SPRING BOOT COURSE
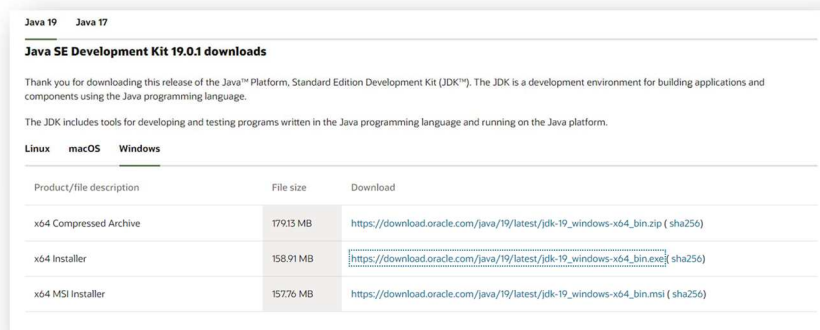# ENVIRONMENT SETUP

Note: You can use newer version
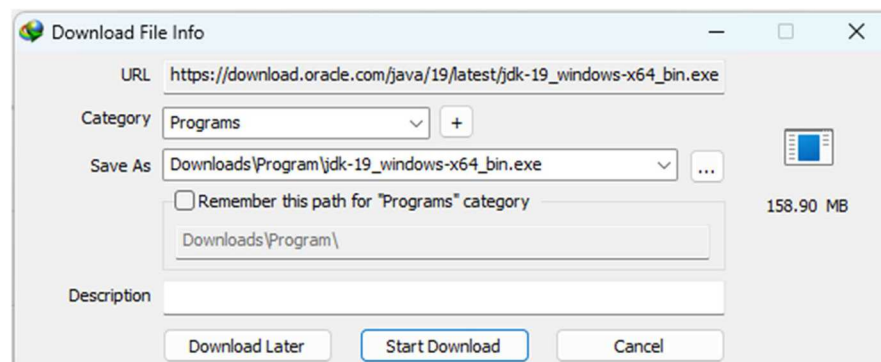
1. Java Development Kit: JDK 19

➢ Step 1 - Download JDK

Open the browser and search for Download JDK 19 or click here to download from Oracle website. It will show the JDK download page as shown in **Figure 1**.

Figure 1

Click on the proper link to start downloading JDK 19 installer for your OS (Windows, Mac or Linux) as shown in **Figure 2**.
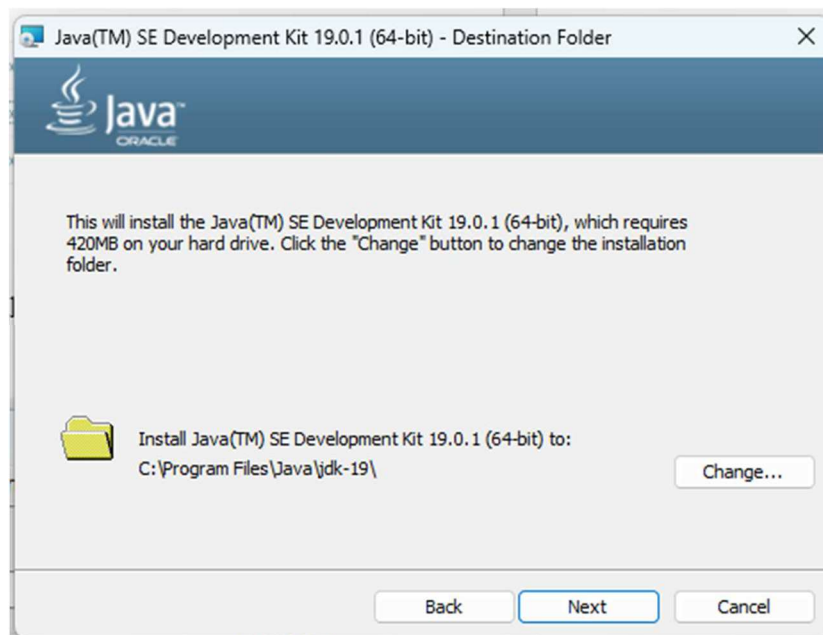

Figure 2

➢ Step 2 - Install JDK

Now execute the downloaded JDK installer by double-clicking it. It might ask system permission before starting the installation. Click on **Yes** to allow the installer to execute itself. It shows the installer welcome screen as displayed in **Figure 3**.
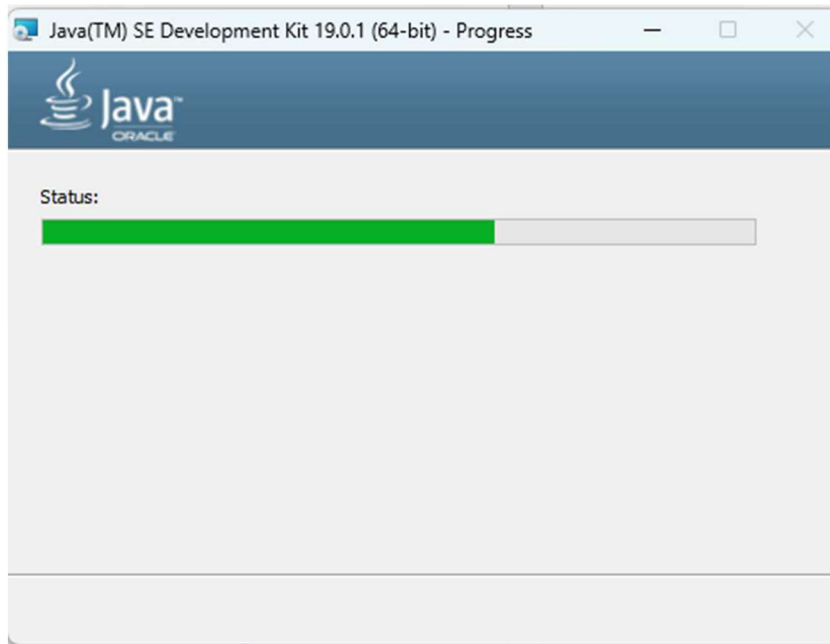
Figure 3

Click on **Next** to initiate the installation process. The next screen shows options to select optional features to be installed together. Leave the default options without making any change. You can also change the installation location on this screen if required as displayed in **Figure 4**.

Figure 4

Now click on **Next** button to start the installation. It will show the progress as displayed in **Figure 5**.

Figure 5

It shows the success screen after completing the installation as mentioned in **Figure 6**.

Figure 6

Note: You may need to set the environment variable in case the installed JDK is not detected by the system.

Right Click on **This PC** ⇨ **Properties** ⇨ **Advanced System Settings**

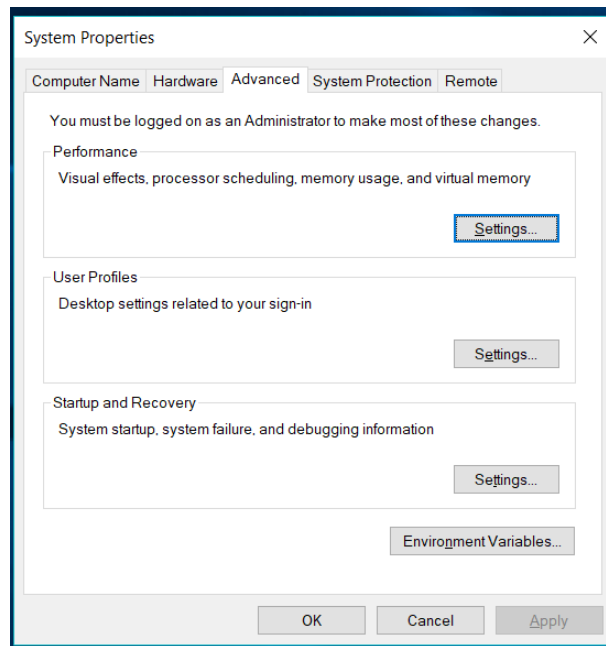The above steps will open the Windows settings panel as shown in Figure 7.

