

Python 环境搭建

文件版本历史

文件版本	修订日期	修订人	审核人	批准人	修订说明
V1.0	2024/06/19	Lennon	Miang	Joel	初版

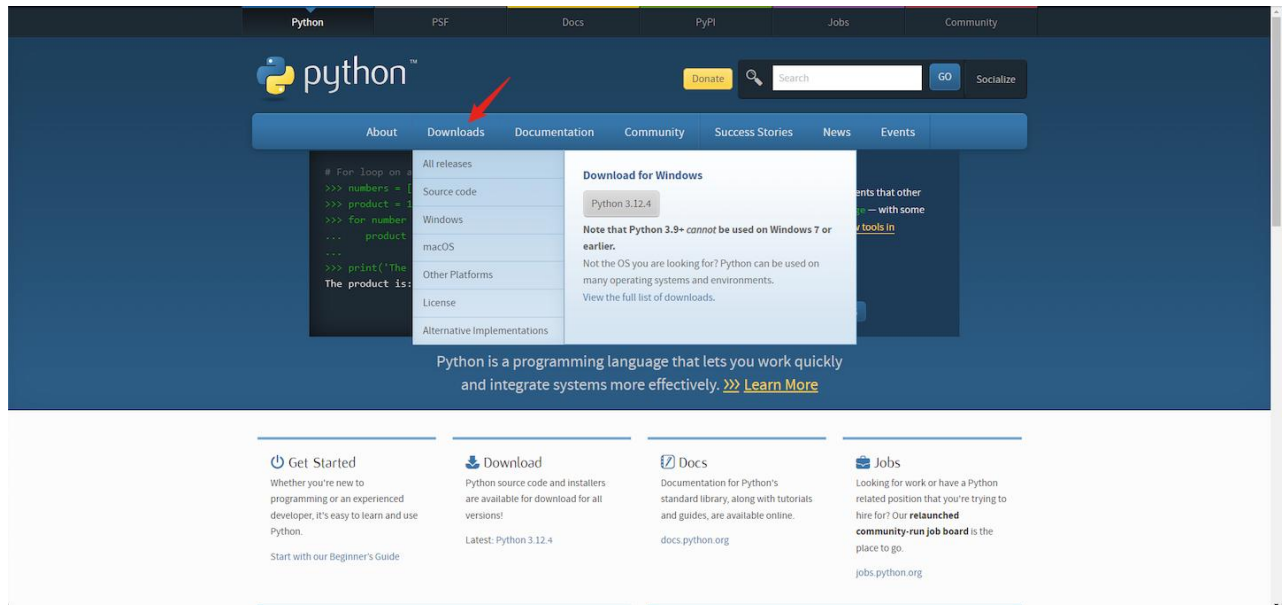
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福建扬腾创新信息科技有限公司

一、Python 下载和安装

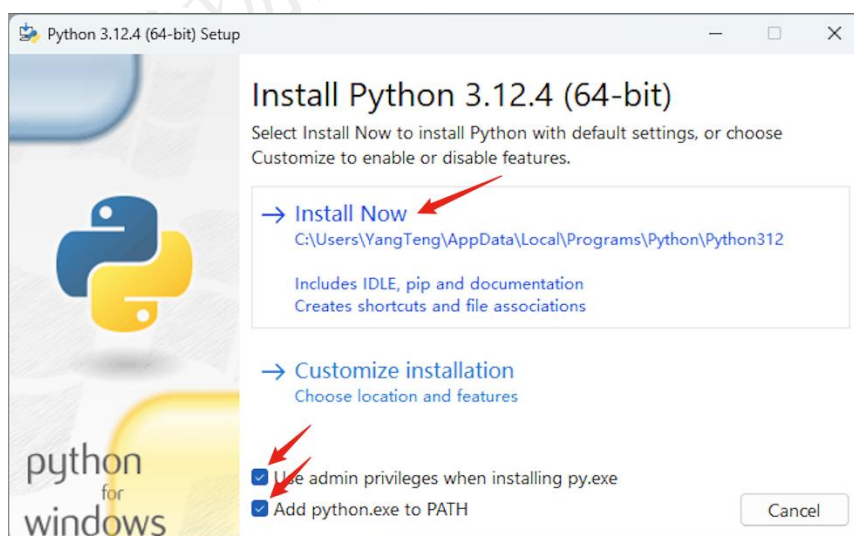
1. 打开 Python 的官方网址 [Welcome to Python.org](https://www.python.org)



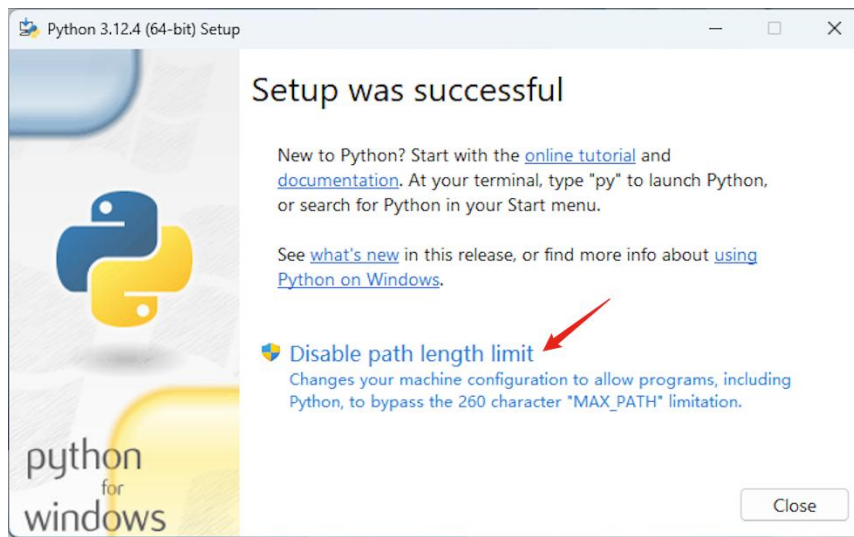
2. 根据实际需要下载相应的“安装程序”（一般选择 Windows installer (64-bit)）



