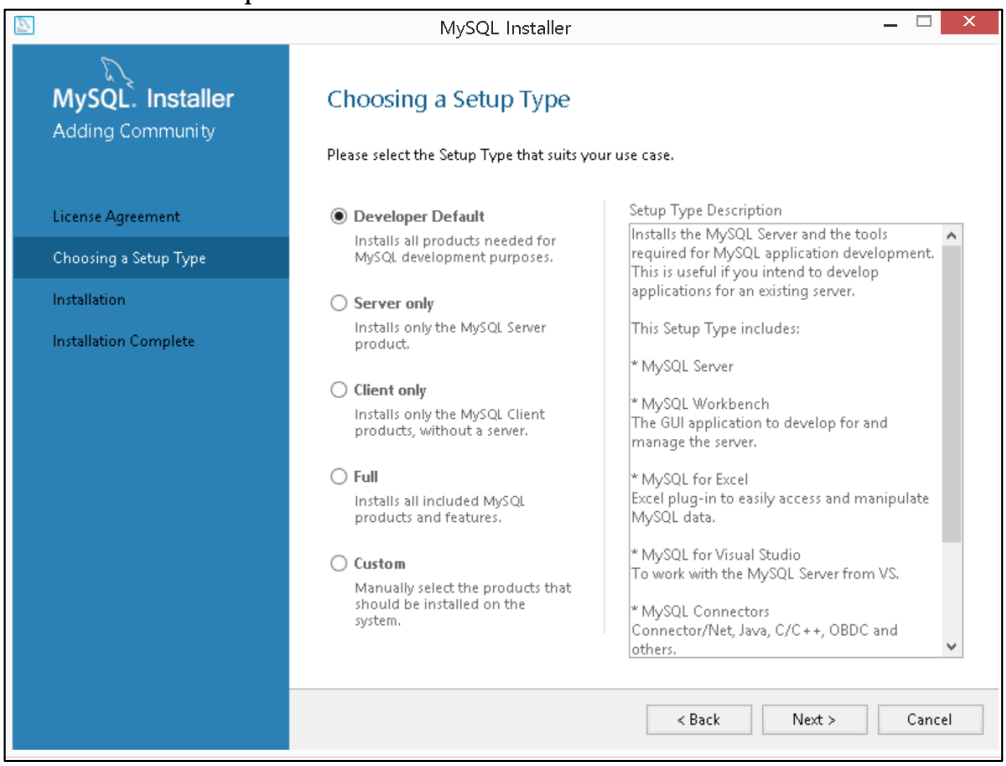
Go to MySQL download page (http://dev.mysql.com/downloads/mysql/). Click the **Windows MySQL Installer MSI** "Download" button.

You will see the following window. Download the Installer whose size is 377.9M.

