



数据挖掘

Data Mining

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廈門大學
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Python基础实验一



Anaconda



实验任务



结果提交

1. Anaconda

■ Anaconda, 中文大蟒蛇, 是一个开源的Python发行版本, 其包含了conda、Python等180多个科学包及其依赖项结合

■ 下载: <https://www.anaconda.com/download>

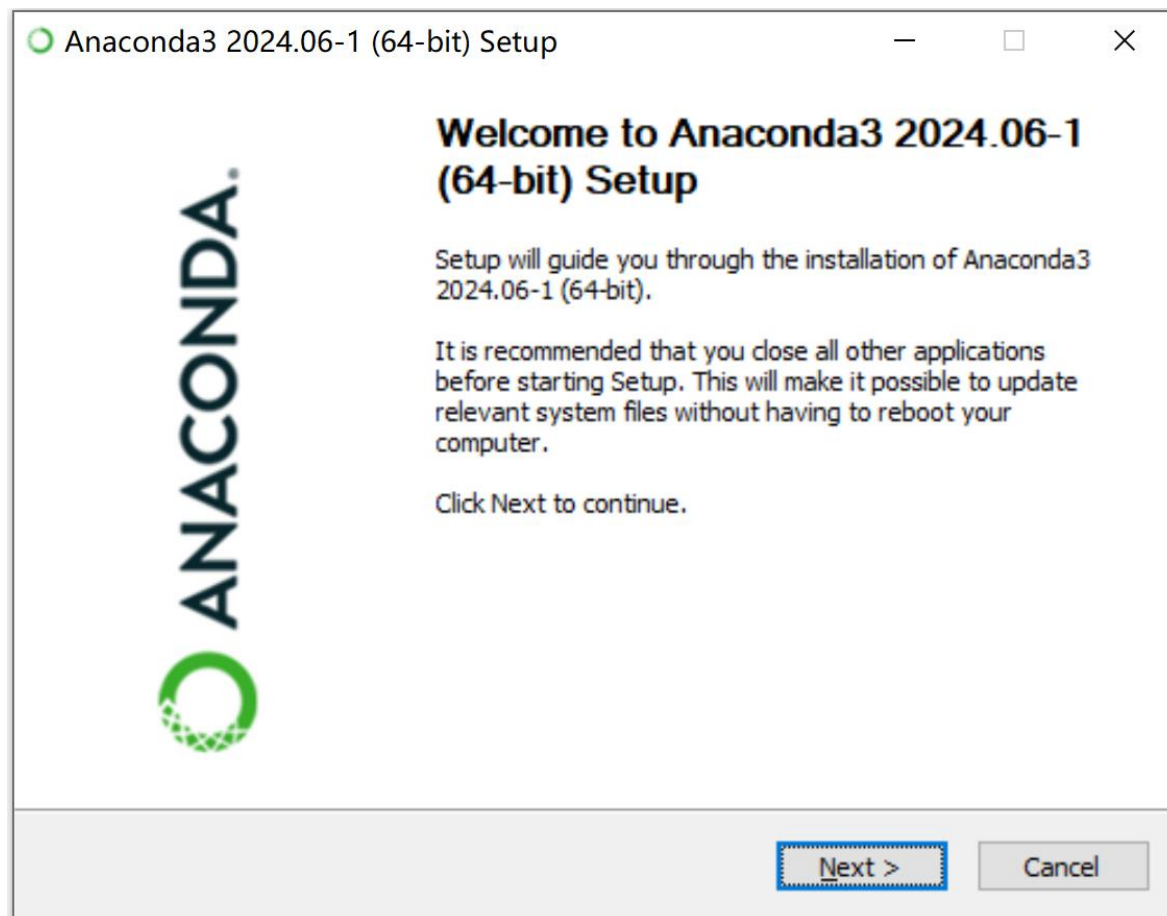
○ Anaconda3-2024.06-1-Windows-x86_64

■ 安装: <https://docs.anaconda.com/free/anaconda/install/>



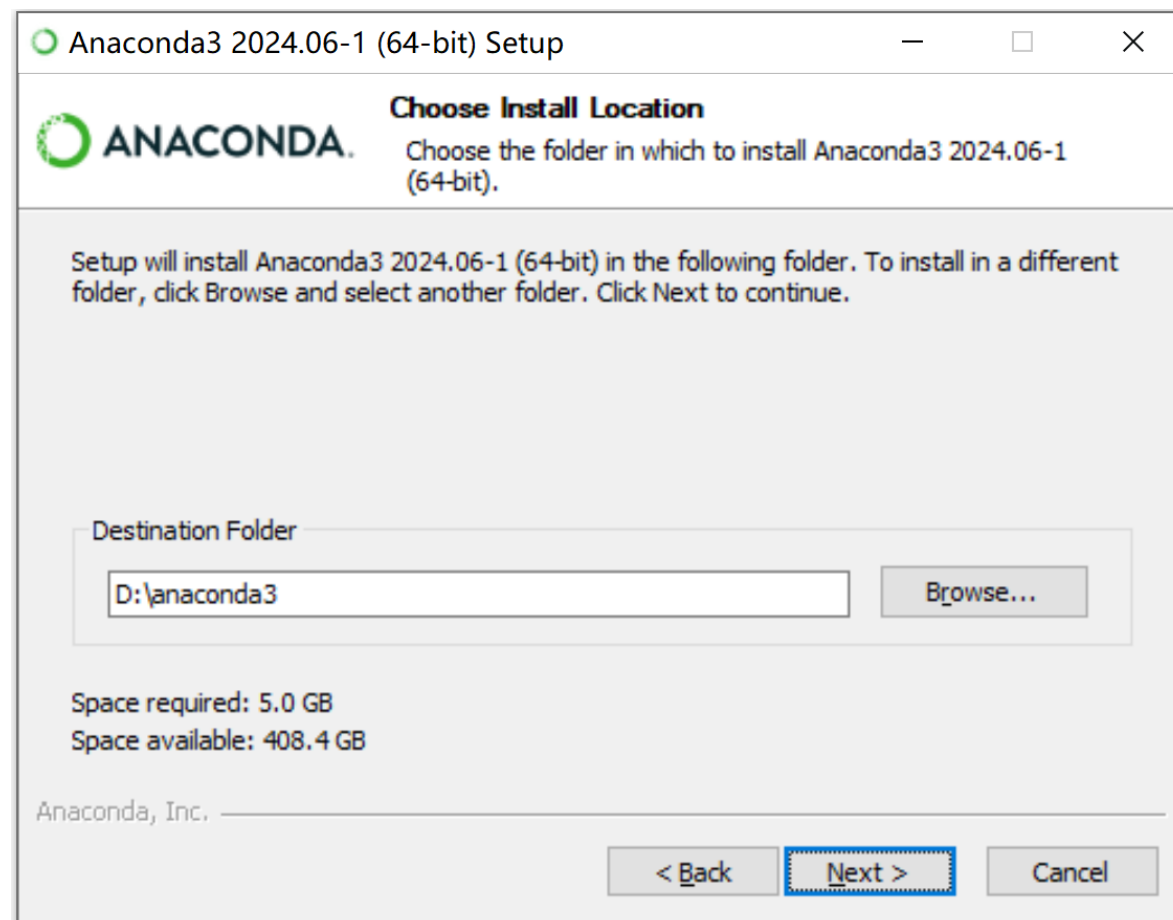