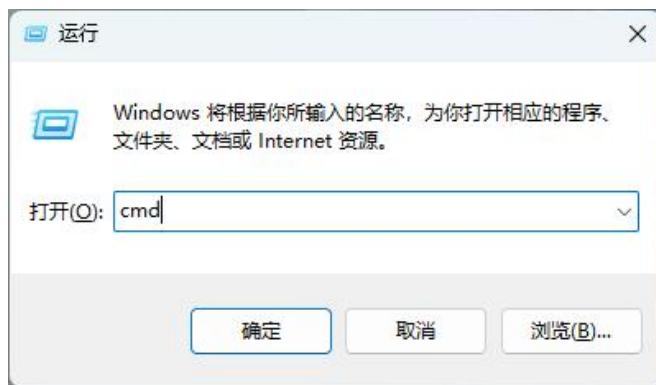
3. 运行下载好的“安装程序”，确认选中下方的复选框，然后点击“Install Now”



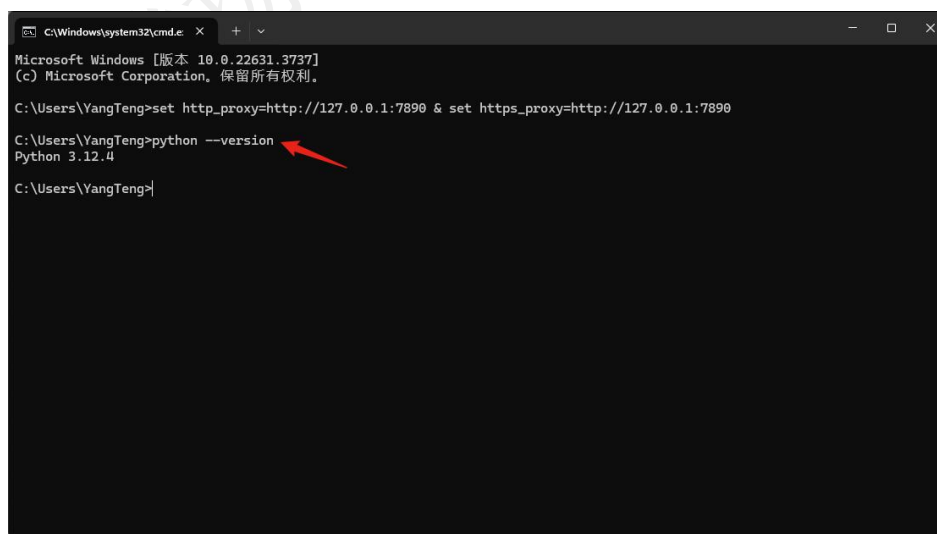
4. 点击“Disable path length limit”取消路径长度限制



