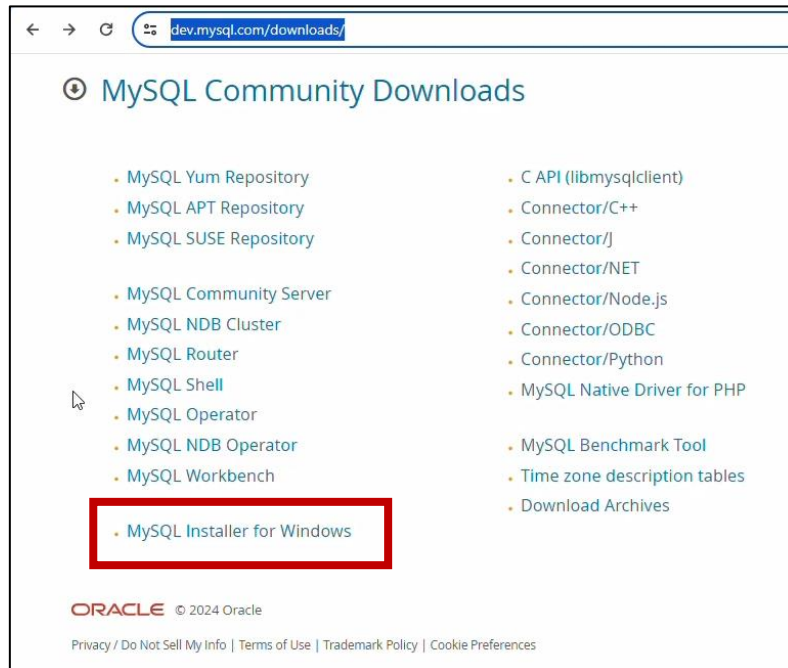


Downloading MySQL and Setting up a Database

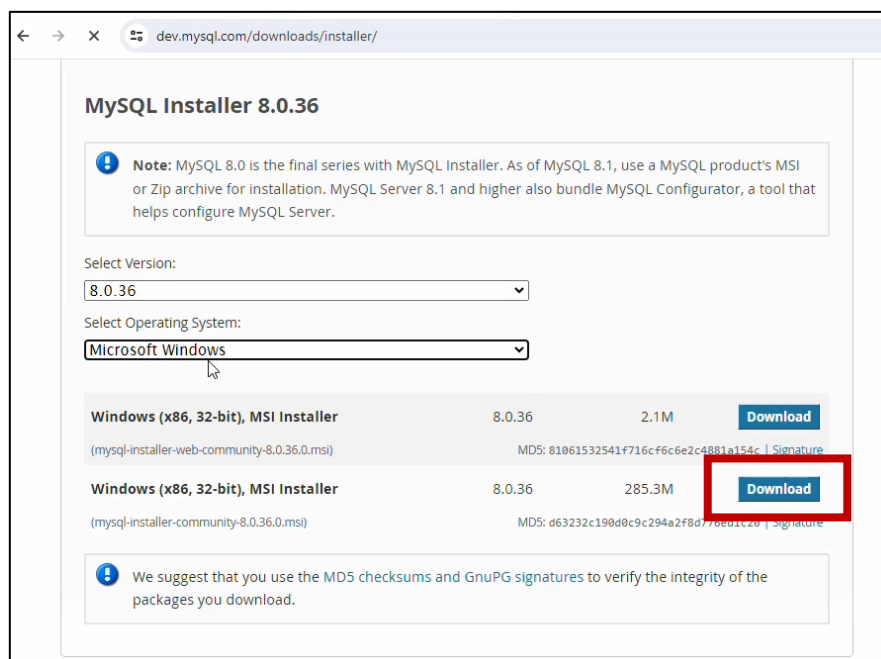
Part I: Downloading and Installing MySQL

Step 1: Go to dev.mysql.com/downloads

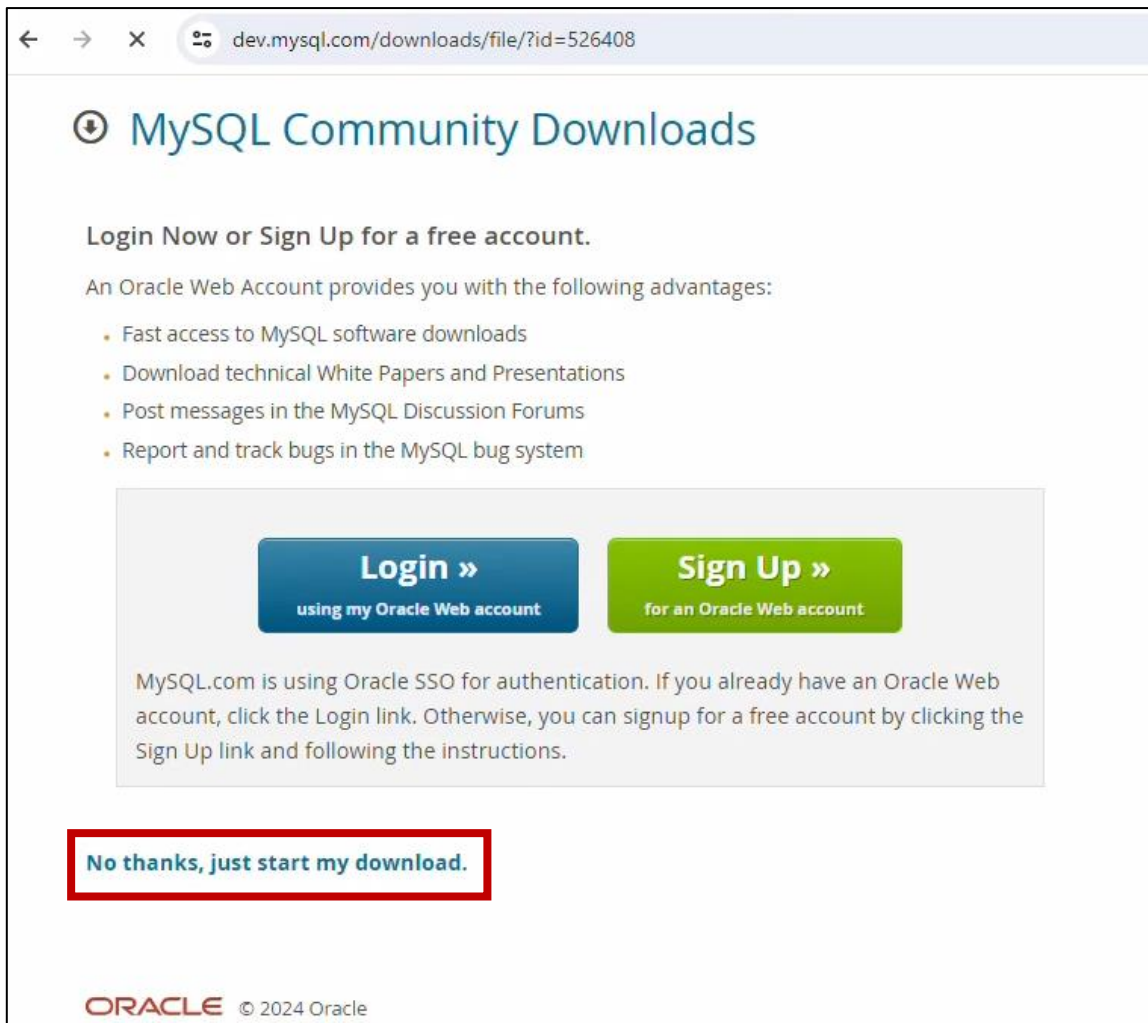


Step 2: Click on **MySQL Installer for Windows** (if you are using windows)

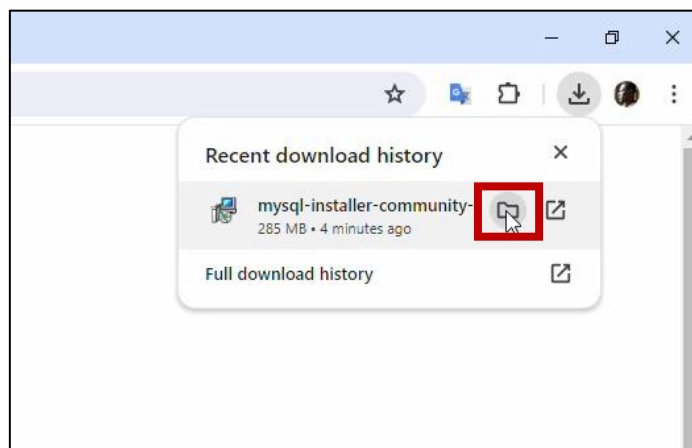
Step 3: Click on the second **Download** option (the heavier)



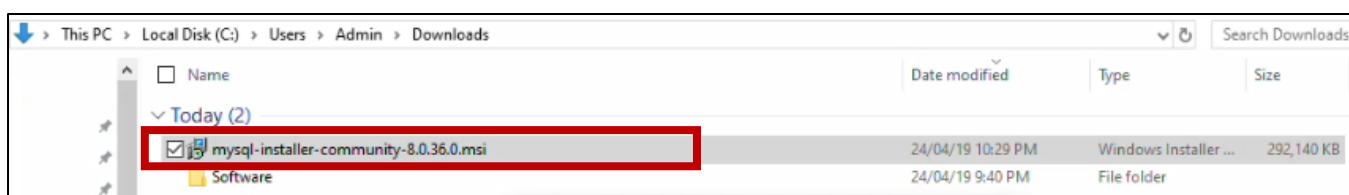
Step 4: Click on **No thanks, just start my download.** Now wait for the download to finish.



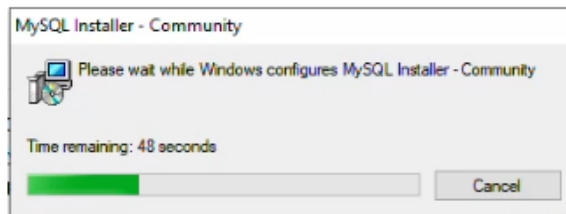
Step 5: Click to **Show in Folder.**



Step 6: Open the installer from its location (**Download** folder by default)

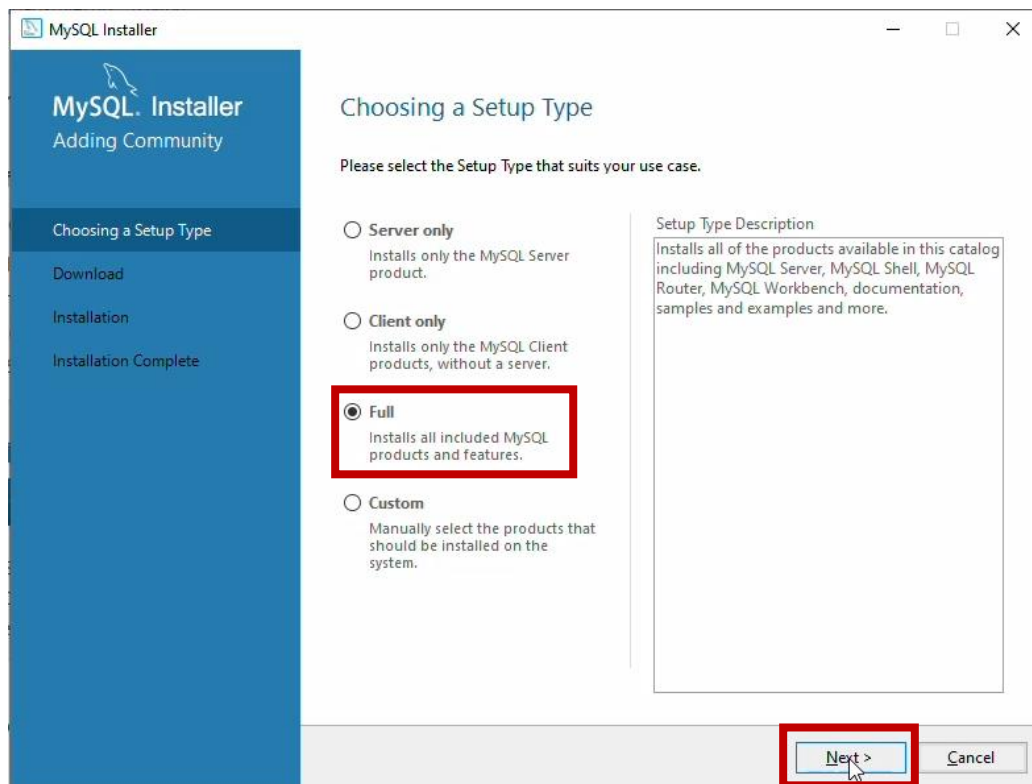


Step 7: Click **Yes** on the prompts asking for permissions that follow. Wait for the installer to configure.

