

## Information Visualization – Exercises

### **Due date:**

Please hand in the solution for this exercise no later than May 25th, 8:00.

Solutions by e-mail to [nestler@in.tum.de](mailto:nestler@in.tum.de), [huberma@in.tum.de](mailto:huberma@in.tum.de) and [schlegem@in.tum.de](mailto:schlegem@in.tum.de) are acceptable.

### **Exercise 1 (H) Visualizing an online dataset**

To make the exercises from the last lesson more interactive and dynamic we will now load the graph data structure to visualize on the fly. Similar to the exercises from the second lesson, keep the security constraints of the Java sandbox in mind.

The data format supported by prefuse to exchange graph structures is the XML dialect **GraphML**. The data is read using the `GraphMLReader` and subsequently parsed into a graph. (*`GraphMLReader().readGraph(datafile)`*)

For this exercise you should directly use the data located at [http://home.in.tum.de/~nestler/tree\\_data\\_1.xml](http://home.in.tum.de/~nestler/tree_data_1.xml). Read the tree contained in the XML and render it using a `RadialTreeLayout`.

### **Exercise 2 (H) Layouting with TreeMaps**

Now change the graph layout in your application to a `TreeMapLayout`. Try to ensure that all the nodes have the correct size to reflect the data read.

### **Exercise 3 (H) Visualizing your own data**

The internet is full of interesting applications for treemaps. Find your own data set, convert it into an GraphML file and display it using your `TreeMap` application. Some interesting data may include Filesystems, News, Stockmarkets, Photos, SourceCode, the files of the linux kernel and so on.