5. 快捷键“WIN+R”打开系统的“运行”窗口，输入“cmd”打开“命令提示符”窗口

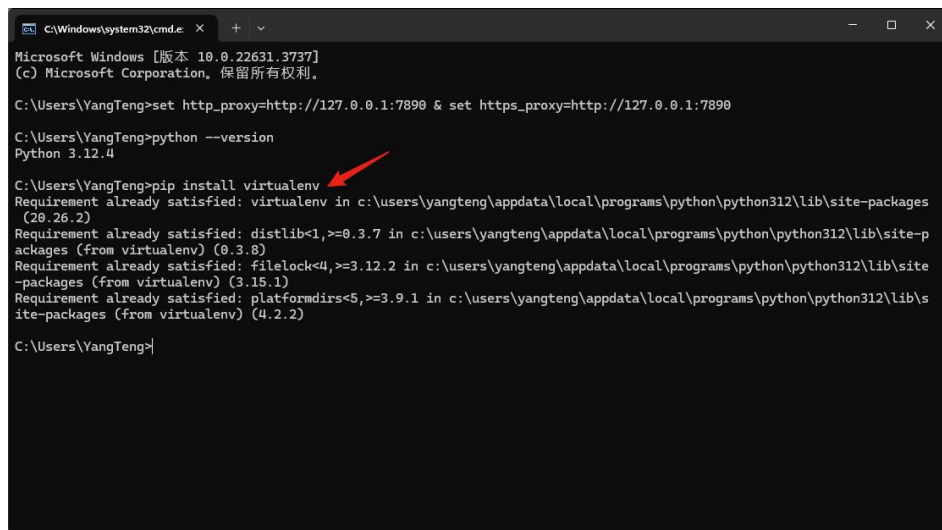


6. 输入“python --version”查看是否安装成功



二、虚拟环境

1. 输入“pip install virtualenv”下载安装“虚拟环境库”



```
C:\Windows\system32\cmd.exe
Microsoft Windows [版本 10.0.22631.3737]
(c) Microsoft Corporation。保留所有权利。

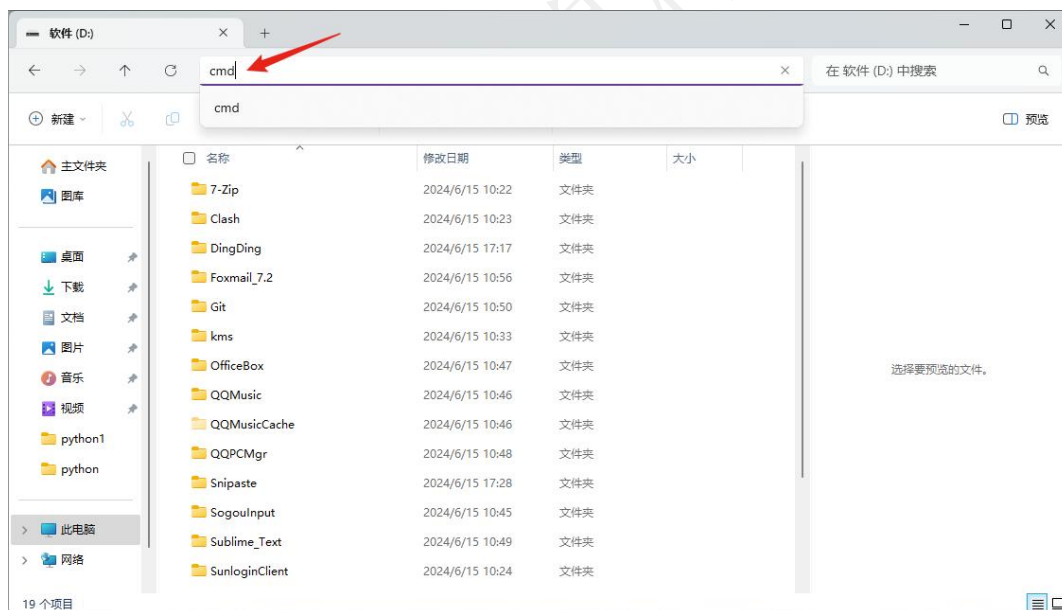
C:\Users\YangTeng>set http_proxy=http://127.0.0.1:7890 & set https_proxy=http://127.0.0.1:7890

C:\Users\YangTeng>python --version
Python 3.12.4

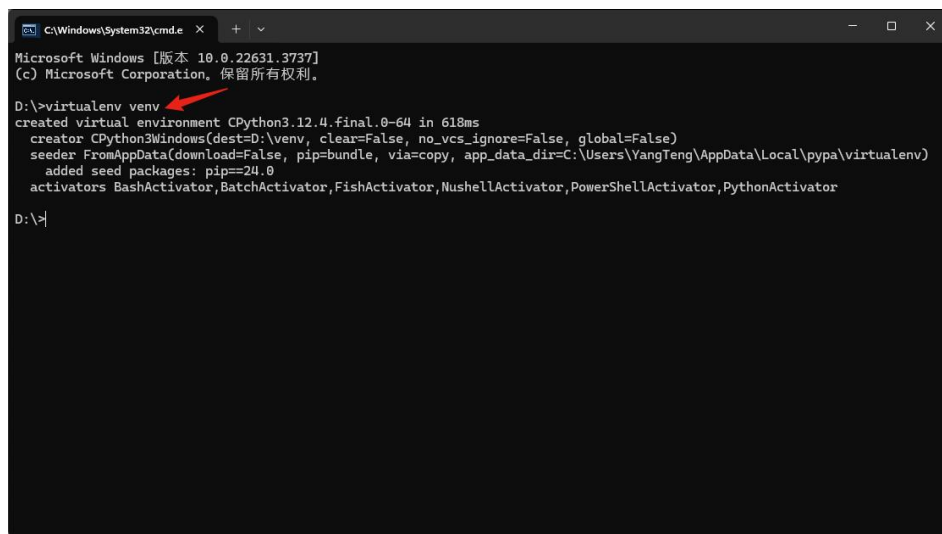
C:\Users\YangTeng>pip install virtualenv
Requirement already satisfied: virtualenv in c:\users\yangteng\appdata\local\programs\python\python312\lib\site-packages
(20.26.2)
Requirement already satisfied: distlib<1,>=0.3.7 in c:\users\yangteng\appdata\local\programs\python\python312\lib\site-p
ackages (from virtualenv) (0.3.8)
Requirement already satisfied: filelock<4,>=3.12.2 in c:\users\yangteng\appdata\local\programs\python\python312\lib\site
-packages (from virtualenv) (3.15.1)
Requirement already satisfied: platformdirs<5,>=3.9.1 in c:\users\yangteng\appdata\local\programs\python\python312\lib\s
ite-packages (from virtualenv) (4.2.2)

C:\Users\YangTeng>
```

