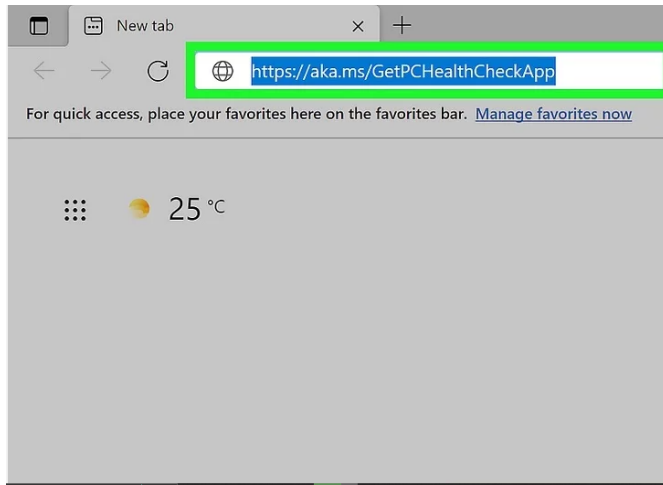


SETTING UP YOUR DEVELOPER ENVIRONMENT ASSIGNMENT

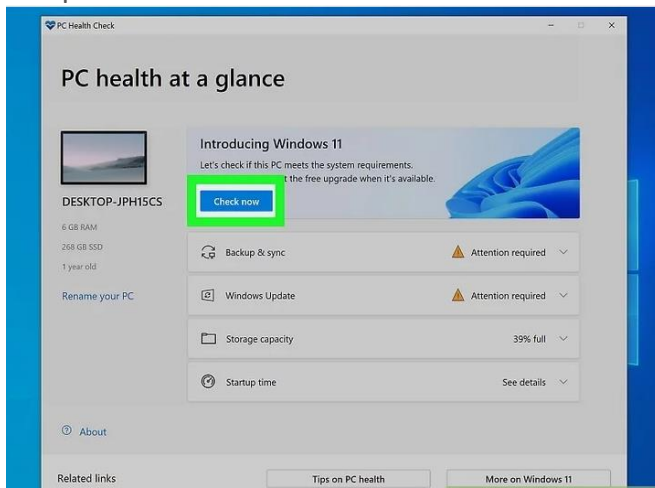
1. How to download Windows 11

- a) Download and run the PC Health Check [here \(aka.ms/GetPCHealthCheckApp\)](https://aka.ms/GetPCHealthCheckApp). This is the official, Microsoft-developed application to check if your PC meets all the hardware requirements to update.

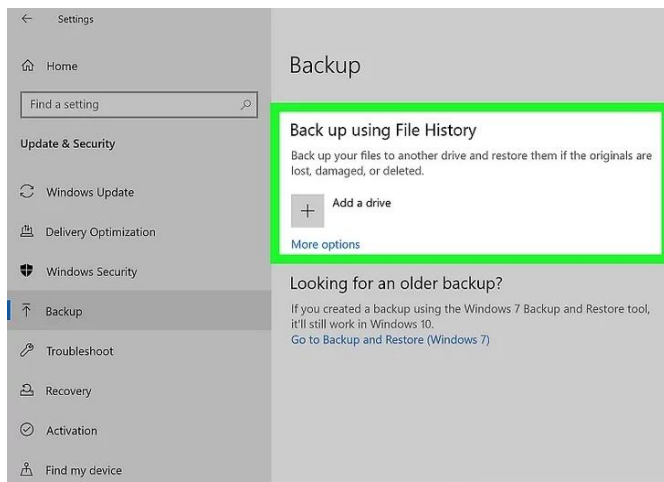


- b) Run the app after it has completed installation, and click Check now.

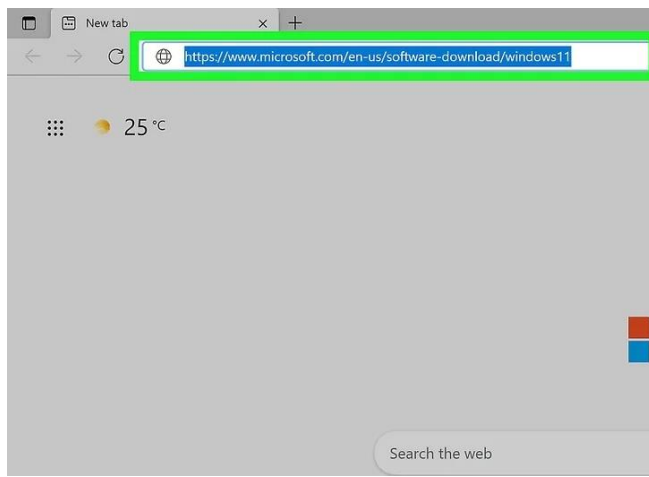
If your PC meets the requirements, it should display a green checkmark stating that your PC is compatible.



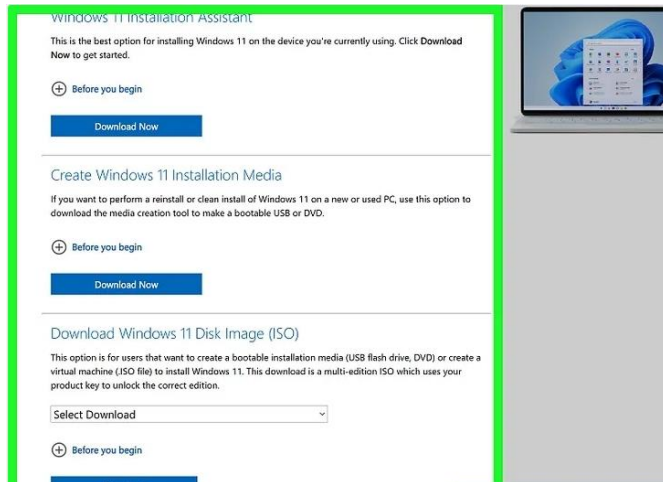
- c) **Back up your PC just in case.** Your upgrade to Windows 11 should be smooth and seamless, but just in case something goes wrong, backing up will ensure you don't lose any of your files.



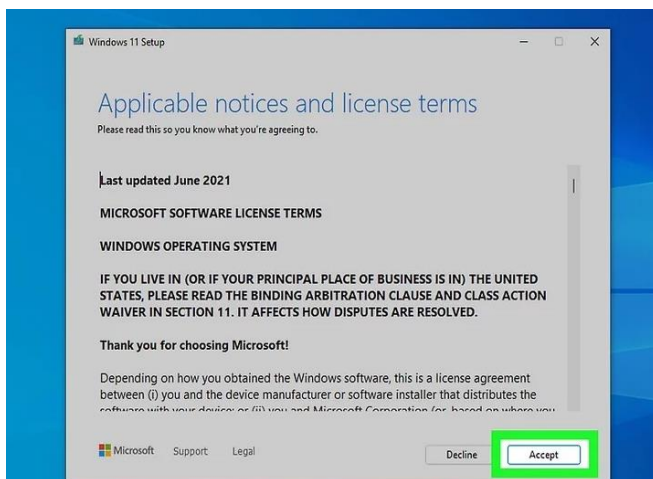
d) Head to the [official download website \(www.microsoft.com/en-us/software-download/windows11\)](https://www.microsoft.com/en-us/software-download/windows11).



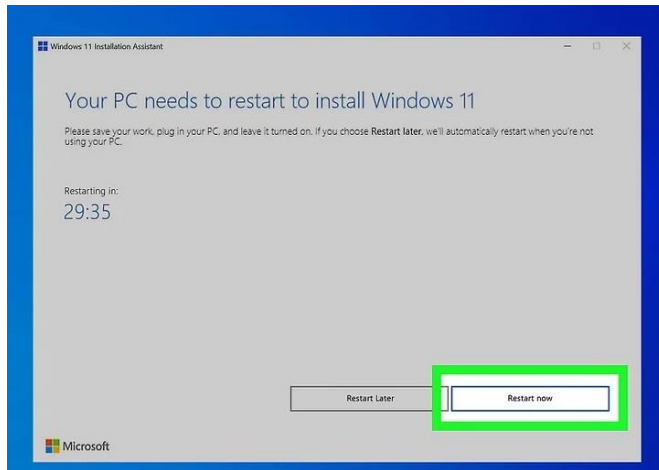
- e) **Select your download option.** The recommended one is the Installation Assistant—this is the same as what you would use if you upgraded via Settings.
- The Installation Media is used if you want to clean install your PC, and the ISO is used as a virtual machine. The recommended and easiest option is the Installation Assistant.



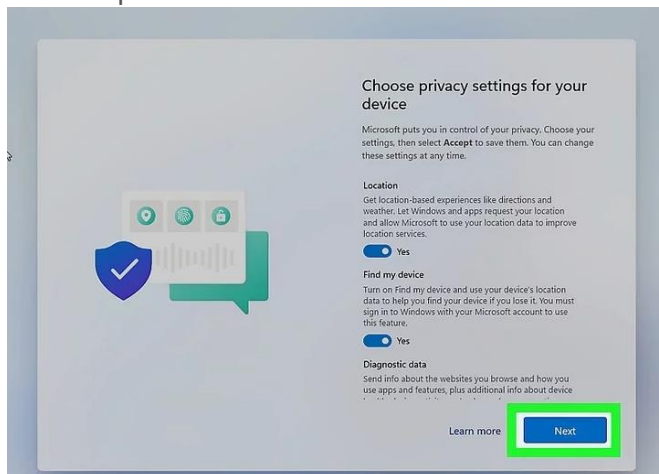
- f) **Follow through with the process.** You'll be prompted with a license agreement, which you need to accept. Then, a window will pop up, in which the download will take place.
- The three steps that will take place in the download window will be "Downloading," "Verifying Download," and lastly "Installing." This process can take up to a few hours depending on your PC.



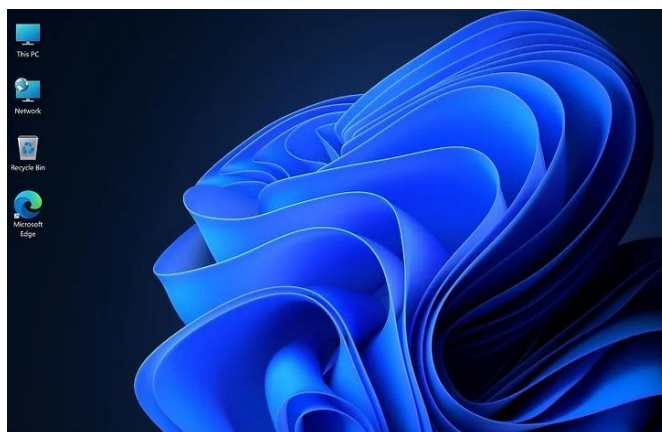
- g) **Restart your PC.** After it is done installing, the window will prompt you to restart your PC and start a countdown of 30 minutes. Simply hit "Restart now."



- h) **Let your PC install Windows 11.** Your computer will automatically run the installation process.
- Do not shut down your computer, and be sure to keep it plugged in throughout the process.

