219114/115 Programming I

Exercise 6: Data Project

In this exercise, you will get a chance to work with more data in different files. Download the data sets and the starting code from the course's Google Classroom.

There are six csv files that you will process in this project, Cities.csv, Countries.csv, Players.csv, Teams.csv, and Titanic.csv. Cities.csv and Countries.csv are related to each other, i.e., there is a common attribute between them; the same goes for Players.csv and Teams.csv.

The starting code is provided in the files, data_processing.py, data_processing_run.py, and data_plotting_run.py. All these files are, however, incomplete and it is your job to complete them.

1. Implement all the functions in data_processing.py and put the code to test those functions in data_processing_run.py. Some sample code has been put in those two files and you can run data_processing_run.py to get some result.

2. Provide code for data_plotting_run.py to plot all the required scatter plots, bar charts, and pie charts. **You must try to utilize the functions implemented in data_processing.py as much as possible.**

Submission:

- ***Create StudentID_Firstname_ex6 folder, where StudentID is your KU ID and Firstname is your given name***
- ***Put the files to submit, data_processing.py, data_plotting_run.py, and data_plotting_run.py, into this folder***
- ***Zip the folder and submit the zip file to the course's Google Classroom before the due date***

Grading:

1. Correctness (60%); your code must run and produce correct outcomes; code that does not run because of, for example, syntax errors or name misspelling receives zero credit.

2. Cleanliness (20%): your code must be clean, following PEP 8 style guide; variable names must be meaningful, following PEP 8 convention; comments must be put in for others to be able to read and understand your code, again following PEP 8 convention.

3. Conciseness (20%): your code must be short and does not have much duplication, utilizing all the implemented functions as much as possible.