2. 选定一个路径，然后打开“命令提示符”窗口



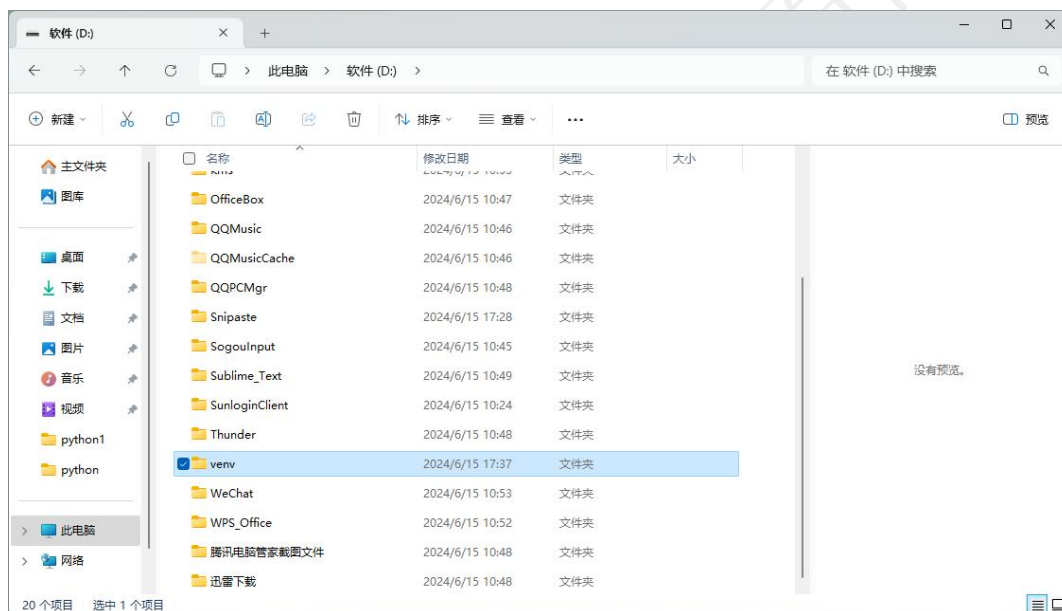
3. 输入“virtualenv venv” 创建一个名为“venv”的虚拟环境



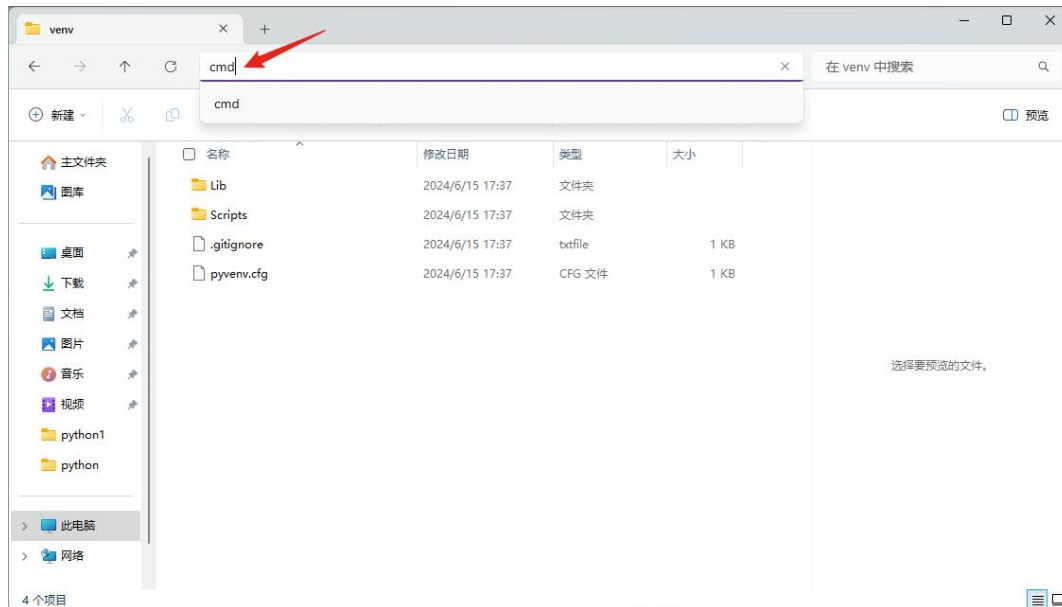
```
C:\Windows\System32\cmd.exe
Microsoft Windows [版本 10.0.22631.3737]
(c) Microsoft Corporation. 保留所有权利。

D:\>virtualenv venv
created virtual environment CPython3.12.4.final.0-64 in 618ms
creator CPython3Windows(dest=D:\venv, clear=False, no_vcs_ignore=False, global=False)
seeder FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\Users\YangTeng\AppData\Local\pypa\virtualenv)
added seed packages: pip==24.0
activators BashActivator,BatchActivator,FishActivator,PowerShellActivator,PythonActivator

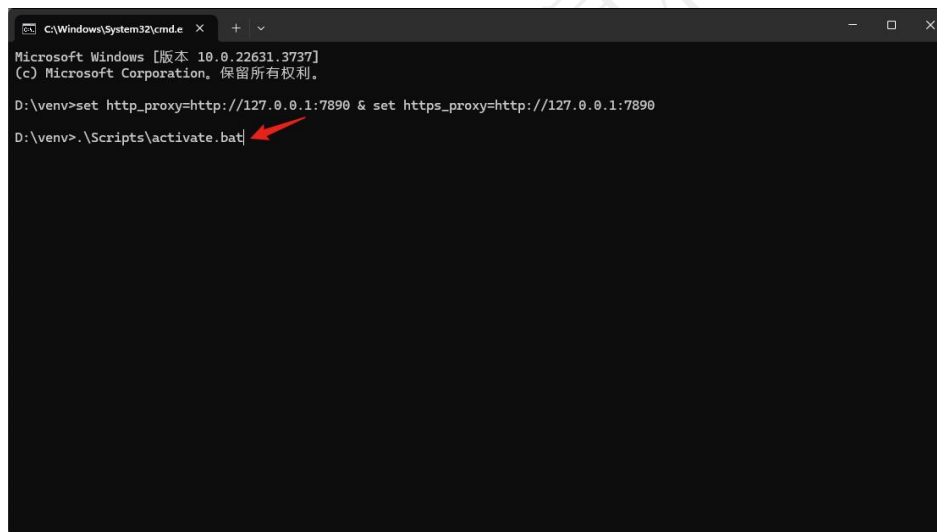
D:\>
```