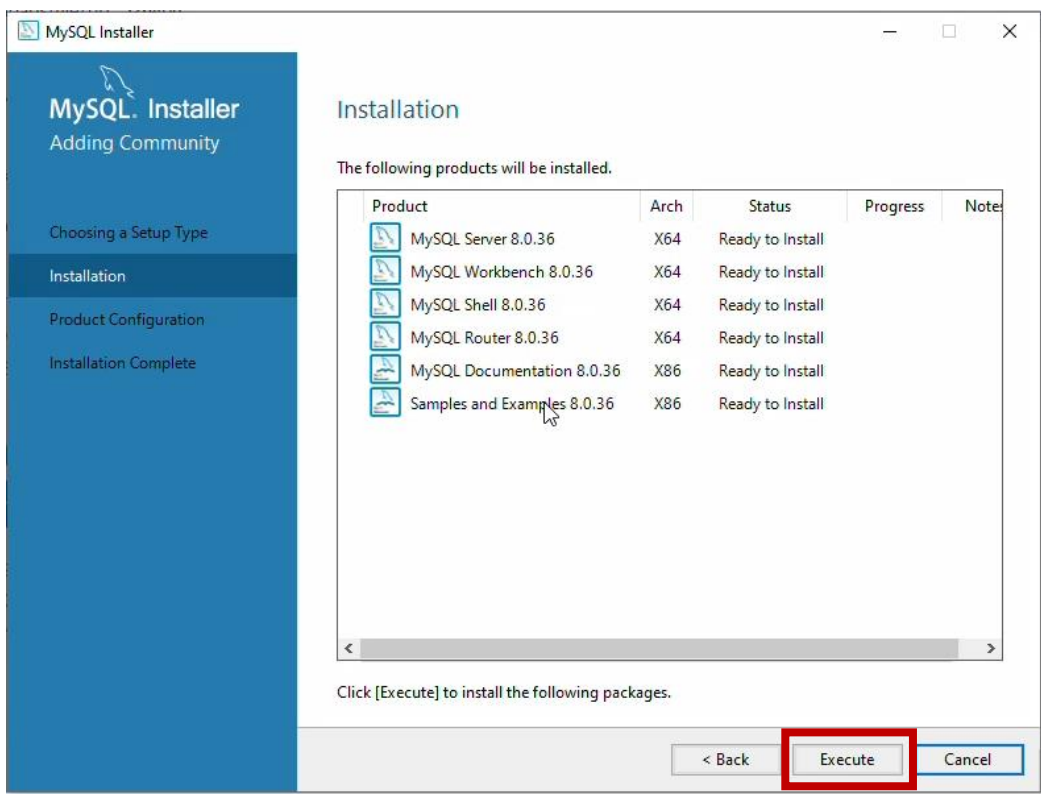


Step 8: Installing

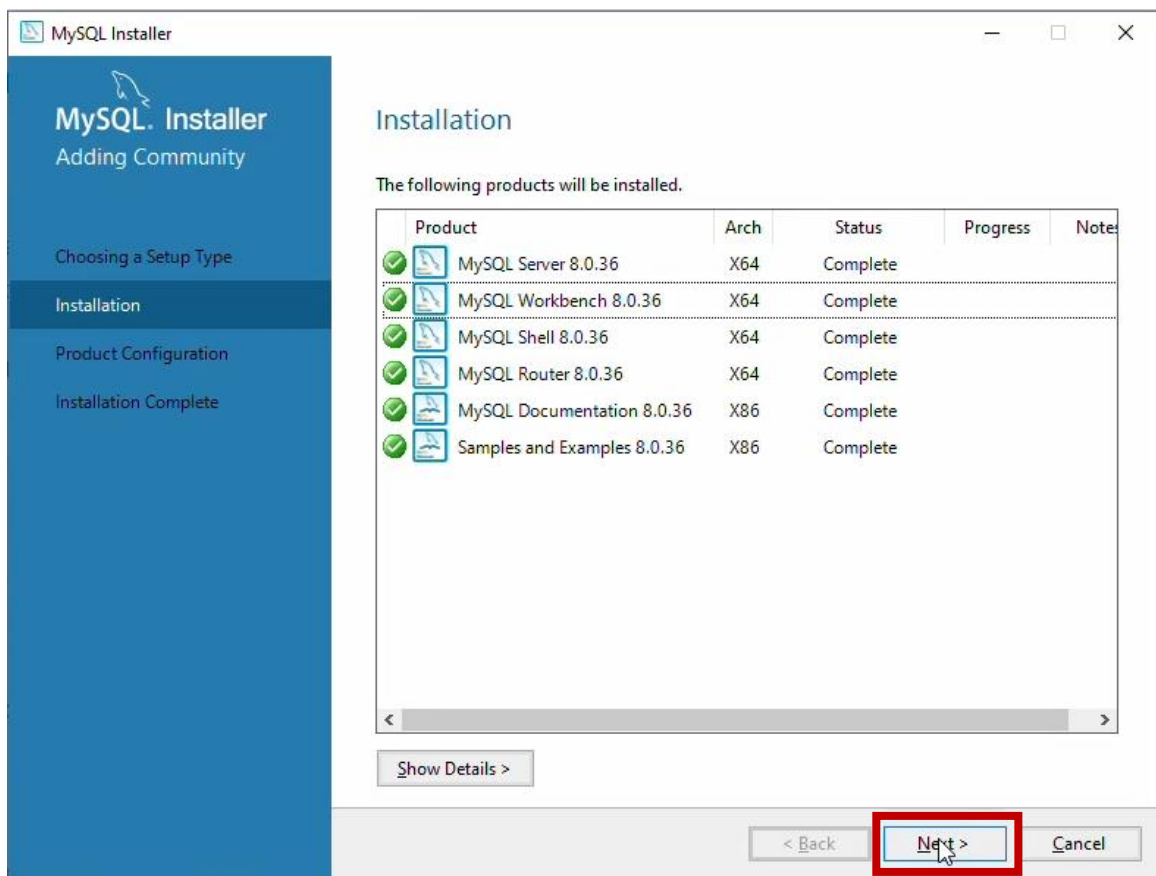
8.1: Select **Full** Type and click on **Next**.



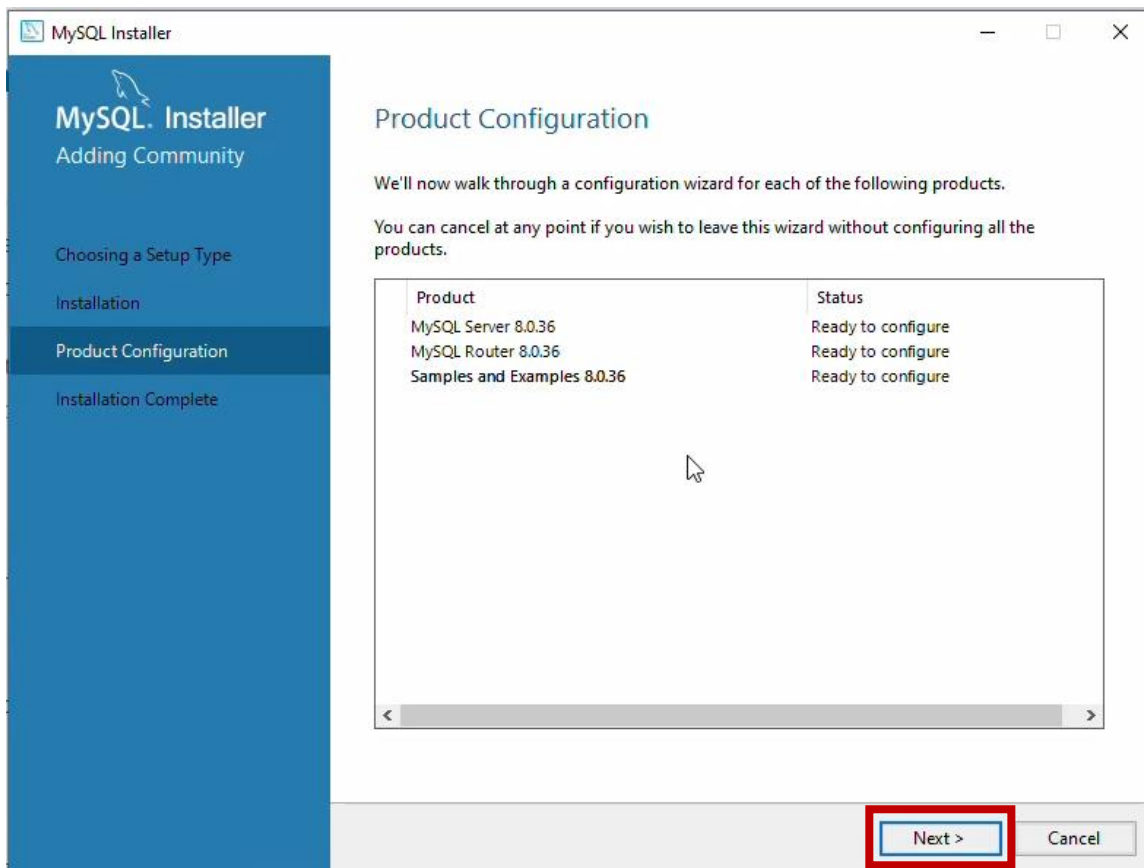
8.2: Click on **Execute**.



8.3: Then on **Next**,

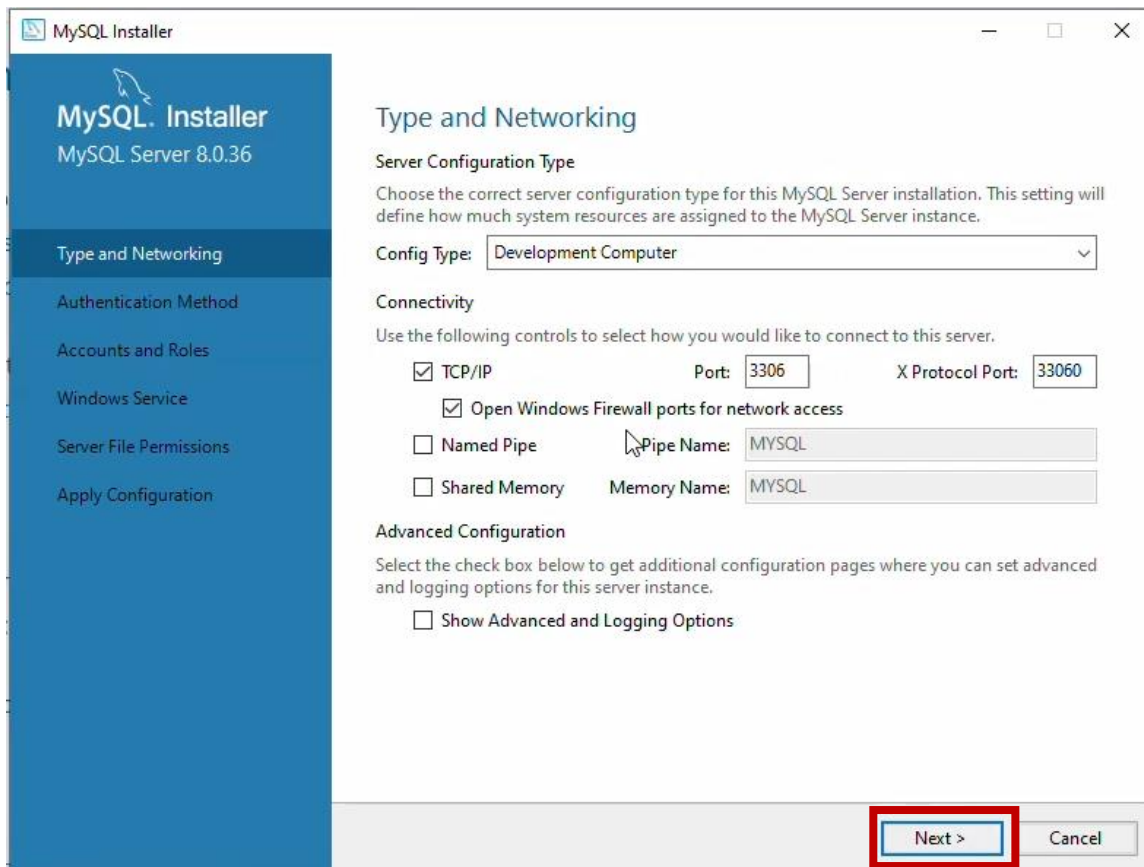


8.4: Next again

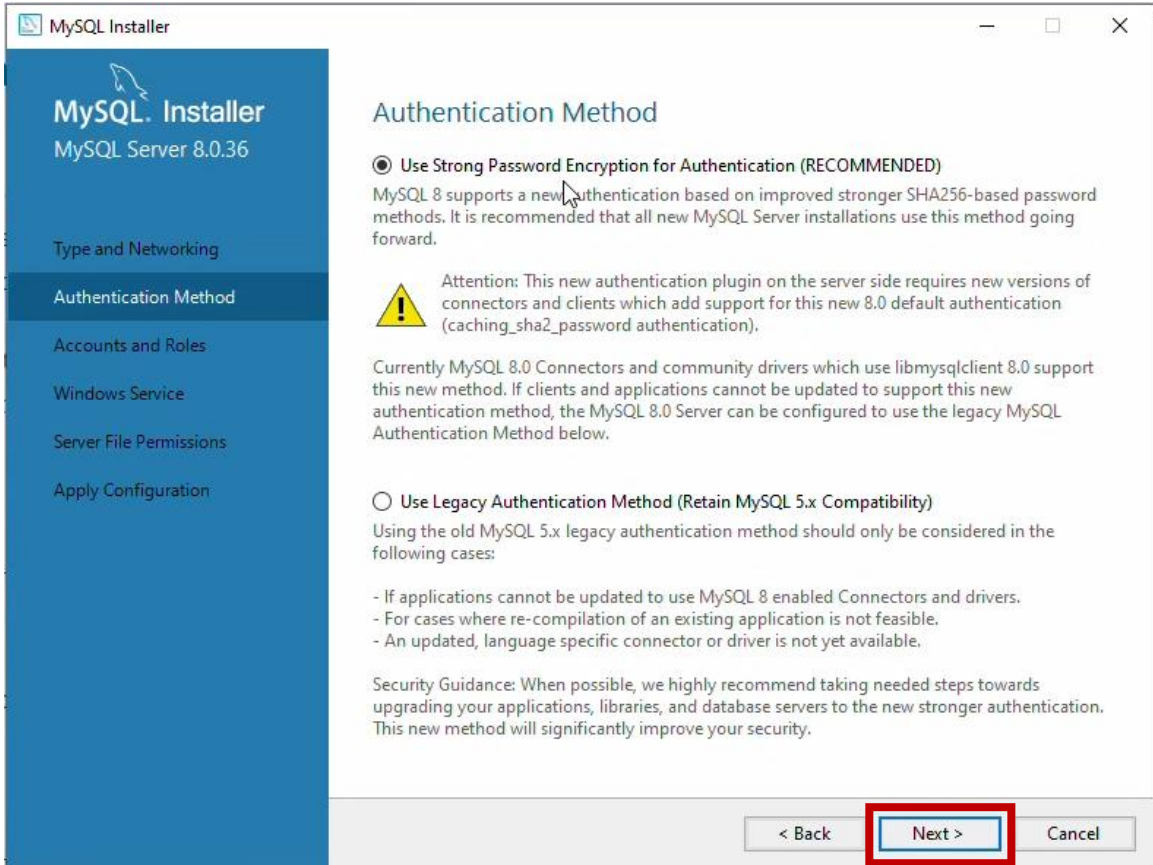


Step 9: For **MySQL Server**.

