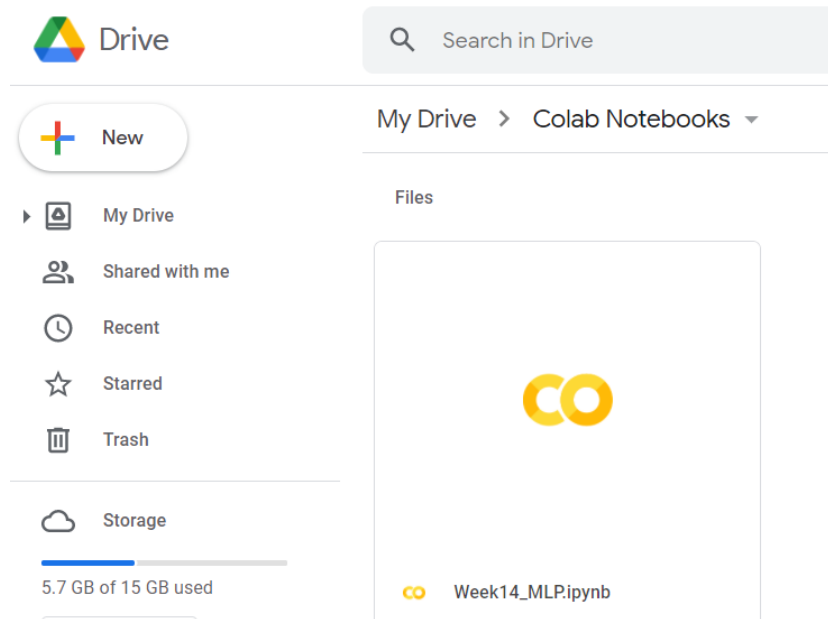




SCC.413 APPLIED DATA MINING LAB SESSIONS

SET UP YOUR COLAB

- First of all, register your Google Drive account,
 - <https://drive.google.com/>
- Secondly, upload your Jupyter codes to your folder,



- Then click and run, simple!!!



SET UP YOUR COLAB

- Run the code on colab environment

The screenshot displays the Google Colab environment. On the left, the 'Files' sidebar shows a directory structure with folders like bin, boot, content, datalab, dev, etc, home, lib, lib32, lib64, media, mnt, opt, proc, root, run, sbin, srv, swift, sys, and tensorflow-1.15.2. A red text annotation 'Folders in the co-lab cloud server that your codes run on' points to this sidebar. The main workspace is titled 'Week14_MLP.ipynb' and contains two sections: 'Build Your Own MLP - XOR' and 'Setup'. The 'Setup' section includes a text comment 'First let's import the necessary libraries and let's configure essential building blocks such as a pseudo-random number generator:' followed by a code cell. The code cell, labeled 'Code Section', contains the following Python code:

```
import numpy as np
import matplotlib.pyplot as plt
from pylab import rcParams

%matplotlib inline

rcParams['figure.figsize'] = 12, 6

RANDOM_SEED = 56

np.random.seed(RANDOM_SEED)
```

 To the right of the code cell is a red text annotation 'Code Section'. Below the code cell, another text comment states 'We have now imported and configured useful helper libraries such as [matplotlib](#) for plotting and'. On the far right, the 'Executions' panel shows the execution of the code cell, with a red text annotation 'Code Execution Window' pointing to it. The panel displays the time '17:59' and the code:

```
[1] import numpy as np
import matplotlib.pyplot as plt
```

 At the bottom of the 'Executions' panel is a text input field with the placeholder 'Type code here to execute.'

EXERCISE

- Scroll down and you find questions to answer

▸ Predictions and Visualization

[] ↪ 4 cells hidden

▾ Questions and Additional Exercises

Try to do more exercises after running the sample code

▸ Comparison of Training Functions

Try to use backward and backward_fast instead of backward_pass, and see how it works.

↪ 1 cell hidden

▸ Test MLP on MNIST dataset

Considering you have MNIST dataset, how can you use MLP to classify those digits?

Develop your own codes to handle with it.

[] ↪ 3 cells hidden

▸ Test MLP on Fashion MNIST dataset

[] ↪ 4 cells hidden