Figure 7

Now click on **Environment Variables** and add new **System variables** (**Figure 8**)
Variable name: JAVA_HOME
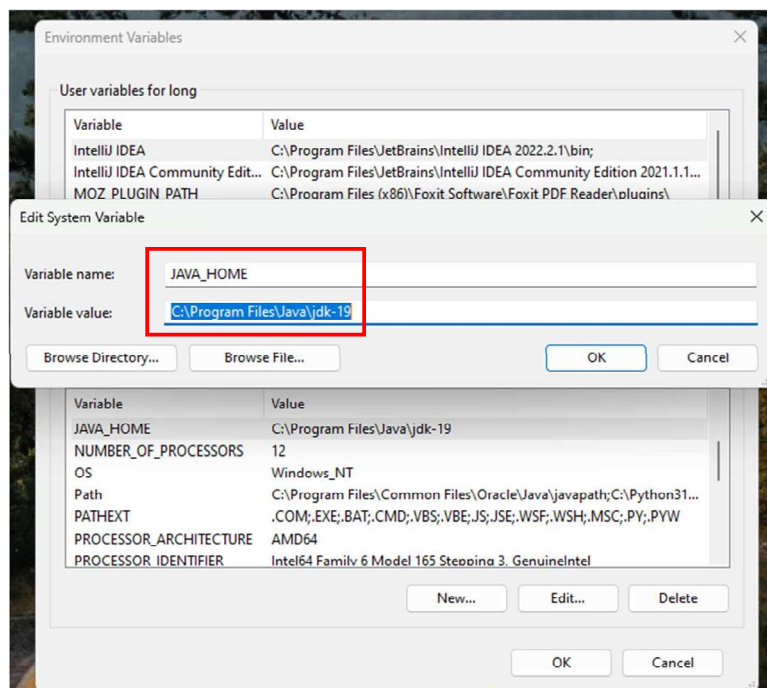*Variable value:* C:\Program Files\Java\jdk-19

Figure 8

Next add new **Environment variable** (**Figure 9**)
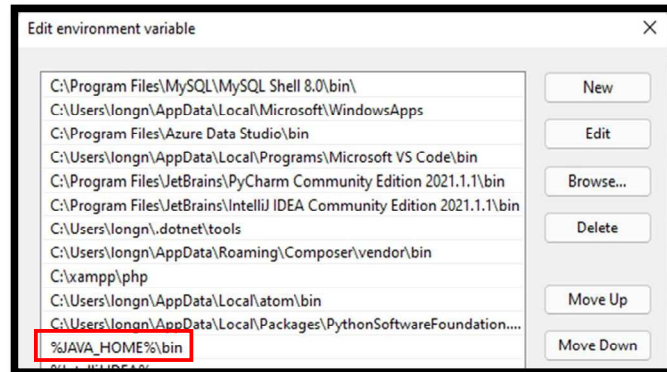*Variable value:* %JAVA_HOME%\bin

Figure 9

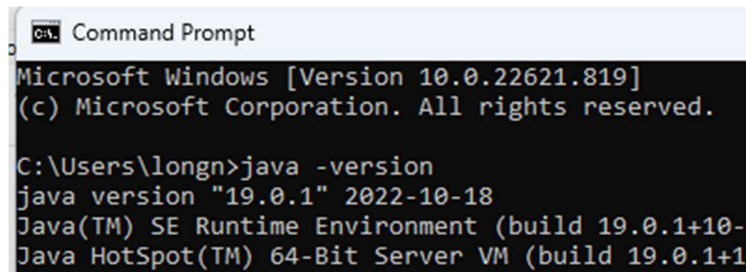Now open the **Command Prompt** and check for Java version as shown in **Figure 10**.

Figure 10

2. **IntelliJ:** IntelliJ IDEA Ultimate 2022
➢ **Step 1 - Download IntelliJ IDEA**

Register for free educational license with your student email from <u>here</u>.
Login with your student email after successful registration then download the executable file from <u>here</u>.

Select **Windows** ⇨ **Ultimate** ⇨ **Download** as shown in **Figure 1**
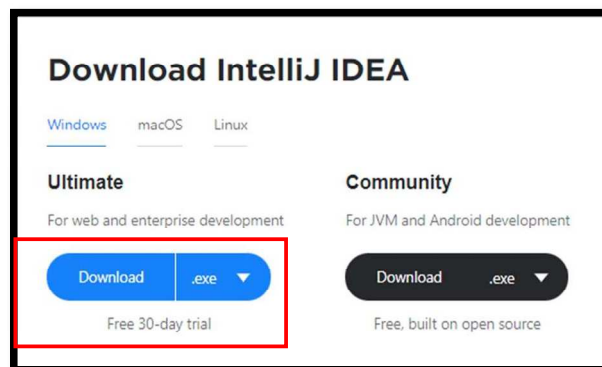
Figure 1

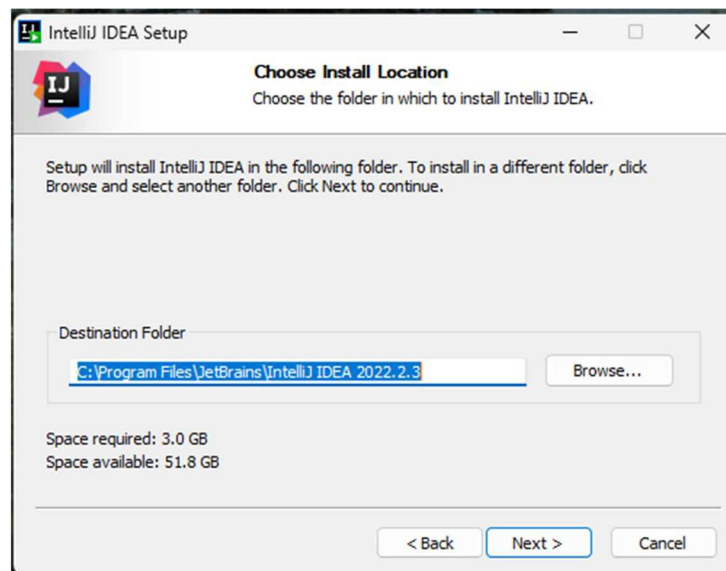## ➤ Step 2 - Install IntelliJ IDEA

Run the downloaded executable file

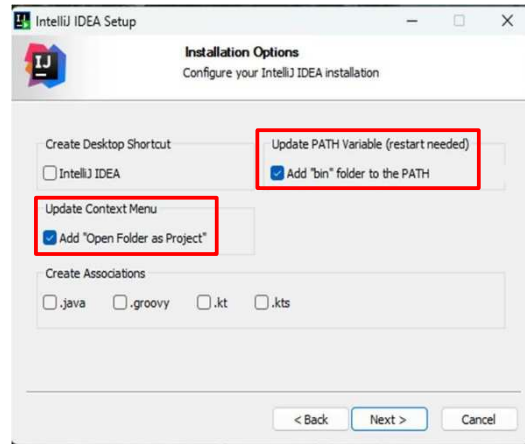The installation window appear. Click **Next** to start as shown in **Figure 2**

