

Anaconda

- Install [Anaconda](https://anaconda.org/) (Python distribution for data science with popular libraries and tools)
- Download the latest version of Anaconda for Python 3 <https://anaconda.org/>

Anaconda installs both Python and Jupyter Notebook



 Windows

 macOS

 Linux

Python 3.6 version *

 Download

[64-Bit Graphical Installer \(631 MB\)](#) 

[32-Bit Graphical Installer \(506 MB\)](#)

Python 2.7 version *

 Download

[64-Bit Graphical Installer \(564 MB\)](#) 

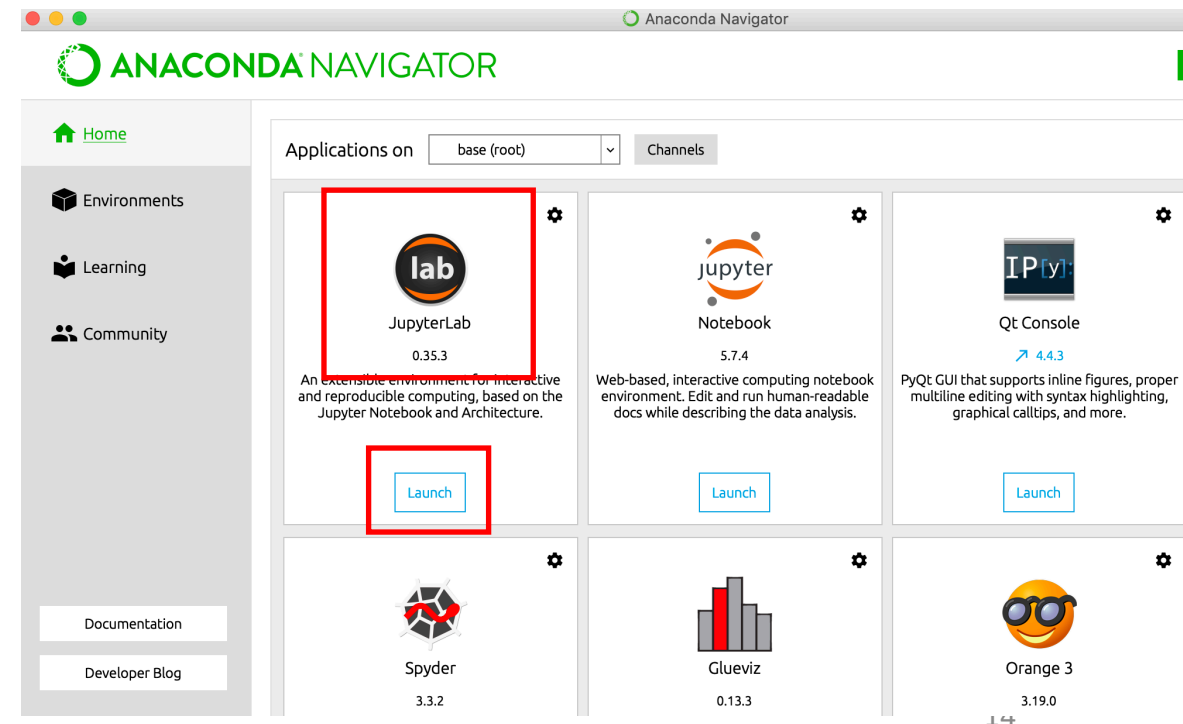
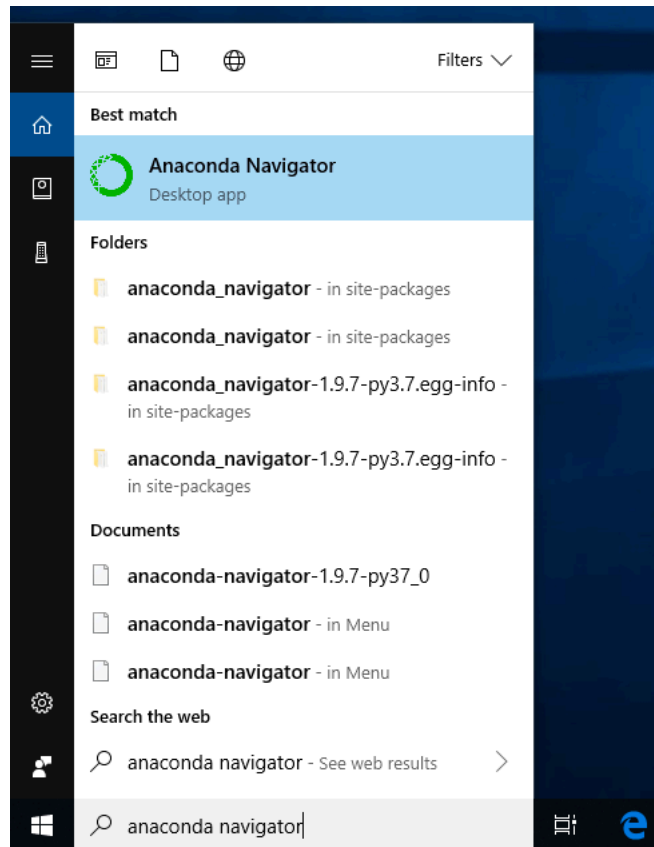
[32-Bit Graphical Installer \(443 MB\)](#)