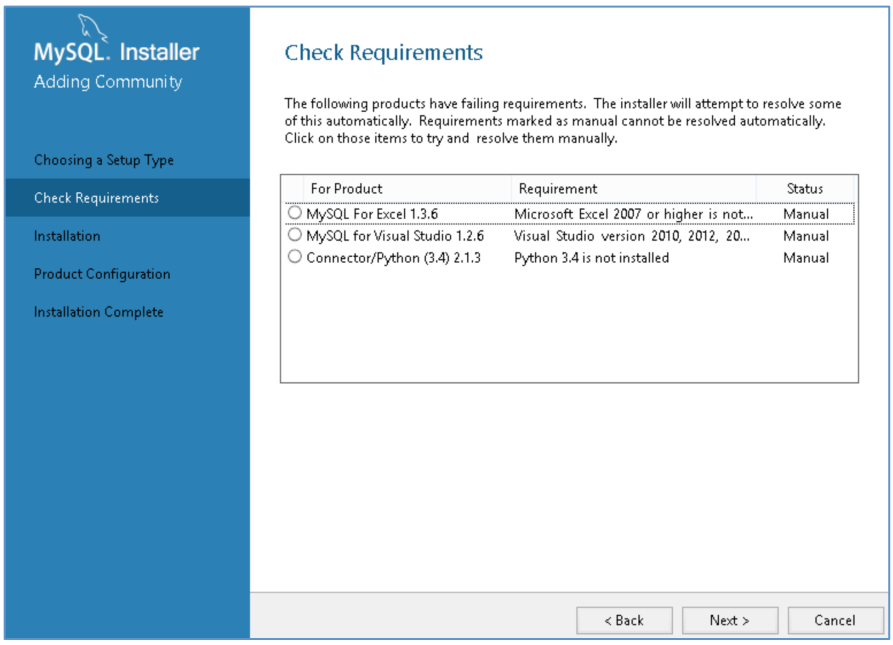


1. Execute the installer. Check “I accept the license terms.” if asked. Click “Next”.

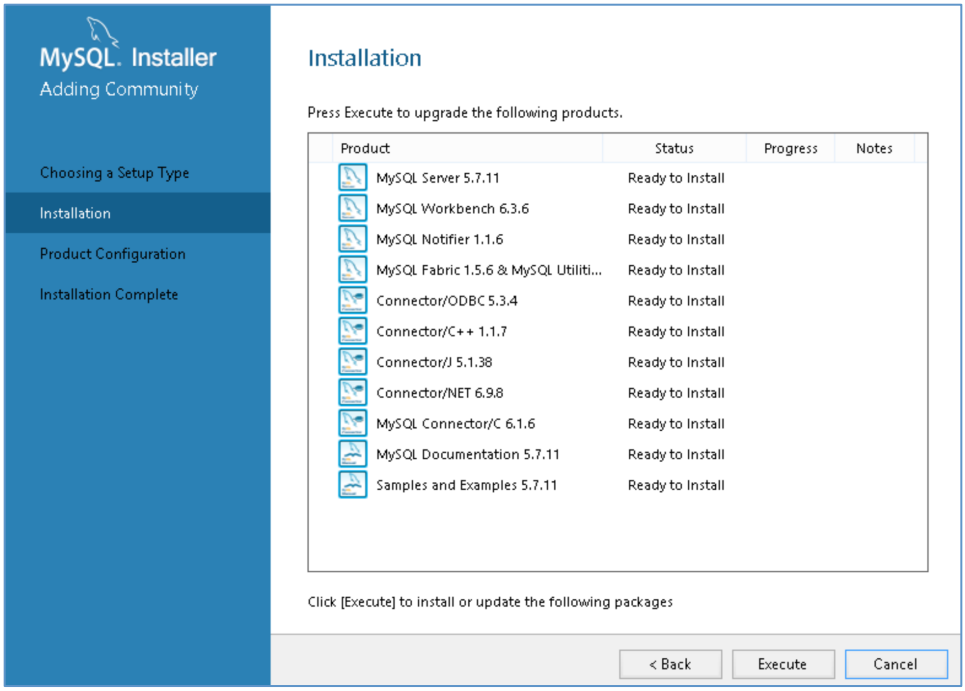
2. Choose “Developer Default” and click “Next”.



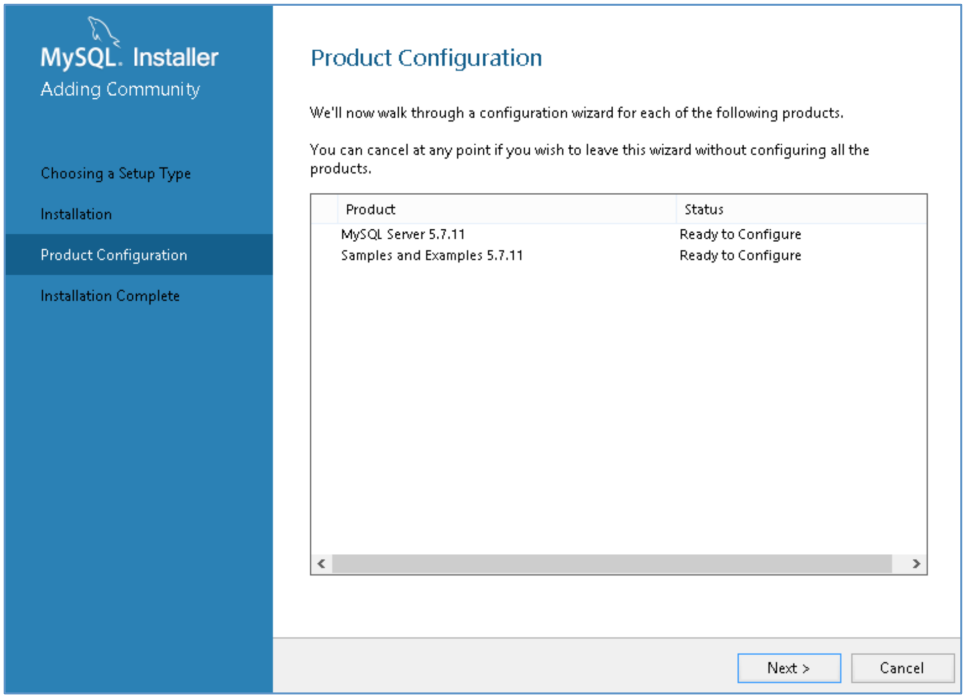
3. It may ask to resolve the certain requirements. Click “Next” to skip. These features mainly exist for supporting external development environments and applications (e.g., Excel, Visual Studio, or Python) and are not required for CS122A.