Figure 2

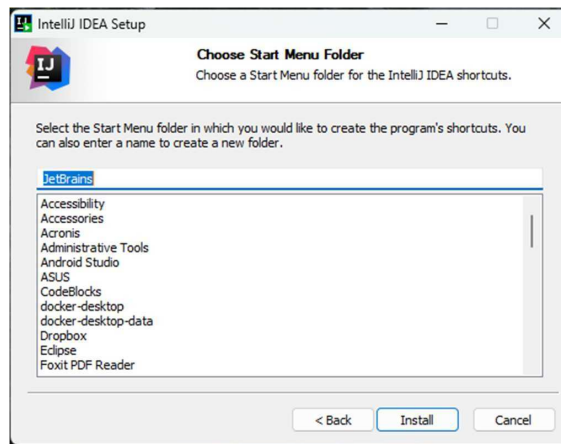Choose the default install location and menu as shown in **Figure 3**

Figure 3

Select these options: **Add "Open Folder as Project"** and **Add "bin" folder to the PATH** then click **Next** as shown in **Figure 4**
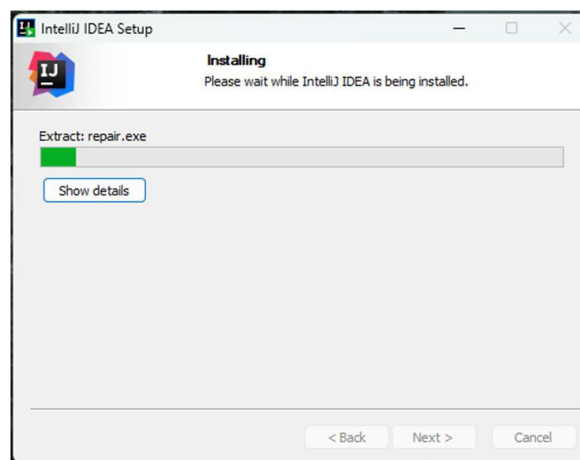
Figure 4

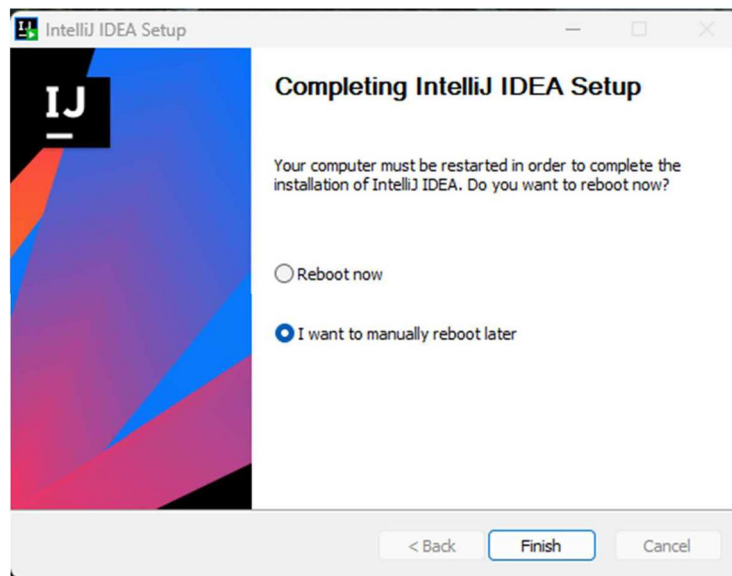Click **Install** to start installation as shown in **Figure 5**

Figure 5

It will show the progress as shown in **Figure 6**

Figure 6

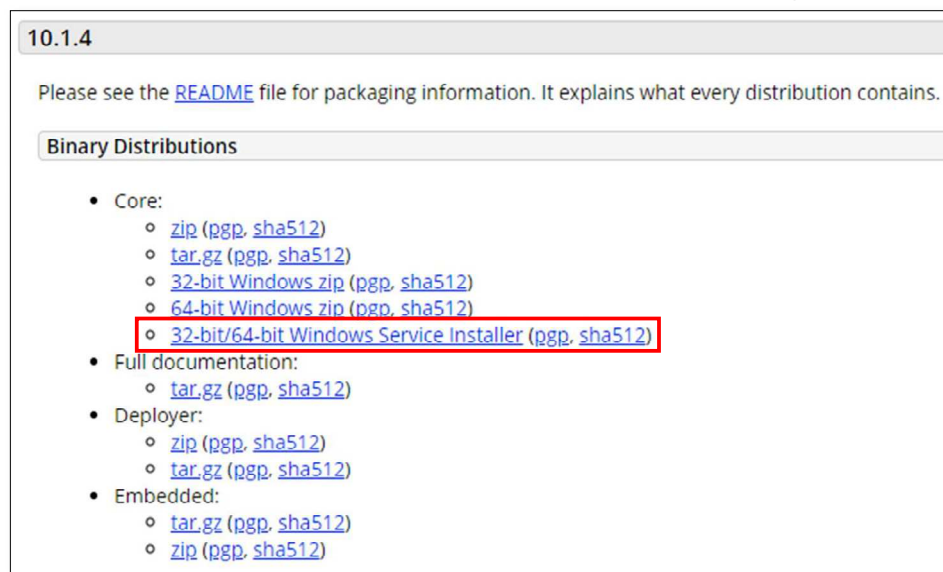Click **Finish** to complete the installation as shown in **Figure 7**

Figure 7

3. Tomcat: *Apache Tomcat 10*

➢ Step 1 - Download Tomcat

Download the executable file from this link.
Select **32-bit/64-bit Windows Service Installer** to download (**Figure 1**)

