

Intro to Jupyterlab

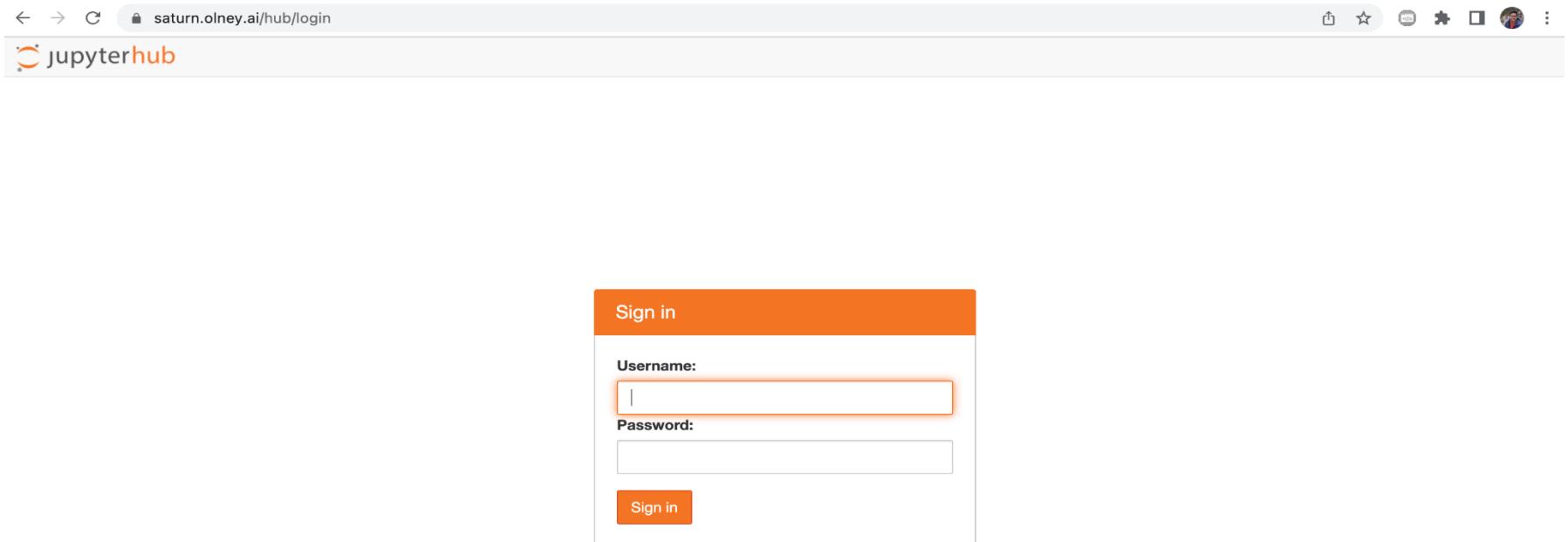
A guide to the jupyterlab user interface

Objectives :

- Learn about the Jupyterlab environment
- Practice basic tasks in Jupyterlab

Login to Jupyterlab

- Logging In to jupyterlab at saturn.olney.ai



saturn.olney.ai/user/hmshrque/lab/workspaces/cache

File Edit View Run Kernel Tabs Settings Help

Launcher

Notebook

- Python 3
- Python [conda env:macaw-]
- Python [conda env:root] *
- R
- R [conda env:root] *
- SoS [conda env:macaw-]

- xpython
- xpython [conda env:macaw-]
- xpython [conda env:root] *

Console

- Python 3
- Python [conda env:macaw-]
- Python [conda env:root] *
- R
- R [conda env:root] *
- SoS [conda env:macaw-]