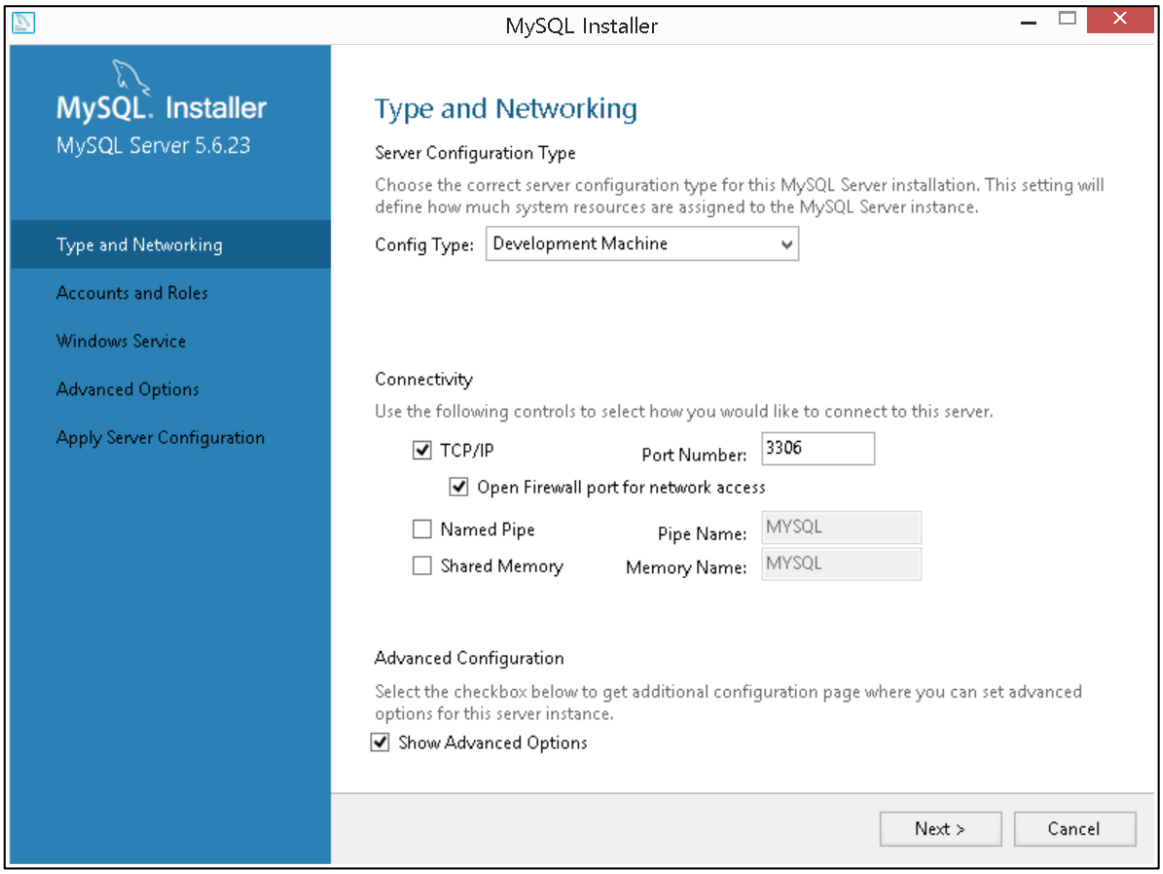
4. A list that contains the products that are going to be installed will appear. Click “Execute”. The installer is going to install these products.



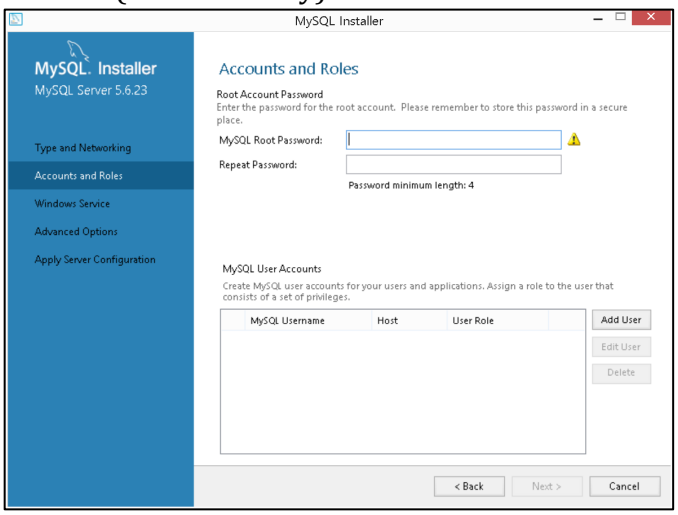
5. After done, it will ask you to configure the MySQL Server. Click “Next”.



