

# Data Visualization

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EXAM

Tea Tušar, Data Science and Scientific Computing, Information retrieval and data visualization

## Exam

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Groups of 3 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

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Choose a topic you are interested in from

- Collection of public data sources on Moodle
- Your own data

Find the data and **three interesting questions** about the topic

Produce visualizations that answer those questions

- Generally, one visualization per question
- For each visualization, list the mapping between data attributes and their corresponding visual channels

Present the results

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# Presentation

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Structure of the presentation

- Topic and data introduction
- Addressed questions
- Visualizations and findings about the data, answers to the questions, for each visualization the mapping between data attributes and visual channels
- Individual contributions of the students in the group

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# Grading

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

- Visualization
  - Pose clear questions and answer them with the visualizations
  - **Showcase what you have learned** (appropriate choice of representation and color, avoid lying, maximize accessibility, minimize clutter, use annotation, put take-home message in the title, cite the source of data, ...)
- Presentation
  - Follow the proposed structure
  - Make sure there are no typos
  - Respect the allocated time

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# Common mistakes

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- Too many visualizations (presentation too long)
- Presentation made for me to understand offline (too many explanations)
- Text in entire sentences (itemization is preferred)
- Choice of colors/fonts/font sizes not consistent
- Not enough attention to details (typos, poor alignment, blurry images, too many decimals, ...)
- Bad titles
- Individual contributions not listed
- Data source not listed in each visualization

Advice: **Validate the visualizations among yourselves**

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## Deadlines

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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 (I won't be available over Teams after September 30, 2024)

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## Improve your grades

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

- Ask for a list of things to improve
- Provide new visualizations and presentation
- Get a new grade

Communication regarding the improvements by email or Teams

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# Example

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Visualizations using movie data from IMDb.com

- Note that the mapping between data attributes and visual channels is missing