

第三周学习报告

- 1. 在Git Bash中配置好 Conda Init

```
MINGW64/c/Users/hp
hp@LAPTOP-L5E04S06 MINGW64 ~
$ which conda
/d/ANACONDA/Scripts/conda

hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda init bash
no change      D:\ANACONDA\Scripts\conda.exe
no change      D:\ANACONDA\Scripts\conda-env.exe
no change      D:\ANACONDA\Scripts\conda-script.py
no change      D:\ANACONDA\Scripts\conda-env-script.py
no change      D:\ANACONDA\condabin\conda.bat
no change      D:\ANACONDA\Library\bin\conda.bat
no change      D:\ANACONDA\condabin\_conda_activate.bat
no change      D:\ANACONDA\condabin\rename_tmp.bat
no change      D:\ANACONDA\condabin\conda_auto_activate.bat
no change      D:\ANACONDA\condabin\conda_hook.bat
no change      D:\ANACONDA\Scripts\activate.bat
no change      D:\ANACONDA\condabin\activate.bat
no change      D:\ANACONDA\condabin\deactivate.bat
modified       D:\ANACONDA\Scripts\activate
modified       D:\ANACONDA\Scripts\deactivate
modified       D:\ANACONDA\etc\profile.d\conda.sh
modified       D:\ANACONDA\etc\fish\conf.d\conda.fish
no change      D:\ANACONDA\shell\condabin\conda.psm1
modified       D:\ANACONDA\shell\condabin\conda-hook.ps1
no change      D:\ANACONDA\Lib\site-packages\xontrib\conda.xsh
modified       D:\ANACONDA\etc\profile.d\conda.csh
modified       C:\Users\hp\.bash_profile
```

conda init 是 Conda 环境管理系统中的一个重要命令，它的主要功能是对 shell 进行初始化配置，从而让用户能够在 shell 会话里直接使用 conda 命令。

- 2. 使用 conda info 命令查看本机 Conda 的配置信息

```
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda info

active environment : base
active env location : D:\ANACONDA
shell level : 1
user config file : C:\Users\hp\.condarc
populated config files : D:\ANACONDA\.condarc
                        C:\Users\hp\.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=x86_64_v4
                  __conda=24.11.3=0
                  __cuda=12.6=0
                  __win=0
base environment : D:\ANACONDA (writeable)
conda av data dir : D:\ANACONDA\etc\conda
conda av metadata url : None
channel URLs : https://repo.anaconda.com/plugs/main/win-64
               https://repo.anaconda.com/plugs/main/noarch
               https://repo.anaconda.com/plugs/r/win-64
               https://repo.anaconda.com/plugs/r/noarch
               https://repo.anaconda.com/plugs/msys2/win-64
               https://repo.anaconda.com/plugs/msys2/noarch
package cache : D:\ANACONDA\plugs
                 C:\Users\hp\.conda\pkgs
                 C:\Users\hp\AppData\Local\conda\conda\pkgs
envs directories : D:\ANACONDA\envs
                  C:\Users\hp\.conda\envs
                  C:\Users\hp\AppData\Local\conda\conda\envs
platform : win-64
user-agent : conda/24.11.3 requests/2.32.3 CPython/3.12.7 Windows/10 Windows/10.0.19045 solver/libmamba conda-libmamba-solver/24.9.0 libmambapy/1.5.8 aau/0.4.4 c/BGCU2u0LH0UEFTBNjr9w s/VXtUEucBt
do85QqThgFhmQ e/wY0kcAB7_8VkjgZGnhccVA
administrator : False
netrc file : None
offline mode : False

(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
```

package cache：Conda 包缓存的路径。

envs directories：Conda 环境的存储目录。

user - agent：Conda 发送请求时使用的用户代理信息。

netrc file：Netrc 文件的路径，该文件用于存储认证信息。

offline mode：是否处于离线模式。

- 3. 使用 conda env list 命令查看已有的 Conda 环境的名称和路径

```
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda env list

# conda environments:
#
base                  * D:\ANACONDA

(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$
```

理解 Conda 环境 的概念

Conda 环境是 Conda 这个开源软件包和环境管理系统里的一个关键概念，它为用户打造了独立且隔离的工作空间，下面详细解释其概念、作用、创建和管理方法。

概念阐释

Conda 环境可以理解成一个独立的文件夹，其中存放着特定版本的软件包和依赖项。在不同的 Conda 环境中，你能安装不同版本的 Python 解释器和各类软件包，而且这些环境之间不会相互干扰。

