UNIVERSITAT DE BARCELONA

Course. Introduction to Machine Learning

Work 0. Level Exercise

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Contents

Introduction

Code and Packages

- You need to implement the code using **Python 3.6** and **Pycharm IDE**

- Packages allowed in this exercise:
  - arff_loader
  - numpy
  - pandas
  - scipy
  - sklearn (only for some parts)
  - matplotlib
  - seaborn

Exercise 1

Elementary Python Exercise

Elementary Python exercise

- You will find a code in Racó, called `Example1.py`, that you need to fill in the gaps of code to complete it
- It is an elementary exercise to practice with numpy
- Steps:
  - Install Python and SciPy platform
  - Install PyCharm IDE
  - Create a PyCharm project
  - Include the file `Example1.py` to the PyCharm project
  - Complete the code and run it, it should extract the same results as described at the end of the file

Exercise 2

Hello World in Machine Learning

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Hello World Machine Learning Exercise

- Read, understand and create a python file in a PyCharm project with all the code to do your first Hello World in Machine Learning
- Follow the instructions described in:
  - https://machinelearningmastery.com/machine-learning-in-python-step-by-step/
- Process:
  - Install Python and SciPy platform
  - Include a new file in the previous PyCharm project
  - Load the iris data set. Instead of connecting to the web to access the iris.csv data set, download it and include it in your PyCharm project
  - Summarize the data set
  - Visualize the data set
  - Evaluate some algorithms
  - Make some predictions

- Deliver the PyCharm project with exercise 1 and exercise 2 in Campus Virtual at UB (`campusvirtual.ub.edu`) in a zip file with your name and surname