第三周作业笔记

一、配置好 Conda Init，使得启动终端后，在提示符前能够看到 (base)

base 不单独占用一行

前空一行

二、一些命令

conda info 命令查看本机 Conda 的配置信息

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda info

     active environment : base
    active env location : D:\GQ\anaconda3
            shell level : 1
       user config file : C:\Users\FAN0917\.condarc
 populated config files : D:\GQ\anaconda3\.condarc
          conda version : 24.9.2
    conda-build version : 24.9.0
         python version : 3.12.7.final.0
                 solver : libmamba (default)
       virtual packages : __archspec=1=skylake
                          __conda=24.9.2=0
                          __cuda=10.2=0
                          __win=0=0
       base environment : D:\GQ\anaconda3  (read only)
      conda av data dir : D:\GQ\anaconda3\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 : D:\GQ\anaconda3\pkgs
```

conda env list 命令查看已有的 Conda 环境的名称和路径

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda env list
# conda environments:
#
base                  *  D:\GQ\anaconda3
```

conda create 命令创建两个 Conda 环境
prj1 里面安装 Python 3.12 和 requests 软件包

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda create -n prj1 python=3.12 requests
Channels:
 - defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\FAN0917\.conda\envs\prj1

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

```
done
#
# To activate this environment, use
#
#     $ conda activate prj1
#
# To deactivate an active environment, use
#
#     $ conda deactivate


(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

prj2 里面安装 Python 3.9、pandas 和 statsmodels 软件包

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda create -n prj2 python=3.9 pandas statsmodels
Channels:
 - defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\FAN0917\.conda\envs\prj2

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

```
done
#
# To activate this environment, use
#
#     $ conda activate prj2
#
# To deactivate an active environment, use
#
#     $ conda deactivate


(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

激活 prj1

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda activate prj1
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ which python
/c/Users/FAN0917/.conda/envs/prj1/python
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ python --version
Python 3.12.9
(prj1)
```

激活 prj2

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda activate prj2
(prj2)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ which python
/c/Users/FAN0917/.conda/envs/prj2/python
(prj2)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ python --version
Python 3.9.21
(prj2)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

验证 Python 和软件包的版本

```
FAN0917@LAPTOP-7PDVKG40 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 requests
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ModuleNotFoundError: No module named 'requests'
>>> import pandas
>>> pandas.__file__
'C:\\Users\\FAN0917\\.conda\\envs\\prj2\\lib\\site-packages\\pandas\\__init__.py'
>>> pandas.__version__
'2.2.3'
>>> import statsmodels
>>> statsmodels.__version__
'0.14.4'
>>>
```

conda list 命令显示 Conda 环境里的软件包列表及其版本信息

```
$ conda list
# packages in environment at C:\Users\FAN0917\.conda\envs\prj2:
#
# 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
python-tzdata             2023.3             pyhd3eb1b0_0
pytz                      2024.1           py39haa95532_0
scipy                     1.13.1           py39h8640f81_1
setuptools                72.1.0           py39haa95532_0
six                       1.16.0             pyhd3eb1b0_1
sqlite                    3.45.3               h2bbff1b_0
```

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

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda install ipython
Channels:
 - defaults
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done
```

```
done
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda list
# packages in environment at C:\Users\FAN0917\.conda\envs\prj1:
#
# Name                    Version                   Build  Channel
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         py312haa95532_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
ipython                   8.30.0            py312haa95532_0
jedi                      0.19.2            py312haa95532_0
libffi                    3.4.4                 hd77b12b_1
matplotlib-inline         0.1.6             py312haa95532_0
openssl                   3.0.16                h3f729d1_0
parso                     0.8.4             py312haa95532_0
pip                       25.0              py312haa95532_0
prompt-toolkit            3.0.43            py312haa95532_0
prompt_toolkit            3.0.43                hd3eb1b0_0
```

三、配置 Anaconda 清华镜像

将 conda-forge 设置为默认 Channel

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda activate prj1
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda install polars
Channels:
 - conda-forge
 - https://repo.anaconda.com/pkgs/main
 - https://repo.anaconda.com/pkgs/r
 - https://repo.anaconda.com/pkgs/msys2
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done
```

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ which python
/c/Users/FAN0917/.conda/envs/prj1/python
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ python
Python 3.12.9 | packaged by conda-forge | (main, Mar  4 2025, 22:37:18) [MSC v.1943 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import polars
>>>
```