主要作用

- **隔离性**：不同的项目可能会依赖不同版本的软件包。通过创建多个 Conda 环境，你能为每个项目单独配置所需的软件包版本，避免因版本冲突而引发的问题。
- **可重复性**：你可以把 Conda 环境的配置信息导出为一个文件，这样其他人就能依据这个文件创建出与你相同的环境，确保项目的可重复性。
- **环境管理**：借助 Conda 命令，你能轻松地创建、激活、停用和删除环境，方便管理不同的工作场景。

• 4.使用 conda create 命令创建两个 Conda 环境

```
MINGW64/c/Users/hp
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda create -n hj1 Python=3.12 requests
Channels:
- defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

environment location: D:\ANACONDA\envs\hj1

added / updated specs:
- python=3.12
- requests

The following packages will be downloaded:

package | build | size
-----|-----|-----
brotli-python-1.0.9 | py312h5da7b33_9 | 347 KB
bzip2-1.0.8 | h2bbff1b_6 | 90 KB
charset-normalizer-3.3.2 | pyhd3eb1b0_0 | 44 KB
expat-2.6.4 | h8ddb27b_0 | 257 KB
idna-3.7 | py312haa95532_0 | 133 KB
libffi-3.4.4 | hd77b12b_1 | 122 KB
pip-25.0 | py312haa95532_0 | 3.0 MB
pysocks-1.7.1 | py312haa95532_0 | 34 KB
```

```
MINGW64/c/Users/hp
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda create -n hj2 Python=3.9 pandas statsmodels
Channels:
- defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

environment location: D:\ANACONDA\envs\hj2

added / updated specs:
- pandas
- python=3.9
- statsmodels

The following packages will be downloaded:

package | build | size
-----|-----|-----
blas-1.0 | mkl | 6 KB
bottleneck-1.4.2 | py39hc99e966_0 | 129 KB
icc_rt-2022.1.0 | h6049295_2 | 6.5 MB
intel-openmp-2023.1.0 | h59b6b97_46320 | 2.7 MB
mkl-2023.1.0 | h6b88ed4_46358 | 155.9 MB
mkl-service-2.4.0 | py39h827c3e9_2 | 66 KB
mkl_fft-1.3.11 | py39h827c3e9_0 | 167 KB
```

```
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda env list

# conda environments:
#
base * D:\ANACONDA
hj1 D:\ANACONDA\envs\hj1
hj2 D:\ANACONDA\envs\hj2
```

```
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda activate hj1
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ which python
/d/ANACONDA/envs/hj1/python
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ python --version
Python 3.12.9
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda activate hj2
(hj2)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ which python
/d/ANACONDA/envs/hj2/python
(hj2)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ python --version
Python 3.9.21
```

```
(hj2)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ python
Python 3.9.21 (main, Dec 11 2024, 16:35:24) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import pandas
>>> pandas.__file__
'D:\\ANACONDA\\envs\\hj2\\lib\\site-packages\\pandas\\__init__.py'
>>> pandas.__version__
'2.2.3'
>>> quit()
```

