

Final Exam, presentation and visualization

2022 – January, 18th

Context and dataset

You can do the exam with any visualization tool you feel more comfortable with. You are exploring a new dataset, the Titanic (see attached CSV and Excel and this explanation of the fields). You want to have a quick and dirty vision of the dataset through visualization (i.e. not cleaning or much processing is expected). The dataset contains the following fields:

Name	Definition
PassengerID	ID assigned to each passenger
Survived	Describes if the passenger survived or not
Pclass	Ticket class of each Passenger as string
Name	Name of each passenger
sex	Gender of each passenger
Age	Age of each passenger
Sibsp	Number of siblings / spouses aboard the Titanic
parch	Number of parents / children aboard the Titanic
Ticket	Code of each ticket
Fare	Passenger fare
Cabin	Cabin number of each passenger
embarked	Port of embarkation of each passenger
Latitude	Latitude of port
Longitude	Longitude of port
Age_bin	Age of each Passenger, grouped in tens
Pclass_int	Ticket class of each Passenger as integer

1. Selecting a chart (3p) - Create 4 different types of charts to get a glimpse of the dataset. What are you trying to see/communicate through these charts? Why did you choose these charts? What preattentive properties do they profit from? What are the design guidelines affecting those charts?
2. Selecting colours (2p)- Use colour twice in the encodings of any of the previous charts. Choose different types of data. How do you decide the colour scale? Which elements do you consider? Explain a little bit types of colour scales and colour properties. Also, perception issues related to colour
3. Table and number design (1p) - Create a table relating age, gender, pclass and survival. Follow good practices with tables and numbers. Explain your decisions.
4. Tool competency (1p) – Link two of the created charts in a way that a selection in one affects the other. Prepare a visualization for this and polish units, legends, tooltips, titles...
5. Audience (1p) – Explain how users have affected your designs (during this year assignments) and why it is important to listen and to know them. Explain important factors to consider in order to adapt a visualization to a specific audience.
6. Hans Rosling (2p), in the video [“The best stats you’ve ever seen”](#) (you can watch all, but until minute 6 you’ll have enough arguments) uses several storytelling tricks. Which ones? What are the benefits?

Deliver answers (no longer than 2 pages), workbook (and link) or notebook and final datasets if modified.