

Assignment 4

Multi-Variate Data, Scatter Plot, Parallel Coordinates

5 Points for Homework

Due Wednesday, July 10th, 23:59 (Paderborn time)

Upload your solutions to PANDA using the upload tool entitled with “Assignment 4”.
Your submission has to include the source code and screenshot(s) of your solution.

1. In class assignment:

Data Set "Leaves": Measurement results of the growth of leaves from three different types of trees (maple, aspen and pear) 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

- Set up the data model: Describe the characteristics of the data set “Leaves”.
- Draw a scatter plot of length and width of leaves.
- Visualize data set with scatter plot matrix.
- Visualize data set with parallel coordinates.

2. Homework:

Given is an anonymized data set consisting of a lecture evaluation. The task is to find candidates for the Weierstrass-Prize ("Best Teacher").

To decide which professor is worth considering for the award the following characteristics are checked: professor, lecture, number of participants visiting lecture, professional expertise, motivation, clear presentation and overall impression.

- a) Visualize given data with a scatterplot matrix.
- b) Visualize given data with parallel coordinates.

Data set is provided under PANDA → Assignment 4 given as *.csv-file called → "DataWeierstrass.csv" and the included table has the following format:

professor	lecture	# participants	professional expertise	motivation	clear presentation	overall impression
prof01	lecture075	112	1.72	1.81	2.58	2.62
...

or rather:

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professor;lecture;participants;professional expertise;motivation;clear presentation;overall impression
prof01;lecture075;112;1.72;1.81;2.58;2.62
...
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Upload your PNG picture(s) and your code to PANDA.

The points you will receive for this assignment depend upon:

- correctness of solution
- expressiveness and effectiveness of solution