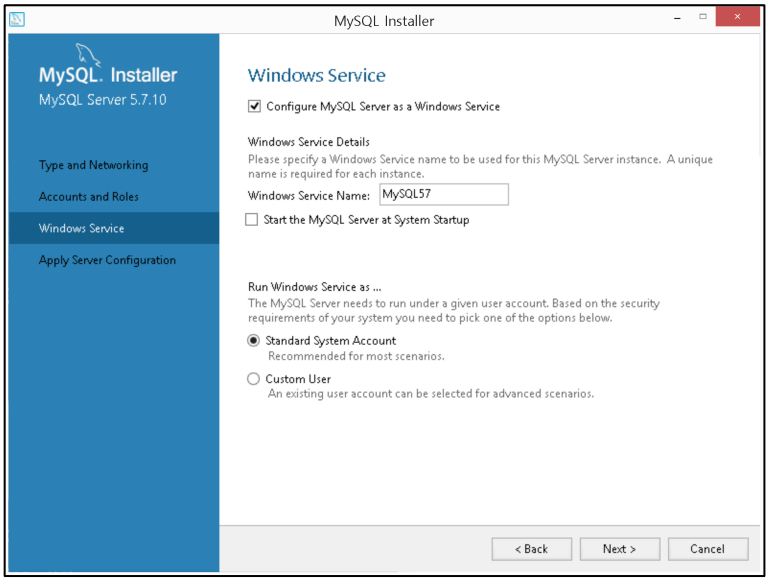
6. For the Config Type, choose “Development Machine”. For Connectivity, choose “TCP/IP” and enter 3306 as the port number. Also click “Show Advanced Options” then click “Next”.



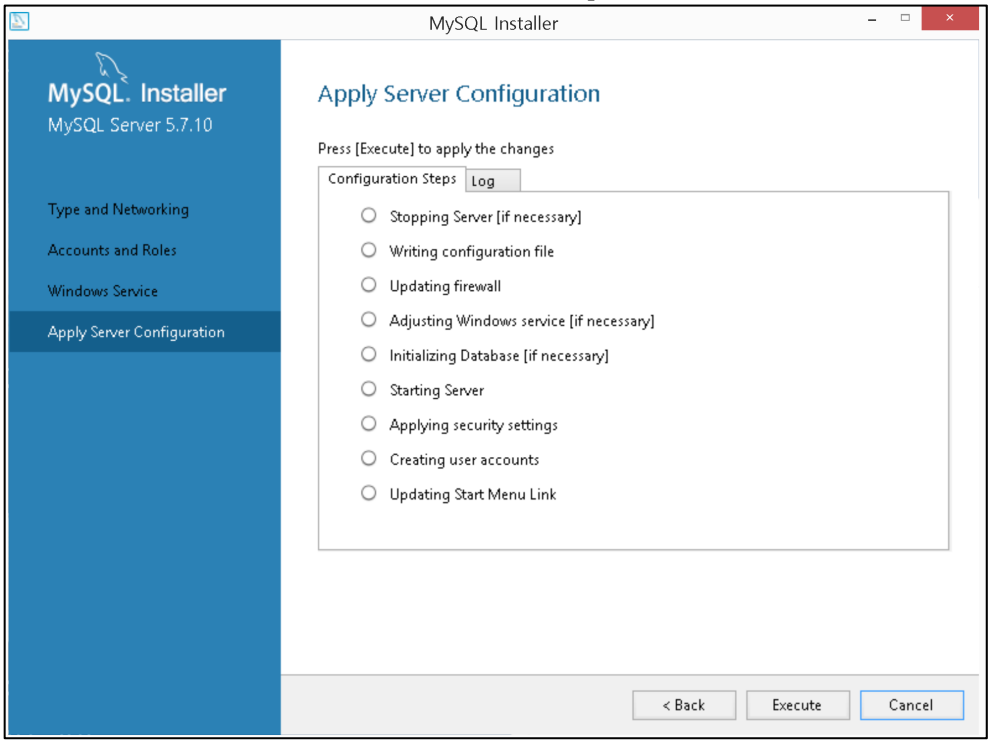
7. Set the root password. **The length should be at least 4**. You need to remember this to access your local MySQL instance later. Also, you can optionally create a user account (not necessary).



