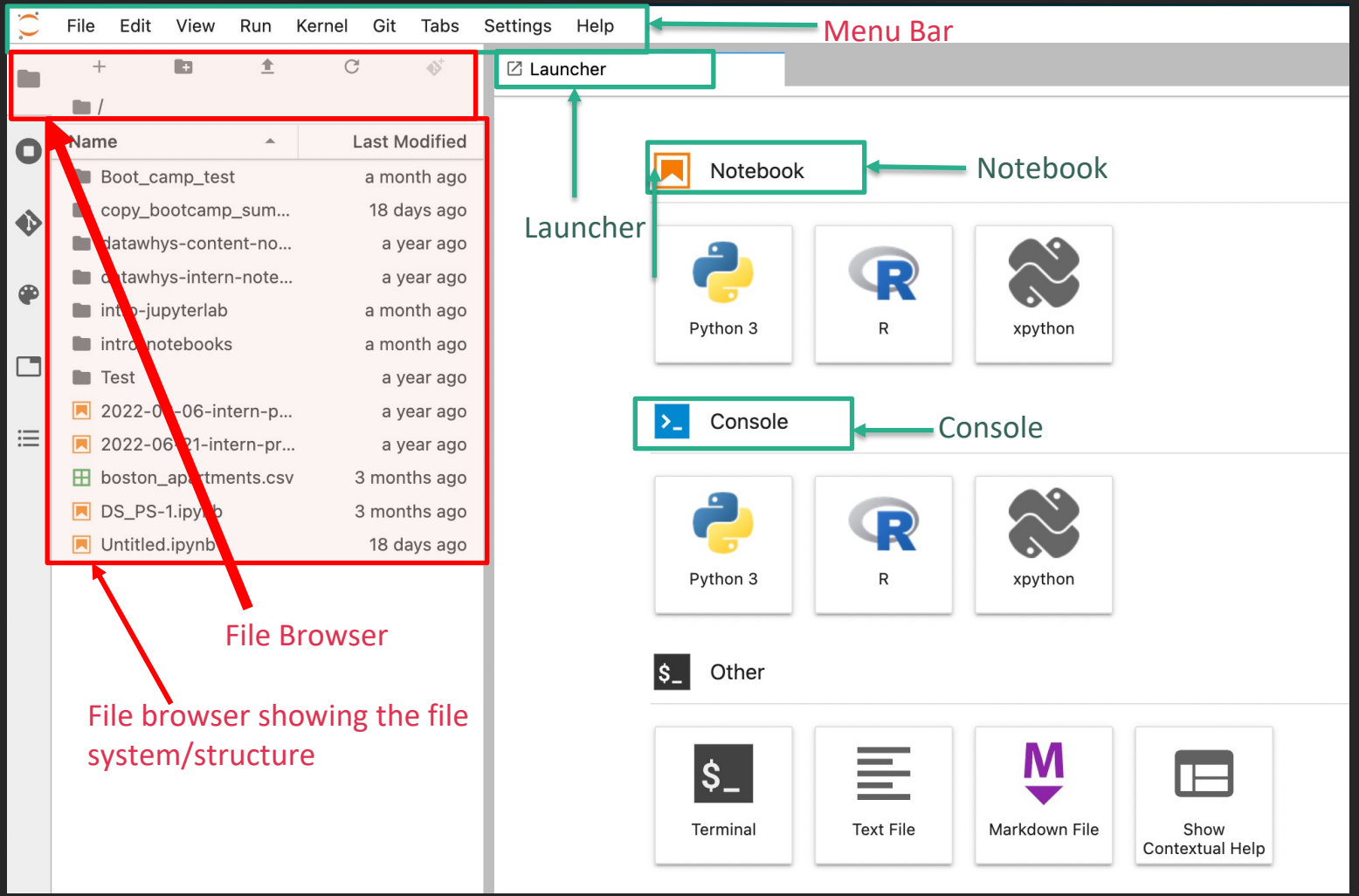
File Management

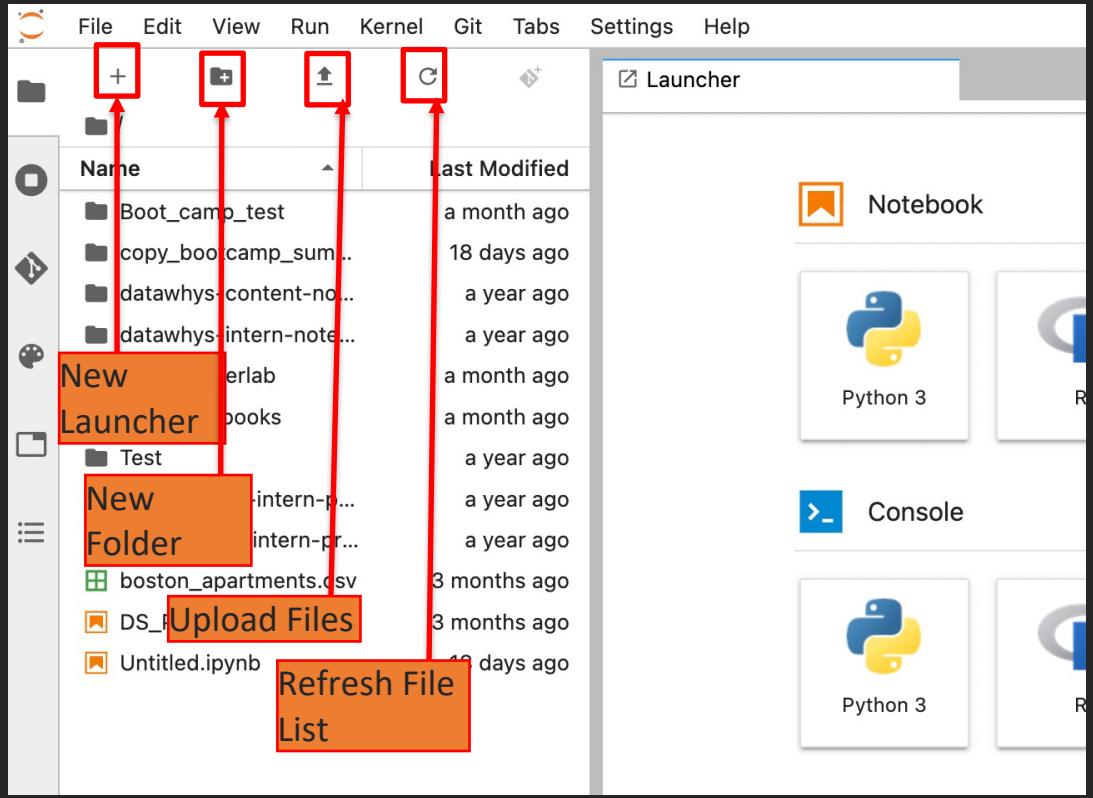
A guide to manage files in Jupyterlab user interface

Objectives

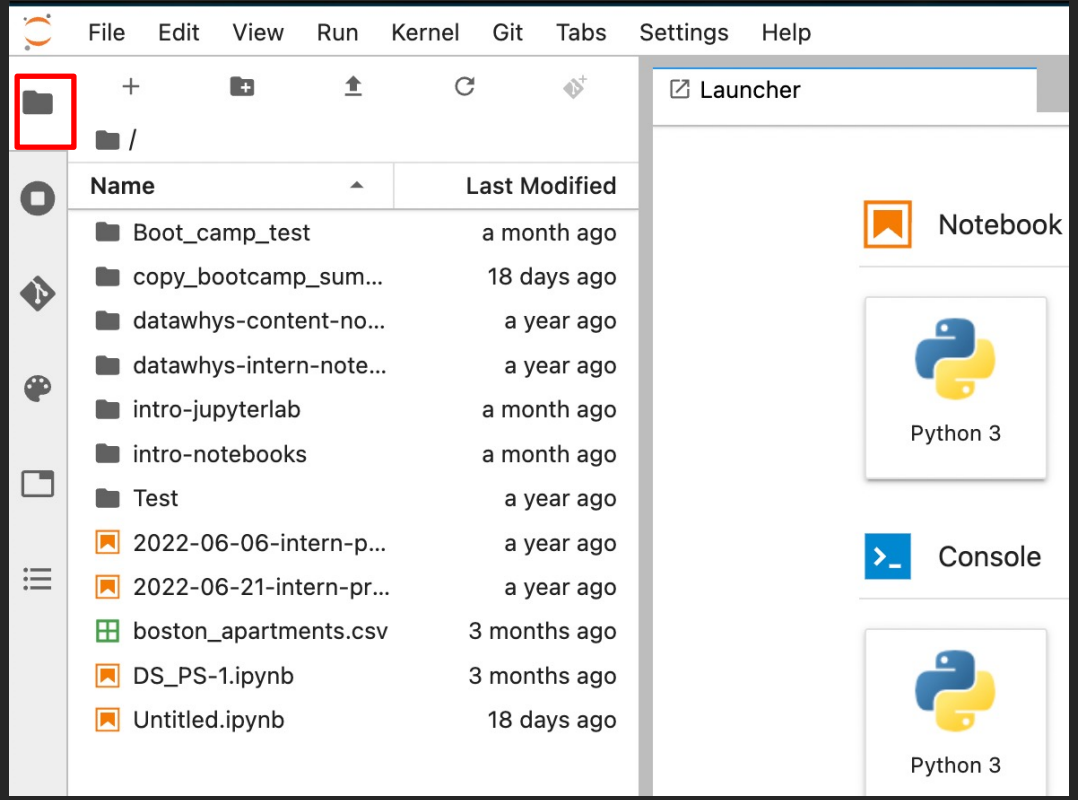
- Identify and name the file browser in JupyterLab and explain its UI elements.
- Perform general file management tasks


File Edit View Run Kernel Git Tabs Settings Help
Menu Bar
Launcher
/
Name
Last Modified
Boot_camp_test
a month ago
copy_bootcamp_sum...
18 days ago
datawhys-content-no...
a year ago
datawhys-intern-note...
a year ago
intro-jupyterlab
a month ago
intro_notebooks
a month ago
Test
a year ago
2022-0[illegible]-06-intern-p...
a year ago
2022-06-21-intern-pr...
a year ago
boston_apartments.csv
3 months ago
DS_PS-1.ipynb
3 months ago
Untitled.ipynb
18 days ago
File Browser
File browser showing the file system/structure
Launcher
Notebook
Notebook
Python 3
R
xpython
Console
Console
Python 3
R
xpython
Other
Terminal
Text File
Markdown File
Show Contextual Help

