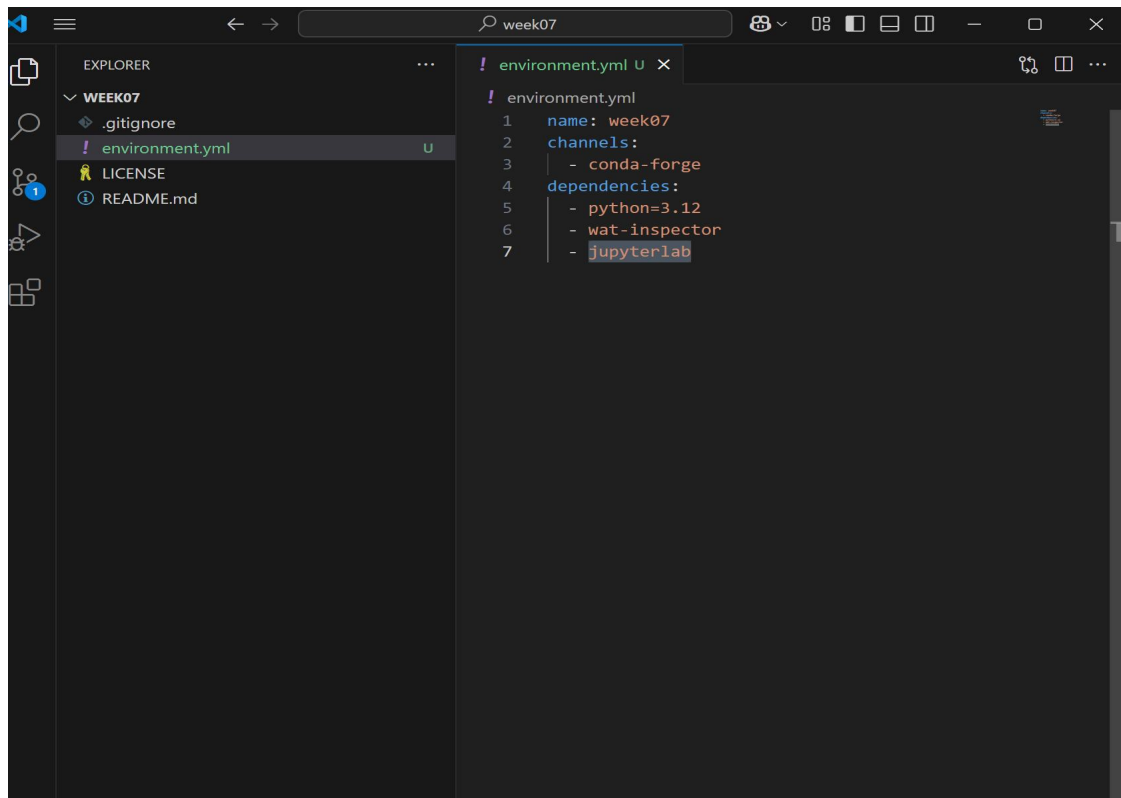


第七周学习报告

1. 复制第六周的环境到第七周

```
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo
$ git clone git@gitcode.com:HYY123abc/week07.git
Cloning into 'week07'...
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 5 (delta 0), reused 5 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (5/5), 8.45 KiB | 1.69 MiB/s, done.
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo
$ ls -l
total 11580
drwxr-xr-x 1 胡爽 197121      0  3月 20 21:25 myproject/
drwxr-xr-x 1 胡爽 197121      0  3月 16 13:37 mywork/
drwxr-xr-x 1 胡爽 197121      0  3月 20 20:23 prj1/
drwxr-xr-x 1 胡爽 197121      0  3月 16 13:37 repo/
-rw-r--r-- 1 胡爽 197121    925  3月 14 11:21 script1.py
drwxr-xr-x 1 胡爽 197121      0  3月 14 16:43 week01/
drwxr-xr-x 1 胡爽 197121      0  3月 16 14:16 week02/
drwxr-xr-x 1 胡爽 197121      0  3月 21 10:09 week03/
drwxr-xr-x 1 胡爽 197121      0  3月 29 22:34 week04/
drwxr-xr-x 1 胡爽 197121      0  4月  7 08:54 week05/
drwxr-xr-x 1 胡爽 197121      0  4月 22 16:29 week06/
drwxr-xr-x 1 胡爽 197121      0  4月 22 16:51 week06_2375/
drwxr-xr-x 1 胡爽 197121      0  5月  5 18:37 week07/
-rw-r--r-- 1 胡爽 197121      0  3月 19 16:03 week01
-rw-r--r-- 1 胡爽 197121 11824906  3月 21 10:20 第三周学习报告.pdf
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo
$ cp week06/environment.yml week07/
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo
$ |
```