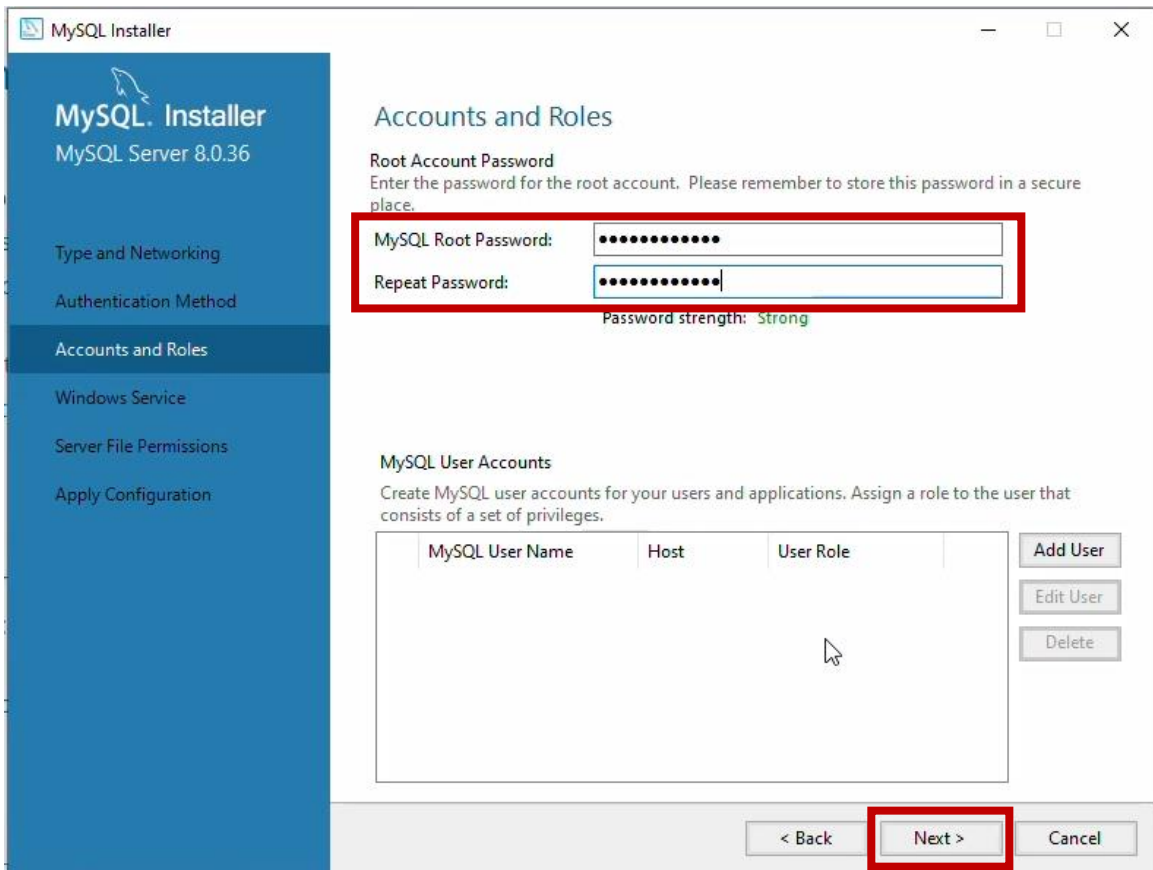
9.1: Leave the default configuration and click on **Next**.



9.2: Next again.

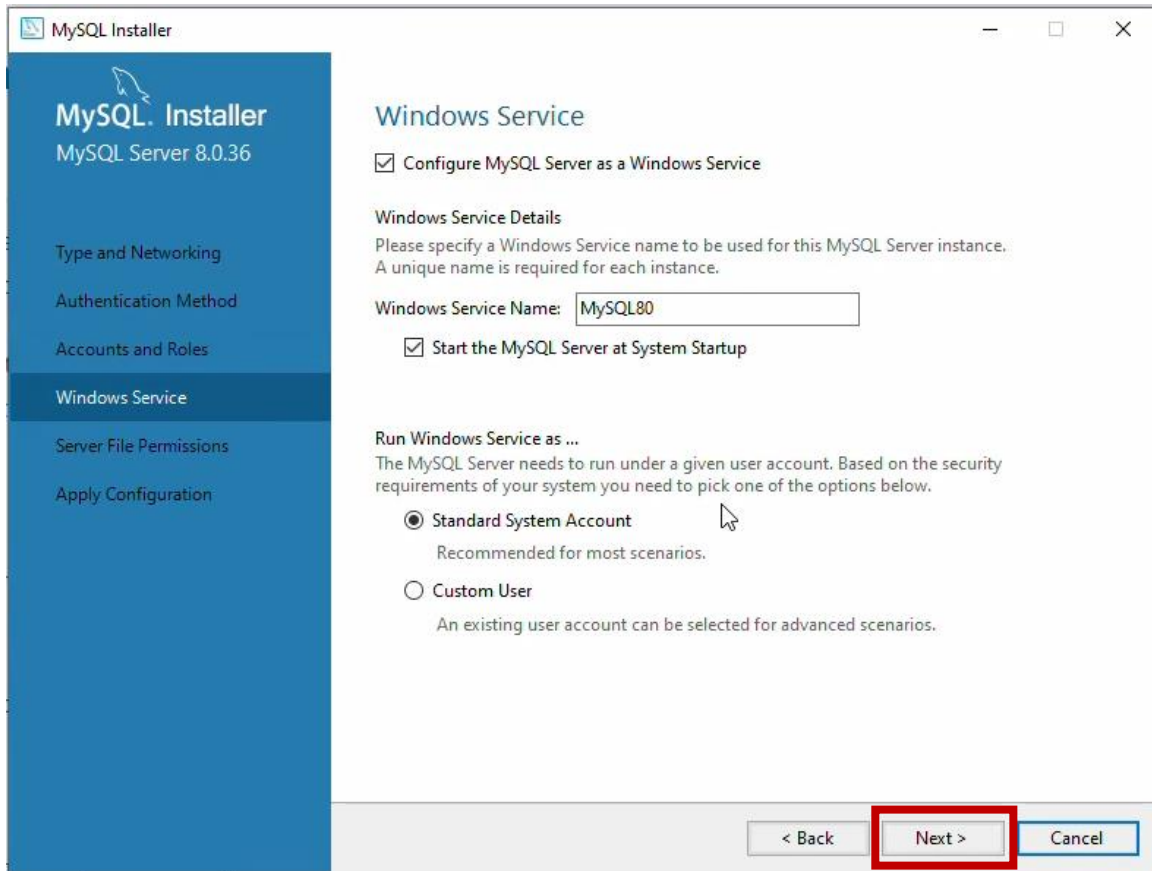


9.3 (Important): Configure the root user by choosing a password you will remember, or save it somewhere. Enter the same password in two the input boxes. Then click on Next.

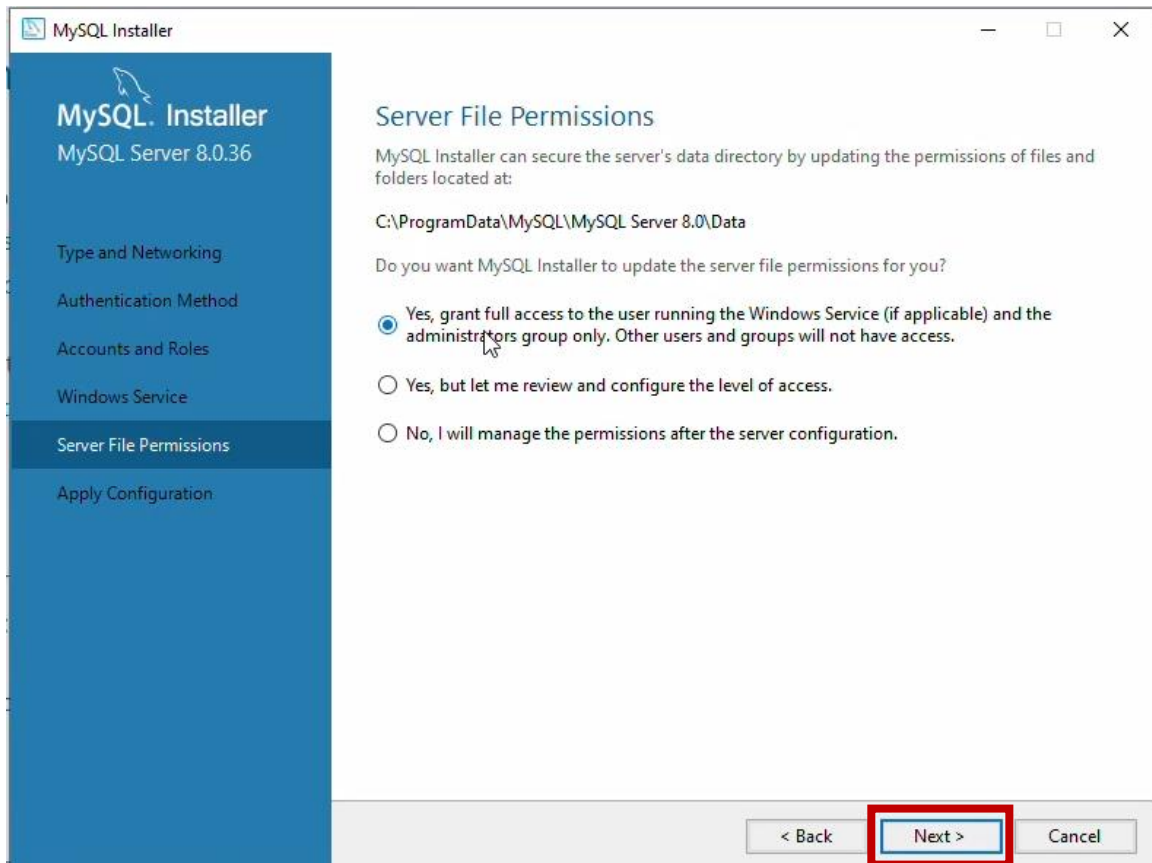


Note: We could create a new user here but we will do that later.

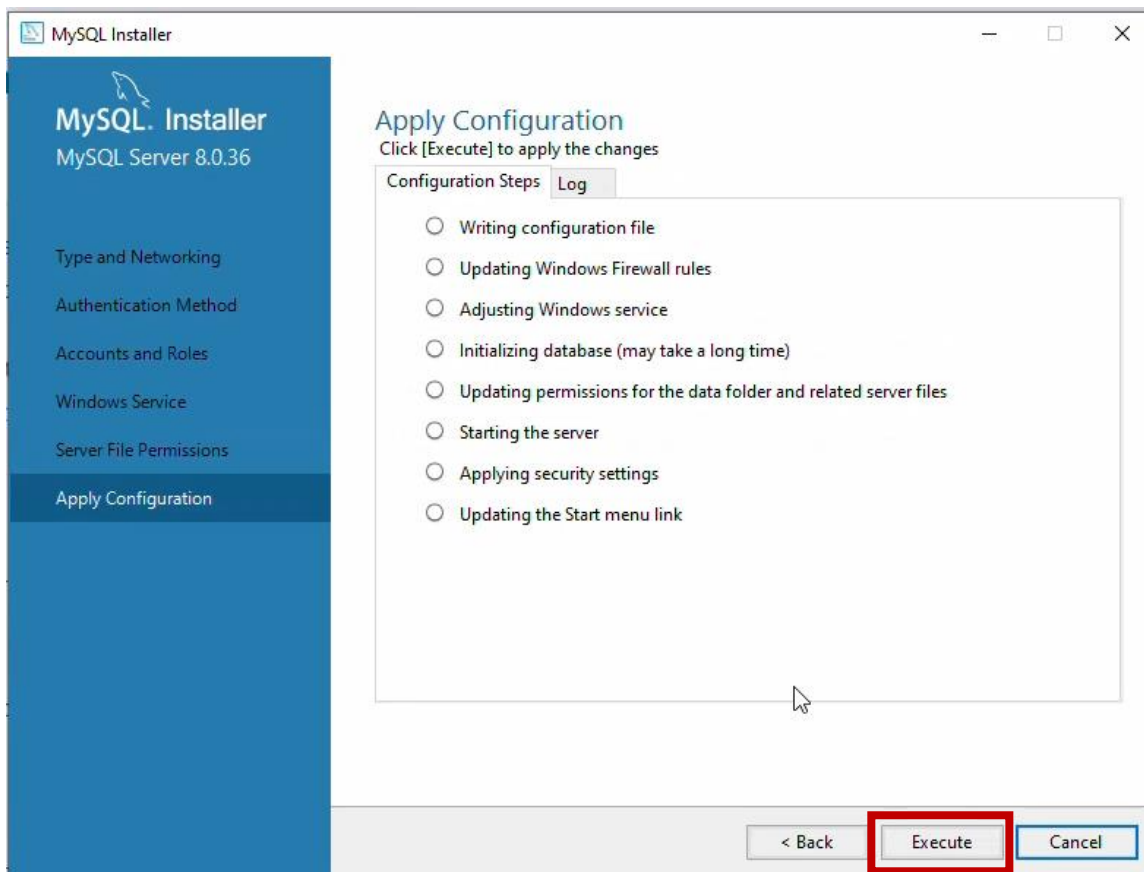
9.4: Leave the Windows Service with the default values and click on **Next**.



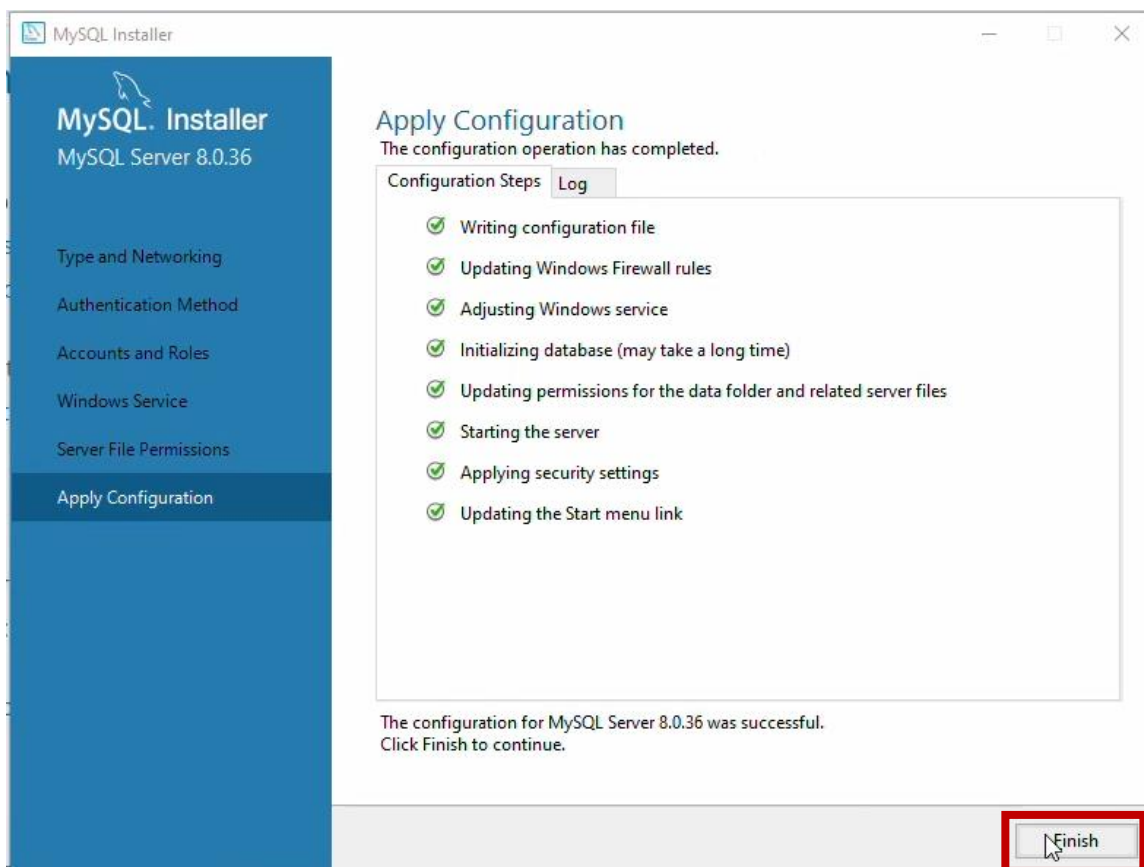
9.5 Same for Server File Permissions. Click on **Next**.