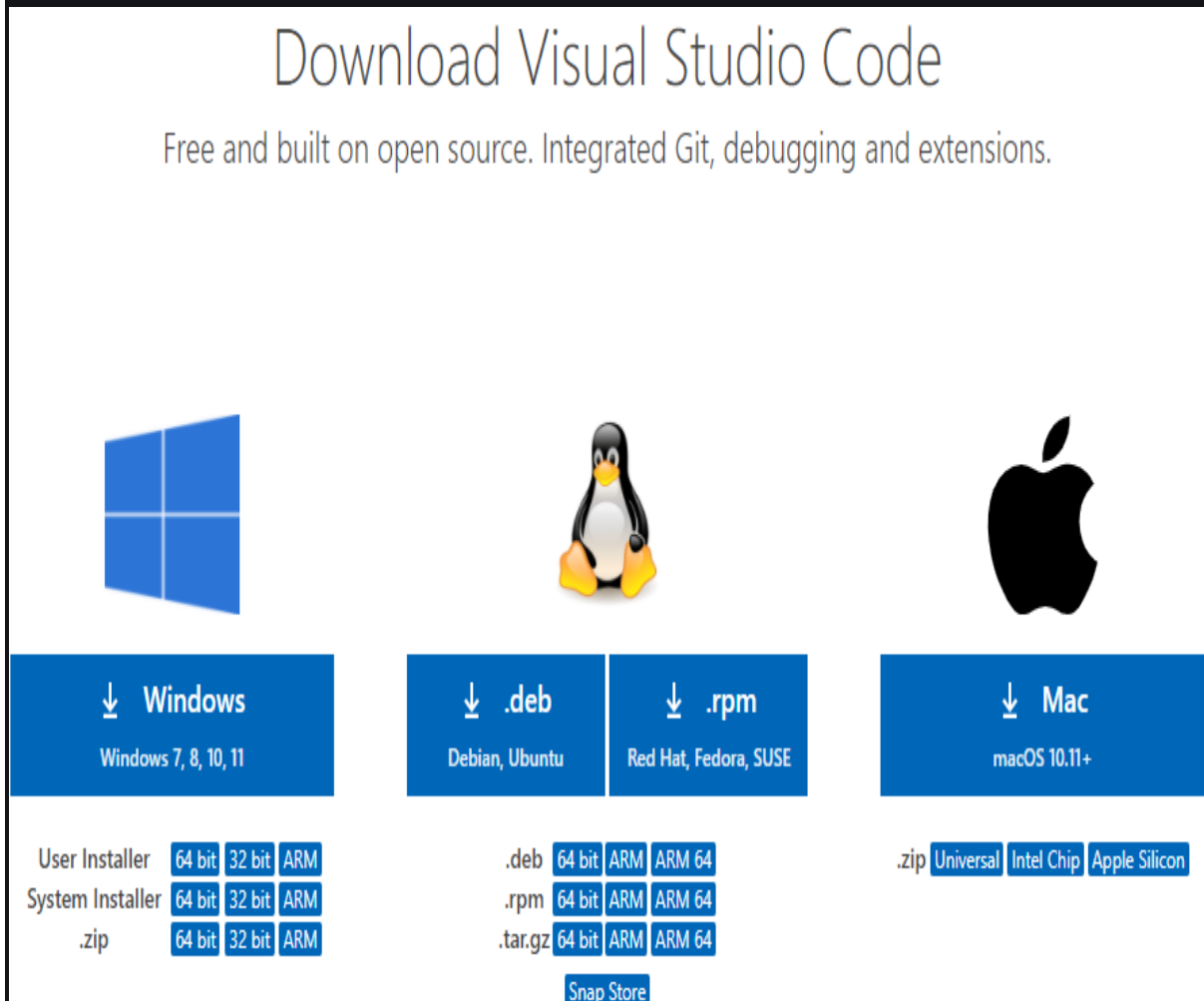


- i) **Complete!** After installation, the Windows 11 start-up screen will appear. Log in as you normally would and start exploring the new features of Windows 11.



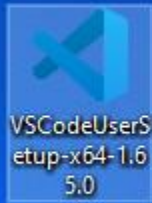
2. Download and Installation of Visual Studio Code.

Step 1: Visit the **Official Website** of the **Visual Studio Code** using any web browser like [Google Chrome](#), [Microsoft Edge](#), etc.



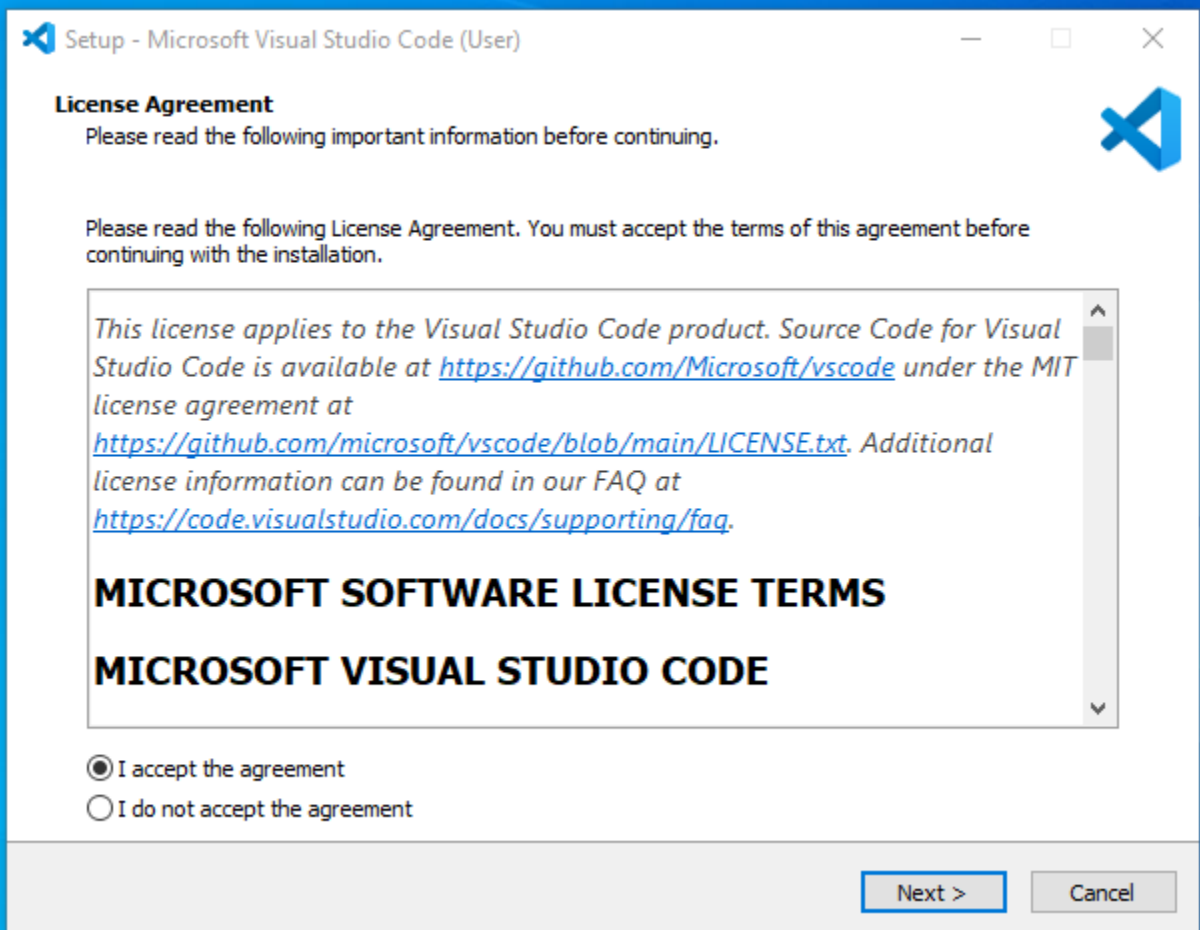
Step 2: Press the “**Download for Windows**” button on the website to start the download of the Visual Studio Code Application.

Step 3: When the download finishes, then the **Visual Studio Code Icon** appears in the downloads folder.

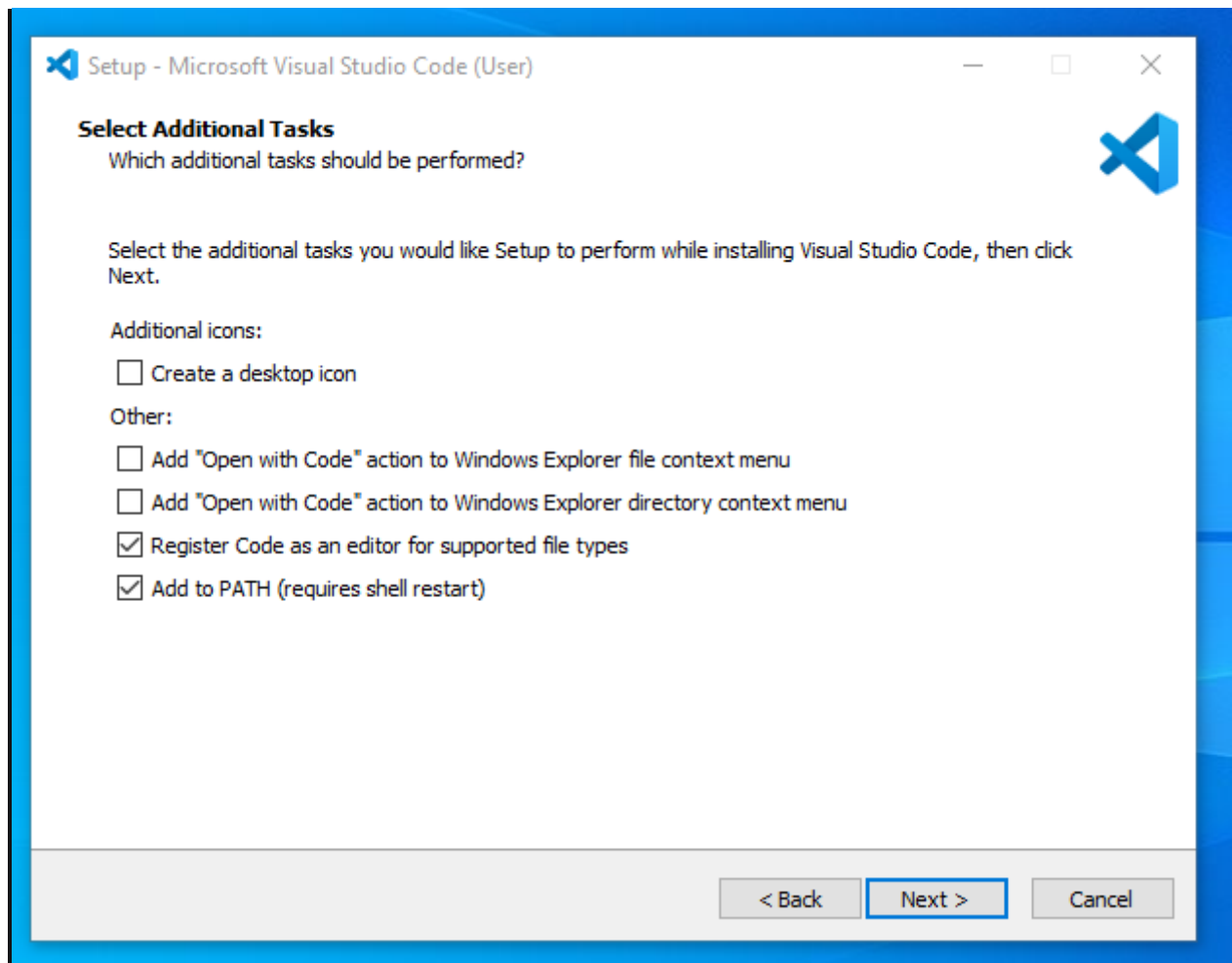


Step 4: Click on the **Installer** icon to start the installation process of the Visual Studio Code.