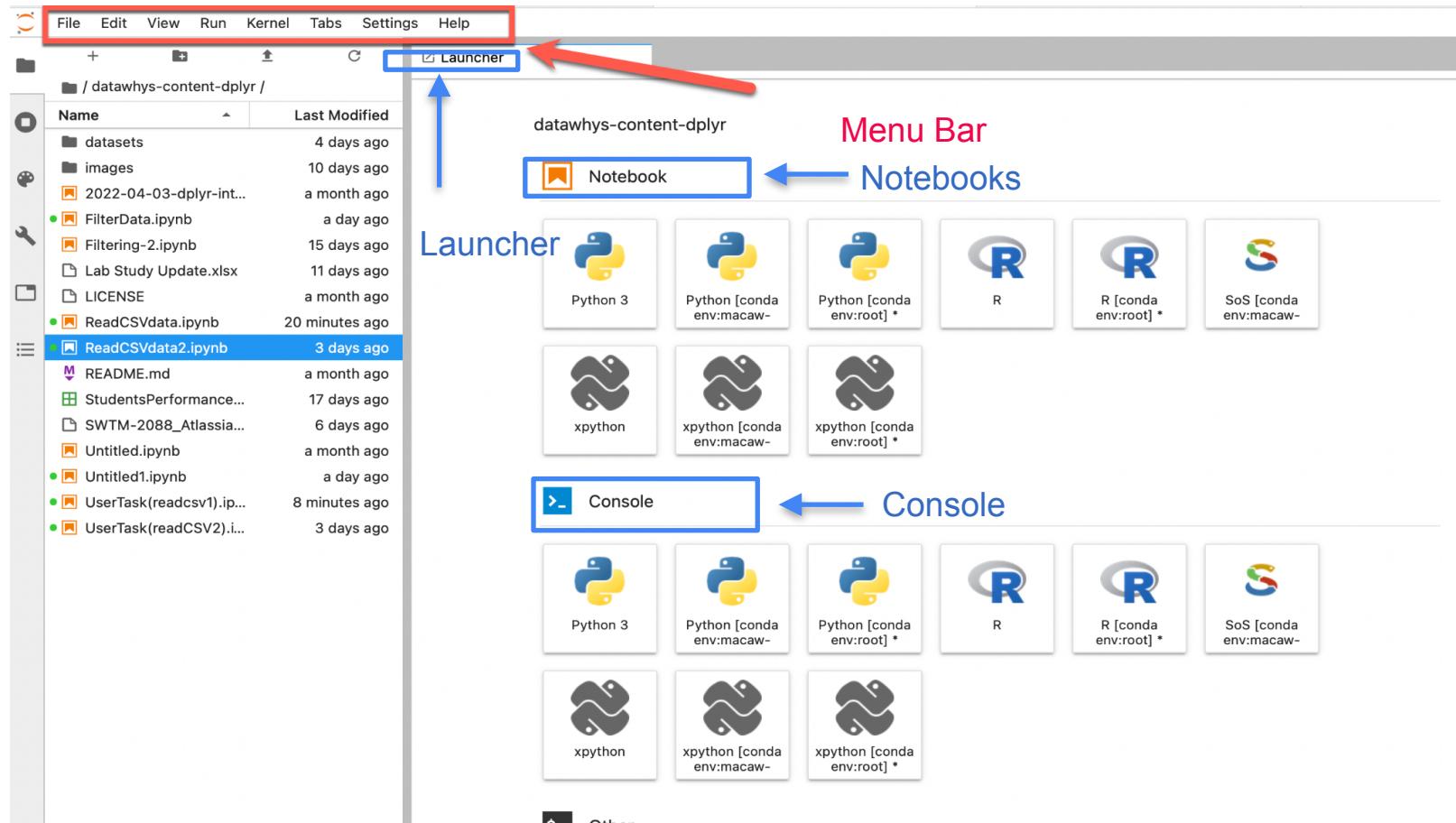
- xpython
- xpython [conda env:macaw-]
- xpython [conda env:root] *

Other

/

Name	Last Modified
datawhys-content-dpl...	8 hours ago
datawhys-intern-note...	20 days ago
Identifying Common E...	a day ago
Untitled.ipynb	a day ago
Untitled1.ipynb	12 minutes ago

The Menu Bar



The toolbar

The screenshot shows a Jupyter Notebook interface with various tools and resources.

Toolbar: The top navigation bar includes File, Edit, View, Run, Kernel, Tabs, Settings, and Help. A red circle highlights the first five icons: a folder (File), a plus sign (New), a folder with a plus (New Launcher), a file (Upload Files), and an upward arrow (Refresh File List). A red arrow points from the 'Upload Files' icon to the 'File Browser' sidebar.

File Browser: The left sidebar displays a list of files and folders. It includes a 'New Folder' button at the bottom. Labels with blue arrows point to the 'New Launcher' (plus sign), 'Upload Files' (file icon), and 'Refresh File List' (refresh icon).

Launcher: A dropdown menu titled 'Launcher' is open, listing 'Notebook', 'Console', and 'Other' sections. The 'Notebook' section contains icons for Python 3, Python [conda env:macaw-], Python [conda env:root] *, R, R [conda env:root] *, SoS [conda env:macaw-], xpython, xpython [conda env:macaw-], and xpython [conda env:root] *. The 'Console' section contains similar icons. The 'Other' section has a single icon for '\$'.

The Left Panel(side bar)

The screenshot shows the left sidebar of a Jupyter Notebook interface. A red border highlights the sidebar area, which contains the following icons from top to bottom:

- File icon
- Folder icon (highlighted by a blue arrow)
- Cell icon
- Kernel icon
- Help icon

Below the sidebar, the main interface is divided into several sections:

- File Browser**: Shows a list of files and notebooks in the current directory. One file, "Untitled4.ipynb", is highlighted with a blue arrow.
- Running Terminals and Kernels**: A section titled "Commands" containing icons for Python 3, Python [conda env:macaw-], Python [conda env:root] *, R, R [conda env:root] *, and SoS [conda env:macaw-].
- Open Tabs**: A section titled "Commands" containing icons for xpython, xpython [conda env:macaw-], and xpython [conda env:root] *.
- Table of Content**: A section titled "Console" containing icons for Python 3, Python [conda env:macaw-], Python [conda env:root] *, R, R [conda env:root] *, and SoS [conda env:macaw-].
- Other**: A section containing icons for xpython, xpython [conda env:macaw-], and xpython [conda env:root] *.