1. Anaconda

■ 安装: <https://docs.anaconda.com/free/anaconda/install/>



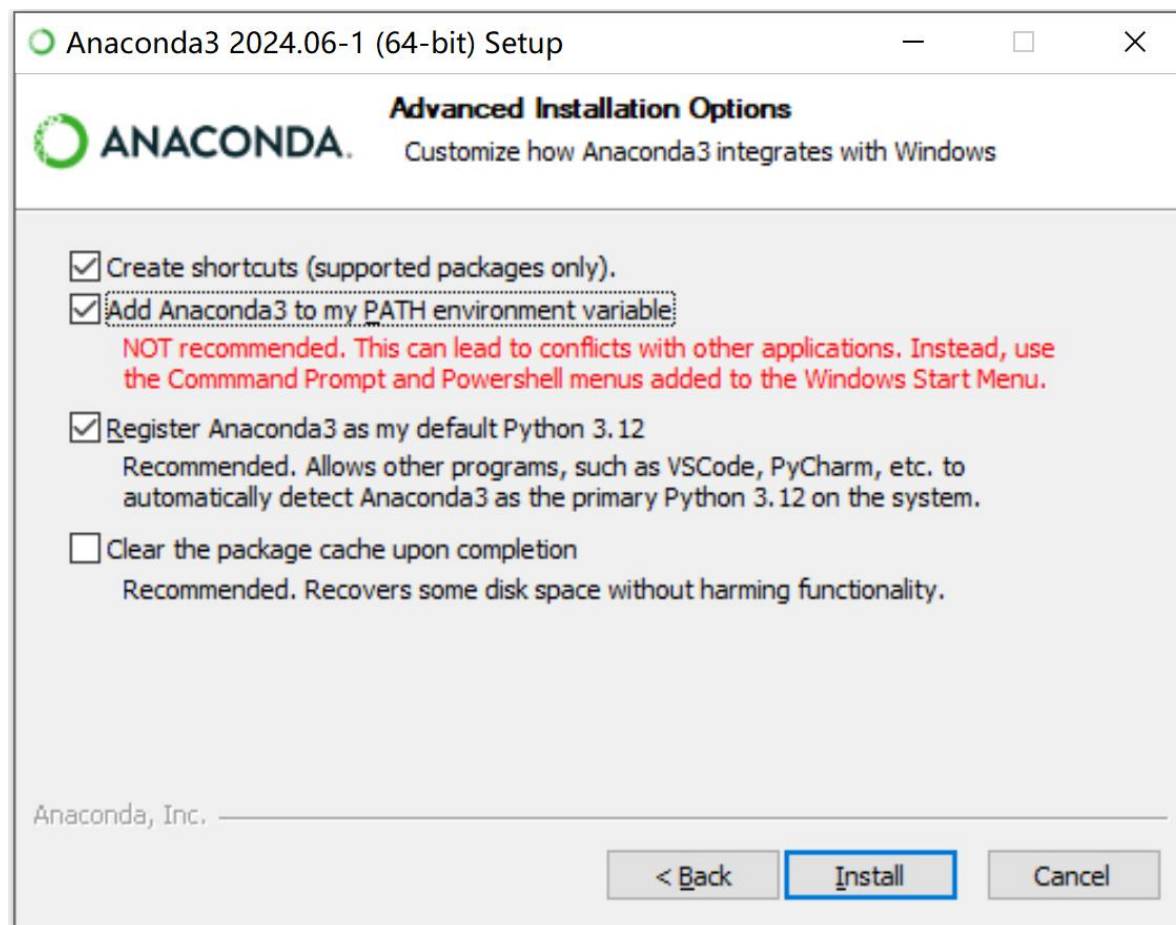
1. Anaconda

■安装: <https://docs.anaconda.com/free/anaconda/install/>



1. Anaconda

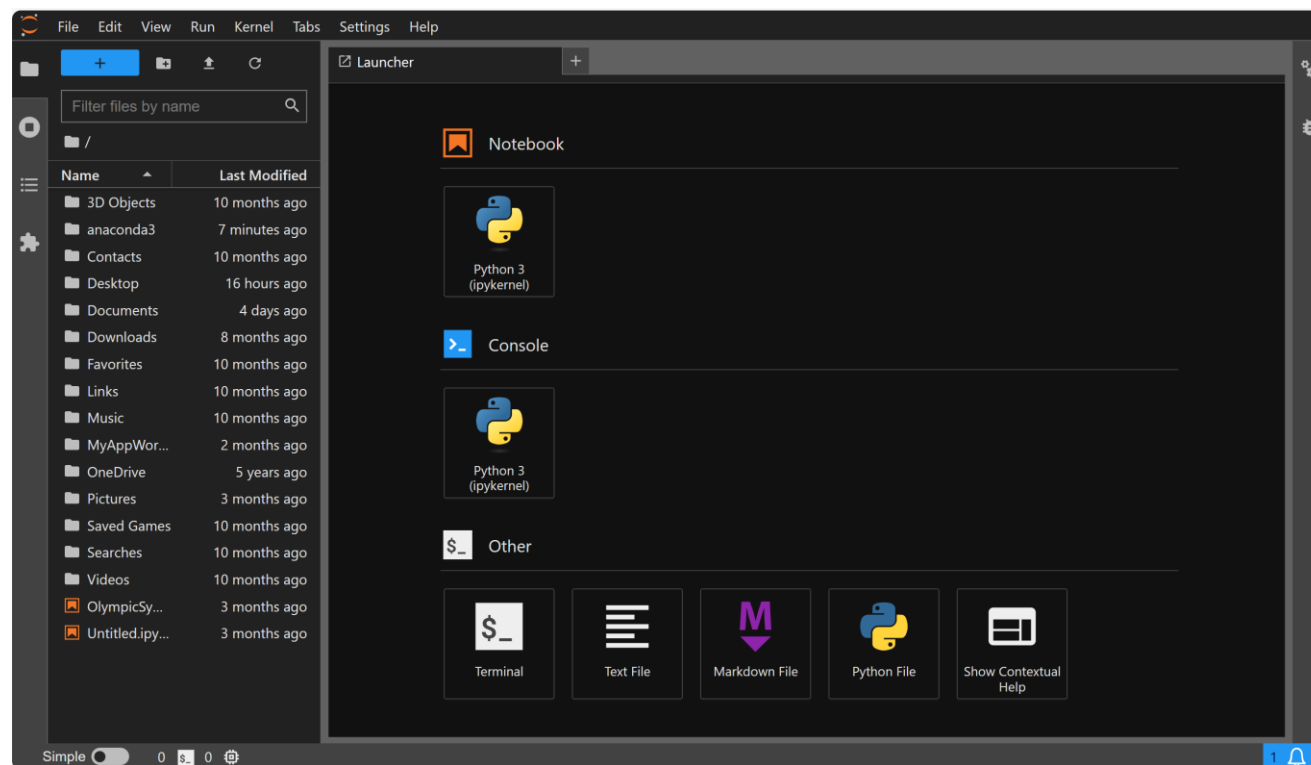