2. 安装 jupyterlab



3. 创建环境

```
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ ls -l
total 25
-rw-r--r-- 1 胡爽 197121 107 5月 5 18:54 environment.yml
-rw-r--r-- 1 胡爽 197121 18805 5月 5 18:37 LICENSE
-rw-r--r-- 1 胡爽 197121 2239 5月 5 18:37 README.md
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ conda env create
D:\Anaconda\Lib\argparse.py:2006: FutureWarning: 'remote_definition' is deprecated and will be removed in 25.9. Use 'conda env create --file=URL' in
stead.
  action(self, namespace, argument_values, option_string)
Retrieving notices: ...working... done
Channels:
- conda-forge
- https://mirrors.tuna.tsinghua.edu.cn/anaconda/pkgsg/free
- defaults
- https://repo.anaconda.com/pkgsg/main
- https://repo.anaconda.com/pkgsg/r
- https://repo.anaconda.com/pkgsg/msys2
Platform: win-64
Collecting package metadata (repodata.json): done
Solving environment: done

done
#
# To activate this environment, use
#
#     $ conda activate week07
#
# To deactivate an active environment, use
#
#     $ conda deactivate
#
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$
```

4. 激活并运行 ipython

```
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ conda activate week07
(week07)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ ipython
Python 3.12.10 | packaged by conda-forge | (main, Apr 10 2025, 22:08:16) [MSC v.1943 64 bit (AMD64)]
Type 'copyright', 'credits' or 'license' for more information
IPython 9.2.0 -- An enhanced Interactive Python. Type '?' for help.
Tip: Put a ';' at the end of a line to suppress the printing of output.

In [1]: quit
(week07)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ |
```

5. 启动 jupyter notebook

```
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ jupyter notebook
[2025-05-05 19:10:06.412 ServerApp] Extension package jupyter_lsp took 0.1316s to import
[W 2025-05-05 19:10:06.412 ServerApp] A `jupyter_server_extension_points` function was not found in jupyter_lsp. Instead, a `jupyter_server_extens
ion_paths` function was found and will be used for now. This function name will be deprecated in future releases of Jupyter Server.
[I 2025-05-05 19:10:06.539 ServerApp] Extension package jupyter_server_terminals took 0.1243s to import
[W 2025-05-05 19:10:06.852 ServerApp] A `jupyter_server_extension_points` function was not found in notebook_shim. Instead, a `jupyter_server_exte
nion_paths` function was found and will be used for now. This function name will be deprecated in future releases of Jupyter Server.
[I 2025-05-05 19:10:09.140 ServerApp] Extension package panel.io.jupyter_server_extension took 2.2952s to import
[I 2025-05-05 19:10:09.140 ServerApp] jupyter_lsp | extension was successfully linked.