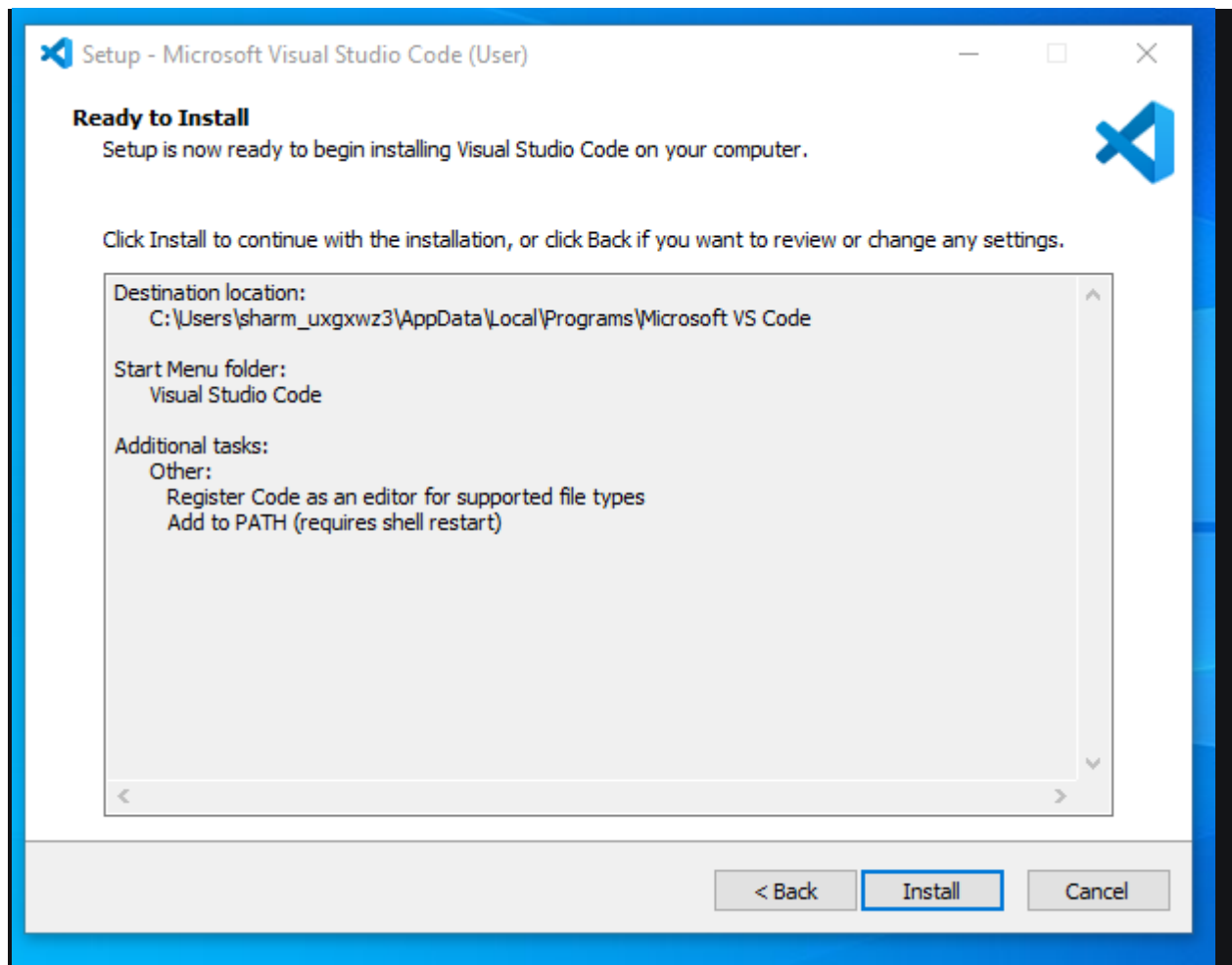
Step 5: After the Installer opens, it will ask you to accept the terms and conditions of the Visual Studio Code. Click on **I accept the agreement** and then click the **Next** button.



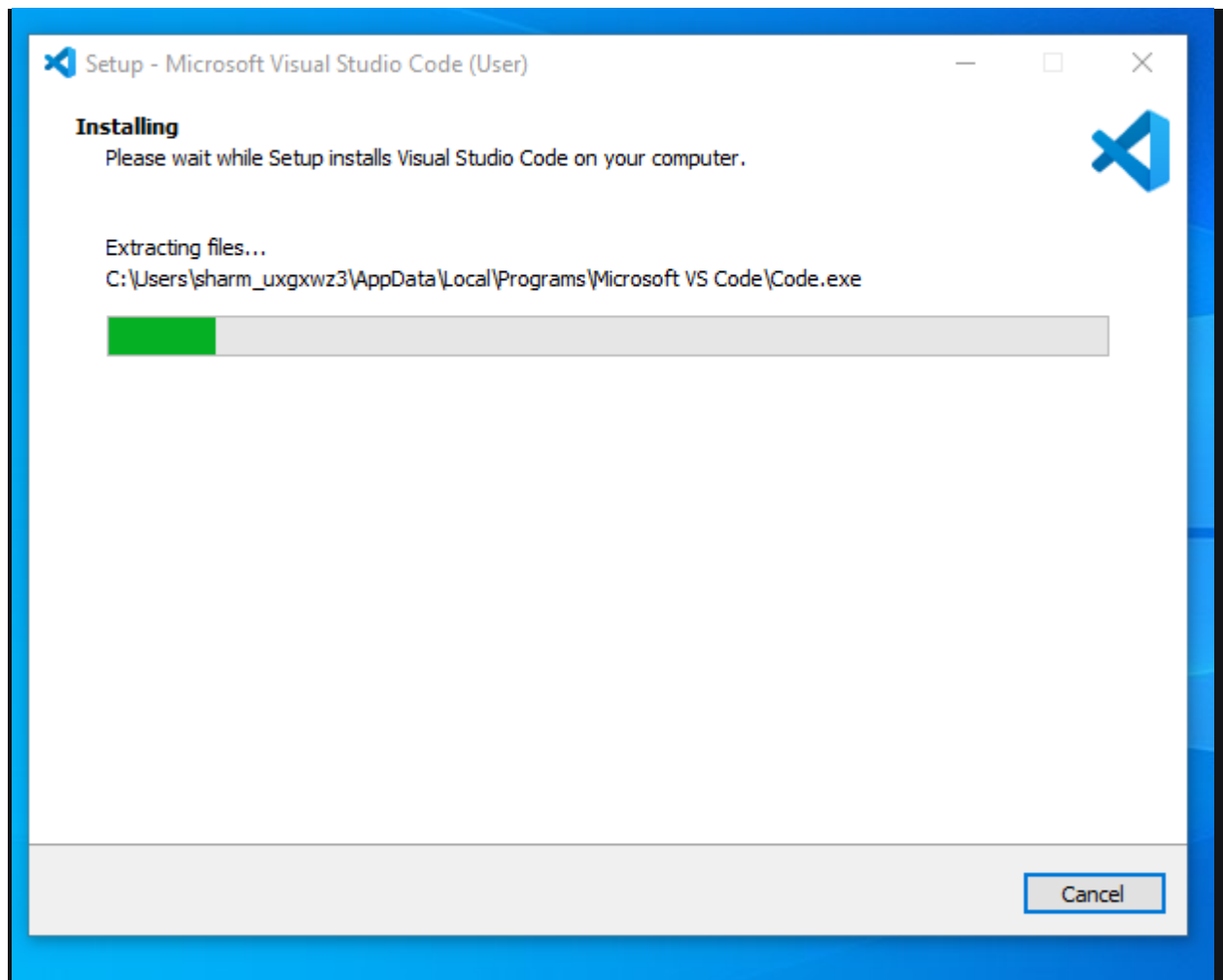
Step 6: Choose the location data for running the Visual Studio Code. It will then ask you to browse the location. Then click on the **Next** button.



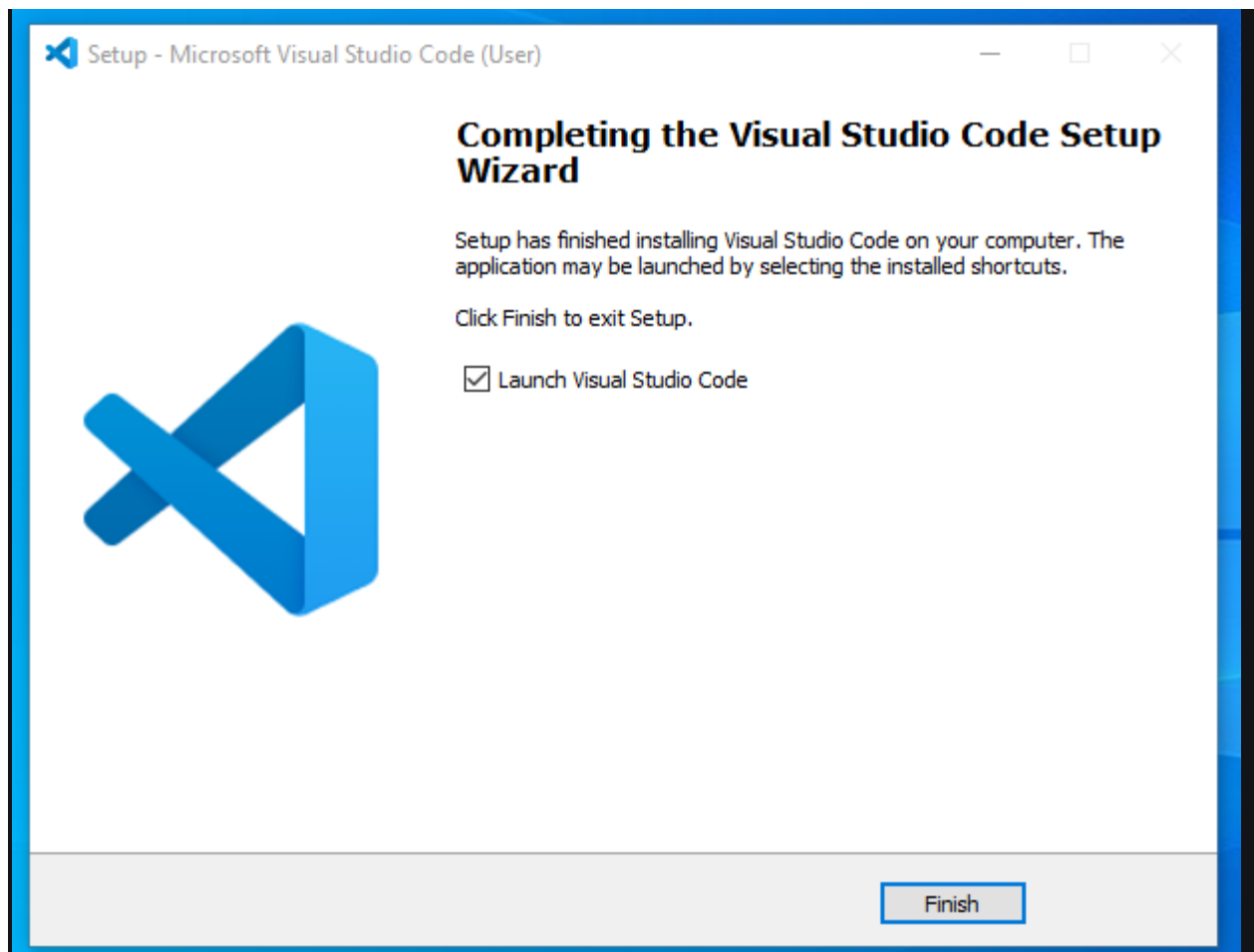
Step 7: Then it will ask to begin the installation setup. Click on the **Install** button.