四、pip install

往 Conda 环境里安装 Python 软件包，并验证版本

```
>>> quit()
(prj1)
FAN0917@LAPTOP-7PDVKG40 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-cp312-win_amd64.whl.metadata (19 kB)
Requirement already satisfied: requests in c:\users\fan0917\.conda\envs\prj1\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 c:\users\fan0917\.conda\envs\prj1\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 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 8.4 MB/s eta 0:00:00
Downloading pandas-2.2.3-cp312-cp312-win_amd64.whl (11.5 MB)
                                              ──── 11.5/11.5 MB 10.4 MB/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 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, tqdm, soupsieve, simplejson, python-dateutil, lxml, pandas, beautifulsoup4, bs4, tushare
Successfully installed beautifulsoup4-4.13.3 bs4-0.0.2 lxml-5.3.1 pandas-2.2.3 python-dateutil-2.9.0.post0 pytz-2025.1 simplejson-3.20.1 soupsieve-2.6 tqdm-4.67.1 tushare-1.4.19 typing-extensions-4.12.2 tzdata-2025.1 websocket-client-1.8.0
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

配置 PyPI 清华镜像

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ python -m pip install --upgrade pip
Requirement already satisfied: pip in c:\users\fan0917\.conda\envs\prj1\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 1.4 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
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ pip config set global.index-url https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Writing to C:\Users\FAN0917\AppData\Roaming\pip\pip.ini
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

```
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ pip install tushare
Looking in indexes: https://mirrors.tuna.tsinghua.edu.cn/pypi/web/simple
Requirement already satisfied: tushare in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (1.4.19)
Requirement already satisfied: pandas in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (2.2.3)
Requirement already satisfied: requests in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (2.32.3)
Requirement already satisfied: lxml in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (5.3.1)
Requirement already satisfied: simplejson in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (3.20.1)
Requirement already satisfied: bs4 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (0.0.2)
Requirement already satisfied: websocket-client>=0.57.0 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (1.8.0)
Requirement already satisfied: tqdm in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tushare) (4.67.1)
Requirement already satisfied: beautifulsoup4 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from bs4->tushare) (4.13.3)
Requirement already satisfied: numpy>=1.26.0 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from pandas->tushare) (2.2.4)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from pandas->tushare) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from pandas->tushare) (2025.1)
Requirement already satisfied: tzdata>=2022.7 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from pandas->tushare) (2025.1)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from requests->tushare) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from requests->tushare) (3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from requests->tushare) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from requests->tushare) (2025.1.31)
Requirement already satisfied: colorama in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from tqdm->tushare) (0.4.6)
Requirement already satisfied: six>=1.5 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from python-dateutil>=2.8.2->pandas->tushare) (1.16.0)
Requirement already satisfied: soupsieve>1.2 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from beautifulsoup4->bs4->tushare) (2.6)
Requirement already satisfied: typing-extensions>=4.0.0 in c:\users\fan0917\.conda\envs\prj1\lib\site-packages (from beautifulsoup4->bs4->tushare) (4.12.2)
(prj1)
```

```
FAN0917@LAPTOP-7PDVKG40 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'
>>>
```

五、environment.yml

```
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda env export
name: prj1
channels:
  - conda-forge
  - https://repo.anaconda.com/pkgs/main
  - https://repo.anaconda.com/pkgs/r
  - https://repo.anaconda.com/pkgs/msys2
dependencies:
```

导出到文件中

```
prefix: C:\Users\FAN0917\.conda\envs\prj1
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda env export -f environment.yml
(prj1)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

删除

```
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda env remove -n prj1

Remove all packages in environment C:\Users\FAN0917\.conda\envs\prj1:


## Package Plan ##

  environment location: C:\Users\FAN0917\.conda\envs\prj1
```

```
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$ conda env list
# conda environments:
#
prj2                     C:\Users\FAN0917\.conda\envs\prj2
base                  *  D:\GQ\anaconda3

(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~
$
```

重建

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo
$ mkdir prj1
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo
$ cd prj1
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ ls -l
total 0
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ mv ~/environment.yml ./
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ conda env list
# conda environments:
#
prj2                     C:\Users\FAN0917\.conda\envs\prj2
base                  *  D:\GQ\anaconda3

(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$
```

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ pwd
/c/Users/FAN0917/repo/prj1
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ ls -l
total 4
-rw-r--r-- 1 FAN0917 197121 2514  3月 18 22:41 environment.yml
(base)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/prj1
$ conda env create
D:\GQ\anaconda3\Lib\argparse.py:2006: FutureWarning: `remote_definition` is deprecated and
```

六、关系理解

以下是对这些概念及关系的简述：

- **Conda 与 Python 的关系**：Conda 是一个跨平台的包管理系统和环境管理系统，它可以用于管理多种语言的软件包和环境，其中包括 Python。Conda 可以创建独立的 Python 环境，每个环境可以有不同的 Python 版本和软件包组合，这有助于解决不同项目对 Python 版本和依赖包的不同需求，避免版本冲突等问题。

- **Conda‑Forge 与 Conda 的关系**：Conda‑Forge 是一个社区驱动的开源项目，为 Conda 提供了大量的软件包。它是 Conda 的一个重要软件包渠道，补充了 Conda 官方渠道中可能缺失的一些软件包，并且通常能提供更及时的软件包更新和更广泛的软件包选择。

- **Python 解释器**：是用于执行 Python 代码的程序。它读取 Python 源代码，将其解释为计算机可以理解的机器码并执行相应操作。不同的 Python 版本可能在语法、性能和内置功能等方面有所不同。

- **第三方软件包**：是由 Python 社区或第三方开发者编写的代码库，用于扩展 Python 的功能。例如，NumPy 用于数值计算，Pandas 用于数据处理，Matplotlib 用于绘图等。这些软件包可以方便开发者快速实现各种复杂功能，而无需从头编写所有代码。