[I 2025-05-05 19:10:09.156 ServerApp] jupyter_server_terminals | extension was successfully linked.
[I 2025-05-05 19:10:09.163 ServerApp] jupyterlab | extension was successfully linked.
[I 2025-05-05 19:10:09.164 ServerApp] notebook | extension was successfully linked.
[I 2025-05-05 19:10:09.175 ServerApp] Writing Jupyter server cookie secret to C:\Users\胡爽\AppData\Roaming\jupyter\runtime\jupyter_cookie_secret
[I 2025-05-05 19:10:09.696 ServerApp] notebook_shim | extension was successfully linked.
[I 2025-05-05 19:10:09.696 ServerApp] panel.io.jupyter_server_extension | extension was successfully linked.
[I 2025-05-05 19:10:09.776 ServerApp] notebook_shim | extension was successfully loaded.
[I 2025-05-05 19:10:09.776 ServerApp] jupyter_lsp | extension was successfully loaded.
[I 2025-05-05 19:10:09.781 ServerApp] jupyter_server_terminals | extension was successfully loaded.
[I 2025-05-05 19:10:09.781 LabApp] JupyterLab extension loaded from D:\Anaconda\Lib\site-packages\jupyterlab
[I 2025-05-05 19:10:09.781 LabApp] JupyterLab application directory is D:\Anaconda\share\jupyterlab
[I 2025-05-05 19:10:09.781 LabApp] Extension Manager is 'pypi'.
[I 2025-05-05 19:10:10.014 ServerApp] jupyterlab | extension was successfully loaded.
[I 2025-05-05 19:10:10.029 ServerApp] notebook | extension was successfully loaded.
[I 2025-05-05 19:10:10.029 ServerApp] panel.io.jupyter_server_extension | extension was successfully loaded.
[I 2025-05-05 19:10:10.029 ServerApp] Serving notebooks from local directory: C:\Users\胡爽\repo\week07
[I 2025-05-05 19:10:10.029 ServerApp] Jupyter Server 2.14.1 is running at:
[I 2025-05-05 19:10:10.029 ServerApp] http://localhost:8888/tree?token=55c4eb5c3832c4ba8b28c05bfad4d30d904f8ff133810a94
[I 2025-05-05 19:10:10.029 ServerApp] http://127.0.0.1:8888/tree?token=55c4eb5c3832c4ba8b28c05bfad4d30d904f8ff133810a94
[I 2025-05-05 19:10:10.029 ServerApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 2025-05-05 19:10:10.094 ServerApp]

To access the server, open this file in a browser:
file:///C:/Users/%E8%83%A1%E7%88%BD/AppData/Roaming/jupyter/runtime/jpserver-31464-open.html
Or copy and paste one of these URLs:
http://localhost:8888/tree?token=55c4eb5c3832c4ba8b28c05bfad4d30d904f8ff133810a94
http://127.0.0.1:8888/tree?token=55c4eb5c3832c4ba8b28c05bfad4d30d904f8ff133810a94
[2025-05-05 19:10:10.094 ServerApp] Skipped non-installed server(s): bash-language-server, dockerfile-language-server-nodejs, javascript-typescrip
t-languageserver, jedi-language-server, julia-language-server, pyright, python-language-server, r-languageserver, sql-language-server, texlab, typescrip
t-language-server, unified-language-server, vscode-css-languageserver-bin, vscode-html-languageserver-bin, vscode-json-languageserver-bin, yaml-lang
uage-server
```

