VIS-Assignment 4

Name:

Student number:

*Please stick to the template structure and try to address all aspects of each section (1-5) in the respective space below (but not in other sections). Max. 8 pages in total. Please remove the grey instruction text once you filled the corresponding section.*

### **1. Data, users, and tasks (25 points)**

*Please create a detailed description of your users and enrich the information about the 2 distinct users mentioned above and their corresponding tasks (min. 6 tasks total). Give a detailed data description (interesting features, missing values, etc.) and link it to the tasks. To help your users do their jobs, you should verify that your data selection supports the requirements of their tasks. For example, you could load the data into Tableau and inspect the data closely (inspect given features, missing values, etc.).*

<Your text>

### **2. Task abstraction (15 points)**

*Reframe the users' tasks from domain-specific language into an abstract form, using action-target descriptions (see Chapter 3 in Munzner's book or task lecture (*[*link*](https://teaching.vda.univie.ac.at/vis/24s/LectureNotes/04_Tasks.pdf)*); alternatively, you are welcome to also approach it from the tasks of Heer+Shneiderman, 2012). Each task should have a number assigned so you can easily refer to it in the following sections to argue which visualization supports which task.*

<Your text>

### **3. Functionality and usability of the dashboards (10 points each per dashboard = 40 points)**

*Design two dashboards, each one supporting the tasks of the respective user group, with multiple linked visualization components. Please describe and illustrate each view as well as the overall dashboards and describe the interactions between their individual components. For the illustrations, you can use a drawing tool or paper & pencil, which has the advantage that you are only limited by your imagination as to what is possible. Each dashboard must contain at least 4 views, with at least 3 being different visualization types.*

*For each dashboard, argue why you have chosen a specific visualization for each task at hand (use the numbers from Section 2). Be sure to describe how you will use interactivity and linking between the views. If there is no linking between the views within a dashboard there will be points deducted. Each dashboard will be evaluated based on (a) functionality (how are the tasks implemented in the dashboard?) and (b) usability (how usable is the design with respect to marks & channels, and effectiveness & expressiveness?).*

<Your text>

### **4. Reflection (15 points)**

*Argue about the pros and cons of each dashboard and the respective visualizations. Here, we are looking for good argumentation about the various designs' strengths and weaknesses concerning the tasks but also concerning the design principles discussed in class:*

* *What do users get done efficiently and fast with your design?*
* *How did you balance the most effective visual encodings with the number of attributes in the data?*
* *Which views are overview views, and which are detail views?*
* *What tradeoffs in interactions did you make? What limitations are there?*
* *How does each dashboard link its views?*

<Your text>

### **5. Conclusion (5 points)**

*Please argue and summarize (based on the design principles and tradeoffs discussed in class and on your reflection above) the most important aspects of your report.*

<Your text>