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Data Mining – FSS 2020

Exercise 1: Simple Preprocessing and Visualization

1.1. RapidMiner Installation

Download RapidMiner and install the software on your laptop using the educational license:
https://rapidminer.com/get-started-educational/

1.2. Load and Preprocess the Students Dataset

Import the *students* data set into RapidMiner. The *students* data set is provided in ILIAS as an Excel file. Use different preprocessing operators and plotters to answer the following questions:

1. What is the most common mark that has been given in FSS2010? To find the answer filter the examples using a `Filter Examples Operator` and draw a histogram afterwards.
2. Is there a correlation between the mark and the number of attended classes? Find the answer using a scatter plot.
3. Does this correlation hold for all students? Find the answer by aggregating the examples by student and use a scatter plot afterwards.

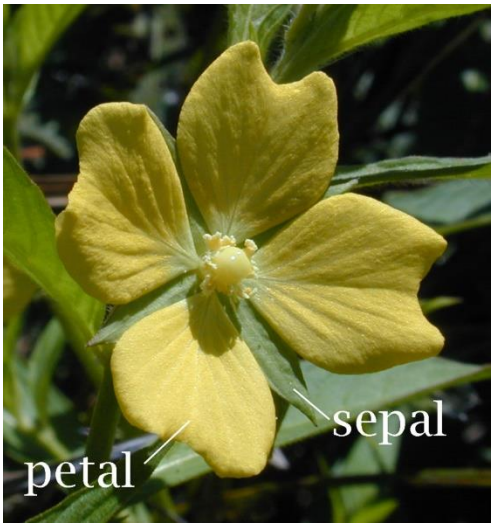
1.3. Visual Exploration of the Iris Dataset

The data set describes three types of Iris flowers:

- Setosa
- Virginica
- Versicolour

There are four (non-class) attributes

- Sepal width and length
- Petal width and length



Retrieve the Iris data set from the Samples repository. Use different plotters to visualize and explore the data set.

1. Which attribute combination and (approximate) value ranges determine the type of Iris flower?

Answer:

Type of Iris Flower	Attribute combination and value ranges
Setosa	
Virginica	
Versicolour	