Folder Structure in Jupyterlab

saturn.olney.ai/user/hmshrque/lab/workspaces/cache

File Edit View Run Kernel Tabs Settings Help

Launcher

File Structure

Name	Last Modified
datawhys-content-dpl...	8 hours ago
datawhys-intern-note...	20 days ago
Identifying Common E...	a day ago
Untitled.ipynb	a day ago
Untitled1.ipynb	12 minutes ago

Notebook

Python 3 Python [conda env:macaw-] Python [conda env:root] * R R [conda env:root] * SoS [conda env:macaw-

xpython xpython [conda env:macaw-] xpython [conda env:root] *

Console

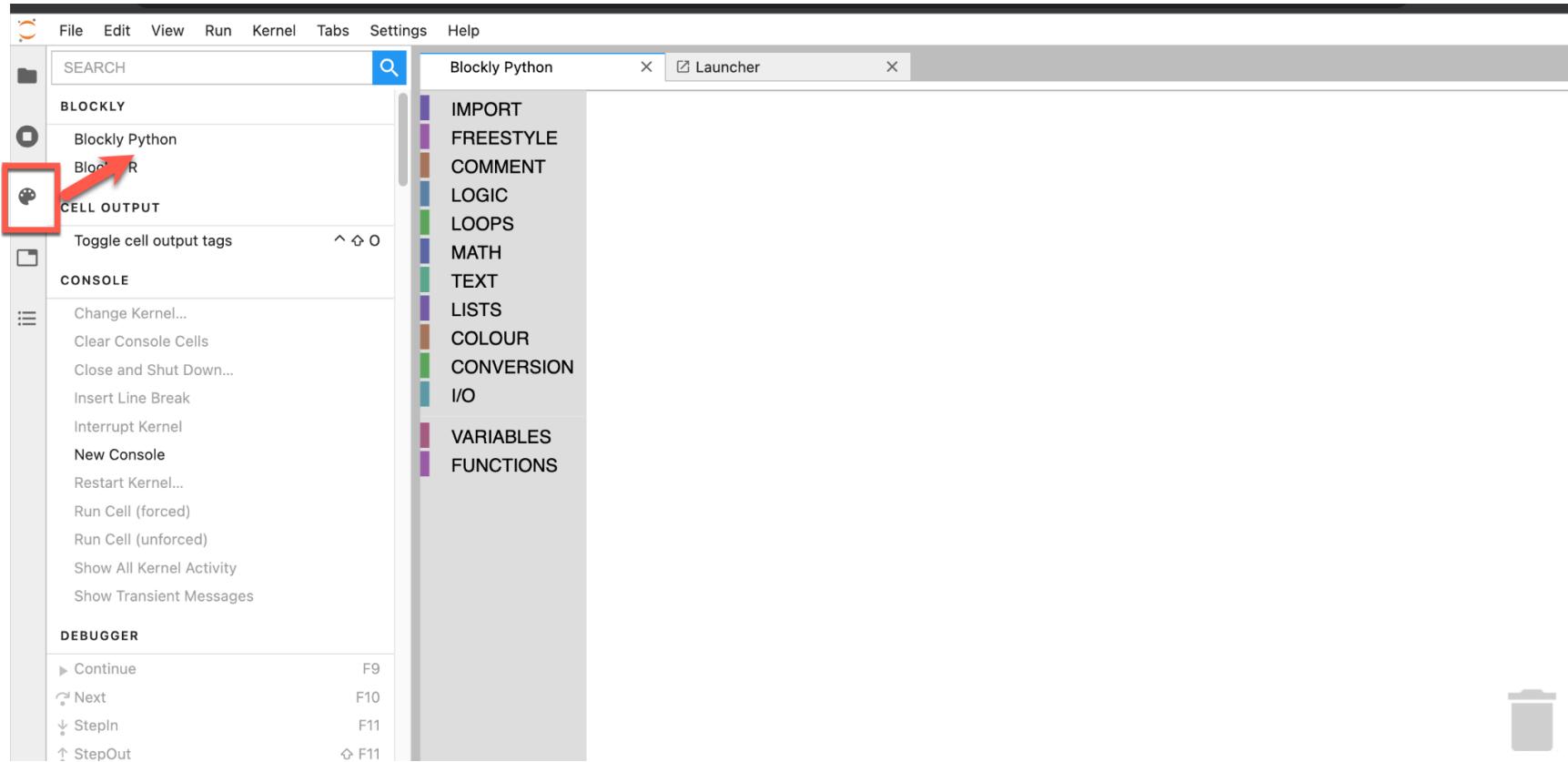
Python 3 Python [conda env:macaw-] Python [conda env:root] * R R [conda env:root] * SoS [conda env:macaw-