Project Jupyter | Home

Home

127.0.0.1:8888/tree

点此搜索

jupyter

FileViewSettingsHelp

FilesRunning

Select items to perform actions on them.

NewUploadC

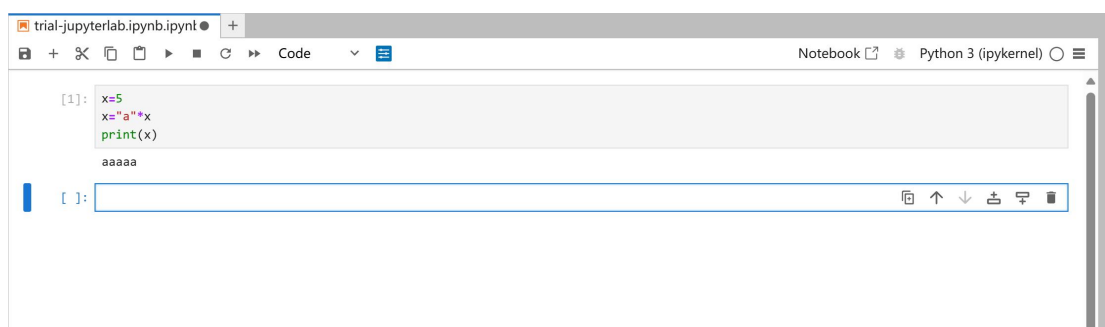
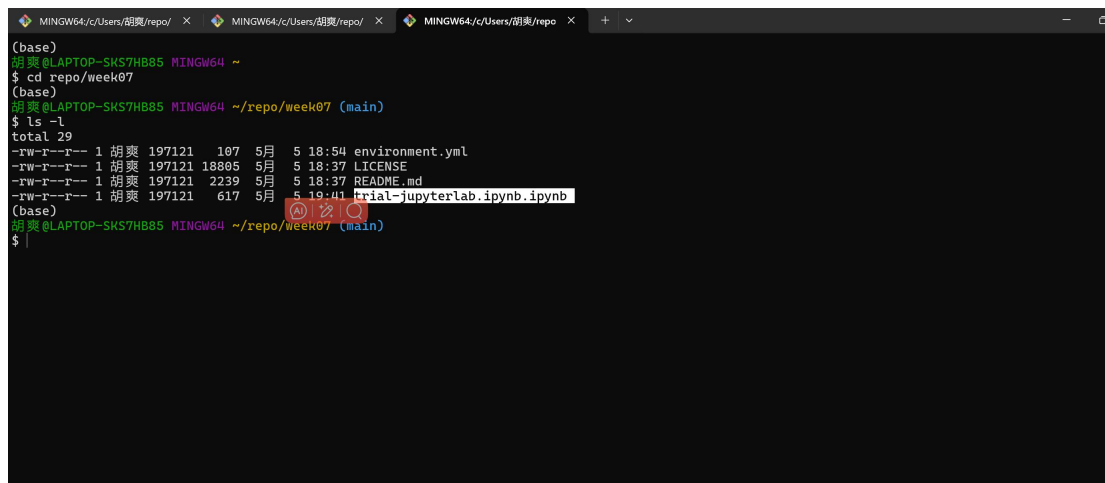
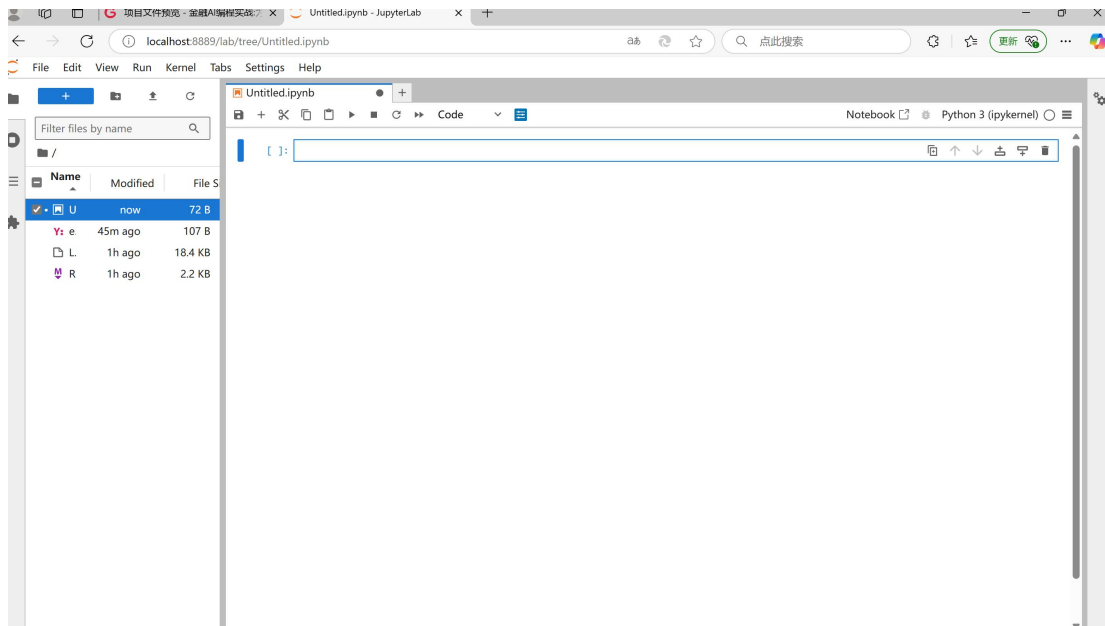
Name	Last Modified	File Size
environment.yml	21 minutes ago	107 B
LICENSE	38 minutes ago	18.4 KB
README.md	38 minutes ago	2.2 KB