- 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

```
MINGW64: c:/Users/hp
(hj2)
hpgLAPTOP-L5E04S06 MINGW64 ~
$ conda list
# packages in environment at D:\ANACONDA\envs\hj2:
#
# 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           h59b66b97_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              py39h055cbec_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
python-tzdata             2023.3              pyhd3eb1b0_0
pytz                      2024.1              py39haa95532_0
scipy                     1.13.1             py39h8640f81_1
setuptools                72.1.0             py39haa95532_0
```

```

MINGW64~/Users/hp
(hj2)
hp8LAPTOP-L5E04S06 MINGW64 ~
$ conda activate hj1
(hj1)
hp8LAPTOP-L5E04S06 MINGW64 ~
$ conda list
# packages in environment at D:\ANACONDA\envs\hj1:
#
# Name                    Version            Build                Channel
brotli-python            1.0.9              py312h5da7b33_9     conda-forge
bzip2                    1.0.8              h2bbff1b_6          conda-forge
ca-certificates          2025.2.25          haa95532_0           conda-forge
certifi                  2025.1.31          py312haa95532_0     conda-forge
charset-normalizer       3.3.2              pyhd3eb1b0_0         conda-forge
expat                    2.6.4              h8db27b_0            conda-forge
idna                     3.7                py312haa95532_0     conda-forge
libffi                   3.4.4              hd77b12b_1           conda-forge
openssl                  3.0.16             h3f729d1_0           conda-forge
pip                      25.0               py312haa95532_0     conda-forge
pysocks                  1.7.1              py312haa95532_0     conda-forge
python                   3.12.9             h14ffc60_0           conda-forge
requests                 2.32.3             py312haa95532_1     conda-forge
setuptools               75.8.0             py312haa95532_0     conda-forge
sqlite                   3.45.3             h2bbff1b_0           conda-forge
tk                       8.6.14             h0016ee5_0           conda-forge
tzdata                   2025a              h04d1e81_0           conda-forge
urllib3                  2.3.0              py312haa95532_0     conda-forge
ve                        14.42              haa95532_4           conda-forge
vs2015_runtime           14.42.34433        he0abc0d_4           conda-forge
wheel                    0.45.1             py312haa95532_0     conda-forge

```

- 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

```
MINGW64/c/Users/hp
(hj1)
hp@LAPTOP-L5E04S86 MINGW64 ~
$ conda install ipython
Channels:
- defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

environment location: D:\ANACONDA\envs\hj1

added / updated specs:
- ipython

The following packages will be downloaded:
```

package	build	size
asttokens-2.0.5	pyhd3eb1b0_0	20 KB
colorama-0.4.6	py312haa95532_0	53 KB
decorator-5.1.1	pyhd3eb1b0_0	12 KB
executing-0.8.3	pyhd3eb1b0_0	18 KB
ipython-8.30.0	py312haa95532_0	1.5 MB
jedi-0.19.2	py312haa95532_0	1.2 MB
matplotlib-inline-0.1.6	py312haa95532_0	19 KB
parso-0.8.4	py312haa95532_0	239 KB
prompt-toolkit-3.0.43	py312haa95532_0	733 KB

```
MINGW64/c/Users/hp
(hj1)
hp@LAPTOP-L5E04S86 MINGW64 ~
$ conda list
# packages in environment at D:\ANACONDA\envs\hj1:
#
# Name                    Version            Build                Channel
asttokens                 2.0.5             pyhd3eb1b0_0        pytorch
brotli-python            1.0.9             py312h5da7b33_0        conda-forge
bzip2                    1.0.8             h2bbf1b_6           conda-forge
ca-certificates          2025.2.25         haa95532_0           conda-forge
certifi                  2025.1.31         py312haa95532_0        conda-forge
charset-normalizer        3.3.2             pyhd3eb1b0_0        pytorch
colorama                 0.4.6             py312haa95532_0        conda-forge
decorator                5.1.1             pyhd3eb1b0_0        pytorch
executing                0.8.3             pyhd3eb1b0_0        pytorch
expat                    2.6.4             h8ddb27b_0           conda-forge
idna                     3.7               py312haa95532_0        conda-forge
ipython                  8.30.0            py312haa95532_0        conda-forge
jedi                     0.19.2            py312haa95532_0        conda-forge
libffi                   3.4.4             hd77b12b_1           conda-forge
matplotlib-inline        0.1.6             py312haa95532_0        conda-forge
openssl                  3.0.16            h3f729d1_0           conda-forge
parso                    0.8.4             py312haa95532_0        conda-forge
pip                      25.0              py312haa95532_0        conda-forge
prompt-toolkit           3.0.43            py312haa95532_0        conda-forge
prompt_toolkit           3.0.43            hd3eb1b0_0           pytorch
pure_eval                0.2.2             pyhd3eb1b0_0        pytorch
pygments                 2.15.1            py312haa95532_1        conda-forge
pysocks                  1.7.1             py312haa95532_0        conda-forge
python                   3.12.9            h14ffc60_0           conda-forge
```

