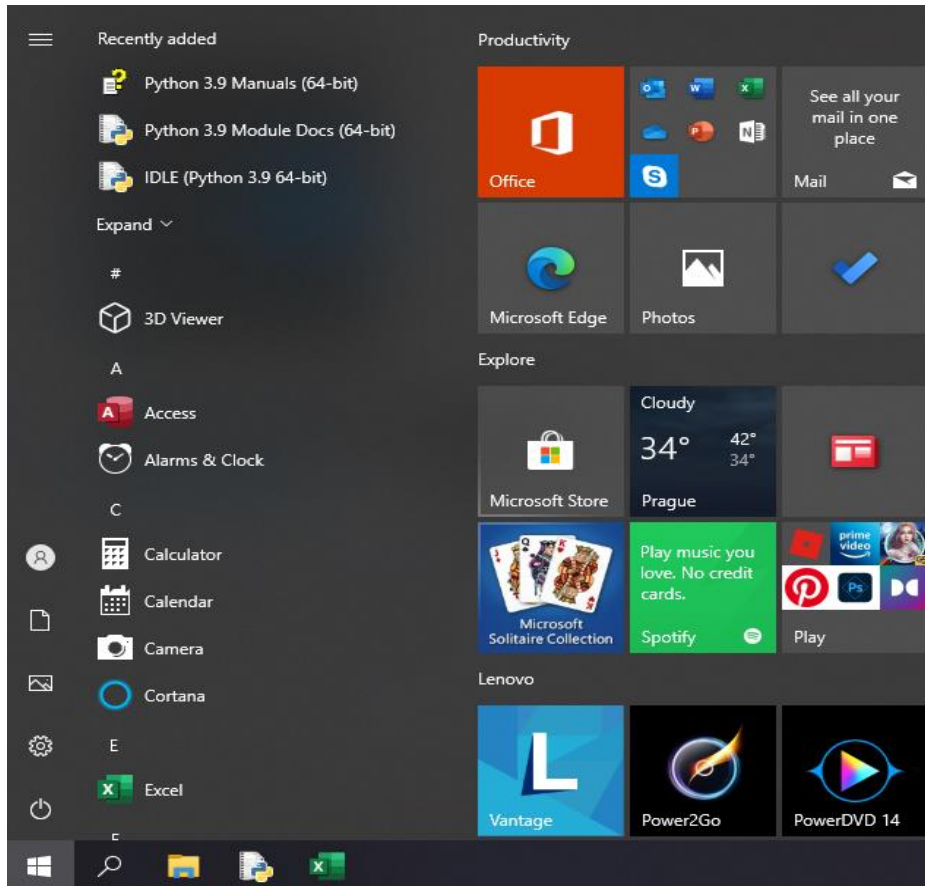


PLC Logger manual

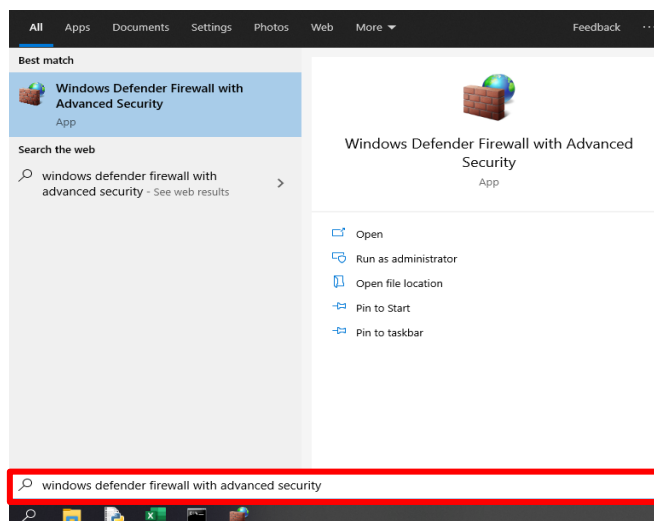
If your PC was restarted => Go to section "B) Starting the PLC Logger"
and do steps: 1 => 2 => 3 => 4 => 5

A) How to setup the Firewall for PLC Logger

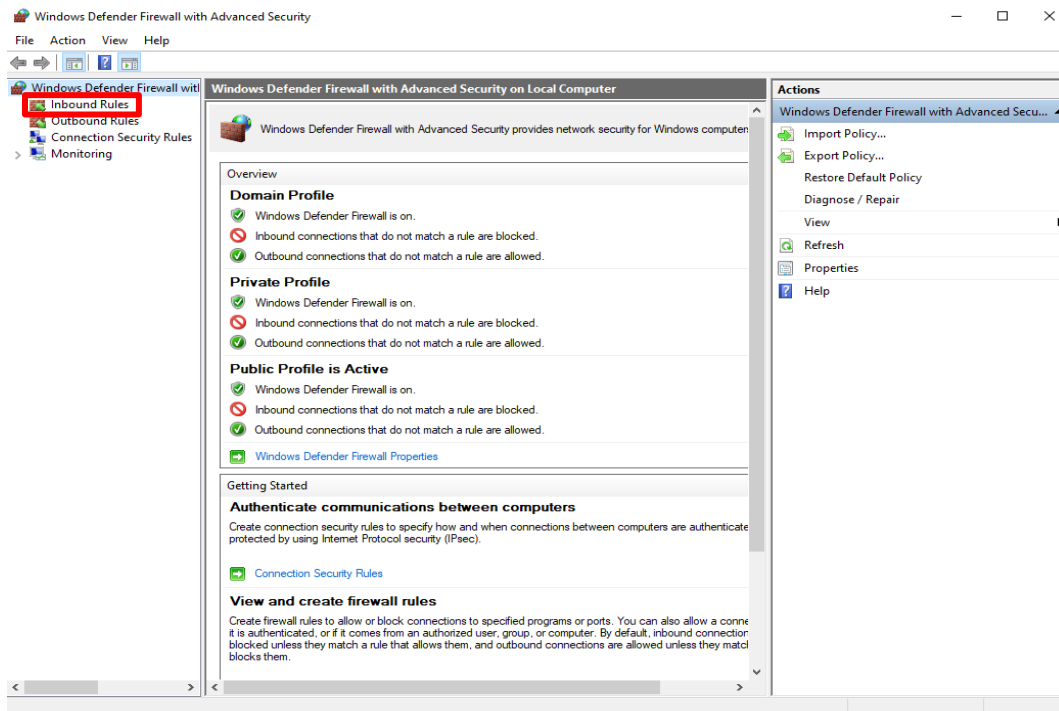
1. Press "windows key" to open the search box



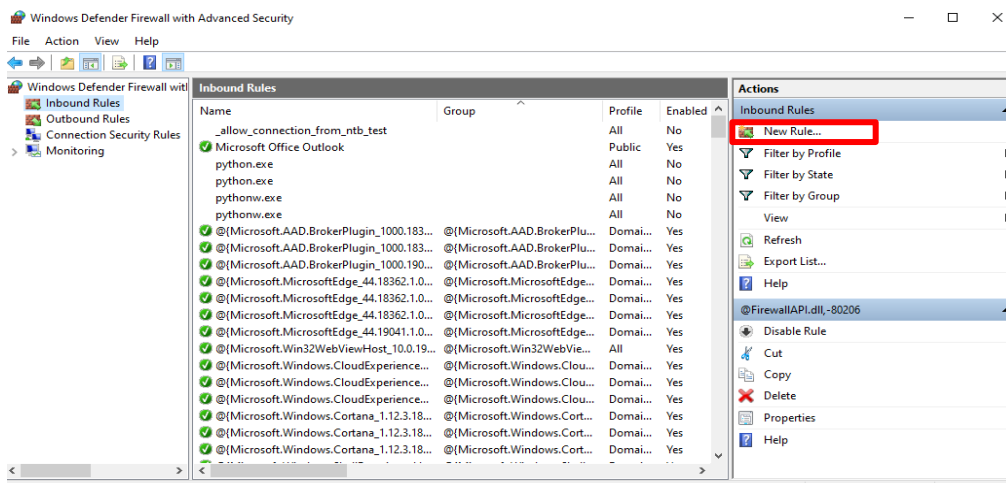
2. Type "Windows Defender Firewall with Advanced Security"



