

McCormick

Northwestern Engineering

EECS 495 – Introduction to Database Systems

MySQL Install and Use

FALL 2018

Mas-ud Hussain

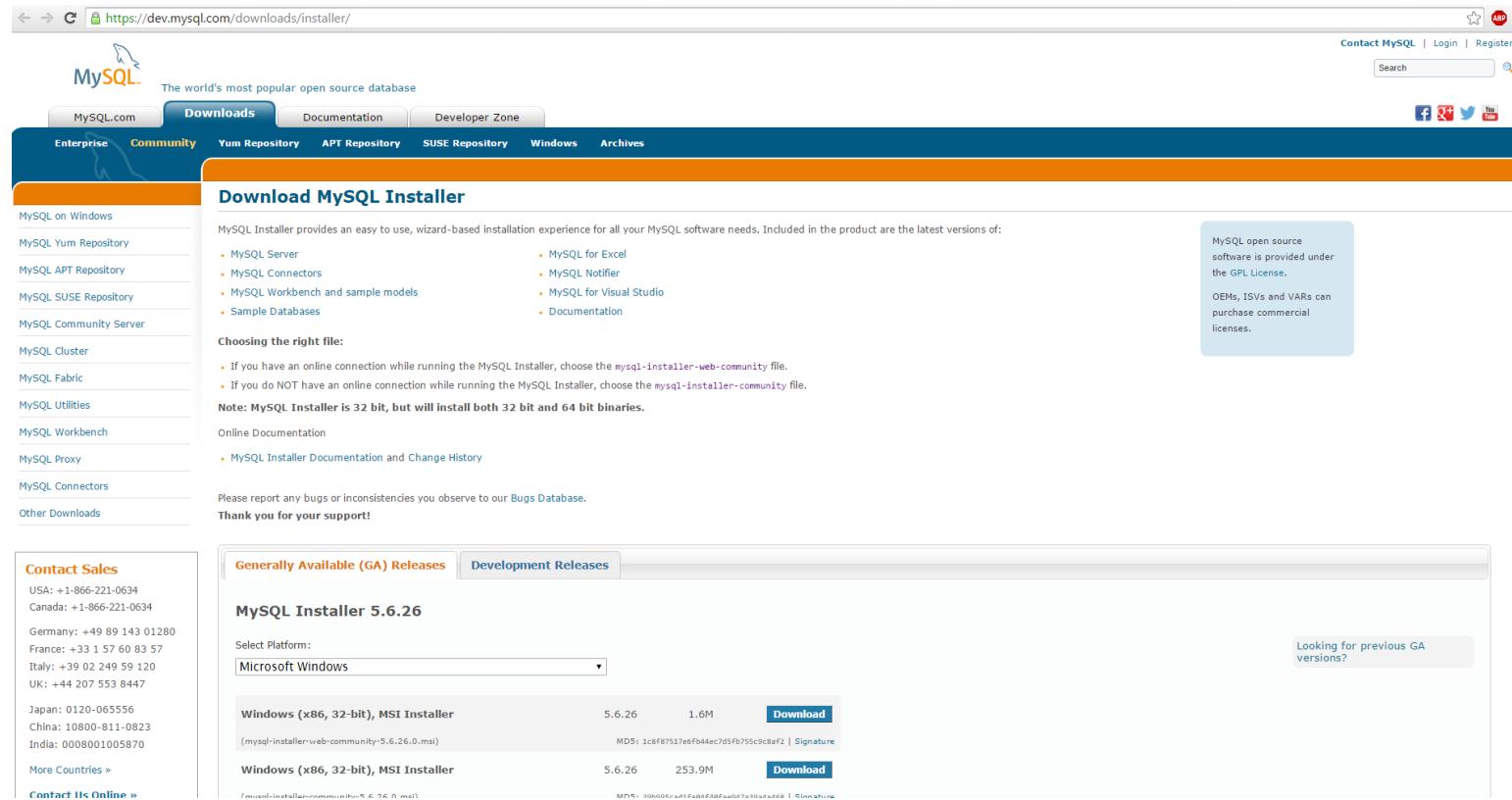
Outline

- Installation – Windows Users
- Installation – OS-X/Linux Users
- MySQL Tools – Usages
- Example Usages – Sakila DB

INSTALLATION WINDOWS USERS

Install

- Step 1: Go to
<https://dev.mysql.com/downloads/installer/>



The screenshot shows the MySQL Downloads Installer page. At the top, there's a navigation bar with links for MySQL.com, Downloads (which is highlighted), Documentation, and Developer Zone. Below the navigation is a main menu with tabs for Enterprise, Community, Yum Repository, APT Repository, SUSE Repository, Windows, and Archives. The main content area is titled "Download MySQL Installer". It explains that the MySQL Installer provides an easy-to-use, wizard-based installation experience for all MySQL software needs, including the latest versions of MySQL Server, MySQL Connectors, MySQL Workbench, and sample databases. It also notes that the MySQL Installer is 32-bit but installs both 32-bit and 64-bit binaries. There are sections for "Choosing the right file", "Online Documentation", and "Please report any bugs or inconsistencies you observe to our Bugs Database". A "Thank you for your support!" message is also present. On the left, there's a sidebar with a "Contact Sales" section listing USA, Canada, Germany, France, Italy, UK, Japan, China, and India contact information, along with a "More Countries >" link and a "Contact Us Online >" link. On the right, there's a note about MySQL open source software being provided under the GPL License, and another note for OEMs, ISVs, and VARs about purchasing commercial licenses. At the bottom, there are two tabs for "Generally Available (GA) Releases" and "Development Releases", with the GA tab selected. Under the GA tab, the "MySQL Installer 5.6.26" section is shown for Microsoft Windows. It lists two download options: "Windows (x86, 32-bit), MSI Installer" (5.6.26, 1.6M) and "Windows (x86, 32-bit), MSI Installer" (5.6.26, 253.9M). Both have "Download" buttons. A "Looking for previous GA versions?" link is also present.

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Install

- Step 2: We will basically need the following components (red boxed) for the course, but you can install all

The screenshot shows the MySQL website's download section for the MySQL Installer. The top navigation bar includes links for MySQL.com, Downloads (which is highlighted), Documentation, Developer Zone, Contact MySQL, Login, Register, and a search bar. Below the navigation is a menu bar with links for Enterprise, Community, Yum Repository, APT Repository, SUSE Repository, Windows, and Archives. The main content area is titled "Download MySQL Installer". It explains that the installer provides a wizard-based experience for MySQL software needs, including the latest versions of MySQL Server, MySQL for Excel, MySQL Connectors, MySQL Workbench, MySQL for Visual Studio, and Documentation. A sidebar notes that MySQL open source software is provided under the GPL License and that OEMs, ISVs, and VARs can purchase commercial licenses. On the left, there's a sidebar with links for MySQL on Windows, MySQL Yum Repository, MySQL APT Repository, MySQL SUSE Repository, MySQL Community Server, MySQL Cluster, MySQL Fabric, MySQL Utilities, MySQL Workbench, MySQL Proxy, MySQL Connectors, and Other Downloads. At the bottom, there's contact information for sales, a "Generally Available (GA) Releases" section for MySQL Installer 5.6.26, and a "Development Releases" section.

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](#)

Generally Available (GA) Releases | [Development Releases](#)

MySQL Installer 5.6.26

Select Platform: Microsoft Windows

Windows (x86, 32-bit), MSI Installer 5.6.26 1.6M [Download](#)
(mysql-installer-web-community-5.6.26.0.msi)
MD5: 1c8f87517e6fb44ec7d5fb755c9c8af24 | Signature

Windows (x86, 32-bit), MSI Installer 5.6.26 253.9M [Download](#)
(mysql-installer-community-5.6.26.0.msi)
MD5: 1c8f87517e6fb44ec7d5fb755c9c8af24 | Signature

Looking for previous GA versions?

Install

- Step 3: Download one of the two files

MySQL APT Repository

MySQL SUSE Repository

MySQL Community Server

MySQL Cluster

MySQL Fabric

MySQL Utilities

MySQL Workbench

MySQL Proxy

MySQL Connectors

Other Downloads

Choosing the right file:

- If you have an online connection while running the MySQL Installer, choose the [mysql-installer-web-community](#) file.
- If you do NOT have an online connection while running the MySQL Installer, choose the [mysql-installer-community](#) file.

Note: MySQL Installer is 32 bit, but will install both 32 bit and 64 bit binaries.

Online Documentation

[MySQL Installer Documentation and Change History](#)

Please report any bugs or inconsistencies you observe to our Bugs Database.

Thank you for your support!

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 »](#)

Related Pages:

[Technical Articles](#)

[Documentation](#)

Generally Available (GA) Releases **Development Releases**

MySQL Installer 5.6.26

Select Platform: Microsoft Windows

Looking for previous GA versions?

Platform	Version	File Size	Download
Windows (x86, 32-bit), MSI Installer	5.6.26	1.6M	Download
(mysql-installer-web-community-5.6.26.0.msi)			MD5: 1c8f8751e6fb44ec7d5fb755c9c8af2 Signature
Windows (x86, 32-bit), MSI Installer	5.6.26	253.9M	Download
(mysql-installer-community-5.6.26.0.msi)			MD5: 39b995cad1fa84f40fae947a39a4a468 Signature

If you will have internet during installation (should be the choice for most)

If no internet connection will be available during installation

Developer Zone

Developer Articles

Forums

Bugs

Worklog

Planet MySQL

Downloads

MySQL Community Server

MySQL Cluster

MySQL Fabric

MySQL Utilities

MySQL Workbench

Documentation

MySQL Reference Manuals

MySQL Workbench

Expert Guides

Topic Guides

MySQL Cluster

About MySQL

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Job Opportunities

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Legal Policies

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Contributor Agreement

Search MySQL

ORACLE © 2015, Oracle Corporation and/or its affiliates

Install

- Step 4: You can skip login/signup in the next page if you wish

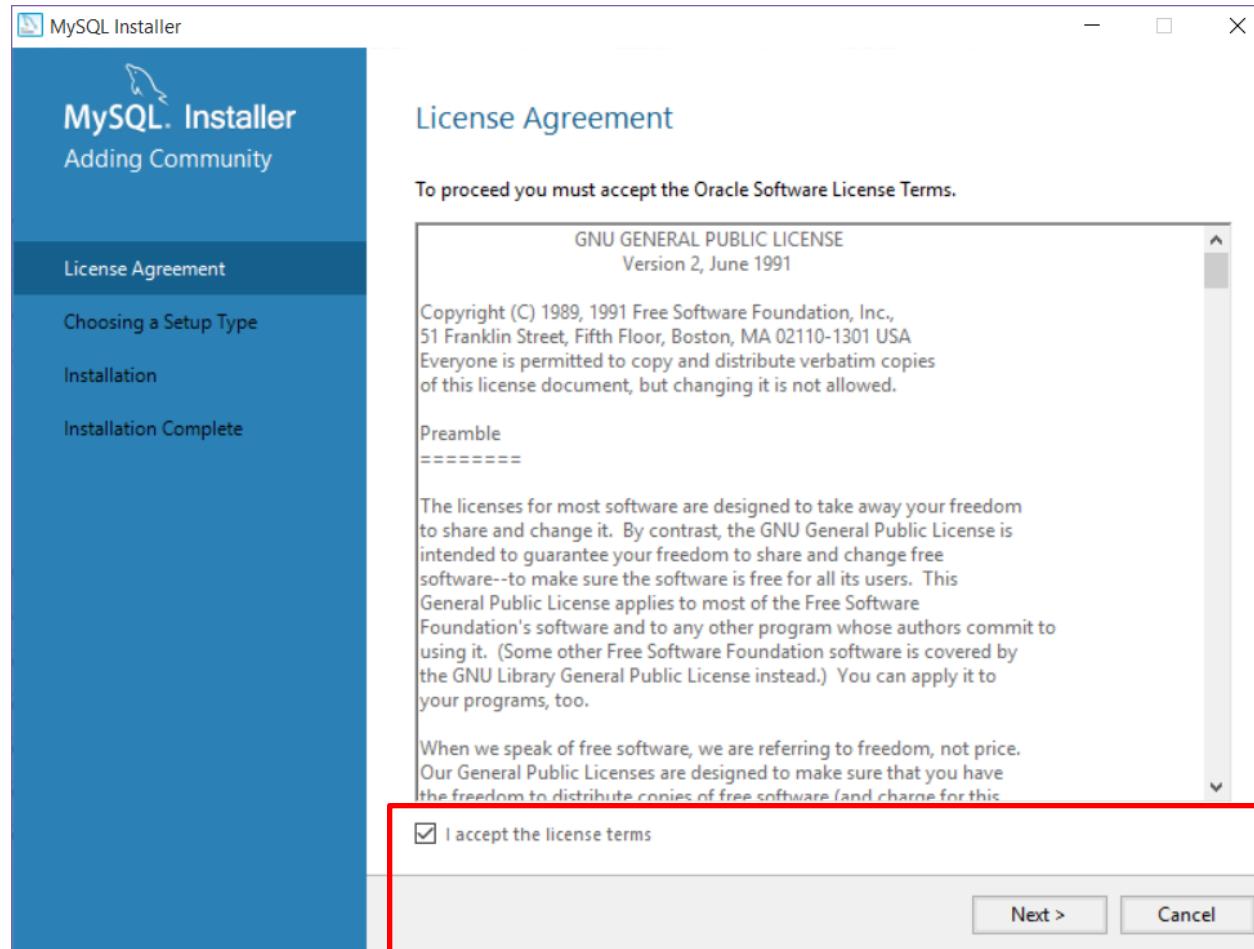
The screenshot shows the MySQL website's download page for the MySQL Installer. At the top, there's a navigation bar with links for MySQL.com, Downloads, Documentation, and Developer Zone. Below the navigation is a search bar and social media links. The main content area has a title "Begin Your Download - mysql-installer-web-community-5.6.26.0.msi". It prompts users to "Login Now or Sign Up for a free account." It lists advantages of having an Oracle Web Account, such as fast access to MySQL software downloads, technical white papers, and bug tracking. Two buttons are present: a blue "Login » using my Oracle Web account" and a green "Sign Up » for an Oracle Web account". A note below the buttons states that MySQL.com uses Oracle SSO for authentication. At the bottom of the page, a red box highlights a link "No thanks, just start my download." followed by a red arrow pointing to the text "Skip & download option". The footer contains links for Developer Zone, Downloads, Documentation, About MySQL, and Legal, along with a search bar and the ORACLE logo.

Install

- Step 5: Click the downloader, agree to allow the installer to make changes to your pc. Also, it might ask for any update, just press yes until you get to the installer screen (shown in the next slide).