xpython xpython [conda env:macaw-] xpython [conda env:root] *

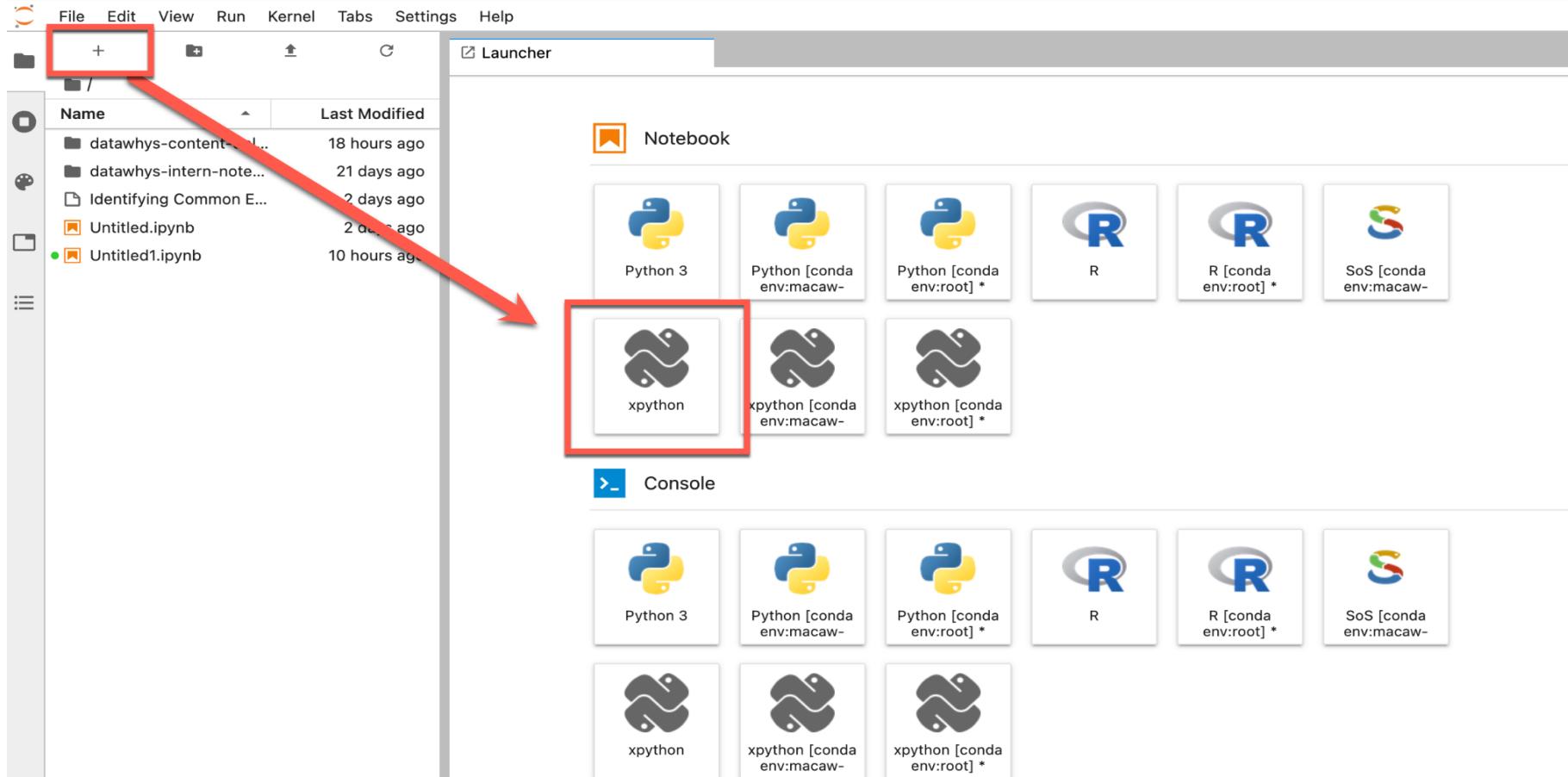
Other

The screenshot shows the JupyterLab interface. On the left is a file browser with a red box highlighting the 'File Structure' section. It lists several notebooks and their last modified times. To the right are three sections: 'Notebook' (listing Python, R, and SoS kernels), 'Console' (listing Python, R, and SoS kernels), and 'Other' (listing Python, R, and SoS kernels). Each item has a small icon representing the kernel or environment.

