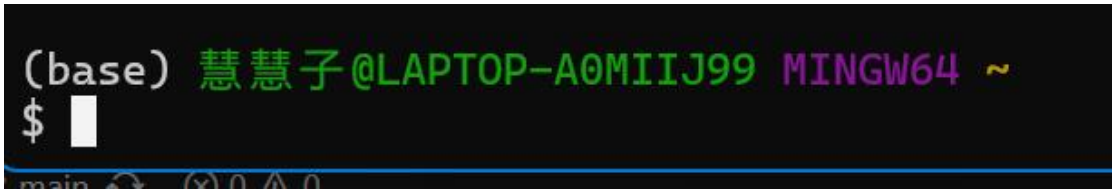
第三周作业

1、在自己的终端 (比如 Git Bash、Zsh 等) 配置好 Conda Init，使得启动终端后，在提示符 (比如 $、%) 前能够看到 (base)






2、使用 conda info 命令查看本机 Conda 的配置信息

```
(base) 慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda info

     active environment : base
    active env location : E:\anco
            shell level : 1
       user config file : C:\Users\慧慧子\.condarc
 populated config files : E:\anco\.condarc
          conda version : 24.11.3
    conda-build version : 24.9.0
         python version : 3.12.7.final.0
                 solver : libmamba (default)
       virtual packages : __archspec=1=icelake
                          __conda=24.11.3=0
                          __win=0=0
       base environment : E:\anco  (writable)
      conda av data dir : E:\anco\etc\conda
  conda av metadata url : None
           channel URLs : https://repo.anaconda.com/pkgs/main/win-64
                          https://repo.anaconda.com/pkgs/main/noarch
                          https://repo.anaconda.com/pkgs/r/win-64
                          https://repo.anaconda.com/pkgs/r/noarch
                          https://repo.anaconda.com/pkgs/msys2/win-64
                          https://repo.anaconda.com/pkgs/msys2/noarch
          package cache : E:\anco\pkgs
                          C:\Users\慧慧子\.conda\pkgs
```


```
    base environment : E:\anco  (writable)
   conda av data dir : E:\anco\etc\conda
conda av metadata url : None
        channel URLs : https://repo.anaconda.com/pkgs/main/win-64
                       https://repo.anaconda.com/pkgs/main/noarch
                       https://repo.anaconda.com/pkgs/r/win-64
                       https://repo.anaconda.com/pkgs/r/noarch
                       https://repo.anaconda.com/pkgs/msys2/win-64
                       https://repo.anaconda.com/pkgs/msys2/noarch
       package cache : E:\anco\pkgs
                       C:\Users\慧慧子\.conda\pkgs
                       C:\Users\慧慧子\AppData\Local\conda\conda\pkgs
    envs directories : E:\anco\envs
                       C:\Users\慧慧子\.conda\envs
                       C:\Users\慧慧子\AppData\Local\conda\conda\envs
            platform : win-64
          user-agent : conda/24.11.3 requests/2.32.3 CPython/3.12.7 Windows/11 Windows/10.0.26100 solver/libmamba con
-libmamba-solver/24.9.0 libmambapy/1.5.8 aau/0.4.4 c/FZ1UI8V2z7uWa_iIRj1nrg s/hzPlPyBwdVN1ZTkO4Ex1dA e/o6YbZn9wikxYN-3
YGIKw
       administrator : False
          netrc file : None
        offline mode : False
```


3、使用 conda env list 命令查看已有的 Conda 环境的名称和路径，理解 Conda 环境 的概念

```
(base) 慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda env list

# conda environments:
#
base                  * E:\anco
```

4、使用 conda create 命令创建两个 Conda 环境，一个里面安装 Python 3.12 和 requests 软件包，另一个里面安装 Python 3.9、pandas 和 statsmodels 软件包，能够在终端里切换 Conda 环境，验证 Python 和软件包的版本

```
$ conda create -n wang python=3.12 requests
Retrieving notices: done
Channels:
 - defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: E:\anco\envs\wang

  added / updated specs:
    - python=3.12
    - requests
```

```
(base) 慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda env list

# conda environments:
#
base                  * E:\anco
wang                    E:\anco\envs\wang
wang2                   E:\anco\envs\wang2


(base) 慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda activate wang
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ which python
/e/anco/envs/wang/python
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ python --version
Python 3.12.9
(wang)
```

```
$ python
Python 3.12.9 | packaged by Anaconda, Inc. | (main, Feb  6 2025, 18:49:16) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> ls -l
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'ls' is not defined
>>> quit()
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ ls -l
total 26905
lrwxrwxrwx 1 慧慧子 197121       63  3月  8 15:35  「开始」菜单 -> '/c/Users/慧慧子/AppData/Roaming/Microsoft/Windows
art Menu'/
drwxr-xr-x 1 慧慧子 197121        0  8月 10  2021 '3D Objects'/
drwxr-xr-x 1 慧慧子 197121        0 10月 30 23:24  ado/
drwxr-xr-x 1 慧慧子 197121        0  3月  8 15:37  AppData/
lrwxrwxrwx 1 慧慧子 197121       34  3月  8 15:35 'Application Data' -> /c/Users/慧慧子/AppData/Roaming/
drwxr-xr-x 1 慧慧子 197121        0  3月  8 15:39  Contacts/
lrwxrwxrwx 1 慧慧子 197121       62  3月  8 15:35  Cookies -> /c/Users/慧慧子/AppData/Local/Microsoft/Windows/INetCoo
s/
```

```
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda activate wang2
(wang2)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ which python
/e/anco/envs/wang2/python
(wang2)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ python --version
Python 3.9.21
(wang2)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
```

