University of Konstanz
Department of Computer and Information Science
Chair for Data Analysis and Visualization
Dr. Johannes Fuchs, Frederik Dennig

Due: Monday, 09.11.2020, 10:00

Note:
Please, organize in teams of two students. Only one student (preferably always the same student) has to upload your solution to ILIAS. All assignments will be graded according to the traffic lights rating system discussed in the lecture.

Task 1:
Our goal in the assignments is to implement a web-based prototype to visualize data. As technology, you should use D3 (data driven documents: https://d3js.org/).
In this first week, you have to solve two sub-tasks:

Pre-processing:
1. Have a look at the example datasets provided in ILIAS. Please, enrich the datasets that do not contain a **class**-attribute with cluster information. You can use any tool (R, Python…) and algorithm (k-means, DBSCAN…) of your choice. Add the cluster membership as an additional **class**-column to the example datasets.
    a. Normalize the data
    b. Cluster the data in a meaningful way
    c. Enrich the example datasets with cluster information

Web-based prototype:
2. Implement a functionality to load the enriched datasets as *.csv files in your web application.

Please, keep in mind that the following assignments build on top of this initial task.