■ 安装: <https://docs.anaconda.com/free/anaconda/install/>



1. Anaconda

JupyterLab

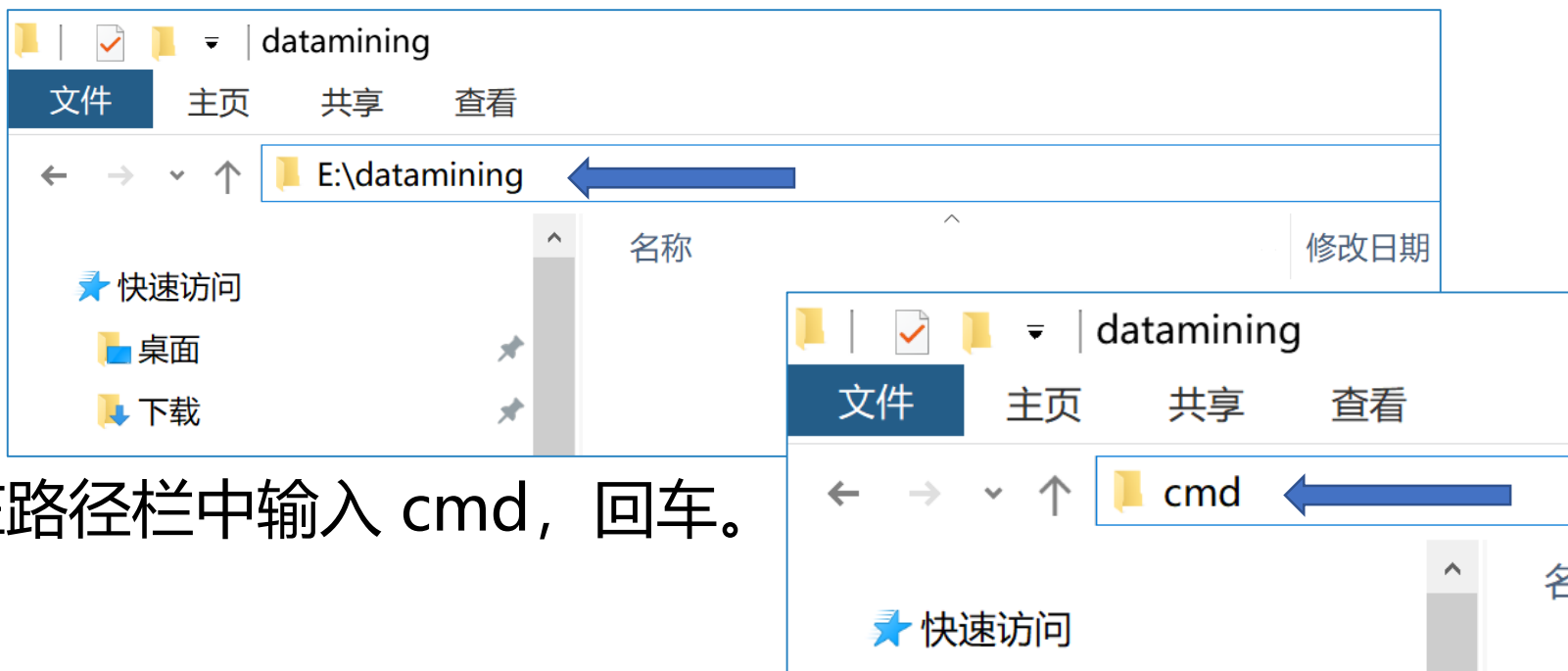
- JupyterLab 是 Jupyter Notebook 的下一代用户界面。它是一个基于 Web 的交互式开发环境，可以让用户以可视化的方式编辑、运行和分享代码。