File Browser Details

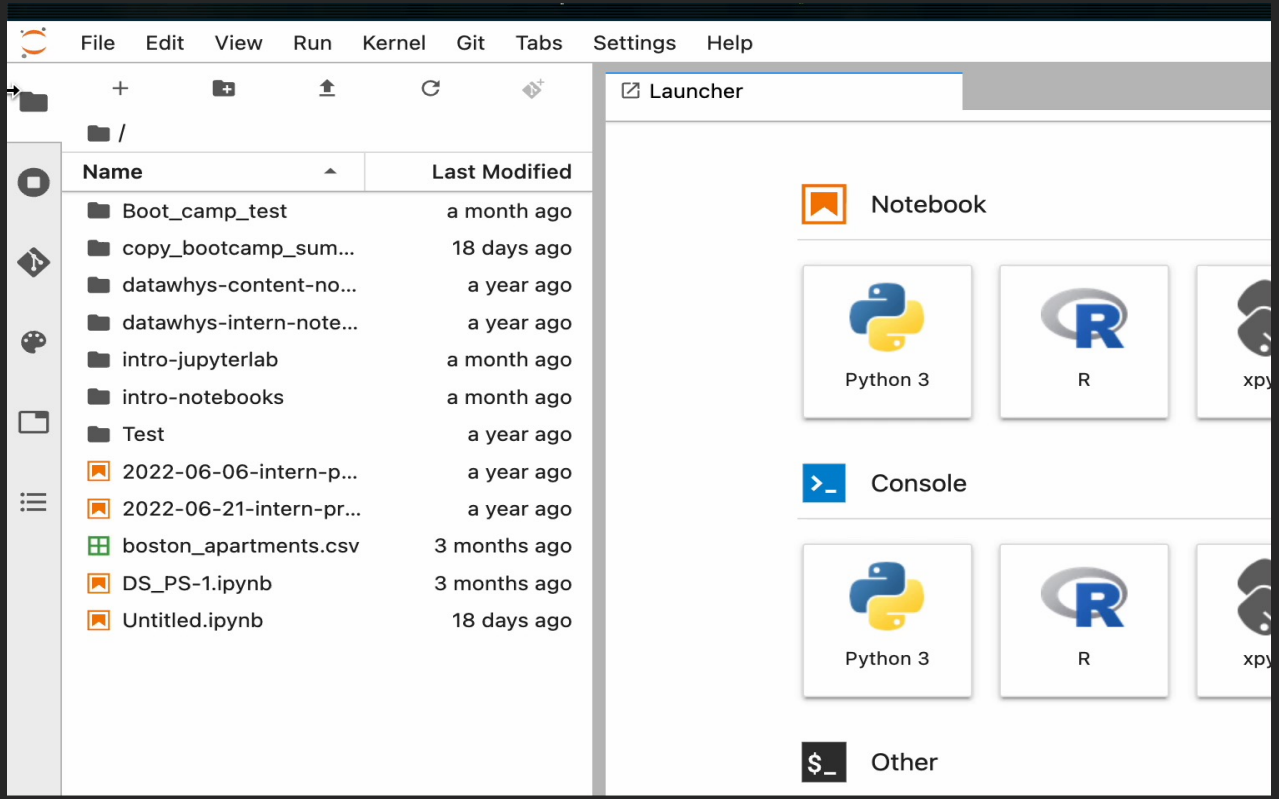


Hide/Unhide File Browser Details



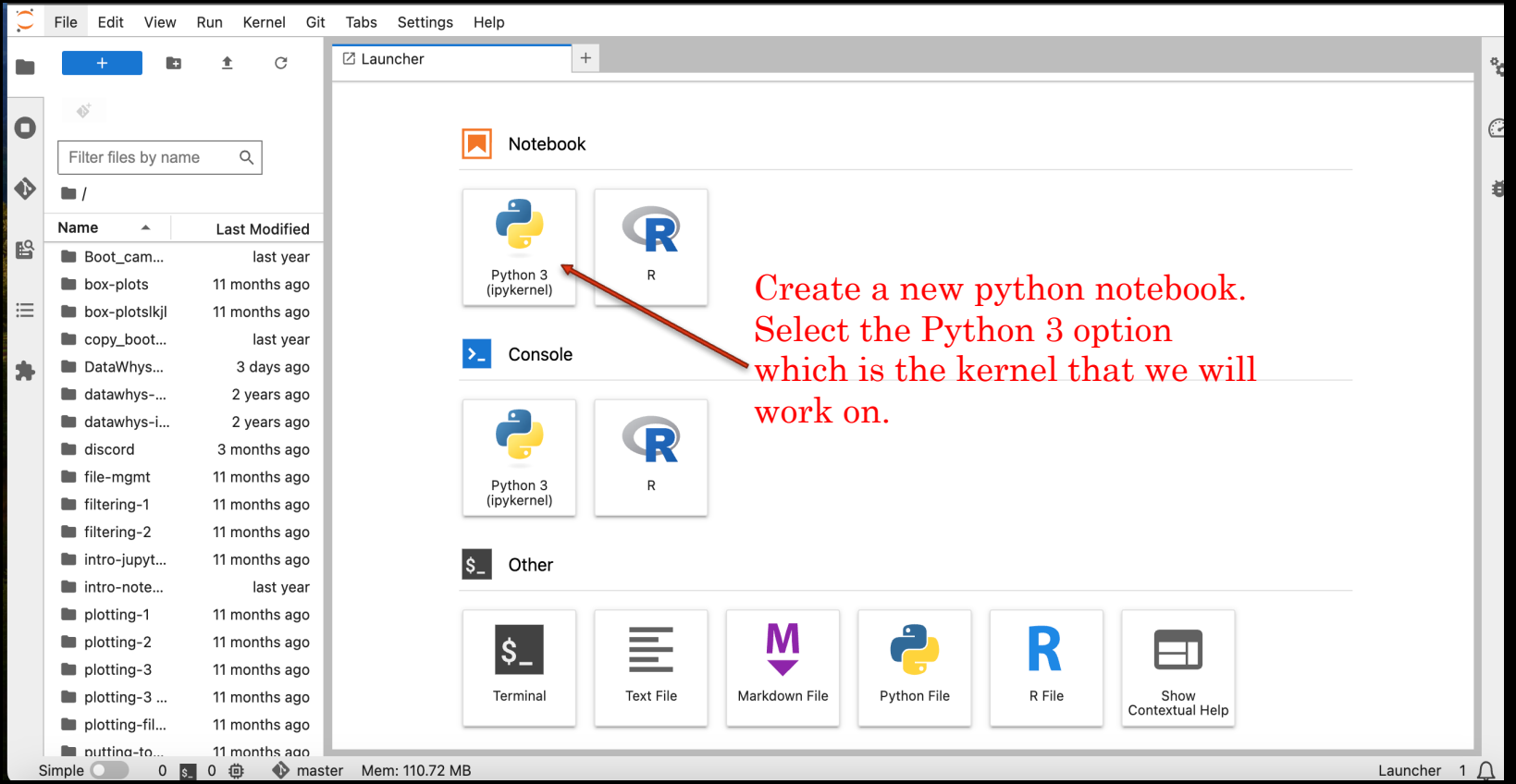
Click on the File Browser to hide/unhide the file browser details