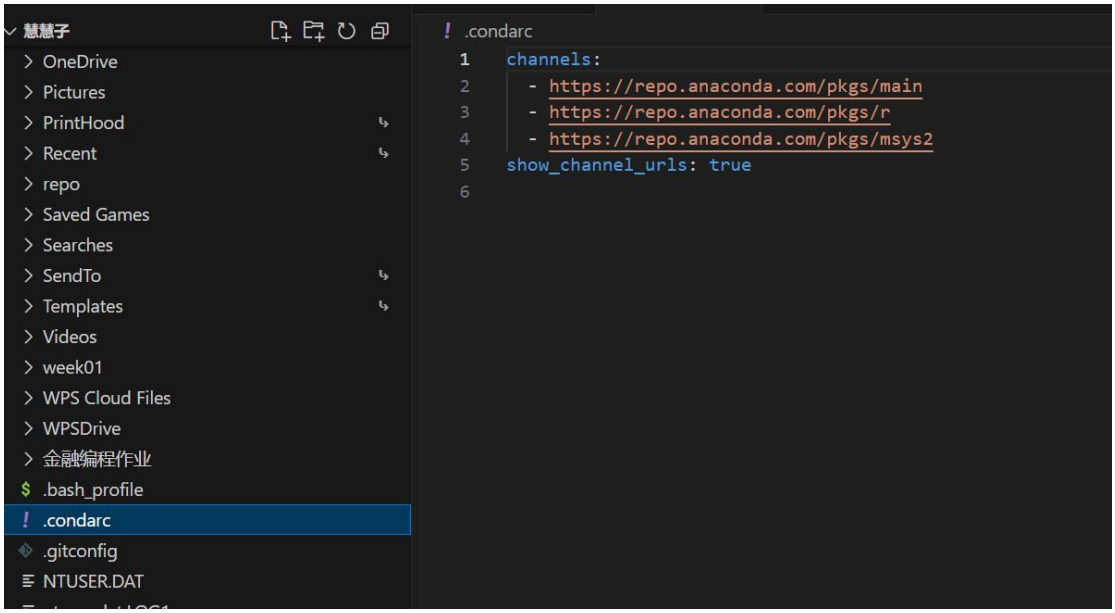
5、使用 conda list 命令显示 Conda 环境里的软件包列表及其版本信息