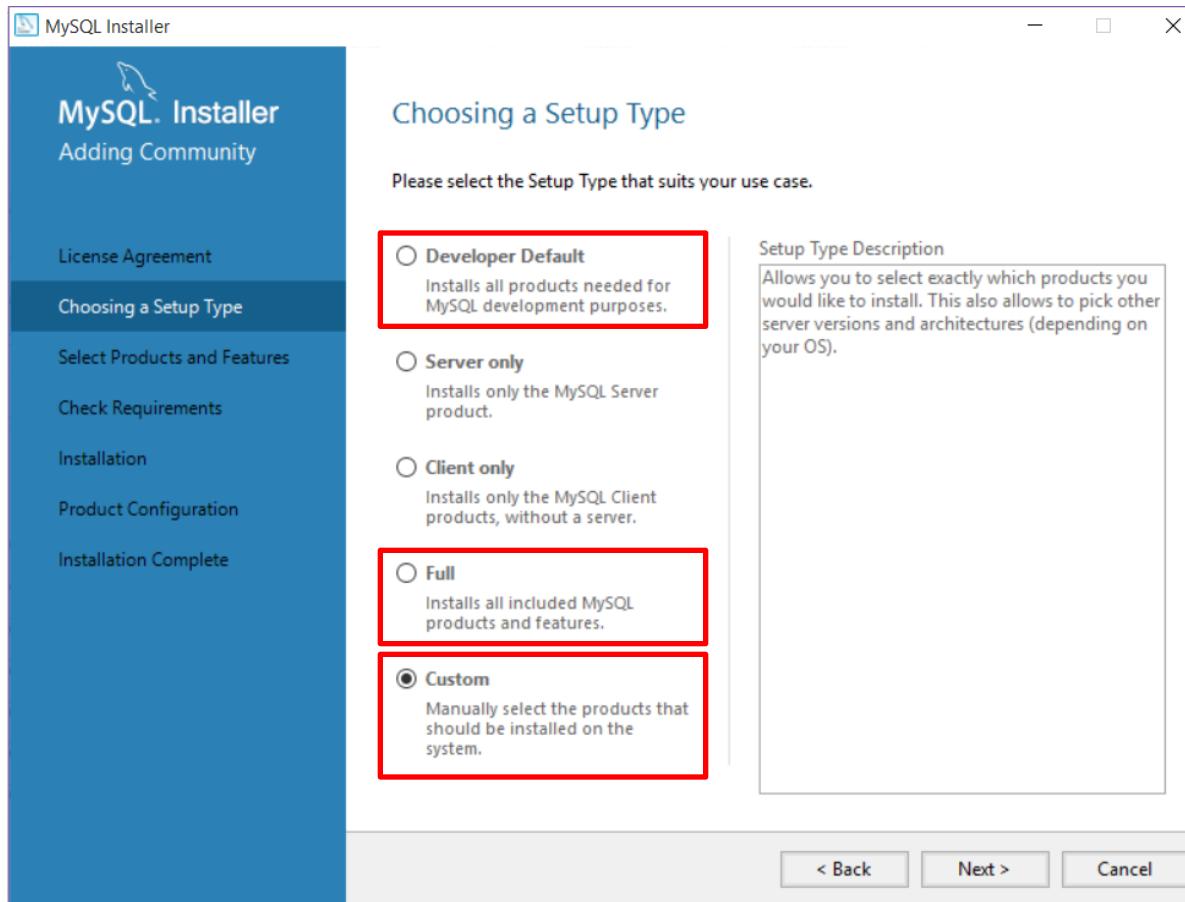
Install

- Step 6: Click I accept, & press next



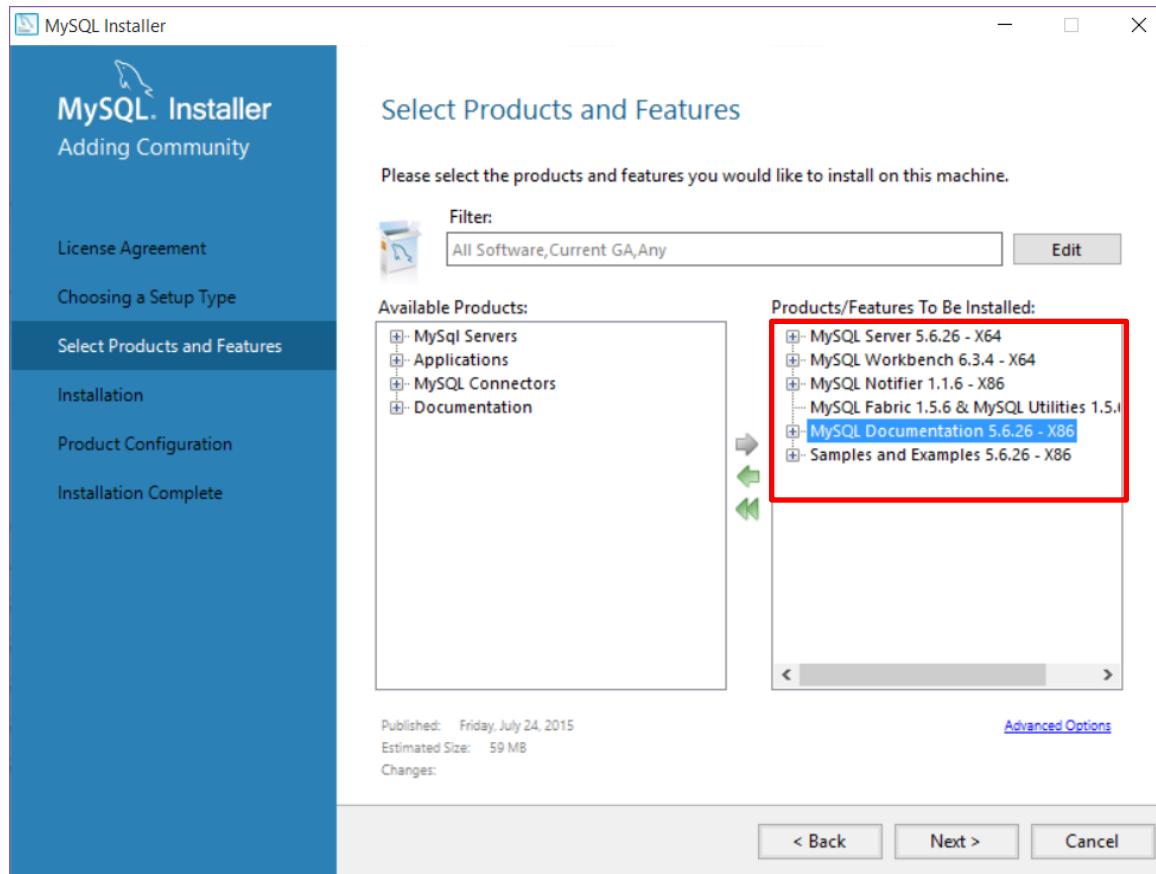
Install

- Step 7: You can select developer/full option (which will install all & reduce hassle, recommended), or use custom option...



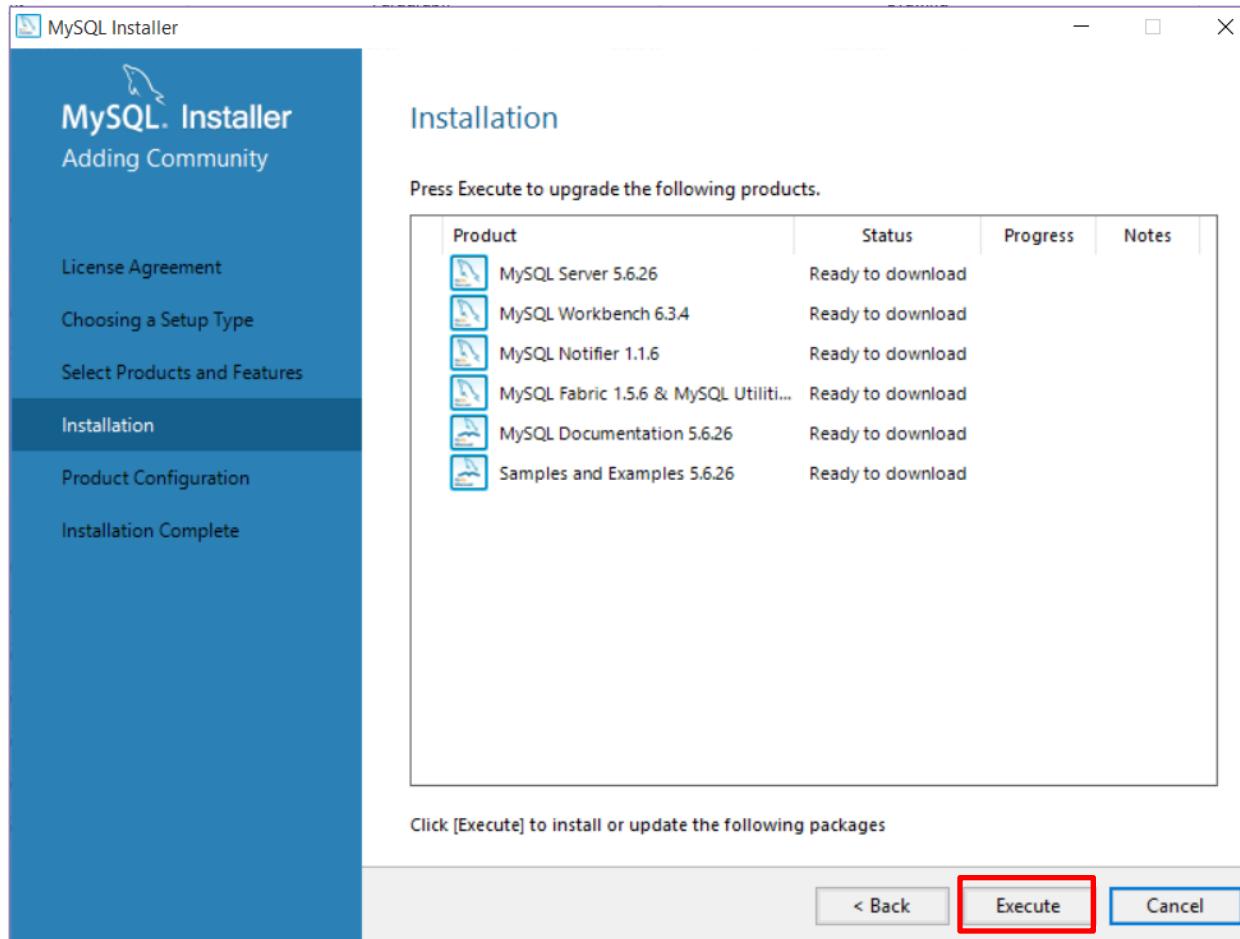
Install

- Step 8: If you select custom, the following components are recommended (at least) for the installation(& press next)



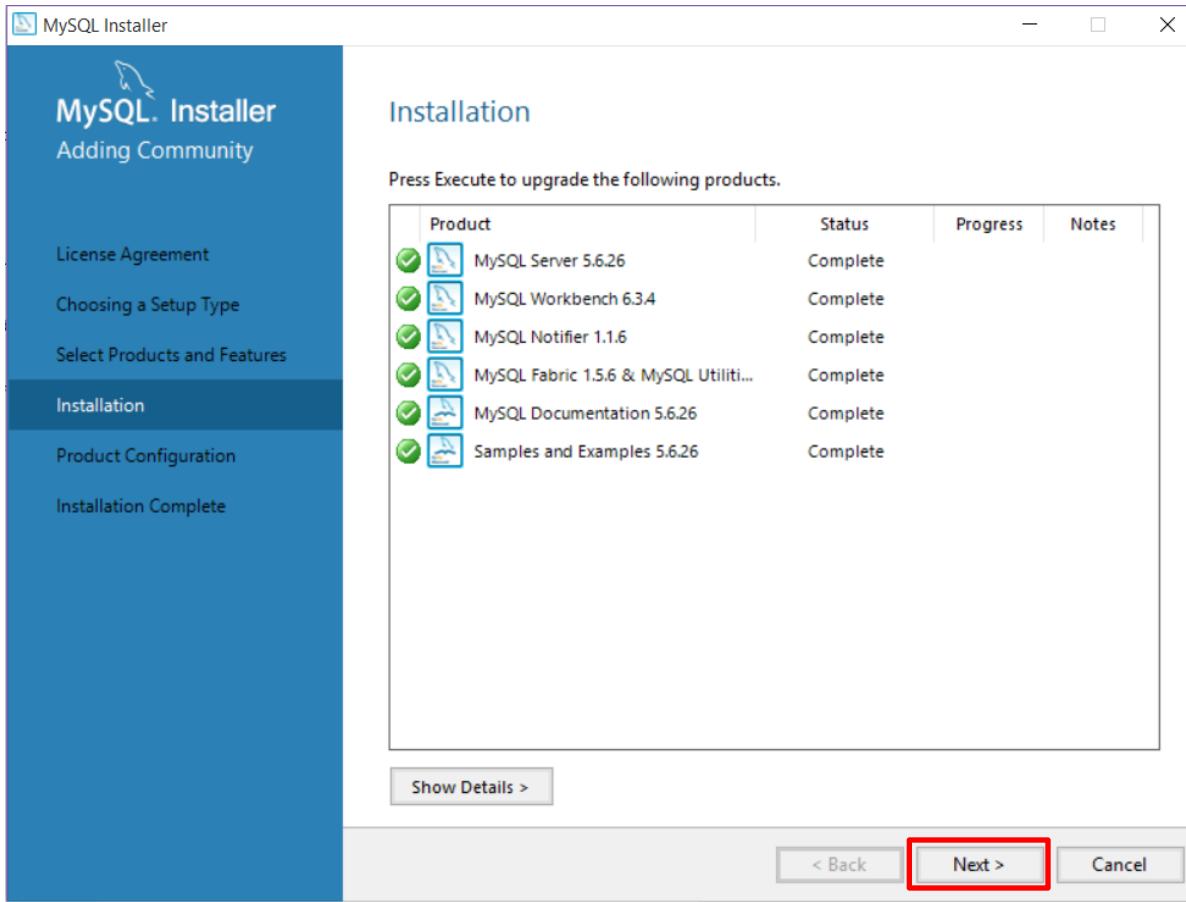
Install

- Step 9: Click execute..