Hide/Unhide File Browser Details

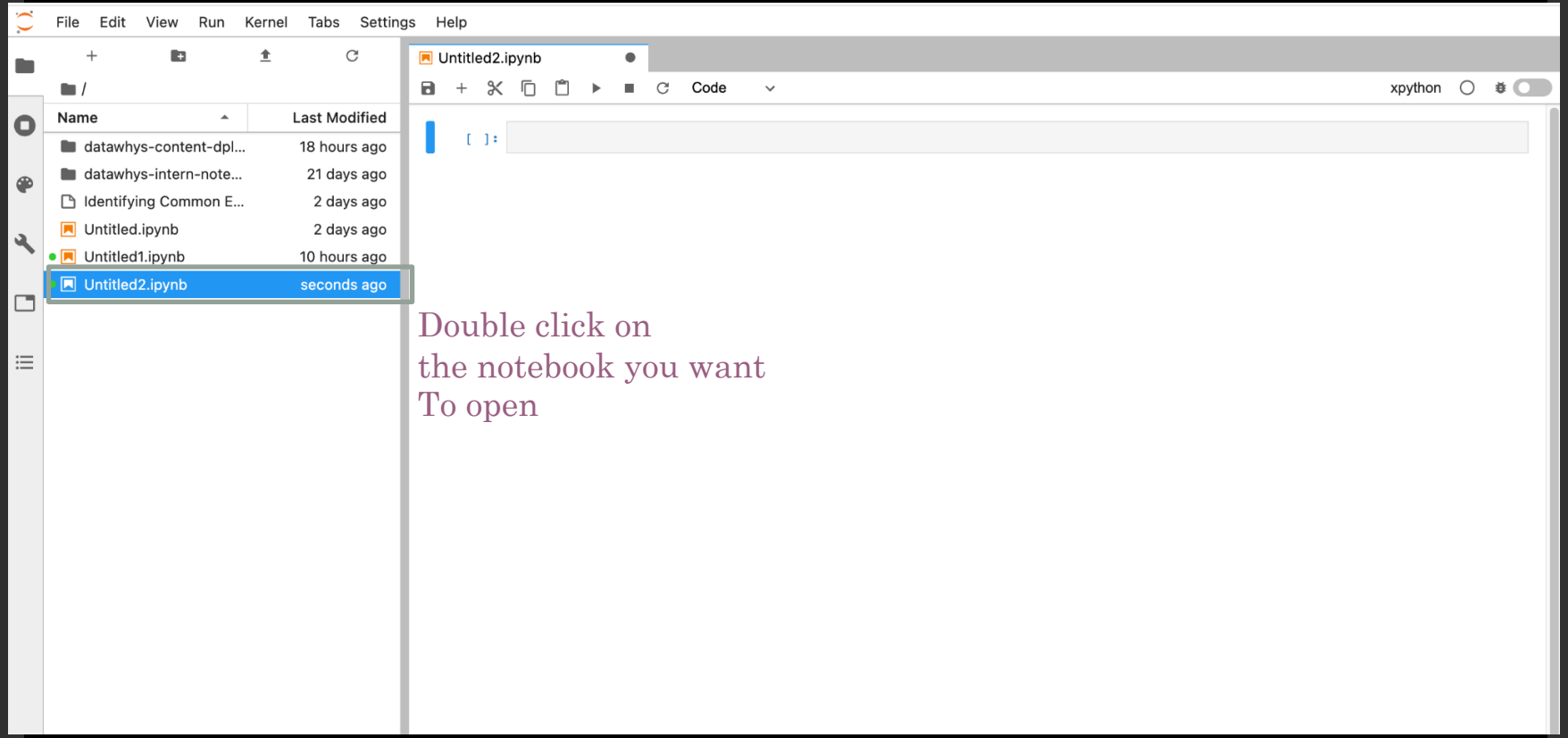


Click on the File Browser to hide/unhide the file browser details

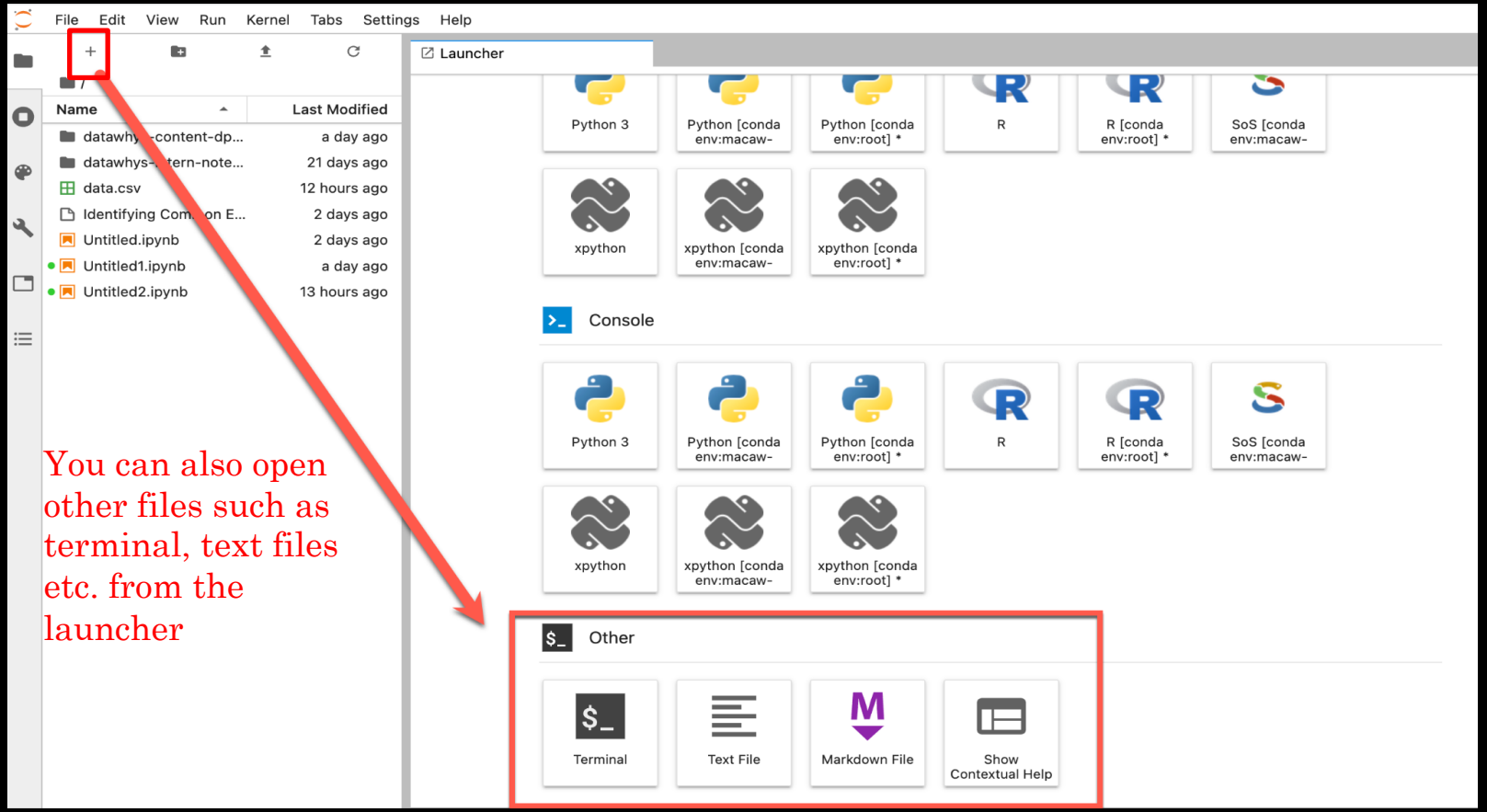
Creating python file from launcher



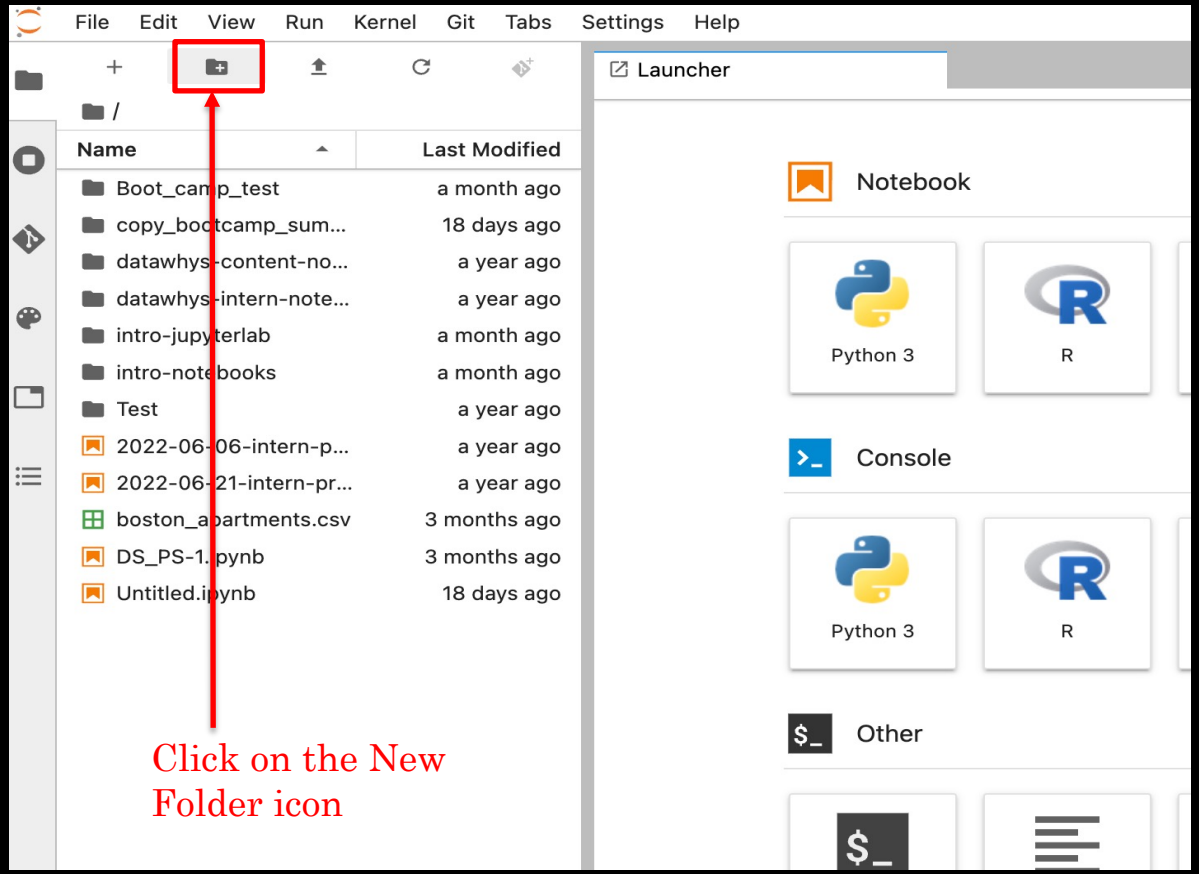
Open created python file



Opening other file types

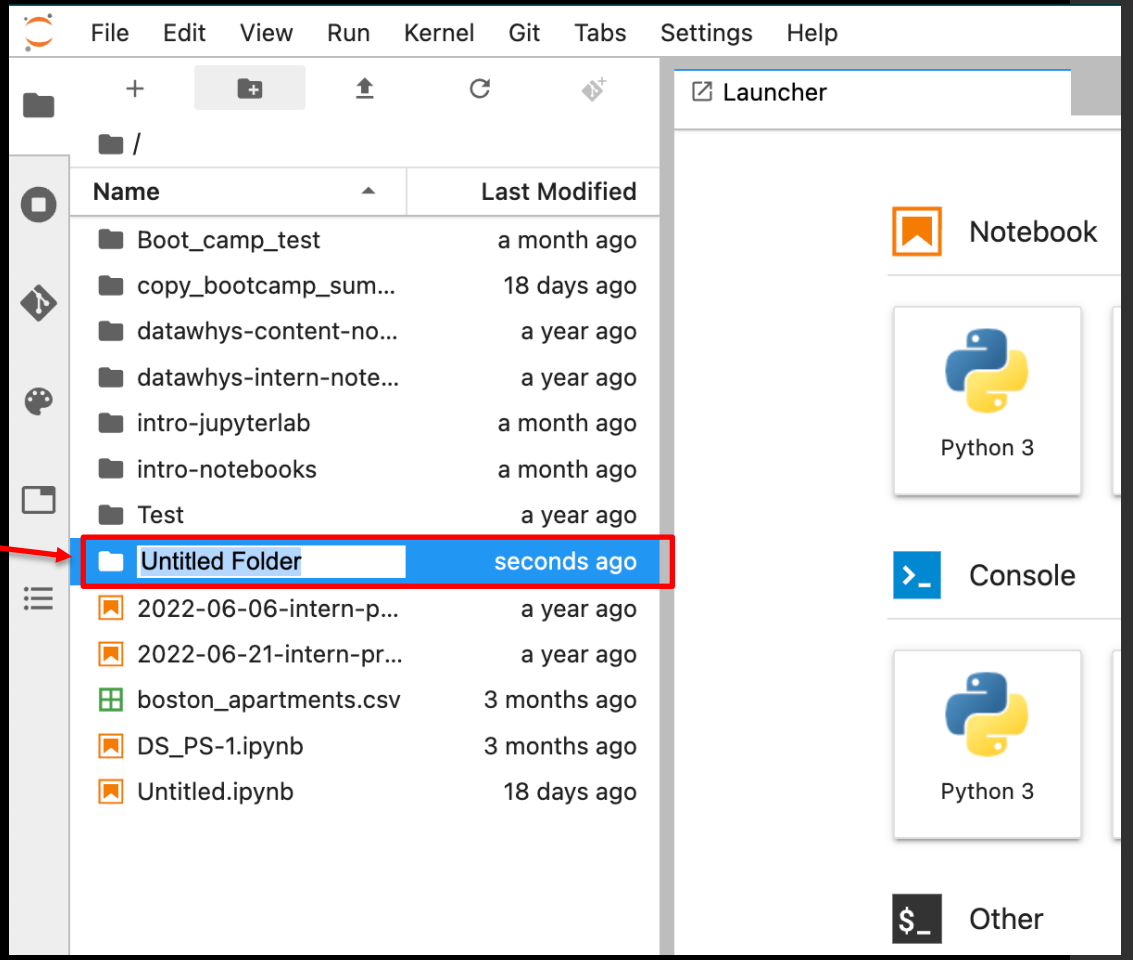


Creating a Folder



Creating a Folder

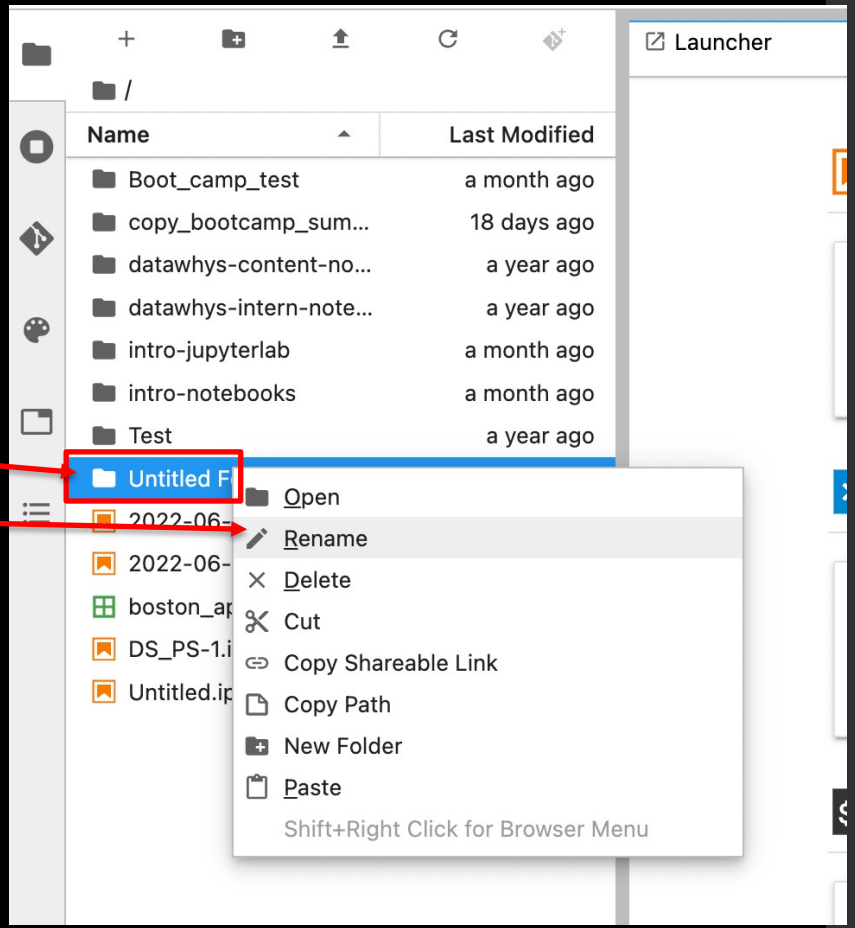
"Untitled Folder" created