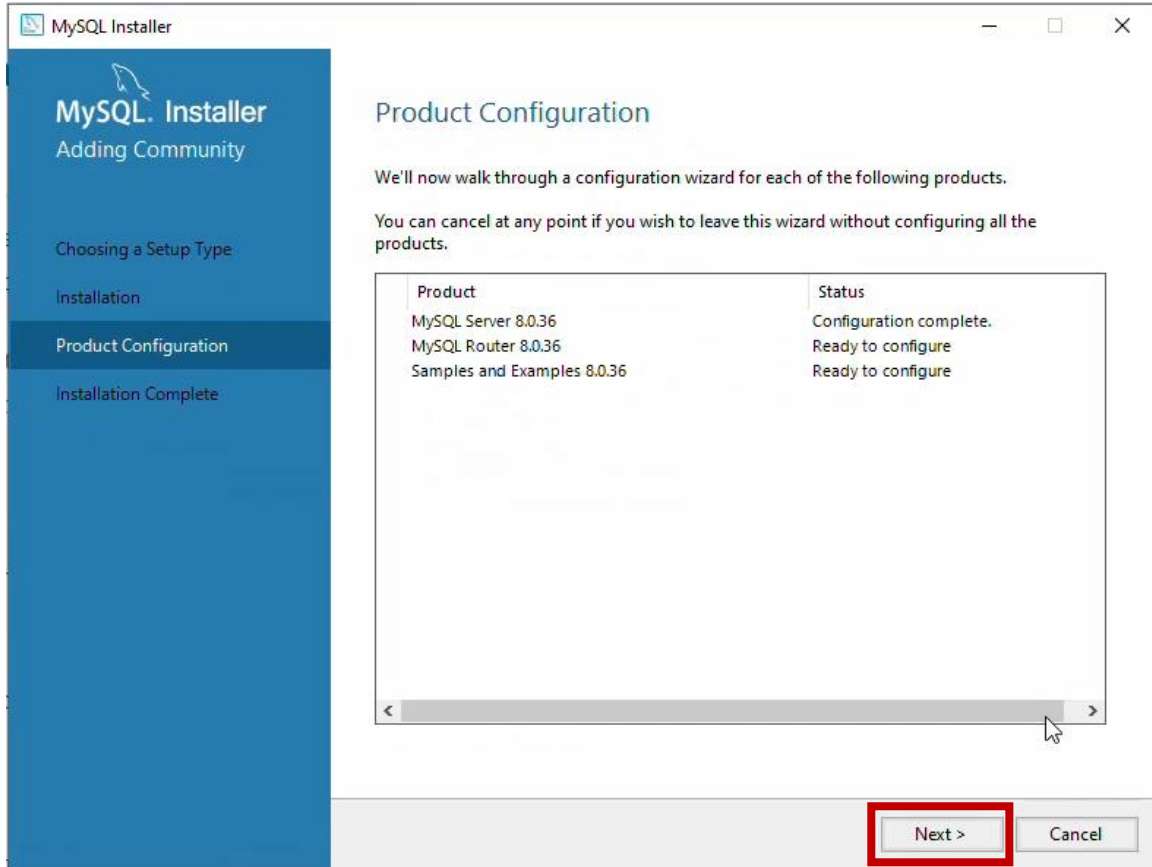
9.6: Click on **Execute** and wait.



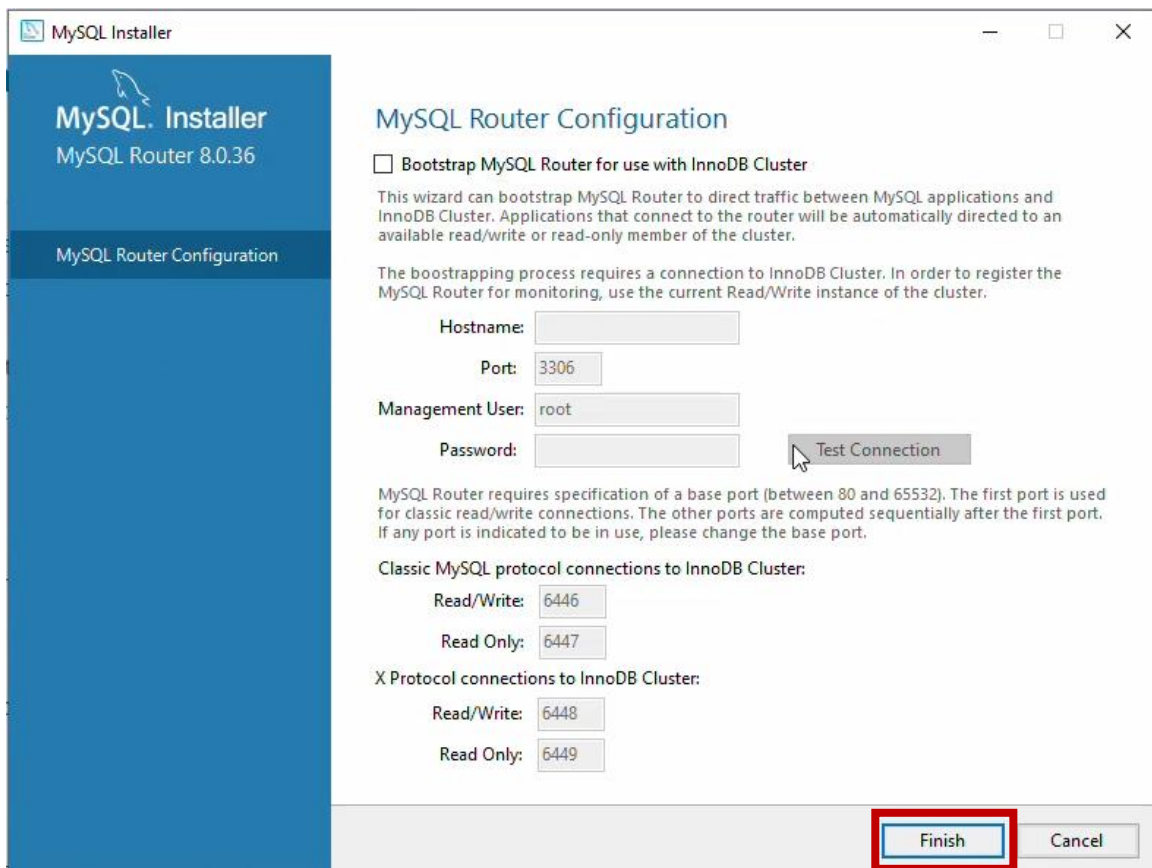
9.7: Click on **Finish**.



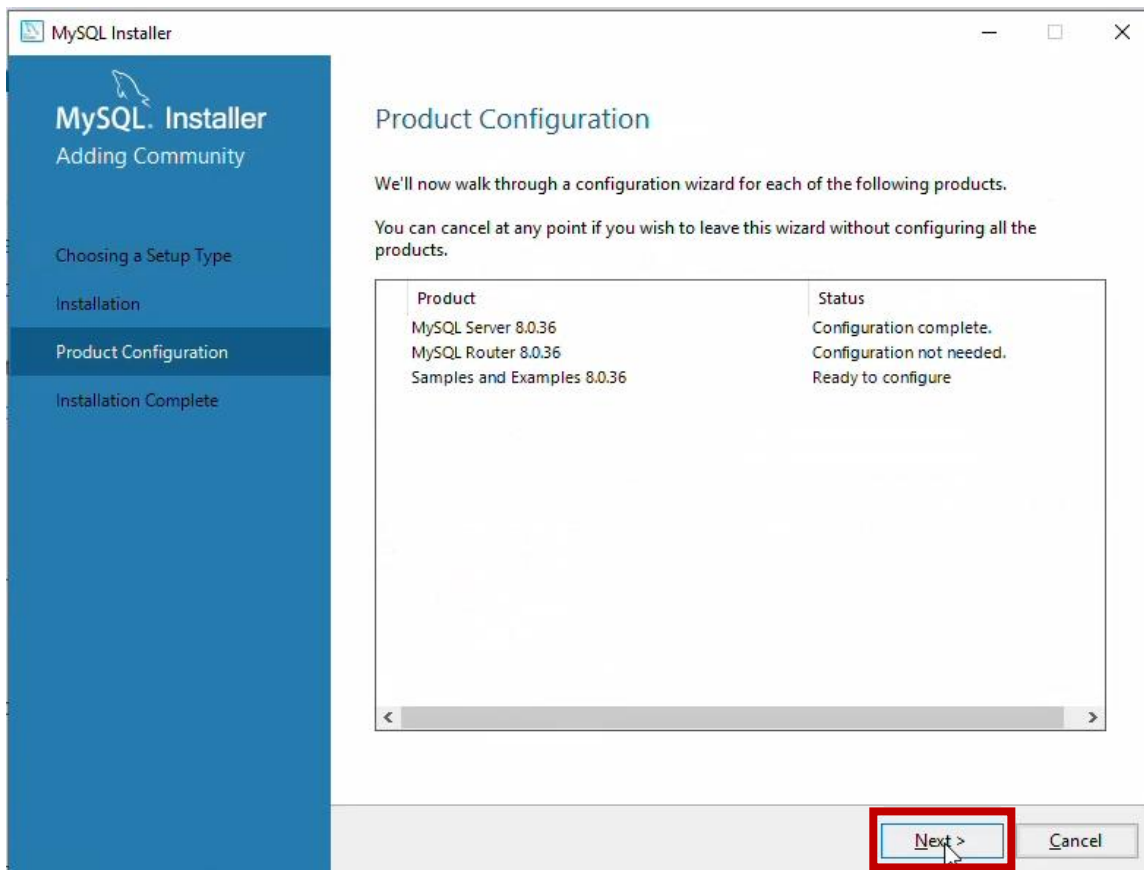
Step 10: Click on **Next**.



Step 11: Click on **Finish**.

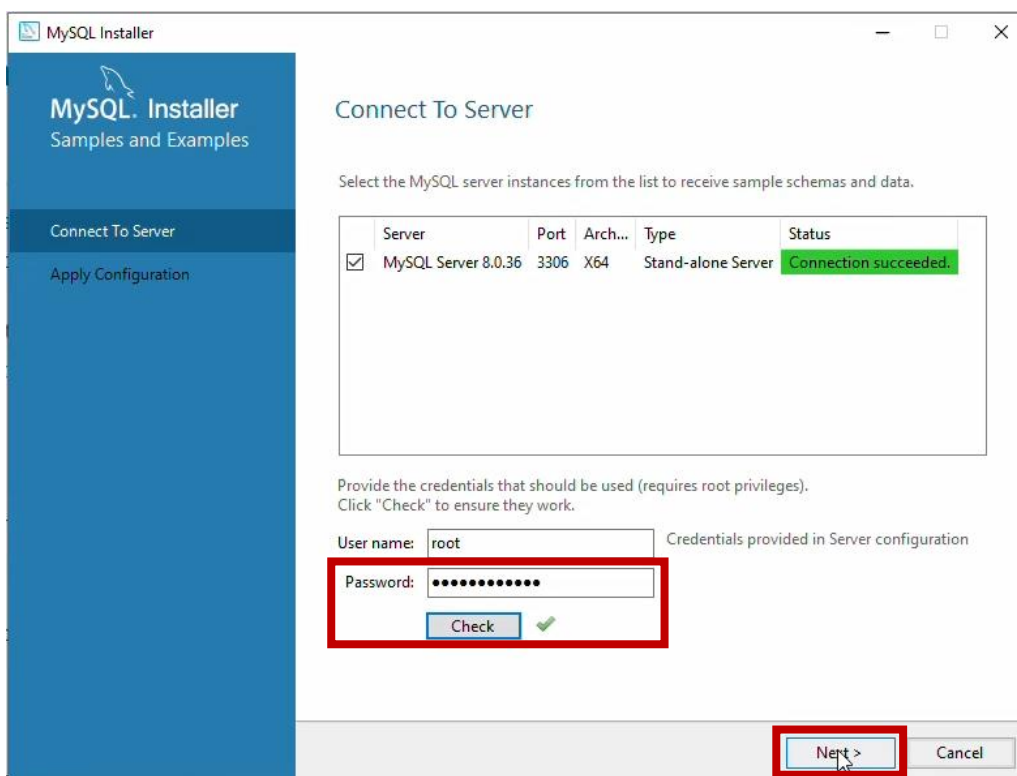


Step 12: Click on **Next**.

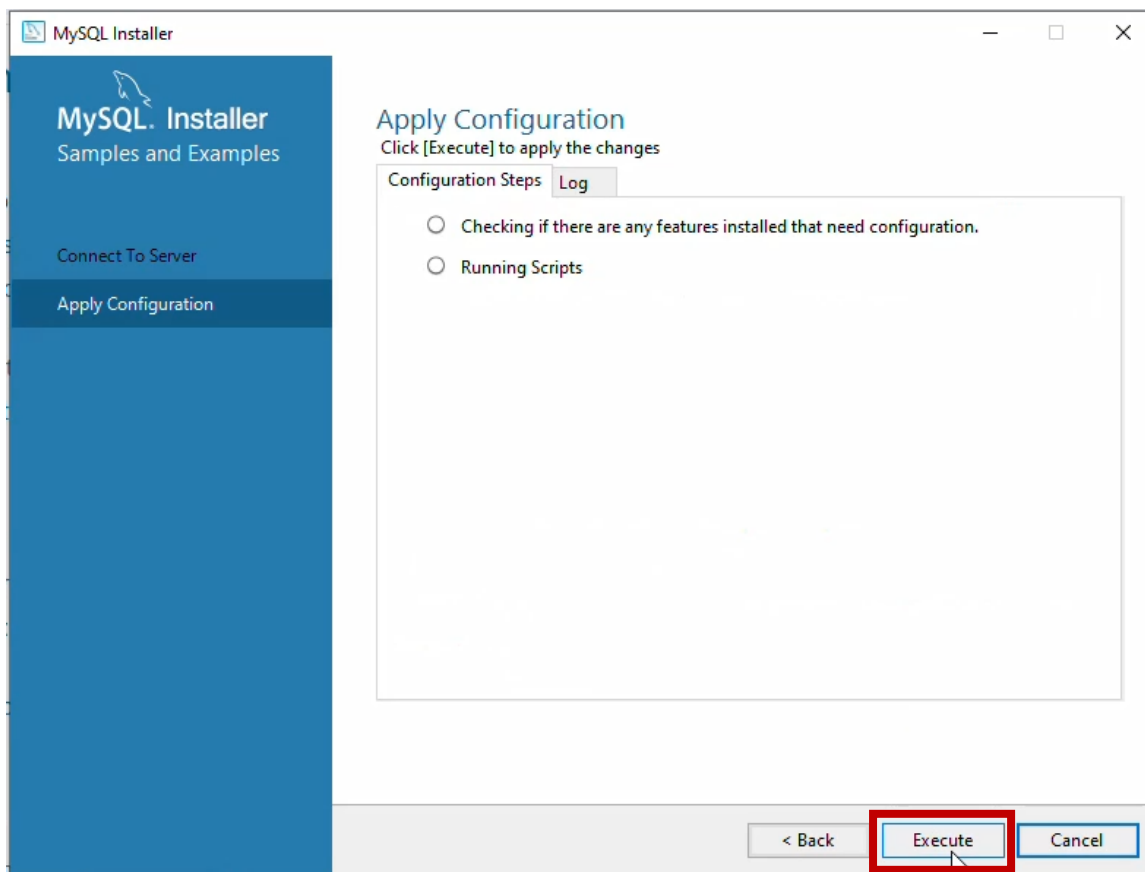


Step 13 (Important): Connect to the server.