MINGW64/c/Users/胡爽/repo/ x MINGW64/c/Users/胡爽/repo/ x + v

```
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~
$ cd repo/week07
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ ls -l
total 25
-rw-r--r-- 1 胡爽 197121 107 5月 5 18:54 environment.yml
-rw-r--r-- 1 胡爽 197121 18885 5月 5 18:37 LICENSE
-rw-r--r-- 1 胡爽 197121 2239 5月 5 18:37 README.md
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ conda activate
(base)
胡爽@LAPTOP-SKS7HB85 MINGW64 ~/repo/week07 (main)
$ jupyter lab
[I 2025-05-05 19:36:39.696 ServerApp] jupyter_lsp | extension was successfully linked.
[I 2025-05-05 19:36:39.702 ServerApp] jupyter_server_terminals | extension was successfully linked.
[I 2025-05-05 19:36:39.702 ServerApp] JupyterLab | extension was successfully linked.
[I 2025-05-05 19:36:39.718 ServerApp] notebook | extension was successfully linked.
[I 2025-05-05 19:36:40.004 ServerApp] notebook_shim | extension was successfully linked.
[I 2025-05-05 19:36:40.004 ServerApp] panel.io.jupyter_server_extension | extension was successfully linked.
[I 2025-05-05 19:36:40.004 ServerApp] notebook_shim | extension was successfully loaded.
[I 2025-05-05 19:36:40.007 ServerApp] jupyter_lsp | extension was successfully loaded.
[I 2025-05-05 19:36:40.007 ServerApp] jupyter_server_terminals | extension was successfully loaded.
[I 2025-05-05 19:36:40.007 LabApp] JupyterLab extension loaded from D:\Anaconda\Lib\site-packages\jupyterlab
[I 2025-05-05 19:36:40.007 LabApp] Extension Manager is 'pypi'.
[I 2025-05-05 19:36:40.261 ServerApp] jupyterlab | extension was successfully loaded.
[I 2025-05-05 19:36:40.273 ServerApp] notebook | extension was successfully loaded.
[I 2025-05-05 19:36:40.273 ServerApp] panel.io.jupyter_server_extension | extension was successfully loaded.
[I 2025-05-05 19:36:40.273 ServerApp] The port 8888 is already in use, trying another port.
[I 2025-05-05 19:36:40.273 ServerApp] Serving notebooks from local directory: C:\Users\胡爽\repo\week07
[I 2025-05-05 19:36:40.273 ServerApp] Jupyter Server 2.14.1 is running at:
[I 2025-05-05 19:36:40.273 ServerApp] http://localhost:8889/lab?token=cdba43eb091cf3aa5211124b5fa9eaf5e1ffcfd2254476
[I 2025-05-05 19:36:40.273 ServerApp] http://127.0.0.1:8889/lab?token=cdba43eb091cf3aa5211124b5fa9eaf5e1ffcfd2254476
[I 2025-05-05 19:36:40.273 ServerApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 2025-05-05 19:36:40.320 ServerApp]

To access the server, open this file in a browser:
file:///C:/Users/%E8%83%A1%E7%88%BD/AppData/Roaming/jupyter/runtime/jpserver-1704-open.html
Or copy and paste one of these URLs:
http://localhost:8889/lab?token=cdba43eb091cf3aa5211124b5fa9eaf5e1ffcfd2254476
```

6. 新建 notebook



7. 实践以下功能

在单元格 (Cell) 里编写 Python 代码，按 Shift+Enter 运行 Cell 并下移

在单元格 (Cell) 上按 ESC 切换到命令模式(command mode)，按 Enter 切换到编写模式(edit mode)

在单元格 (Cell) 的命令模式下，按 j 选择下一个，按 k 选择上一个，按 a 在上方添加，按 b 在下方添加，按 dd 删除，按住 Shift 多选，按 x 剪切，按 c 复制，按 v 粘贴，按 Shift+M 合并，按 z 撤销，按 Shift+Z 重做，按 Shift+L 显示/隐藏代码行号

在单元格 (Cell) 的编写模式下，按 Ctrl+Shift+- 切分单元格

按按钮显示/隐藏 Minimap

运行单元格 (Cell) 注意序号单调递增

单元格最后一行如果是表达式(expression) 且运行后返回的对象不是 `None`, 则计输出 (Out), 否则只计输入 (In), 序号为 `i` 的输出, 可以用 `_i` 变量来引用

单元格 (Cell) 序号为 `*` 表示代码运行中, 尚未返回, 按 `ii` 可以打断 (KeyboardInterrupt) (类似于终端的 `Ctrl+C`)

在单元格 (Cell) 的命令模式下, 按 `00` 重启后端 Python 解释器 (被 Jupyter 称为 Kernel), 重启后需要从上至下重新运行一遍代码 (`Shift+Enter`), 运行前建议先在菜单里选择 “Edit / Clear Outputs of All Cells” 清空全部页面显示的输出

在单元格 (Cell) 的命令模式下, 按 `m` 切换至 Markdown 模式, 按 `y` 切换至 Python 模式