Renaming a Folder

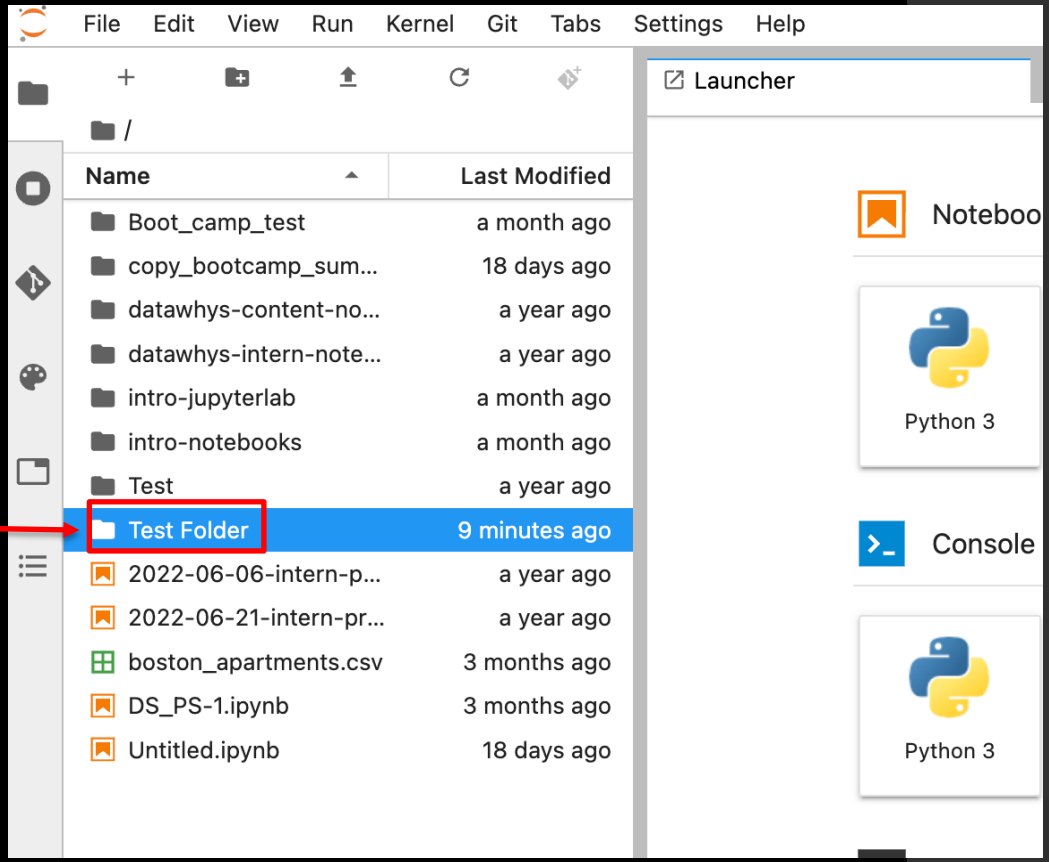
Right click on the folder name

Click on Rename and provide desired name and press "Enter" or Click any where

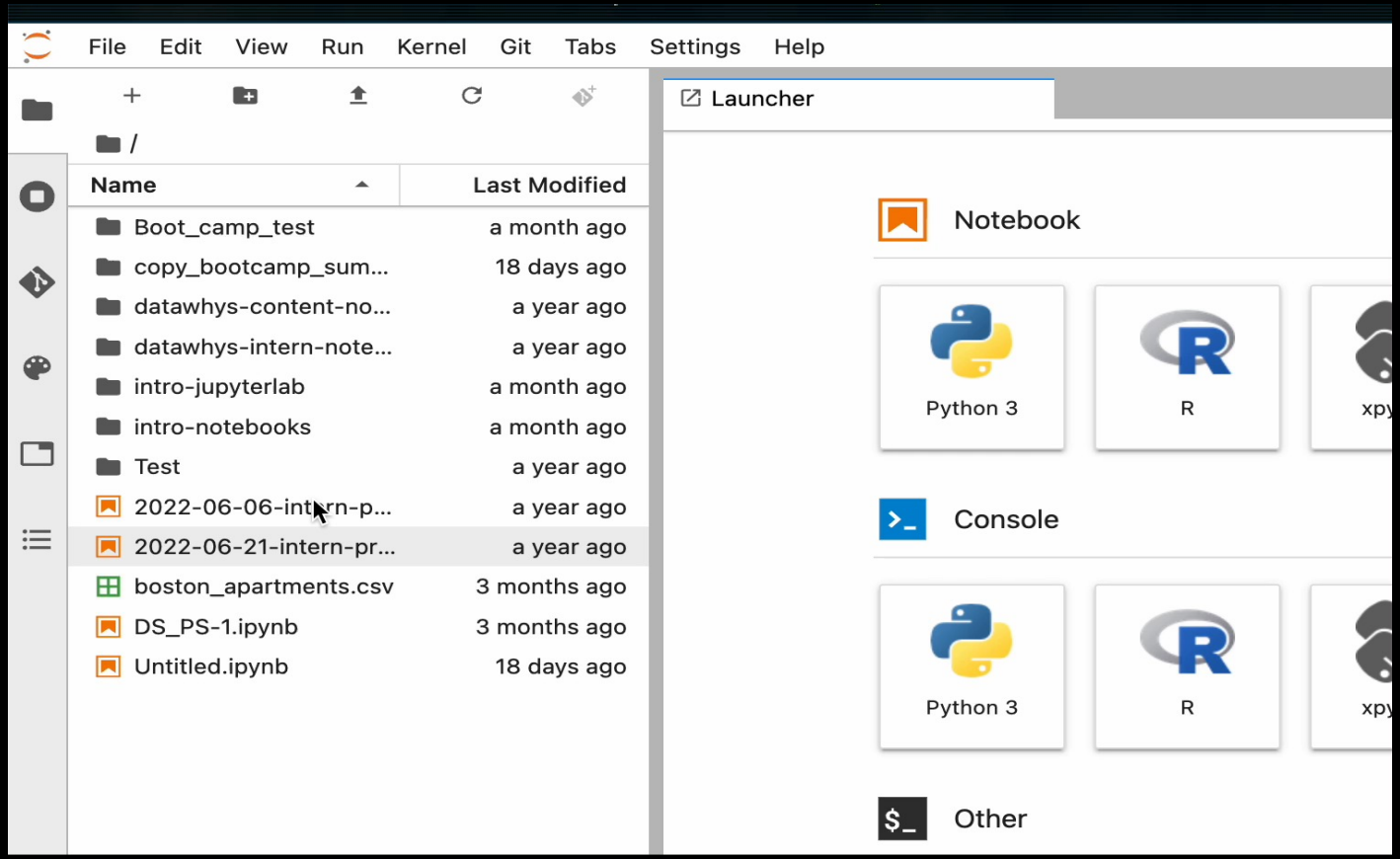


Renaming a Folder

Folder has been renamed



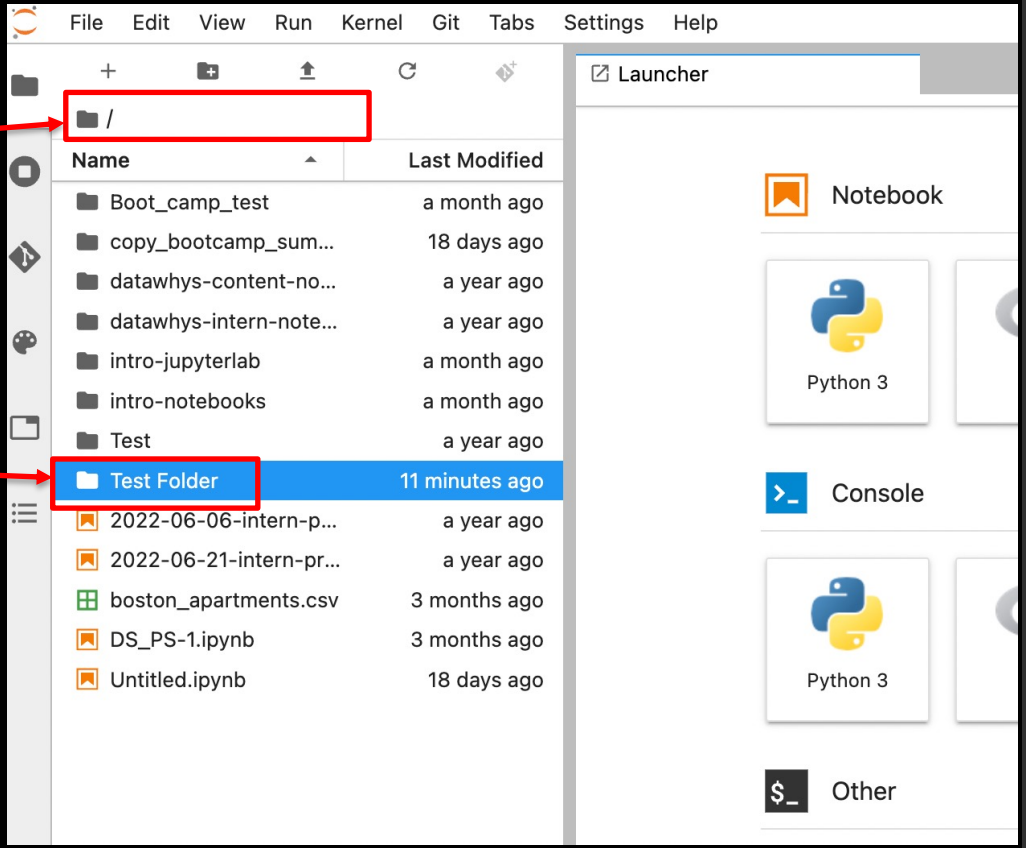
Creating and Renaming a Folder



Open Folder

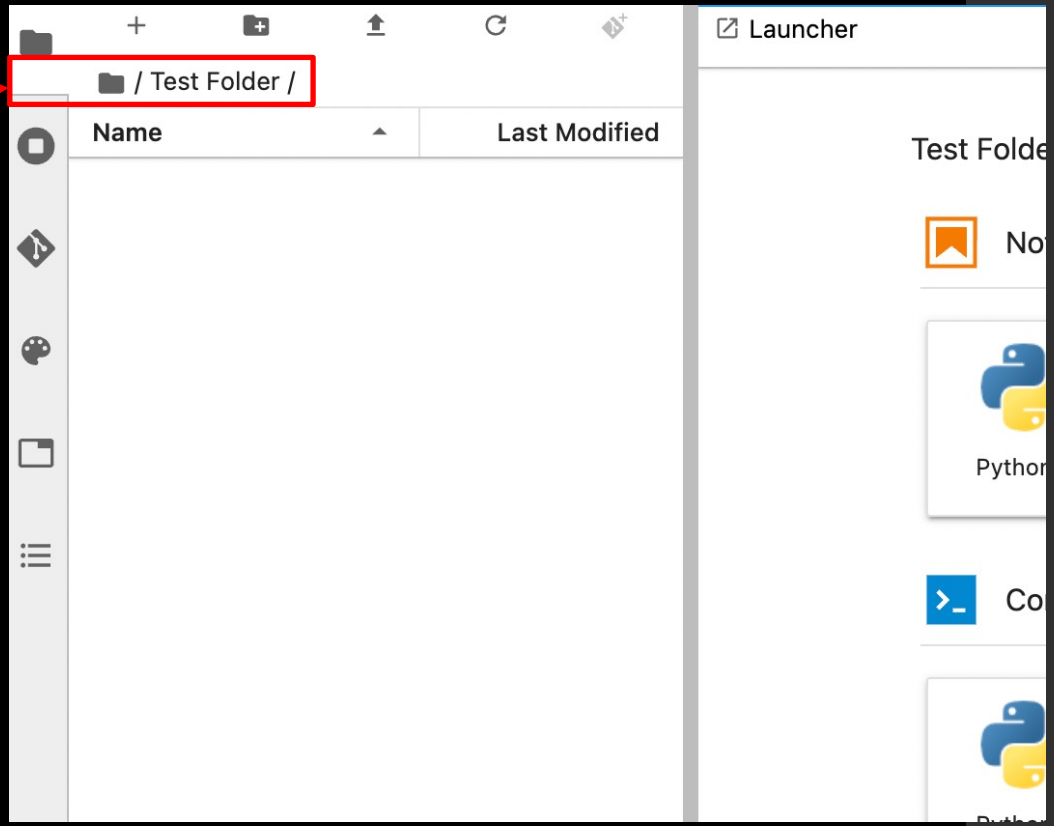
Before opening a new folder notice this. This shows our current location in the file system.