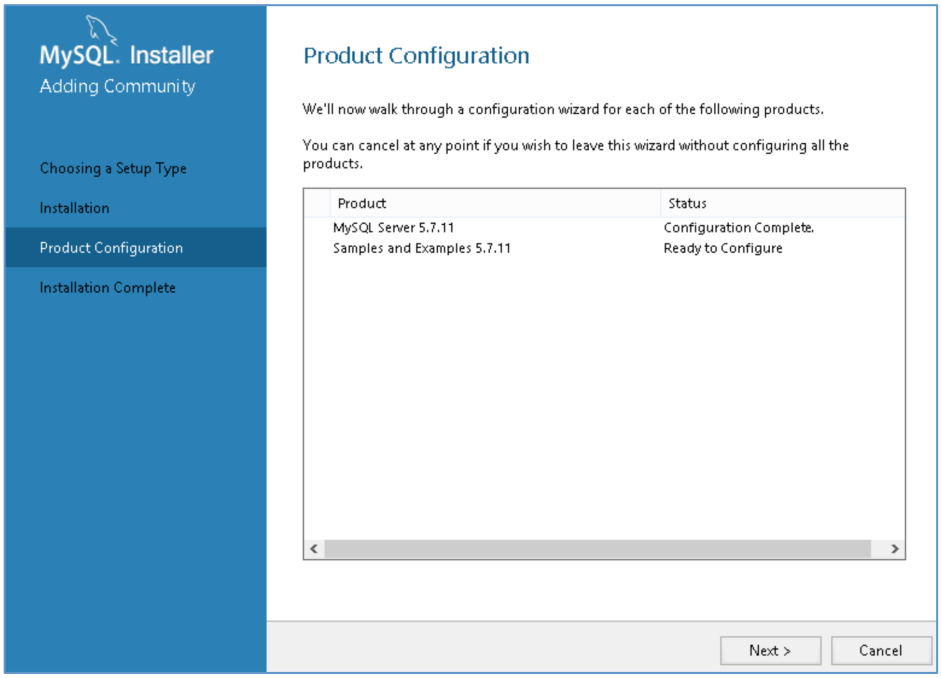
8. Select “Configure MySQL Server as a Windows Service” and select “Standard System Account”. You can also select “Start the MySQL Server at System Startup” to start MySQL service automatically every time the system starts. Click “Next”.



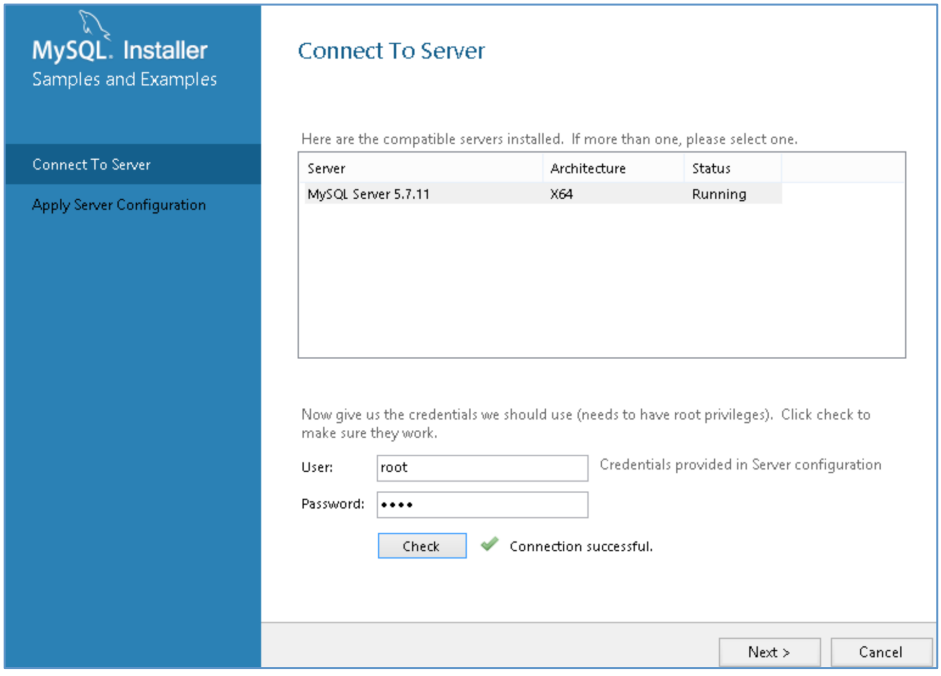
9. Click “Execute” to continue. After this step is done, click “Finish”.



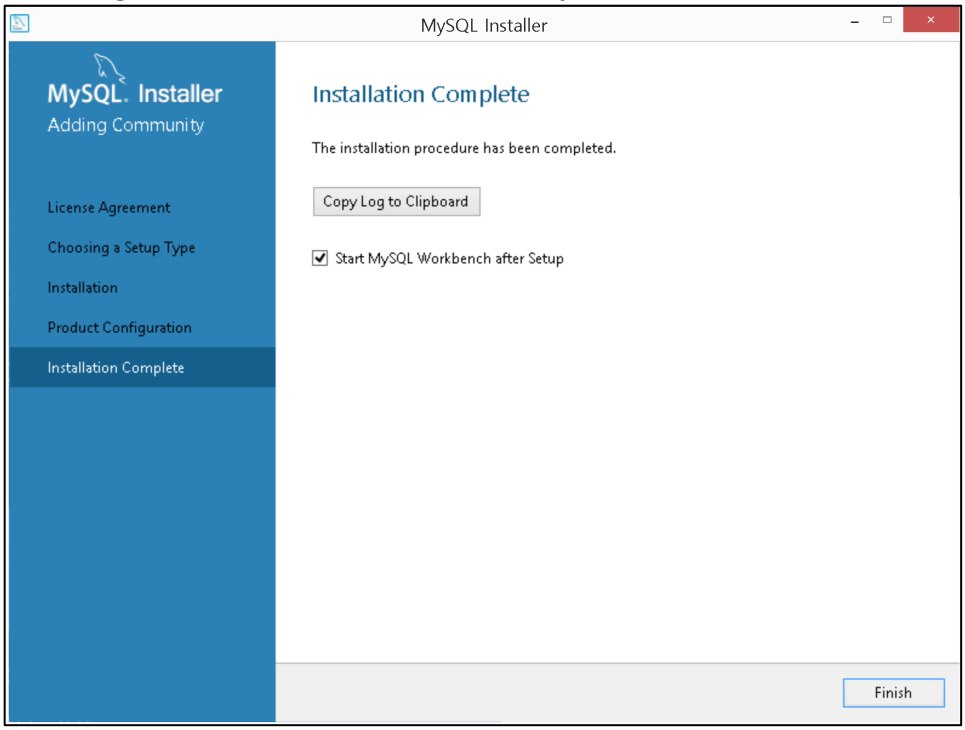
10. Click “Next”.