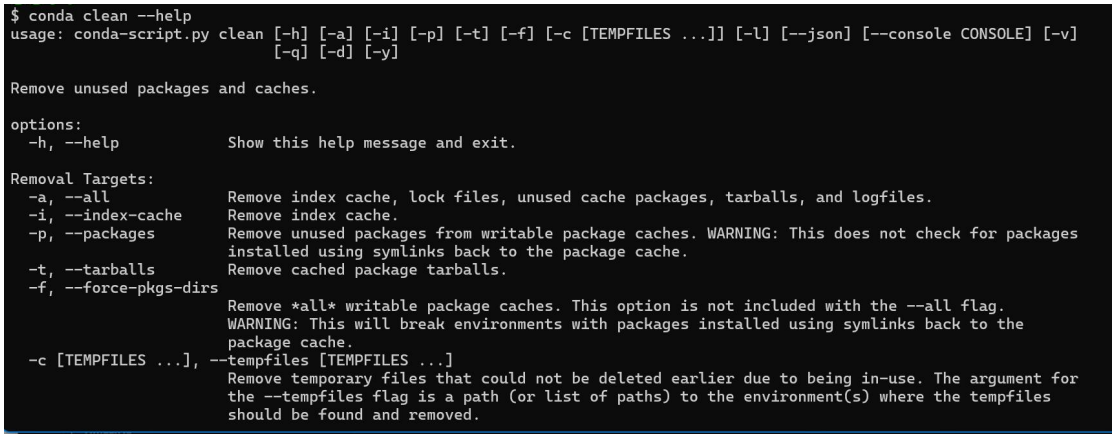
```
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda list
# packages in environment at E:\anco\envs\wang2:
#
# Name                    Version                   Build  Channel
blas                      1.0                         mkl
bottleneck                1.4.2           py39hc99e966_0
ca-certificates           2025.2.25            haa95532_0
icc_rt                    2022.1.0             h6049295_2
intel-openmp              2023.1.0        h59b6b97_46320
mkl                       2023.1.0        h6b88ed4_46358
mkl-service               2.4.0           py39h827c3e9_2
mkl_fft                   1.3.11          py39h827c3e9_0
mkl_random                1.2.8           py39hc64d2fc_0
numexpr                   2.10.1          py39h4cd664f_0
numpy                     2.0.2           py39h055cbcc_0
numpy-base                2.0.2           py39h65a83cf_0
openssl                   3.0.16               h3f729d1_0
packaging                 24.2            py39haa95532_0
pandas                    2.2.3           py39h5da7b33_0
patsy                     1.0.1           py39haa95532_0
pip                       25.0            py39haa95532_0
pybind11-abi              5                    hd3eb1b0_0
python                    3.9.21               h8205438_1
python-dateutil           2.9.0post0      py39haa95532_2
(wang2)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda activate wang
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda list
# packages in environment at E:\anco\envs\wang:
#
# Name                    Version                   Build  Channel
brotli-python             1.0.9           py312h5da7b33_9
bzip2                     1.0.8                h2bbff1b_6
ca-certificates           2025.2.25            haa95532_0
certifi                   2025.1.31       py312haa95532_0
charset-normalizer        3.3.2              pyhd3eb1b0_0
expat                     2.6.4                h8ddb27b_0
idna                      3.7             py312haa95532_0
libffi                    3.4.4                hd77b12b_1
openssl                   3.0.16               h3f729d1_0
pip                       25.0            py312haa95532_0
pysocks                   1.7.1           py312haa95532_0
python                    3.12.9               h14ffc60_0
requests                  2.32.3          py312haa95532_1
setuptools                75.8.0          py312haa95532_0
sqlite                    3.45.3               h2bbff1b_0
tk                        8.6.14               h0416ee5_0
tzdata                    2025a                h04d1e81_0
urllib3                   2.3.0           py312haa95532_0
```

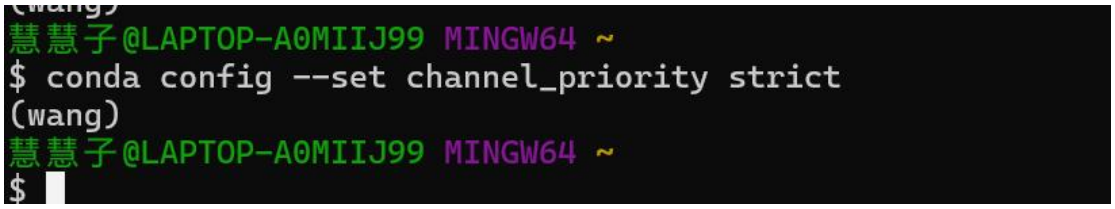
**6、使用 conda install 命令往 Conda 环境里安装更多的软件包，并验证版本**

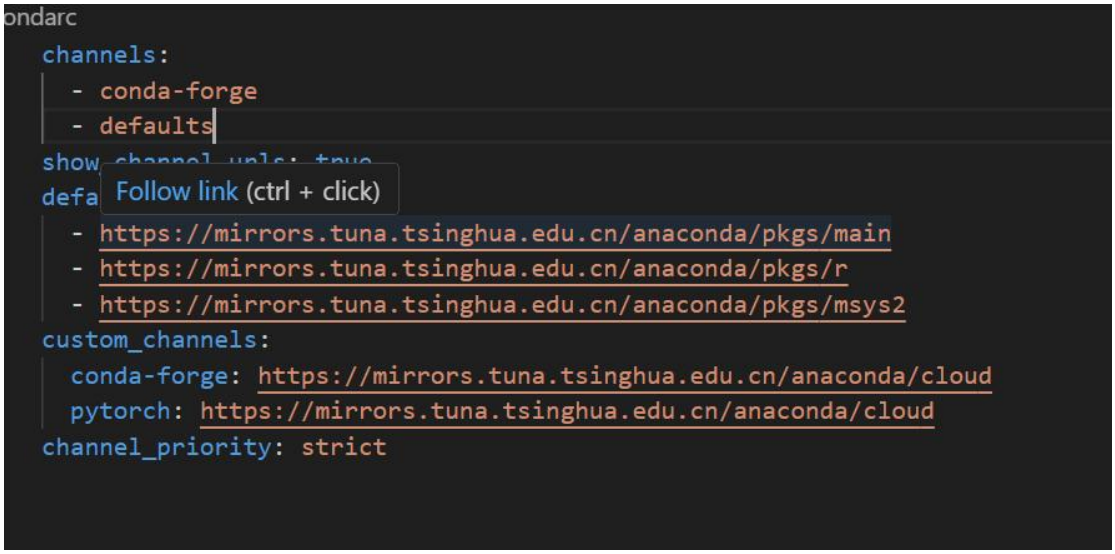
```
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ conda install ipython
Channels:
 - defaults
Platform: win-64
Collecting package metadata (repodata.json): d
Solving environment: done

## Package Plan ##

  environment location: E:\anco\envs\wang

  added / updated specs:
    - ipython


The following packages will be downloaded:
```