3. Press "ENTER" to open Windows Defender Firewall with Advanced Security
4. Click to "Inbound Rules"



5. Click to "New Rule..."



6. New Inbound Rule Wizard will open
7. Click to "Port"
8. Click to "Next >"

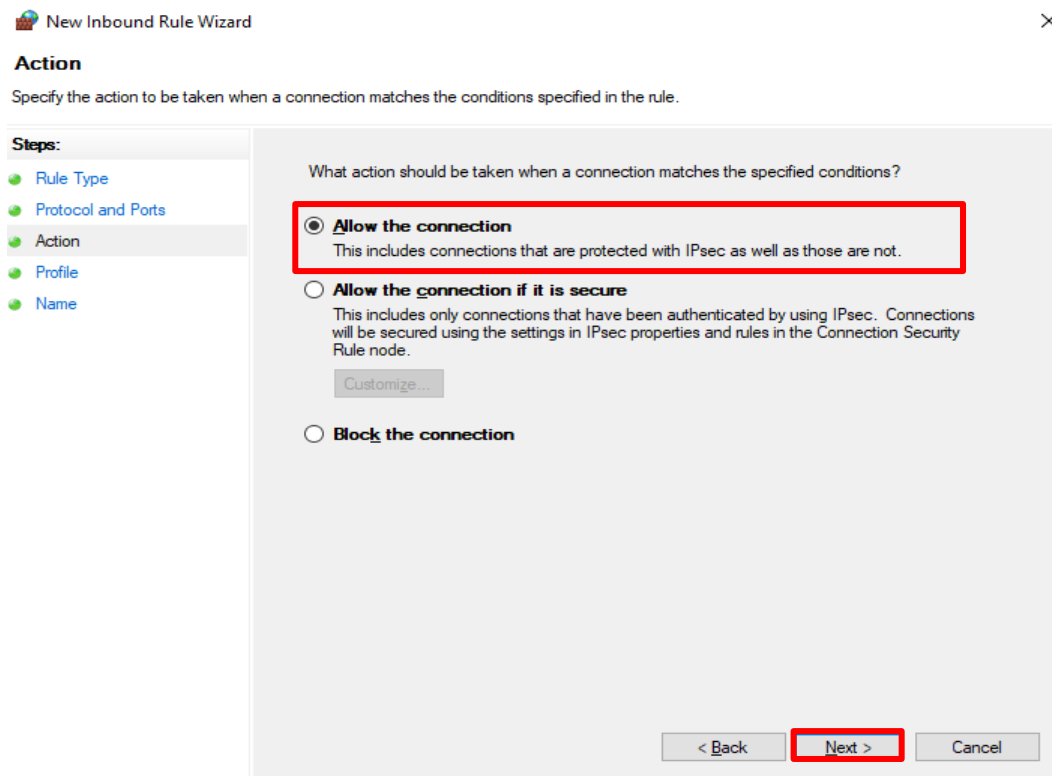
The screenshot shows the 'New Inbound Rule Wizard' window with the 'Rule Type' step selected in the left sidebar. The main area asks 'What type of rule would you like to create?'. There are three radio button options: 'Program' (Rule that controls connections for a program.), 'Port' (Rule that controls connections for a TCP or UDP port.), and 'Predefined:' (with a dropdown menu showing '@FirewallAPI.dll,-80200' and the description 'Rule that controls connections for a Windows experience.'). The 'Port' option is selected and highlighted with a red rectangle. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a red rectangle), and 'Cancel'.

9. Click to "TCP"
10. Click to "Specific local ports:"
11. Type "4200"
(if the server listens on different port, write that port number in the box)
12. Click to "Next >"

The screenshot shows the 'New Inbound Rule Wizard' window with the 'Protocol and Ports' step selected in the left sidebar. The main area asks 'Does this rule apply to TCP or UDP?'. There are two radio button options: 'TCP' (highlighted with a red rectangle) and 'UDP'. Below this, it asks 'Does this rule apply to all local ports or specific local ports?'. There are two radio button options: 'All local ports' and 'Specific local ports:'. The 'Specific local ports:' option is selected and highlighted with a red rectangle. Next to it is a text box containing '4200' and an example 'Example: 80, 443, 5000-5010'. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a red rectangle), and 'Cancel'.

13. Click to "Allow the connection"

14. Click to "Next >"



New Inbound Rule Wizard

Action

Specify the action to be taken when a connection matches the conditions specified in the rule.

Steps:

- Rule Type
- Protocol and Ports
- Action**
- Profile
- Name

What action should be taken when a connection matches the specified conditions?

☒ **Allow the connection**
This includes connections that are protected with IPsec as well as those are not.

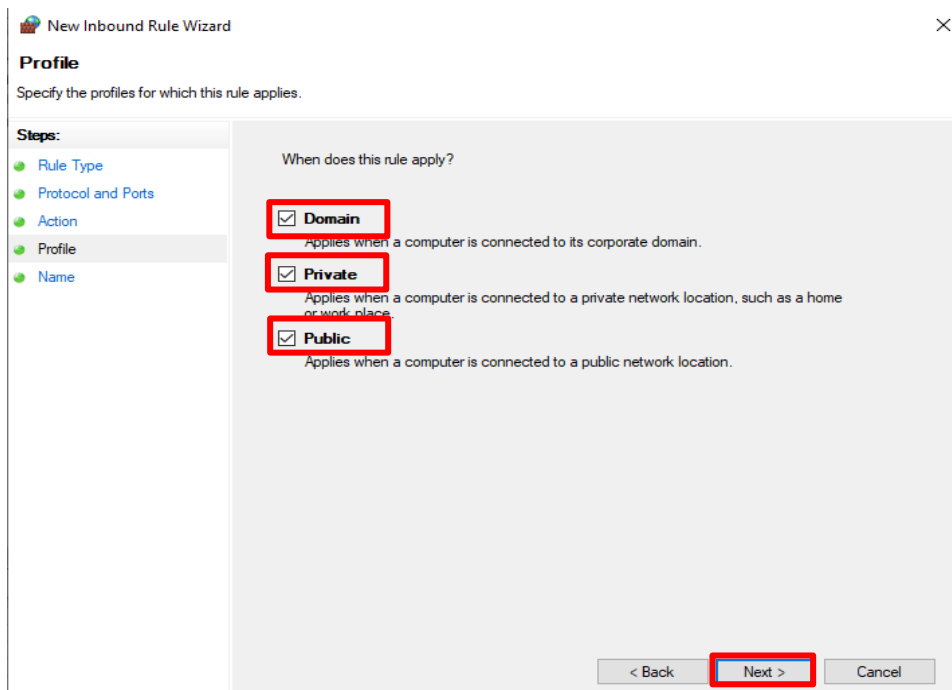
☐ **Allow the connection if it is secure**
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.
[Customize...](#)

☐ **Block the connection**

< Back **Next >** Cancel

15. All boxes should be checked

16. Click to "Next >"



New Inbound Rule Wizard

Profile

Specify the profiles for which this rule applies.

Steps:

- Rule Type
- Protocol and Ports
- Action
- Profile**
- Name

When does this rule apply?

☒ **Domain**
Applies when a computer is connected to its corporate domain.

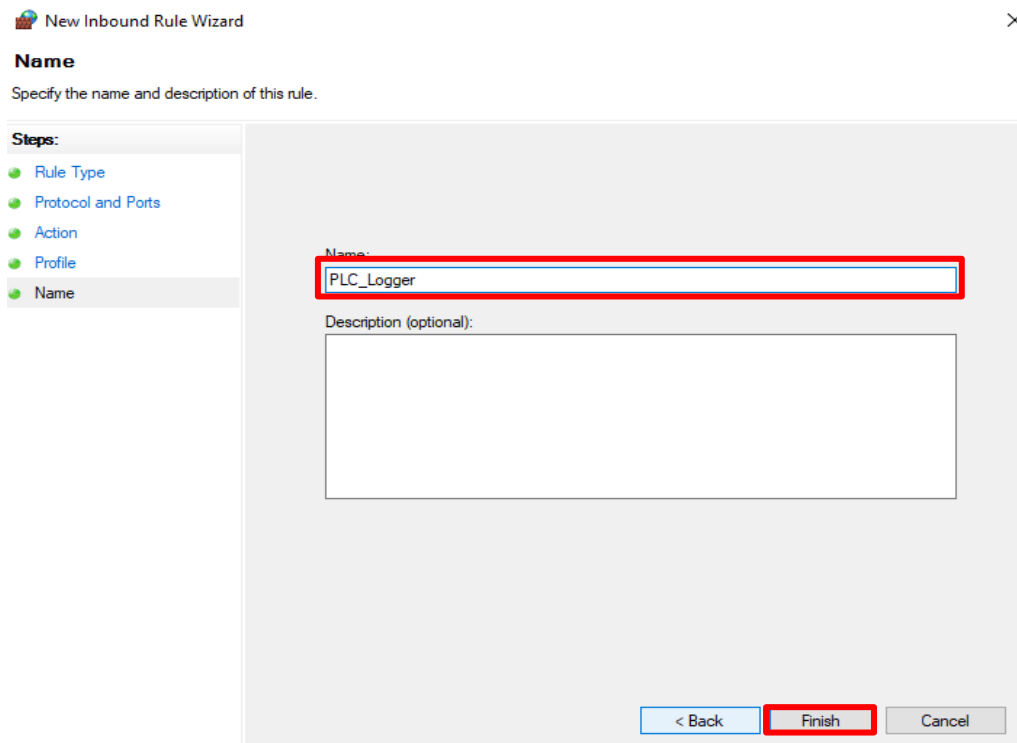
☒ **Private**
Applies when a computer is connected to a private network location, such as a home or work place.

☒ **Public**
Applies when a computer is connected to a public network location.

