

MDS 2020 :: Data Visualization :: Project Description

Project proposal submission deadline: 13th Nov @ 23:30

Project proposal presentation: 16th Nov

Final project submission deadline: 18th Dec @ 23:30

Final project presentation: TBA

Important:

- Be aware of the University of Porto Policy on Plagiarism.
- Properly cite any external source that you used.
- You are **not allowed** to use or reuse any piece of code **created by other groups**.
- However, you can use any programming language for the development of your work, as well as code that is freely available (open source) on the Internet (provided you understand it).

Project assessment elements:

You get points based on the quality of the report, the difficulty of the problem and the novelty of your solution(s). You need to submit your project proposal + report (a PDF file) on Moodle

1. [20 points] Project Proposal

- a. The proposal should be an A4 document (max 4 pages), with font size 10 (main text), and figures, describing:
 - 1) The dataset, showing that you have a deep knowledge of it.
 - 2) The (undergone and expected) data transformations on the dataset
 - 3) The hypotheses you formulate from an earlier inspection and exploratory data analysis
 - 4) The problems you foresee in analyzing the data and creating visualizations

2. [80 points] Final Project Development Report

- a. The final project should be in the IEEE conference format (max 6 pages).
- b. The report should include the title, authors, an abstract and a conclusion.
- c. Clearly explain your project (what problems are you solving), discuss their importance, your solution(s) to tackle the problem and your novelties, in both visualization and data processing to support the visualization.
- d. You need to justify and explain each visualization module in your interface.
 - 1) Explain why you chose these types of visualizations or graphs
 - 2) Explain what you want to present to the user by each of visualization or graph
- e. Clearly cite all tools, libraries, and external resources you used in your project. You need to explain what you added, or change, to the existing code and resources.
- f. **Be advised:** it is important that your group can add something (eg. a novel question and answer in a visual form) that differentiates itself from any other group in the class.

3. [20 points] Final presentation

- a. Prepare a 15 minutes presentation to demonstrate your visualizations.
- b. You get points based on the quality of the presentation (both oral and visual)