Double click to open a folder



Open Folder

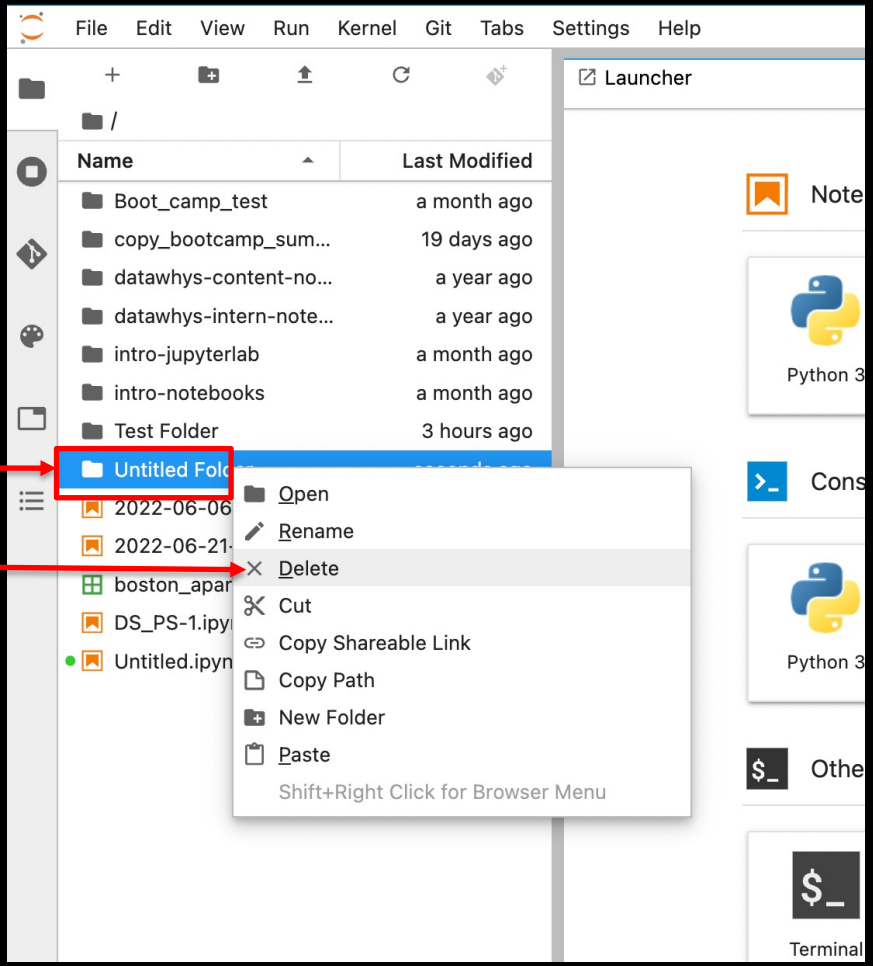
Indicates we are in Test Folder



Deleting a Folder

Right click on the folder name you want to delete

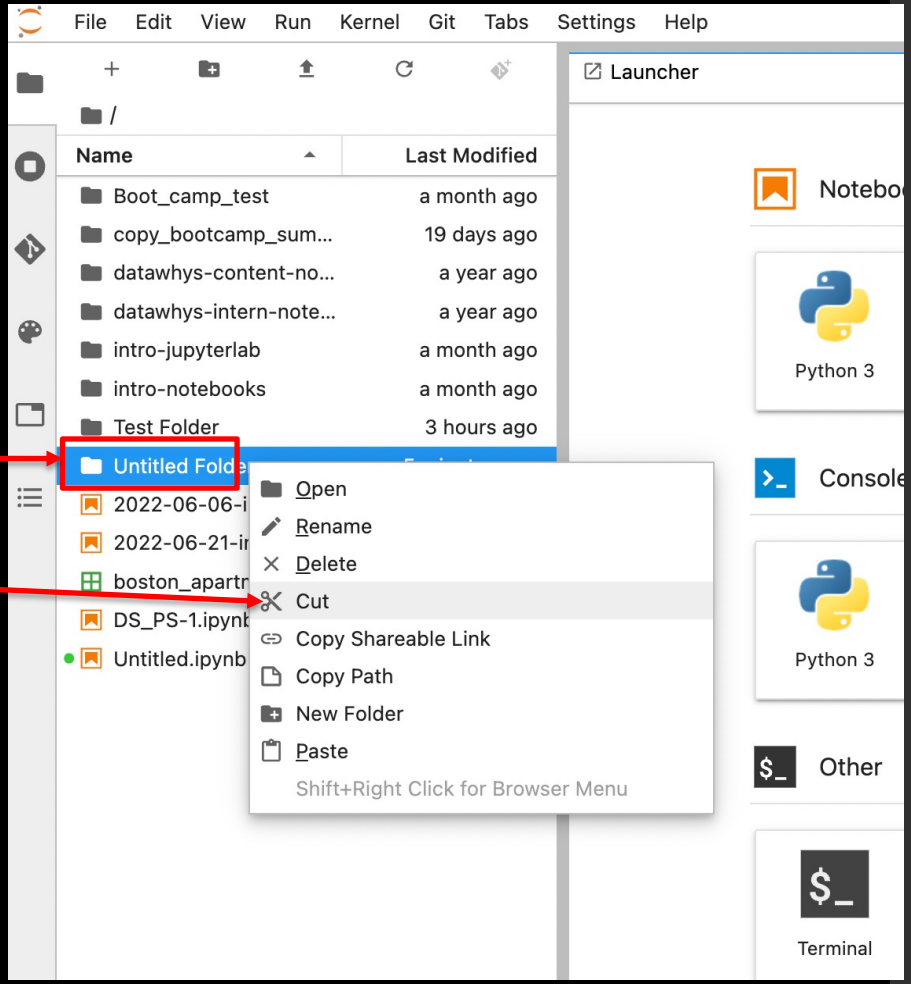
Click on Delete



Cut a Folder

Right click on the folder name you want to cut

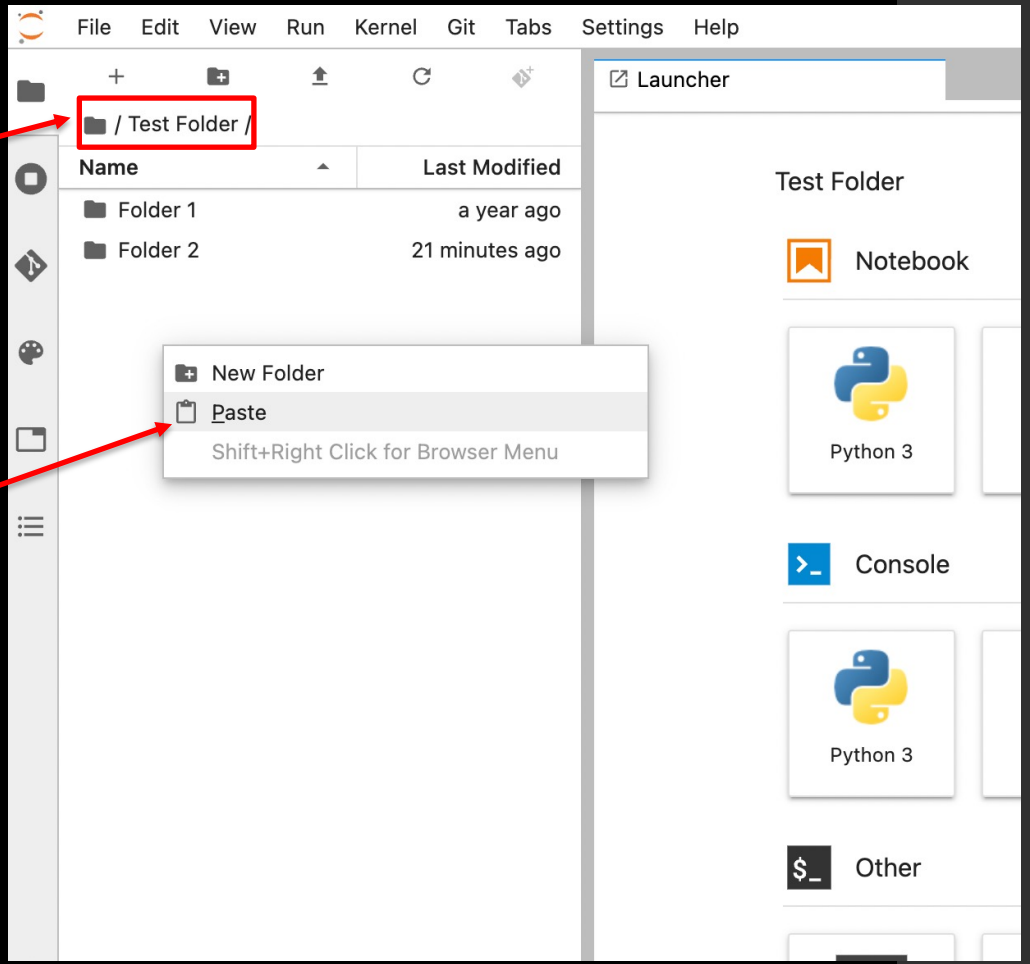
Click on Cut



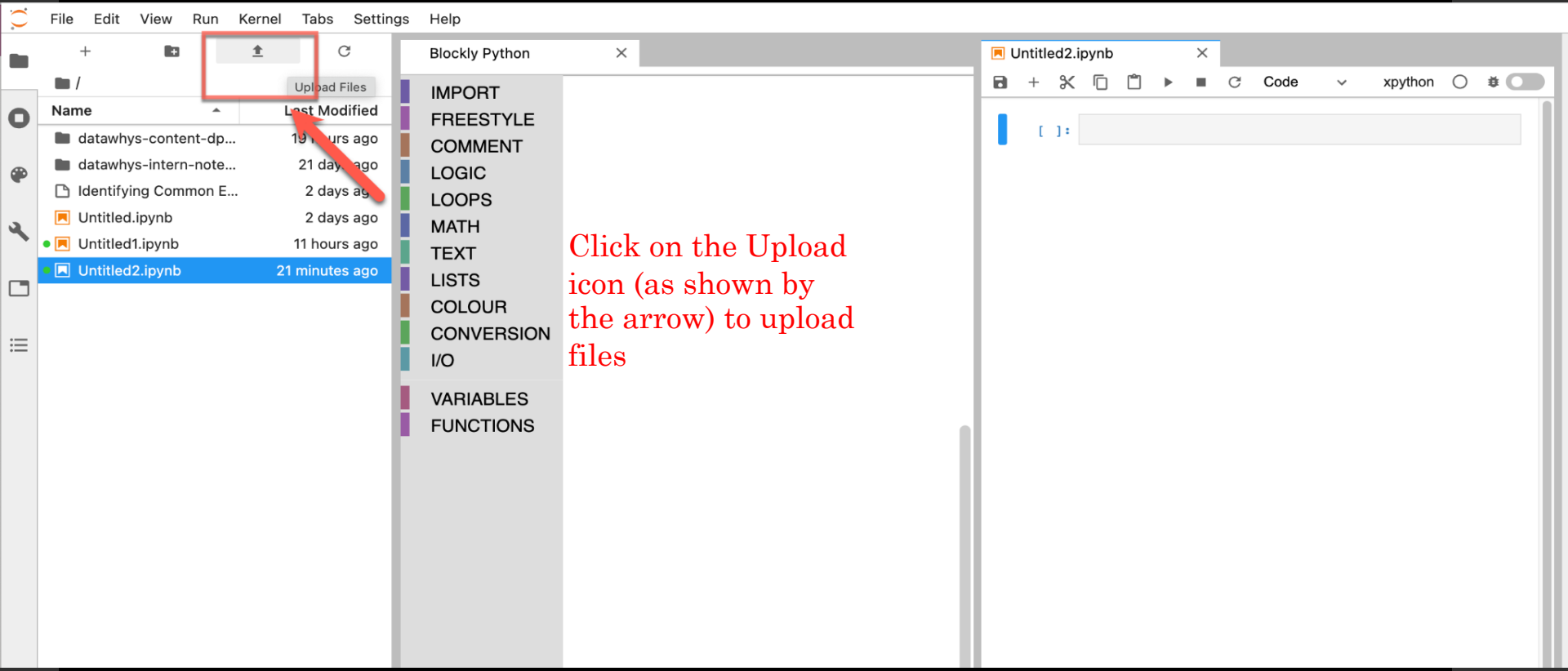
Cut a Folder

Open the folder where you want to Paste

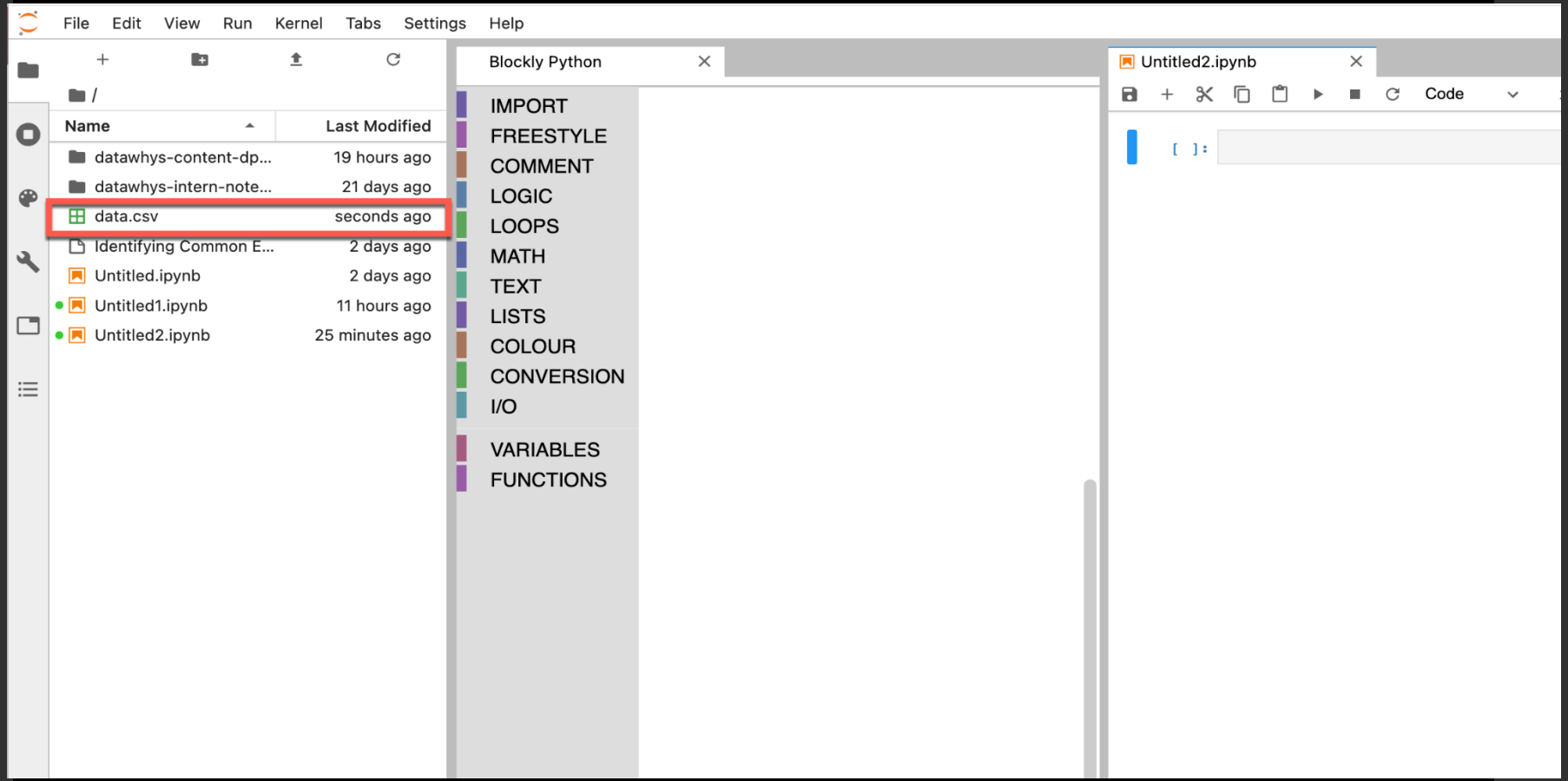
Right click and select Paste



Uploading a file in Jupyterlab (1)

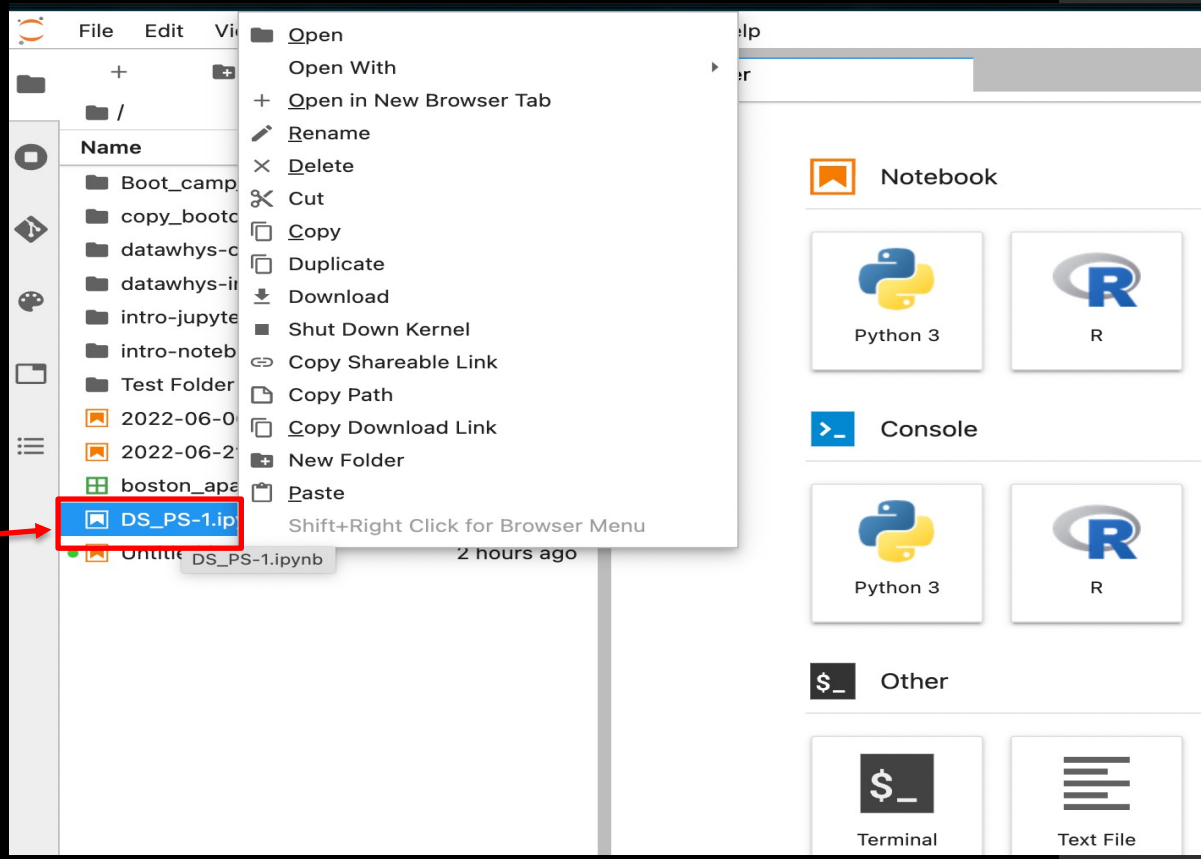


Uploading a file in Jupyterlab (2)



File operations

Right Click on any file to perform rename, copy, cut, delete, download etc.

