

Information Visualization – Exercises

Due date:

Please hand in the solution for this exercise no later than June 23th, 8:00 AM.

Solutions by e-mail to nestler@in.tum.de, huberma@in.tum.de, and schlegem@in.tum.de are acceptable.

Exercise 1 (H) Bargrams and Filtering

A common activity in many areas is the selection of a specific object from a collection of many such as finding a new car or house.

To reiterate the concept suitable to support this exploration process, review the paper about bargrams by K. Wittenburg, T. Lanning, M. Heinrichs and M. Stanton: „Parallel bargrams for consumer-based information exploration and choice“, ACM, 2001, Proceedings of UIST’01, 51–60.

Exercise 2 (H) Filtering

Use the data set located at <http://campar.in.tum.de/personal/huberma/realestate.tab.txt> and visualize it (e.g. AxisLayout or Histogram). Add inputs to your application to specify price ranges and ranges of bed and bathrooms the user is interested in.

Apply subclasses of *DynamicQueryBindings* to your data set such that only entries matching the criteria are displayed. In order to combine multiple filters use the subclasses of *CompositePredicate*. Note that you have to ensure the visualization is updated (e.g. continuously or via callbacks).

The *congress* could be used as an starting point.

Exercise 3 (H) Near Misses (advanced)

Write an application akin to the previous exercise, but handle near misses, i. e. entries that match most but not all the predicates, differently. Instead of not displaying these misses at all, display them using faded colors or transparent, depending on the degree of the mismatch.

You could use the *setOrdinalMap* method of the *DataColorAction* class for this type of visualization.