Figure 1

➢ Step 2 - Install Tomcat

Double click the setup file to start
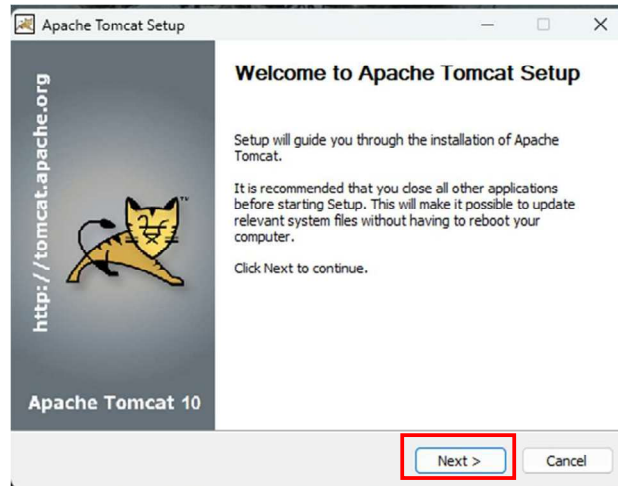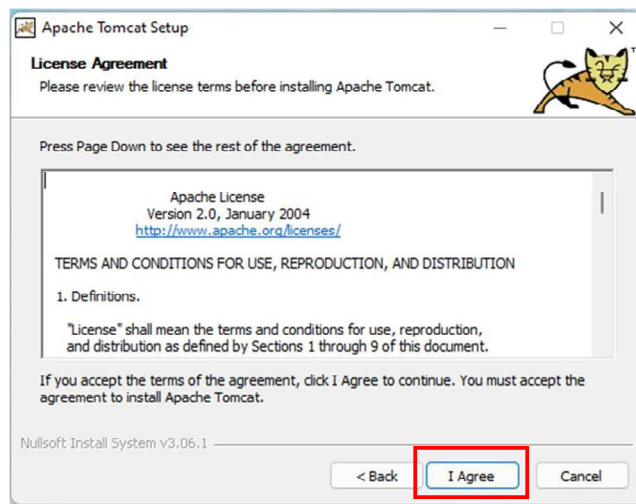Leave all default parameters until finish (from **Figure 2** to **Figure 8**)
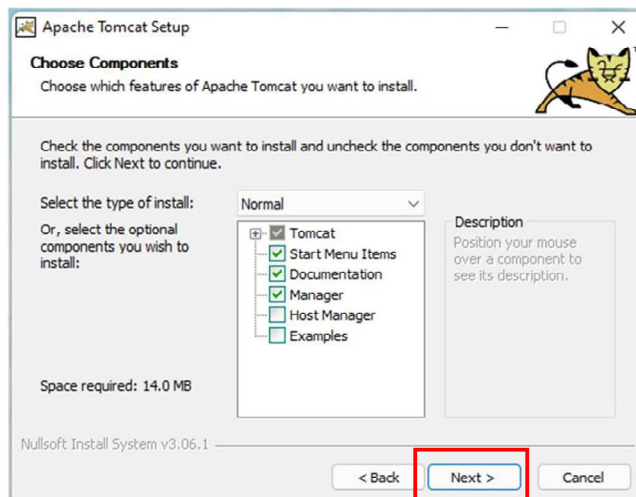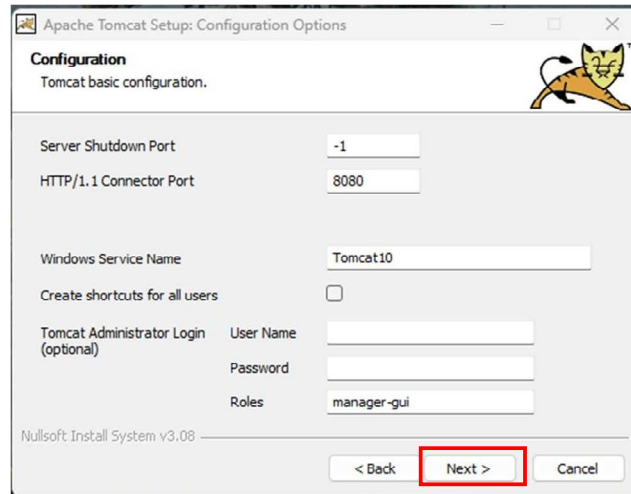
Figure 2

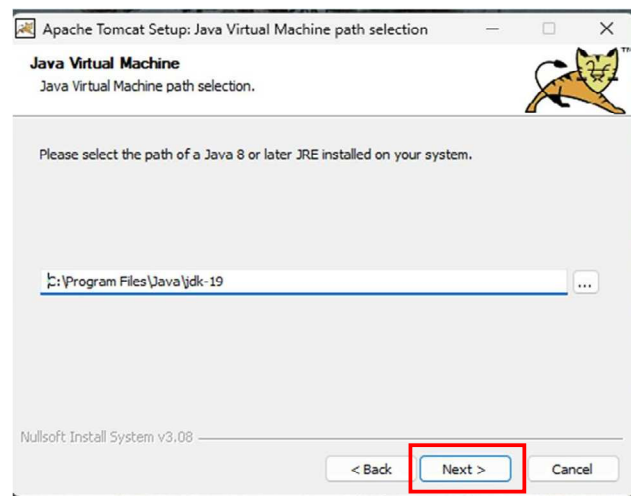**Figure 3**

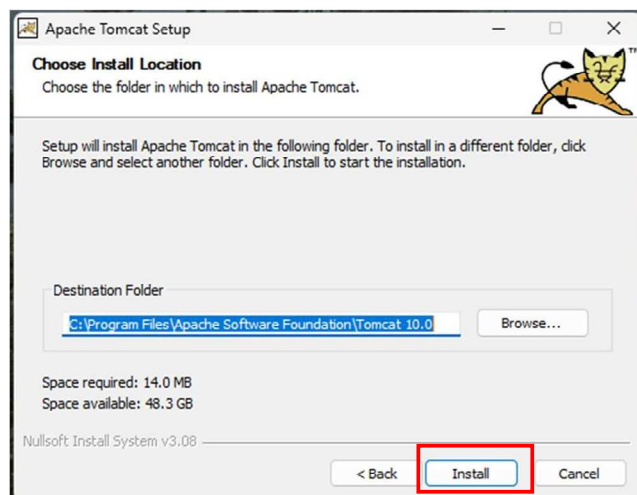**Figure 4**

Figure 5
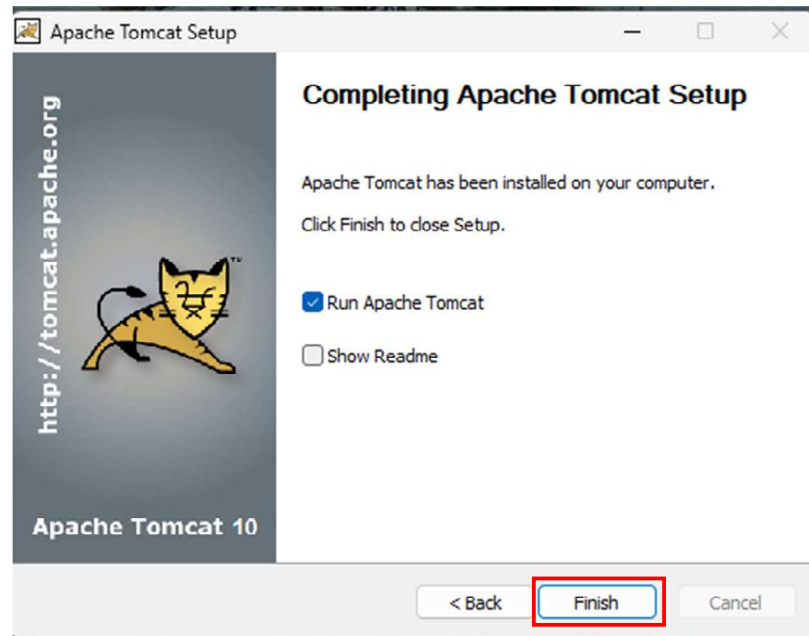

Figure 6

Figure 7

Figure 8

> ## Step 3 – Config Tomcat server in IntelliJ

Click menu **File** ⇨ **Settings** (Ctrl + Alt + S)

