Data Visualization

EXAM

Exam

Groups of 3 or 4 students design and present visualizations of some data

The presentation should not take more than 15 minutes

Be prepared to answer questions about the tasks your visualization is addressing, your design choices and possible alternatives

Showcase what you have learned

Less in more

Use any software/tool

Topic

Choose a topic you are interested in from

o List of example topics

o Collection of public data sources on Moodle

o Your own data

Find the data and two or three interesting questions about the topic

Produce visualizations of moderate sophistication that answer those questions

Present the results

Topic/question examples (1)

Space

How long does it take for Jovian satellites to orbit Jupiter? What are their sizes (and other properties)?

Music

How have the lyrics and/or duration of songs of your favorite singer evolved through time?

Politics

What were the durations of Italian governments? How have the ruling parties changed in time?

Topic/question examples (2)

Sports

Which are the most successful teams/countries in Champions League? Which have most often lost in the final?

Movies

How often is an Italian dubbing actor associated with the same original actor? Which dubbing actors have been associated to the largest number of different original actors?

Demographics

How did the Italian demographics looked in the past? How do the forecasts look like?

Presentation

Structure of the presentation
- o Topic and data introduction
- o Addressed questions
- o Visualizations and findings about the data, answers to the questions
- o Individual contributions of the students in the group

Grading

Graded aspects (make sure you pay attention to all of them)

o Visualization

- o Pose clear questions and answer them with the visualizations
- o Showcase what you have learned (appropriate choice of representation and color, avoid lying, maximize accessibility, minimize clutter, use annotation, cite the source of data, …)

o Presentation

- o Follow the proposed structure (including the individual contributions)
- o Make sure there are no typos
- o Respect the allocated time

Common mistakes

Too many visualizations (presentation too long)

Choice of colors/fonts/font sizes not consistent

Individual items not aligned well

Not enough attention to details

Individual contributions not listed

Advice: Validate the visualizations among yourselves

Deadlines

Provide the visualizations and presentation slides (post them to the Exam channel on Teams) one week before the exam (hard deadline!)

Presentations during a call at the exam date

I will give several possible dates – you can also propose them

Communication regarding the deadlines by email or Teams

Improve your grades

If you are not happy with your grades, you can improve them!

o Ask for a list of things to improve

o Provide new visualizations and presentation

o Get a new grade

Communication regarding the improvements by email or Teams

Example

Visualizations using movie data from IMDb.com