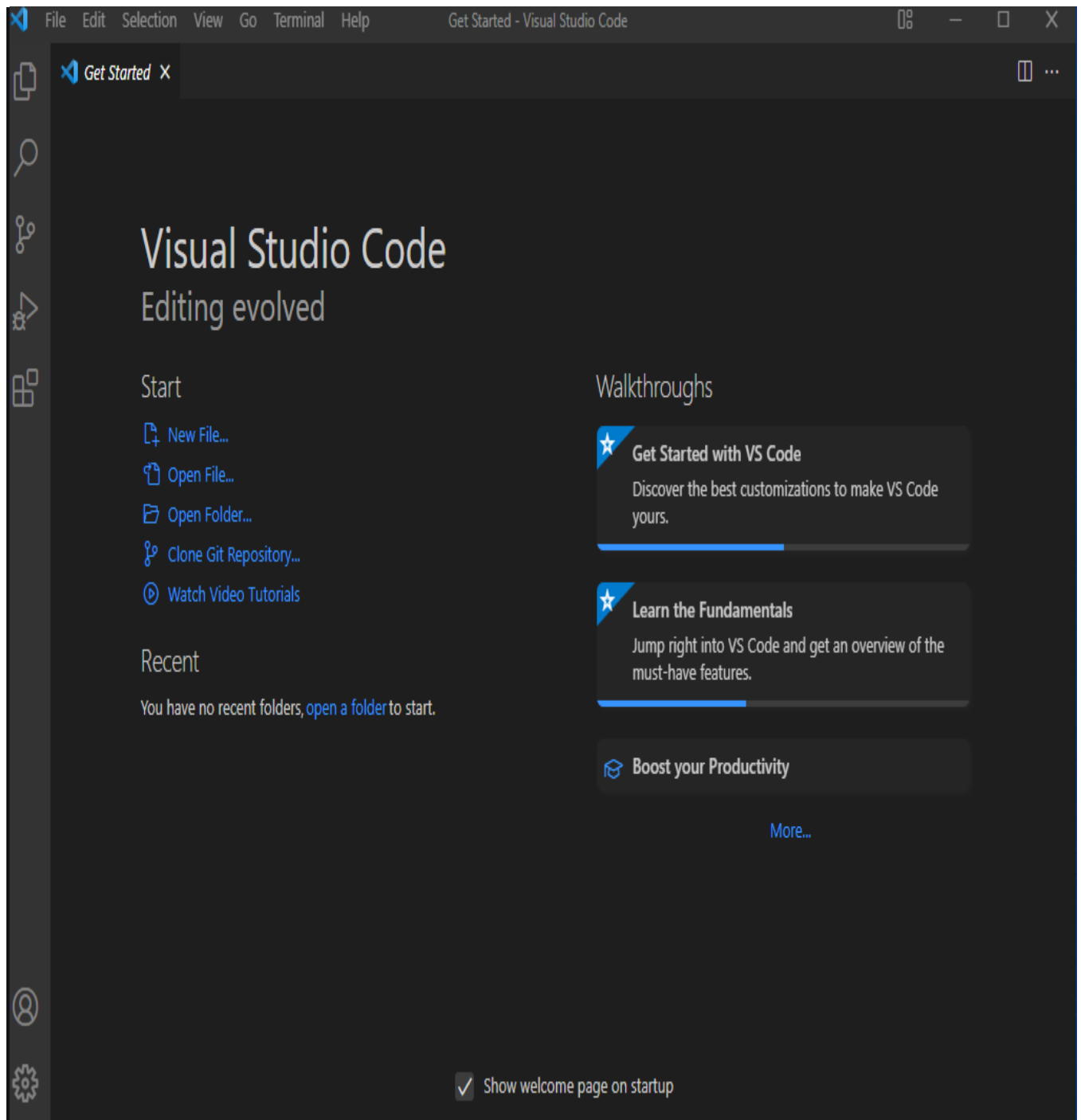
Step 8: After clicking on Install, it will take about 1 minute to install the Visual Studio Code on your device.



Step 9: After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the “**Launch Visual Studio Code**” checkbox and then click **Next**.



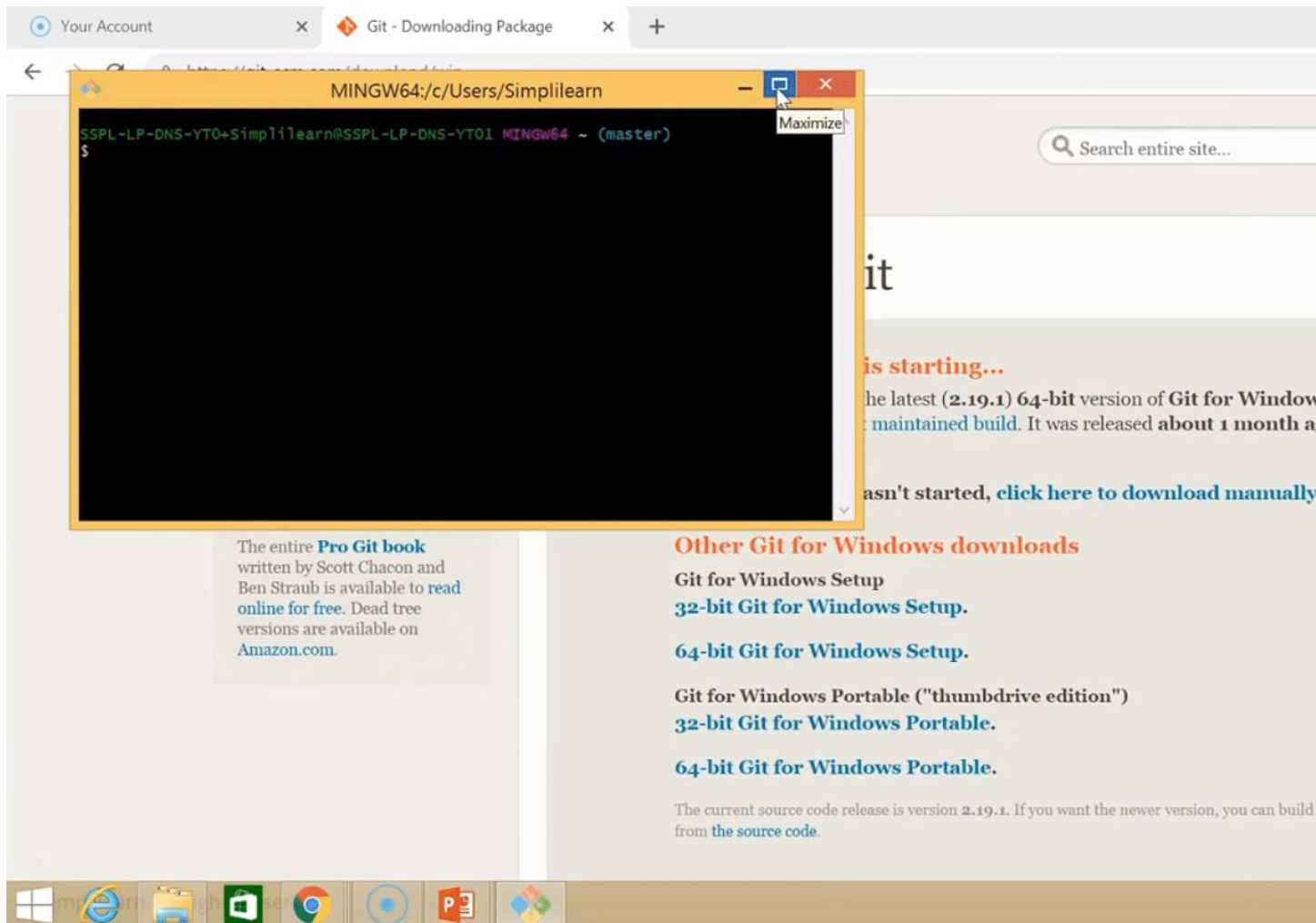
Step 10: After the previous step, the **Visual Studio Code window** opens successfully. Now you can create a new file in the Visual Studio Code window and choose a language of yours to begin your programming journey!



So this is how we successfully installed **Visual Studio Code** on our Windows system.

3. Git Installation on Windows

Step 1: Download the [latest version of Git](#) and choose the 64/32 bit version. After the file is downloaded, install it in the system. Once installed, select Launch the Git Bash, then click on finish. The Git Bash is now launched.



Step 2:

Check the Git version:

```
$ git --version
```

Step 3:

For any help, use the following command:

```
$ git help config
```

This command will lead you to a browser of [config commands](#). Basically, the help the command provides a manual from the help page for the command just following it (here, it's config).

Another way to use the same command is as follows:

```
$ git config --help
```

Step 4:

Create a local directory using the following command:

```
$ mkdir test  
$ cd test
```

Step 5:

The next step is to initialize the directory:

```
$ git init
```

Step 6:

Go to the folder where "test" is created and create a text document named "demo." Open "demo" and put any content, like "Hello Simplilearn." Save and close the file.

Step 7:

Enter the Git bash interface and type in the following command to check the status:

```
$ git status
```

Step 8:

Add the "demo" to the current directory using the following command:

```
$ git add demo.txt
```

Step 9:

Next, make a commit using the following command:

```
$ git commit -m "committing a text file"
```

Step 10:

Link the Git to a [Github](#) Account:

```
$ git config --global user.username
```

Note: simplilearn-github is the username on the Github account.

Step 11:

Open your Github account and create a new repository with the name "test_demo" and click on "Create repository." This is the remote repository. Next, copy the link of "test_demo."

Step 12:

Go back to Git bash and link the remote and local repository using the following command:

```
$ git remote add origin <link>
```

Here, <link> is the link copied in the previous step.

Step 13:

Push the local file onto the remote repository using the following command:

```
$ git push origin master
```

Step 14:

Move back to Github and click on "test_demo" and check if the local file "demo.txt" is pushed to this repository.

Additional Customization Options

This option enables users to add extra elements such as symbolic links for command lines.

Nevertheless, one should always prefer default options for shortcuts or more.

There are some experimental options available such as pseudo control Support or Built in file system monitor concerning your installed Git version.

How to Launch Git in Windows?

There are two methods to launch git in windows. One is launching git using a bash scripting shell with the help of the command line and another is launching git using a graphical user interface.

To launch git via bash scripting shell,

First, open the window and search for git bash and open it.

To launch git via graphical user interface(GUI), similarly, first open the window and search for git GUI and click on the application icon and open it.

Configure GitHub Credentials

You can configure your local GitHub installation with credentials by using the following commands. Also, don't forget to add your own GitHub credentials for username and email address.

```
git config --global user.name "github_username"
```

```
git config --global user.email "email_address"
```

Clone a GitHub Repository

Initially you need to click the options repository on GitHub.

Then in the top right corner, click the option clone or download where a small drop-down box will appear having a URL for cloning over HTTPS.

Then enter into your Powershell windows and write clone URL as:

```
git clone repository_url
```

On the other hand, you can clone a github repository with SSH URLs where first you need to generate an SSH key pair on your windows workstation as well as need to assign a public key to your GitHub account.

List Remote Repositories

Make a copy of the repository from GitHub for your working directory.

Ensure that the working directory should have the project name as "cd git_project" and replace the project name from the downloaded repository.

If the above option doesn't work, you can list the content using "ls command" for the current directory, especially to check your exact number of spellings.

Besides, you can list the remote repository in the sub-directory as "git remote -v".