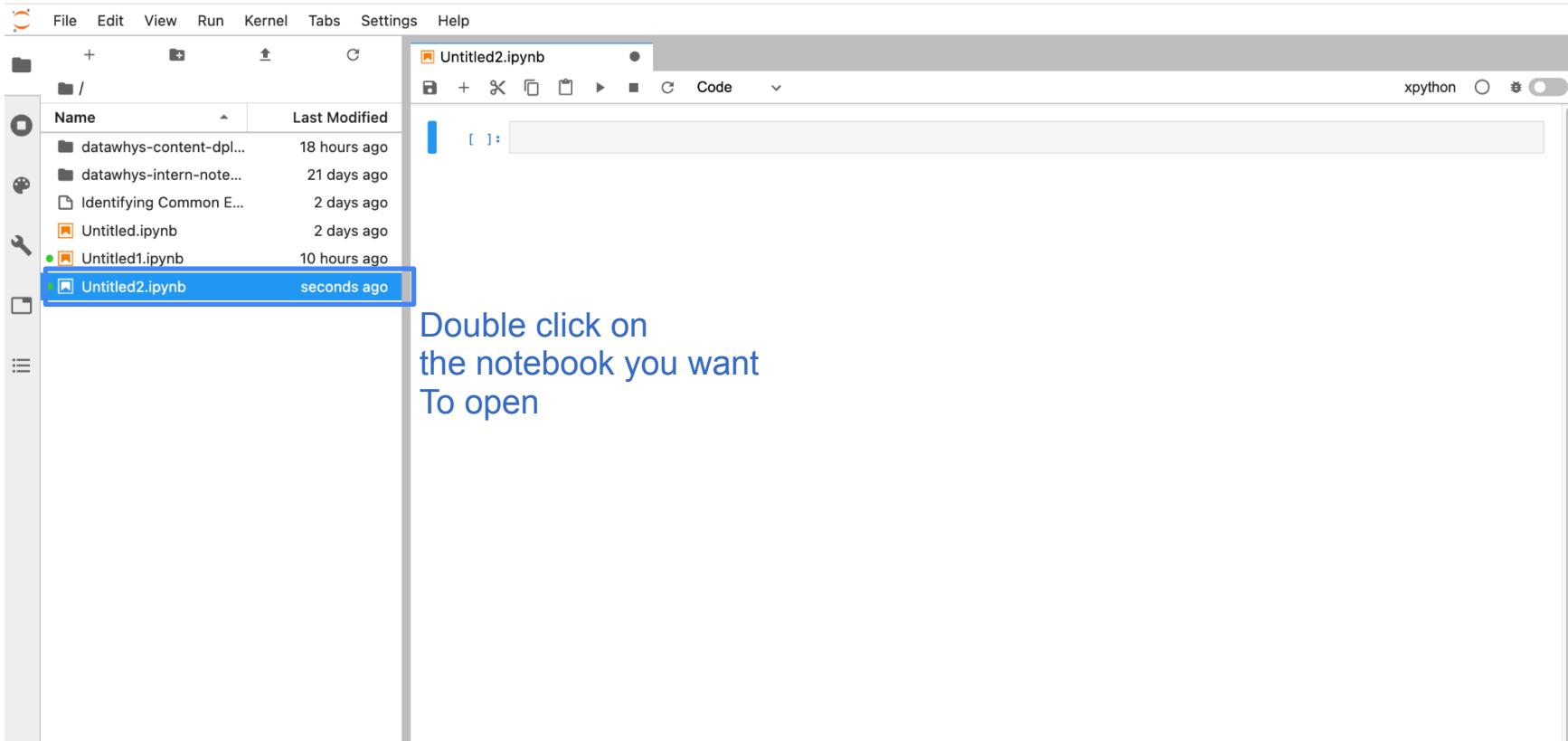
The Blockly Palette



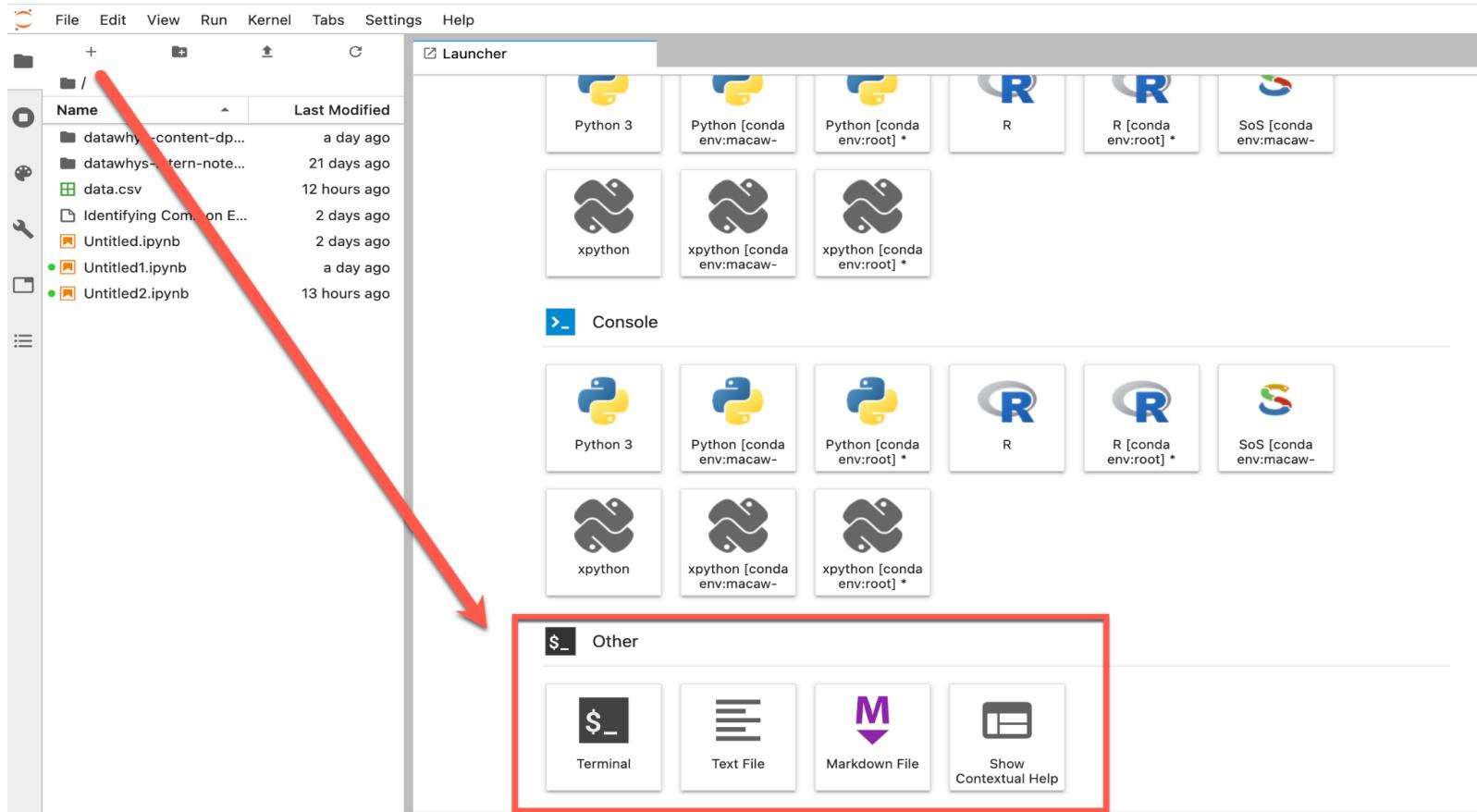
Opening python file from launcher (1)