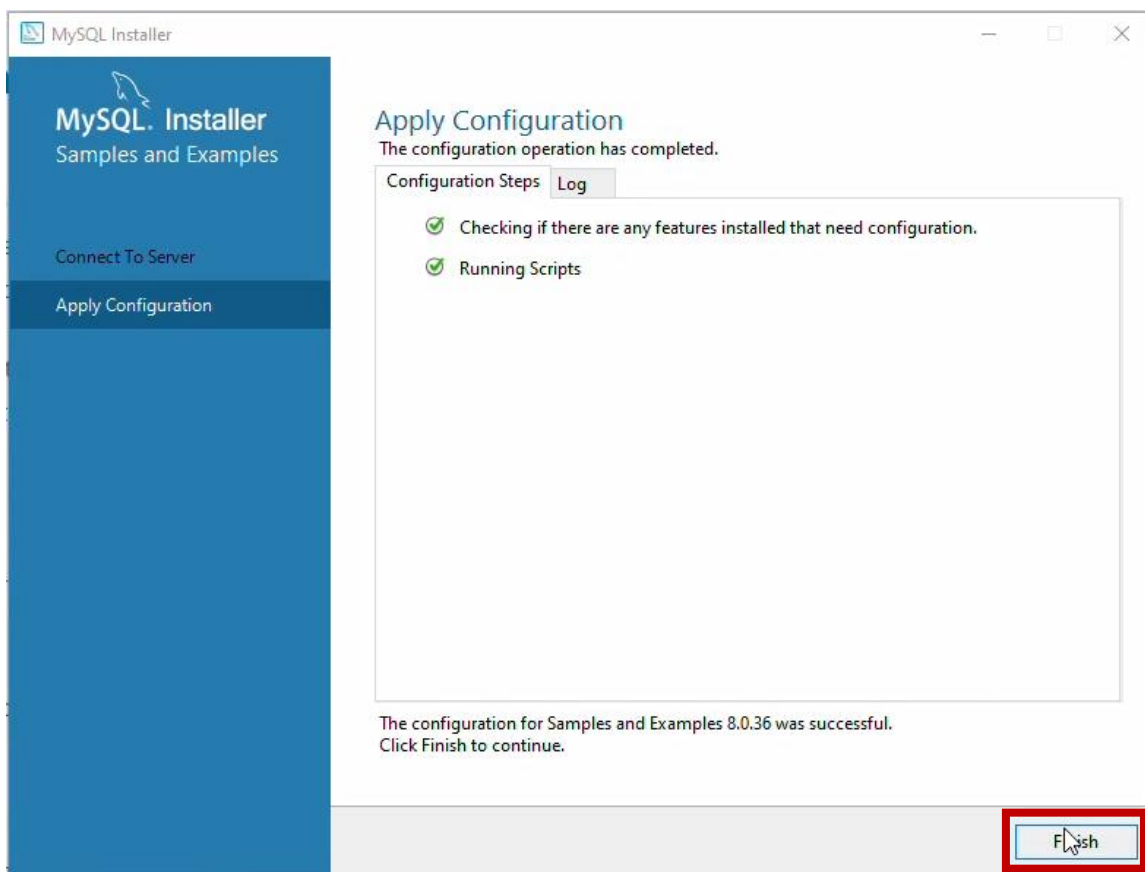
Input the password you input in step 9.3 in the password box, then click on **Check**. Once the status change to Connection succeeded, click on **Next**. You have now created the connection you will use to interact with the server as the root user.



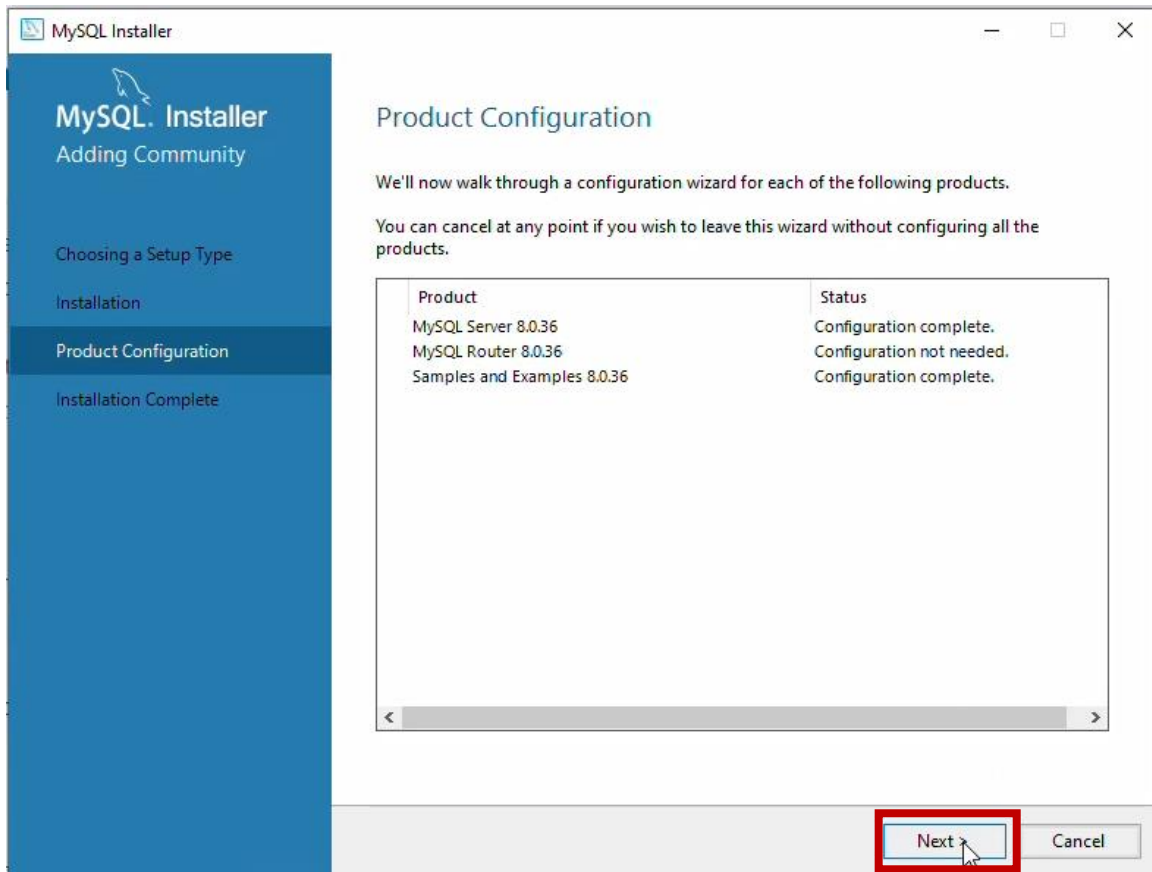
Step 14: Apply Configuration by clicking on **Execute**.



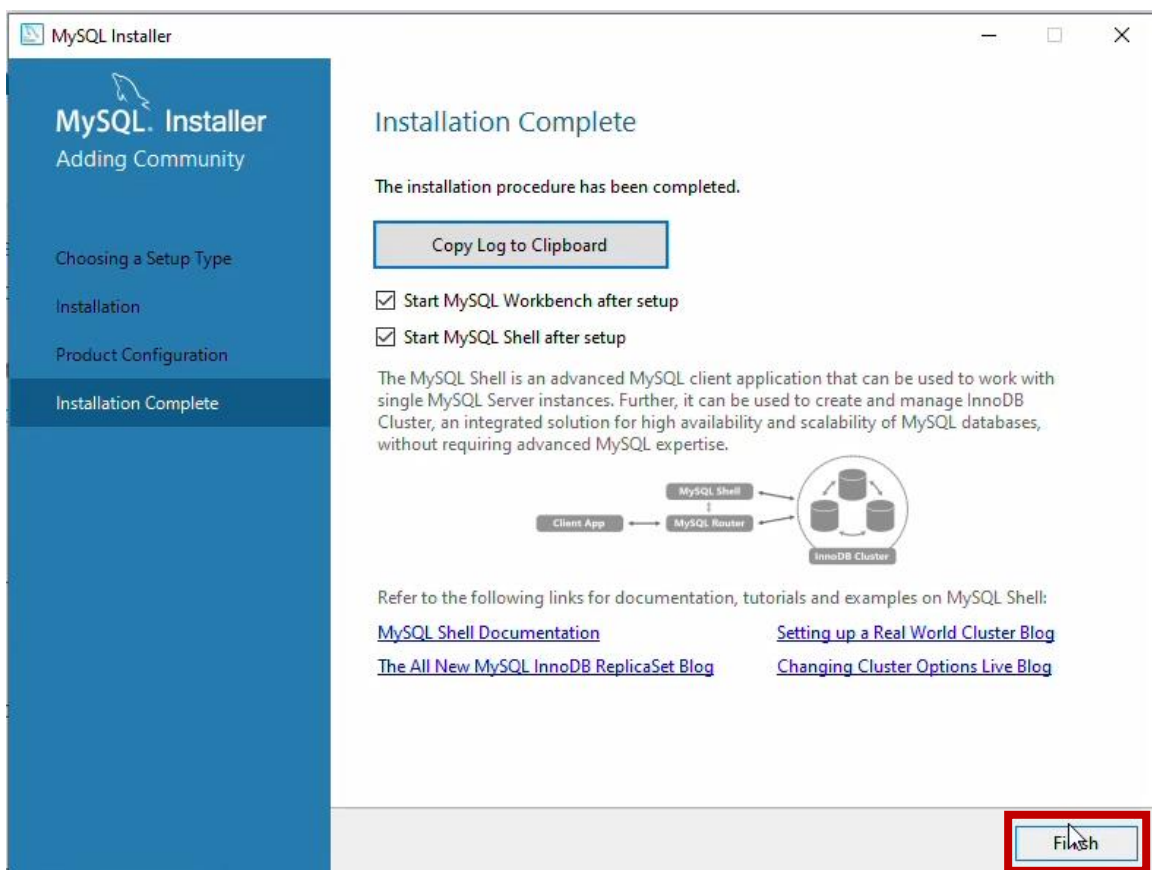
Then on **Finish**.



Step 15: Click on **Next**.

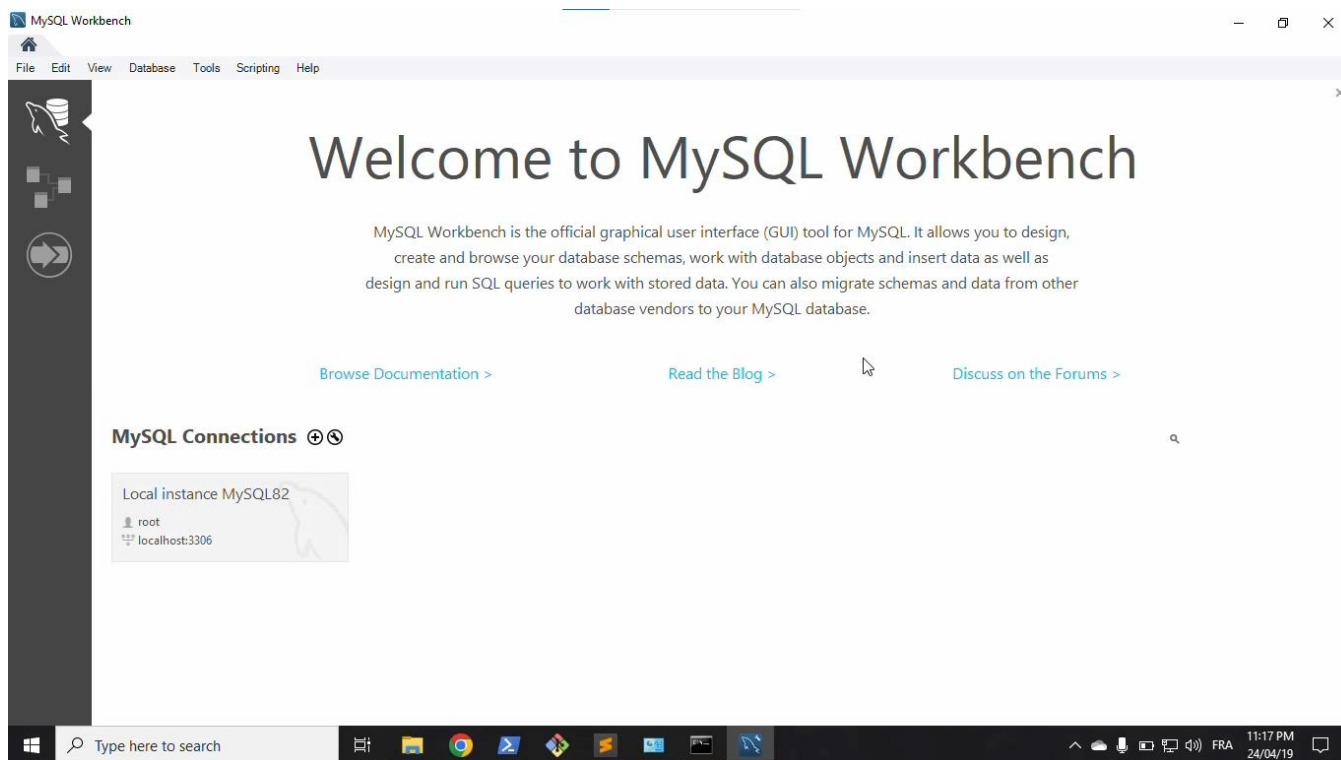


Step 16: Keep the default options and click on **Finish**.



Part II: Setting up a database

Step 1: Open MySQL Workbench (You installed it previously along with the MySQL Server and MySQL Router).



You can create the database first or a new user first, it does not matter. And you can create the database by copy-pasting and running an existing CREATE DATABASE Script, or by opening and running an existing data model.