- 7.配置 Anaconda 清华镜像

```
File Edit Selection View Go Run Terminal Help
C:\Users\hp> .condarc
1 channels:
2 - conda-forge
3 show_channel_urls: true
4 default_channels:
5 - https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkg/main
6 - https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkg/r
7 - https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkg/msys2
8 custom_channels:
9 conda-forge: https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud
10 pytorch: https://mirrors.tuna.tsinghua.edu.cn/anaconda/cloud
11 channel_priority: strict
12
```

安装polars并测试

```
MINGW64/c/Users/hp
(base)
hp@LAPTOP-L5E04S86 MINGW64 ~
$ conda activate hj1
(hj1)
hp@LAPTOP-L5E04S86 MINGW64 ~
$ conda install polars
Channels:
- conda-forge
- https://repo.anaconda.com/pkg/main
- https://repo.anaconda.com/pkg/r
- https://repo.anaconda.com/pkg/msys2
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

environment location: D:\ANACONDA\envs\hj1

added / updated specs:
- polars

The following packages will be downloaded:
```

package	build	size	channel
certifi-2025.1.31	pyhd8ed1ab_0	159 KB	conda-forge
intel-openmp-2024.2.1	h57928b3_1083	1.8 MB	conda-forge
libblas-3.9.0	31_h641d27c_mkl	3.6 MB	conda-forge

```
MINGW64/c/Users/hp x + -
requests 2.32.3 py312haa95532_1 https://repo.anaconda.com/pkg...
setuptools 75.8.0 py312haa95532_0 https://repo.anaconda.com/pkg...
six 1.16.0 pyhd3eb1b0_1 https://repo.anaconda.com/pkg...
sqlite 3.45.3 h2bfff1b_0 https://repo.anaconda.com/pkg...
stack_data 0.2.0 pyhd3eb1b0_0 https://repo.anaconda.com/pkg...
tbb 2021.13.0 h62715c5_1 conda-forge
tk 8.6.13 h5226925_1 conda-forge
traitlets 5.14.3 py312haa95532_0 https://repo.anaconda.com/pkg...
tzdata 2025a h04d1e81_0 https://repo.anaconda.com/pkg...
ucrt 10.0.22621.0 h57928b3_1 conda-forge
urllib3 2.3.0 py312haa95532_0 https://repo.anaconda.com/pkg...
vc 14.42 haa95532_4 https://repo.anaconda.com/pkg...
vc14_runtime 14.42.34438 hfd919c2_24 https://repo.anaconda.com/pkg...
vs2015_runtime 14.42.34438 h7142326_24 conda-forge
wcwidth 0.2.5 pyhd3eb1b0_0 https://repo.anaconda.com/pkg...
wheel 0.45.1 py312haa95532_0 https://repo.anaconda.com/pkg...
win_inet_pton 1.1.0 py312haa95532_0 https://repo.anaconda.com/pkg...
xz 5.6.4 h4754444_1 https://repo.anaconda.com/pkg...
zlib 1.3.1 h2466b09_2 conda-forge
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ which python
/d/ANACONDA/envs/hj1/python
(hj1)
hp@LAPTOP-L5E04S06 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 polars
>>>
```

删除整个环境：

conda env remove --n <env_name> --all

- 8.使用 pip install 命令在Conda 环境里安装 tushare

```
MINGW64/c/Users/hp x + -
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ 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-win_amd64.whl.metadata (19 kB)
Requirement already satisfied: requests in d:\anaconda\envs\hj1\lib\site-packages (from tushare) (2.32.3)
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)
Collecting websocket-client>=0.57.0 (from tushare)
  Downloading websocket_client-1.8.0-py3-none-any.whl.metadata (8.0 kB)
Collecting tqdm (from tushare)
  Downloading tqdm-4.67.1-py3-none-any.whl.metadata (57 kB)
Collecting beautifulsoup4 (from bs4->tushare)
  Downloading beautifulsoup4-4.13.3-py3-none-any.whl.metadata (3.8 kB)
Requirement already satisfied: numpy>=1.26.0 in d:\anaconda\envs\hj1\lib\site-packages (from pandas->tushare) (2.2.4)
Collecting python-dateutil>=2.8.2 (from pandas->tushare)
  Downloading python_dateutil-2.9.0.post0-py2.py3-none-any.whl.metadata (8.4 kB)
Collecting pytz>=2020.1 (from pandas->tushare)
  Downloading pytz-2025.1-py2.py3-none-any.whl.metadata (22 kB)
Collecting tzdata>=2022.7 (from pandas->tushare)
  Downloading tzdata-2025.1-py2.py3-none-any.whl.metadata (1.4 kB)
Requirement already satisfied: charset-normalizer<4,>=2 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tushare) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tushare) (3.7)
```