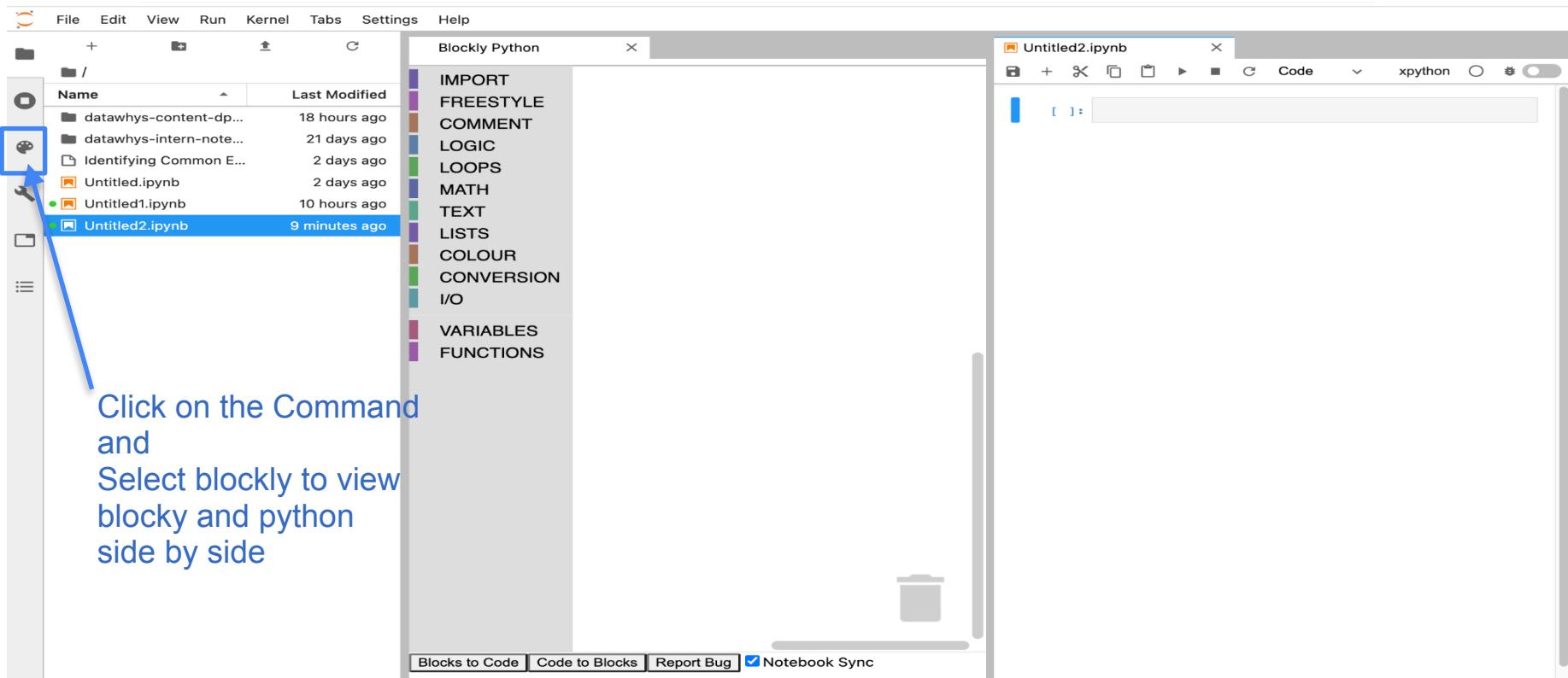
Opening python file from launcher(2)



Opening other file types



Viewing Blockly and python file side by side



File Operations

The screenshot shows the Blockly Python interface with a sidebar containing file operations and a central workspace.