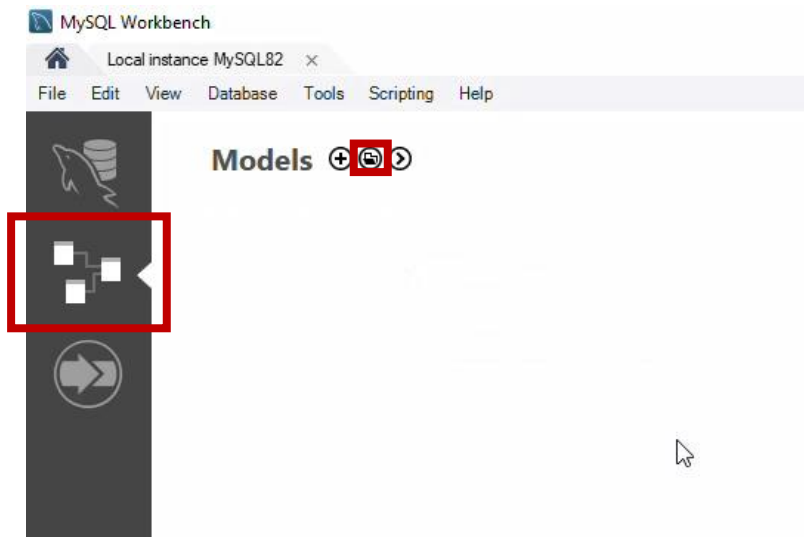
We will use the sequence below:

- Create the database using an existing data model
- Create a new user that will be used by our application, Vost WatchTower, to manipulate data in the database

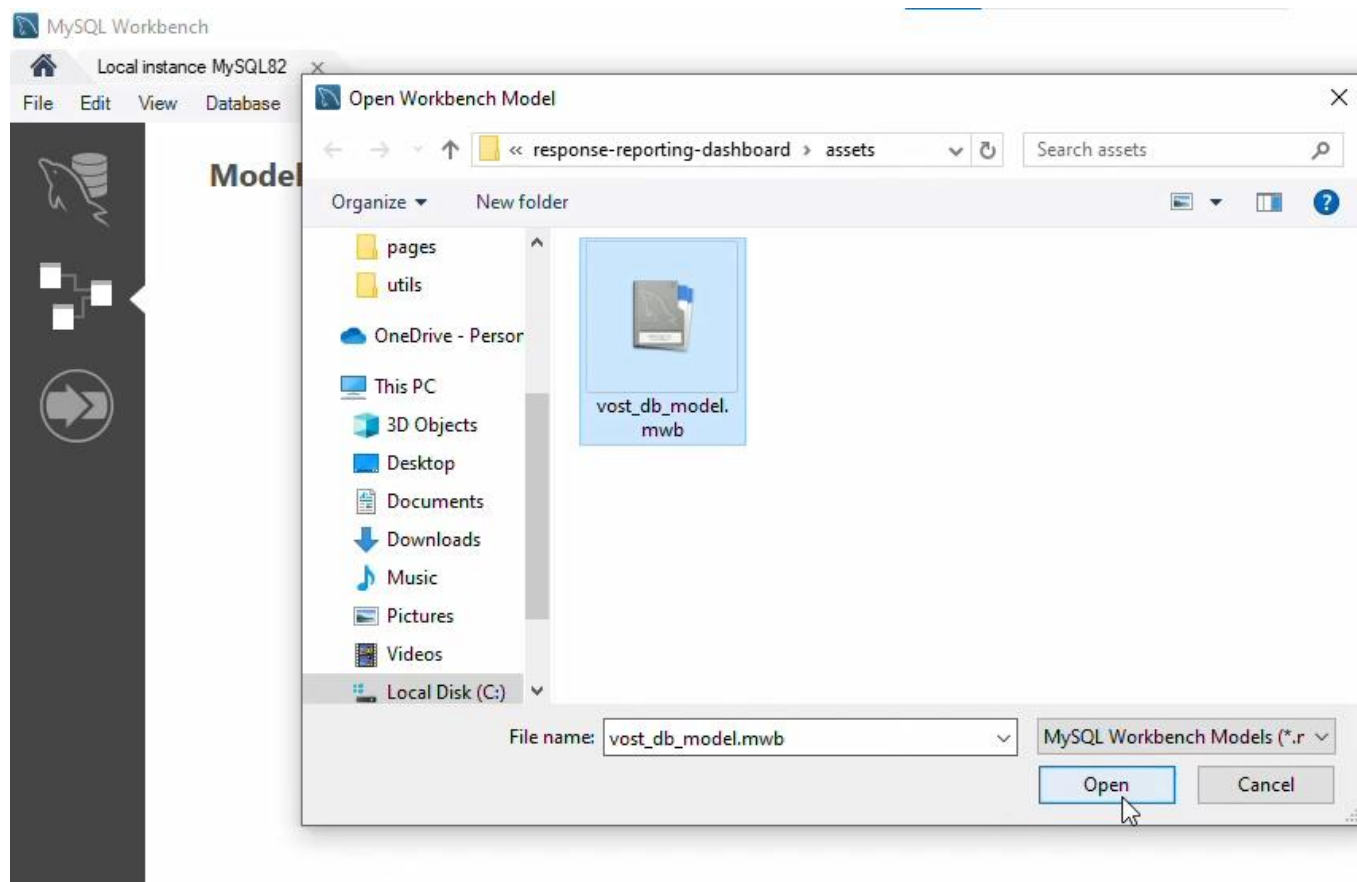
Note: We need to create a new user because we only have one user at the moment, the root, and this user has all absolute rights on the server, including rights to delete databases. If we were to use the root user in our application, we would give those rights to all users of the application. When we create other users in the server, we can limit their rights and restrict them to specific databases.

Step 2: Creating a database from an existing model

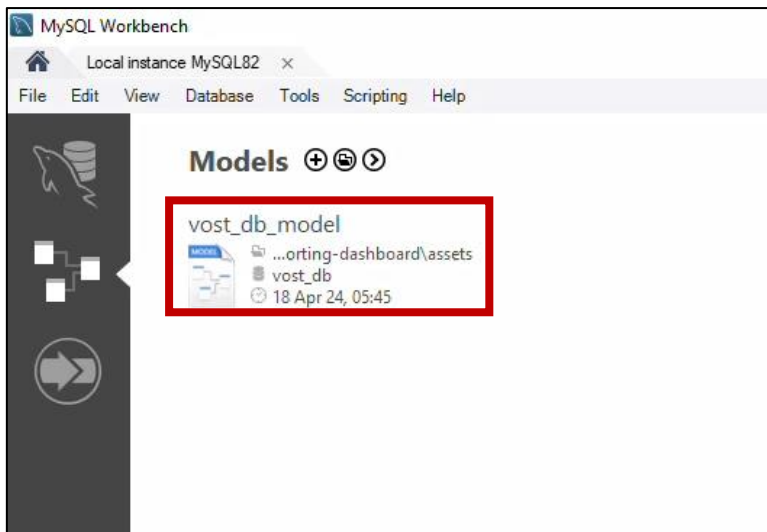
2.1: Click on **Model** Symbol from the left pane of the window. Then click on the **folder icon** to browse the computer:



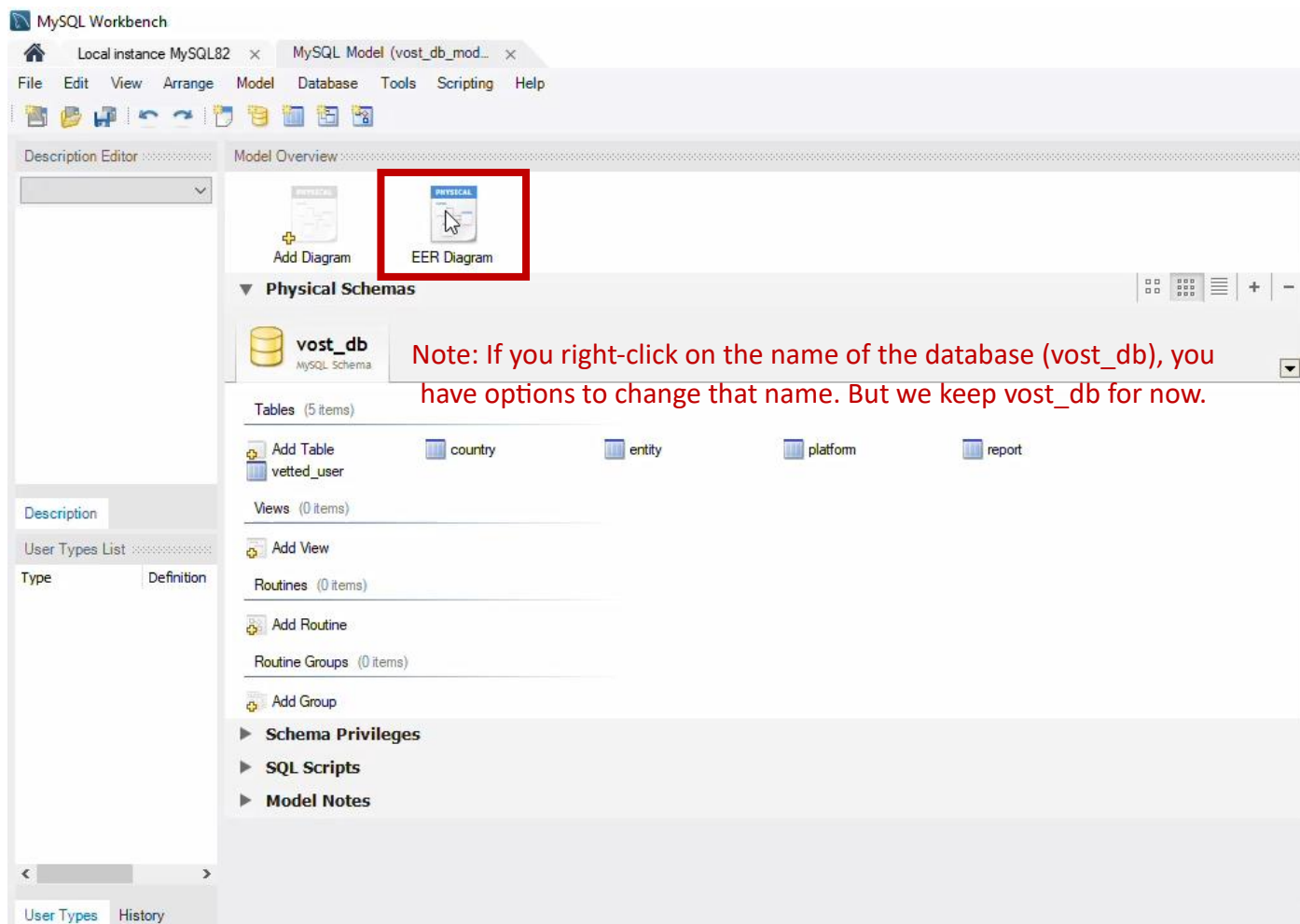
2.2: Locate and open the database model, **vost_db_model.mwb** (you need to manually download from nvy_branch's asset folder, unless you already pulled the repository with all its branch, in which cas you should already have the model in the specified path by simply switching to nvy_branch with "git checkout" to that branch)