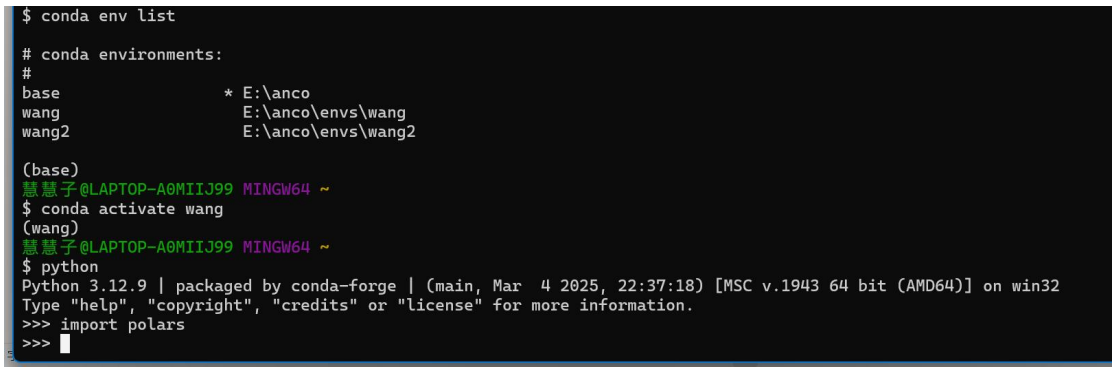
7、根据 文档，配置 Anaconda 清华镜像，加快 conda install 安装软件包的速度，将 conda-forge 设置为默认 Channel，让 conda install 能够安装更多的软件包






8、使用 pip install 命令往 Conda 环境里安装 Python 软件包，并验证版本

```
$ pip install tushare
Collecting tushare
  Downloading tushare-1.4.19-py3-none-any.whl.metadata (3.1 kB)
Collecting pandas (from tushare)
  Downloading pandas-2.2.3-cp312-cp312-win_amd64.whl.metadata (19 kB)
Requirement already satisfied: requests in e:\anco\envs\wang\lib\site-packages (from tushare) (2.
Collecting lxml (from tushare)
  Downloading lxml-5.3.1-cp312-cp312-win_amd64.whl.metadata (3.8 kB)
Collecting simplejson (from tushare)
  Downloading simplejson-3.20.1-cp312-cp312-win_amd64.whl.metadata (3.4 kB)
Collecting bs4 (from tushare)
  Downloading bs4-0.0.2-py2.py3-none-any.whl.metadata (411 bytes)
```

```
Downloading websocket_client-1.8.0-py3-none-any.whl (58 kB)
Downloading bs4-0.0.2-py2.py3-none-any.whl (1.2 kB)
Downloading lxml-5.3.1-cp312-cp312-win_amd64.whl (3.8 MB)
   ---------------------------------------- 3.8/3.8 MB 59.9 kB/s eta 0:00:00
Downloading pandas-2.2.3-cp312-cp312-win_amd64.whl (11.5 MB)
   ---------------------------------------- 11.5/11.5 MB 55.7 kB/s eta 0:00:00
Downloading simplejson-3.20.1-cp312-cp312-win_amd64.whl (75 kB)
Downloading tqdm-4.67.1-py3-none-any.whl (78 kB)
Downloading python_dateutil-2.9.0.post0-py2.py3-none-any.whl (229 kB)
Downloading pytz-2025.1-py2.py3-none-any.whl (507 kB)
Downloading tzdata-2025.1-py2.py3-none-any.whl (346 kB)
Downloading beautifulsoup4-4.13.3-py3-none-any.whl (186 kB)
Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Downloading six-1.17.0-py2.py3-none-any.whl (11 kB)
Downloading soupsieve-2.6-py3-none-any.whl (36 kB)
Downloading typing_extensions-4.12.2-py3-none-any.whl (37 kB)
Installing collected packages: pytz, websocket-client, tzdata, typing-extensions, soupsieve, six, simplejson, lxml, colo
rama, tqdm, python-dateutil, beautifulsoup4, pandas, bs4, tushare
Successfully installed beautifulsoup4-4.13.3 bs4-0.0.2 colorama-0.4.6 lxml-5.3.1 pandas-2.2.3 python-dateutil-2.9.0.post
0 pytz-2025.1 simplejson-3.20.1 six-1.17.0 soupsieve-2.6 tqdm-4.67.1 tushare-1.4.19 typing-extensions-4.12.2 tzdata-2025
.1 websocket-client-1.8.0
(wang)
```