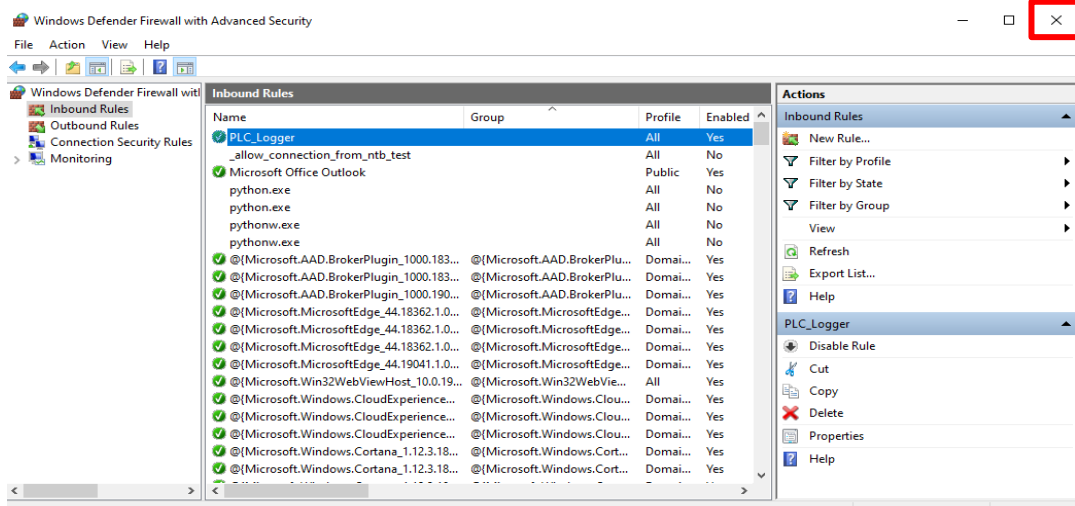
< Back **Next >** Cancel

17. Write "PLC_Logger" in the "Name:" box

18. Click to "Finish"

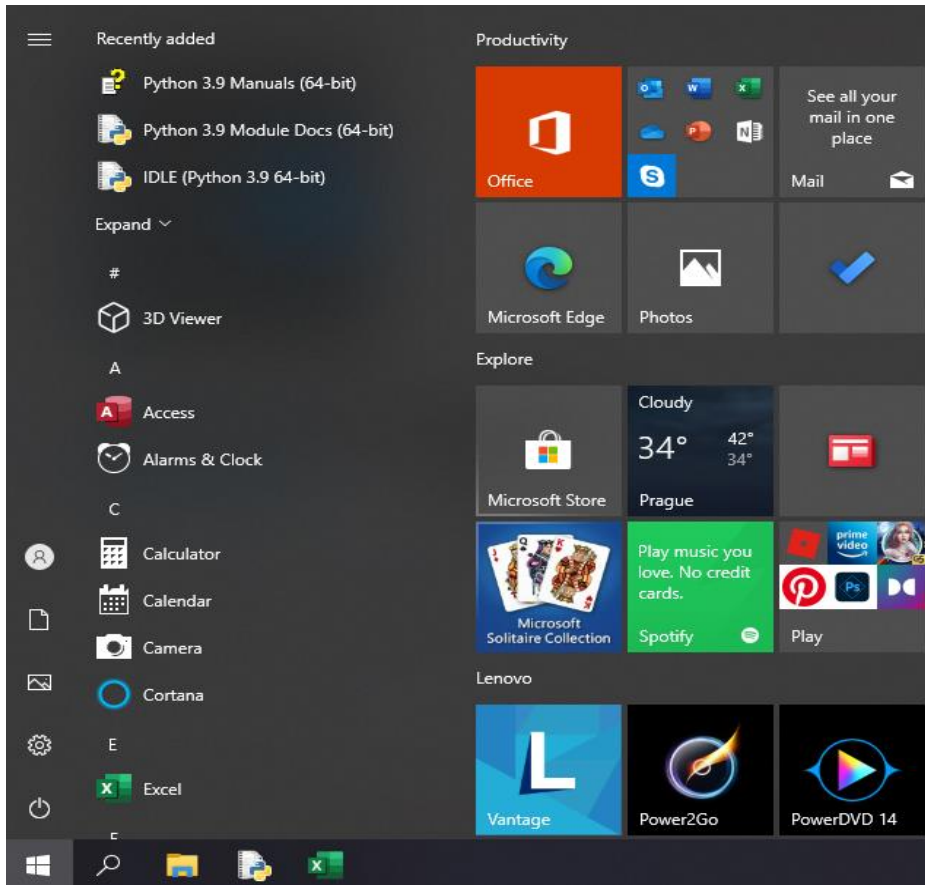


19. Close Windows Defender Firewall with Advanced Security

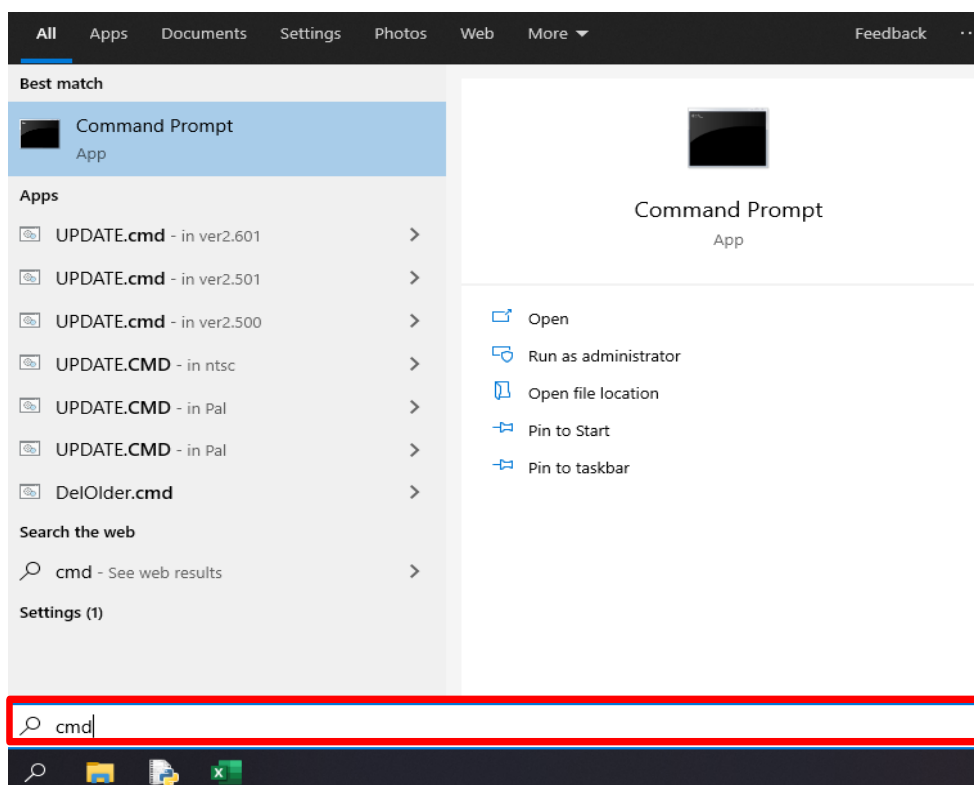


B) Starting the PLC Logger

1. Press "windows key" to open the search box



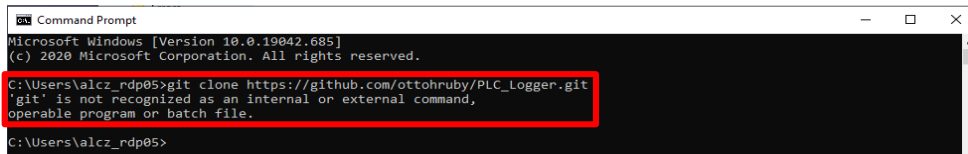
2. Type "cmd"



3. Press "ENTER" to open the command prompt

4. If you do not have PLC Logger script, you can download it from GitHub with command "git clone https://github.com/ottohrby/PLC_Logger.git"

5. If you do not have git installed, you will get this response => go to section "C) Git installation"

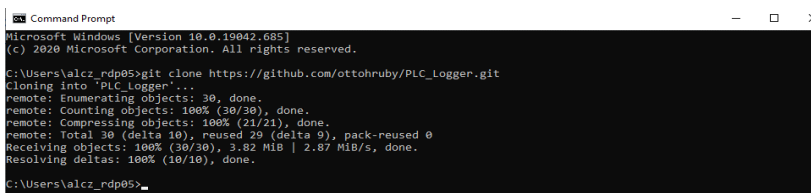


```
Command Prompt
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\alcz_rdp05>git clone https://github.com/ottohrby/PLC_Logger.git
'git' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\alcz_rdp05>
```

6. If you have git installed, you should get this response



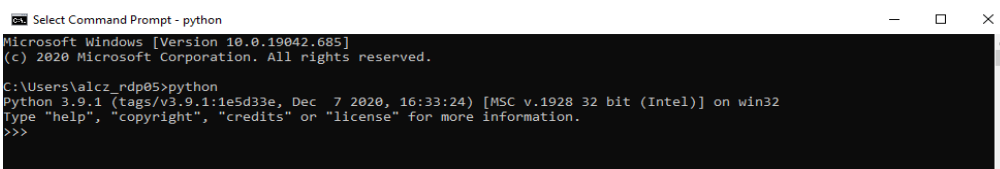
```
Command Prompt
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\alcz_rdp05>git clone https://github.com/ottohrby/PLC_Logger.git
Cloning into 'PLC_Logger'...
remote: Enumerating objects: 30, done.
remote: Counting objects: 100% (30/30), done.
remote: Compressing objects: 100% (21/21), done.
remote: Total 30 (delta 10), reused 29 (delta 0), pack-reused 0
Receiving objects: 100% (30/30), 3.82 MiB | 2.87 MiB/s, done.
Resolving deltas: 100% (10/10), done.

C:\Users\alcz_rdp05>
```