Select **Build, Execution, Deployment** ⇨ **Application Server**

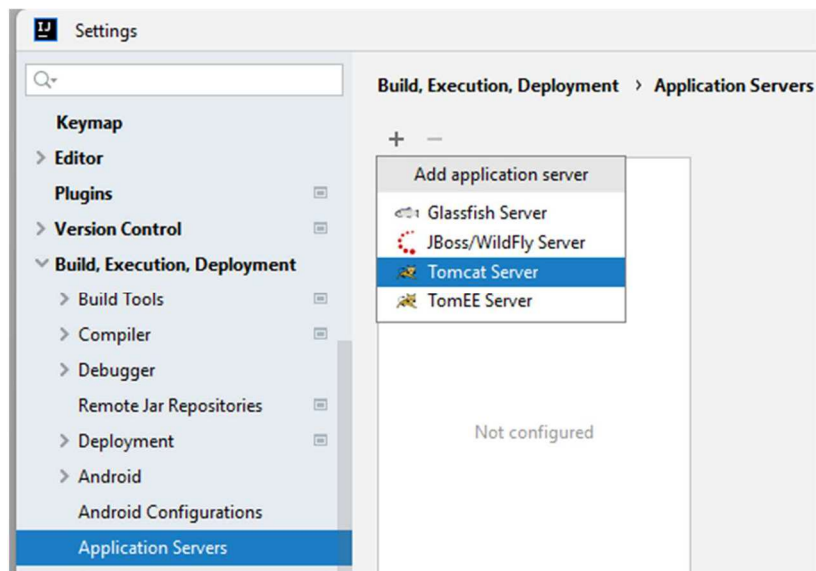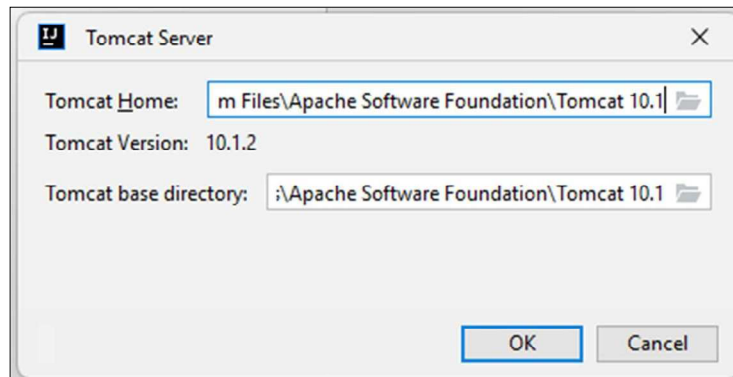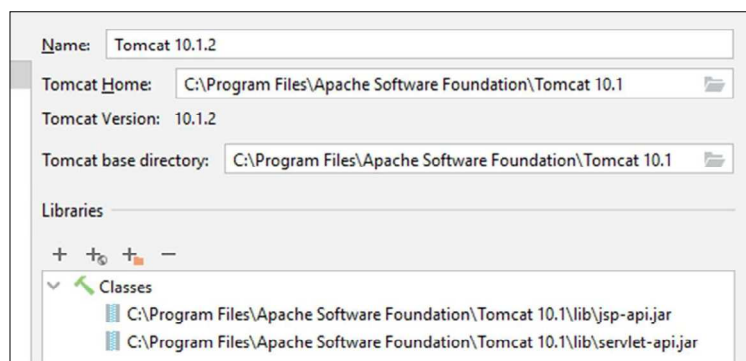Click the **Add** button and select **Tomcat Server** (**Figure 9**)

Figure 9

Specify the path to the **Tomcat server** installation folder (**Figure 10**)

Figure 10

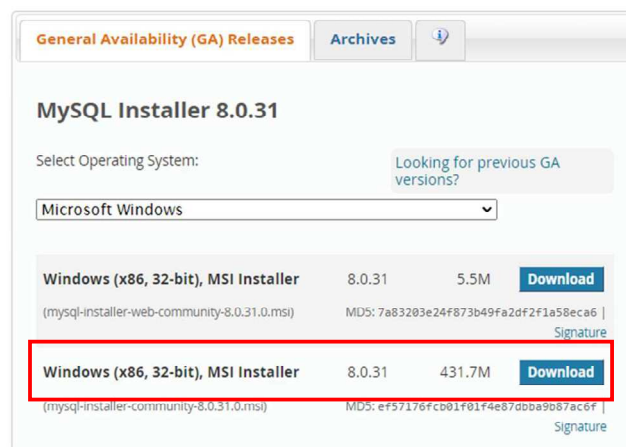IntelliJ IDEA detects and sets the name and version appropriately (**Figure 11**)

Figure 11

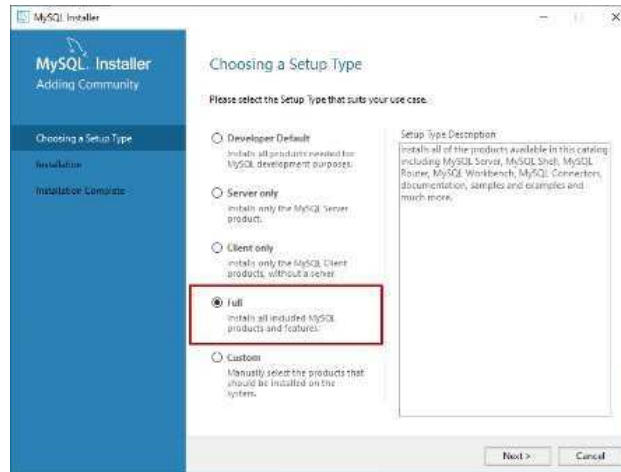## 4. MySQL: *MySQL Community Server 8*
> **Step 1 – Download MySQL**

Figure 1

➢ Step 2 - Install MySQL

Double click the downloaded file. A dialogue box appears.
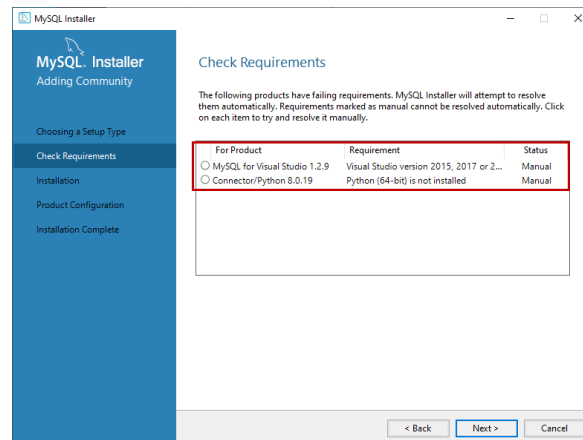
Select **Full** option in **Setup Type**

Then select **Next** as shown in **Figure 2**

Figure 2

Before installation begins, the installer checks all the prerequisites that are required to install all the components of the MySQL database server.

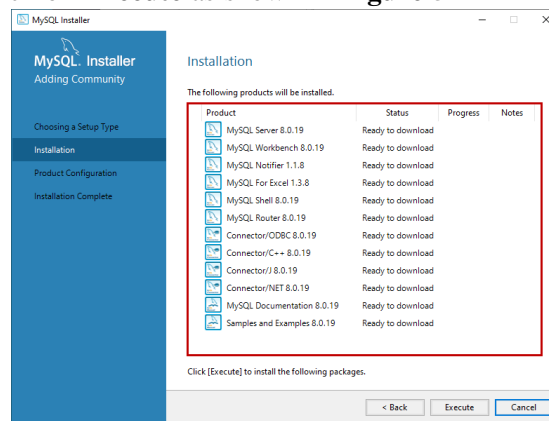Just click on **Next** as shown in **Figure 3**

Figure 3

An installer gives us a warning. We can continue our installation without installing the Visual Studio and Python. Click on **Yes** as shown in **Figure 4**
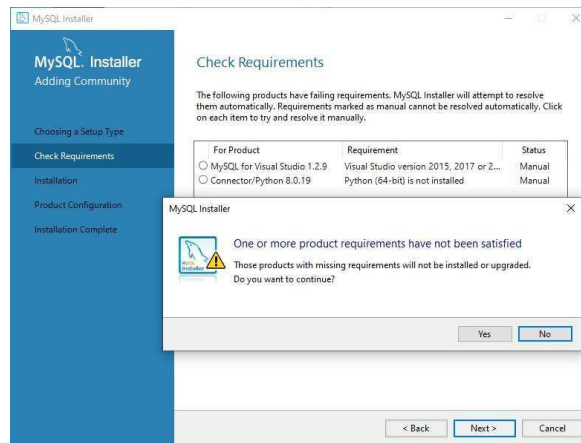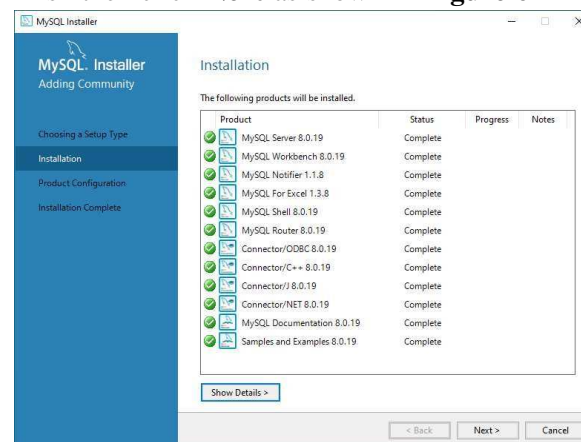
Figure 4

On the Installation screen, you can see the list of the MySQL products/software that are going to be installed on computer.