9、根据 文档 配置 PyPI 清华镜像，加快 pip install 安装软件包的速度

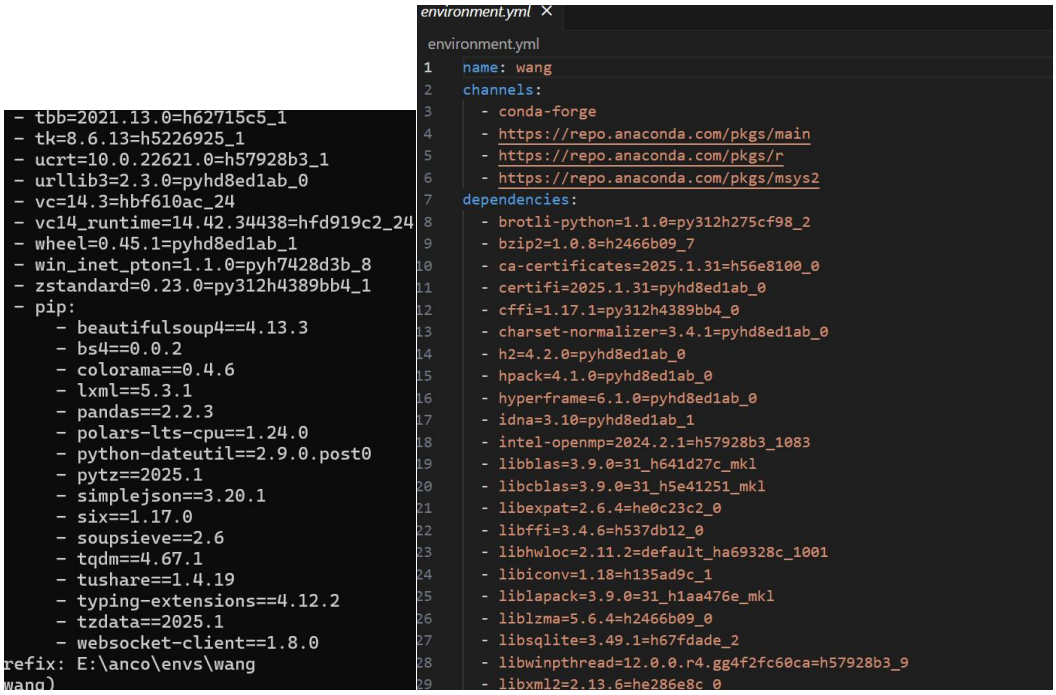
```
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ python -m pip install --upgrade pip
Requirement already satisfied: pip in e:\anco\envs\wang\lib\site-packages (25.0.1)
(wang)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ pip config set global.index-url https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Writing to C:\Users\慧慧子\AppData\Roaming\pip\pip.ini
(wang)
```

```
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~
$ python
Python 3.12.9 | packaged by conda-forge | (main, Mar  4 2025, 22:37:18) [MSC v.1943 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import tushare
>>> tushare.__version__
'1.4.19'
>>> tushare.__file__
'E:\\anco\\envs\\wang\\Lib\\site-packages\\tushare\\__init__.py'
```