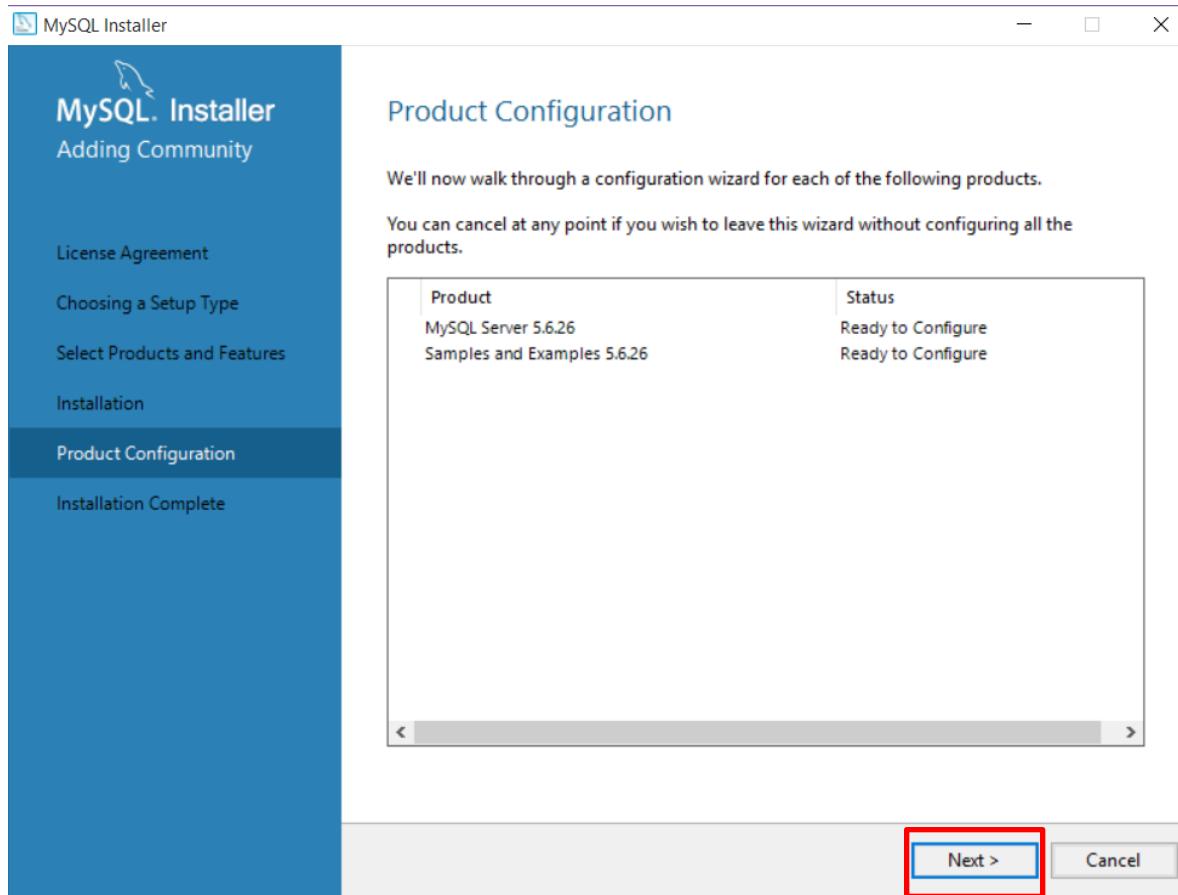
Install

- Step 10: After all components are downloaded and installed, click next..



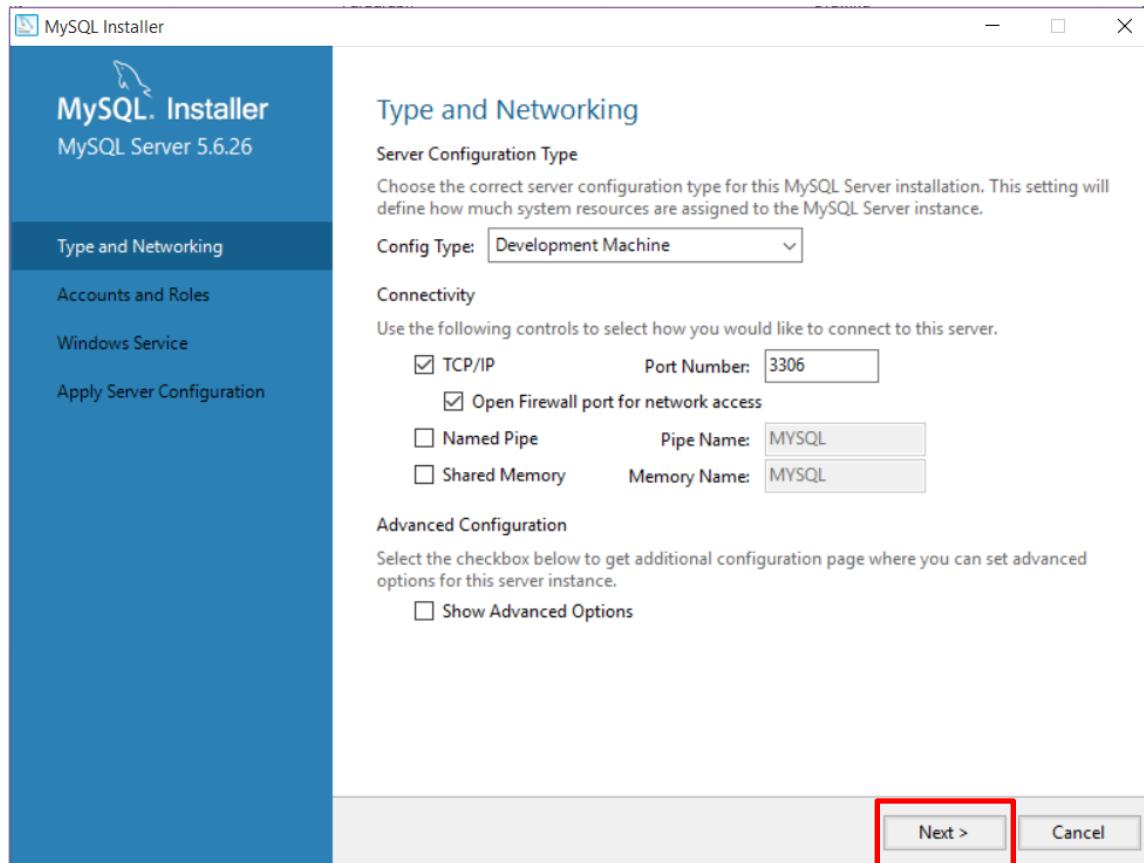
Install

- Step 11: Click Next in this window as well to configure products..



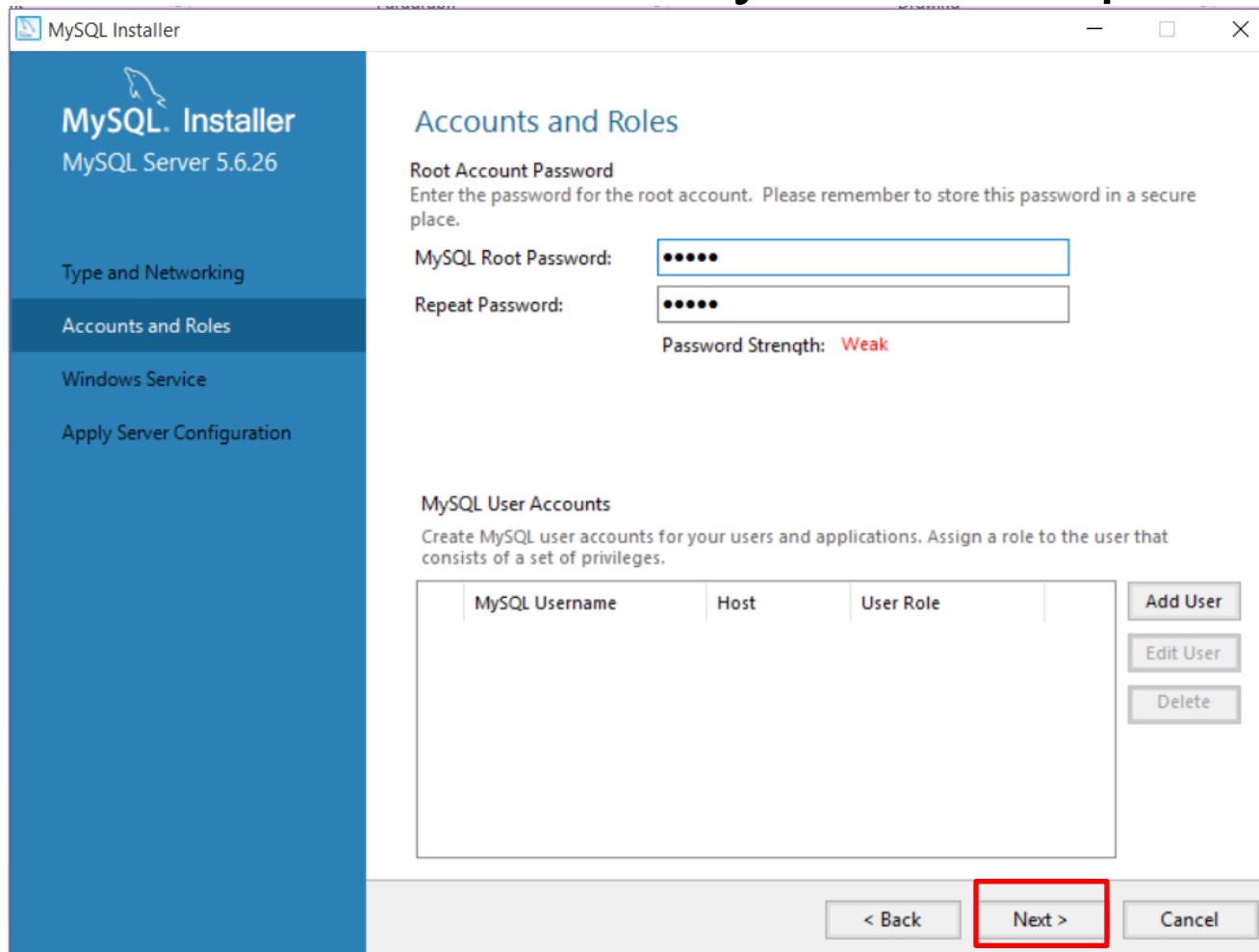
Install

- Step 12: Select the options as below (You can select a different Port number if you wish) & press next...



Install

- Step 13: Set a password for the root user, add other users if you wish & press next..



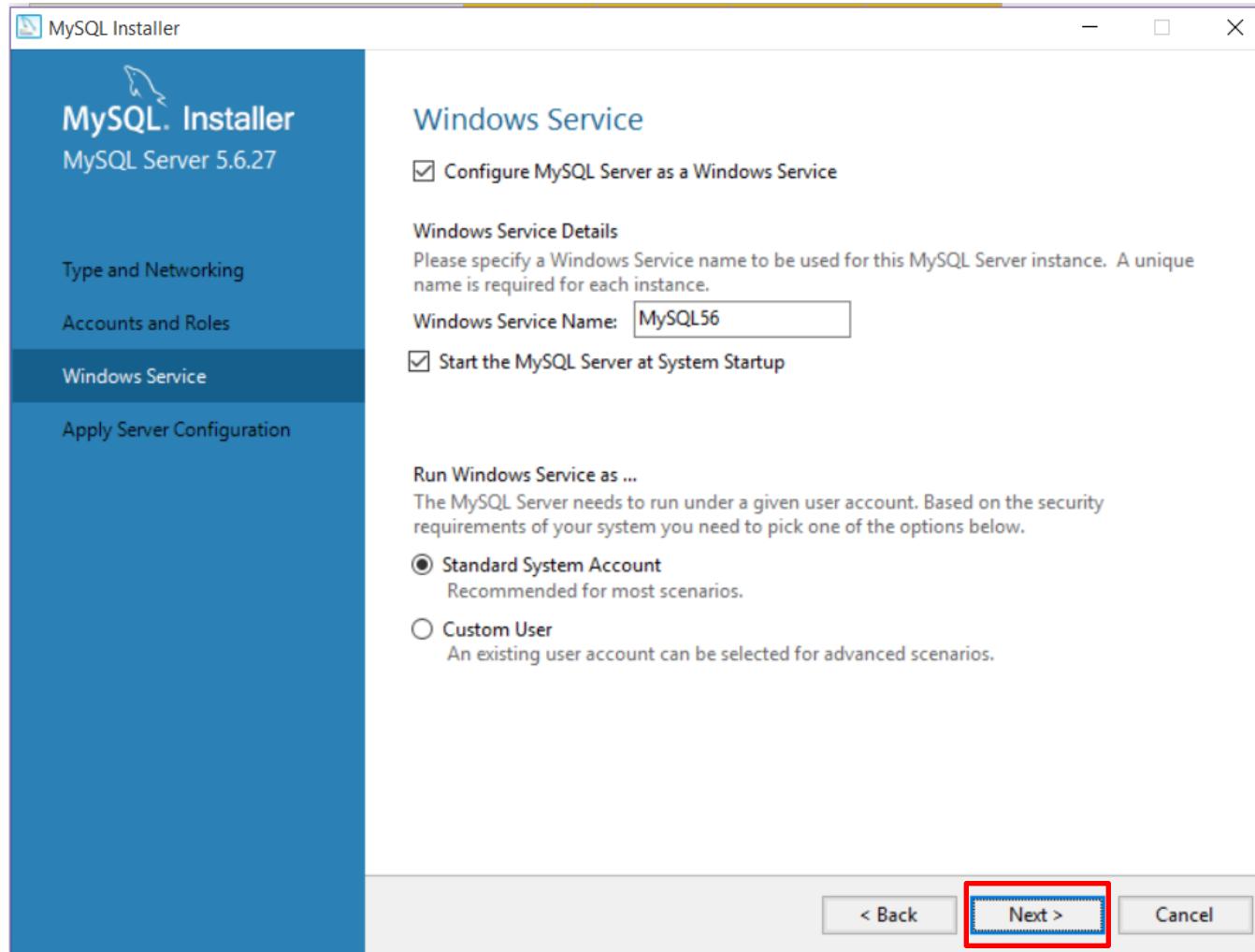
Install

- **NOTE:**

You must memorize or, store the password information for root you entered in the previous step. This is essential to log-in to the database later, and its very tricky to change the password later (after installation) in case you forget.