Summary: Steps For Git Installation on Windows 10

Download and install Git

Git bash interface

Basic Git commands

Create a local repository

Connect to the remote repository

Push the file to GitHub

4. How to Install Python on Windows With Python Installer

1.First, go to the Python [website](#) and click on the “Download Python” button. Select the latest version. As of this writing, that would be Python 3.11.4.

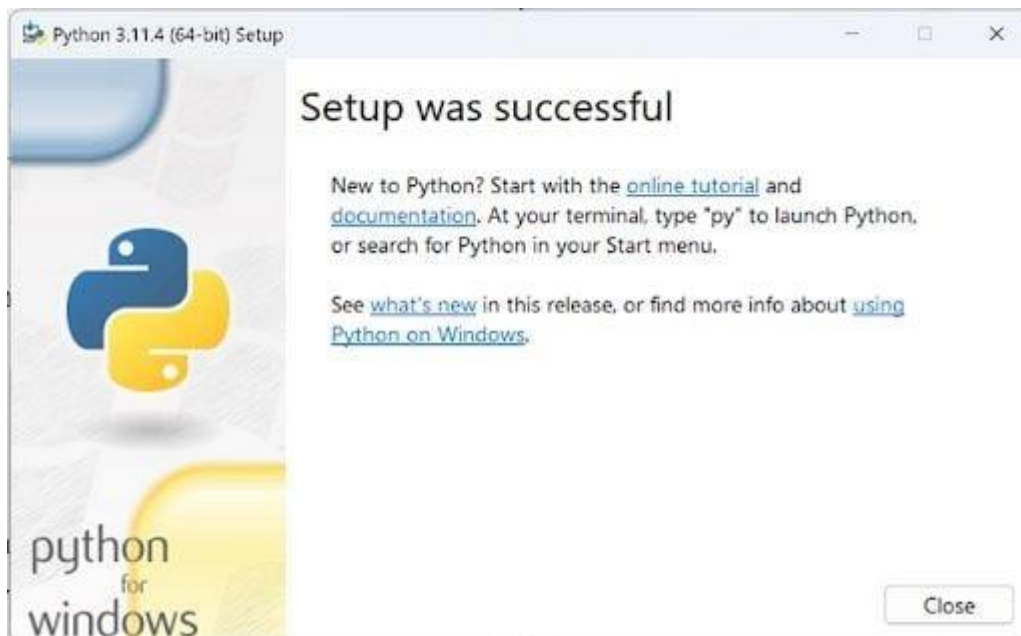


2.Select the “Windows installer” option and click on the “Download” button. Once the download is complete, run the installer.

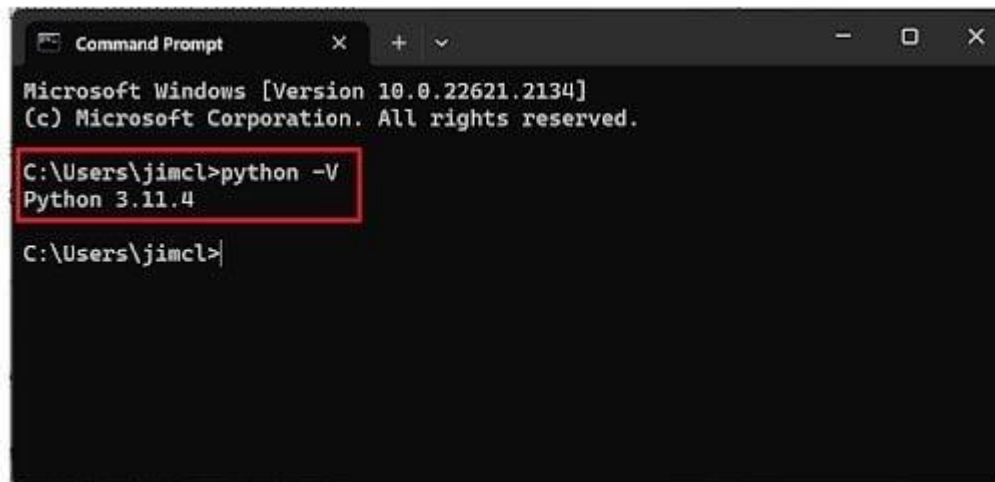


3. During the process, it's advisable to check the boxes "Use admin privileges when installing py.exe" and "Add python.exe to PATH" to save the trouble of manual adjustments in the environment variable later.

4. Then, follow the on-screen instructions to install Python. Once the installation is complete, you should see a success message like this:



5. You can verify that Python has been installed by opening a command prompt and typing the following command: `python -V`.



```
Command Prompt
Microsoft Windows [Version 10.0.22621.2134]
(c) Microsoft Corporation. All rights reserved.

C:\Users\jimcl>python -V
Python 3.11.4



C:\Users\jimcl>
```

6.This will display the Python version currently installed.

5. How to install pip



Ensure you can run pip from the command line

Additionally, you'll need to make sure you have pip available. You can check this by running:

 Windows
py -m pip --version

If you installed Python from source, with an installer from python.org, or via [Homebrew](https://brew.sh) you should already have pip. If you're on Linux and installed using your OS package manager, you may have to install pip separately, see [Installing pip/setuptools/wheel with Linux Package Managers](#).

If pip isn't already installed, then first try to bootstrap it from the standard library:

 Windows
py -m ensurepip --default-pip


If that still doesn't allow you to run python -m pip:

- Securely Download [get-pip.py](#) ^[1]
- Run python get-pip.py. ^[2] This will install or upgrade pip. Additionally, it will install [Setuptools](#) and [wheel](#) if they're not installed already.


6 .Download and Install MySQL for Windows Steps

Step 1: Visit the Official MySQL Website

Open your preferred web browser and navigate to [the official MySQL website](https://dev.mysql.com/downloads/installer/). Now, Simple click on first download button.

[General Availability \(GA\) Releases](#) [Archives](#) 

MySQL Installer 8.0.35

 **Note:** MySQL 8.0 is the final series with MySQL Installer. As of MySQL 8.1, use a MySQL product's MSI or Zip archive for installation. MySQL Server 8.1 and higher also bundle MySQL Configurator, a tool that helps configure MySQL Server.

Select Version:

8.0.35 ▼

Select Operating System:

Microsoft Windows ▼

Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-8.0.35.0.msi)	8.0.35	2.1M	Download
MD5: 214df2ccdf83eb5edc6ca7c115792406 Signature			
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-8.0.35.0.msi)	8.0.35	288.6M	Download
MD5: 2cfda448a2971b6b5323775ef9e8d012 Signature			

Step 2: Go to the Downloads Section

On the MySQL homepage, Click on the " **No thanks, just start my download**" link to proceed MySql downloading.

MySQL Community Downloads

Login Now or Sign Up for a free account.

An Oracle Web Account provides you with the following advantages:

- Fast access to MySQL software downloads
- Download technical White Papers and Presentations
- Post messages in the MySQL Discussion Forums
- Report and track bugs in the MySQL bug system

Login »

using my Oracle Web account

Sign Up »

for an Oracle Web account

MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can sign up for a free account by clicking the Sign Up link and following the instructions.

No thanks, just start my download.

Step 3: Run the Installer

After MySQL downloading MySQL.exe file , go to your Downloads folder, find the file, and double-click to run the installer.