1. Anaconda

JupyterLab

- 选定要存放Jupyter源文件的目录（比如：E:\datamining）。
- 在文件资源管理器中打开该目录。

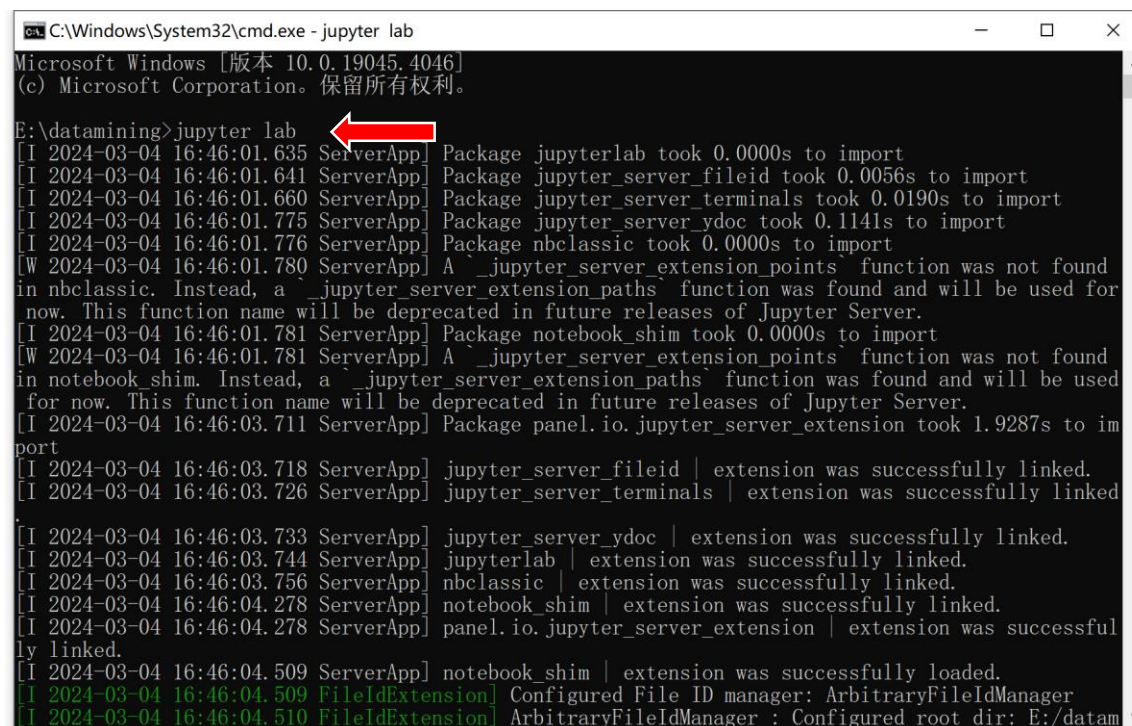


- 在路径栏中输入 cmd，回车。

1. Anaconda

JupyterLab

- 在弹出的界面光标处输入 `jupyter lab`，回车。
- 服务启动成功，**浏览器**中出现JupyterLab界面。



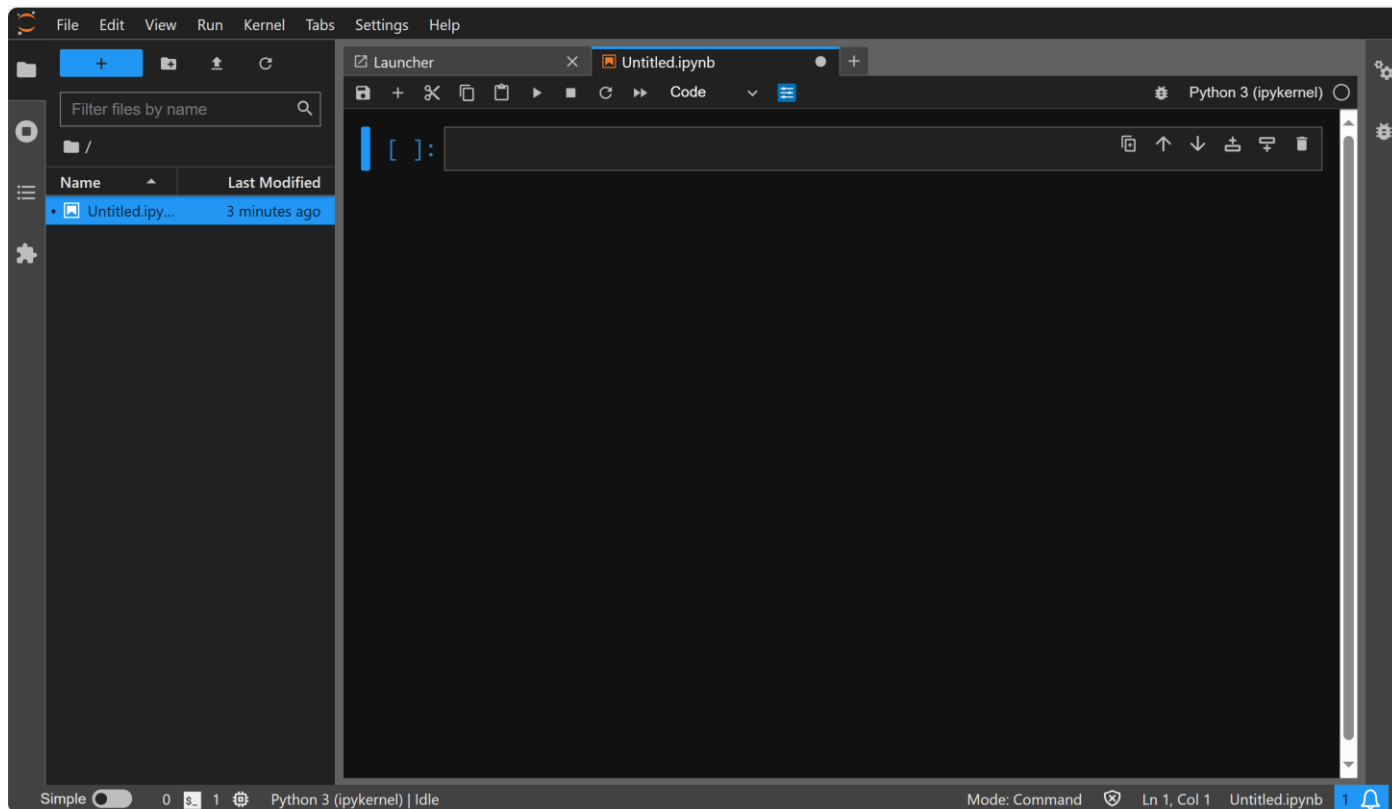
```
C:\Windows\System32\cmd.exe - jupyter lab
Microsoft Windows [版本 10.0.19045.4046]
(c) Microsoft Corporation. 保留所有权利。

E:\datamining>jupyter lab
[I 2024-03-04 16:46:01.635 ServerApp] Package jupyterlab took 0.0000s to import
[I 2024-03-04 16:46:01.641 ServerApp] Package jupyter_server_fileid took 0.0056s to import
[I 2024-03-04 16:46:01.660 ServerApp] Package jupyter_server_terminals took 0.0190s to import
[I 2024-03-04 16:46:01.775 ServerApp] Package jupyter_server_ydoc took 0.1141s to import
[I 2024-03-04 16:46:01.776 ServerApp] Package nbclassic took 0.0000s to import
[W 2024-03-04 16:46:01.780 ServerApp] A `_jupyter_server_extension_points` function was not found
in nbclassic. Instead, a `_jupyter_server_extension_paths` function was found and will be used for
now. This function name will be deprecated in future releases of Jupyter Server.
[I 2024-03-04 16:46:01.781 ServerApp] Package notebook_shim took 0.0000s to import
[W 2024-03-04 16:46:01.781 ServerApp] A `_jupyter_server_extension_points` function was not found