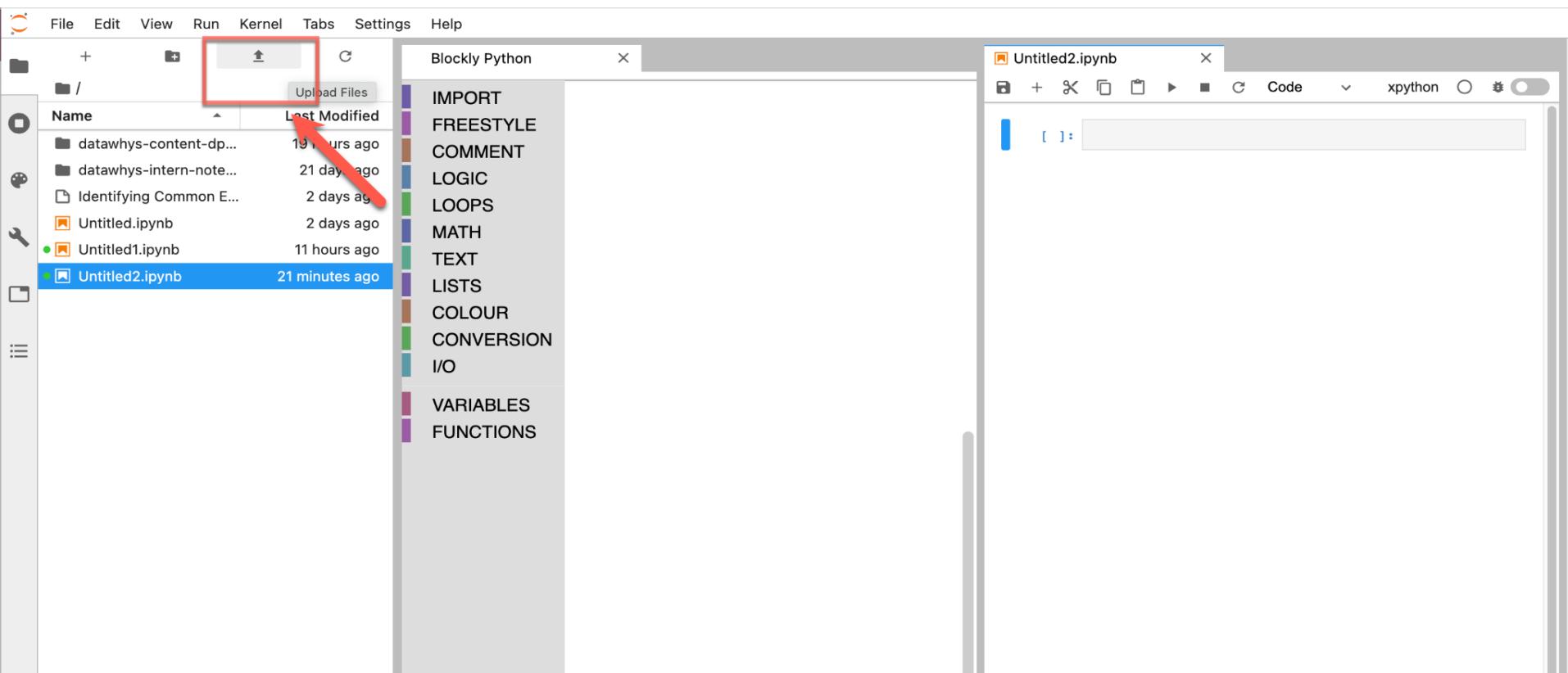
File Operations Sidebar:

- Icons: Home, New, Open, Save, Run, Kernel, Tabs, Settings, Help.
- File Tree: Shows a folder structure with a single folder named '/' containing several files and sub-folders.
- Table: Lists files by Name and Last Modified.
- Context Menu (Open):
 - Open
 - Open With
 - + Open in New Browser Tab
 - Rename
 - Delete
 - Cut
 - Copy
 - Duplicate
 - Download
 - Shut Down Kernel
 - Copy Shareable Link
 - Copy Path
 - Copy Download Link
 - New Folder
 - Paste
- Text at bottom: Shift+Right Click for Browser Menu

Central Workspace:

- Blockly Python Editor: Title bar says "Blockly Python".
- Code Editor: Title bar says "Untitled2.ipynb".
- Code View: Shows a code cell with a blue header and a blank code area.
- Bottom Bar: Buttons for "Blocks to Code", "Code to Blocks", "Report Bug", and "Notebook Sync".

Uploading a file in Jupyterlab (1)