MySQL Installer - Community



Please wait while Windows configures MySQL Installer - Community

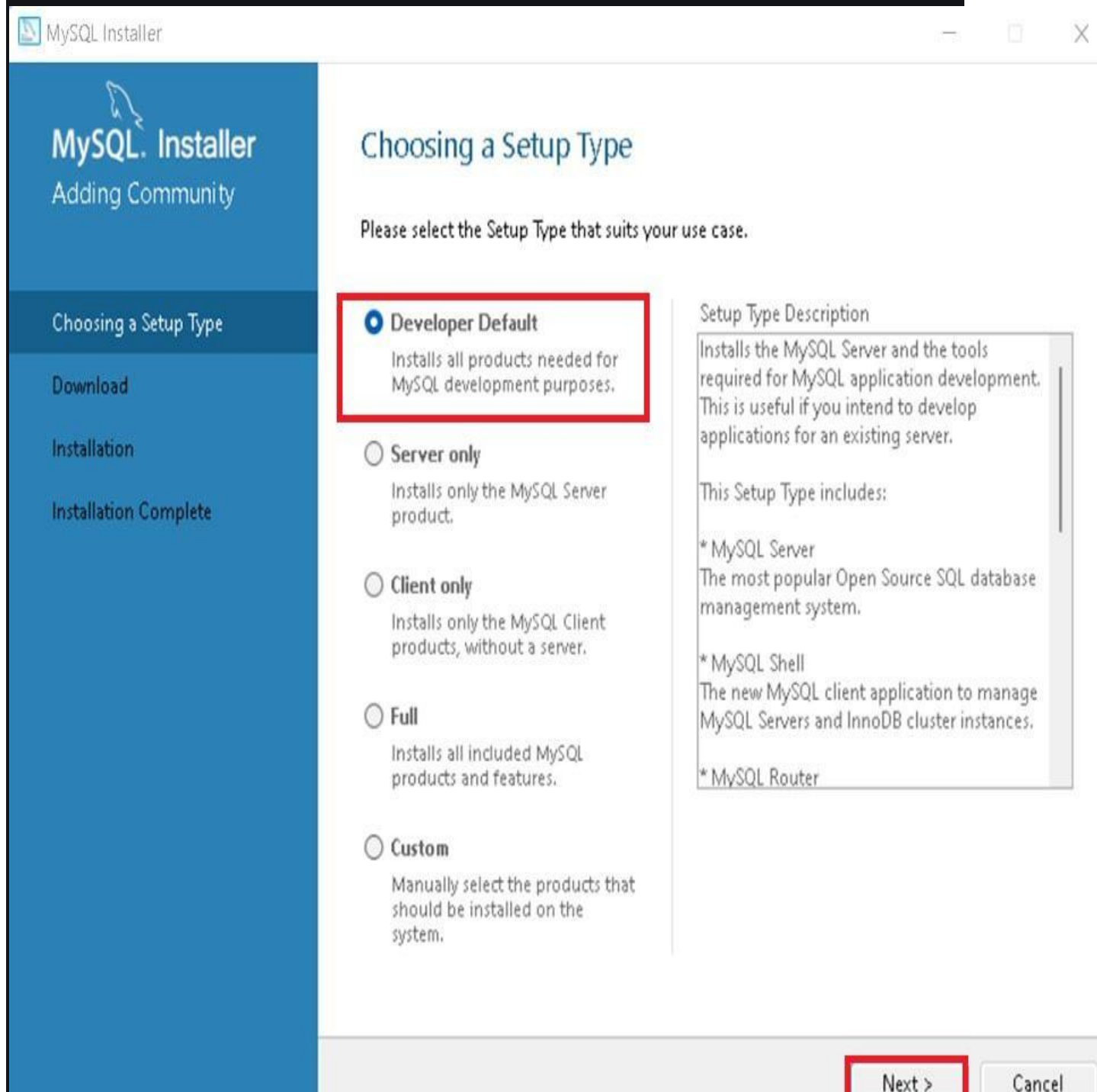
Time remaining: 14 minutes



Cancel

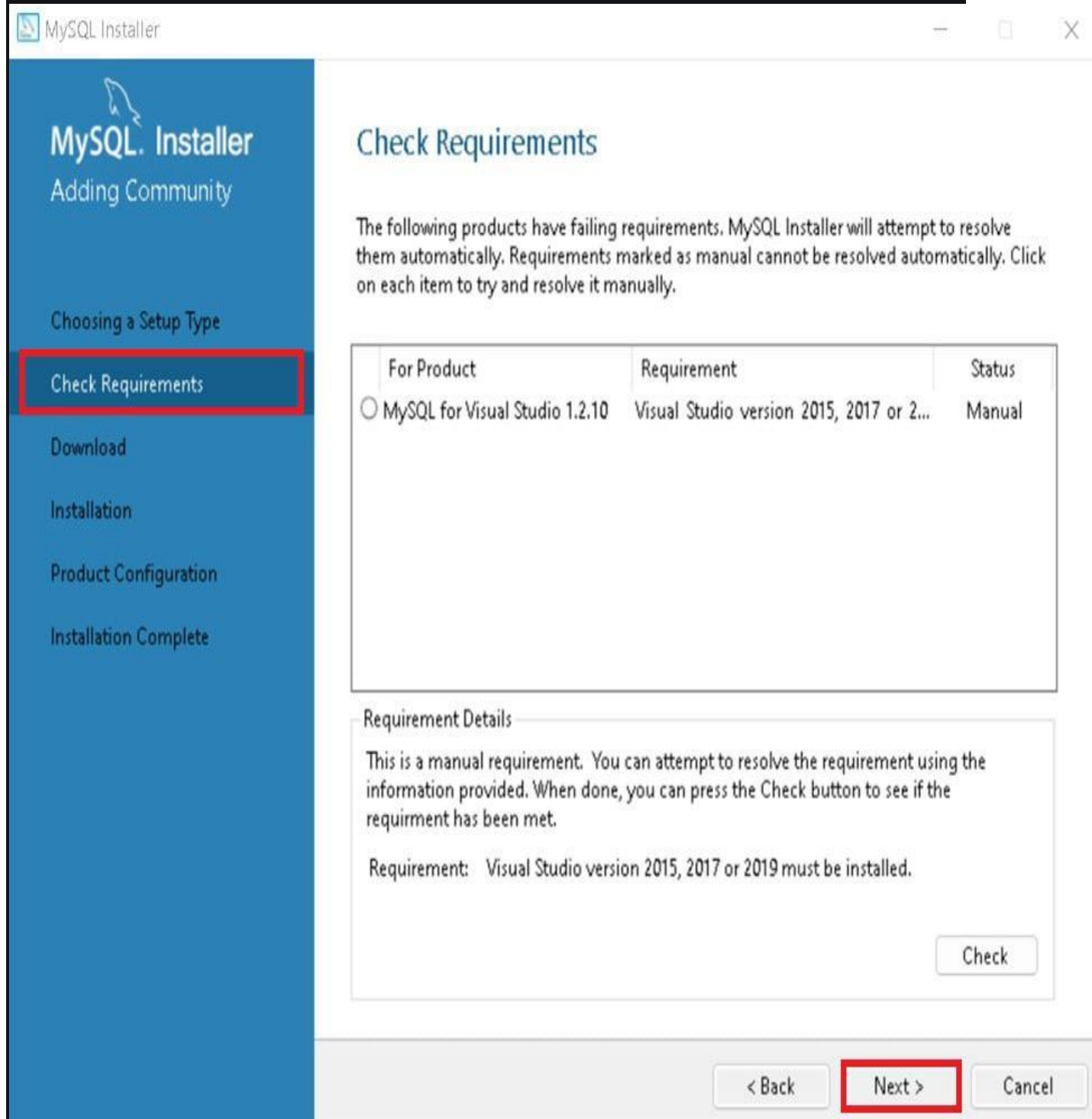
Step 4: Choose Setup Type

The installer will instruct you to choose the setup type. For most users, the “**Developer Default**” is suitable. Click “Next” to proceed.



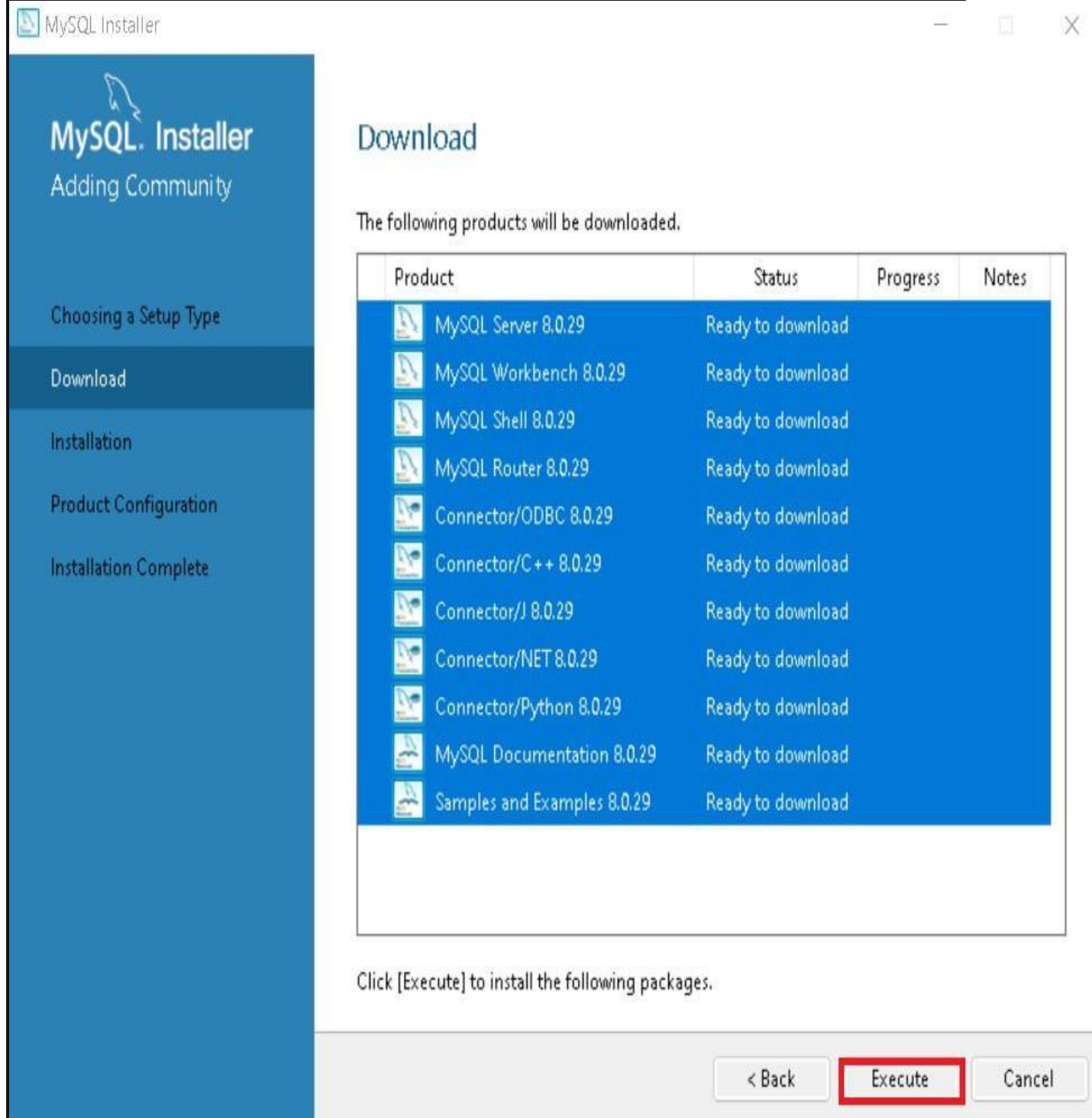
Step 5: Check Requirements

You might be prompted to install necessary MySQL [software](#), typically Visual Code. The installer can auto-resolve some issues, but not in this case.

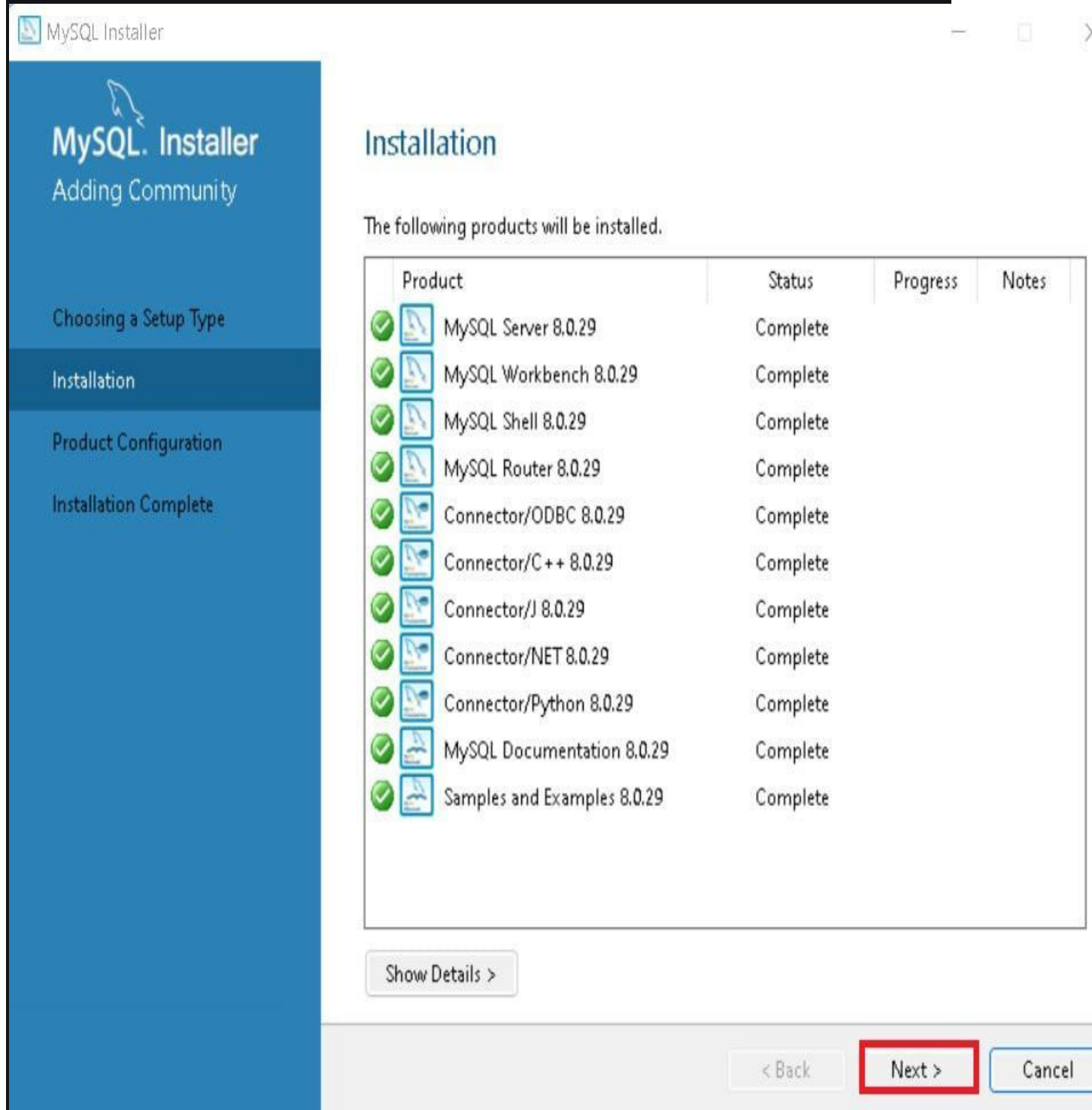


Step 6: MySQL Downloading

Now that you're in the download section, click "Execute" to start downloading the components you selected. Wait a few minutes until all items show tick marks, indicating completion, before moving forward.