Anaconda Navigator

Search for the Anaconda Navigator Icon



Start Menu:
Type -
anaconda navigator



JupyterLab Interface

- **File:** actions related to files and directories
- **Edit:** actions related to editing documents and other activities
- **View:** actions that alter the appearance of JupyterLab
- **Run:** actions for running code in different activities such as notebooks and code consoles
- **Kernel:** actions for managing kernels, which are separate processes for running code
- **Tabs:** a list of the open documents and activities in the dock panel
- **Settings:** common settings and an advanced settings editor
- **Help:** a list of JupyterLab and kernel help links

Open Tabs

File Browser

Current Running Notebooks

Collapsible Left menu - on Click

The screenshot displays the JupyterLab interface. On the left, a vertical sidebar contains a 'Collapsible Left menu' with icons for Files, Running, Commands, Cell Tools, and Tabs. The 'Files' panel shows a list of notebooks and files, including 'Data.ipynb', 'Fasta.ipynb', 'Julia.ipynb', 'Lorenz.ipynb' (selected), 'R.ipynb', 'iris.csv', 'lightning.json', and 'lorenz.py'. The 'Running' panel shows the status of running notebooks. The main area is divided into three panes: a top pane for the notebook content, a bottom-left pane for the 'Output View' showing a Lorenz attractor plot, and a bottom-right pane for the 'lorenz.py' code editor. The notebook content shows a text description of the Lorenz system and a code cell with the following Python code:

```
In [4]: from lorenz import solve_lorenz
t, x_t = solve_lorenz(N=10)
```

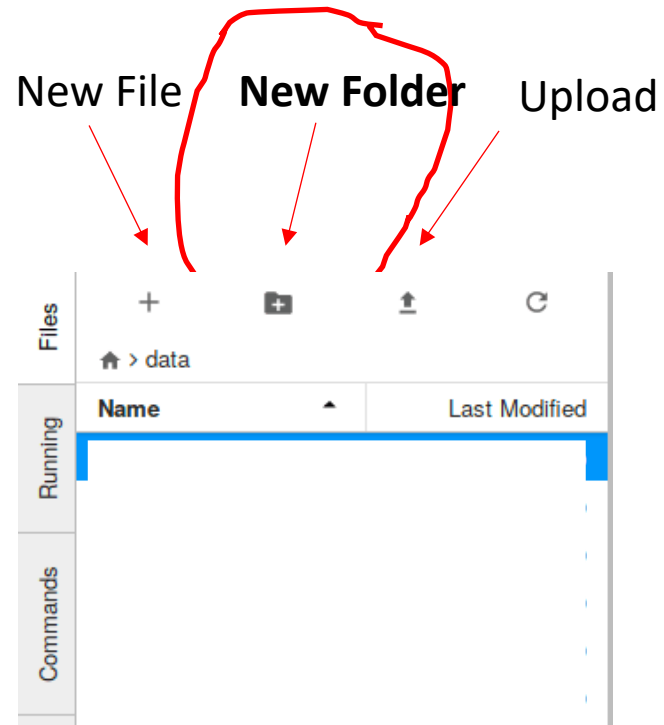
The 'Output View' pane displays a 3D plot of the Lorenz attractor, showing the trajectories swirling around two points. The 'lorenz.py' code editor shows the following code:

```
9 def solve_lorenz(N=10, max_time=4.0, sigma=10.0, beta=8./3, rho=28.0):
10     """Plot a solution to the Lorenz differential equations."""
11     fig = plt.figure()
12     ax = fig.add_axes([0, 0, 1, 1], projection='3d')
13     ax.axis('off')
14
15     # prepare the axes limits
16     ax.set_xlim((-25, 25))
17     ax.set_ylim((-35, 35))
18     ax.set_zlim((5, 55))
19
20     # Compute the time-derivative of a Lorenz system.
21     def lorenz_deriv(x_y_z, t0, sigma=sigma, beta=beta, rho=rho):
22         """Compute the time-derivative of a Lorenz system."""
23         x, y, z = x_y_z
24         return [sigma * (y - x), x * (rho - z) - y, x * y - beta * z]
25
26     # Choose random starting points, uniformly distributed from -15 to 15
27     np.random.seed(1)
28     x0 = -15 + 30 * np.random.random((N, 3))
```

