

Information Visualization

Exercises

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Lesson VI
Filtering and Bargrams

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Filtering and Bargrams

Exercise I

Choosing

Exercise II

Filtering

Exercise III

Handling near misses

Solution V

Distortion

Solution from Filipe Calegario

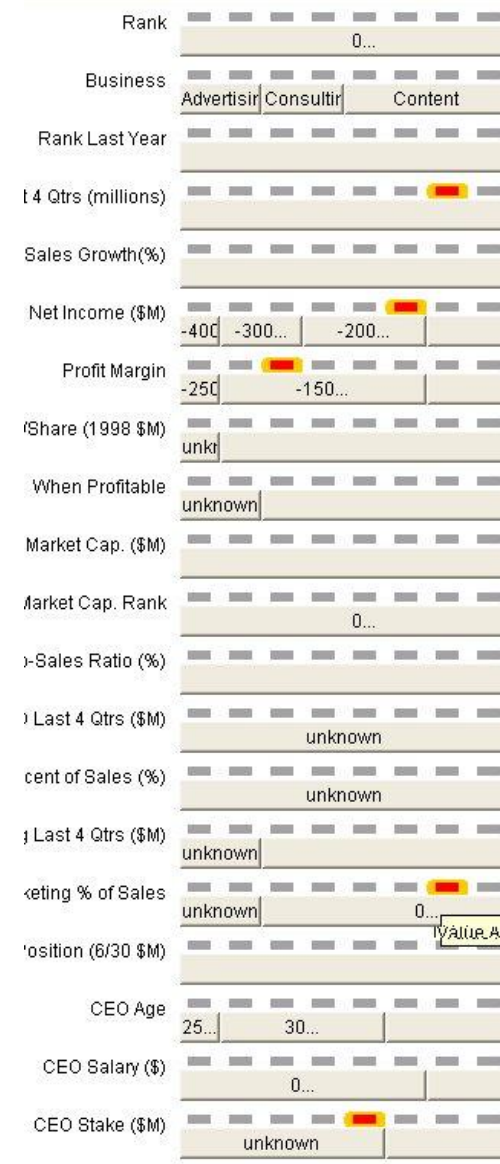
<http://www.filipecalegario.com/infovis/homework5.html>

```
// fisheye distortion based on the current anchor location
ArrayList distort = new ArrayList();
Distortion bifocal = new BifocalDistortion(0.1,3,0.1,3);
bifocal.setGroup("graph.nodes");
distort.add(bifocal);
distort.add(new RepaintAction());
```

Exercise I

Choosing

- Large datasets
- Task of the user: choose one specific item
- According to his interests
- E.g.: Cars, Houses, Breakfast Cereals
- Review the paper by
K. Wittenburg, T. Lanning, M. Heinrichs and M. Stanton
“Parallel bargrams for consumer based information exploration and choice” -- UIST’01, ACM 2001



Exercise II

Filtering

- **Use the dataset from**
<http://campar.in.tum.de/personal/huberma/realestate.tab.txt>
- **Example of a Real-Estate-Database**
- **Attributes: ID, Price, Bathrooms, Bedrooms, Address**
- **Visualize using the Dataset**
(for example suitable AxisLayout)



Exercise II

Filtering

- **Add input methods for user to specify acceptable ranges for Price, Bathrooms and Bedrooms**
- **Use the subclasses of DynamicQueryBindings to show only matching entries using a predicate function**
- **Use subclasses of CompositePredicate to combine different predicates**
- **Check the “congress” prefuse demo**



Exercise III

Near Misses

- An entry not matching the predicate may still match most of the requirements or may only be slightly outside the range specified
- Near misses help the user by also displaying entries which are misses but still may be acceptable to the user
- Build a similar application as in the previous exercise
- Instead of filtering, color or fade the misses according to the degree of the miss
- Such as how many attributes are not met and by how much the entry is off



Exercise III Near Misses

- Adapt the code from exercise II
- Possible use of method `setOrdinalMap` of the `DataColorAction` class for special coloring