10、能够导出 environment.yml Conda 环境配置文件，能够删除 Conda 环境，能够用 environment.yml 配置文件重建 Conda 环境

```
$ conda env export
name: wang
channels:
  - conda-forge
  - https://repo.anaconda.com/pkgs/main
  - https://repo.anaconda.com/pkgs/r
  - https://repo.anaconda.com/pkgs/msys2
dependencies:
  - brotli-python=1.1.0=py312h275cf98_2
  - bzip2=1.0.8=h2466b09_7
  - ca-certificates=2025.1.31=h56e8100_0
  - certifi=2025.1.31=pyhd8ed1ab_0
  - cffi=1.17.1=py312h4389bb4_0
  - charset-normalizer=3.4.1=pyhd8ed1ab_0
  - h2=4.2.0=pyhd8ed1ab_0
  - hpack=4.1.0=pyhd8ed1ab_0
  - hyperframe=6.1.0=pyhd8ed1ab_0
  - idna=3.10=pyhd8ed1ab_1
  - intel-openmp=2024.2.1=h57928b3_1083
  - libblas=3.9.0=31_h641d27c_mkl
  - libcblas=3.9.0=31_h5e41251_mkl
  - libexpat=2.6.4=he0c23c2_0
  - libffi=3.4.6=h537db12_0
  - libhwloc=2.11.2=default_ha69328c_1001
```

```
- libexpat=2.6.4=he0c23c2_0
- libffi=3.4.6=h537db12_0
- libhwloc=2.11.2=default_ha69328c_1001
- libiconv=1.18=h135ad9c_1
- liblapack=3.9.0=31_h1aa476e_mkl
- liblzma=5.6.4=h2466b09_0
- libsqlite=3.49.1=h67fdade_2
- libwinpthread=12.0.0.r4.gg4f2fc60ca=h57928b3_9
- libxml2=2.13.6=he286e8c_0
- libzlib=1.3.1=h2466b09_2
- mkl=2024.2.2=h66d3029_15
- numpy=2.2.4=py312h3150e54_0
- openssl=3.4.1=ha4e3fda_0
- packaging=24.2=pyhd8ed1ab_2
- pip=25.0.1=pyh8b19718_0
- pycparser=2.22=pyh29332c3_1
- pysocks=1.7.1=pyh09c184e_7
- python=3.12.9=h3f84c4b_1_cpython
- python_abi=3.12=5_cp312
- requests=2.32.3=pyhd8ed1ab_1
- setuptools=75.8.2=pyhff2d567_0
- tbb=2021.13.0=h62715c5_1
- tk=8.6.13=h5226925_1
- ucrt=10.0.22621.0=h57928b3_1
- urllib3=2.3.0=pyhd8ed1ab_0
- vc=14.3=hbf610ac_24
- vc14_runtime=14.42.34438=hfd919c2_24
- wheel=0.45.1=pyhd8ed1ab_1
- win_inet_pton=1.1.0=pyh7428d3b_8
- zstandard=0.23.0=py312h4389bb4_1
```



```
- tbb=2021.13.0=h62715c5_1
- tk=8.6.13=h5226925_1
- ucrt=10.0.22621.0=h57928b3_1
- urllib3=2.3.0=pyhd8ed1ab_0
- vc=14.3=hbf610ac_24
- vc14_runtime=14.42.34438=hfd919c2_24
- wheel=0.45.1=pyhd8ed1ab_1
- win_inet_pton=1.1.0=pyh7428d3b_8
- zstandard=0.23.0=py312h4389bb4_1
- pip:
    - beautifulsoup4==4.13.3
    - bs4==0.0.2
    - colorama==0.4.6
    - lxml==5.3.1
    - pandas==2.2.3
    - polars-lts-cpu==1.24.0
    - python-dateutil==2.9.0.post0
    - pytz==2025.1
    - simplejson==3.20.1
    - six==1.17.0
    - soupsieve==2.6
    - tqdm==4.67.1
    - tushare==1.4.19
    - typing-extensions==4.12.2
    - tzdata==2025.1
    - websocket-client==1.8.0
refix: E:\anco\envs\wang
wang)
```

environment.yml

```yaml
name: wang
channels:
  - conda-forge
  - https://repo.anaconda.com/pkgs/main
  - https://repo.anaconda.com/pkgs/r
  - https://repo.anaconda.com/pkgs/msys2
dependencies:
  - brotli-python=1.1.0=py312h275cf98_2
  - bzip2=1.0.8=h2466b09_7
  - ca-certificates=2025.1.31=h56e8100_0
  - certifi=2025.1.31=pyhd8ed1ab_0
  - cffi=1.17.1=py312h4389bb4_0
  - charset-normalizer=3.4.1=pyhd8ed1ab_0
  - h2=4.2.0=pyhd8ed1ab_0
  - hpack=4.1.0=pyhd8ed1ab_0
  - hyperframe=6.1.0=pyhd8ed1ab_0
  - idna=3.10=pyhd8ed1ab_1
  - intel-openmp=2024.2.1=h57928b3_1083
  - libblas=3.9.0=31_h641d27c_mkl
  - libcblas=3.9.0=31_h5e41251_mkl
  - libexpat=2.6.4=he0c23c2_0
  - libffi=3.4.6=h537db12_0
  - libhwloc=2.11.2=default_ha69328c_1001
  - libiconv=1.18=h135ad9c_1
  - liblapack=3.9.0=31_h1aa476e_mkl
  - liblzma=5.6.4=h2466b09_0
  - libsqlite=3.49.1=h67fdade_2
  - libwinpthread=12.0.0.r4.gg4f2fc60ca=h57928b3_9
  - libxml2=2.13.6=he286e8c_0
```

```
$ cd repo
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo
$ ls -l
total 0
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo
$ mkdir wang
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo
$ cd wang
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/wang
$ ls -l
total 0
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/wang
$ mv ~/environment.yml ./
(base)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/wang
$ conda env list

# conda environments:
#
base                  * E:\anco
wang2                   E:\anco\envs\wang2
```