in notebook_shim. Instead, a `_jupyter_server_extension_paths` function was found and will be used
for now. This function name will be deprecated in future releases of Jupyter Server.
[I 2024-03-04 16:46:03.711 ServerApp] Package panel.io.jupyter_server_extension took 1.9287s to im
port
[I 2024-03-04 16:46:03.718 ServerApp] jupyter_server_fileid | extension was successfully linked.
[I 2024-03-04 16:46:03.726 ServerApp] jupyter_server_terminals | extension was successfully linked
.
[I 2024-03-04 16:46:03.733 ServerApp] jupyter_server_ydoc | extension was successfully linked.
[I 2024-03-04 16:46:03.744 ServerApp] jupyterlab | extension was successfully linked.
[I 2024-03-04 16:46:03.756 ServerApp] nbclassic | extension was successfully linked.
[I 2024-03-04 16:46:04.278 ServerApp] notebook_shim | extension was successfully linked.
[I 2024-03-04 16:46:04.278 ServerApp] panel.io.jupyter_server_extension | extension was successfu
ly linked.
[I 2024-03-04 16:46:04.509 ServerApp] notebook_shim | extension was successfully loaded.
[I 2024-03-04 16:46:04.509 FileIdExtension] Configured File ID manager: ArbitraryFileManager
[I 2024-03-04 16:46:04.510 FileIdExtension] ArbitraryFileManager : Configured root dir: E:/datam
```