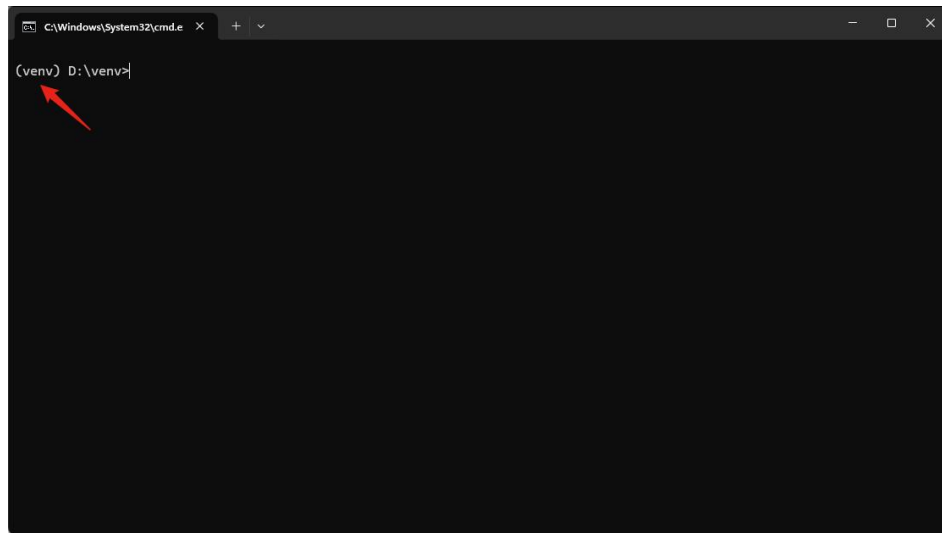
4. 进入虚拟环境的路径，然后打开“命令提示符”窗口



5. 输入“.\Scripts\activate.bat”激活虚拟环境

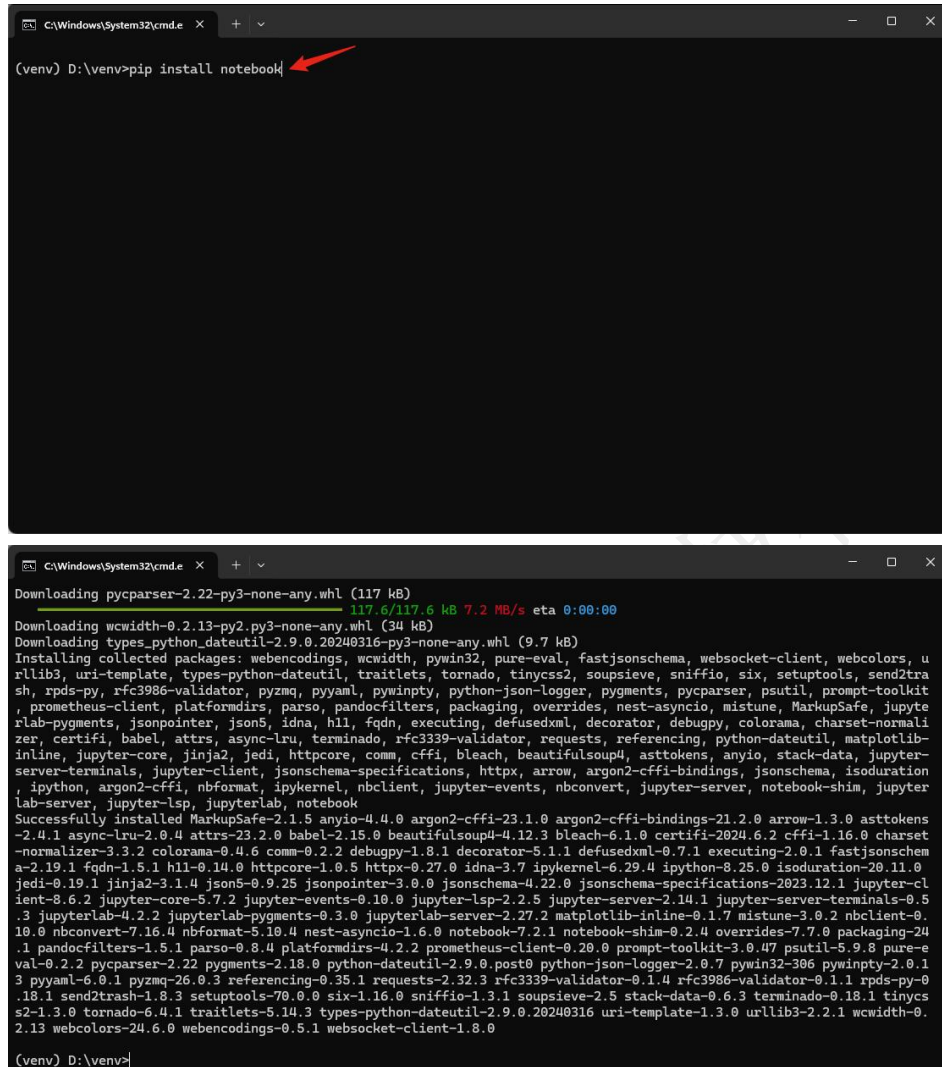


- 命令提示符”窗口增加了“venv”前缀，表示当前处于名为“venv”的 Python 环境，即虚拟环境激活成功



三、Jupyter Notebook

- 在虚拟环境中输入“pip install notebook”下载安装“Jupyter Notebook 库”