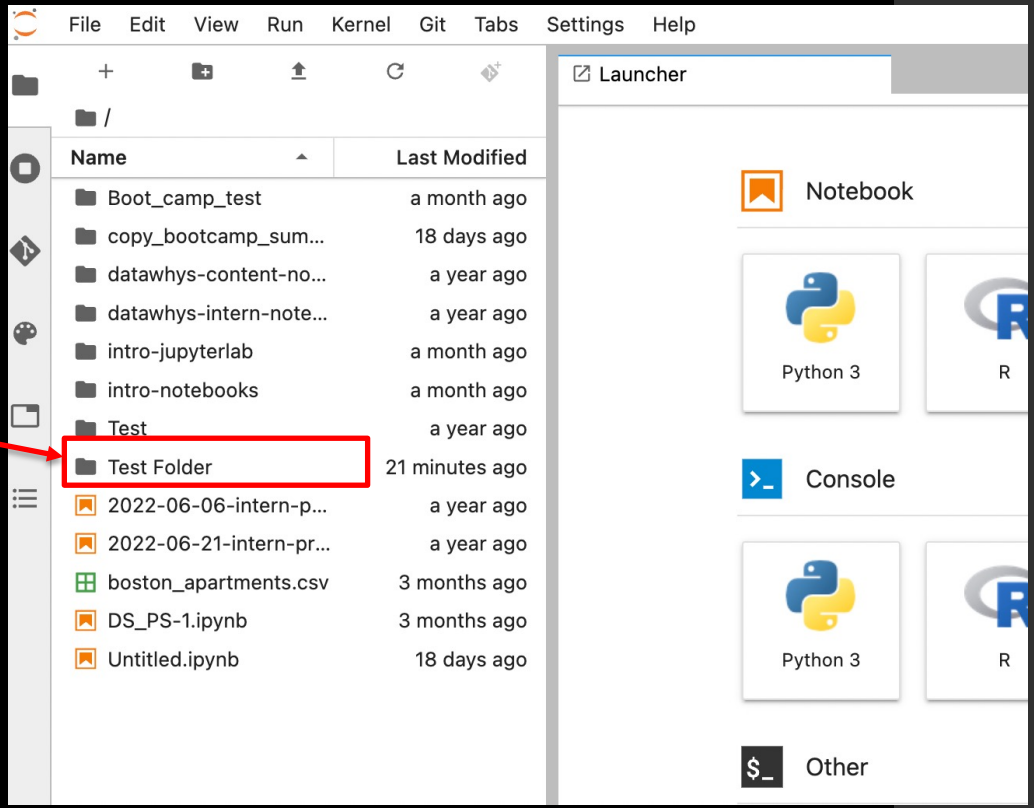


Upload a file in any specific folder

Suppose we want to upload a file in Test Folder. We've to

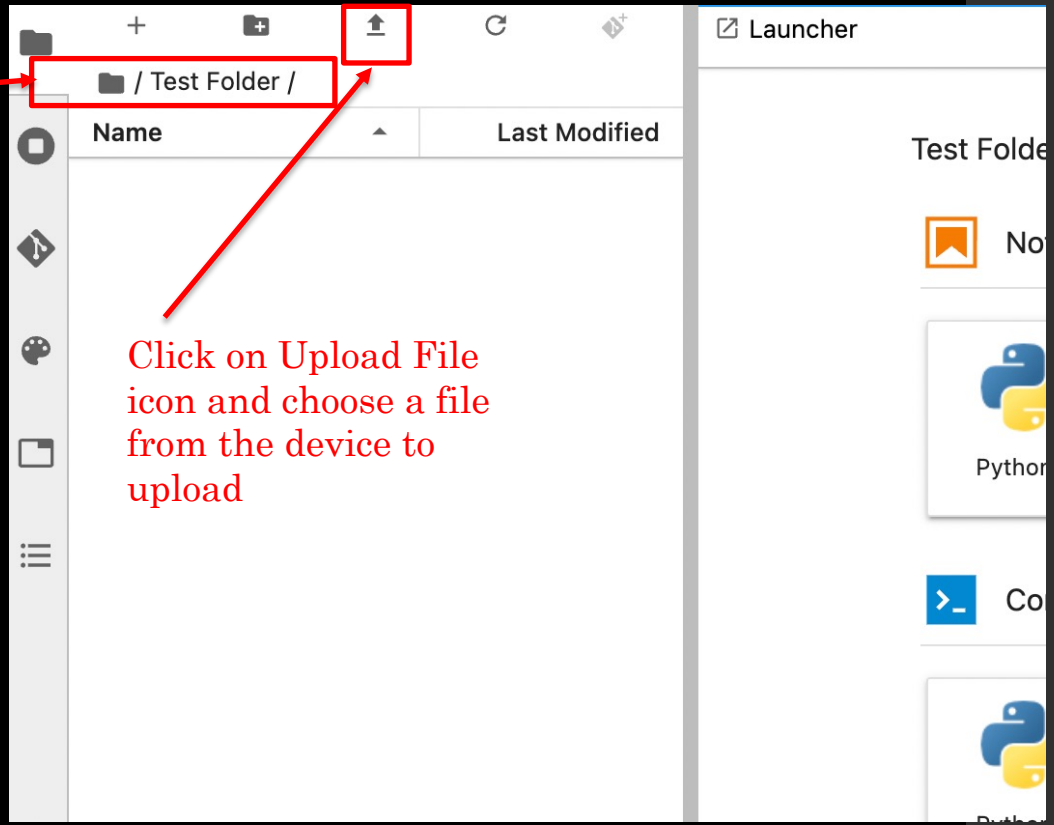
- Open Test folder
- Upload the file

Open Test Folder by double clicking



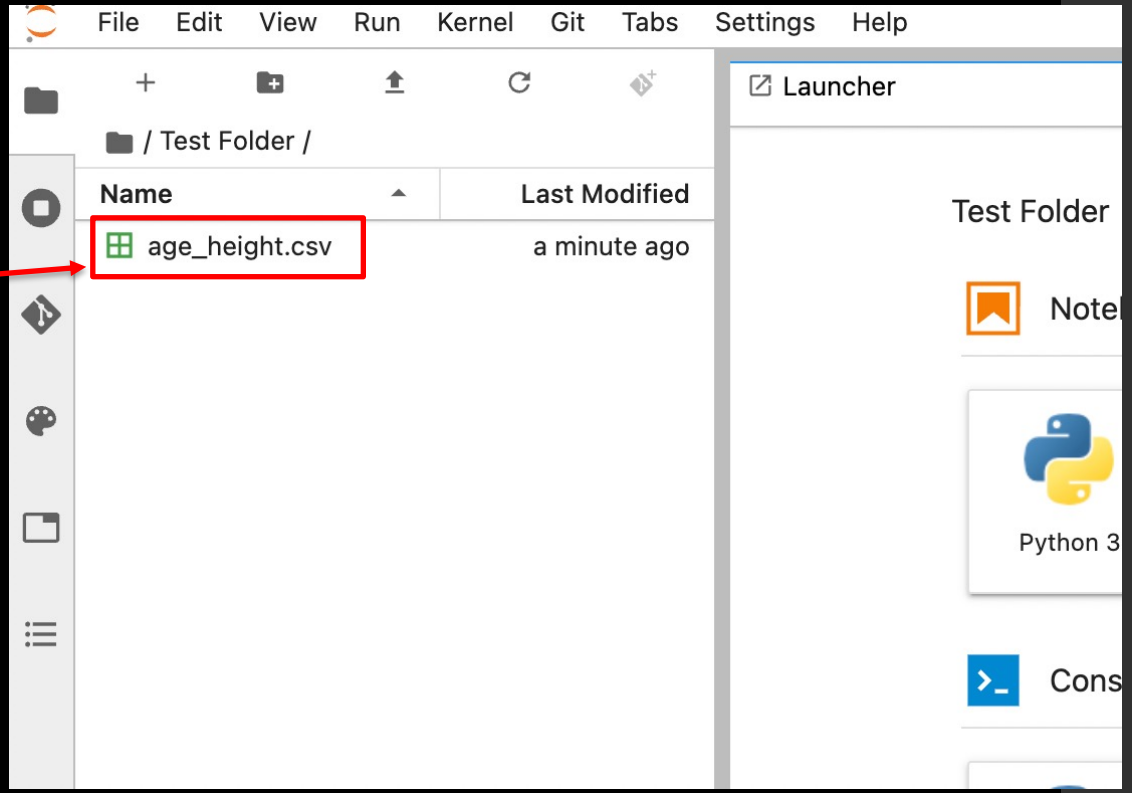
Upload a file in any specific folder

Indicates we are in Test Folder



Upload a file in any specific folder

A file has been uploaded



File Path

- A file path specifies the location of a file in a file system/structure.
- They can be used to locate files.

- Example: "/home/username/Documents/File1.txt".

In file system each folder is also known as "directory"
and in each directory are separated with separator "/"

File Path

Path: "/home/username/Documents/File1.txt".

- This path indicates that in our "home" directory or folder we have "username" folder.
- Within the "username" folder we have "Documents" folder.
- Within the "Documents" folder we have our targeted file "File.txt".

- home
  - username
    - documents
      - File1.txt

File Path

Path: "/home/username/Documents/File1.txt".