Now the downloaded components will be installed. Click “**Execute**” to start the installation process. MySQL will be installed on your Windows system. Then click **Next** to proceed

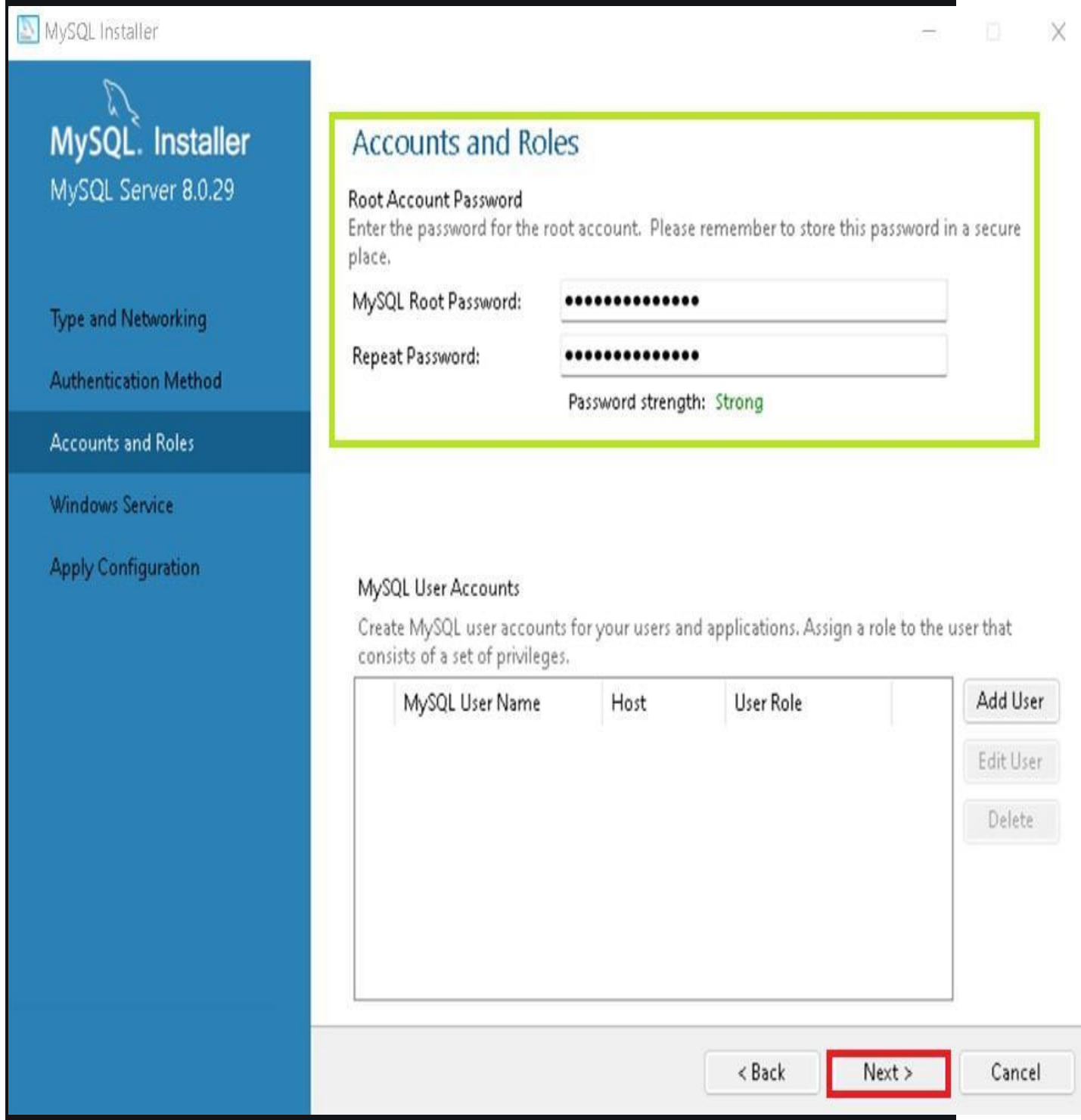


Step 8: Navigate to Few Configuration Pages

Proceed to “**Product Configuration**” > “**Type and Networking**” > “**Authentication Method**” Pages by clicking the “Next” button.

Step 9: Create MySQL Accounts

Create a password for the MySQL root user. Ensure it’s strong and memorable. Click “**Next**” to proceed.



The image shows the MySQL Installer window for MySQL Server 8.0.29. The left sidebar contains the following steps: Type and Networking, Authentication Method, Accounts and Roles (highlighted), Windows Service, and Apply Configuration. The main area is titled 'Accounts and Roles' and contains two sections. The first section, 'Root Account Password', prompts the user to enter a password for the root account. It includes two input fields: 'MySQL Root Password:' and 'Repeat Password:', both filled with dots. Below these fields, the password strength is indicated as 'Strong' in green text. The second section, 'MySQL User Accounts', prompts the user to create MySQL user accounts and assign roles. It features a table with three columns: 'MySQL User Name', 'Host', and 'User Role'. To the right of the table are three buttons: 'Add User', 'Edit User', and 'Delete'. At the bottom of the window, there are three buttons: '< Back', 'Next >' (highlighted with a red border), and 'Cancel'.

MySQL Installer

MySQL Server 8.0.29

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply Configuration

Accounts and Roles

Root Account Password

Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

Repeat Password:

Password strength: Strong

MySQL User Accounts

Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL User Name	Host	User Role
-----------------	------	-----------

Add User

Edit User

Delete

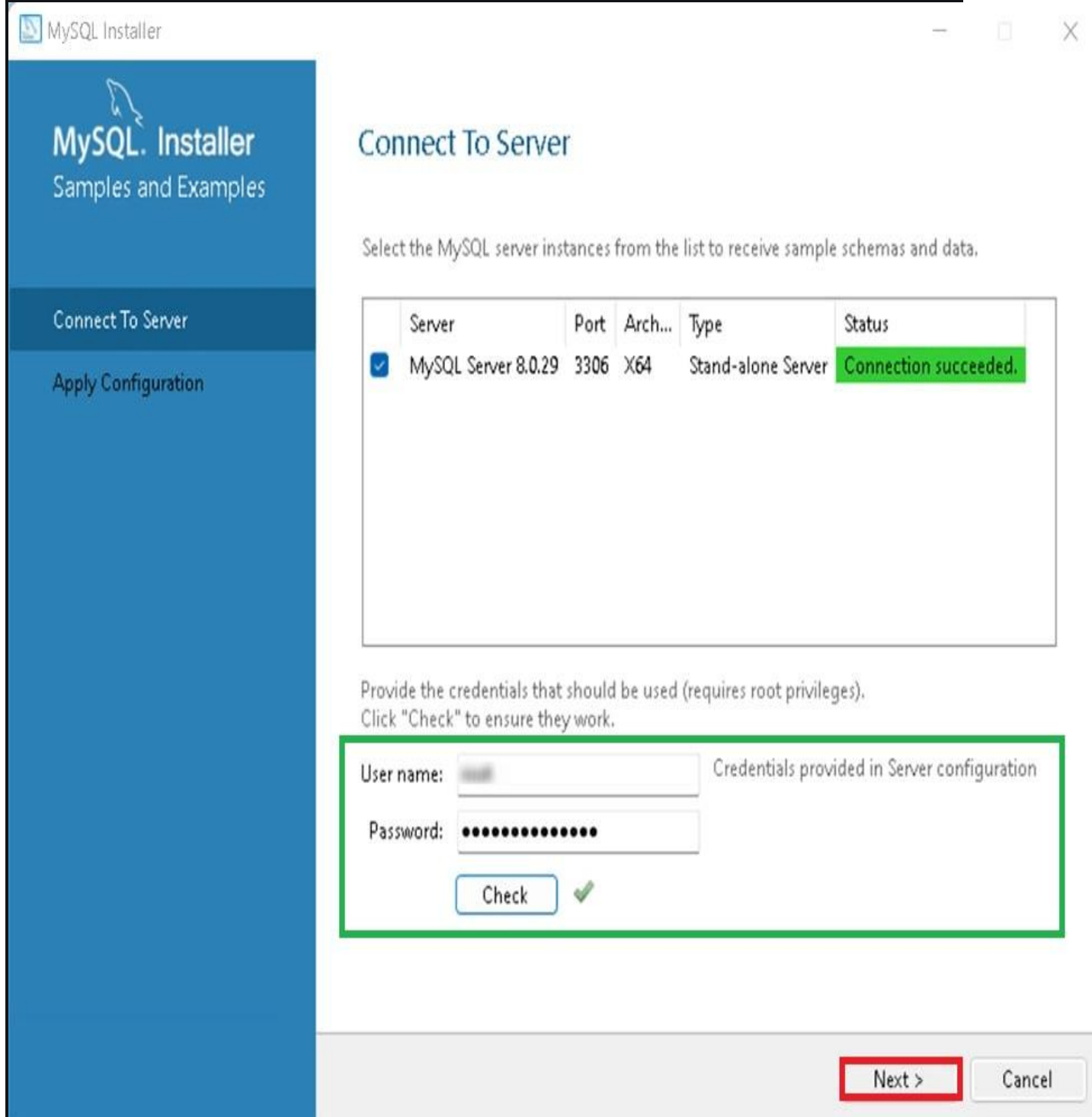
< Back

Next >

Cancel

Step 10: Connect To Server

Enter the root password, click Check. If it says "Connection succeed," you've successfully connected to the server.



The screenshot shows the 'MySQL Installer' window with the 'Connect To Server' tab selected. The window title is 'MySQL Installer'. The left sidebar has 'Connect To Server' and 'Apply Configuration' options. The main area is titled 'Connect To Server' and contains instructions: 'Select the MySQL server instances from the list to receive sample schemas and data.' Below this is a table with columns: Server, Port, Arch..., Type, and Status. One entry is listed: 'MySQL Server 8.0.29' on port '3306', architecture 'X64', type 'Stand-alone Server', and status 'Connection succeeded.' (highlighted in green). Below the table, instructions state: 'Provide the credentials that should be used (requires root privileges). Click "Check" to ensure they work.' A green box highlights the credential section, which includes 'User name:' (with a dropdown menu), 'Password:' (with a masked input field), and a 'Check' button with a green checkmark icon. To the right of the input fields is the text 'Credentials provided in Server configuration'. At the bottom right, there are 'Next >' and 'Cancel' buttons, with 'Next >' highlighted by a red box.

MySQL Installer

MySQL. Installer
Samples and Examples

Connect To Server

Apply Configuration

Connect To Server


Select the MySQL server instances from the list to receive sample schemas and data.

Server	Port	Arch...	Type	Status
<input checked="" type="checkbox"/> MySQL Server 8.0.29	3306	X64	Stand-alone Server	Connection succeeded.

Provide the credentials that should be used (requires root privileges).
Click "Check" to ensure they work.

