

Delivery 1: Dashboard 20th november

General information

In groups of 2 or 3 people prepare a dashboard with two screens: one main screen with global information, and one additional screen with detailed information on a particular aspect of the dataset. The graphic may perfectly be static, but if desired, you may include interaction.

This delivery accounts for 40% of the final qualification. It should be submitted the 20th of November. The submission should only consist of one zipped file on the corresponding task on Campus Virtual with the necessary content for the task with the name DashboardTaskMember1Member2Member3Member4.zip, only one member of the group has to send the task.

As a basis, you can use the provided datasets or any other previously negotiated with the professor. You shall mention the source of the dataset and any re-used code that has served as inspiration.

Educational Goal

In this task you are expected to put into practice best practices, good chart selection decisions and perception principles. The process and decisions are as important as the final implementation, so pay attention to both.

You may plan a more ambitious dashboard and then implement a simplified version, to equilibrate capacity on design and skills to implement.

Tasks

For each part, as an orientation some questions are provided that should be answered by the given information; but the delivery is not expected to be a question-answer text.

Part 1: Exploratory Data Analysis (EDA): Data (bottom-up): Study and describe the data + explore relationships

a) the data

This part shall describe the data in a thorough way.

What type of data do you have? Has it a temporal nature? Has it a geographical nature?

What is the range of values? Which units are used? What precision is required?

What is the data life span? (until when it is valid and current; how often should be updated)

How is it distributed?

Are there outliers?

b) Identify relations and groupings.

Create some graphs to explore distribution and relations. Explain what you observe.

Identify what do you want to show with your charts, which are the dependent variables and their relation with others, bivariate or multivariate features of relationships...

Deliver a detailed description of the data and the exploratory charts

Part 2: Audience (top-bottom): Who is your audience?

Are they experts in the use of charts? Which platform will they use to see your charts? How often will they consult the visualization?

Describe a persona, their goal (as questions they may want to answer) and a scenario of use of your visualization

What message do you want to convey with your data? What questions do you want to answer (not only for end-users; think in internal customer as well)?

Create a “napkin” design, low-fi, and explain how this design will answer the proposed questions. Include any contextual information that is relevant to your message.

Part 3: Selection of chart and encoding

Decide the type of charts and the encoding of the data taking into account the Dashboard’s goals. Describe decisions on encoding and used charts. Justify decisions taken based on perception properties, principles and best practices. Prepare the layout considering Gestalt principles of grouping and relating.

Create a 2nd “napkin” design, hi-fi.

Part 4: Implementation

Prepare the final dashboard on a notebook or with Tableau.

Describe the charts’ interaction within each chart and among them. Relate it with the interaction models seen during the course.

Delivery

Deliver explanations and samples for all the process, the final presentation to be seen locally, the notebooks and the datasets.

You may deliver an advanced draft of this to opt in for a virtual tutoring session to give feedback and to improve the final delivery.