11. Click “Check” to check the connection. If it works well, click “Next” and then click “Execute” in the next screen.

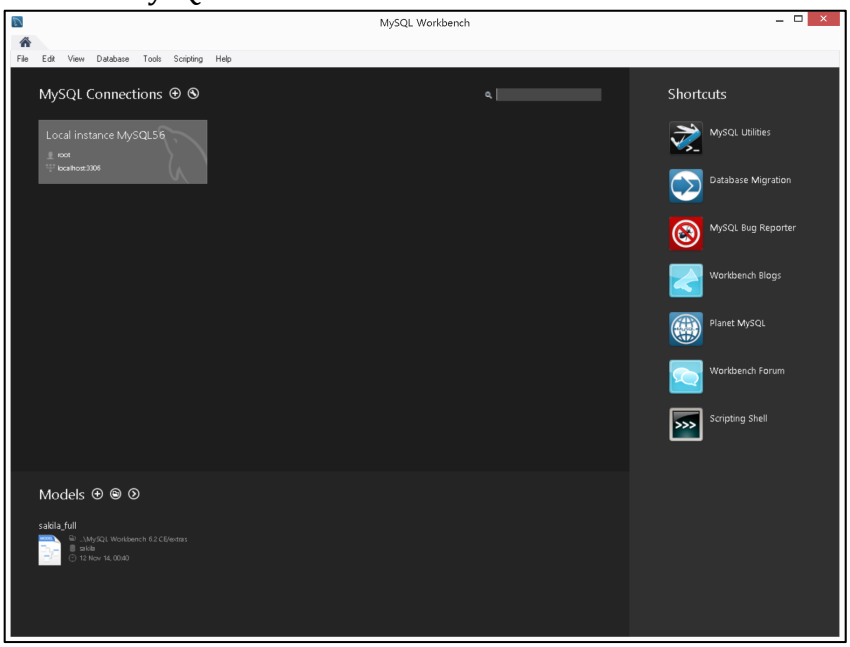


12. Once this configuration is completed, click “Finish”. Finally, you will see the following screen. Click “Finish” to start MySQL Workbench.