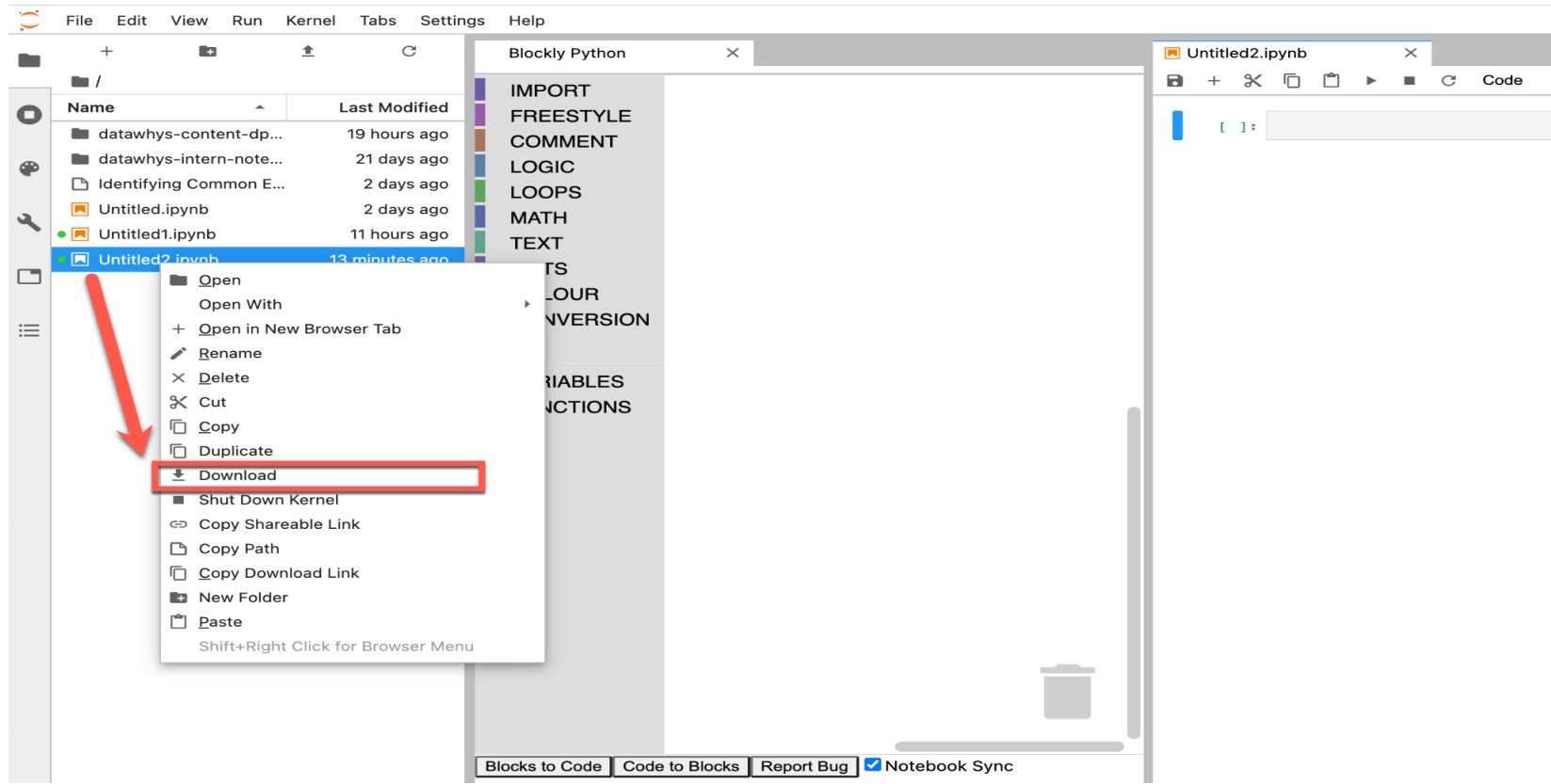


Uploading a file in Jupyterlab (2)

The screenshot shows the JupyterLab interface with the following components:

- File Explorer:** On the left, it displays a file tree under the root directory '/'. A file named "data.csv" is highlighted with a red box.
- Blocky Python Editor:** In the center, there is a tab titled "Blocky Python". It contains a sidebar with categories: IMPORT, FREESTYLE, COMMENT, LOGIC, LOOPS, MATH, TEXT, LISTS, COLOUR, CONVERSION, I/O, VARIABLES, and FUNCTIONS. The "data.csv" file from the file explorer is listed below the sidebar.
- Notebook:** On the right, there is a tab titled "Untitled2.ipynb". It shows a code cell starting with "[]:".

Downloading a file from Jupyterlab



Practice Tasks:

- Login into the Jupyterlab system (wd username and password.)
- Go to “Intro to Jupyterlab” folder
- There should be test.ipynb file
- Rename that file “testrenamed.ipynb”
- Open a xpython file from launcher and name it “createfile.ipynb”
- Open a block palette from the side panel
- View the blocks and “createfile.ipynb” file side by side
 - Download the “createfile.ipynb” file
- Rename the downloaded file “upload.ipynb”
- Upload the ‘upload.ipynb’ file to jupyterlab
- Delete file “testrenamed.ipynb”
- Check which files are open from the ‘Kernel’ tab

Self Practice:

- Login into the Jupyterlab system (wd username and password.)
- Go to “Intro to Jupyterlab” folder
- There should be newtest.ipynb file
- Rename that file “newtestrenamed.ipynb”
- Open a xpython file from launcher and name it “createfile.ipynb”
- Open a block palette from the side panel
- View the blocks and “createfile.ipynb” file side by side
 - Download the “createfile.ipynb” file
- Rename the downloaded file “upload.ipynb”
- Upload the ‘upload.ipynb’ file to jupyterlab
- Delete the “newtestrenamed.ipynb” file
- Check which files are open from the ‘Kernel’ tab