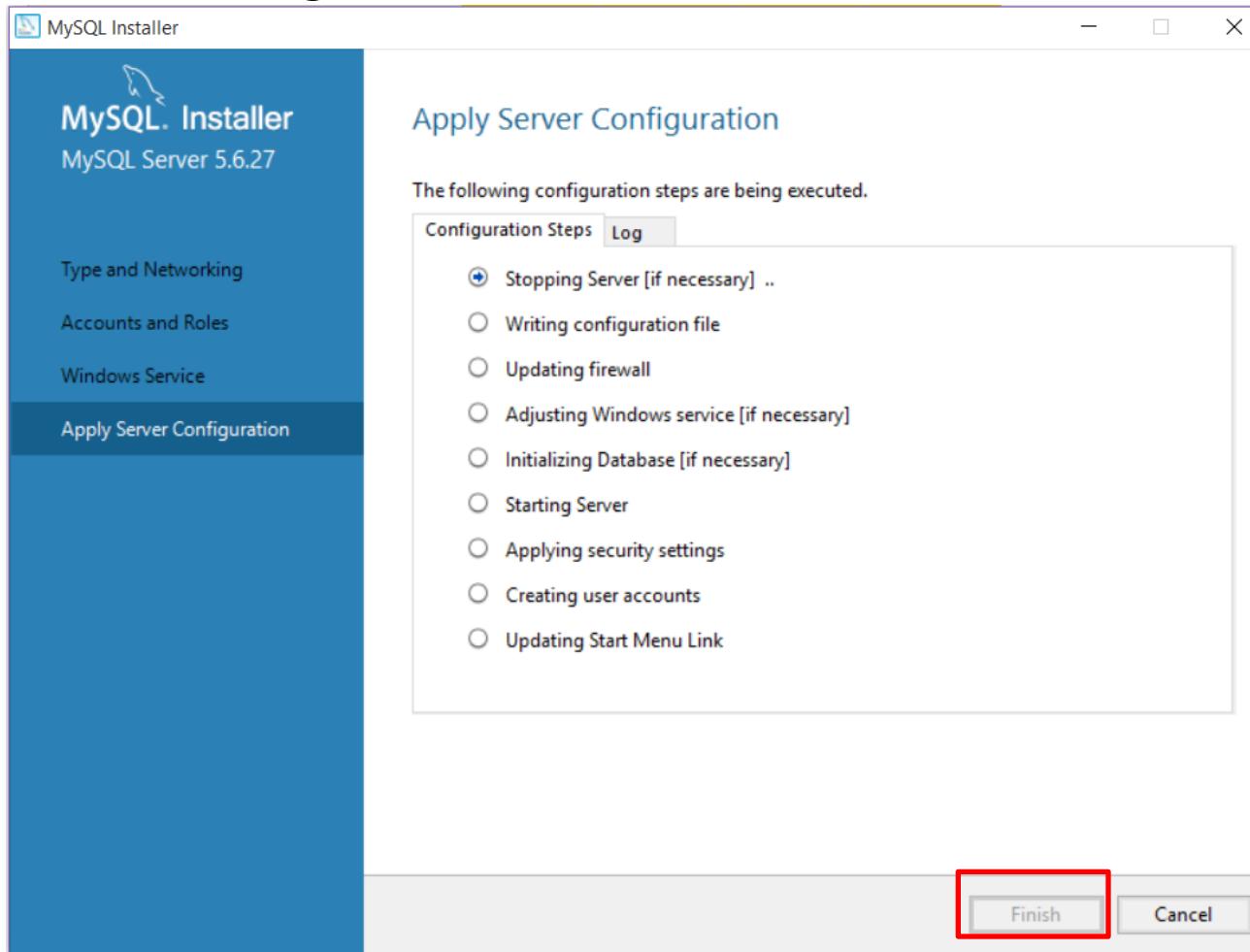
Install

- Step 14: Select default options & press next



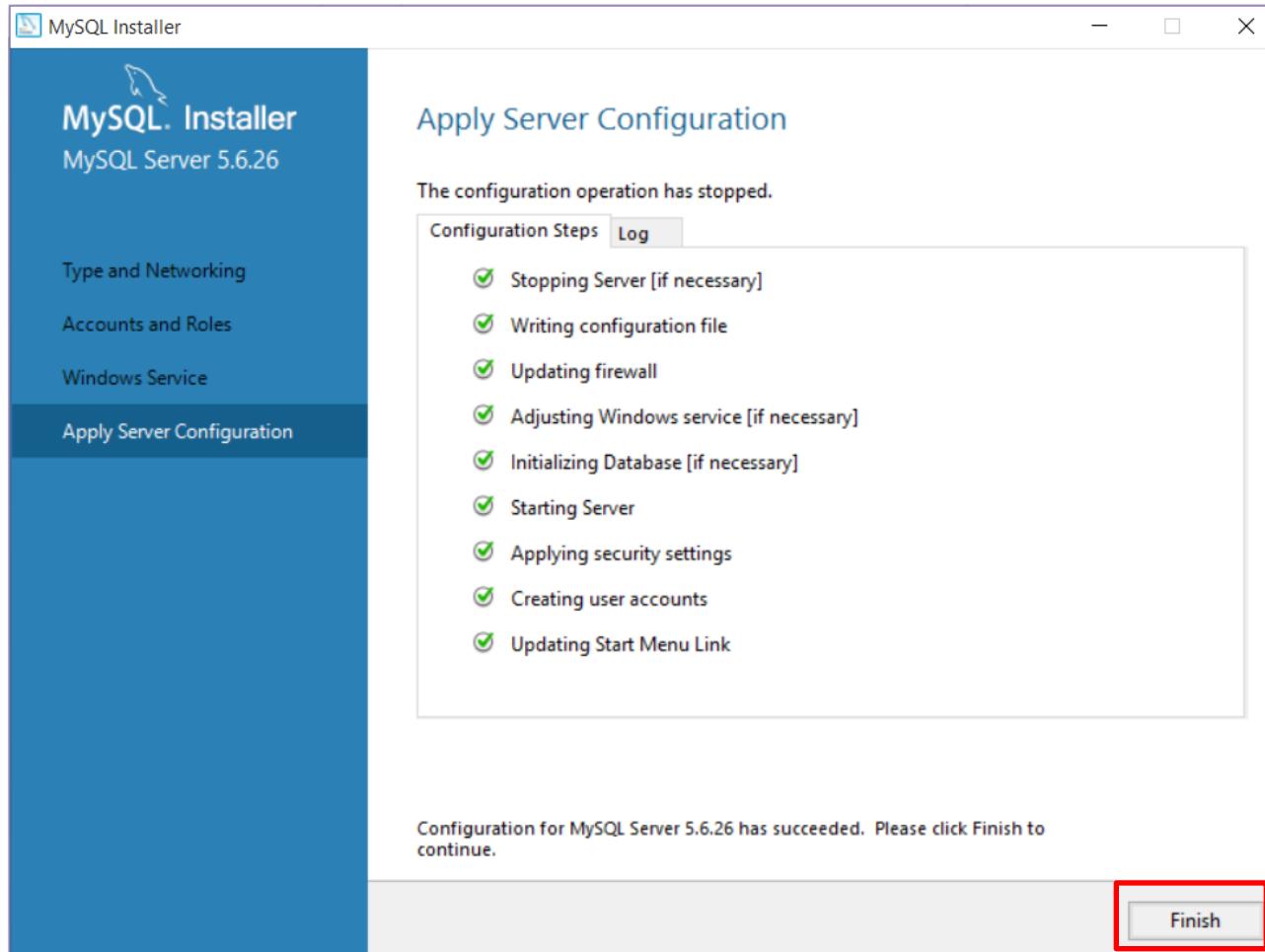
Install

- Step 15: Press execute to apply the configurations..



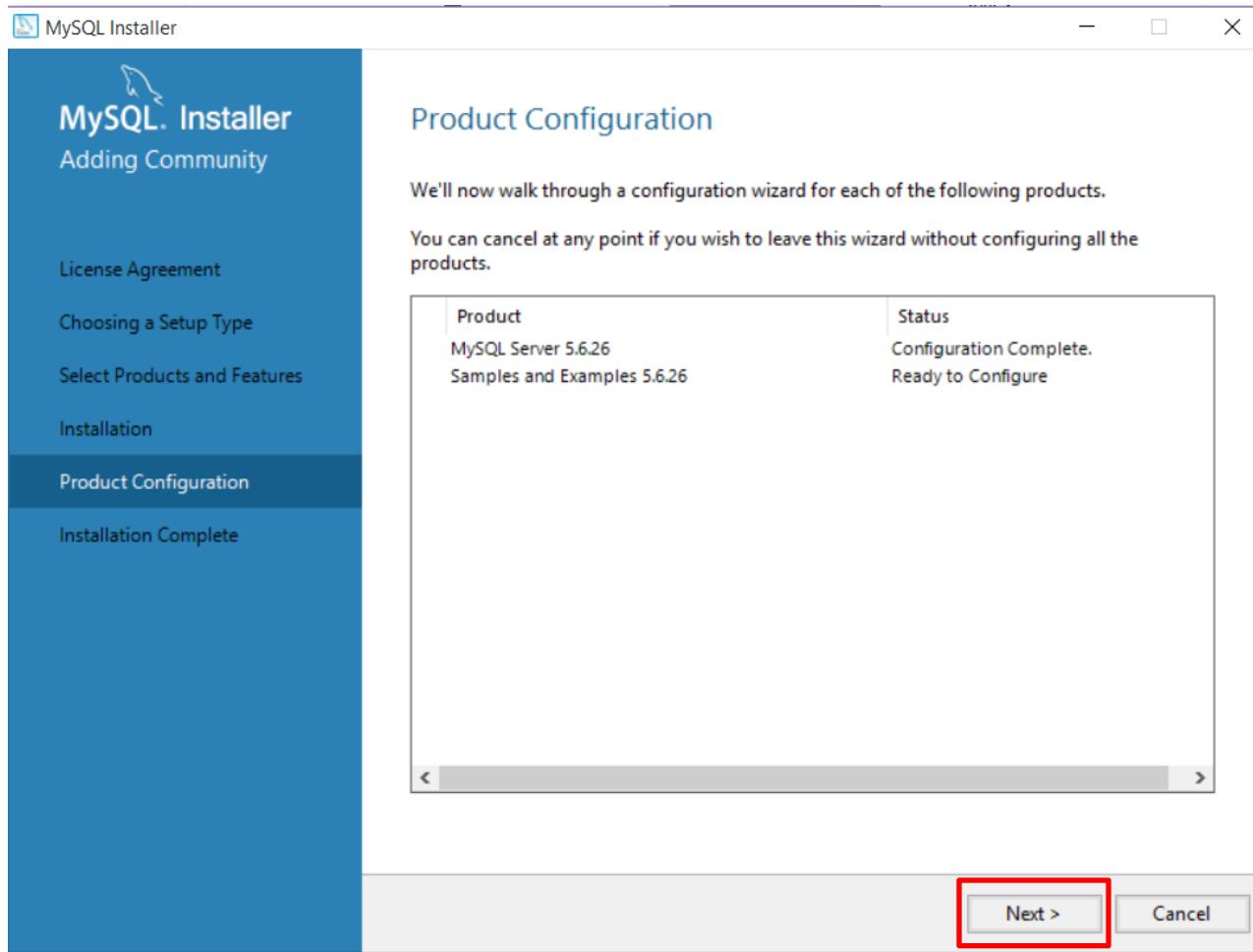
Install

- Step 16: When every step is done (green tick-marked), press Finish.



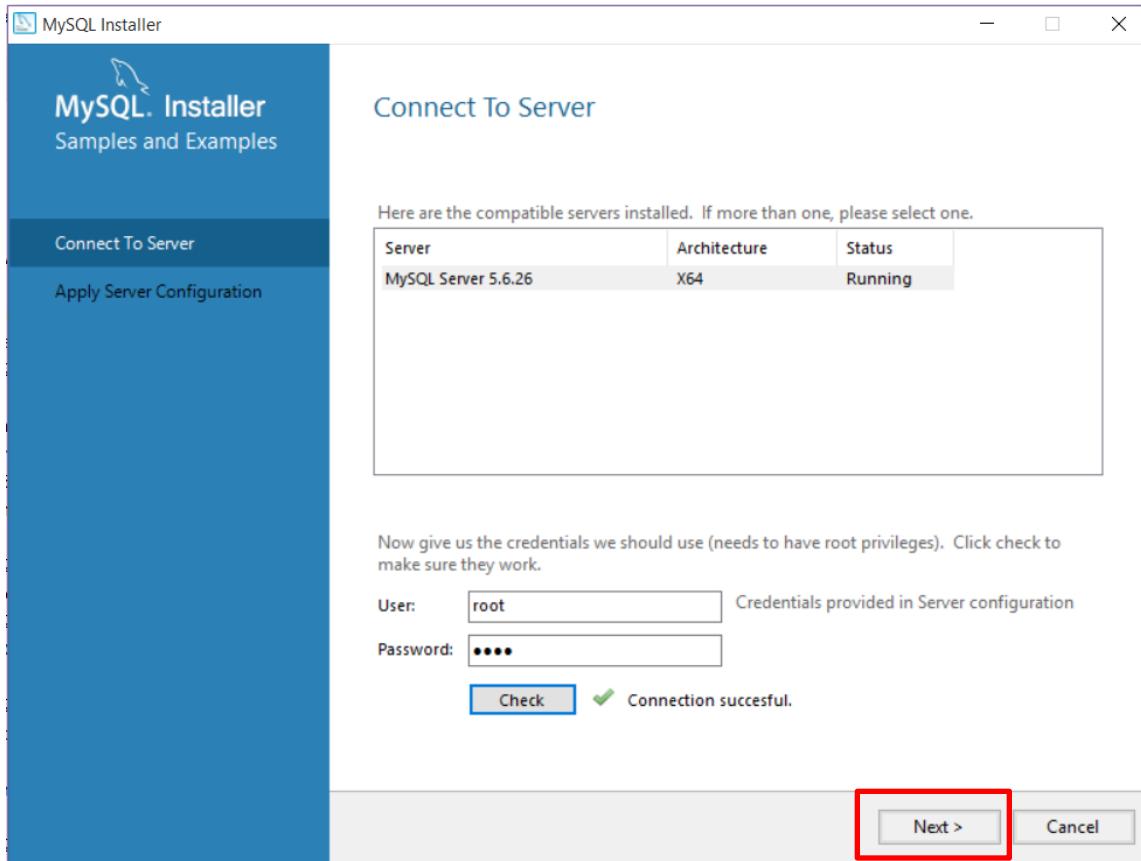
Install

- Step 17: Press next to configure Samples and Examples portion.