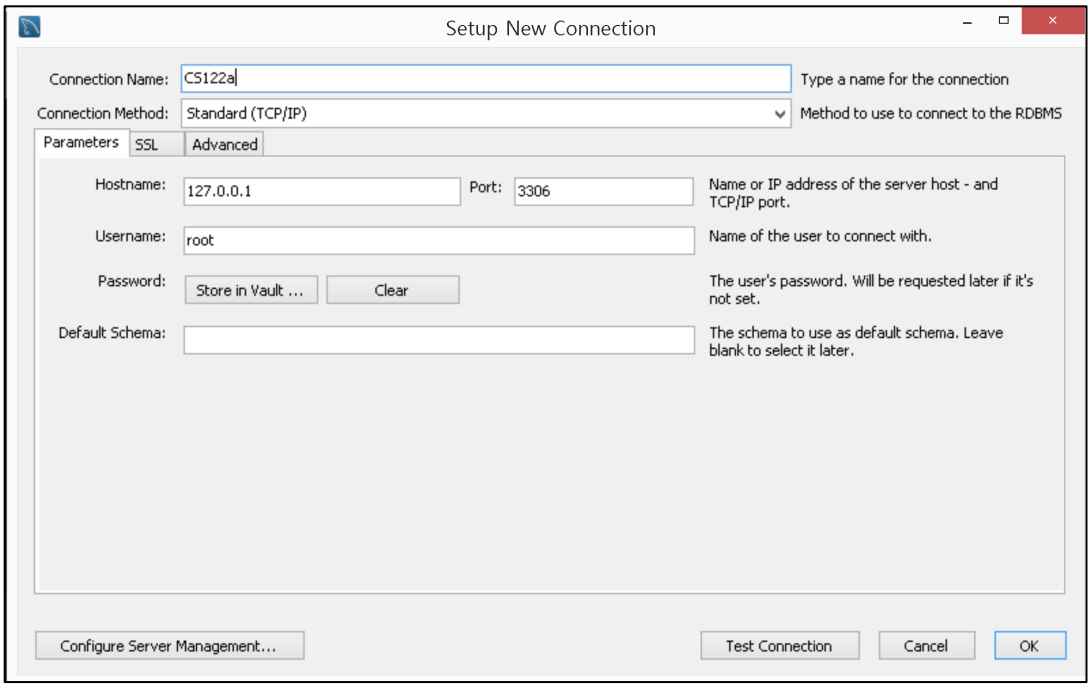


Step2- Execute MySQL WorkBench

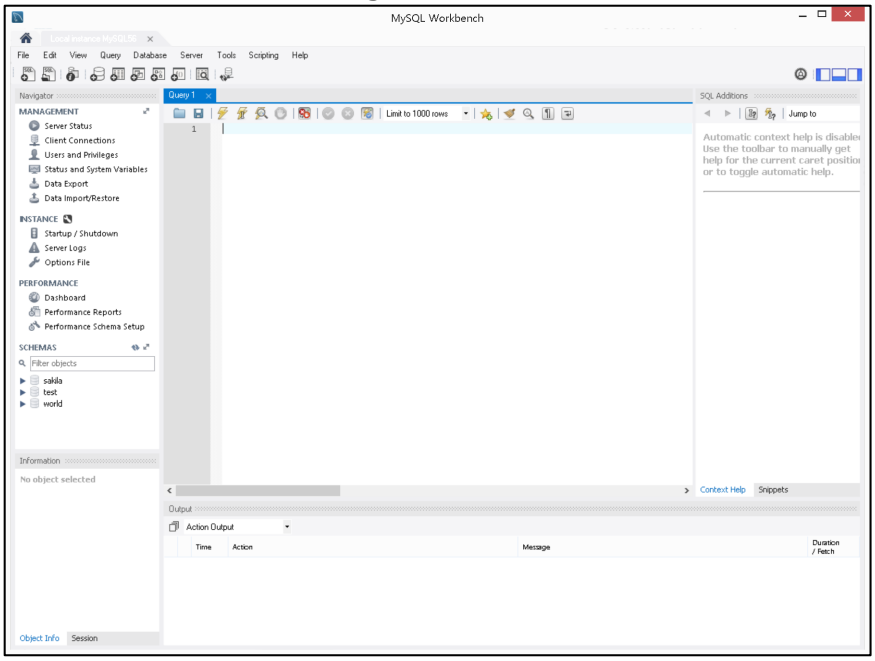
1. In MySQL program group, execute “MySQL Workbench”. Double click “Local instance MySQL5.6” to connect to the instance.



If you don’t see a connection, you can create it by clicking “+” 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.



2. You will see the following window.



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 table. 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.**

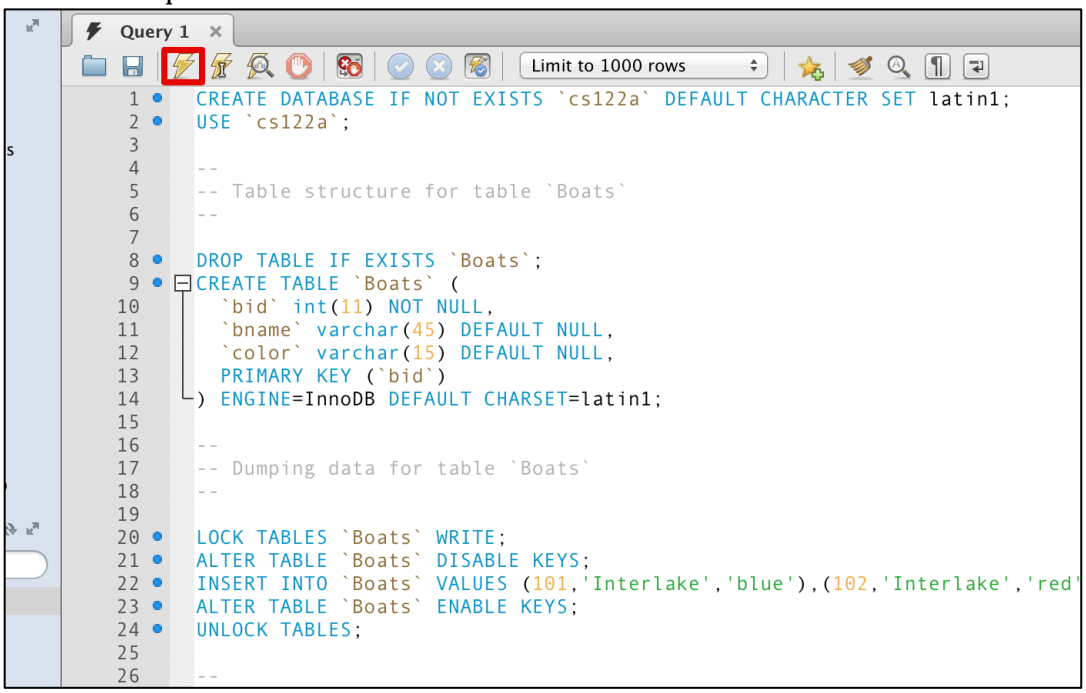
(Important Note: **do not copy text and paste it to the MySQLWorkBench from this document** since it will not be copied properly. Please type the command.)

```
-- 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;
```