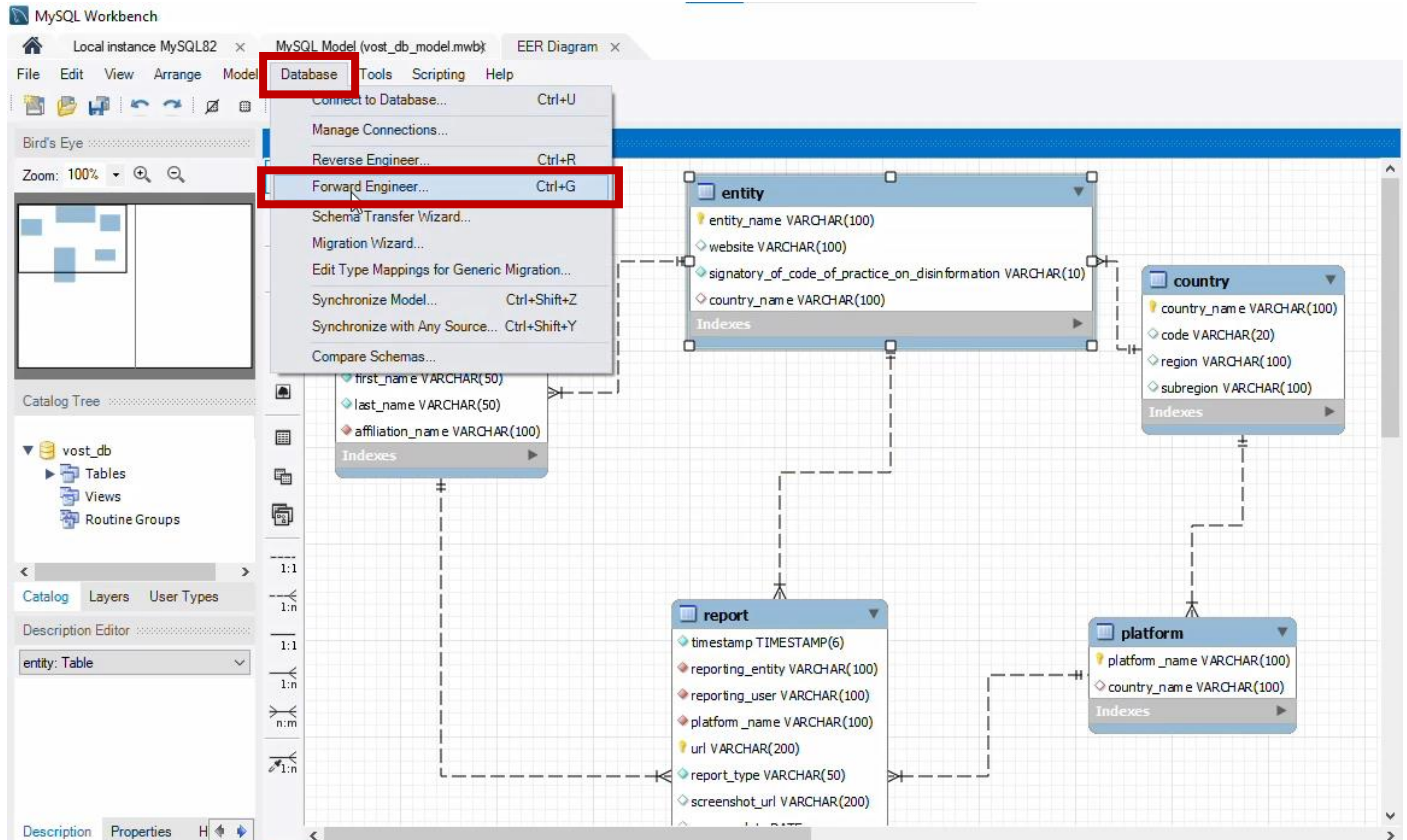
2.3: Click on the model to open it



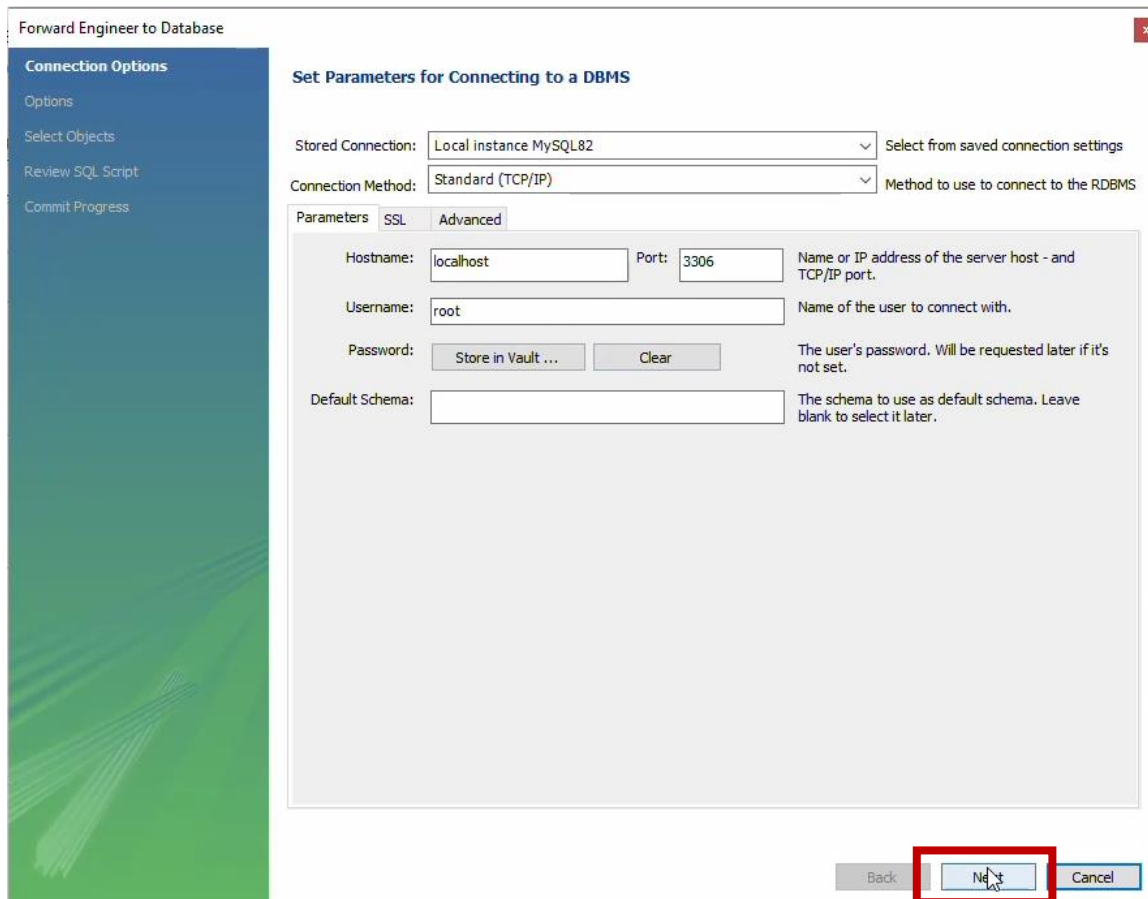
2.4: Now click on the EER Diagram.



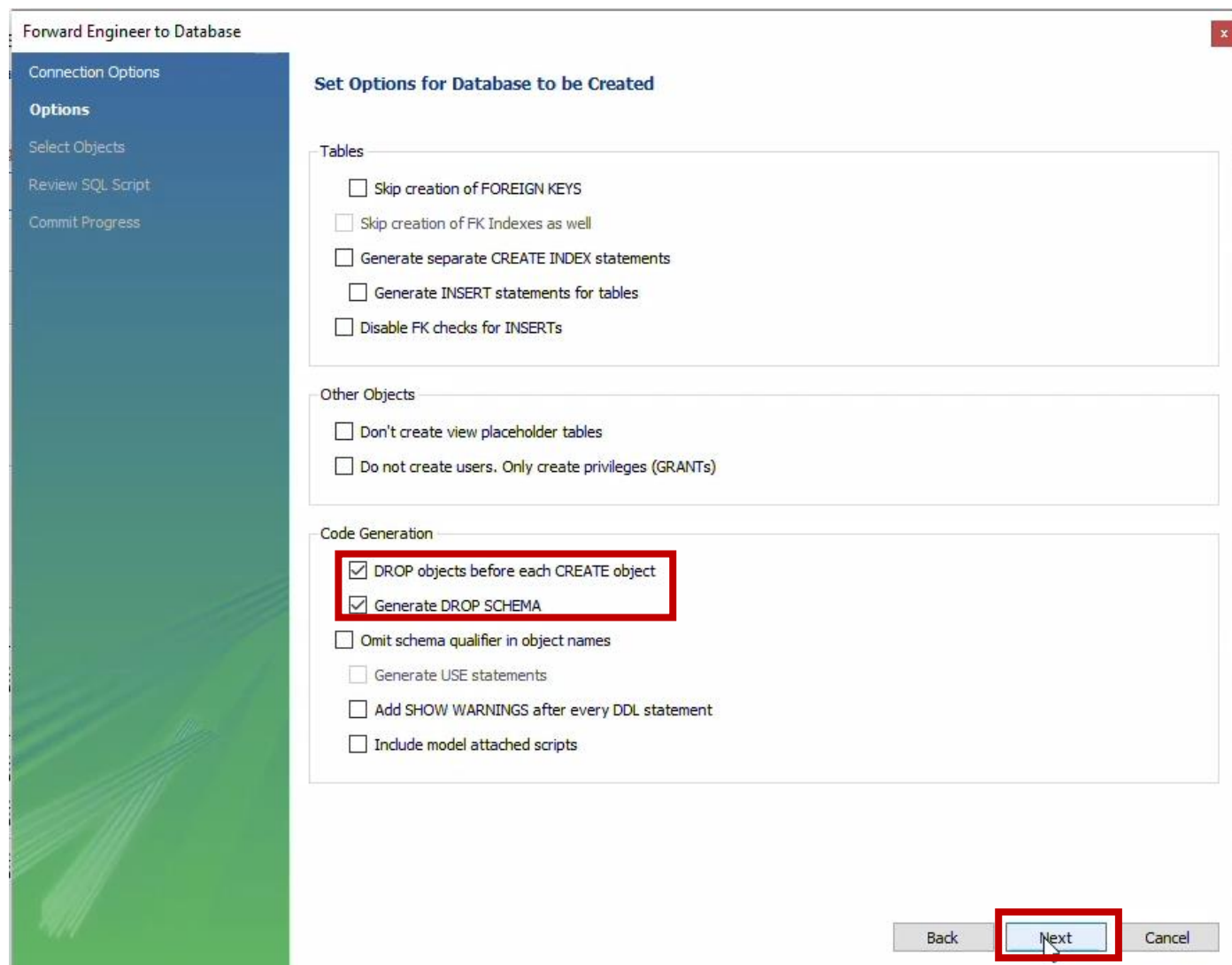
2.5: Once the model is opened, click on **Database** from the toolbar and select **Forward Engineer**.



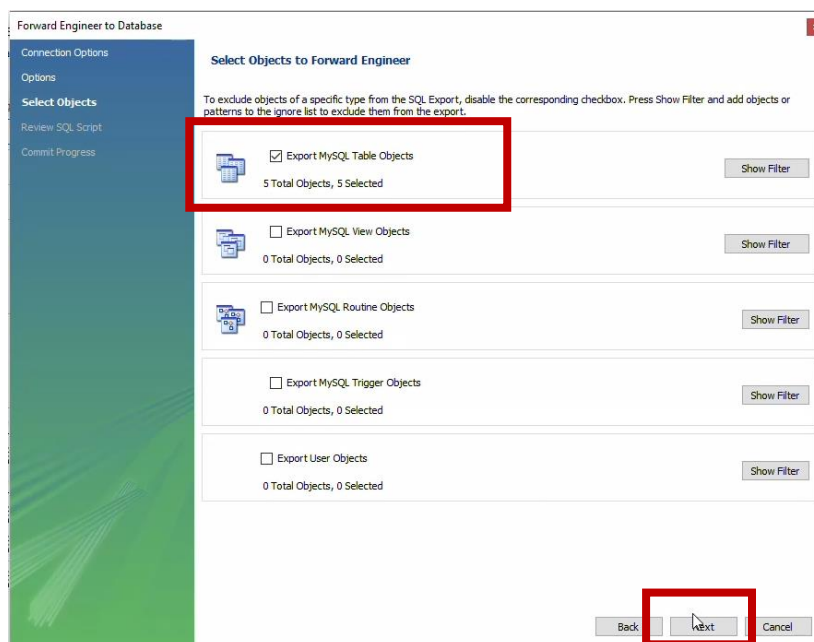
2.6: In the new window, keep the parameters for connection to their default values. We will use the root user to create the database. Click on **Next**.



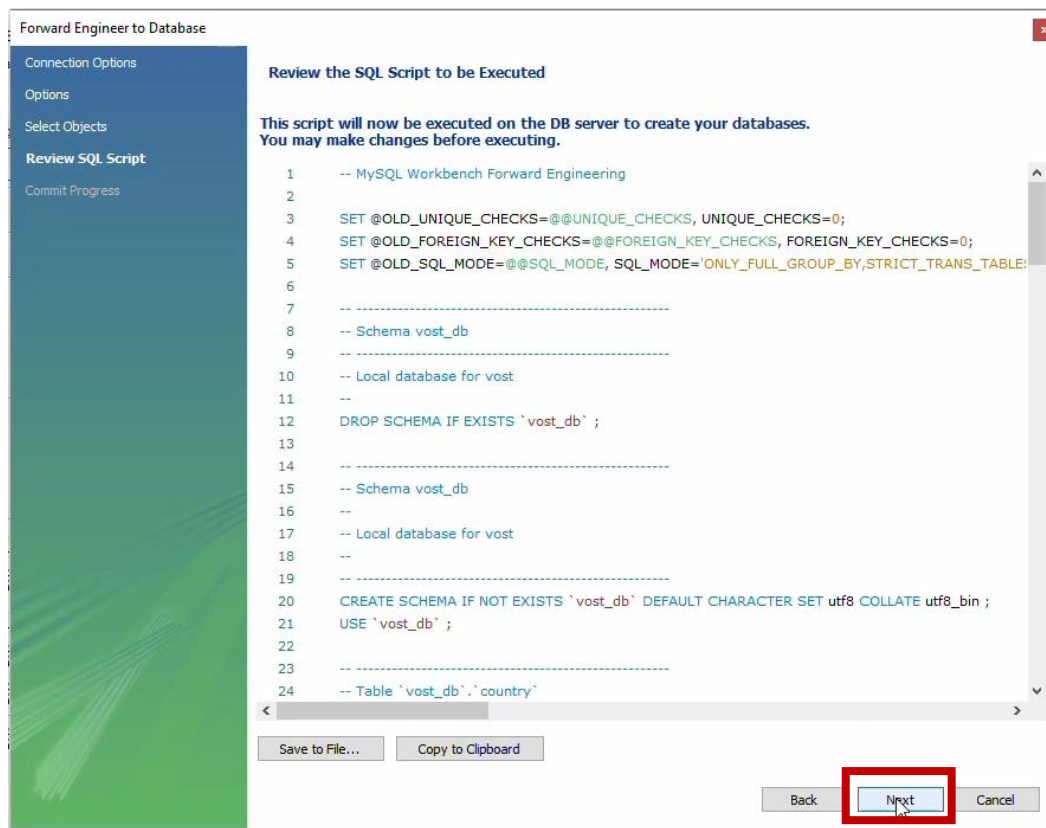
2.7: In the next window, set options for the database. Only check the **DROP object before each CREATE object** and **Generate DROP SCHEMA**. Then Click on **Next**.



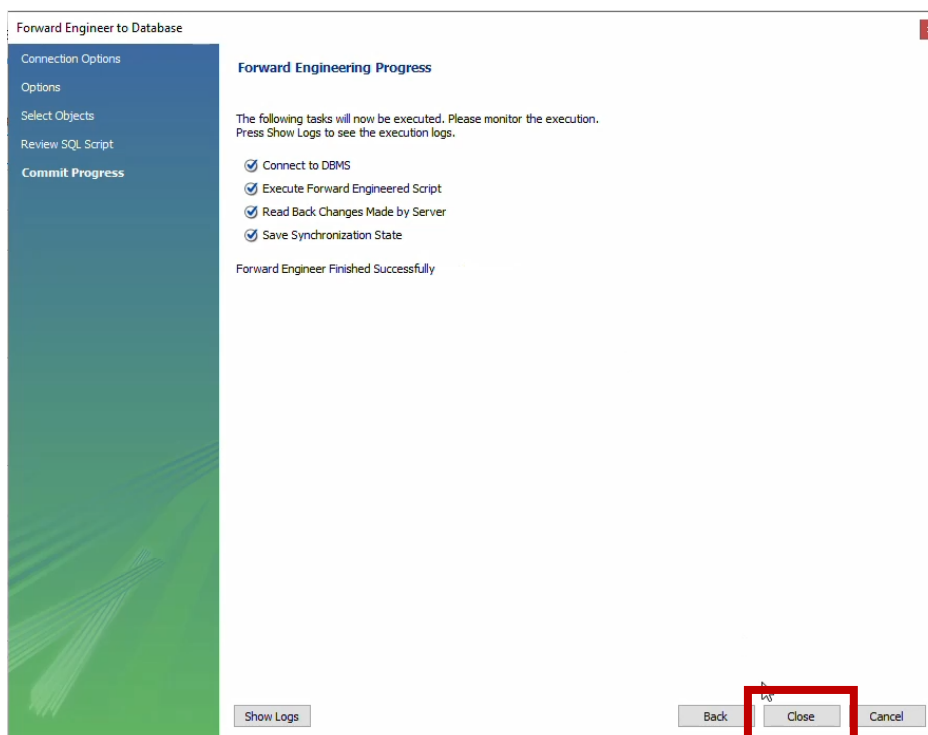
2.8: Check **Export MySQL Table Objects** to export the tables from the model to the database. Then **Next**.





2.9: Click **Next** to Run the script generated by the Forward Engineering feature. (You can save this script for future uses. In fact, we could have taken the script from the repository and run it directly in our database without going all the way from the model. More on that later).

