Universidade do Minho
Departamento de Informática
Mestrado [integrado] em Engenharia Informática

Dados e Aprendizagem Automática
1º/4º Ano, 1º Semestre
Ano letivo 2024/2025

Practical Exercise no. 1

Theme	*Intro to Data Science & Python/Scikit-learn*

Exercise
The aim of this exercise is to prepare a functional Python virtual environment to start learning, practising, and developing Machine Learning software in the Dados e Aprendizagem Automática curricular unit.

Tasks
Given this statement, you should follow these steps:

T1. Download and install the Miniconda package for your respective platform (Windows, Mac OS, Linux). The platform is available at https://docs.anaconda.com/miniconda/;

T2. Start the Miniconda prompt and create a Python3.12.4 virtual environment. The following libraries should be installed in this environment:

- Numpy
- Pandas
- Xlrd
- Xlwt
- Matplotlib
- Seaborn
- Scikit-learn
- Jupyterlab

T3. Activate the virtual environment created and check the libraries installed. Validate the installation of the set of libraries shown in T2;

T4. Briefly check the documentation of each library mentioned in question T2. Identify their relevance in the context of the development of Machine Learning algorithms.