1. Anaconda

JupyterLab

- 点击JupyterLab界面中的 Notebook 下的 Python 3图标。



1. Anaconda

JupyterLab

■ 在线帮助: <https://jupyterlab.readthedocs.io/en/stable/>

The screenshot displays the JupyterLab web application interface. On the left is a file browser sidebar with a search bar and a list of files and folders. The main area is divided into several panes. At the top, there's a 'Launcher' tab showing a list of files: 'audio', 'images', 'Cpp.ipynb', 'Data.ipynb', 'Fasta.ipynb', 'Julia.ipynb', 'Lorenz.ip...', 'lorenz.py', and 'R.ipynb'. Below this is a 'Code' editor pane showing a Python script for solving the Lorenz differential equations. The script includes an interactive widget for parameters sigma, beta, and rho. Below the code editor is an 'Output View' pane showing the same interactive widget with sliders for sigma (10.00), beta (2.63), and rho (28.00). At the bottom right is a 'Terminal' pane showing the execution of the code, which includes a 3D plot of the Lorenz attractor. The status bar at the bottom indicates the current file is 'lorenz.py' and the kernel is 'Python 3 (ipykernel)'.

```
[2]: from lorenz import solve_lorenz
w=interactive(solve_lorenz,sigma=(0.0,50.0),rho=(0.0,50.0))
w
```