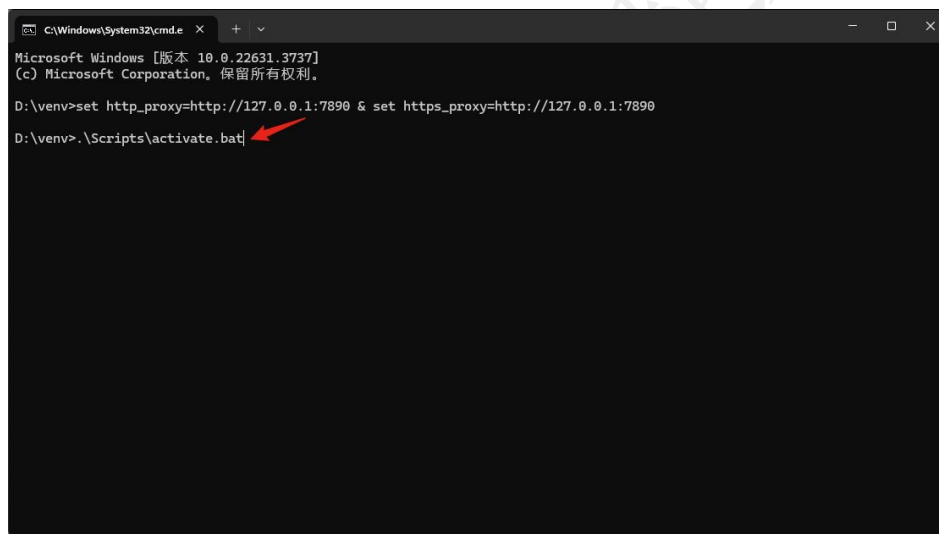
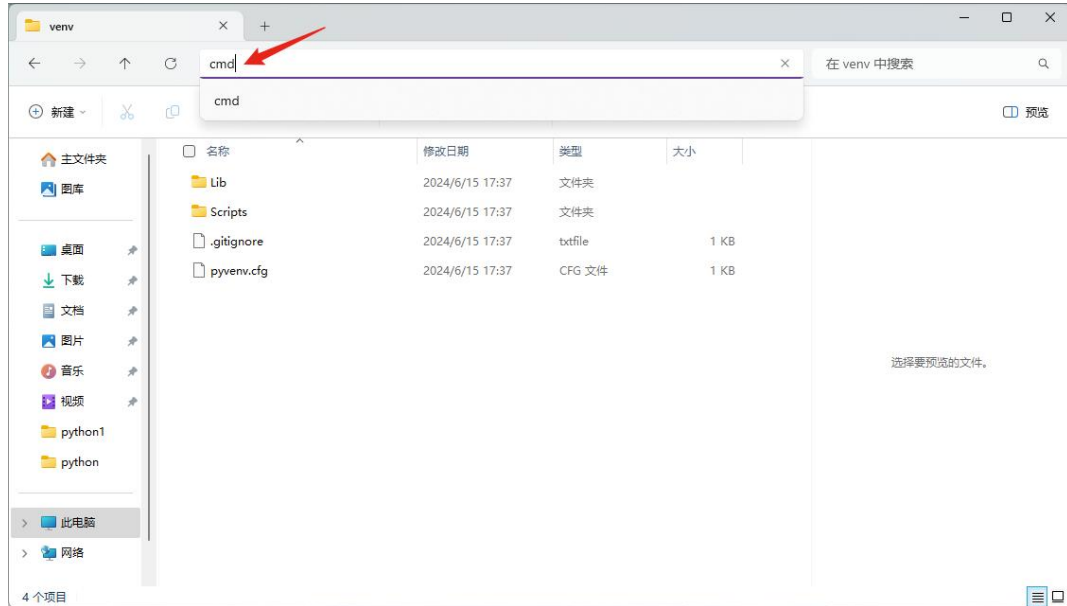
```
C:\Windows\System32\cmd.exe X + -
(venv) D:\venv>pip install notebook

Downloading pycparser-2.22-py3-none-any.whl (117 kB)
117.6/117.6 kB 7.2 MB/s eta 0:00:00
Downloading wcwidth-0.2.13-py2.py3-none-any.whl (34 kB)
Installing collected packages: webencodings, wcwidth, pywin32, pure-eval, fastjsonschema, websocket-client, webcolors, u
rllib3, uri-template, types-python-dateutil, traitlets, tornado, tinycss2, soupsieve, sniffio, six, setuptools, send2tra
sh, rpsd-py, rfc3986-validator, pyzmq, pyyaml, pywinpty, python-json-logger, pygments, pycparser, psutil, prompt-toolkit
, prometheus-client, platformdirs, parso, pandocfilters, packaging, overrides, nest-asyncio, mistune, MarkupSafe, jupyt
erlab-pygments, jsonpointer, json5, idna, h11, fqdn, executing, defusedxml, decorator, debugpy, colorama, charset-normali
zer, certifi, babel, attrs, async-lru, terminado, rfc3339-validator, requests, referencing, python-dateutil, matplotlib-i
nline, jupyter-core, Jinja2, jedi, httpcore, comm, cffi, bleach, BeautifulSoup4, asttokens, anyio, stack-data, jupyter
-server-terminals, jupyter-client, jsonschema-specifications, httpx, arrow, argon2-cffi-bindings, jsonschema, isoduration
, ipython, argon2-cffi, nbformat, ipykernel, nbclient, jupyter-events, nbconvert, jupyter-server, notebook-shim, jupyter
lab-server, jupyter-lsp, jupyterlab, notebook
Successfully installed MarkupSafe-2.1.5 anyio-4.4.0 argon2-cffi-23.1.0 argon2-cffi-bindings-21.2.0 arrow-1.3.0 asttokens