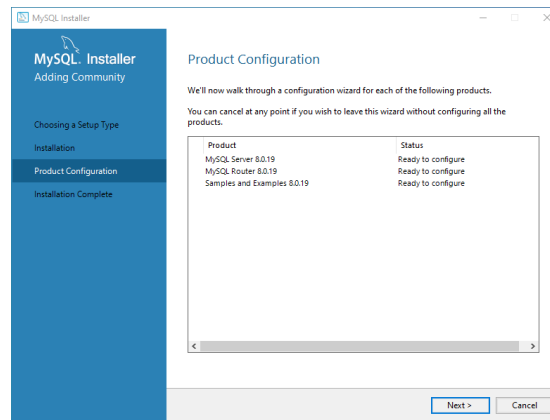Review the list and click on **Execute** as shown in **Figure 5**

Figure 5

Wait for installation finish then click **Next** as shown in **Figure 6**
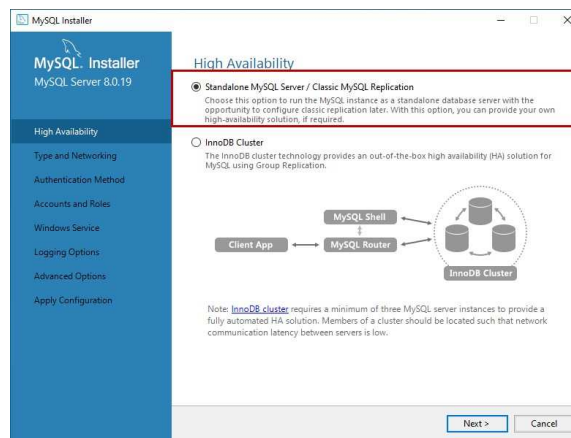

Figure 6

On the Product configuration screen, you can see the list of the products that need to be configured.

First, let configure the MySQL Server. Click on **Next** as shown in **Figure 7**
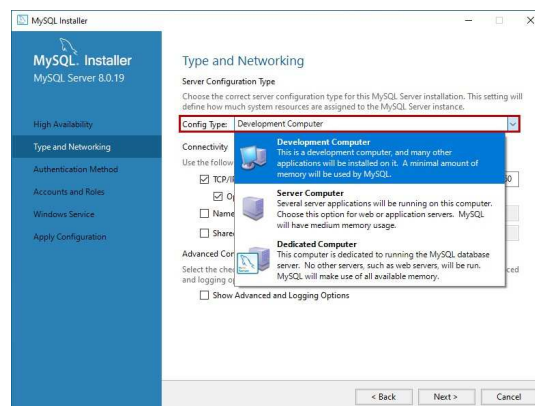
Figure 7

In **High Availability**, select **Standalone MySQL Server** then click on **Next** as shown in **Figure 8**
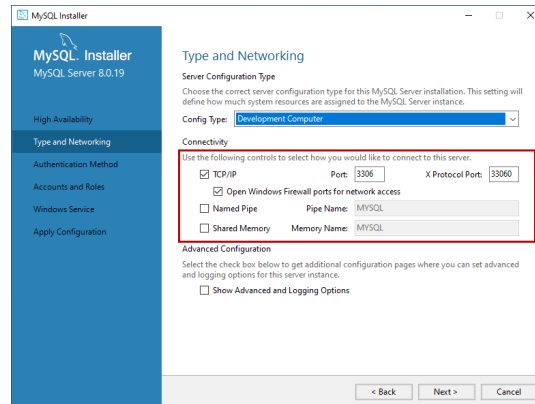

Figure 8

In **Server Configuration Type**, select **Development Computer** then click on **Next** as shown in **Figure 9**
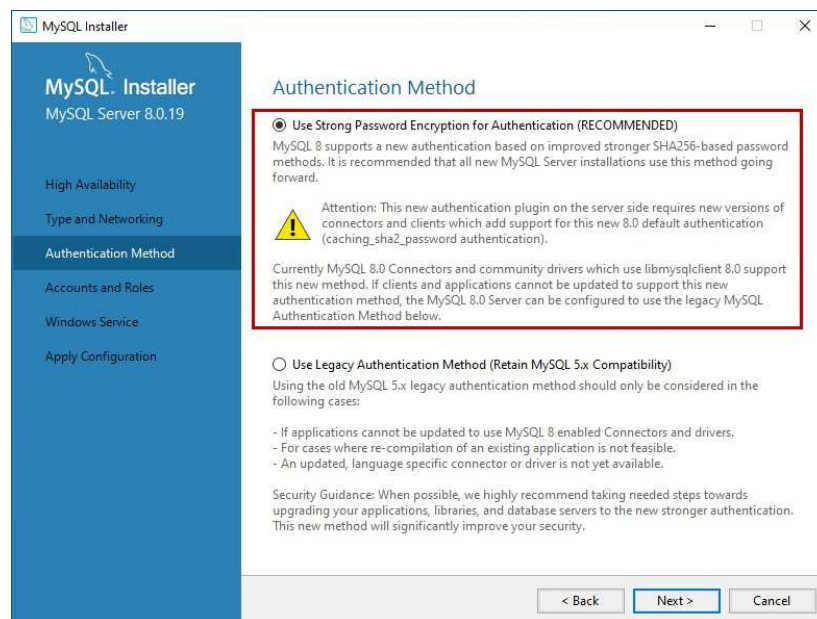

Figure 9

In **Connectivity**, enter the **Port 3306** (default port for SQL) then click on **Next** as shown in **Figure 10**
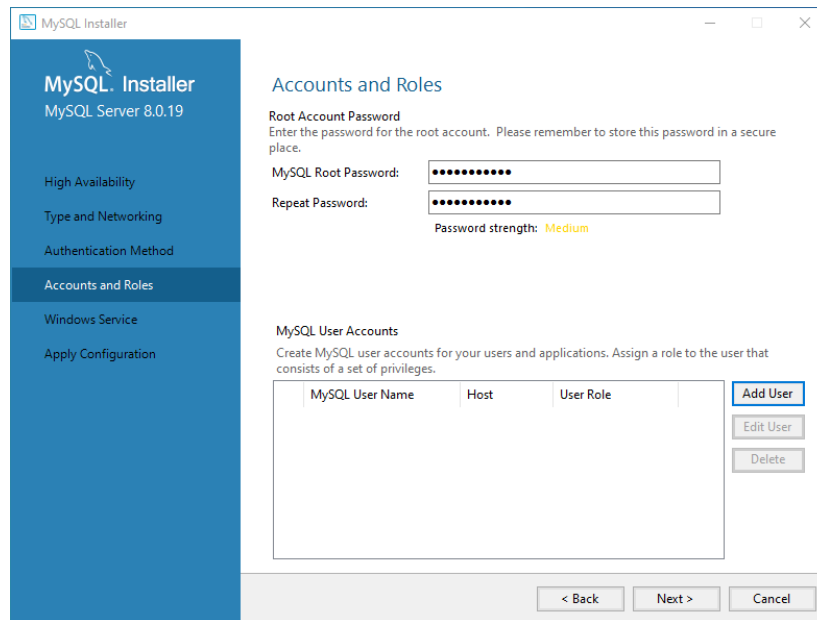
Figure 10