验证tushare版本和路径

```
MINGW64/c/Users/hp x + -
stack_data 0.2.0 pyhd3eb1b0_0 https://repo.anaconda.com/pkg...
tbb 2021.13.0 h62715c5_1 conda-forge
tk 8.6.13 h5226925_1 conda-forge
tqdm 4.67.1 pypi_0 pypi
traitlets 5.14.3 py312haa95532_0 https://repo.anaconda.com/pkg...
tushare 1.4.19 pypi_0 pypi
typing-extensions 4.12.2 pypi_0 pypi
tzdata 2025.1 pypi_0 pypi
ucrt 10.0.22621.0 h57928b3_1 conda-forge
urllib3 2.3.0 py312haa95532_0 https://repo.anaconda.com/pkg...
vc 14.42 haa95532_4 https://repo.anaconda.com/pkg...
vc14_runtime 14.42.34438 hfd919c2_24 conda-forge
vs2015_runtime 14.42.34438 h7142326_24 conda-forge
wcwidth 0.2.5 pyhd3eb1b0_0 https://repo.anaconda.com/pkg...
websocket-client 1.8.0 pypi_0 pypi
wheel 0.45.1 py312haa95532_0 https://repo.anaconda.com/pkg...
win_inet_pton 1.1.0 py312haa95532_0 https://repo.anaconda.com/pkg...
xz 5.6.4 h4754444_1 https://repo.anaconda.com/pkg...
zlib 1.3.1 h2466b09_2 conda-forge
(hj1)
hp@LAPTOP-L5E04S06 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__
'D:\\ANACONDA\\envs\\hj1\\Lib\\site-packages\\tushare\\__init__.py'
>>>
```

- 9.配置 PyPI 清华镜像

```
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ python -m pip install --upgrade pip
Requirement already satisfied: pip in d:\anaconda\envs\hj1\lib\site-packages (25.0)
Collecting pip
  Downloading pip-25.0.1-py3-none-any.whl.metadata (3.7 kB)
  Downloading pip-25.0.1-py3-none-any.whl (1.8 MB)
    1.8/1.8 MB 1.0 MB/s eta 0:00:00
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 25.0
    Uninstalling pip-25.0:
      Successfully uninstalled pip-25.0
  Successfully installed pip-25.0.1
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ pip config set global.index-url https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Writing to C:\Users\hp\AppData\Roaming\pip\pip.ini
```

- 10.能够导出 environment.yml Conda 环境配置文件

```
MINGW64/c/Users/hp
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda env export -f environment.yml
name: hj1
channels:
  - conda-forge
  - https://repo.anaconda.com/pkg/main
  - https://repo.anaconda.com/pkg/r
  - https://repo.anaconda.com/pkg/msys2
dependencies:
  - asttokens=2.0.5-pyhd3eb1b0_0
  - brotli-python=1.0.9-py312h5da7b33_9
  - bzip2=1.0.8-h2bbff1b_6
  - ca-certificates=2025.2.25-haa95532_0
  - certifi=2025.1.31-pyhd8ed1ab_0
  - charset-normalizer=3.3.2-pyhd3eb1b0_0
  - colorama=0.4.6-py312haa95532_0
  - decorator=5.1.1-pyhd3eb1b0_0
  - executing=0.8.3-pyhd3eb1b0_0
  - expat=2.6.4-h8ddb27b_0
  - idna=3.7-py312haa95532_0
  - intel-openmp=2024.2.1-h57928b3_1083
  - ipython=8.30.0-py312haa95532_0
  - jedi=0.19.2-py312haa95532_0
  - libblas=3.9.0=31_h641d27c_mkl
  - libcblas=3.9.0=31_h5e41251_mkl
  - libexpat=2.6.4=he0c23c2_0
  - libffi=3.4.4=hd77b12b_1
  - libhwloc=2.11.2=default_ha69328c_1001
  - libiconv=1.18-h135ad9c_1
```