-2.4.1 async-lru-2.0.4 attrs-23.2.0 babel-2.15.0 BeautifulSoup4-4.12.3 bleach-6.1.0 certifi-2024.6.2 cffi-1.16.0 charset
-normalizer-3.3.2 colorama-0.4.6 comm-0.2.2 debugpy-1.8.1 decorator-5.1.1 defusedxml-0.7.1 executing-2.0.1 fastjsonschem
a-2.19.1 fqdn-1.5.1 h11-0.14.0 httpcore-1.0.5 httpx-0.27.0 idna-3.7 ipykernel-6.29.4 ipython-8.25.0 isoduration-20.11.0
jedi-0.19.1 Jinja2-3.1.4 json5-0.9.25 jsonpointer-3.0.0 jsonschema-4.22.0 jsonschema-specifications-2023.12.1 jupyter-cl
ient-8.6.2 jupyter-core-5.7.2 jupyter-events-0.10.0 jupyter-lsp-2.25 jupyter-server-2.14.1 jupyter-server-terminals-0.5
.3 jupyterlab-4.2.2 jupyterlab-pygments-0.3.0 jupyterlab-server-2.27.2 matplotlib-inline-0.1.7 mistune-3.0.2 nbclient-0.
10.0 nbconvert-7.16.4 nbformat-5.10.4 nest-asyncio-1.6.0 notebook-7.2.1 notebook-shim-0.2.4 overrides-7.7.0 packaging-24
.1 pandocfilters-1.5.1 parso-0.8.4 platformdirs-4.2.2 prometheus-client-0.20.0 prompt-toolkit-3.0.47 psutil-5.9.8 pure-e
val-0.2.2 pycparser-2.22 pygments-2.18.0 python-dateutil-2.9.0 post0 python-json-logger-2.0.7 pywin32-306 pywinpty-2.0.1
3 pyyaml-6.0.1 pyzmq-26.0.3 referencing-0.35.1 requests-2.32.3 rfc3339-validator-0.1.4 rfc3986-validator-0.1.1 rpsd-py-0
.18.1 send2trash-1.8.3 setuptools-70.0.0 six-1.16.0 sniffio-1.3.1 soupsieve-2.5 stack-data-0.6.3 terminado-0.18.1 tinycs
s2-1.3.0 tornado-6.4.1 traitlets-5.14.3 types-python-dateutil-2.9.0.20240316 uri-template-1.3.0 urllib3-2.2.1 wcwidth-0.
2.13 webencodings-0.5.1 websocket-client-1.8.0

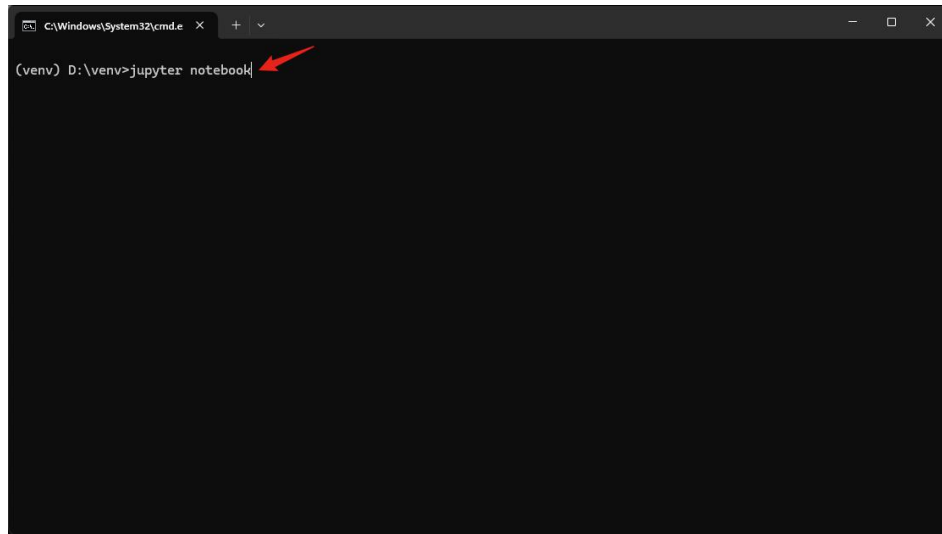
(venv) D:\venv>
```