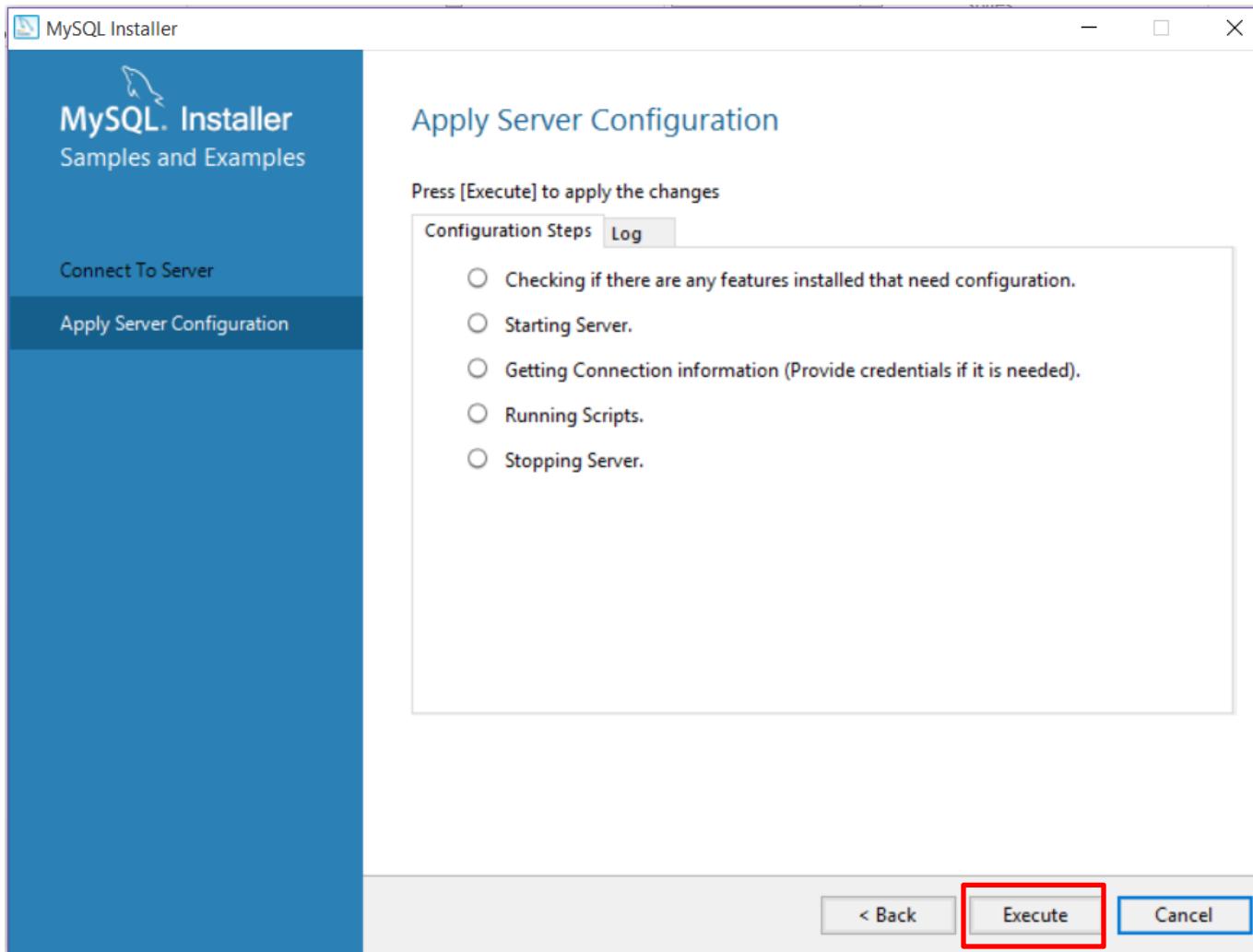
Install

- Step 18: Select the user root and corresponding password (check that the connection is successful), & press next



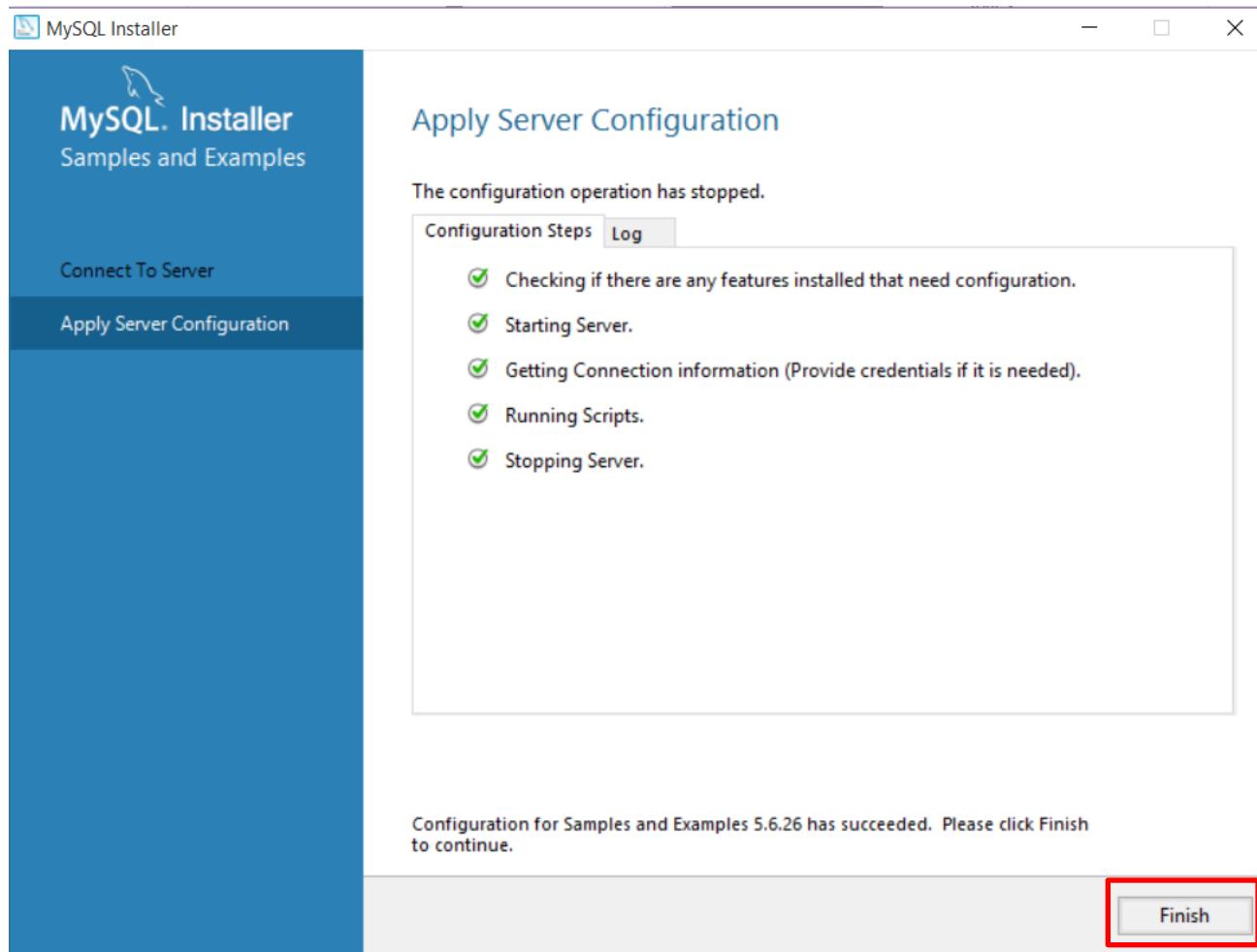
Install

- Step 19: Press execute as before..



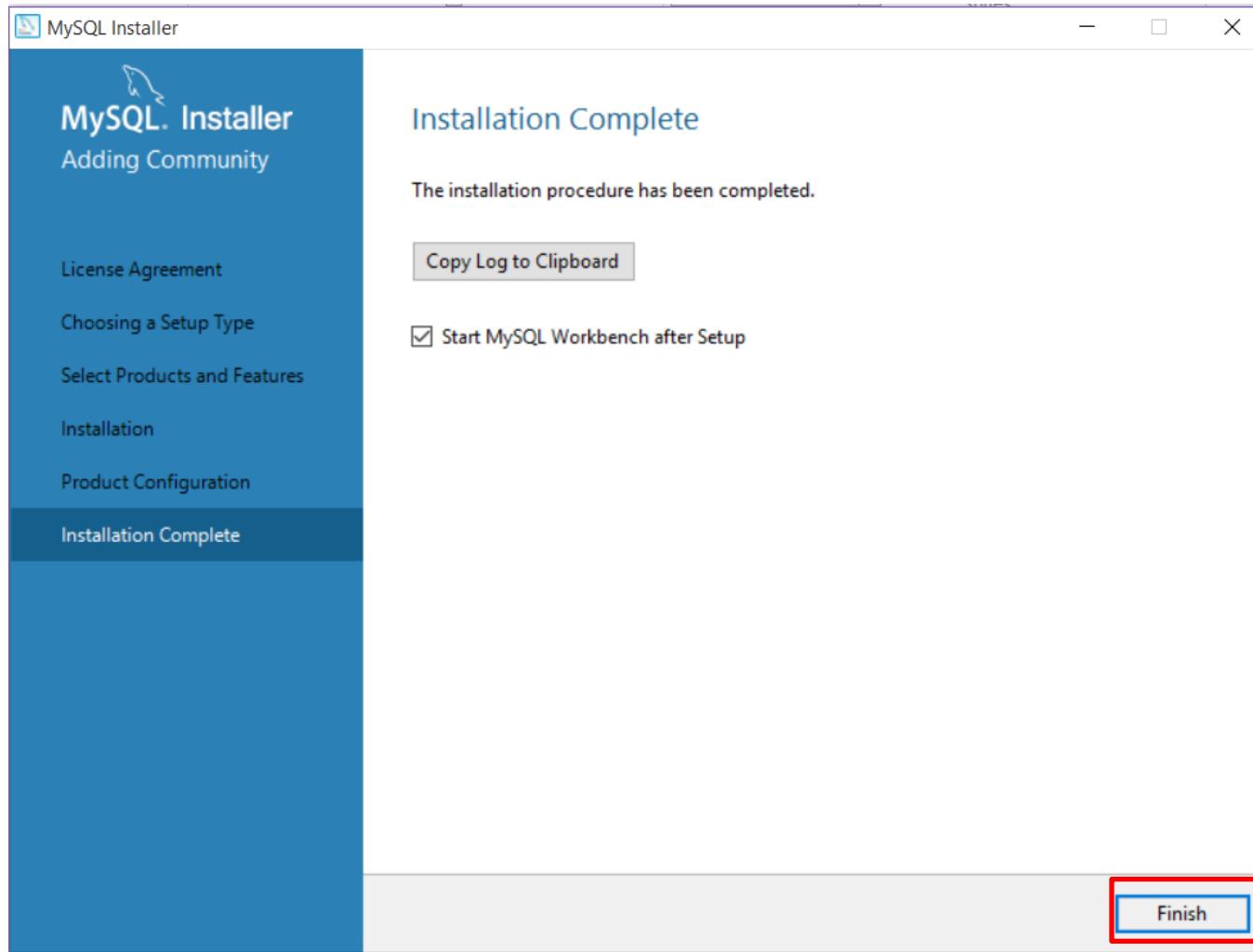
Install

- Step 20: Press finish when everything is done..



Install

- Installation is finished!



INSTALLATION

OS-X/LINUX USERS

Install

- There are two forms of installation available for Mac and Linux users:
 - Native Package Installer format, which uses the native OS X installer (DMG) to walk you through the installation of MySQL. You can use the package installer with OS X. The user you use to perform the installation must have administrator privileges.
 - Tar package format, which uses a file packaged using the Unix **tar** and **gzip** commands. To use this method, you will need to open a **Terminal** window. You do not need administrator privileges using this method, as you can install the MySQL server anywhere using this method.

Install

- In some cases (depending on versions), during installation in OS/X, the installer generates (and assigns) a temporary password to the MySQL root user. **DON'T FORGET TO KEEP A RECORD OF THAT!**

Install

- The details of the MySQL setup procedure for Mac OS-X and Linux users is outlined here:
<https://dev.mysql.com/doc/refman/5.7/en/osx-installation.html>
- For Mac Users (DMG Format):
<https://dev.mysql.com/doc/refman/5.7/en/osx-installation-pkg.html>
- For Linux Users (Gzip/Tar Format):
<https://dev.mysql.com/doc/refman/5.7/en/linux-installation.html>

Tip

- If for any reason, MySQL installation in native OS fails, you may try to use Virtual Machines and install MySQL on those.
- [Oracle Virtual Box](#)
- [VMWare](#)

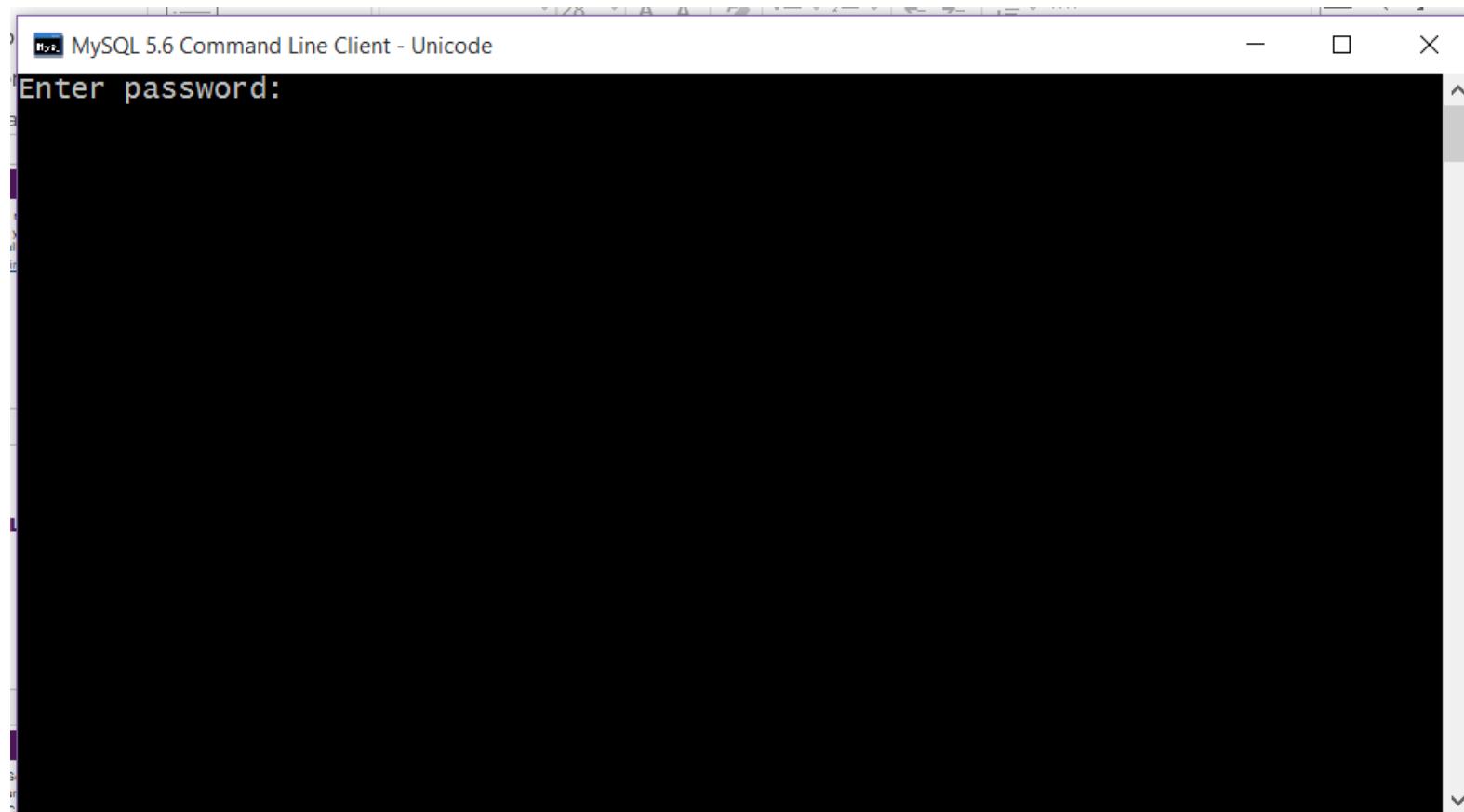
MYSQL TOOLS USAGES

Tools

- MySQL Server --- the service running in the background
- MySQL Command Line Client --- can be used to do all the stuffs in cmd-like scripting environment
- MySQL Workbench --- the GUI version of command line client, more user-friendly to use (but more prone to configuration errors)