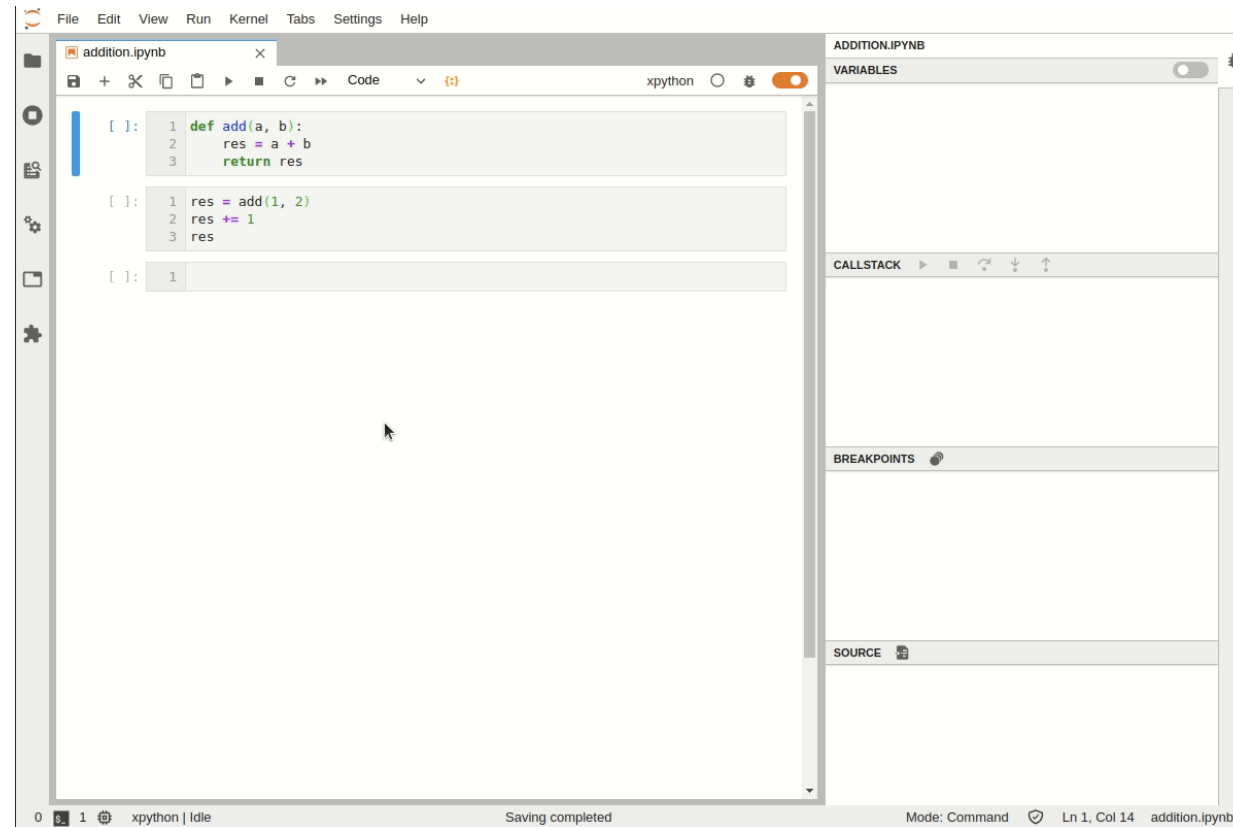
```
[2]: sigma 10.00
      beta 2.63
      rho 28.00
```

```
1 from matplotlib import pyplot as plt
2 from mpl_toolkits.mplot3d import Axes3D
3 import numpy as np
4 from scipy import integrate
5
6 def solve_lorenz(sigma=10.0, beta=8./3, rho=28.0):
7     """Plot a solution to the Lorenz differential
8     equations."""
9
10    max_time = 4.0
11    N = 30
12
13    fig = plt.figure()
14    ax = fig.add_axes([0, 0, 1, 1], projection='3d')
15    ax.axis('off')
```

1. Anaconda

JupyterLab

■ Debug: <https://jupyterlab.readthedocs.io/en/stable/user/debugger.html>





Anaconda



实验任务



结果提交

2. 实验任务

自主学习

- 1.1 Python介绍
- 1.2 常见数据结构和基本语句
- 1.3 函数和模块
- 1.4 异常处理
- 1.5 文件读写

2. 实验任务

实验作业

- 完成 “学号-姓名 python基础实验1.ipynb” 中的实验作业



Anaconda



实验任务



结果提交

3. 结果提交

提交要求

- 补充 “学号-姓名 python基础实验1.ipynb” 文件名中的完整学号与完整姓名
- 在该文件中将实验结果（代码或解释）补充完整
- 在Int课程平台中提交该文件
- 截至时间：2024.09.18 23:59
- 请注意：不接收迟交作业！要独立完成，不允许抄袭！