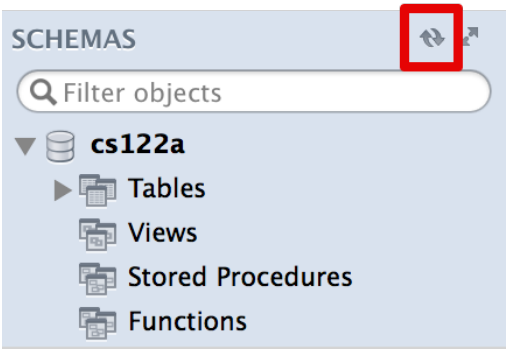
```
-- Table structure for table `Boats2`
DROP TABLE IF EXISTS `Boats2`;
CREATE TABLE `Boats2` (
  `bid` int(11) NOT NULL,
  `bname` varchar(45) DEFAULT NULL,
  `color` varchar(15) DEFAULT NULL,
  PRIMARY KEY (`bid`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


-- 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,'1998-11-10'),(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,'1998-11-10'),(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,'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);
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',9,3
5.0),(85,'Art',4,25.5),(95,'Bob',3,63.5),(101,'Joan',3,NULL),(107,'Johannes',NULL,35.0),(108,'Sand
y',NULL,36.0),(109,'James',5,38.0);
ALTER TABLE `Sailors2` ENABLE KEYS;
-- The end of the script
```

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

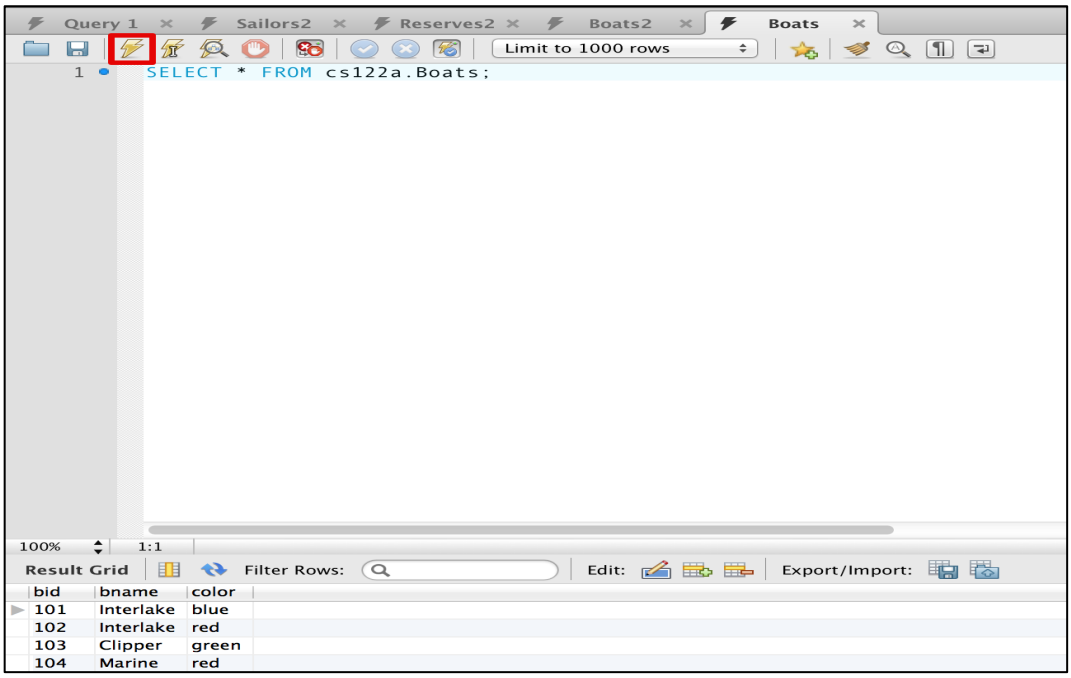


2. In the left pane, click "Refresh" button and you will see the "cs122a" schema and its Tables.



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. You can optionally export the result into a CSV file by clicking "Export" button.