

You are given a dataset on the modern *Olympic Games*, including all games from Athens 1896 to Rio 2016. The dataset is provided on Moodle. Your task is to visualize a specific aspect of the dataset and deliver the processed information in form of an **A3 poster** (or bigger - details below).

1 The Dataset

The file `athlete_events.csv` contains individual athletes competing in an individual Olympic event. The file `noc_regions.csv` contains the country names corresponding to the National Olympic Committee (NOC) codes.

| athlete_events.csv | | noc_regions.csv | |
|--------------------|-----------------------------|-----------------|---------------|
| ID | Unique ID for each athlete | NOC | 3-letter code |
| Name | Athlete's name | Region | Country Name |
| Sex | F/M | Notes | notes, string |
| Age | Integer | | |
| Height | in cm | | |
| Weight | in kg | | |
| Team | Team name | | |
| NOC | 3-letter code | | |
| Games | Year and season | | |
| Year | Integer | | |
| Season | Summer or Winter | | |
| City | Host City | | |
| Sport | Type of Sport | | |
| Event | Event | | |
| Medal | Gold, Silver Bronze, or NaN | | |

2 The Task

After exploring the dataset, formulate a key question/topic for your final project. This topic should focus on a specific aspect of the dataset, e.g.

- Alpine Skiing Men's Giant Slalom Medalists over the years
- Athletes with the most participation in the Olympic Summer Games (Overall/Per Sport etc.)
- Medalists from your home country
- All-time medal table for your favorite sport
- Niche Sports with least participants
- One-Hit-Wonders (Sports that were only part of few Olympic Games)
- ...

Use different visualization options to show in-depth analyses of your topic. Besides "basic" plots, think of including maps for geographic distributions, show time series, and be sensitive about choices of colors, marker styles, legend, and labeling.

3 The Final Presentation

The final presentation will take place as a poster session on

- December 12th, 2022, 1.30pm, for the full-time students, and
- February 11th, 2023, 8.15am, for the part-time students.

Be prepared to present your **printed** poster in a 5-minute pitch. Before the presentation, the poster has to be submitted as a PDF in the eLearning course.

3.1 Requirements

- choose a suitable topic and title and include it in your poster
- add an abstract to motivate your project (between 800-1000 character)
- add a paragraph with your key findings (between 1000-1500 character)
- include at least 3 different kinds of plots (created using Python) in your poster. Each plot should have a title, legend, labels, and should be self-explanatory
- include your name and the course title ("Data Analysis with Python") on the poster
- make sure the poster is visually appealing

The poster needs to be printed at a minimal size of A3. The printing can be done on site, at SUAS. Find information on the location of printers and their capabilities at <https://myfhs.fh-salzburg.ac.at>.

3.2 Grading

The grading of the project will be based on several components and a combination of the following factors:

1. visual presentation using the poster
2. design and usage (variety) of plots, formal requirements of plots
3. the topic of the project and the story told
4. the short verbal presentation of the poster

The grading will be done by one or two of the course instructors. The grades of the project (and the overall grade of the course) will be communicated in a timely manner.