Create a New Folder

Select Desktop or Documents

/	
Name	Last Modified
anaconda3	2 days ago
Desktop	5 minutes ago
Documents	a day ago

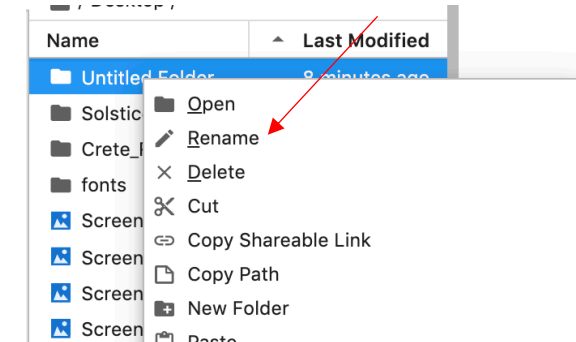


Check your path

/ Desktop / CewitPython /	
Name	Last Modified

/ Desktop /	
Name	Last Modified
Untitled Folder	seconds ago

Rename Folder



Select Folder (Click on the Folder)

/ Desktop /	
Name	Last Modified
CewitPython	14 minutes ago

Create a New File Notebook

New File **New Folder** **Upload**

Select New File

Select Notebook Python 3

Rename (Right Click)

Desktop / CewitPython /

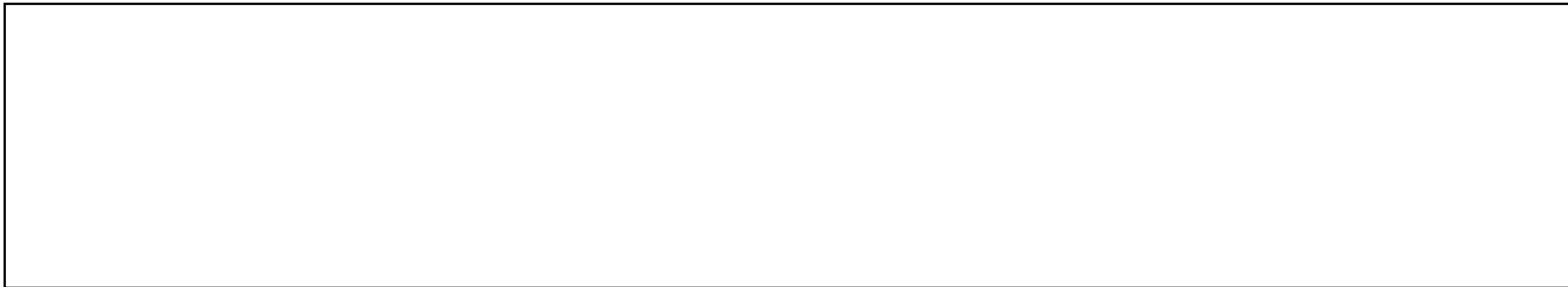
Name	Last Modified
Untitled.ipynb	

Desktop / CewitPython /

Name
Untitled.ipynb

- Open
- Open With
- + Open in New Browser Tab
- Rename
- Delete

Review



Save Add cell Delete cell Copy cell Paste cell Run cell Stop Execution



Cells: Practice

1. Create **NEW** cell



2. Type **first_name**

```
first_name = 'Olga'
```

single or double quotes

3. Create **NEW** cell



```
[ ]: print(first_name)
```

4. Type **print(first_name)** – second line

5. Click inside the first cell

```
[ ]: first_name = "Olga"
```

```
[ ]: print(first_name)
```

cell is
highlighted when
selected

6. **RUN** cell 1



```
[1]: first_name = "Olga"
```

```
[2]: print(first_name)
```

7. **RUN** cell 2

Olga

Numbers – the order of execution

Copying and Deleting Cells: Practice

1. Make a new cell

```
[3]: print("Hello")|
```

2. Copy this cell



3. Paste this cell



4. Place the cursor in your first copy

5. Delete this cell



```
[3]: print("Hello")|
Hello
[3]: print("Hello")
Hello
```


Quiz Question!

```
In [1]: print("Hello")
```

Hello

```
In [ ]:
```

What is the difference between two brackets?

Cell is executed

```
In [1]: print("Hello")
```

Hello

Cell is NOT executed

```
In [ ]:
```

