7/18/25, 11:27 AM Lab1

## Importing the data

```
In [3]: import warnings, requests, zipfile, io
         warnings.simplefilter('ignore')
         import pandas as pd
         from scipy.io import arff
In [4]: f_zip = 'http://archive.ics.uci.edu/ml/machine-learning-databases/00212/vertebra
         r = requests.get(f_zip, stream=True)
         Vertebral_zip = zipfile.ZipFile(io.BytesIO(r.content))
         Vertebral_zip.extractall()
In [5]: data = arff.loadarff('column_2C_weka.arff')
         df = pd.DataFrame(data[0])
         df.head()
            pelvic_incidence pelvic_tilt lumbar_lordosis_angle sacral_slope pelvic_radius degree_spondy
Out[5]:
         0
                  63.027817 22.552586
                                                 39.609117
                                                             40.475232
                                                                          98.672917
         1
                  39.056951 10.060991
                                                 25.015378
                                                             28.995960
                                                                         114.405425
         2
                  68.832021 22.218482
                                                 50.092194
                                                             46.613539
                                                                         105.985135
         3
                  69.297008 24.652878
                                                 44.311238
                                                             44.644130
                                                                         101.868495
         4
                  49.712859
                            9.652075
                                                 28.317406
                                                             40.060784
                                                                         108.168725
```