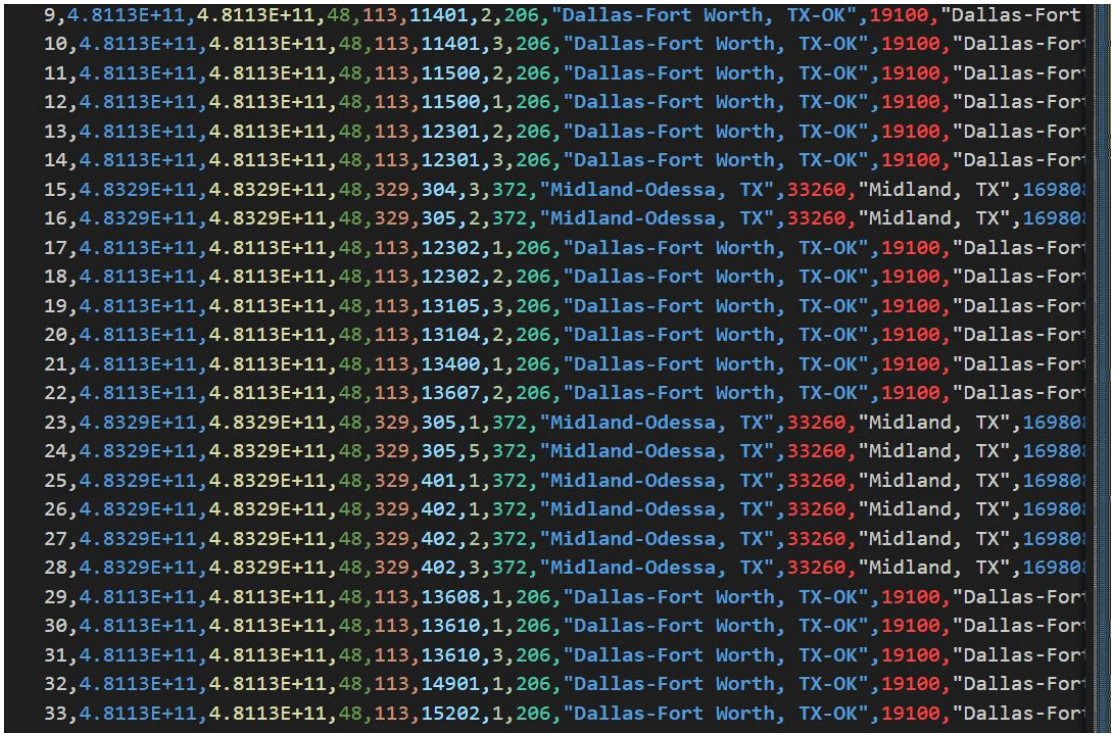
12、按照 教程 创建项目目录，在 VS Code 文本编辑器里安装一些支持 Python 开发的常用扩展，编写 main.py 脚本，创建该项目专用的 Conda 环境，在终端里激活该环境并成功运行该脚本

```
$ python main.py
Hello, conda!
(myproject)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
(myproject)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
Traceback (most recent call last):
  File "C:\Users\慧慧子\repo\myproject\main.py", line 8, in <module>
    main()
  File "C:\Users\慧慧子\repo\myproject\main.py", line 3, in main
    print(PendingDeprecationWarning.__version__)
          ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
AttributeError: type object 'PendingDeprecationWarning' has no attribute '__ve
rsion__'
(myproject)
```

```
$ python main.py
Hello, conda!
Traceback (most recent call last):
  File "C:\Users\慧慧子\repo\myproject\main.py", line 8, in <module>
    main()
  File "C:\Users\慧慧子\repo\myproject\main.py", line 3, in main
    print(PendingDeprecationWarning.__version__)
          ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
AttributeError: type object 'PendingDeprecationWarning' has no attribute '__ve
rsion__'
(myproject)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
$ ls -l
total 2
-rw-r--r-- 1 慧慧子 197121  87  3月 20 21:56 environment.yml
-rw-r--r-- 1 慧慧子 197121 180  3月 20 22:02 main.py
(myproject)
```

```
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
 curl -O https://edg.epa.gov/EPADataCommons/public/OA/EPA_SmartLocationDataba
e_V3_Jan_2021_Final.csv
 % Total    % Received % Xferd  Average Speed   Time    Time     Time  Curren

                                 Dload  Upload   Total   Spent    Left  Speed
00  192M  100  192M    0     0   329k      0  0:09:56  0:09:56 --:--:--  550k
myproject)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
 ls -l
otal 196846
rw-r--r-- 1 慧慧子 197121        87  3月 20 21:56 environment.yml
rw-r--r-- 1 慧慧子 197121 201568176  3月 20 22:13 EPA_SmartLocationDatabase_V
_Jan_2021_Final.csv
rw-r--r-- 1 慧慧子 197121       180  3月 20 22:02 main.py
myproject)
```

```
$ ls -l
total 196846
-rw-r--r-- 1 慧慧子 197121        87  3月 20 21:56 environment.yml
-rw-r--r-- 1 慧慧子 197121 201568176  3月 20 22:13 EPA_SmartLocationDatabase_V
3_Jan_2021_Final.csv
-rw-r--r-- 1 慧慧子 197121       180  3月 20 22:02 main.py
(myproject)
慧慧子@LAPTOP-A0MIIJ99 MINGW64 ~/repo/myproject
$ ls -lh
total 193M
-rw-r--r-- 1 慧慧子 197121   87  3月 20 21:56 environment.yml
-rw-r--r-- 1 慧慧子 197121 193M  3月 20 22:13 EPA_SmartLocationDatabase_V3_Jan
_2021_Final.csv
-rw-r--r-- 1 慧慧子 197121  180  3月 20 22:02 main.py
(myproject)
```



```
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10,4.8113E+11,4.8113E+11,48,113,11401,3,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
11,4.8113E+11,4.8113E+11,48,113,11500,2,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
12,4.8113E+11,4.8113E+11,48,113,11500,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
13,4.8113E+11,4.8113E+11,48,113,12301,2,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
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15,4.8329E+11,4.8329E+11,48,329,304,3,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
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17,4.8113E+11,4.8113E+11,48,113,12302,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
18,4.8113E+11,4.8113E+11,48,113,12302,2,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
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20,4.8113E+11,4.8113E+11,48,113,13104,2,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
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23,4.8329E+11,4.8329E+11,48,329,305,1,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
24,4.8329E+11,4.8329E+11,48,329,305,5,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
25,4.8329E+11,4.8329E+11,48,329,401,1,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
26,4.8329E+11,4.8329E+11,48,329,402,1,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
27,4.8329E+11,4.8329E+11,48,329,402,2,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
28,4.8329E+11,4.8329E+11,48,329,402,3,372,"Midland-Odessa, TX",33260,"Midland, TX",16980
29,4.8113E+11,4.8113E+11,48,113,13608,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
30,4.8113E+11,4.8113E+11,48,113,13610,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
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32,4.8113E+11,4.8113E+11,48,113,14901,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
33,4.8113E+11,4.8113E+11,48,113,15202,1,206,"Dallas-Fort Worth, TX-OK",19100,"Dallas-For
```