- "home" is the parent directory of "username"
- "username" is the parent directory of "documents"

Alternatively, we can say

- "username" is the child directory of "home"
- "documents" is the child directory of "username"

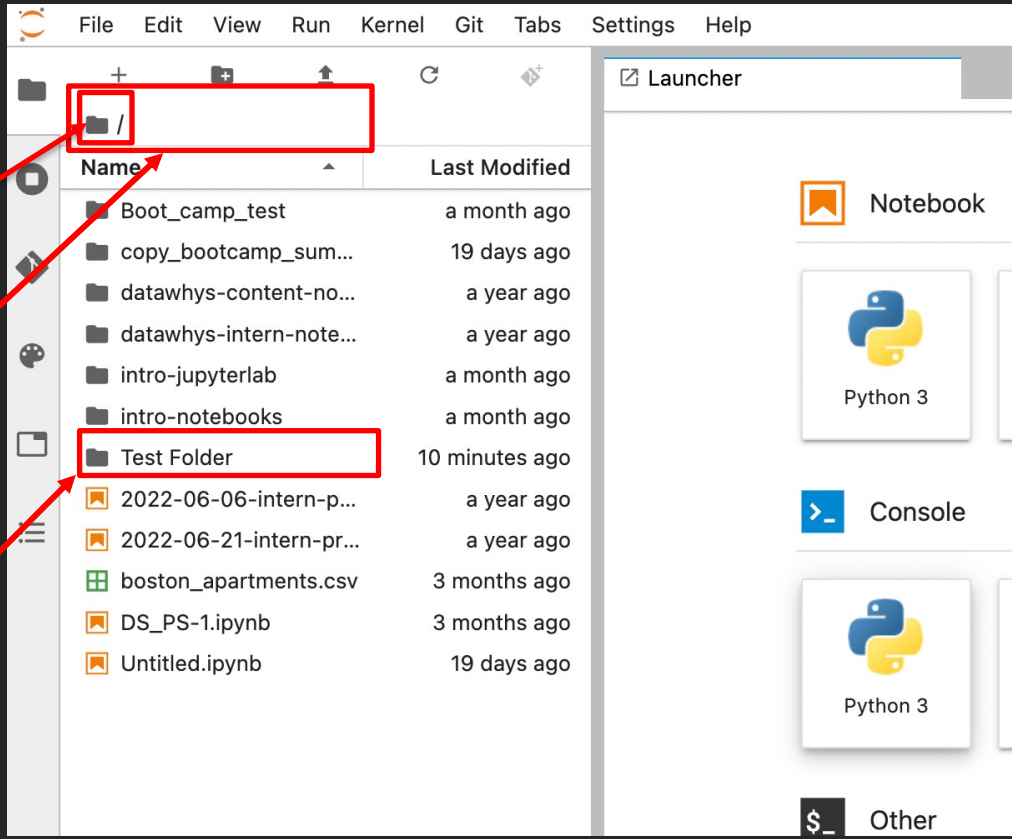
File Path in Jupyter Lab

- After Login the interface shows like this

This "folder/" icon indicates root folder/directory for each user

In JupyterLab current directory is shown in this area

Let's open this folder and see

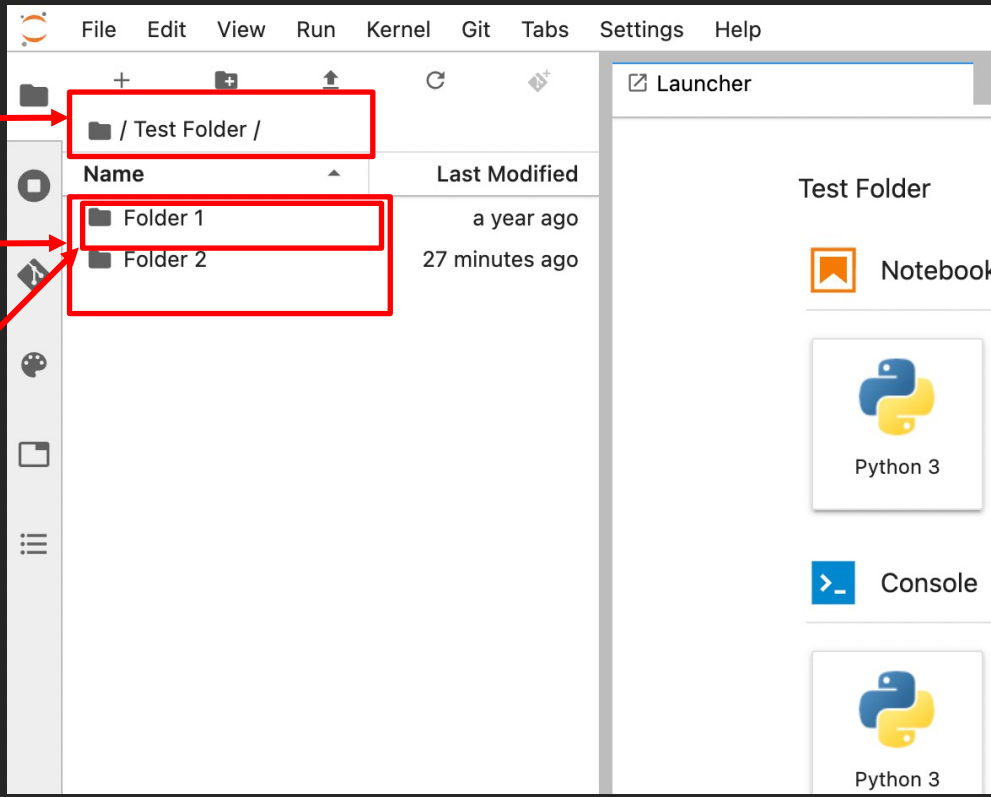


File Path in Jupyter Lab

Indicates that we are within Test Folder and current directory is Test Folder

Shows the file system of Test Folder

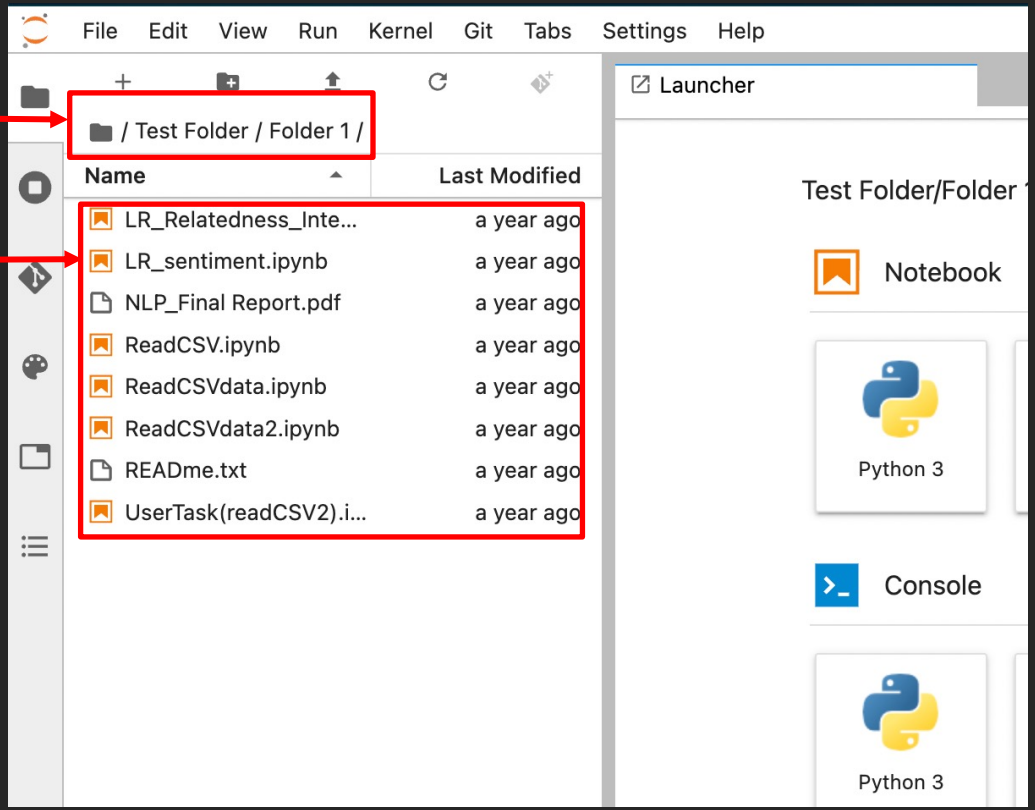
Let's open Folder 1 and see



File Path in Jupyter Lab

Indicates that we are within Folder 1 and current directory is Folder 1

Shows the files within Folder 1



Types of File Path

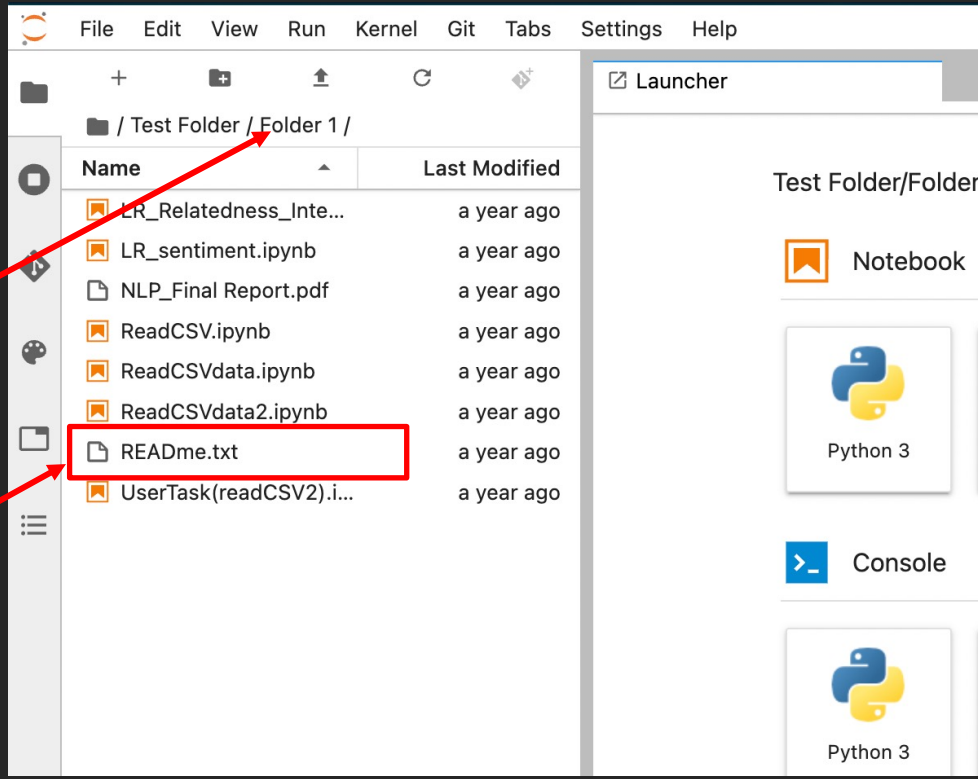
- Relative Path
- Absolute Path

Relative Path

- A relative path specifies the location of a file or folder relative to the current working directory.