7. The GitHub repository is now downloaded (in this example the <location of logger> is "C:\Users\alcz_rdp05")

8. This script has been tested on Python 3.9.1. Check if you have Python 3.9.1 installed with command "python"



```
Select Command Prompt - python
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\alcz_rdp05>python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 16:33:24) [MSC v.1928 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

9. If not go to section "D) Python installation"

10. Start the script with command "python <location of logger>\PLC_LOGGER\server.py" For example: "python C:\Users\alcz_rdp05\PLC_Logger\server.py"



```
Command Prompt
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\alcz_rdp05>python C:\Users\alcz_rdp05\PLC_Logger\server.py
```

11. Press "ENTER"

12. If you have not installed pandas on your machine the following error occurs
If your script starts go to STEP 16

```
Command Prompt
Microsoft Windows [Version 10.0.19042.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\alcz_rdp05>python C:\Users\alcz_rdp05\PLC_Logger\server.py
Traceback (most recent call last):
  File "C:\Users\alcz_rdp05\PLC_Logger\server.py", line 5, in <module>
    from config import *
  File "C:\Users\alcz_rdp05\PLC_Logger\config.py", line 5, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'

C:\Users\alcz_rdp05>
```

13. Install pandas with command "pip install pandas"
(this works only if you are connected to Internet)

14. Wait until you see "Successfully installed pandas-<version>"