Not Numbered

Code and Markdown

We have used **code** so far (it is selected by default).

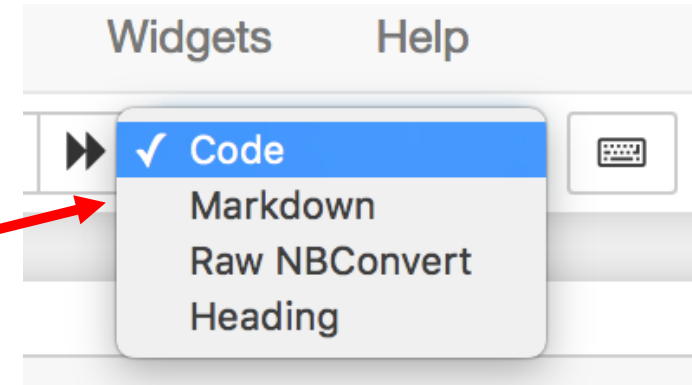
1. Create a NEW cell



2. Click on the drop-down menu



3. Select Markdown



Welcome to Jupyter!

This repo contains an introduction to [Jupyter](#) and [IPython](#).

Outline of some basics:

- [\[Notebook Basics\]](#)(../examples/Notebook/Notebook Basics.ipynb)
- [\[IPython - beyond plain python\]](#)(../examples/IPython Kernel/Beyond Plain
- [\[Markdown Cells\]](#)(../examples/Notebook/Working With Markdown Cells.ip
- [\[Rich Display\]](#)
- [Custom Display](#)
- [Running a Server](#)
- [How Jupyter](#)

Markdown is a text-to-HTML conversion tool for web writers. Markdown allows you to write using an easy-to-read, easy-to-write plain text format, then convert it to structurally valid XHTML (or HTML).

- John Gruber, creator of Markdown

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- * [\[IPython - beyond plain python\]](#)(../examples/IPython Kernel/Beyond Plain
- * [\[Markdown Cells\]](#)(../examples/Notebook/Working With Markdown Cells.ip
- * [\[Rich Display System\]](#)(../examples/IPython Kernel/Rich Display

[\[IPython%20Kernel/Custom%20Display%20Handlers\]](#)(../examples/Notebook/Custom%20Display%20Handlers

[\[Running a Server\]](#)(../examples/Notebook/Multiple%20Lan

Markdown Headers: Practice

First-level header

Second-level header

Third-level header

My Report

Introduction

[]:

1. Create a new cell



2. Select Markdown (instead of Code)

Markdown ▾

3. Create a header **# My Report**



My Report

4. Run



5. Create a new cell



Introduction

6. Create a sub-header **## Introduction**

7. Run

Can we keep both files open? YES!

1. Select a file you want to add to the main dashboard.
2. Drag and Drop the file
3. Adjust the width as needed