Current directory is Folder 1

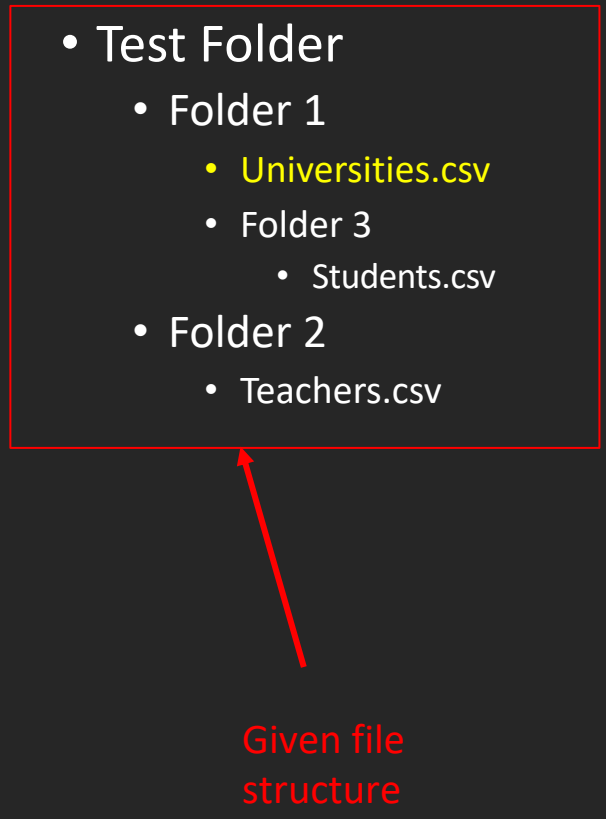
READme.txt file is located in current directory.
The relative path of this file is "READme.txt"



Relative Path

- Suppose we have this file structure under our root directory. And our current directory is Folder 1.
- What is the relative path of Universities.csv?

Ans: "Universities.csv"



Relative Path

- Suppose we have this file structure under our root directory. And our current directory is Folder 1.
- What is the relative path of Students.csv?

- Test Folder
  - Folder 1
    - Universities.csv
    - Folder 3
      - Students.csv
  - Folder 2
    - Teachers.csv

Relative Path

- Suppose we have this file structure under our root directory. And our current directory is Folder 1.
- What is the relative path of Students.csv?
  - Notice that Students.csv is under Folder 3
  - Folder 3 is the child directory of Folder 1
  - The relative path of this Students.csv will be "Folder 3/Students.csv"

By this we go to Folder 3 as Folder 3 is child directory of Folder 1

- Test Folder
  - Folder 1
    - Universities.csv
    - Folder 3
      - Students.csv
  - Folder 2
    - Teachers.csv

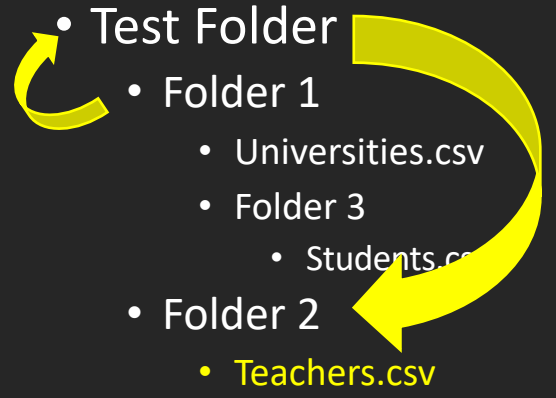
Relative Path

- Suppose we have this file structure under our root directory. And our current directory is Folder 1.
- What is the relative path of Teachers.csv?

- Test Folder
  - Folder 1
    - Universities.csv
    - Folder 3
      - Students.csv
  - Folder 2
    - Teachers.csv

Relative Path

- Suppose we have this file structure under our root directory. And our current directory is Folder 1.
- What is the relative path of Teachers.csv?
- To navigate to Teachers.csv
  - First ,we have to go the parent directory Folder 1 which is Test Folder. For this we use "../"
  - Then we go to Folder 2 which is a child directory of Test Folder. For this we use "Folder2/"
  - Path will be "../Folder2/Teachers.csv"



Absolute Path

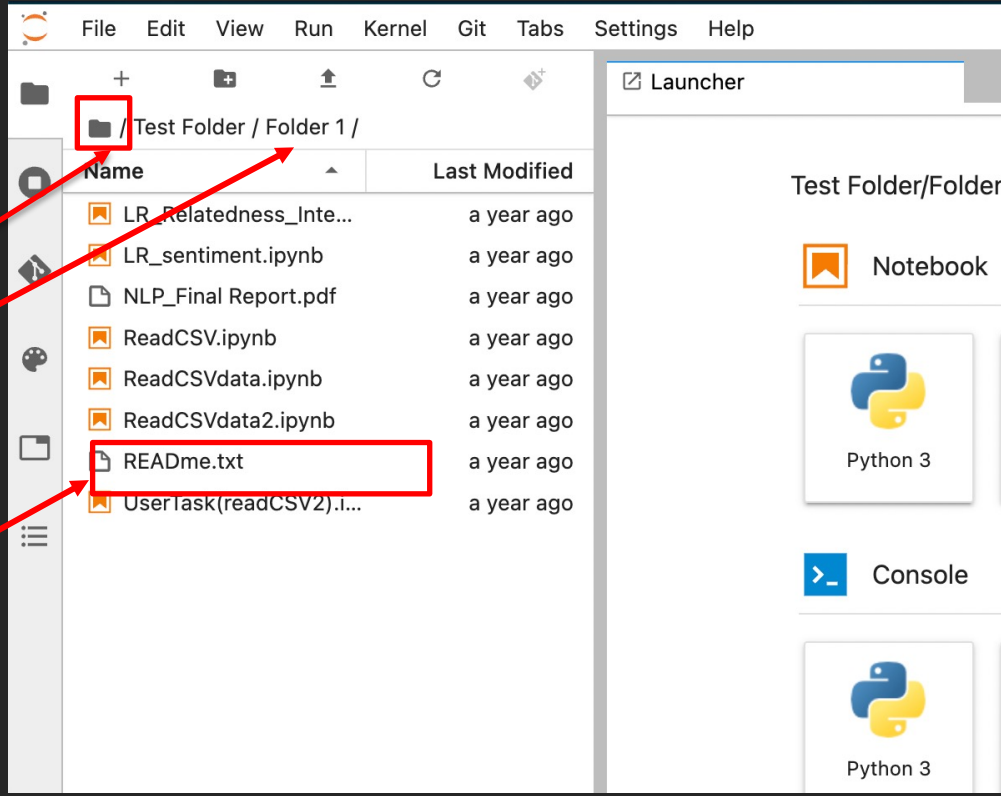
- An absolute path provides the complete location of a file or folder starting from the root directory

This "folder/" icon indicates root directory for each user

Current directory is Folder 1

The absolute path of this file is "Test Folder/Folder 1/READme.txt"

- An absolute path doesn't depend on current directory

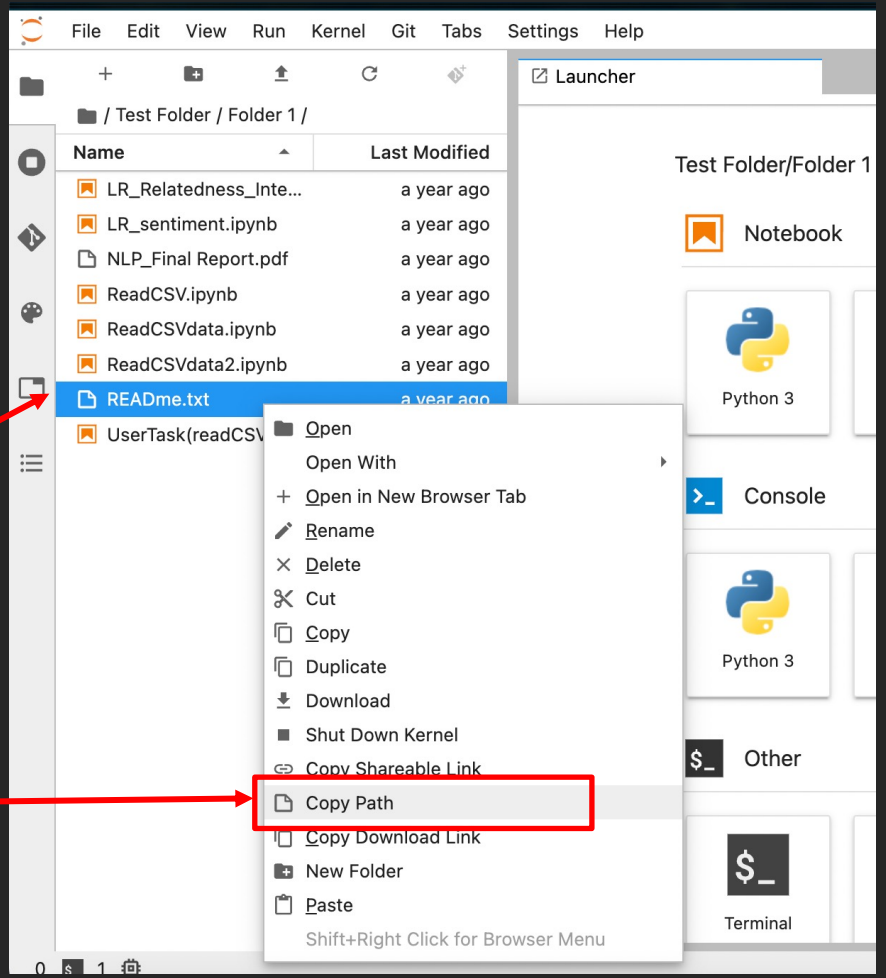


Absolute Path in JupyterLab

- In JupyterLab absolute path can be obtained by "Copy Path"

Right click on a file

Clicking on "Copy Path" will copy the absolute path in the clipboard. You can paste this in any text



Absolute Path

Suppose we have this file structure under our root directory.

- What is the absolute path of Students.csv if our current directory is Folder 1?
- What is the absolute path of Students.csv if our current directory is Folder 2?

- Test Folder
  - Folder 1
    - Universities.csv
    - Folder 3
      - Students.csv
  - Folder 2
    - Teachers.csv

Absolute Path

Suppose we have this file structure under our root directory.

- What is the absolute path of Students.csv if our current directory is Folder 1?
- What is the absolute path of Students.csv if our current directory is Folder 2?

Absolute path doesn't depend on current directory. For both cases they are the same which is "Test Folder/Folder3/Students.csv"

- Test Folder
  - Folder 1
    - Universities.csv
    - Folder 3
      - Students.csv
  - Folder 2
    - Teachers.csv

Activity

- Open the Activity document and proceed with the tasks