```
C:\Users\alcz_rdp05>pip install pandas
Collecting pandas
  Downloading pandas-1.2.2-cp39-cp39-win32.whl (8.2 MB)
    | 8.2 MB 3.3 MB/s
Requirement already satisfied: pytz>=2017.3 in c:\users\alcz_rdp05\appdata\local\programs\python\python39-32\lib\site-packages (from pandas) (2021.1)
Requirement already satisfied: python-dateutil>=2.7.3 in c:\users\alcz_rdp05\appdata\local\programs\python\python39-32\lib\site-packages (from pandas) (2.8.1)
Requirement already satisfied: numpy>=1.16.5 in c:\users\alcz_rdp05\appdata\local\programs\python\python39-32\lib\site-packages (from pandas) (1.20.0)
Requirement already satisfied: six>=1.5 in c:\users\alcz_rdp05\appdata\local\programs\python\python39-32\lib\site-packages (from python-dateutil>=2.7.3->pandas) (1.15.0)
Installing collected packages: pandas
Successfully installed pandas-1.2.2
WARNING: You are using pip version 20.2.3; however, version 21.0.1 is available.
You should consider upgrading via the 'c:\users\alcz_rdp05\appdata\local\programs\python\python39-32\python.exe -m pip install --upgrade pip' command.
```

15. Repeat STEP 10 and STEP 11 to start the script

16. The logger is working if you see "Waiting for a Connection"

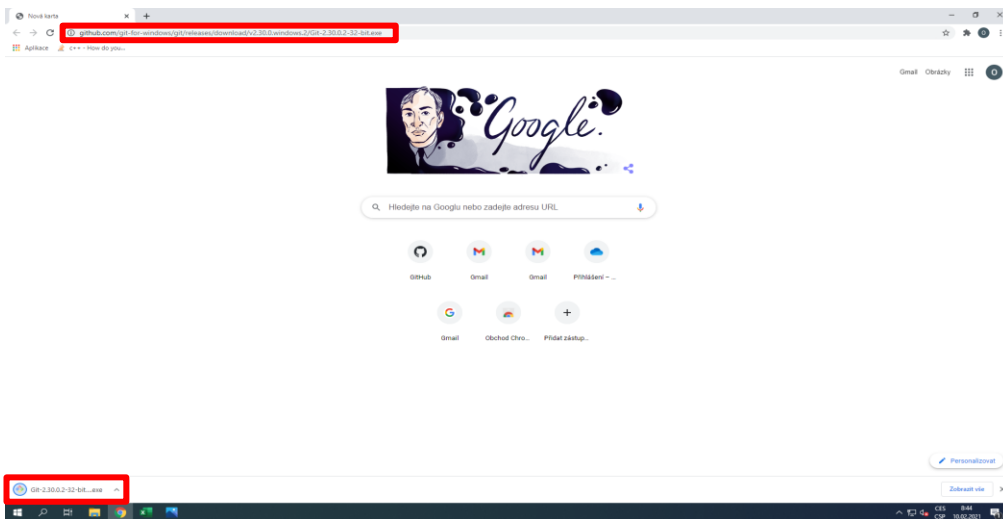
```
C:\Users\alcz_rdp05>python C:\Users\alcz_rdp05\Desktop\PLC_Logger\server.py
Listening at port: 4200
Waiting for a Connection..
```


C) Git Installation

1. Download git from URL:

"<https://github.com/git-for-windows/git/releases/download/v2.30.0.windows.2/Git-2.30.0.2-32-bit.exe>"

2. Open the downloaded file

