Data Analysis Lab
Degree in Informatics Engineering
2º Semester 2022/2023

Worksheet 3

<u>**Goals:**</u>

- Introduction pandas library

Exercise 1

Step 1. Import the necessary libraries

Step 2. Import the dataset Euro12.csv

Step 3. Print the first lines

Step 4. Print the last lines

Step 5. Select only the Goal column.

Step 6. How many team participated in the Euro2012?

Step 7. What is the number of columns in the dataset?

Step 8. View only the columns Team, Yellow Cards and Red Cards and assign them to a dataframe called discipline

Step 9. Sort the teams by Red Cards, then to Yellow Cards

Step 10. Get the statistic description of your data set

Step 11. Calculate the mean Yellow Cards given per Team

Step 12. Filter teams that scored more than 6 goals

Step 13. Create a new column for the total number of cards

Step 14. Sort the teams by shooting accuracy

Step 15. See the data about Portugal national team slicing the dataframe

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Exercise 2

Step 1. Import the necessary libraries

Step 2. Import the dataset AutomobileDataSet.csv

Step 3. Print the first and last five rows

Step 4. Clean the dataset and update the CSV file

Step 5. Replace all column values which contain ?, n.a, or NaN.

Step 6. Find the most expensive car company name

Step 7. Print All Toyota Cars details

Step 9. Count total cars per company

Step 10. Sort all cars by Price column

Step 11. Obtain a statistical description of the dataset

Step 12. Apply a filter

Step 13. Apply slicing methods

Step 14. Sort the teams by shooting accuracy

Step 15. See the data about Portugal national team slicing the dataframe

Exercise 3

Download a dataset from online repositories and explore the data using pandas

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