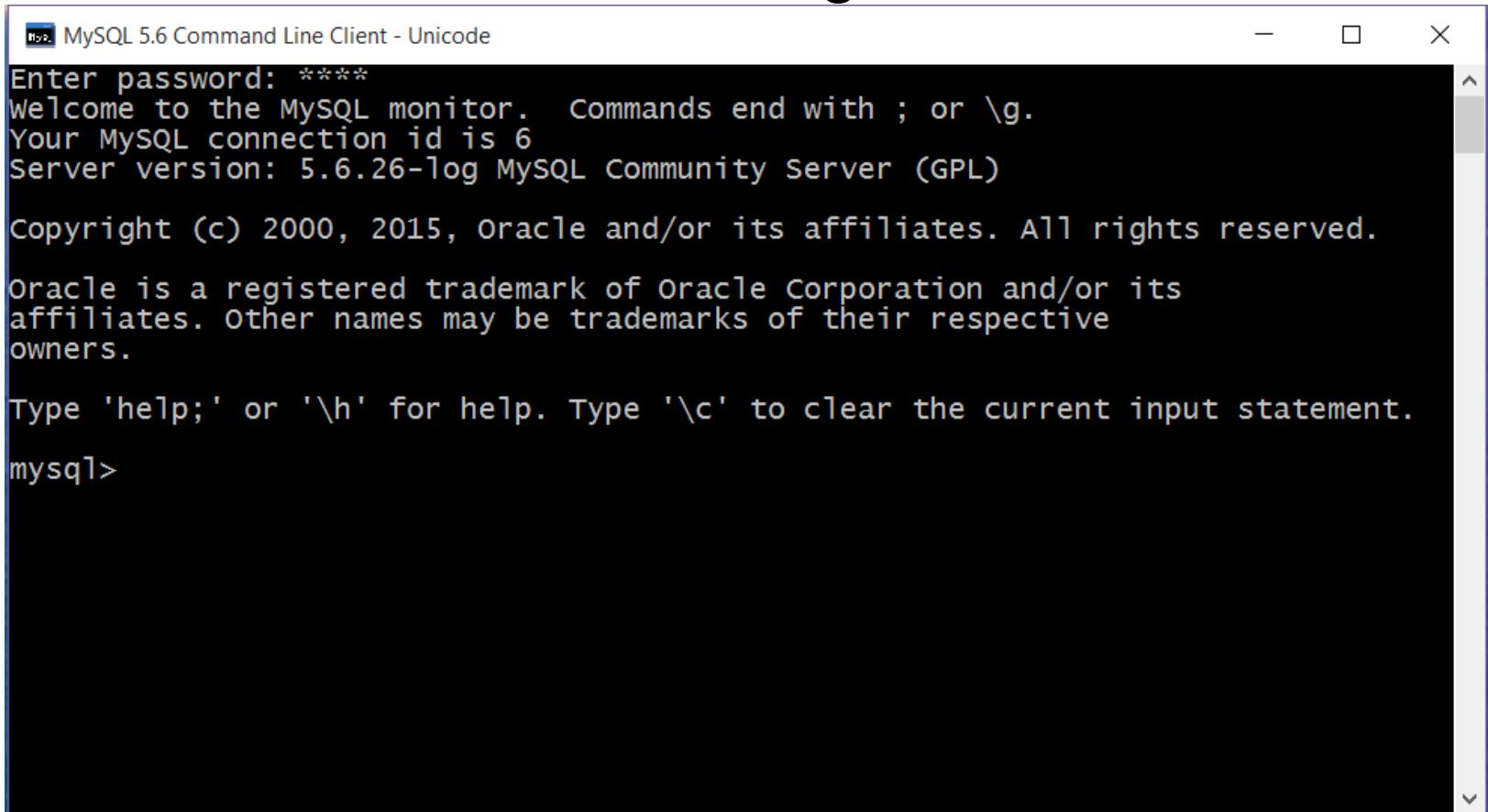
MySQL Command Line Client

- Open the command line client and provide password for the “root” user:



MySQL Command Line Client

- After authorization, you can write commands related to databases using this tool:



```
MySQL 5.6 Command Line Client - Unicode
Enter password: ****
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.6.26-log MySQL Community Server (GPL)

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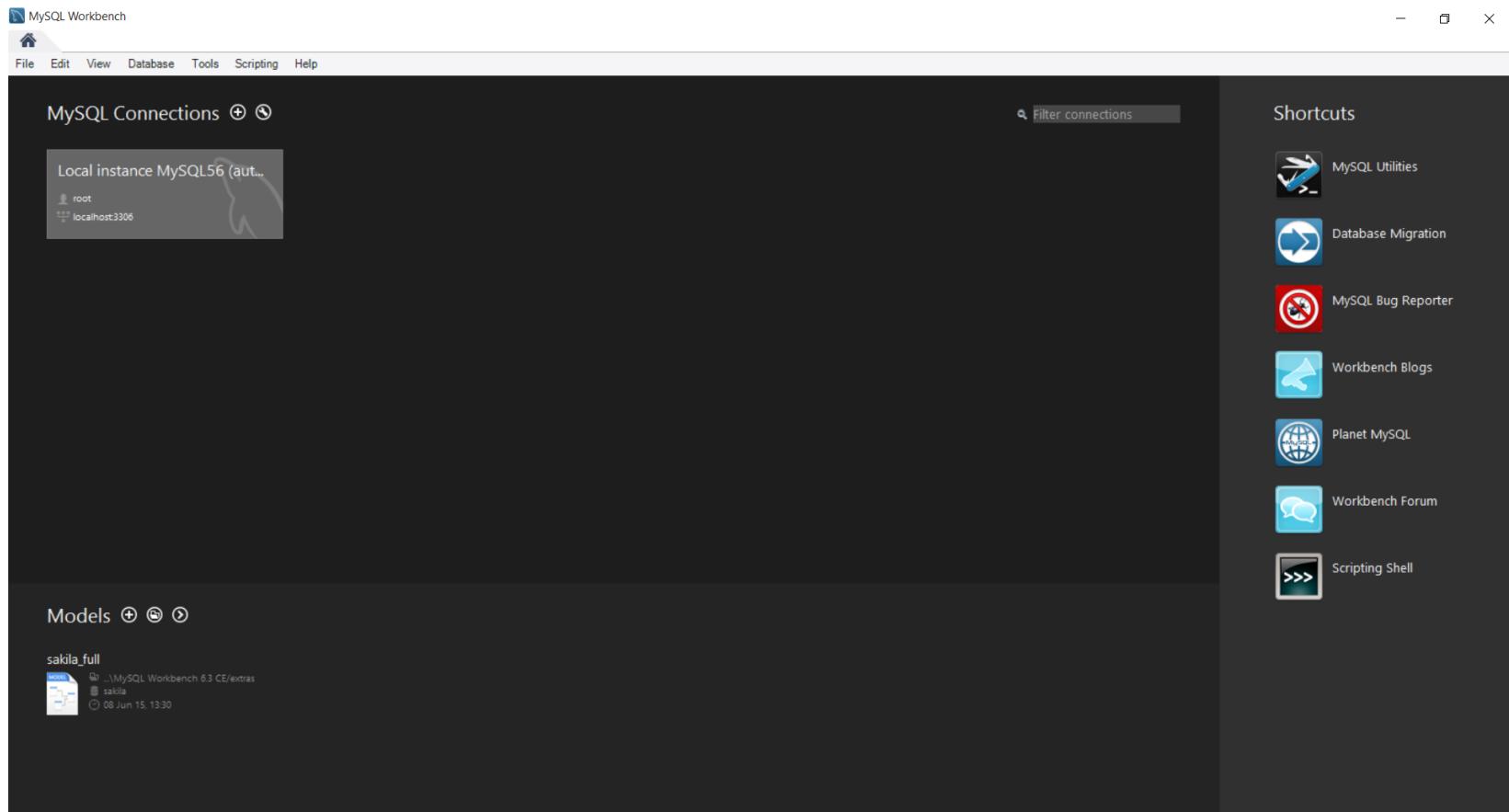
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

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

mysql>
```

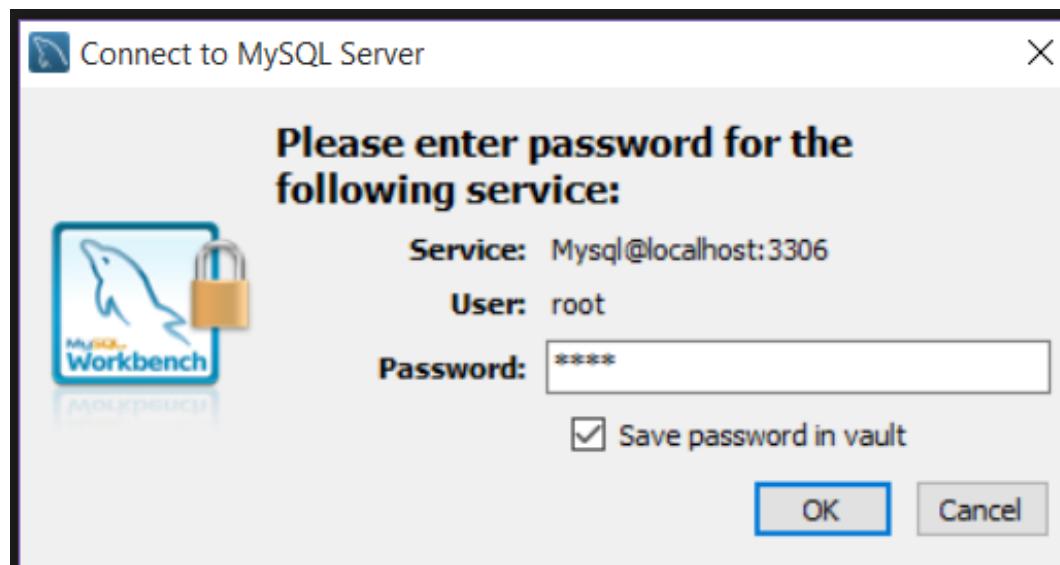
MySQL Workbench

- Provides a user-friendly GUI to manage databases, click on local instance to start



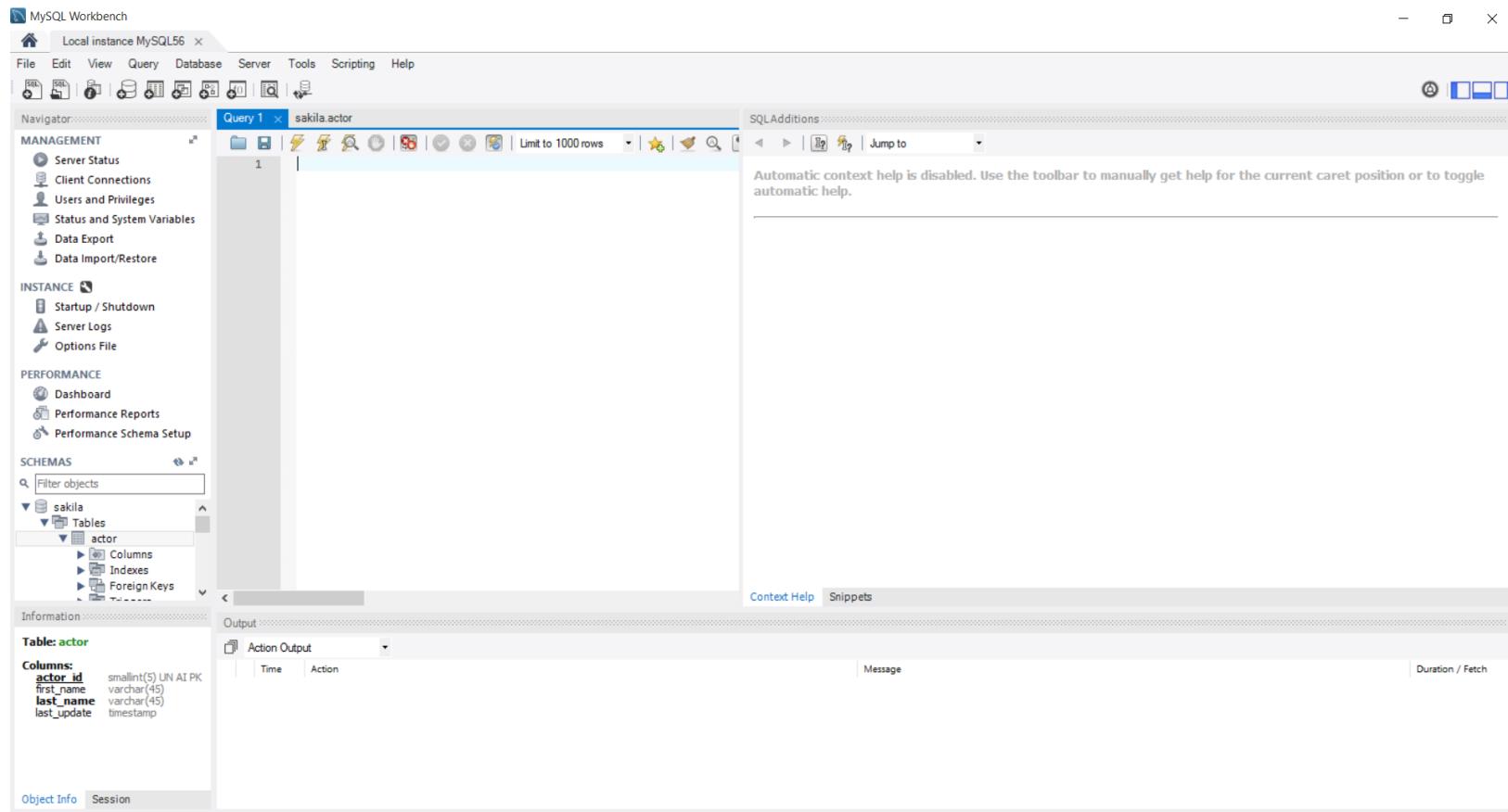
MySQL Workbench

- Enter password for the user root to use the service...



MySQL Workbench

- Select, create databases, use query window to enter queries, and lot more..