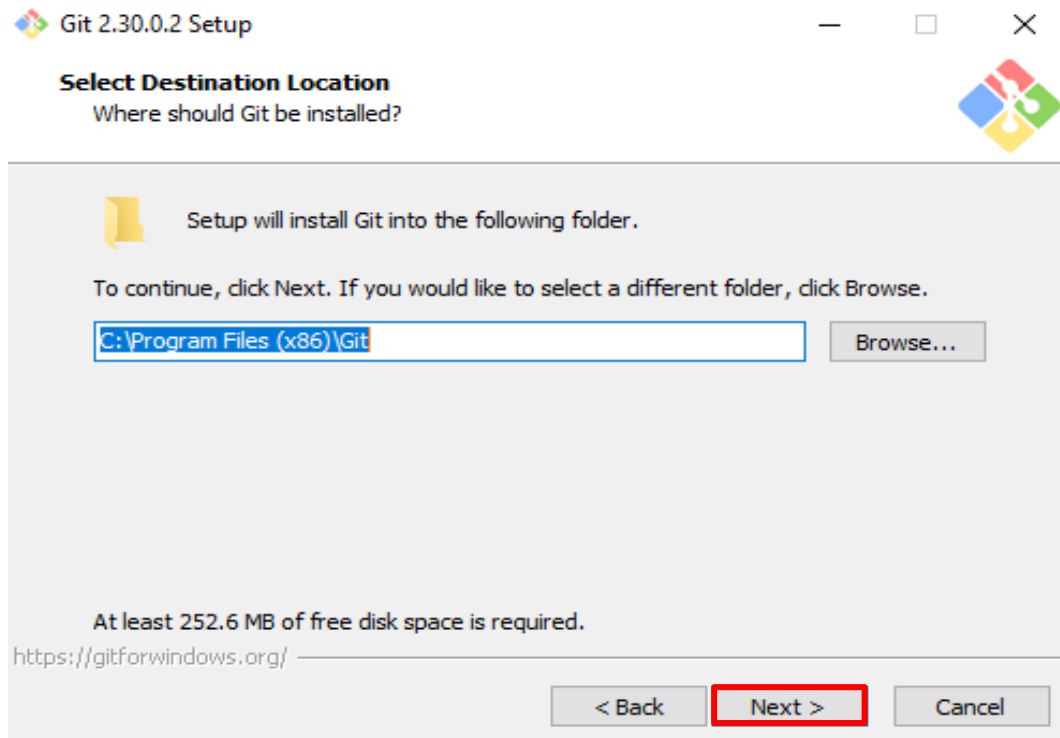


3. Git 2.30.0.2 Setup will open

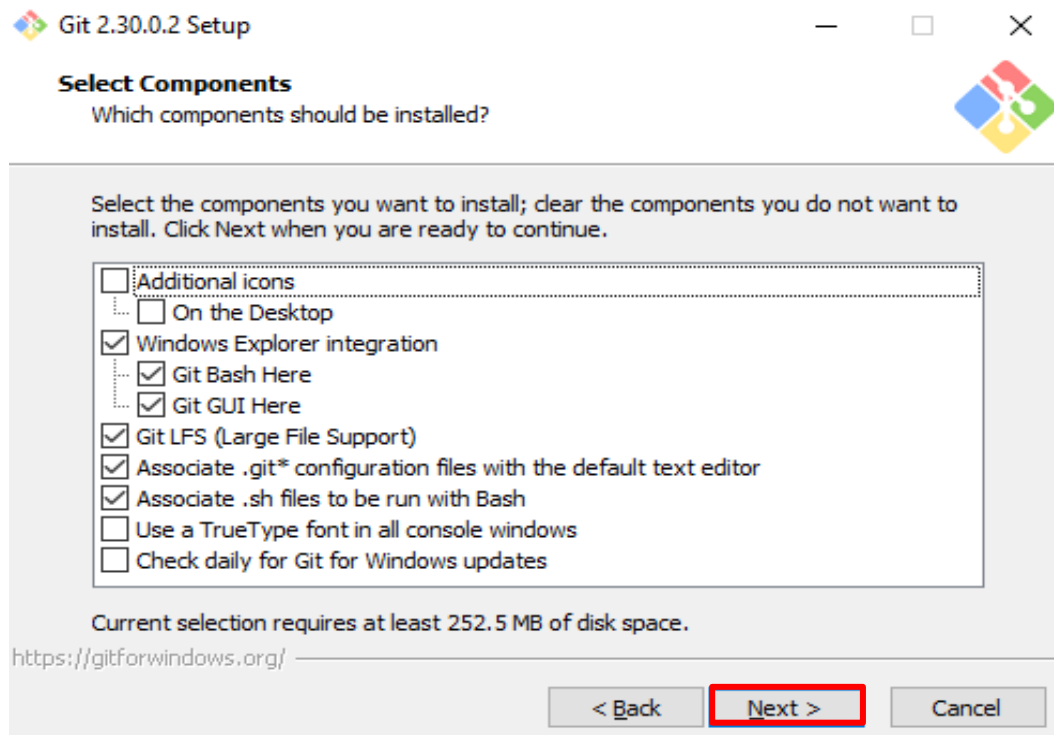
4. Click to "Next >"



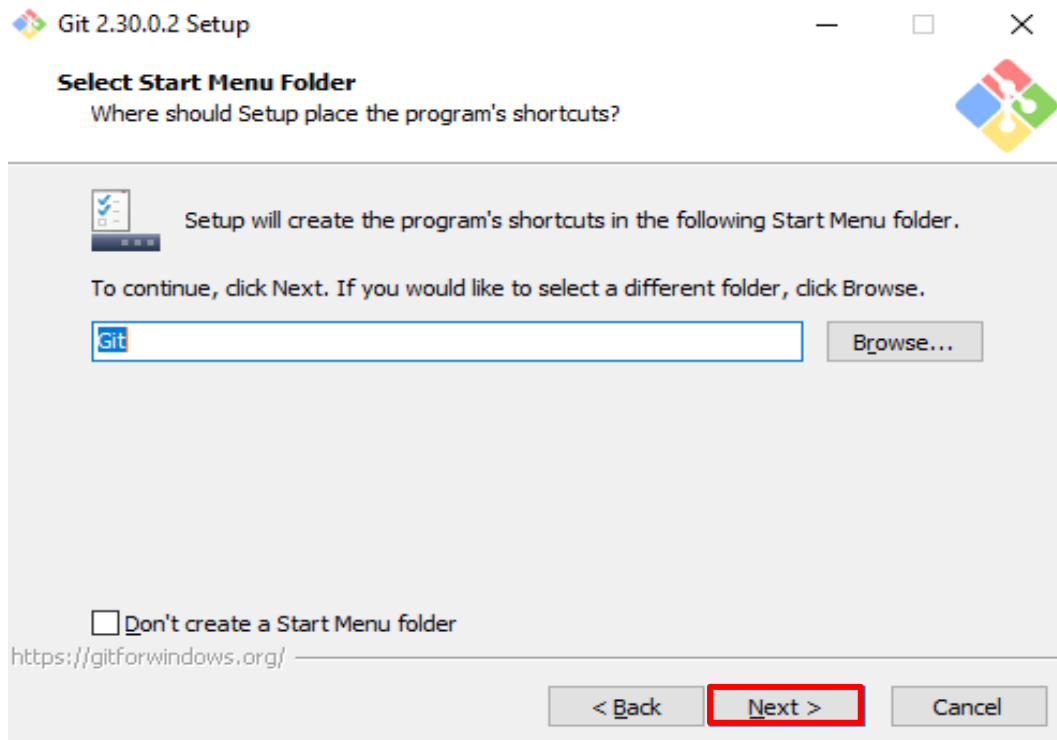
5. Click to "Next >"



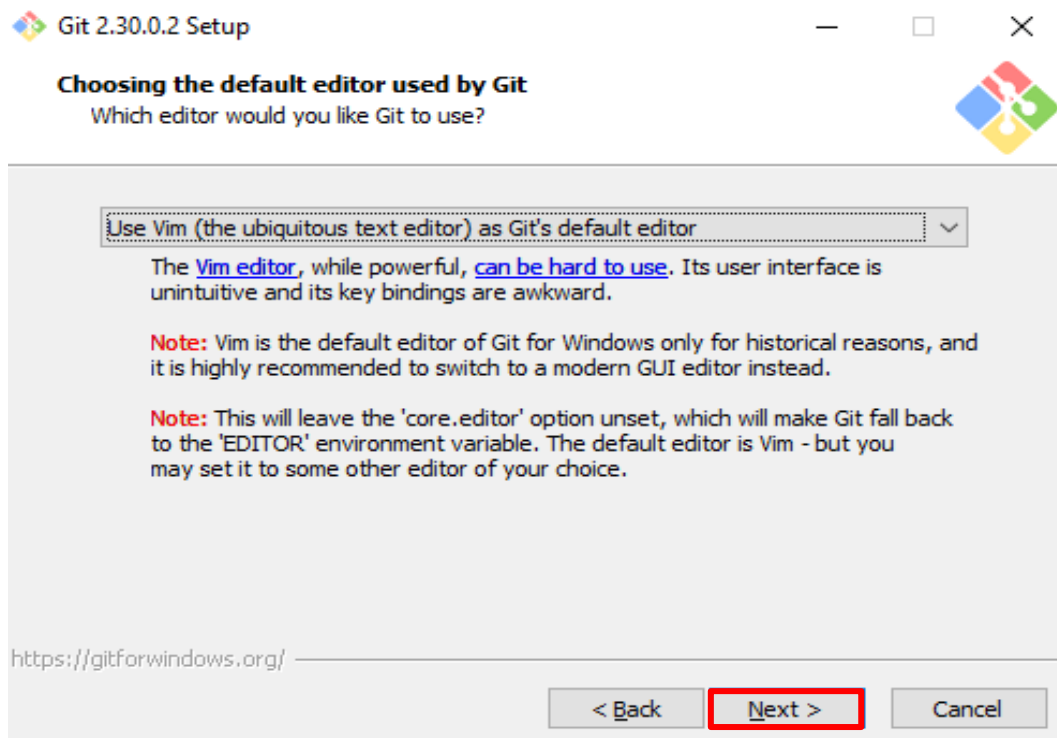
6. Click to "Next >"



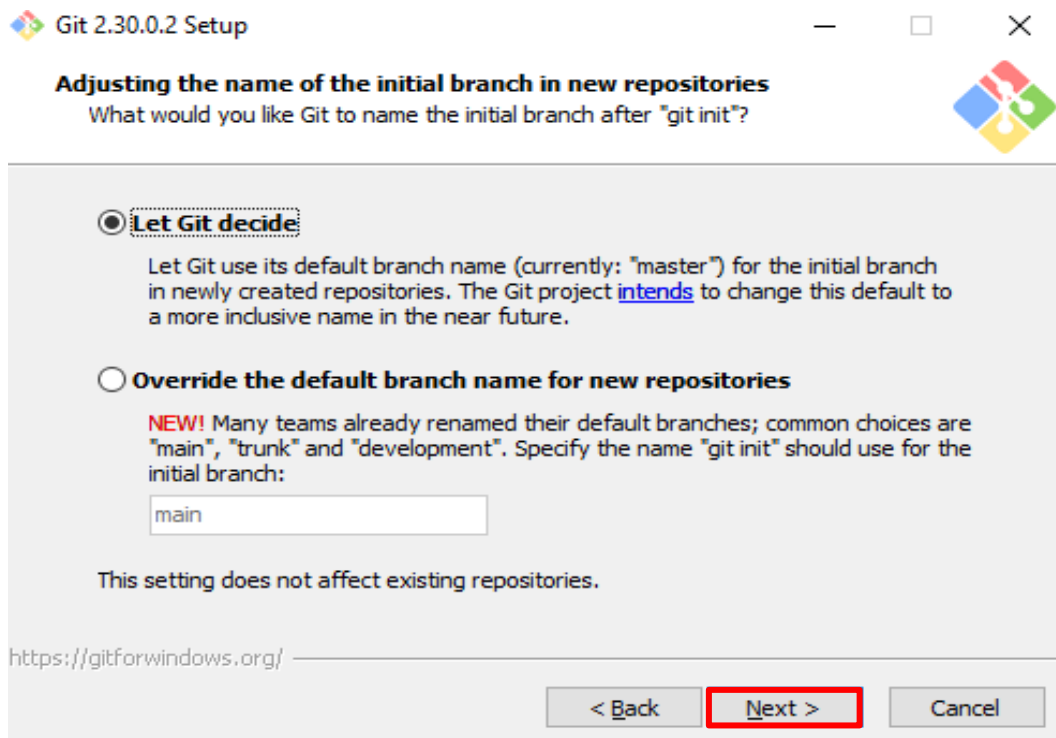
7. Click to "Next >"



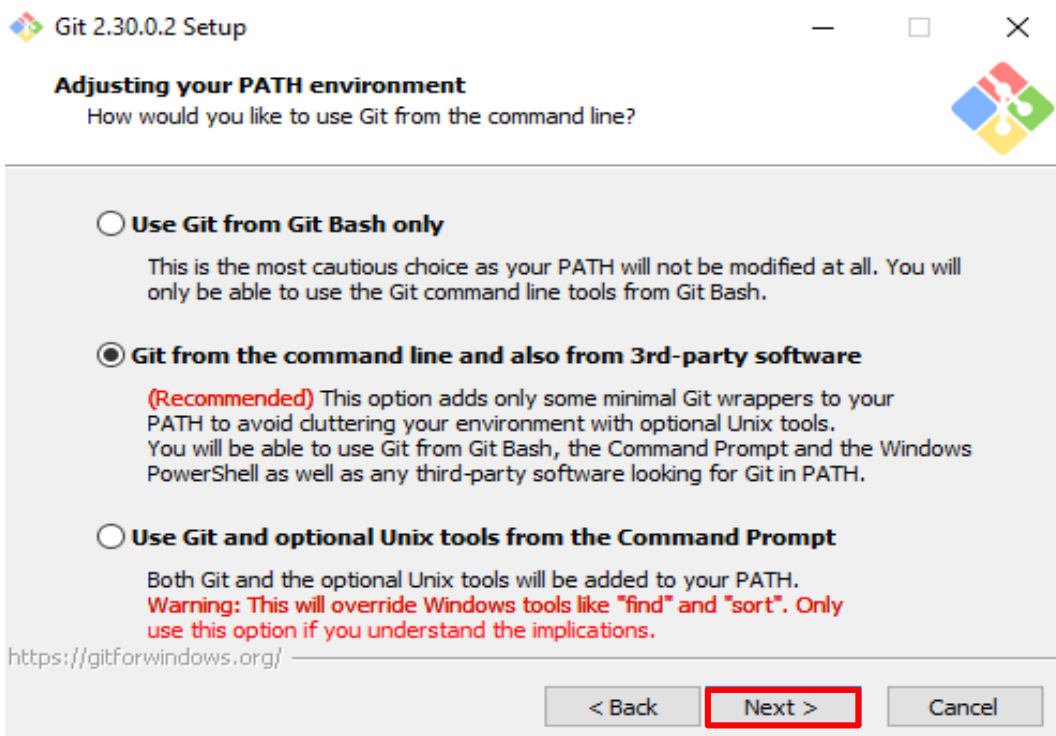
8. Click to "Next >"



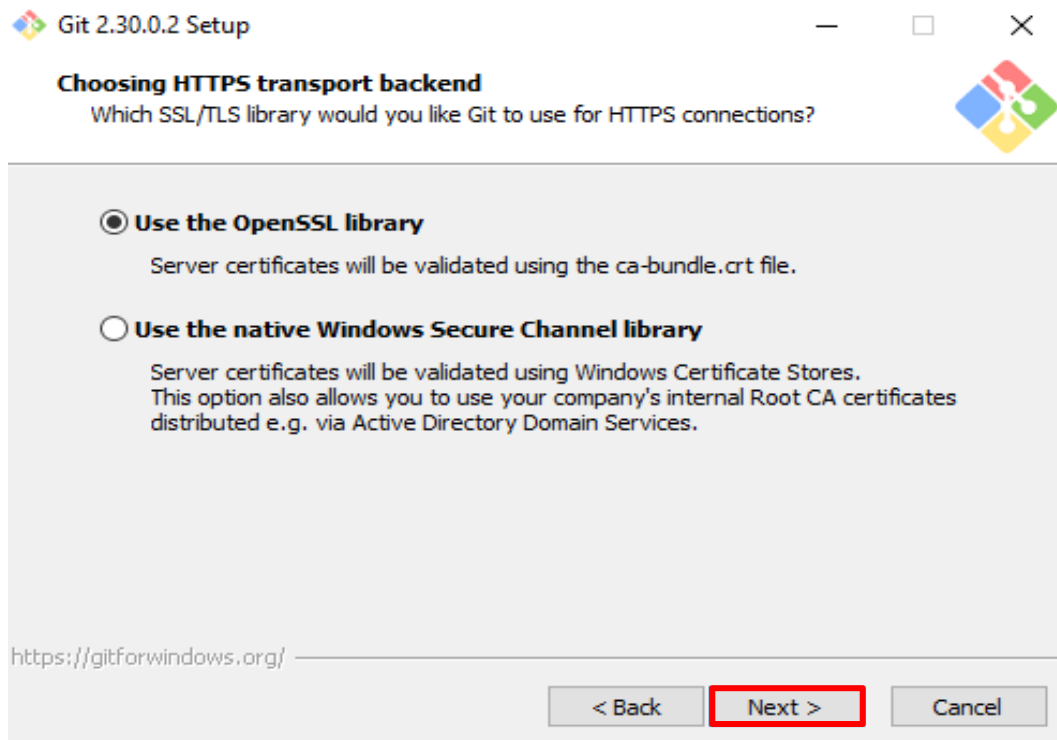
9. Click to "Next >"



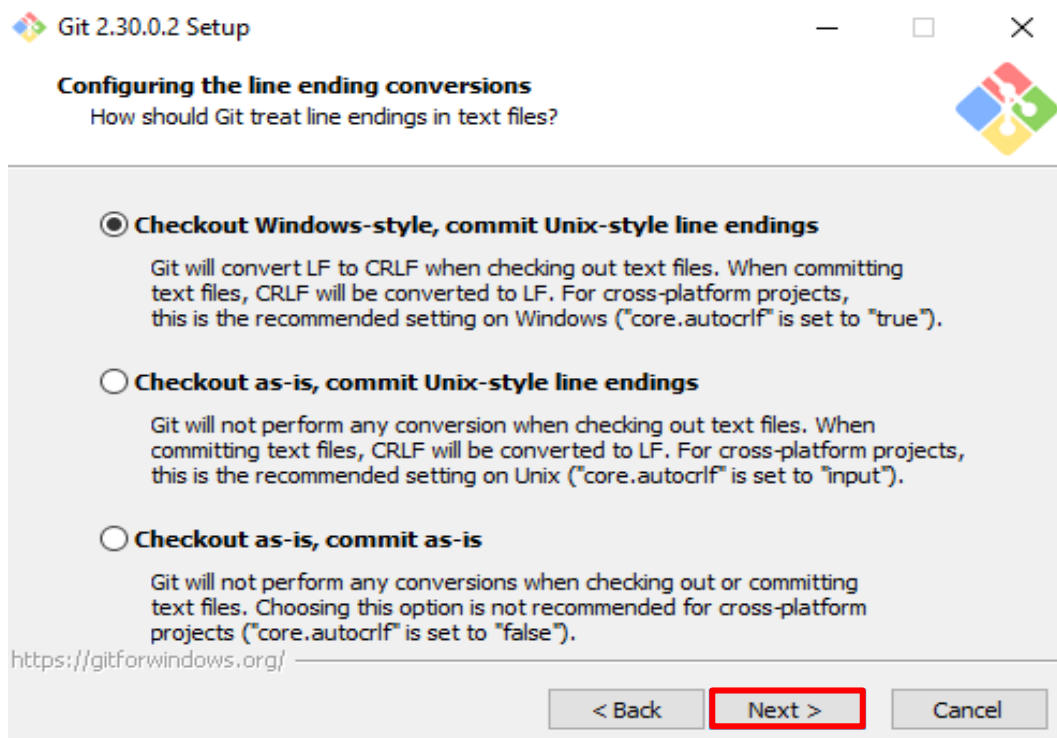
10. Click to "Next >"



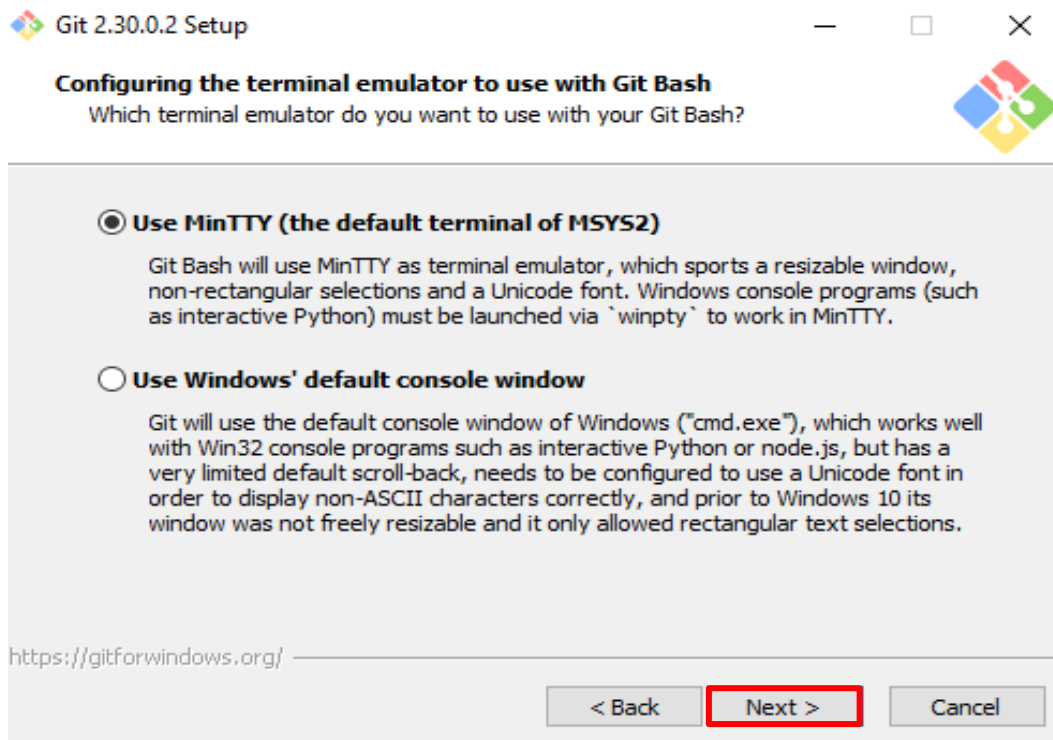
11. Click to "Next >"



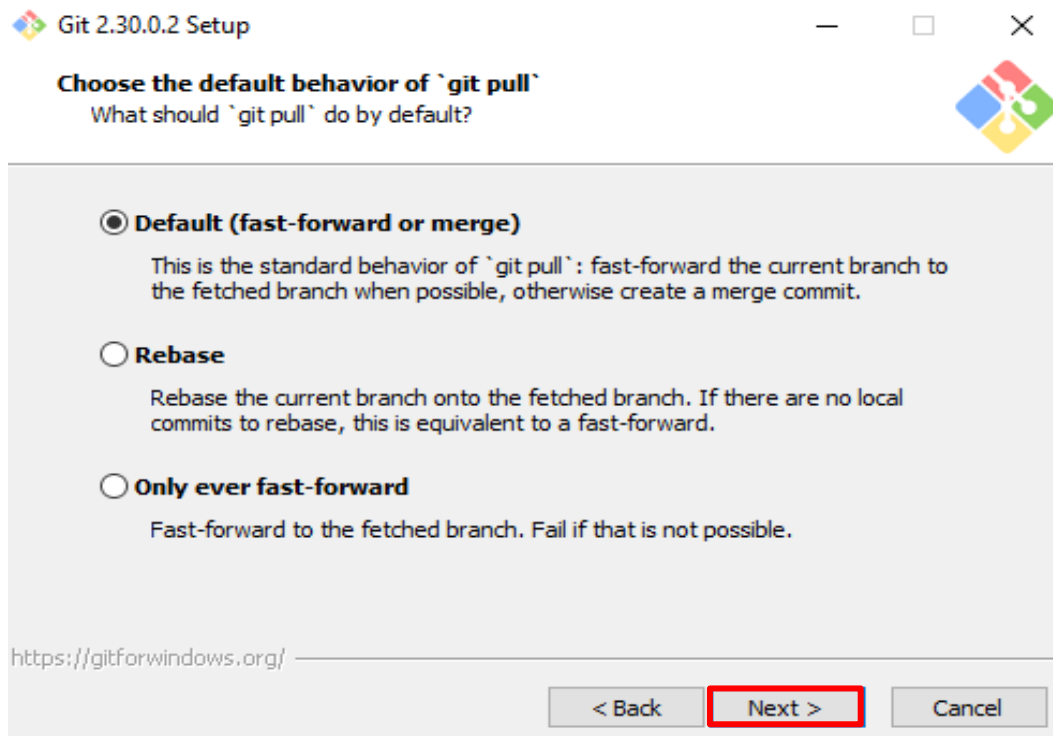
12. Click to "Next >"



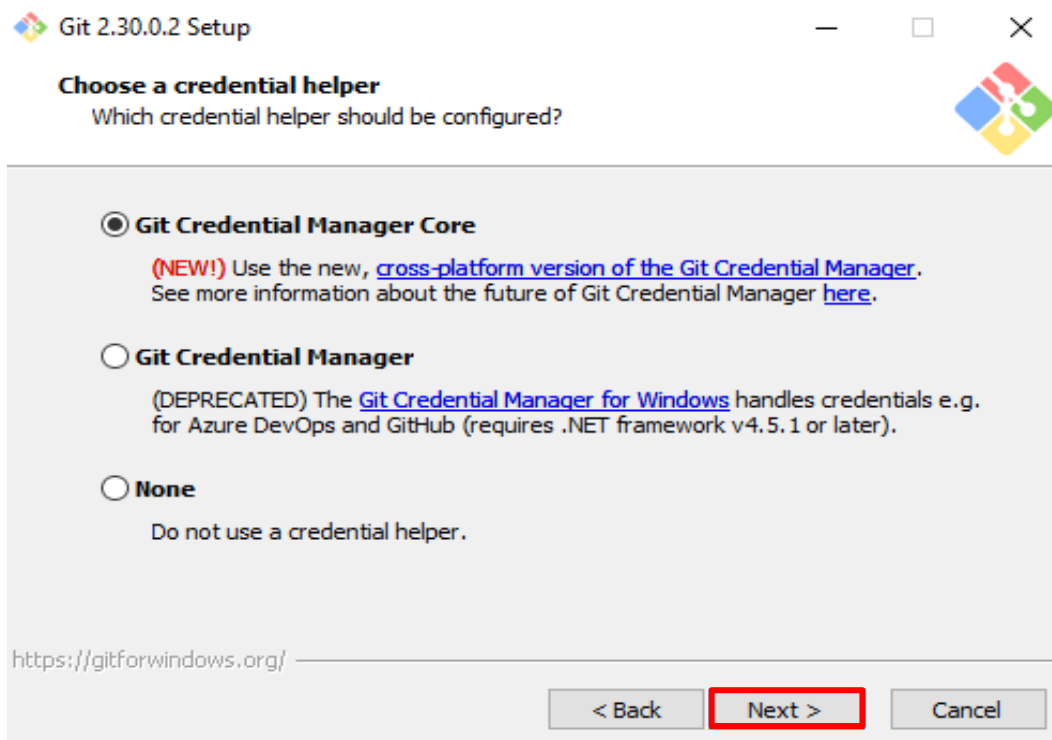
13. Click to "Next >"



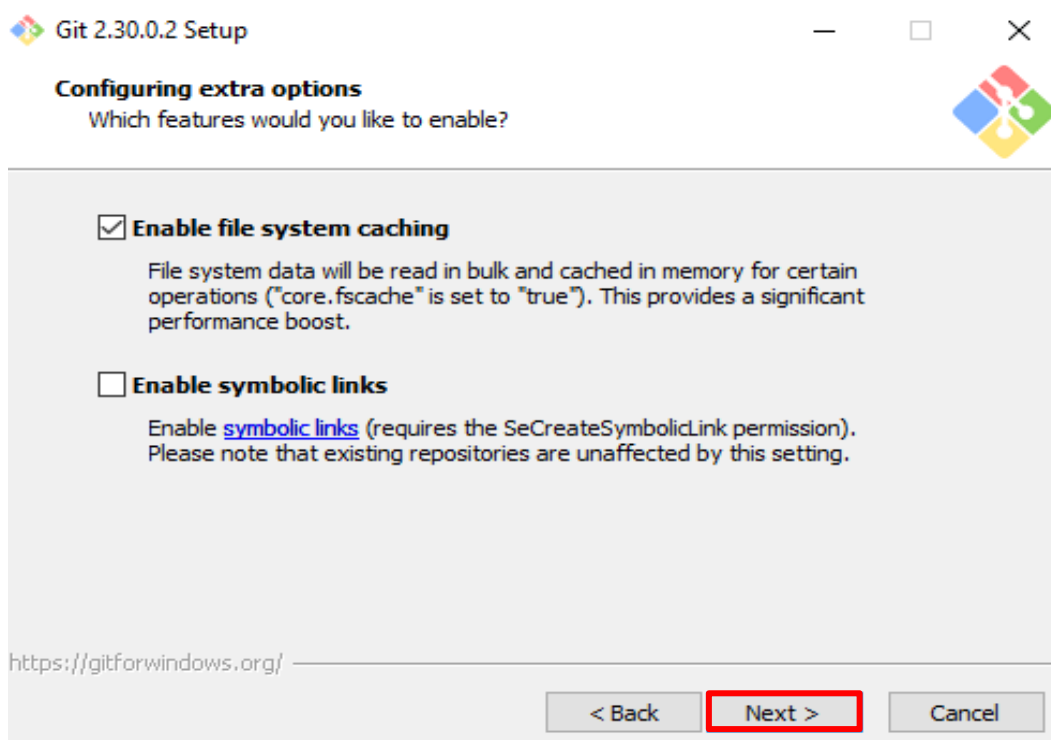
14. Click to "Next >"