删除 Conda 环境

```
MINGW64/c/Users/hp
(hj1)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda deactivate
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~
$ conda env remove -n hj1

Remove all packages in environment D:\ANACONDA\envs\hj1:

## Package Plan ##

environment location: D:\ANACONDA\envs\hj1

The following packages will be REMOVED:

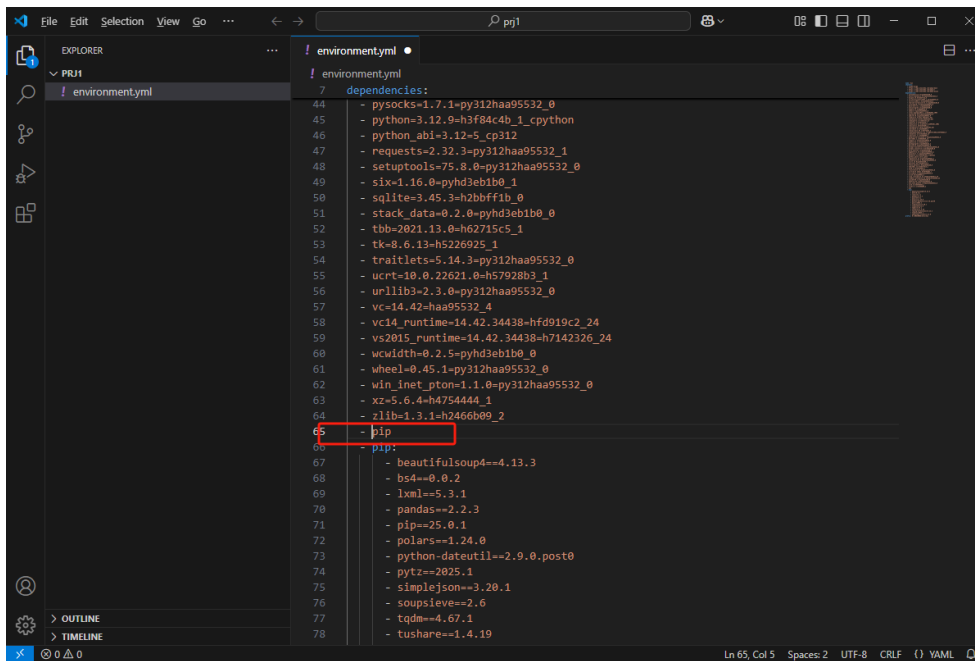
asttokens-2.0.5-pyhd3eb1b0_0
brotli-python-1.0.9-py312h5da7b33_9
bzip2-1.0.8-h2bbff1b_6
ca-certificates-2025.2.25-haa95532_0
certifi-2025.1.31-pyhd8ed1ab_0
charset-normalizer-3.3.2-pyhd3eb1b0_0
colorama-0.4.6-py312haa95532_0
decorator-5.1.1-pyhd3eb1b0_0
executing-0.8.3-pyhd3eb1b0_0
expat-2.6.4-h8ddb27b_0
idna-3.7-py312haa95532_0
intel-openmp-2024.2.1-h57928b3_1083
ipython-8.30.0-py312haa95532_0
```