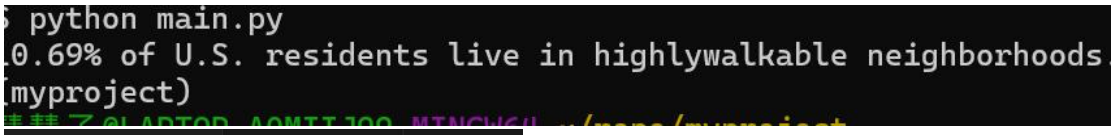

```
 python main.py
0.69% of U.S. residents live in highlywalkable neighborhoods.
(myproject)
```

environment.yml

```yaml
name: myproject
channels:
  - conda-forge
dependencies:
  - python
  - pandas
```

```python
import pandas as pd


def main():
    """
    Answers the question:

    What percentage of U.S. residents live highly walkable neighborhoods?

    "15.26" is the threshold on the index for a highly walkable area.
    """
    csv_file = "./EPA_SmartLocationDatabase_V3_Jan_2021_Final.csv"
    highly_walkable = 15.26

    df = pd.read_csv(csv_file)

    total_population = df["TotPop"].sum()
    highly_walkable_pop = df[df["NatWalkInd"] >= highly_walkable]["TotPop"].sum()

    percentage = (highly_walkable_pop / total_population) * 100.0

    print(
        f"{percentage:.2f}% of U.S. residents live in highly" "walkable neighborhoods."
    )


if __name__ == "__main__":
    main()
```