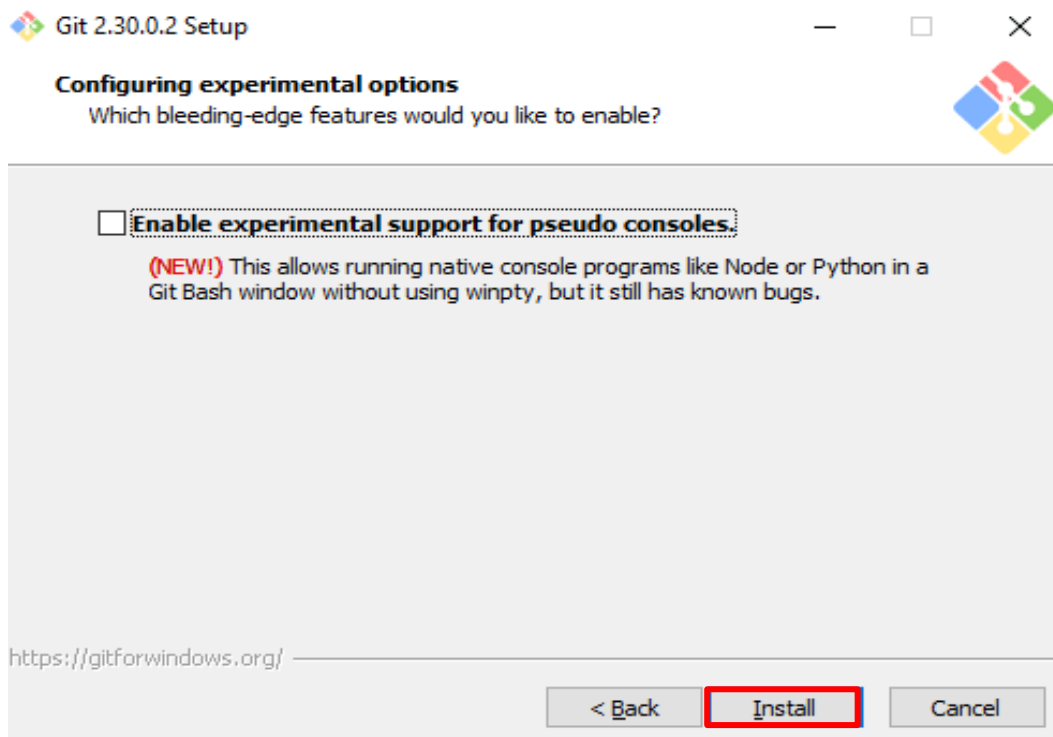
15. Click to "Next >"



16. Click to "Next >"

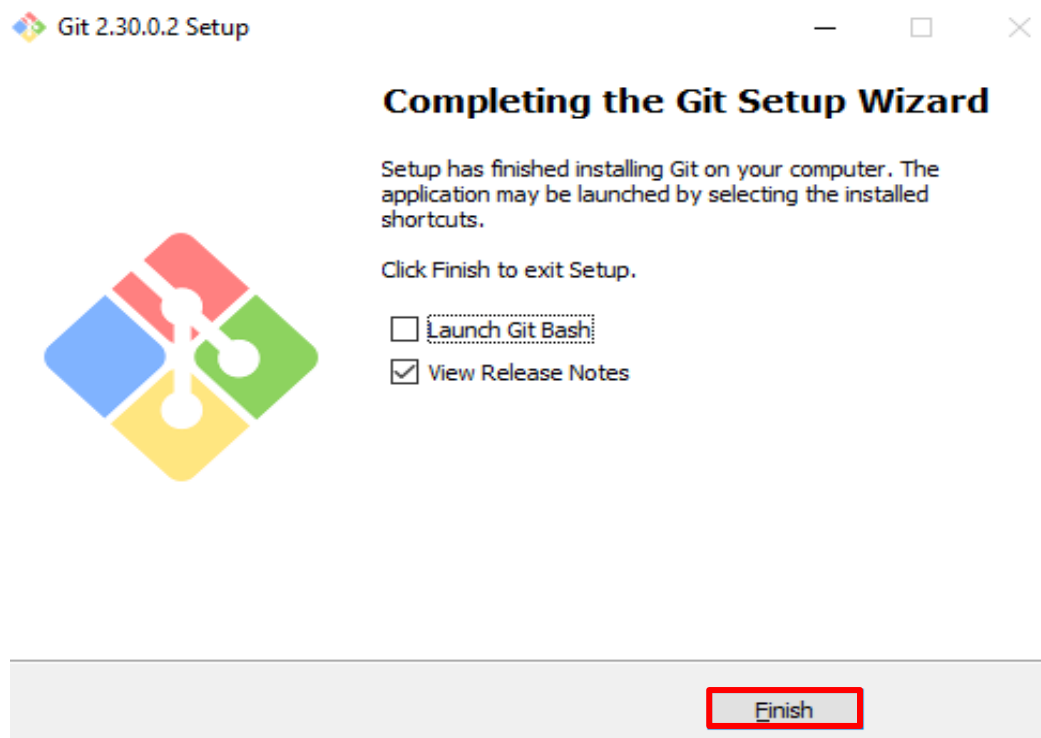


17. Click to "Install"



18. Wait for Git to be installed

19. Click to "Finish"



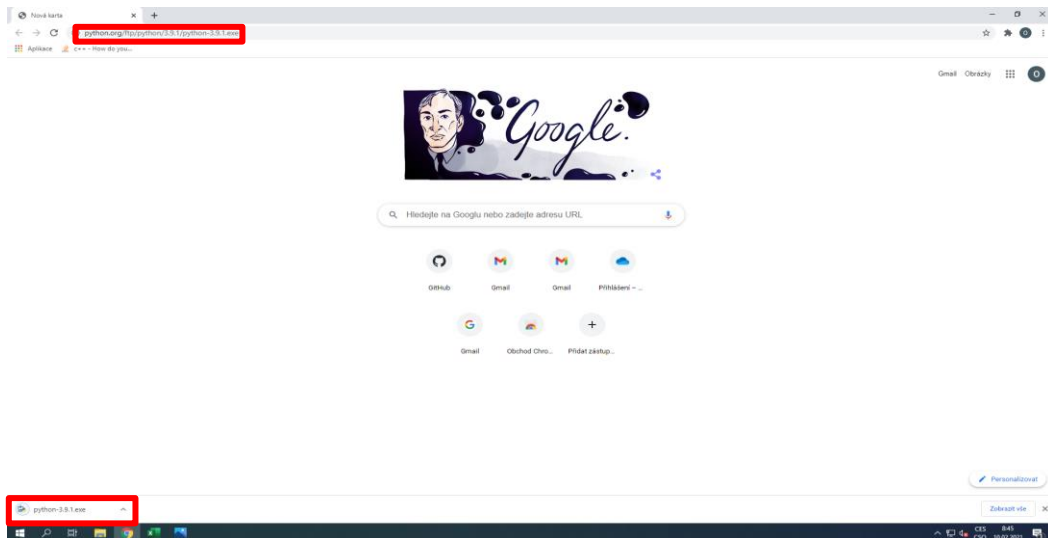
20. If you had opened the command prompt, close it and start it again

D) Python Installation

1. Download git from URL:

"https://www.python.org/ftp/python/3.9.1/python-3.9.1.exe"

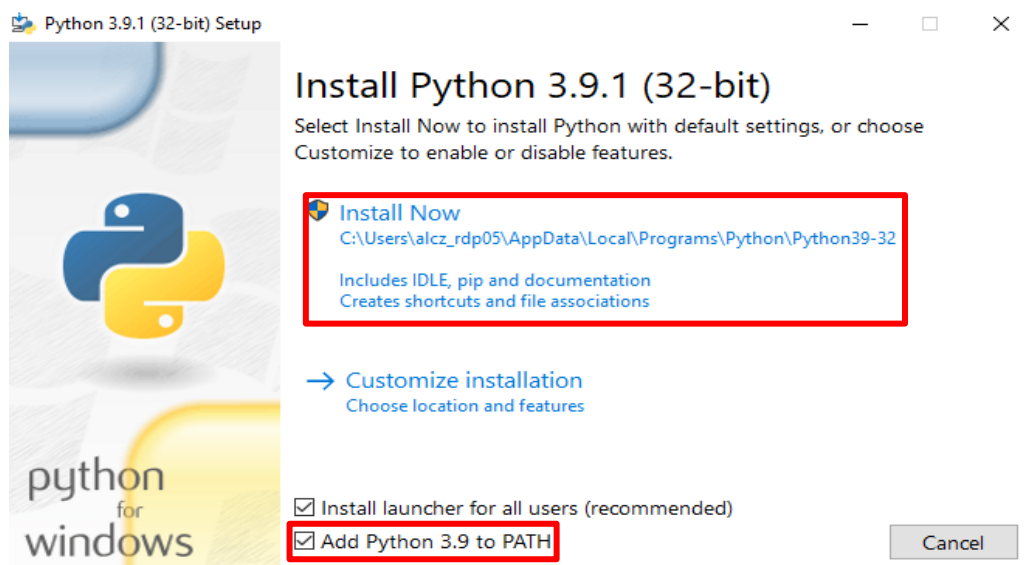
2. Open the downloaded file



3. Python 3.9.1 (32-bit) Setup will open

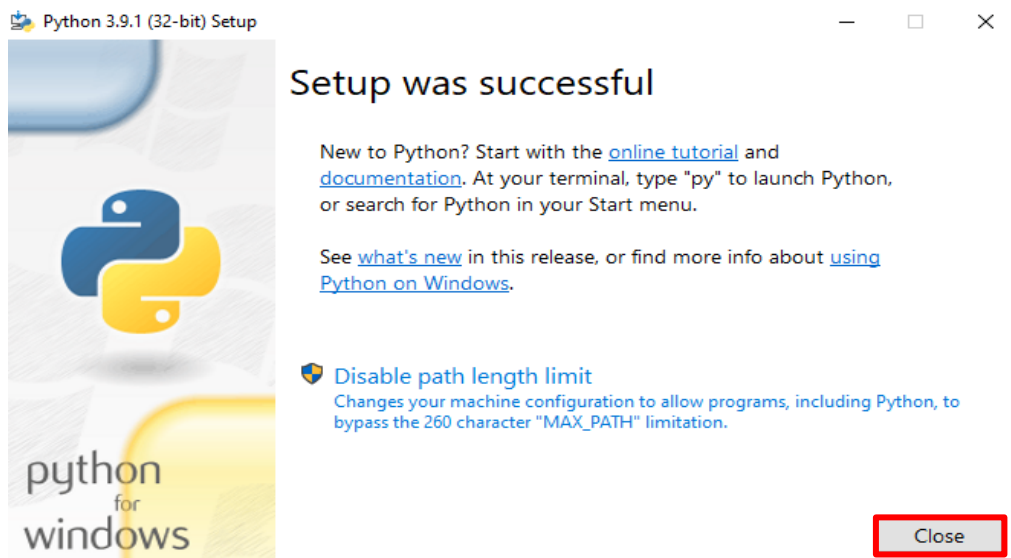
4. Check the box "Add Python 3.9 to PATH"

5. Click to "Install Now"



6. Wait for Python to be installed

7. Click to "Close"



8. If you had opened the command prompt, close it and start it again