- **PyPI 软件仓库**：即 Python Package Index，是 Python 官方的软件包仓库，包含了大量的第三方 Python 软件包。开发者可以通过工具（如 pip）从 PyPI 上方便地下载和安装所需的软件包。

- **程序 / 软件包的路径问题**：在 Python 中，程序和软件包的路径对于正确运行和导入模块非常重要。当 Python 解释器查找模块时，会按照一定的路径顺序进行搜索。包括当前目录、Python 安装目录下的标准库路径以及通过环境变量等设置的额外路径。如果软件包不在这些路径中，可能需要通过修改环境变量或使用相对路径、绝对路径等方式来确保 Python 能够找到所需的模块和程序。

七、Creating projects

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo
$ cd myproject

(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ cat environment.yml
name: myproject
channels:
  - conda-forge
dependencies:
  - python=3.12
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ pwd
/c/Users/FAN0917/repo/myproject
done
#
# To activate this environment, use
#
#     $ conda activate myproject
#
# To deactivate an active environment, use
#
#     $ conda deactivate


(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ conda env list
# conda environments:
#
myproject                 C:\Users\FAN0917\.conda\envs\myproject
prj2                      C:\Users\FAN0917\.conda\envs\prj2
base                    * D:\GQ\anaconda3


(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```

编写 main.py 脚本

```
$ .bash_profile      ! .condarc      ! environment.yml      🐍 main.py      ✕

repo > myproject > 🐍 main.py > ...
   1   def main():
   2       print("Hello, conda!")
   3
   4
   5   if __name__ == "__main__":
   6       main()
   7
```

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
(myproject)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ conda activate myproject
(myproject)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ conda list
# packages in environment at C:\Users\FAN0917\.conda\envs\myproject:
#
# Name                    Version                   Build  Channel
bzip2                     1.0.8                h2466b09_7    conda-forge
ca-certificates           2025.1.31            h56e8100_0    conda-forge
libexpat                  2.6.4                he0c23c2_0    conda-forge
libffi                    3.4.6                h537db12_0    conda-forge
liblzma                   5.6.4                h2466b09_0    conda-forge
libsqlite                 3.49.1               h67fdade_2    conda-forge
libzlib                   1.3.1                h2466b09_2    conda-forge
openssl                   3.4.1                ha4e3fda_0    conda-forge
pip                       25.0.1             pyh8b19718_0    conda-forge
python                    3.12.9          h3f84c4b_1_cpython    conda-forge
setuptools                75.8.2             pyhff2d567_0    conda-forge
tk                        8.6.13               h5226925_1    conda-forge
tzdata                    2025a                h78e105d_0    conda-forge
done
#
# To activate this environment, use
#
#     $ conda activate myproject
#
# To deactivate an active environment, use
#
libwinpthread             12.0.0.r4.gg4f2fc60ca      h57928b3_9      conda-fo
rge
libxml2                   2.13.6               he286e8c_0    conda-forge
libzlib                   1.3.1                h2466b09_2    conda-forge
mkl                       2024.2.2             h66d3029_15    conda-forge
numpy                     2.2.4            py312h3150e54_0    conda-forge
openssl                   3.4.1                ha4e3fda_0    conda-forge
pandas                    2.2.3            py312h72972c8_1    conda-forge
pip                       25.0.1             pyh8b19718_0    conda-forge
python                    3.12.9          h3f84c4b_1_cpython    conda-forge
python-dateutil           2.9.0.post0        pyhff2d567_1    conda-forge
python-tzdata             2025.1             pyhd8ed1ab_0    conda-forge
python_abi                3.12                    5_cp312    conda-forge
pytz                      2024.1             pyhd8ed1ab_0    conda-forge
setuptools                75.8.2             pyhff2d567_0    conda-forge
six                       1.17.0             pyhd8ed1ab_0    conda-forge
tbb                       2021.13.0            h62715c5_1    conda-forge
tk                        8.6.13               h5226925_1    conda-forge
tzdata                    2025a                h78e105d_0    conda-forge
ucrt                      10.0.22621.0         h57928b3_1    conda-forge
vc                        14.3                 hbf610ac_24    conda-forge
vc14_runtime              14.42.34438          hfd919c2_24    conda-forge
wheel                     0.45.1             pyhd8ed1ab_1    conda-forge
(myproject)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
(myproject)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```

```
$ .bash_profile    ! .condarc    ! environment.yml    🐍 main.py  1  ✕

repo > myproject > 🐍 main.py > 🔷 main
  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
```

```
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
2.2.3
C:\Users\FAN0917\.conda\envs\myproject\Lib\site-packages\pandas\__init__.py
(myproject)
FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```

```
(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$ python main.py
Hello, conda!
2.2.2
D:\GQ\anaconda3\Lib\site-packages\pandas\__init__.py
7.02% of U.S. residents live in highlywalkable neighborhoods.

(base) FAN0917@LAPTOP-7PDVKG40 MINGW64 ~/repo/myproject
$
```