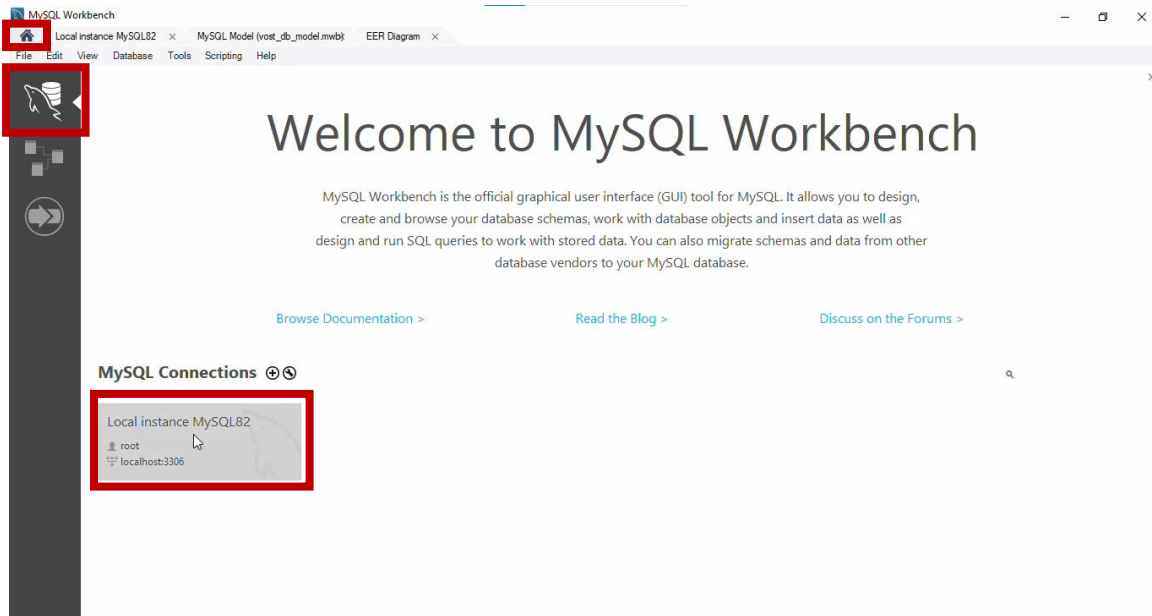


2.10: Click on **Close** when finished.



Step 3: Creating a New User

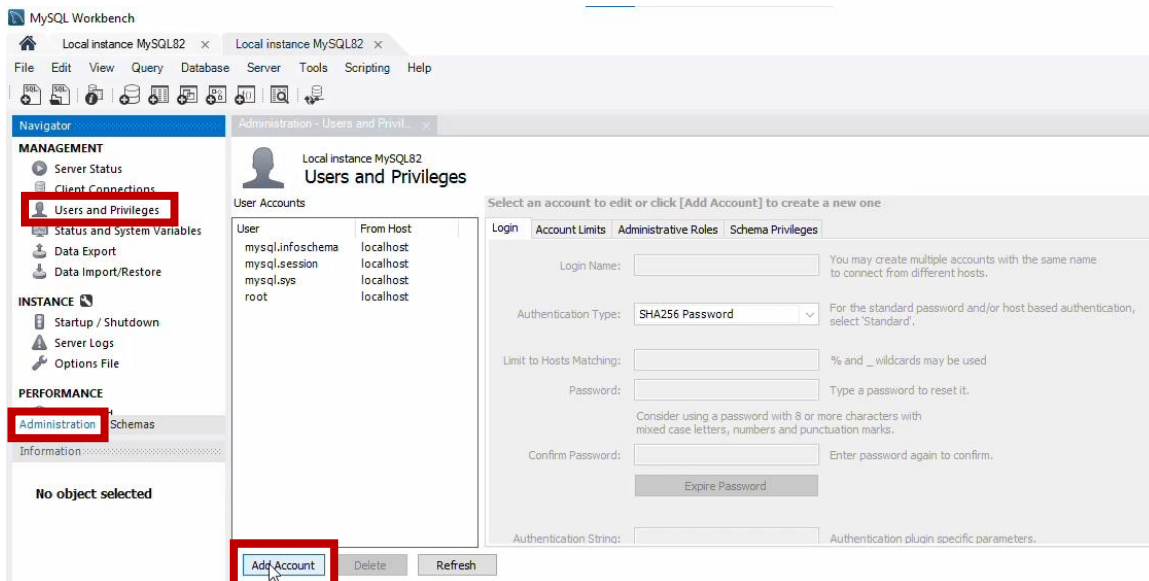
3.1: Head back to the home menu by click on the home icon  from the option menu at the top, then on the MySQL Workbench homepage icon . Then on the **Local instance MySQL82**.



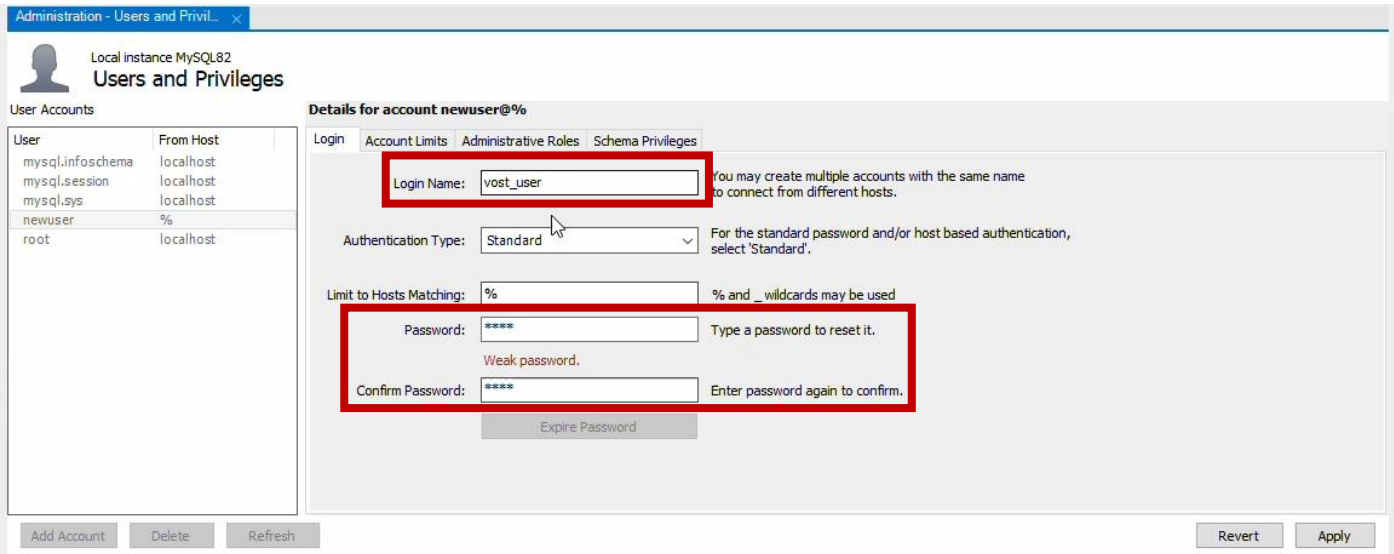
3.2: You will be prompted to enter a password, enter the password of the root user (Remember, you created that in **Part I, Step 9.3**). Check the **Save password in vault** if you don't want to input the password each time you login as the root user.



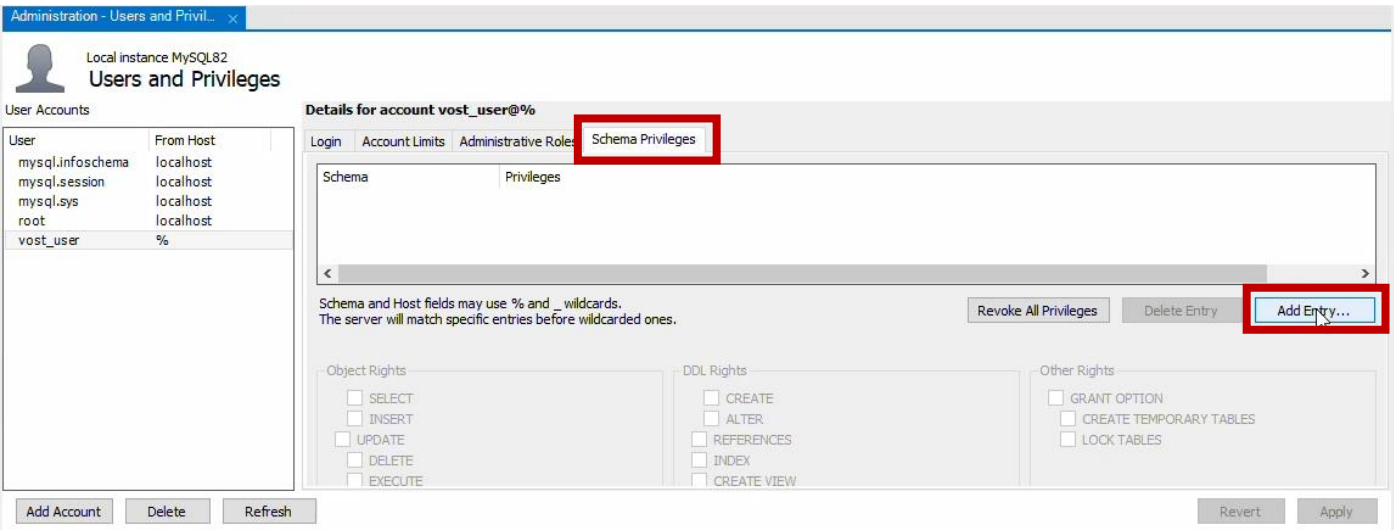
3.3: In the new window, click on **Administration**, then on **Users and Privileges**. And then on **Add Account**.



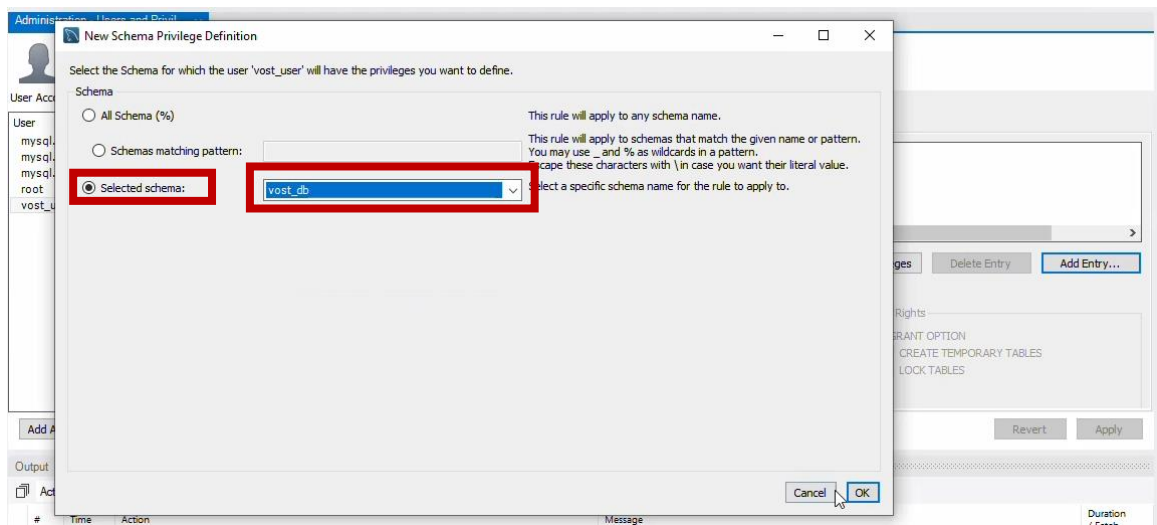
3.4 (Important): Enter the **Login Name**, **vost_user** in this case, and the **Password**, **vost** in this case. Confirm the password **vost**. (The login name and password can be anything you want, we simply choose to use **vost_user** for now, and can change that later if necessary. Just ensure you remember this information because this is the user that will interact with the **vost_db** database from the WatchTower App).



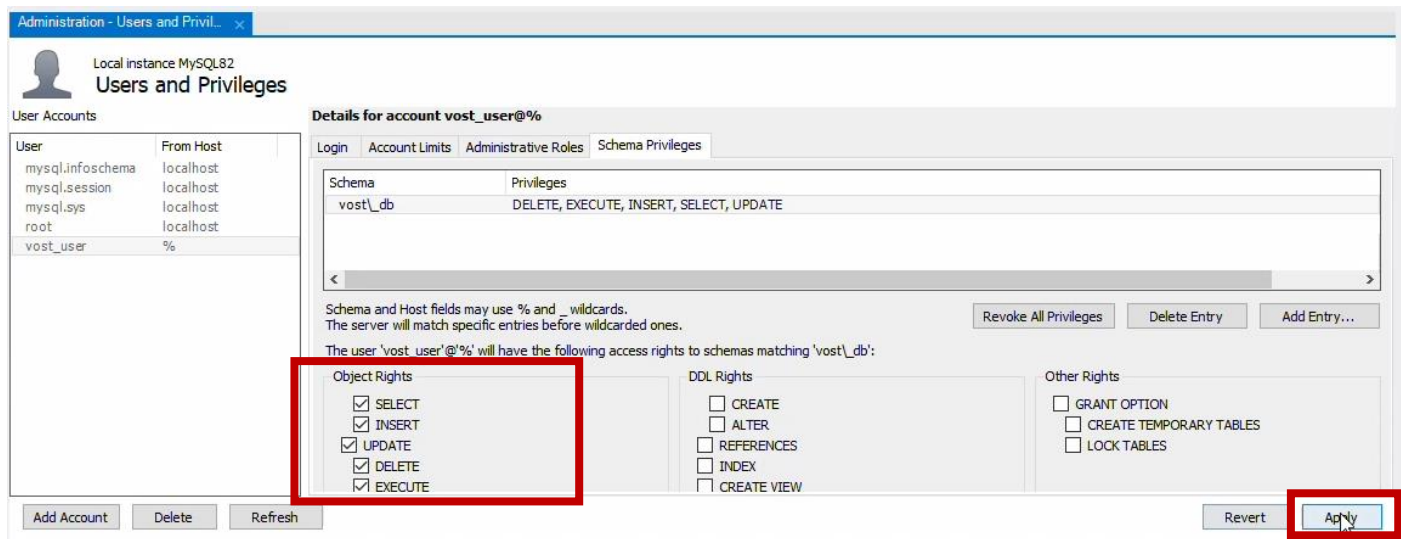
3.5: Next, click on **Schema Privileges**, then on **Add Entry** to assign a role to this user and limit his rights in our database.



3.6: In the pop-up window, Change the option for Schema to **Selected schema** and select **vost_db** that we created in Step 2.



3.7: Now select **Object Rights** for this user by checking: **SELECT, INSERT, UPDATE, DELETE, EXECUTE**. Then click on **Apply**.



Now the database and the user are ready for the WatchTower App.