❖ 用 environment.yml 配置文件重建 Conda 环境时报错

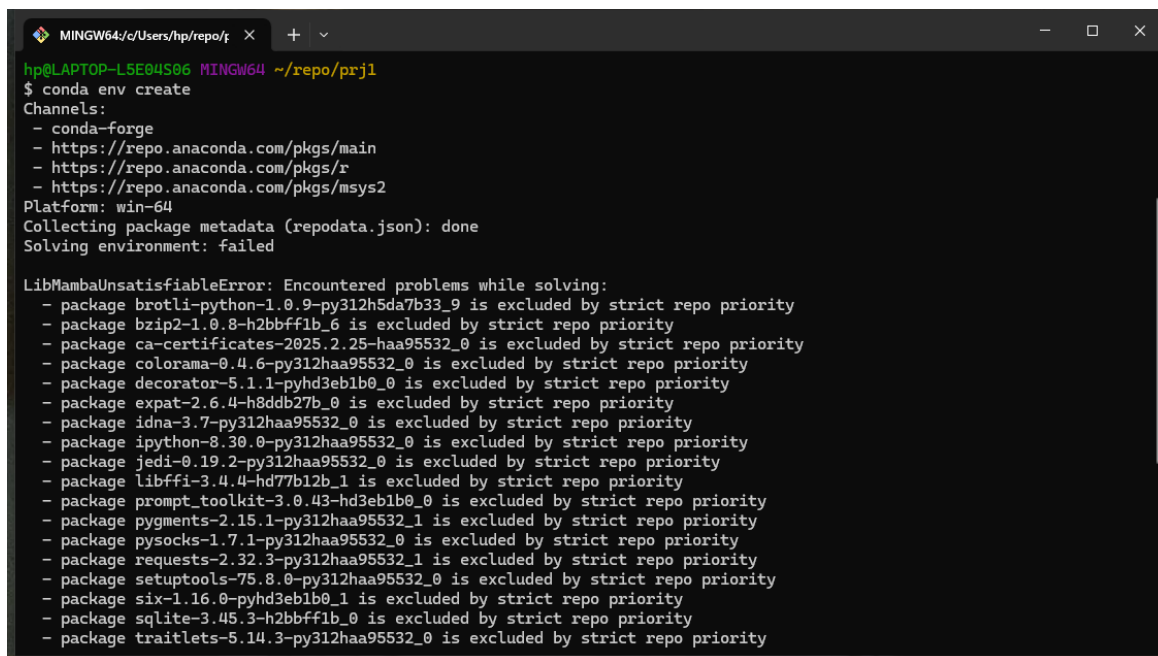
```
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/prj1
$ conda env create
Warning: you have pip-installed dependencies in your environment file, but you do not list pip itself as one of your conda dependencies. Conda may not use the correct pip to install your packages, and they may end up in the wrong place. Please add an explicit pip dependency. I'm adding one for you, but still nagging you.
```

通过询问AI，了解这个警告信息是因为在 environment.yml 文件里使用了 pip 来安装依赖，但没有把 pip 作为 conda 依赖明确列出。为了解决这个问题，需要手动在 environment.yml 中添加 pip 依赖项。

根据AI提示，做出如下操作：打开 environment.yml 文件，在 dependencies 部分添加 pip 依赖



❖ 运行后，再次报错



AI给出的解释是：这些软件包因为严格的仓库优先级设置而被排除，这往往是在设置了严格的渠道优先级后，conda 无法从优先级最高的渠道找到合适的软件包版本所造成的。

在终端里运行：

conda config --set channel_priority flexible 后 问题得到解决。


```
MINGW64 C:\Users\hp\repo\  +  v
Requirement already satisfied: charset-normalizer<4,>=2 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tusha)
Requirement already satisfied: idna<4,>=2.5 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tushare=1.4.19->)
Requirement already satisfied: urllib3<3,>=1.21.1 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tushare=1.)
Requirement already satisfied: certifi>=2017.4.17 in d:\anaconda\envs\hj1\lib\site-packages (from requests->tushare=1.)
Installing collected packages: pytz, websocket-client, tzdata, typing-extensions, tqdm, soupsieve, simplejson, python-de
Successfully installed beautifulsoup4-4.13.3 bs4-0.0.2 lxml-5.3.1 pandas-2.2.3 polars-1.24.0 python-dateutil-2.9.0.post0

done
#
# To activate this environment, use
#
# $ conda activate hj1
#
# To deactivate an active environment, use
#
# $ conda deactivate

(base)
hp@LAPTOP-L5E04506 MINGW64 ~/repo/prj1
$ conda env list

# conda environments:
#
base * D:\ANACONDA
hj1 D:\ANACONDA\envs\hj1
hj2 D:\ANACONDA\envs\hj2

(base)
hp@LAPTOP-L5E04506 MINGW64 ~/repo/prj1
$
```

```
MINGW64~/c:/Users/hp/repo/c  +  -  x
hp@LAPTOP-L5E04S06 MINGW64 ~/repo
$ cd ccprj/
(base)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ ls -l
total 0
-rw-r--r-- 1 hp 197121 0 3月 19 22:47 environment.yml
(base)
done
#
# To activate this environment, use
#
# $ conda activate ccprj
#
# To deactivate an active environment, use
#
# $ conda deactivate

(base)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ conda env list

# conda environments:
#
base                * D:\ANACONDA
ccprj               D:\ANACONDA\envs\ccprj
hj1                 D:\ANACONDA\envs\hj1
hj2                 D:\ANACONDA\envs\hj2

(base)
```

