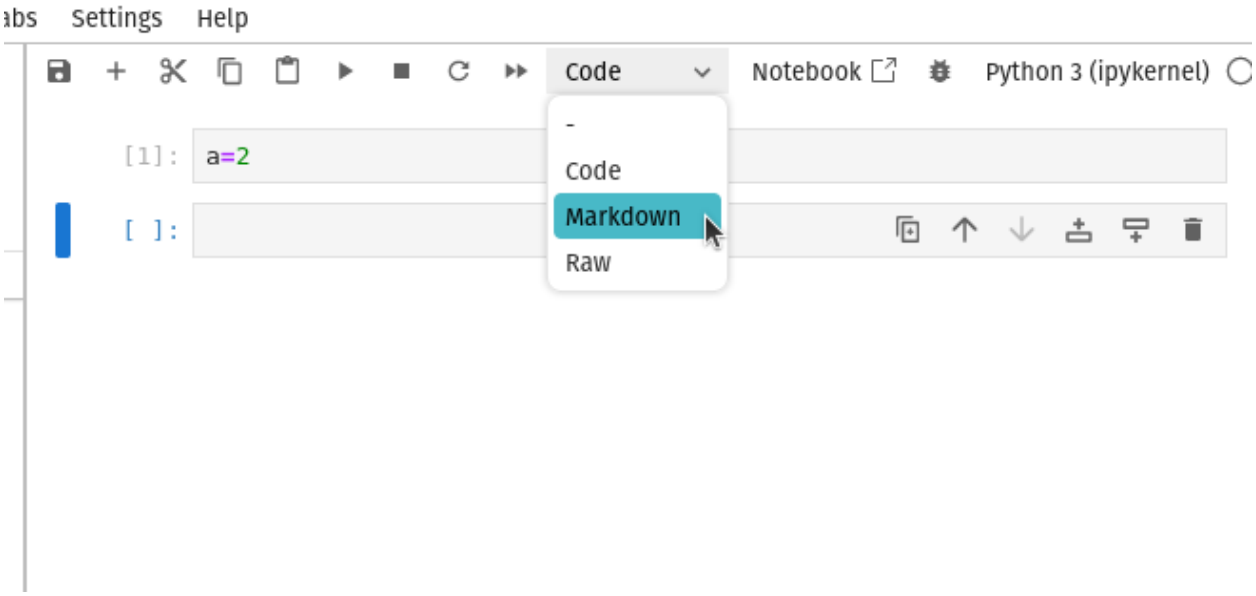
Day 4: Introduction to NumPy

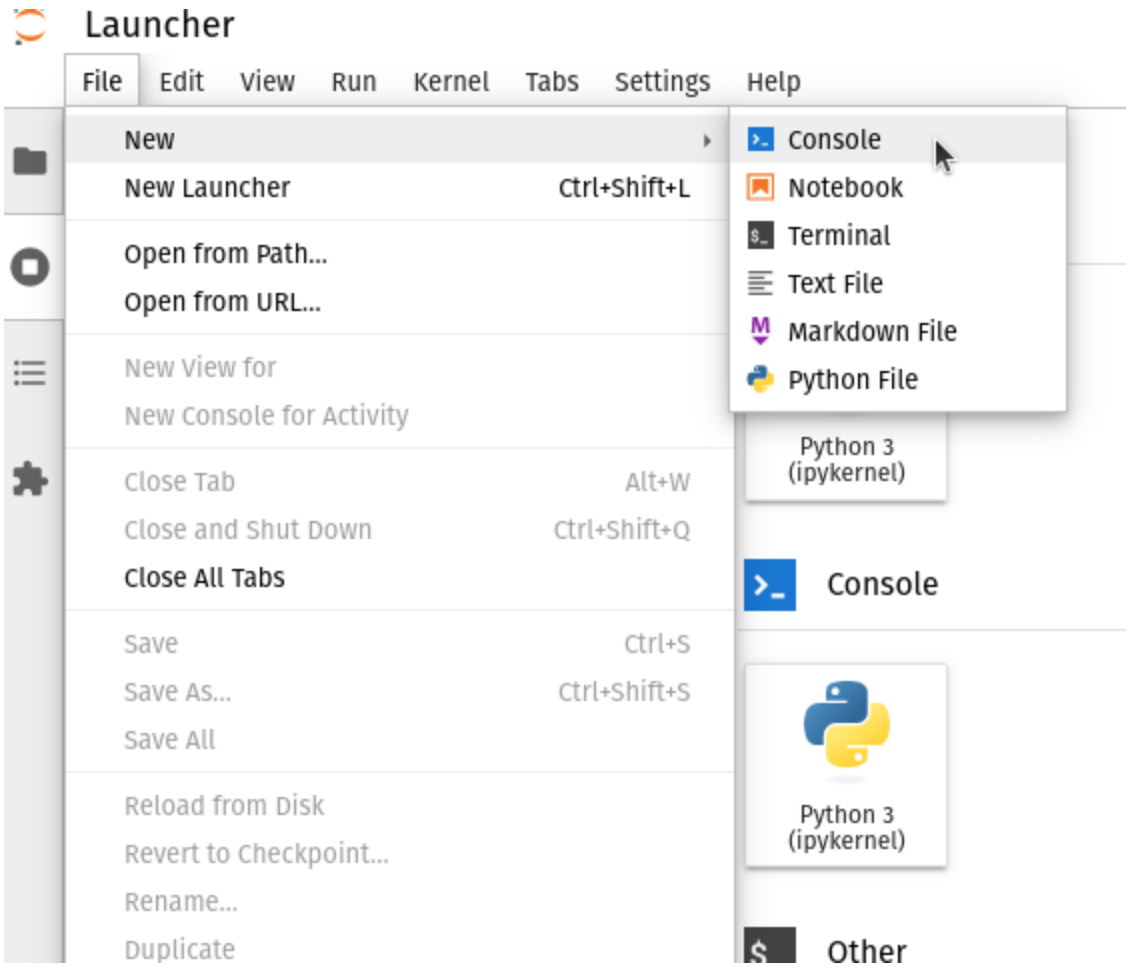
Requirements:
numpy:
pip install numpy

jupyter notebook:
pip install notebook
jupyter notebook

Some notes about jupyter notebooks:
You can press SHIFT-ENTER to run a code block, and it will create a new one for you. You can change from writing code to markdown supported text (to describe what you are doing) if you want to by going to where it says code and selecting on the dropdown to select markdown.



You can install packages in the jupyter notebook by going to either Python console and running the pip commands or going to the terminal and doing the same.



Remember you still have to import the packages locally in the jupyter notebook like
import numpy as np
to access those modules.

Activity 1: [Watch this Python NumPy Tutorial]
It goes over everything required to get through activity 2.

Activity 2:
Download this txt file with random numbers, make sure it is accessible by your jupyter notebook, and load the data into your notebook from a file using numpy as an **int32 datatype**.

I want you to find the following details about the txt file and provide the code to do so:

a) Find the max value in the data.
b) Find the min value in the data.
c) Find the sum of the data.
d) Find the mean (average) value in each **row**.
e) Find the max value in the first row.
f) Return me only the values in data whose values are divisible by 3 and 5.
g. Assuming you have calcuated the sums of each row of the data, and found the row with the maximum sum value, return me the row of data that produced that maximum sum value.
h. Assuming you have calculated the inverse of the matrix, find the value in the original data matrix that produces the minimum value in the inverse matrix.