四、每次使用

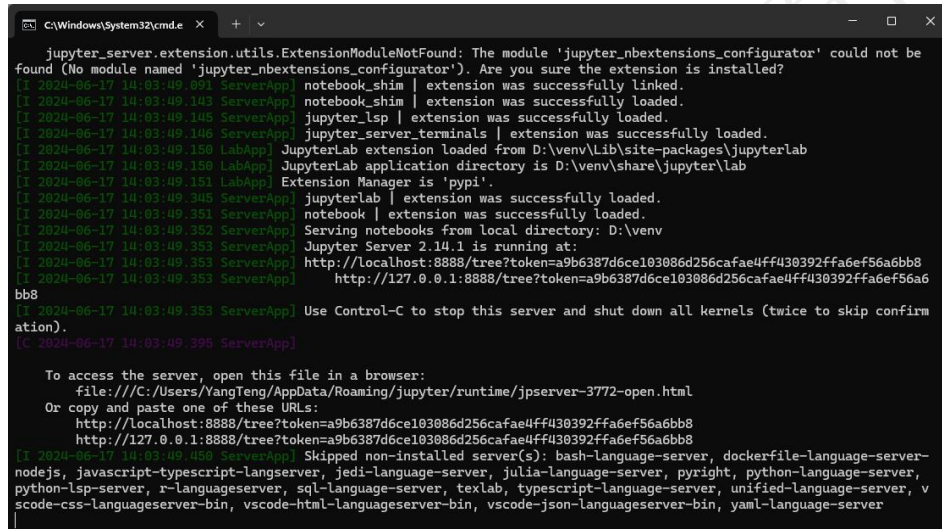
1. 激活虚拟环境



2. 输入“jupyter notebook”打开 Jupyter Notebook



```
C:\Windows\System32\cmd.exe
(venv) D:\venv>jupyter notebook
```



```
jupyter_server.extension.utils.ExtensionModuleNotFound: The module 'jupyter_nbextensions_configurator' could not be found (No module named 'jupyter_nbextensions_configurator'). Are you sure the extension is installed?
[I 2024-06-17 14:03:49.091 ServerApp] notebook_shim | extension was successfully linked.
[I 2024-06-17 14:03:49.143 ServerApp] notebook_shim | extension was successfully loaded.
[I 2024-06-17 14:03:49.145 ServerApp] jupyter_lsp | extension was successfully loaded.
[I 2024-06-17 14:03:49.146 ServerApp] jupyter_server_terminals | extension was successfully loaded.
[I 2024-06-17 14:03:49.150 LabApp] JupyterLab extension loaded from D:\venv\Lib\site-packages\jupyterlab
[I 2024-06-17 14:03:49.150 LabApp] JupyterLab application directory is D:\venv\share\jupyter\lab
[I 2024-06-17 14:03:49.151 LabApp] Extension Manager is 'pypi'.
[I 2024-06-17 14:03:49.345 ServerApp] jupyterlab | extension was successfully loaded.
[I 2024-06-17 14:03:49.351 ServerApp] notebook | extension was successfully loaded.
[I 2024-06-17 14:03:49.352 ServerApp] Serving notebooks from local directory: D:\venv
[I 2024-06-17 14:03:49.353 ServerApp] Jupyter Server 2.14.1 is running at:
[I 2024-06-17 14:03:49.353 ServerApp] http://localhost:8888/tree?token=a9b6387d6ce103086d256cafae4ff430392ffa6ef56a6bb8
[I 2024-06-17 14:03:49.353 ServerApp] http://127.0.0.1:8888/tree?token=a9b6387d6ce103086d256cafae4ff430392ffa6ef56a6bb8
[I 2024-06-17 14:03:49.353 ServerApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirm
[I 2024-06-17 14:03:49.396 ServerApp]
[I 2024-06-17 14:03:49.396 ServerApp]
To access the server, open this file in a browser:
file:///C:/Users/YangTeng/AppData/Roaming/jupyter/runtime/jpserver-3772-open.html
Or copy and paste one of these URLs:
http://localhost:8888/tree?token=a9b6387d6ce103086d256cafae4ff430392ffa6ef56a6bb8
http://127.0.0.1:8888/tree?token=a9b6387d6ce103086d256cafae4ff430392ffa6ef56a6bb8
[I 2024-06-17 14:03:49.458 ServerApp] Skipped non-installed server(s): bash-language-server, dockerfile-language-server-
nodejs, javascript-typescript-langserver, jedi-language-server, julia-language-server, pyright, python-language-server,
python-lsp-server, r-languageserver, sql-language-server, texlab, typescript-language-server, unified-language-server, v
scode-css-languageserver-bin, vscode-html-languageserver-bin, vscode-json-languageserver-bin, yamll-language-server
```