In **Authentication Method**, select **Use Strong Password Encryption** then click on **Next** as shown in **Figure 11**
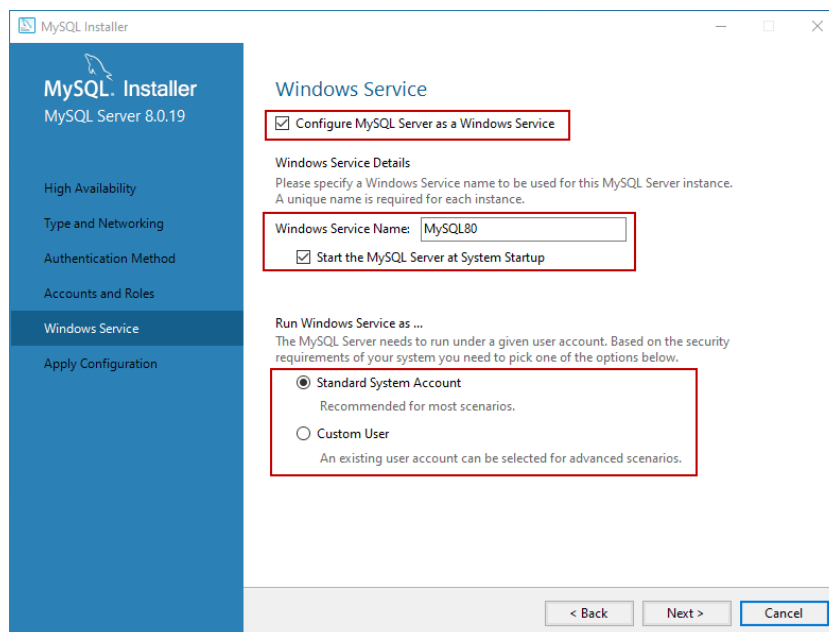

Figure 11

On **Accounts and Roles** screen, you can specify the MySQL root account password (Ex: root) or you can a new User then click **Next** as shown in **Figure 12**
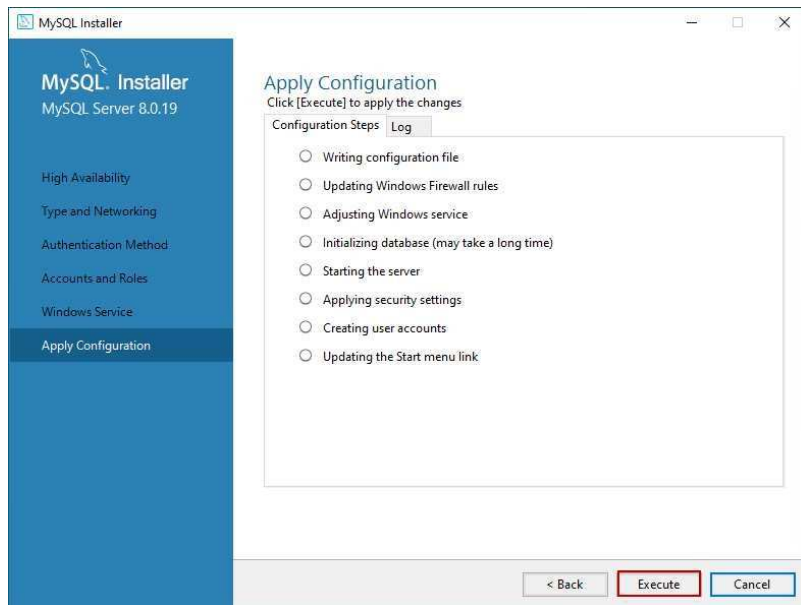
Figure 12

On the **Windows Service** screen, make configuration as shown in **Figure 13**
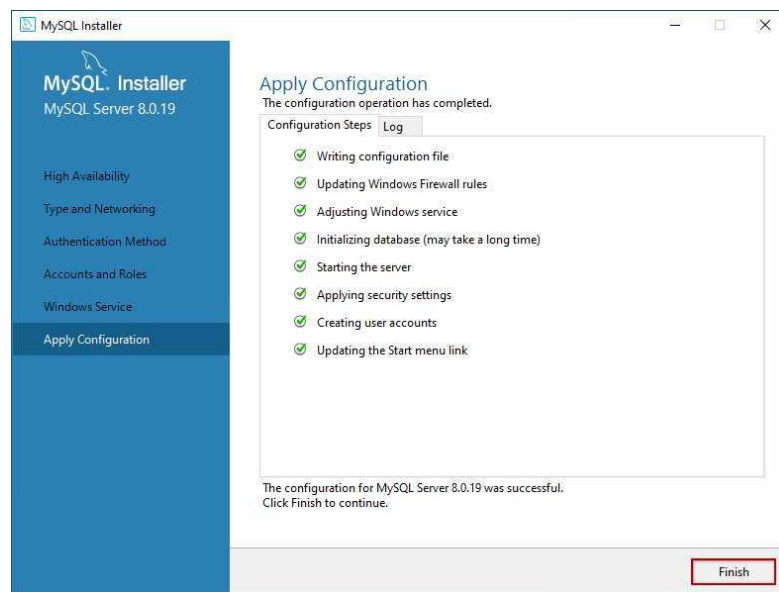

Figure 13

On the **Apply Configuration** screen, you can see the list of confirmation steps. Once all the configuration settings are verified, click on **Execute** as shown in **Figure 14**

Figure 14

The MySQL installation process starts. You can view the installation process in the **Log** tab.
Once installation completes successfully, click on **Finish** to close the installer as shown in **Figure 15**
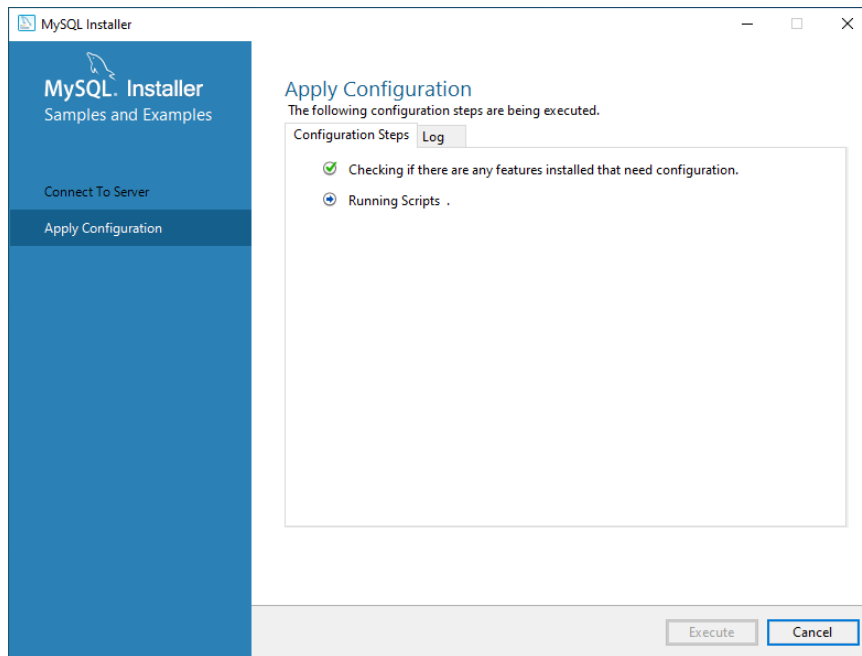

Figure 15

MySQL installer moves to **Sample and Example** screen. On this screen, provide username and password of the user that has root/sysadmin privileges and click on Check (Ex: root – root).