The screenshot shows the PyCharm IDE with the following details:

- Explorer Panel:**
 - environment.yml
 - main.py
- Main Editor Window (main.py):**

```

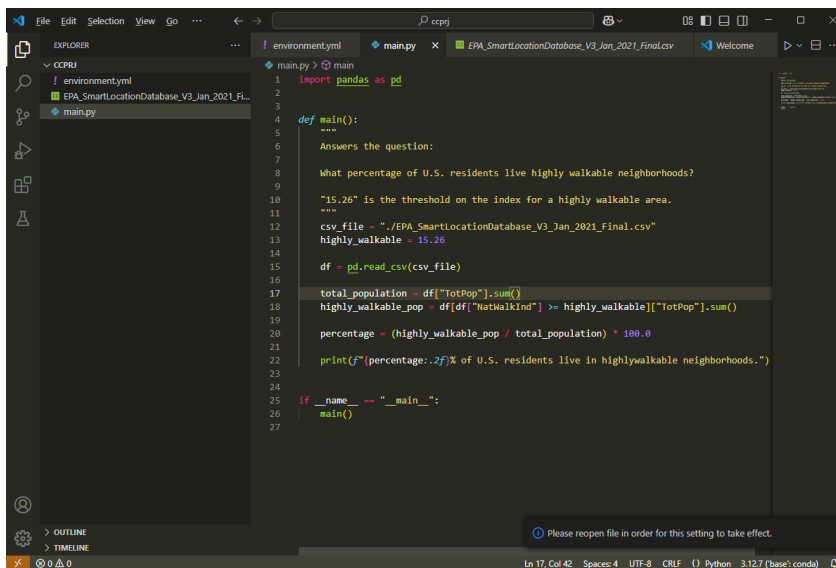
1  import pandas as pd
2
3
4  def main():
5      print("Hello, conda!")
6      print(pd.__version__)
7      print(pd.__file__)
8
9
10 if __name__ == "__main__":
11     main()
12

```
- Status Bar:** Ln 7, Col 23 | 3 Spaces · UTF-8 · CRLF | Python 3.12.7 (base) conda

在该环境中添加pandas 后运行 conda env update 更新环境并成功运行脚本

```
(ccprj)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ python main.py
Hello, conda!
(ccprj)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ python main.py
Hello, conda!
2.2.3
D:\ANACONDA\envs\ccprj\Lib\site-packages\pandas\__init__.py
(ccprj)
```

- 12. 下载csv文件并运行main.py脚本



```
1 import pandas as pd
2
3
4 def main():
5     """
6     Answers the question:
7
8     What percentage of U.S. residents live highly walkable neighborhoods?
9
10    "15.26" is the threshold on the index for a highly walkable area.
11    """
12    csv_file = "../EPA_SmartLocationDatabase_V3_Jan_2021_Final.csv"
13    highly_walkable = 15.26
14
15    df = pd.read_csv(csv_file)
16
17    total_population = df["TotPop"].sum()
18    highly_walkable_pop = df[df["NatWalkInd"] >= highly_walkable]["TotPop"].sum()
19
20    percentage = (highly_walkable_pop / total_population) * 100.0
21
22    print(f"{percentage:.2f}% of U.S. residents live in highlywalkable neighborhoods.")
23
24
25 if __name__ == "__main__":
26     main()
27
```

```
(ccprj)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ curl -O https://edg.epa.gov/EPADDataCommons/public/OA/EPA_SmartLocationDatabase_V3_Jan_2021_Final.csv
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 192M  100 192M    0     0  410k      0  0:07:59  0:07:59 --:--:-- 238k
(ccprj)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ ls -lh
total 193M
-rw-r--r-- 1 hp 197121  83  3月 20 20:07 environment.yml
-rw-r--r-- 1 hp 197121 193M  3月 20 20:27 EPA_SmartLocationDatabase_V3_Jan_2021_Final.csv
-rw-r--r-- 1 hp 197121 161  3月 20 20:17 main.py
(ccprj)
hp@LAPTOP-L5E04S06 MINGW64 ~/repo/ccprj
$ python main.py
10.69% of U.S. residents live in highlywalkable neighborhoods.
```