

Assignment 4

Interactive Data Visualization

SS 20

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Topics:

Multi-Variate Data,
Scatter Plot, Parallel Coordinates

In Class

- Data Set "Leaves"
- Measurement results of the growth of leaves from three different types of trees at different growing periods

Type of tree	Age of Leaf	Length of Leaf	Width of Leaf
Maple	3 weeks	2.2 cm	1.8 cm
Maple	2 months	4.6 cm	5.5 cm
Maple	4 months	8.8 cm	10.0 cm
Aspen	3 weeks	1.2 cm	1.2 cm
Aspen	2 months	3.6 cm	3.6 cm
Aspen	4 months	7.5 cm	7.5 cm
Pear-Tree	3 weeks	3.2 cm	1.2 cm
Pear-Tree	2 months	7.0 cm	2.5 cm
Pear-Tree	4 months	11.0 cm	4.0 cm



a) Set up the data model:

Describe the characteristics of the data set “Leaves”.

b) Draw a scatter plot of length and width of leaves.

c) Visualize data set with scatter plot matrix.

d) Visualize data set with parallel coordinates.

Solution in a separate presentation.



Homework

Given: DataWeierstrass.csv

- anonymized data set consisting of a lecture evaluation

- Professor
- Lecture
- Number of participants visiting lecture
- Professional expertise
- Motivation
- Clear presentation
- Overall impression

} IDs

```
professor;lecture;participants;..  
prof01;lecture075;112;...  
...
```

Professor	Lecture	Participants	...
Prof01	Lecture075	112	...
...

Find candidates for the Weierstrass-Prize (“Best Teacher”)

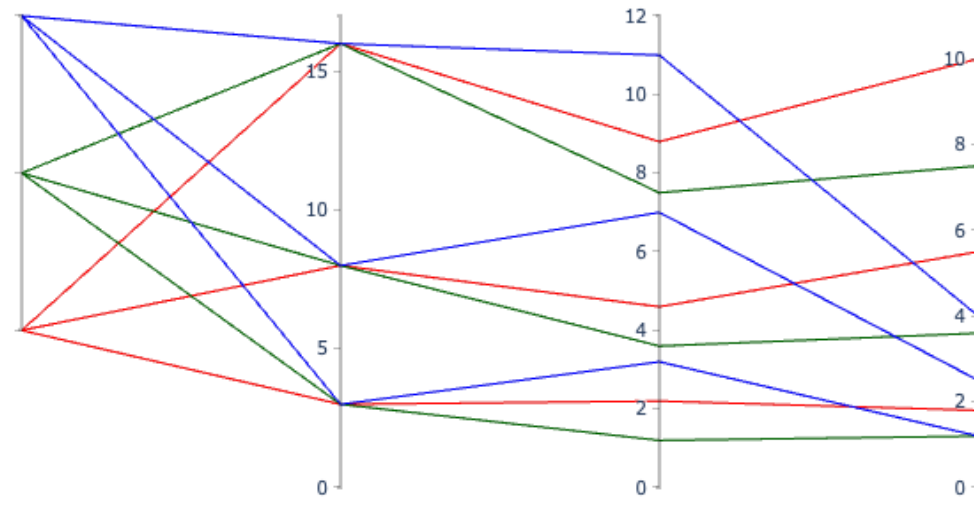
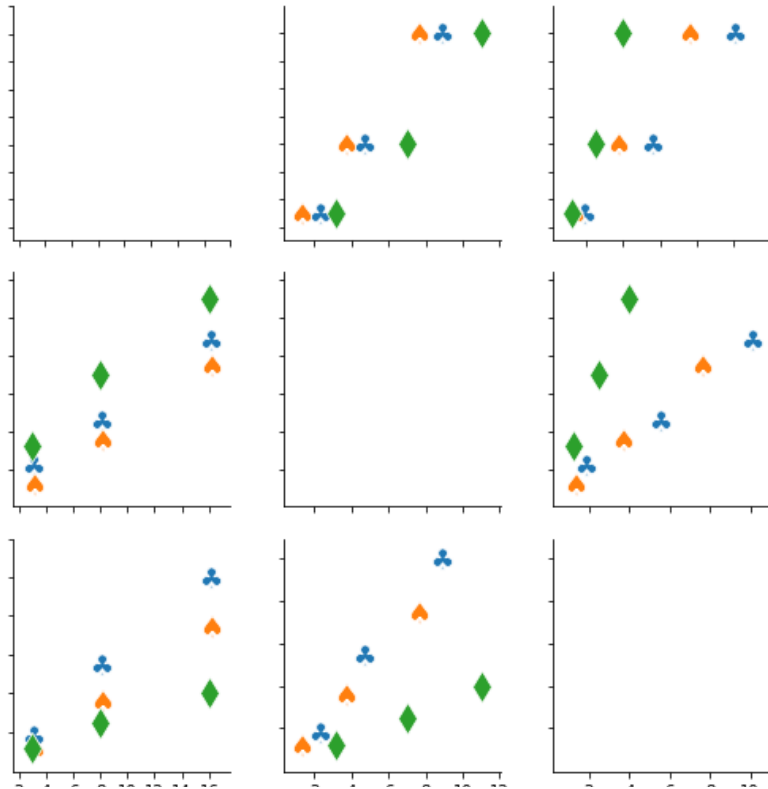
- a) Scatterplot matrix [2 points]
- b) Parallel coordinates [3 points]

Deadline: 10th June



Assignment 4

What is missing? What has to be optimized?



Hint: In class assignment gives guidance.



Important Rules:

- No packages (*.zip, ...)
- No plagiarism
- Images as *.png
- Code as *.py
- Code incl. comments to make subtasks identifiable
- *No points for partial solutions! No points when not comply with the rules.*