If the connection establishes successfully, click on **Next** as shown in **Figure 16**
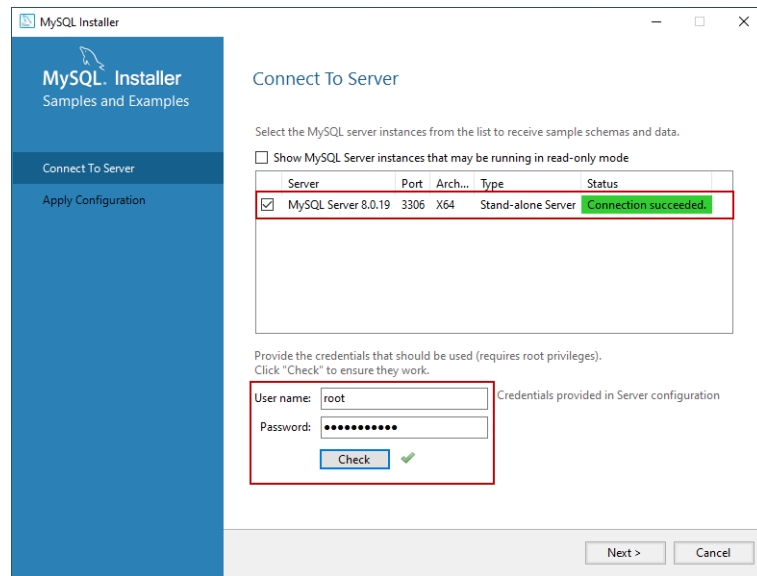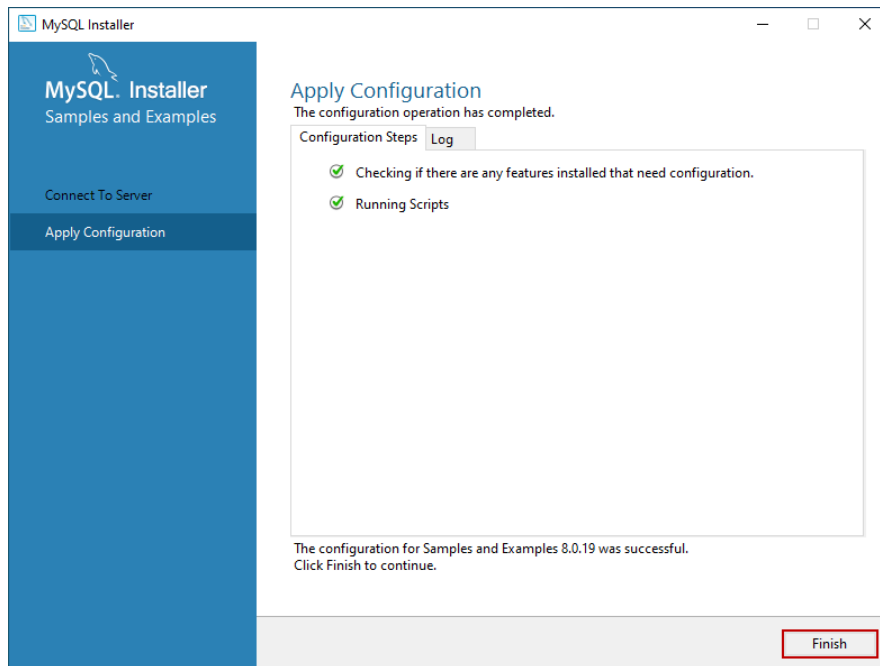

Figure 16

On the **Apply Configuration** Screen, click on **Execute** to start the installation of the Sample database as shown in **Figure 17**
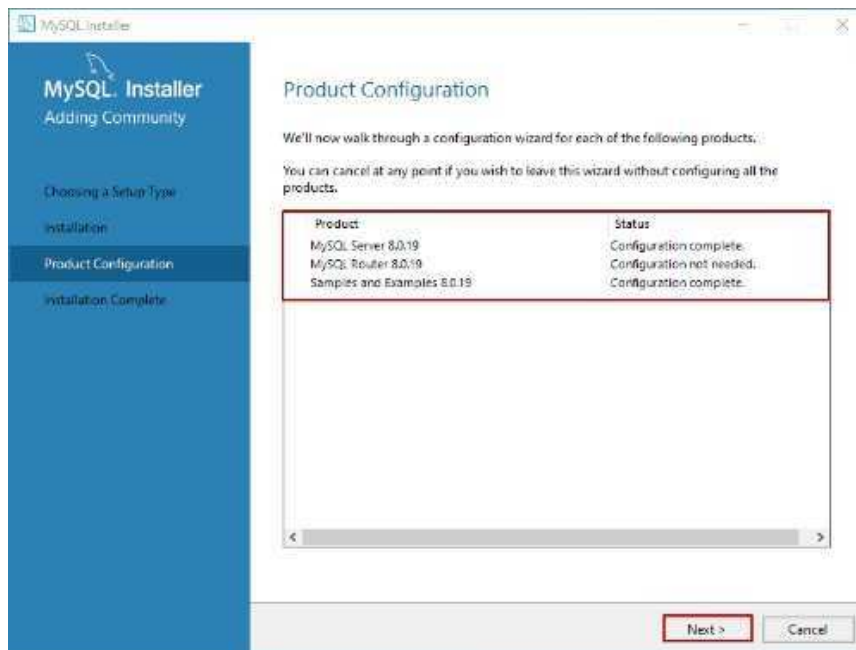

Figure 17

Once the sample database has been installed, click on the **Finish** button as shown in **Figure 18**
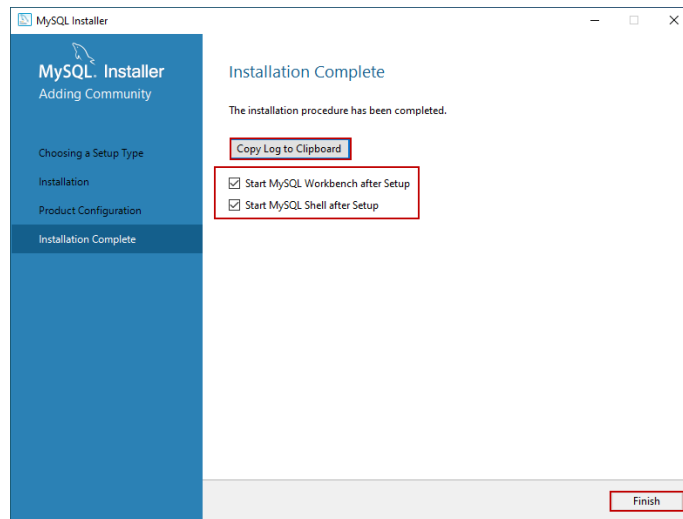
Figure 18

The installer continues to the **Product Configuration** screen. On this screen, you can see that the installation has been completed successfully as shown in **Figure 19**

Figure 19

The installation has been completed. Now you can select **Start MySQL Workbench after Setup** and **Start MySQL Shell after Setup** and click on **Finish** as shown in **Figure 20**

Figure 20