MySQL Workbench – Useful Links

- MySQL Workbench Database Modeling tutorial:
<https://dev.mysql.com/doc/workbench/en/wb-tutorials.html>
- MySQL Workbench SQL Query Editor tutorial:
<https://dev.mysql.com/doc/workbench/en/wb-sql-editor.html>

EXAMPLE USAGES

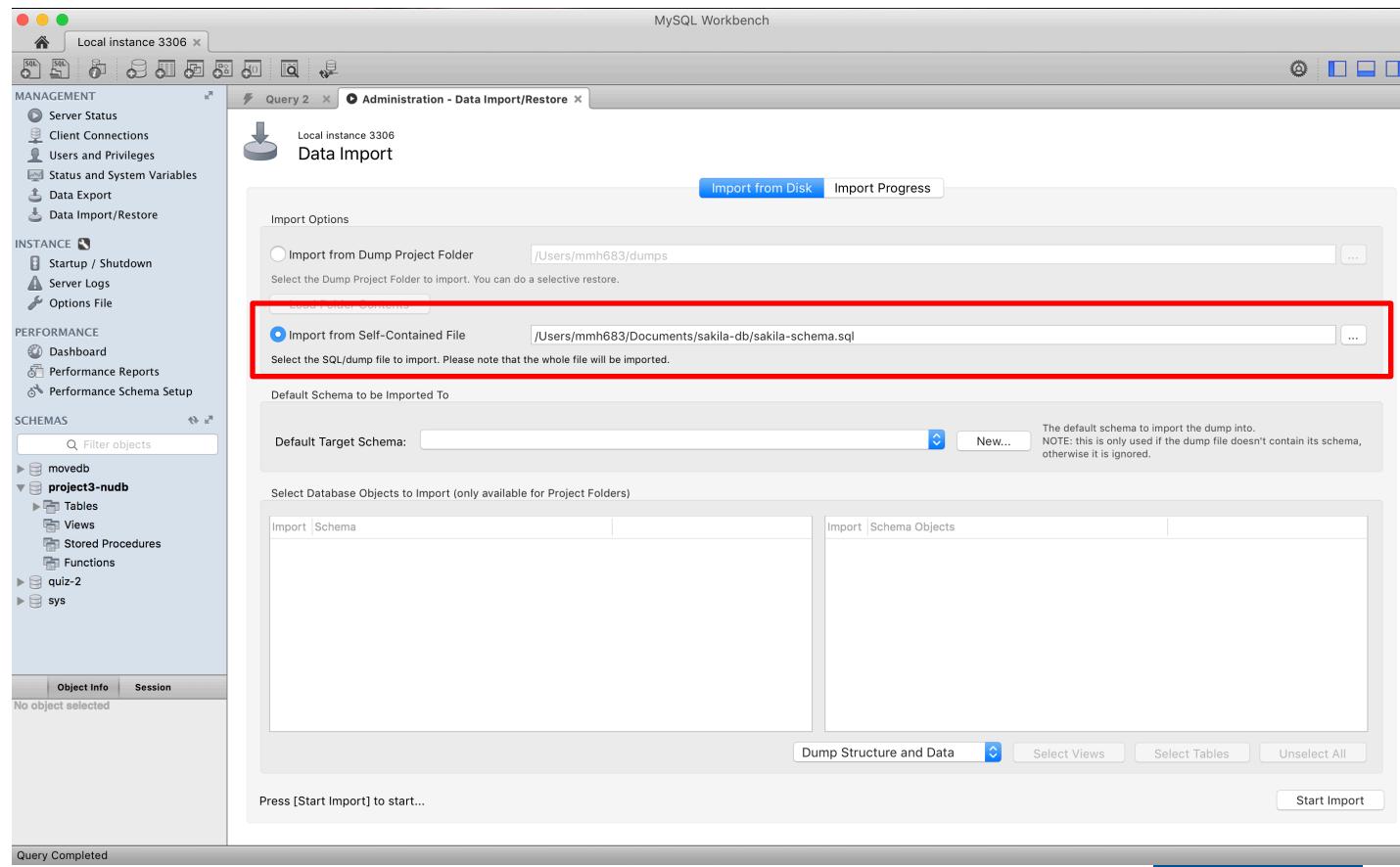
SAKILA DATABASE

Sakila DB

- Can be used for initial practicing
- The Sakila sample database is available from <http://dev.mysql.com/doc/index-other.html>
- Contains three files:
 - sakila-schema.sql
 - sakila-data.sql
 - sakila.mwb

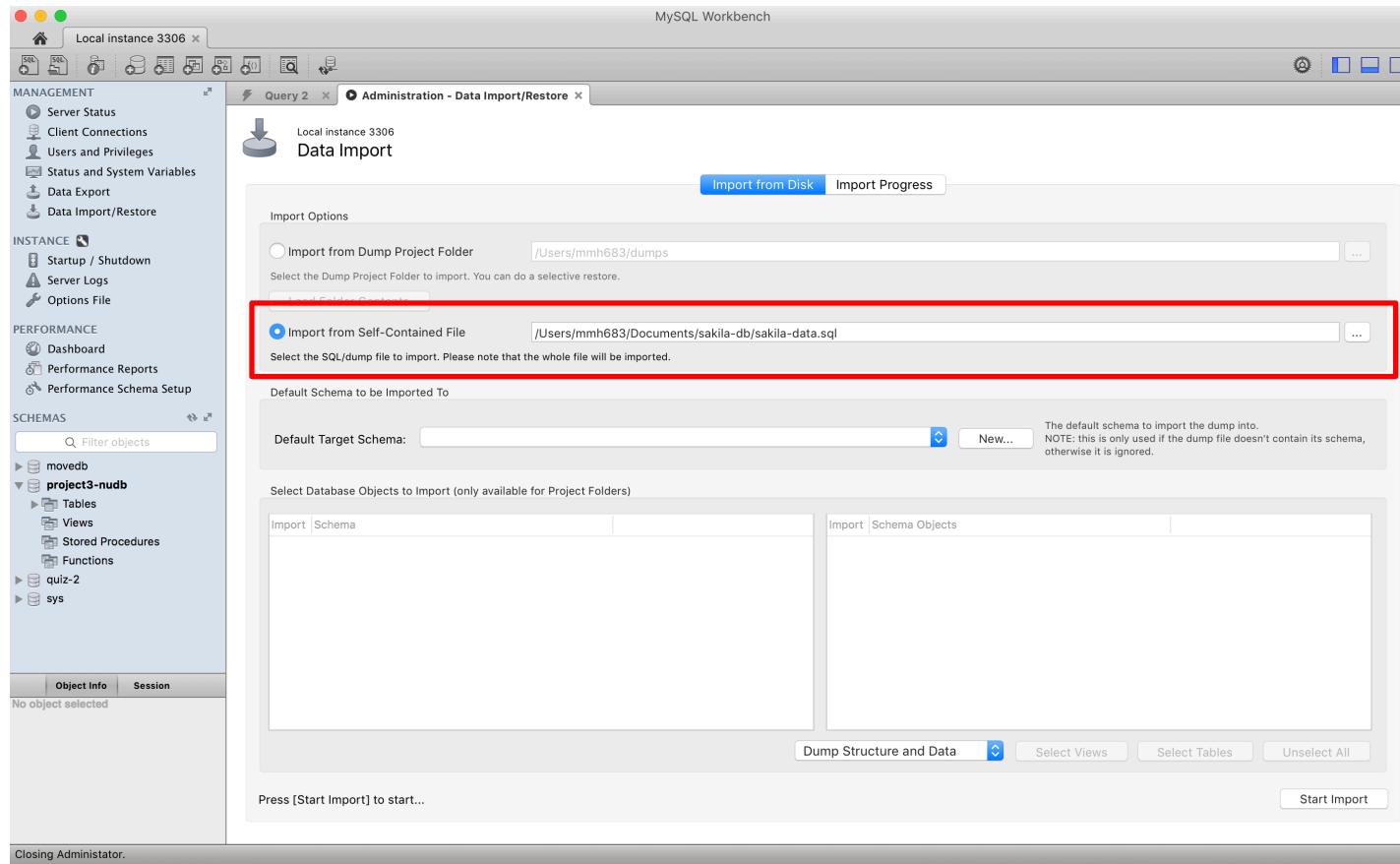
Importing a DB

- Select server->data import in workbench
- In the following screen, load the schema first



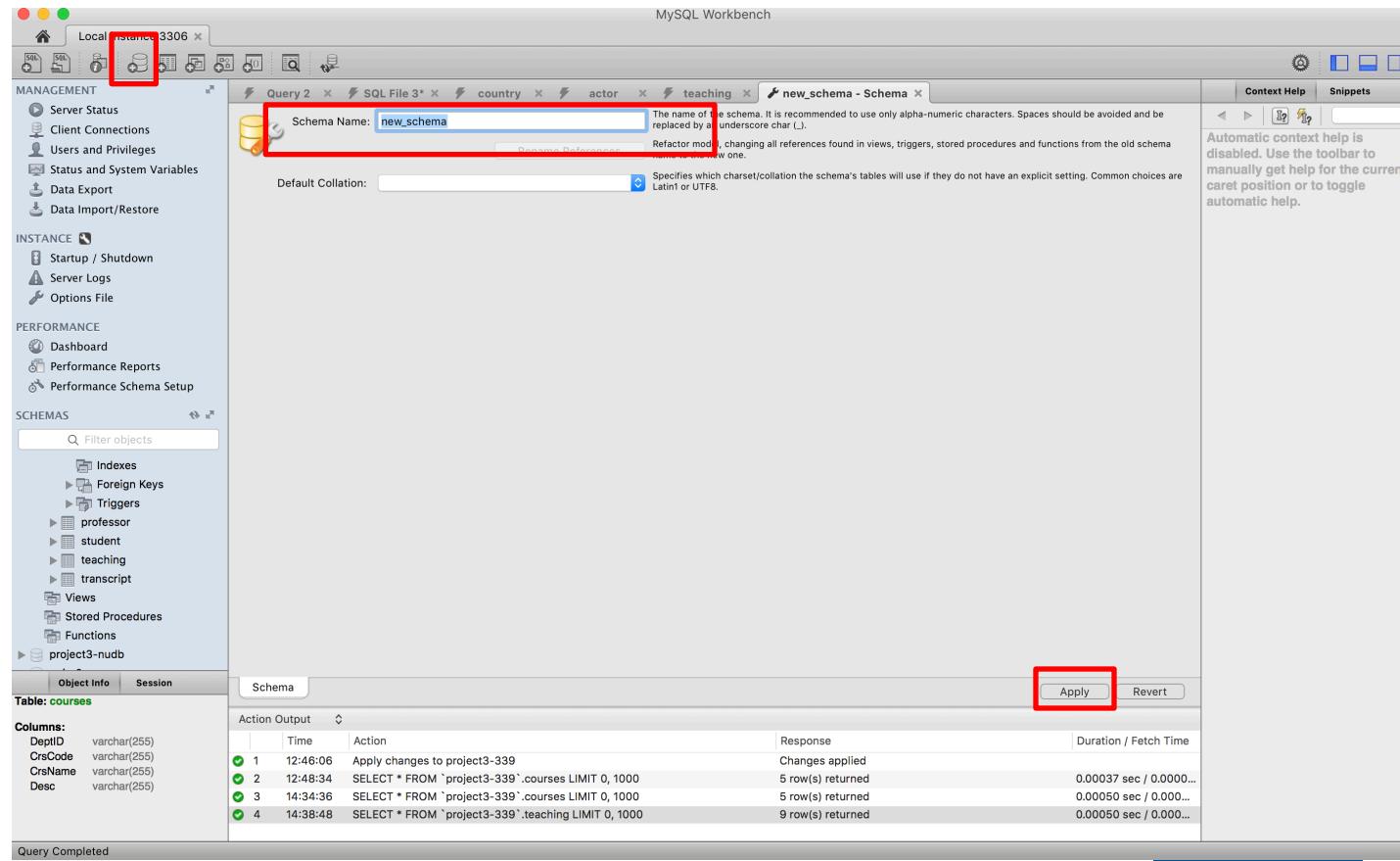
Importing a DB

- After importing the schema, do the same for the data file



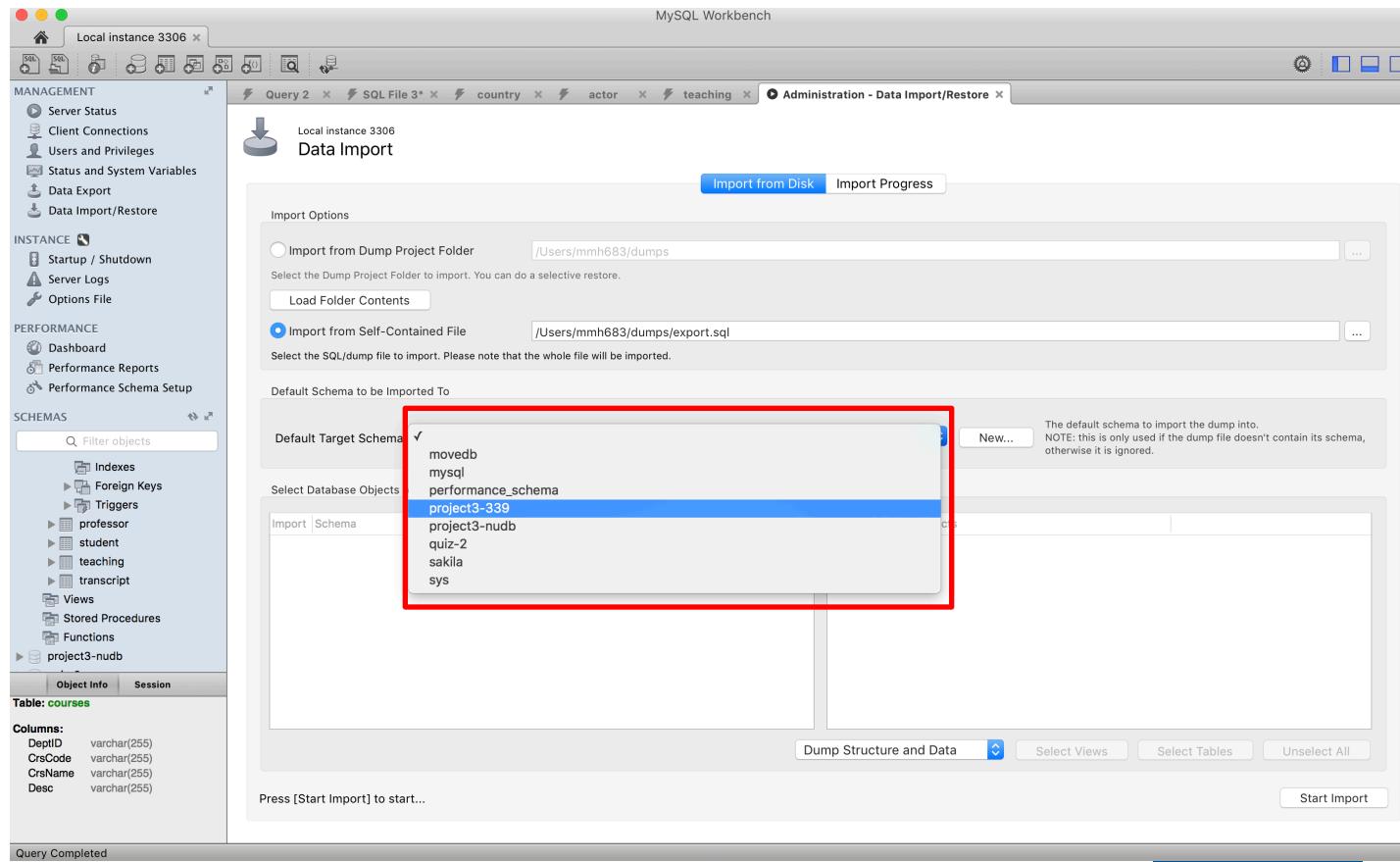
Importing a DB

- In some cases, you first have to create a new schema (**not necessary for project 1 though**)