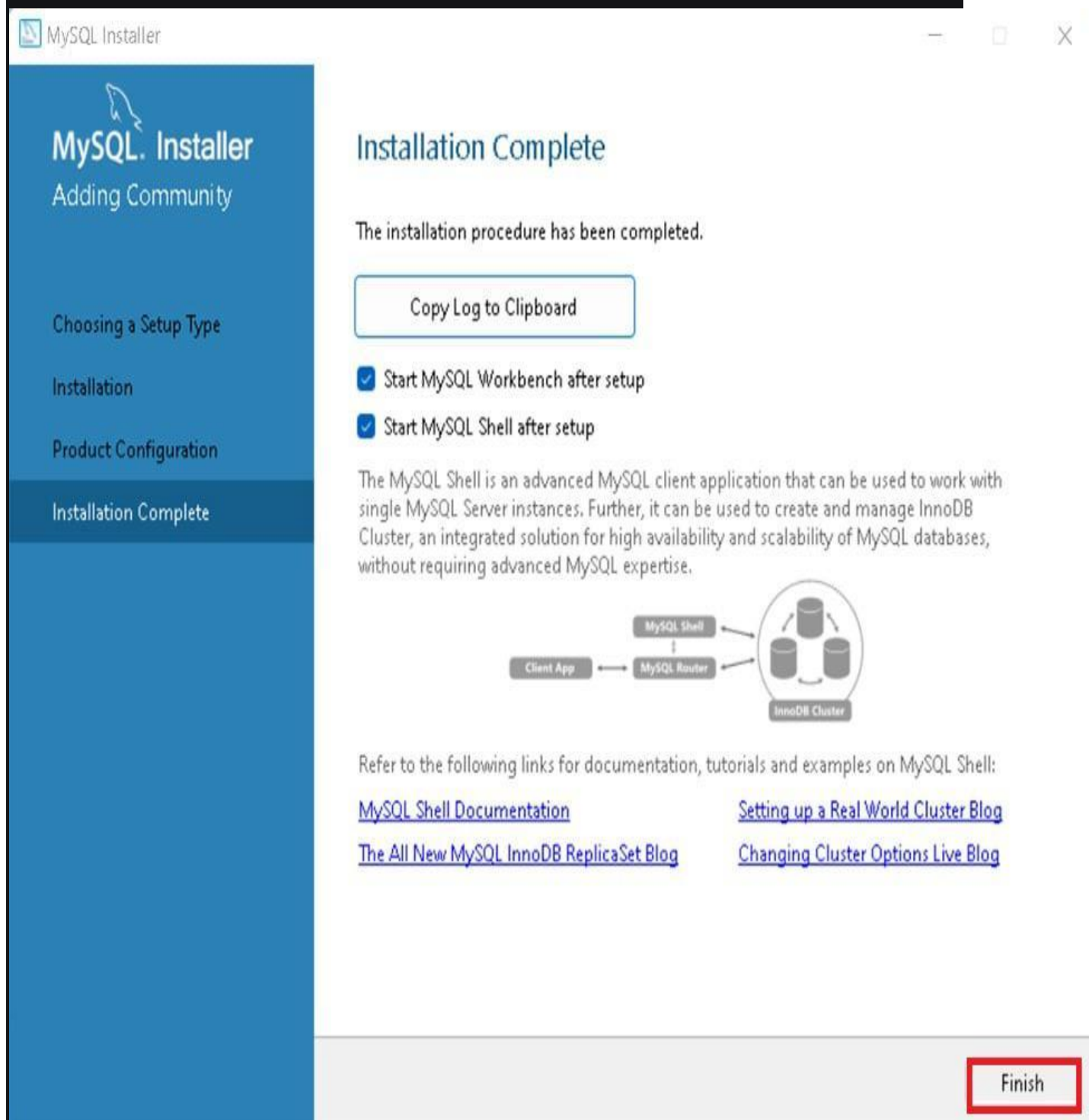
User name: Credentials provided in Server configuration

Password:



Step 11: Complete Installation

Once the installation is complete, click “Finish.” Congratulations! MySQL is now installed on your Windows system.

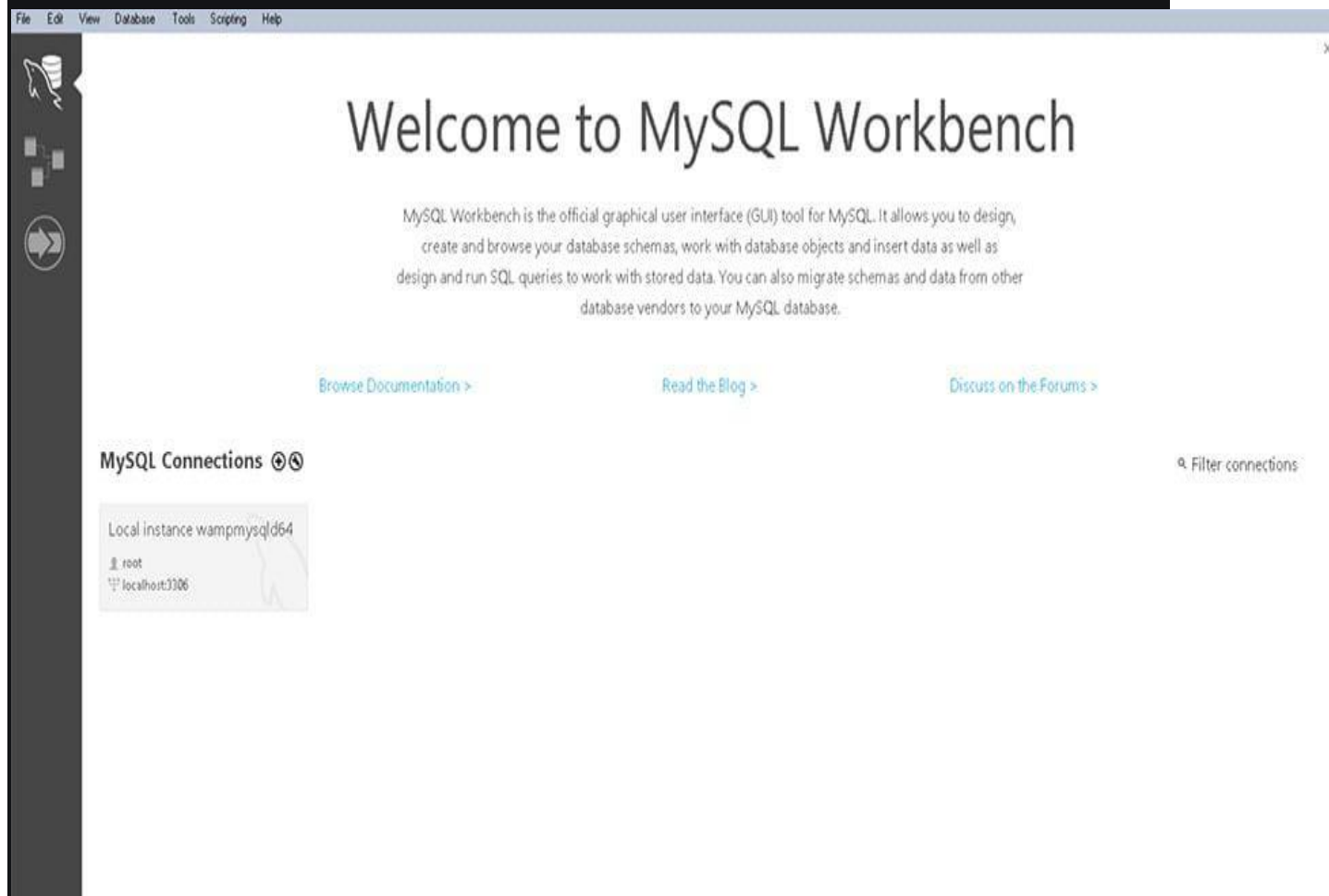


Step 12: Verify Installation

To ensure a successful installation of MySQL, open the MySQL Command Line Client or MySQL Workbench, both available in your Start Menu. Log in using the root user credentials you set during installation.

MySQL Workbench Is Ready To Use

MySQL is an open-source relational database management system that is based on [SQL queries](#). MySQL is used for data operations like **querying, filtering, sorting, grouping, modifying, and joining** the tables present in the database.



8. Browse for extensions


You can browse and install extensions from within VS Code. Bring up the Extensions view by clicking on the Extensions icon in the **Activity Bar** on the side of VS Code or the **View: Extensions** command ([Ctrl+Shift+X](#)).



This will show you a list of the most popular VS Code extensions on the [VS Code Marketplace](#).

EXTENSIONS: MARKETPLACE

@sort:installs




Python

2019.8.29288

56.8M ★ 4.5

Linting, Debugging (multi-threaded, remote), Intellisense, code formatting, refa...
Microsoft

Install




GitLens — Git supercharged

9.9.3

25.9M ★ 5

Supercharge the Git capabilities built into Visual Studio Code — Visualize code ...
Eric Amodio

Install




C/C++

0.24.1

24.3M ★ 3.5

C/C++ IntelliSense, debugging, and code browsing.
Microsoft

Install




ESLint

1.9.0

22.2M ★ 4.5

Integrates ESLint JavaScript into VS Code.
Dirk Baeumer

Install




Debugger for Chrome

4.11.7

21.5M ★ 4

Debug your JavaScript code in the Chrome browser, or any other target that su...
Microsoft

Install




Language Support for Java(TM) by Red Hat

0.47.0

19.3M ★ 4.5

Java Linting, Intellisense, formatting, refactoring, Maven/Gradle support and mo...
Red Hat

Install




vscode-icons

9.2.0

18.7M ★ 5

Icons for Visual Studio Code
VSCode Icons Team

Install



Vetur


0.21.1

17.3M ★ 4.5

Vue tooling for VS Code
Pine Wu

Install

Extension: Vetur X



Vetur

octref.vetur

Pine Wu

17,313,644

★★

Vue tooling for VS Code

Install

Details

Contributions

Changelog

VS Marketplace

v0.21.1



installs

2.6M

Vue tooling for VS Code, powered by [vue-language-server](#).

Doc: <https://vuejs.github.io/vetur>

Try it out with [Veturpack!](#)

 [VueConf 2017 Slide & Video](#) 

Features

- Syntax-highlighting

Each extension in the list includes a brief description, the publisher, the download count, and a five star rating. You can select the extension item to display the extension's details page where you can learn more.

Note: If your computer's Internet access goes through a proxy server, you will need to configure the proxy server. See [Proxy server support](#) for details.

Install an extension

To install an extension, select the **Install** button. Once the installation is complete, the **Install** button will change to the **Manage** gear button.

9. GITHUB REPOSITORY SAMPLE PROJECT

```
MINGW64/c/EHGL
ADMIN@GEORGE-WK MINGW64 /
$ cd c:/EHGL

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ touch .gitignore

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ git add README.md

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ git add .gitignore

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ git commit -m "Initial commit"
On branch main
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ git remote add origin https://github.com/GeorgeWaweruKiarie/EHGL.git
error: remote origin already exists.

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ git push -u origin main
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (5/5), 593 bytes | 296.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/GeorgeWaweruKiarie/EHGL.git
   c0d139f..26a96db  main -> main
branch 'main' set up to track 'origin/main'.

ADMIN@GEORGE-WK MINGW64 /c/EHGL (main)
$ |
```

Steps to Initialize and Push to GitHub

1. Navigate into the Git repository locally:

```
# cd c:/EGHL
```

Then add touch .gitignore

```
# Add the README.md and .gitignore files
```

```
git add README.md  
git add .gitignore
```

```
# Commit the files  
git commit -m "Initial commit"
```

```
# Add a remote repository (replace <username> and <repo> with your GitHub username  
and repository name)  
git remote add origin https://github.com/<username>/<repo>.git
```

```
# Push the committed files to the remote repository  
git push -u origin main
```

2. **Verify on GitHub:**

- After pushing, visit your repository on GitHub (<https://github.com/GeorgeWaweruKiarie/EHGL.git>) to see the README.md and .gitignore files listed.

My repository link is

<https://github.com/GeorgeWaweruKiarie/EHGL.git>