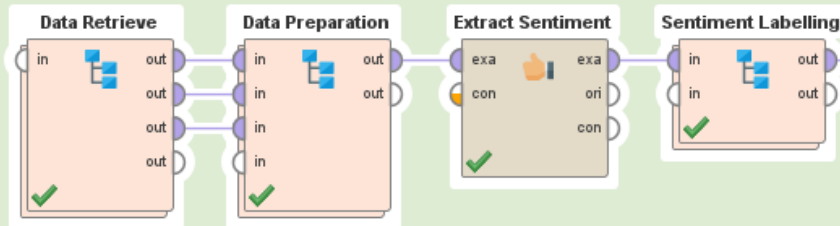


# Sentiment Analysis: US Consumer Finance Complaints

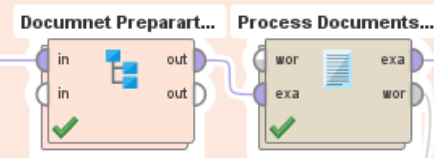
Process

SENTIMENT ANALYSIS: Detect sentiment in text using a classification model trained on categorized customer complaints for financial institutions to identify the number of 'False Positives'.

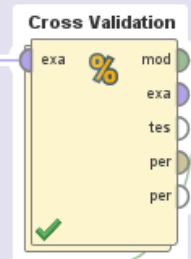
Step 1. Import text data and process the same by using Vader Scoring and prepare the final dataset for further analysis of Sentiment.



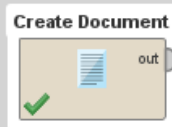
Step 2. The dataset is processed to extract the words and deliver a word-vector (a numerical representation of the text).



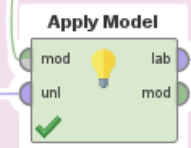
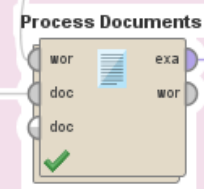
Step 3. Train a SVM model and validate it to collect the performance data.



Step 4. Create a new document from text, then processed it as the initial ones. The initial word list is an additional input.



Step 5. The model trained with the old texts is applied to the new document.



Outputs:

- The performance, including accuracy.
- The model applied to the document. The result is the prediction based on the vector that numerically represents the text. The vector is also included in the output.
- The number of False Positives indicating the number of positive feedbacks that were recorded as complaints.