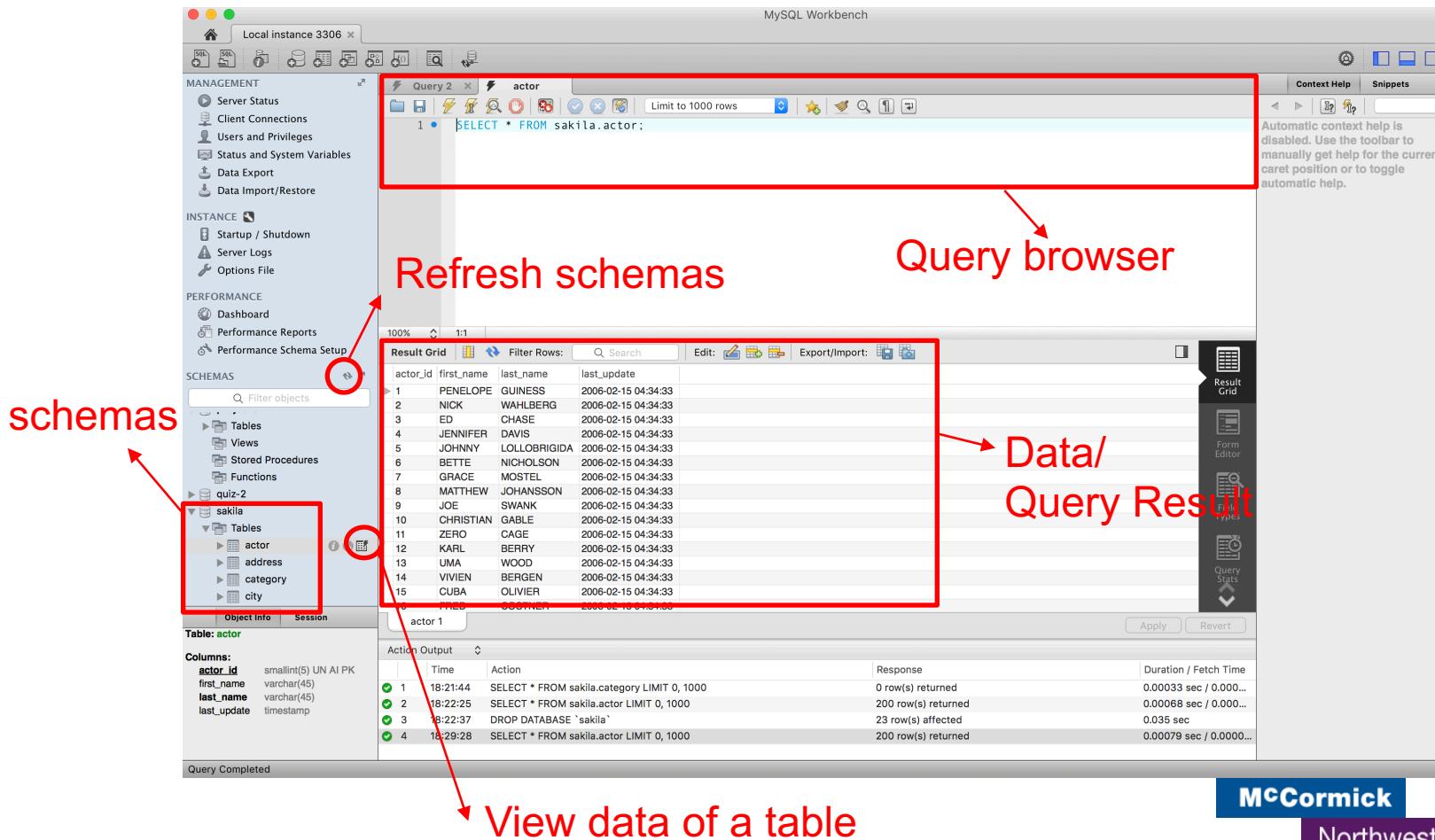
Importing a DB

- Then, while importing, select the new schema as the target schema..



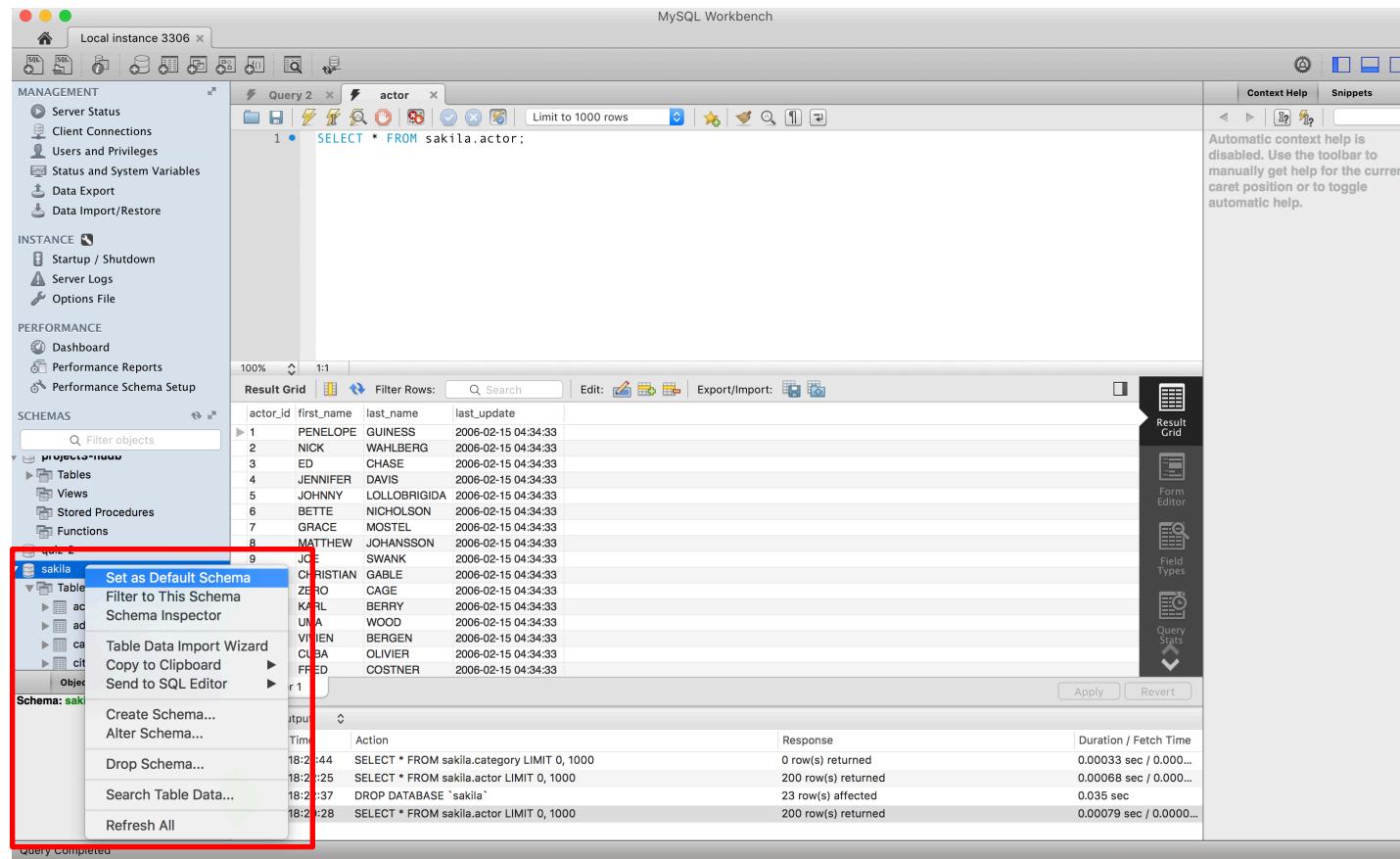
Importing a DB

- After refreshing “schemas”, you’ll see sakila db in your schema list (populated with data)



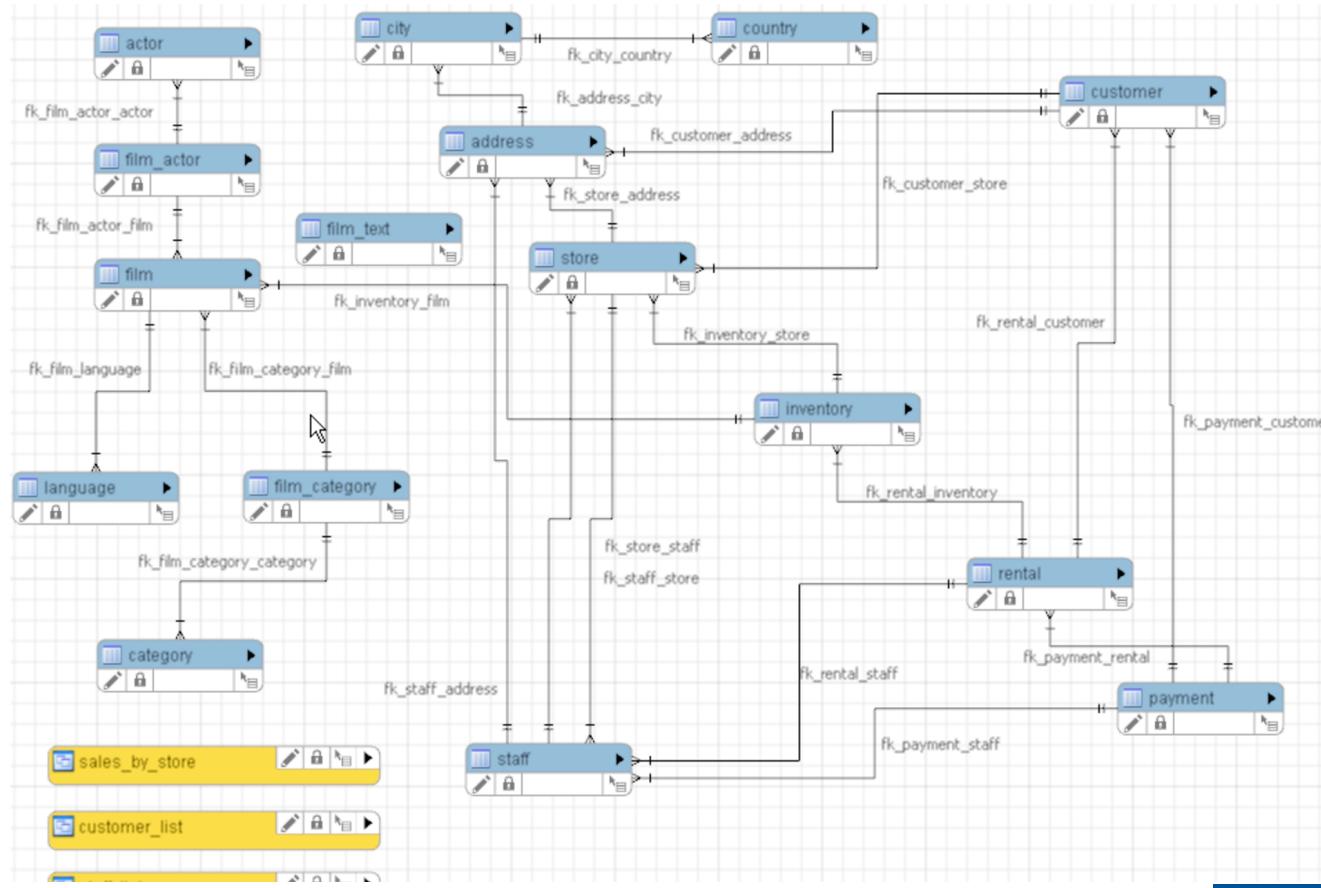
Importing a DB

- Before using any database, you have to make it default (use db_name; query in cmd)



Sakila DB Structure

- ER-Diagram, can be viewed using .wmb file, or Database -> Reverse Engineer



Sample Queries & Results

- Give the titles of the films where Mathew Johansson was an actor.

The screenshot shows the MySQL Workbench interface with a query editor and a results grid. The query editor at the top contains the following SQL code:

```
1 • SELECT title FROM film as f, film_actor as fa where fa.actor_id = (SELECT actor_id FROM actor WHERE first_name="MATTHEW" and last_name="JOHANSSON") and f.film_id=fa.film_id;
```

The results grid below displays the titles of the films where Mathew Johansson was an actor. The results are as follows:

title
BABY HALL
CAMPUS REMEMBER
CLONES PINOCCHIO
CONQUERER NUTS
CROWDS TELEMARK
DANCES NONE
DRIVING POLISH
DURHAM PANKY
FLASH WARS
HANGING DEEP
INDIAN LOVE
LIGHTS DEER
LOSER HUSTLER
MALKOVICH PET
RUNNER MADIGAN
SCHOOL JACKET

Sample Queries & Results

- Find overdue dvds (and responsible customers)

The screenshot shows the MySQL Workbench interface. At the top, there are four tabs: 'Query 2' (highlighted), 'actor', 'film_actor', and 'film'. Below the tabs is a toolbar with various icons. A dropdown menu says 'Limit to 1000 rows'. The main area contains a SQL query:

```
1 •  SELECT CONCAT(customer.last_name, ' ', customer.first_name) AS customer,
2      address.phone, film.title
3      FROM rental INNER JOIN customer ON rental.customer_id = customer.customer_id
4      INNER JOIN address ON customer.address_id = address.address_id
5      INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id
6      INNER JOIN film ON inventory.film_id = film.film_id
7      WHERE rental.return_date IS NULL
8      AND rental_date + INTERVAL film.rental_duration DAY < CURRENT_DATE()
9      LIMIT 5;
```

Below the query is a result grid titled 'Result Grid'. It has columns for 'customer', 'phone', and 'title'. The data is as follows:

customer	phone	title
KNIGHT, GAIL	904253967161	HYDE DOCTOR
MAULDIN, GREGORY	80303246192	HUNGER ROOF
JENKINS, LOUISE	800716535041	FRISCO FORREST
HOWELL, WILLIE	991802825778	TITANS JERK
DIAZ, EMILY	333339908719	CONNECTION MICROCOSMOS

On the right side of the interface, there is a vertical toolbar with icons for 'Result Grid', 'Form Editor', 'Field Types', 'Query Stats', and a downward arrow.

Sample Queries & Results

- To rent a DVD, first confirm that the given inventory item is in stock, e.g., **SELECT INVENTORY_IN_STOCK(10);**
- Then insert a row into the rental table, i.e., **INSERT INTO rental(rental_date, inventory_id, customer_id, staff_id) VALUES(NOW(), 10, 3, 1);**
- Insert a row into the payment table: **INSERT INTO payment (customer_id, staff_id, rental_id, amount, payment_date)
VALUES(3,1,LAST_INSERT_ID(), @balance,
NOW());**

MySQL Workbench – Useful Links

- MySQL Workbench Database Modeling tutorial:
<https://dev.mysql.com/doc/workbench/en/wb-tutorials.html>
- MySQL Workbench SQL Query Editor tutorial:
<https://dev.mysql.com/doc/workbench/en/wb-sql-editor.html>
- Sakila DB examples:
<https://dev.mysql.com/doc/sakila/en/sakila-introduction.html>

Thank You.