

Practical – 11

Demonstrate following pre-processing operations in given sequence using Knowledge flow: -

- a) Load weather numeric dataset.
- b) Add Attribute name “rain” at index 1.
- c) Discretize the attribute i.e., temperature & humidity.
- d) Apply association rule applying “apriori” algorithm.
- e) Use text viewer component to display the dataset.
- f) Save the dataset as “.arff” files.

Solution:

- a) (i) Open “Knowledge Flow” tab from WEKA main window.
(ii) Add “ArffLoader” in the Knowledge Flow environment.

(iii) Select the “weather.numeric.arff” data and Click “OK” button.

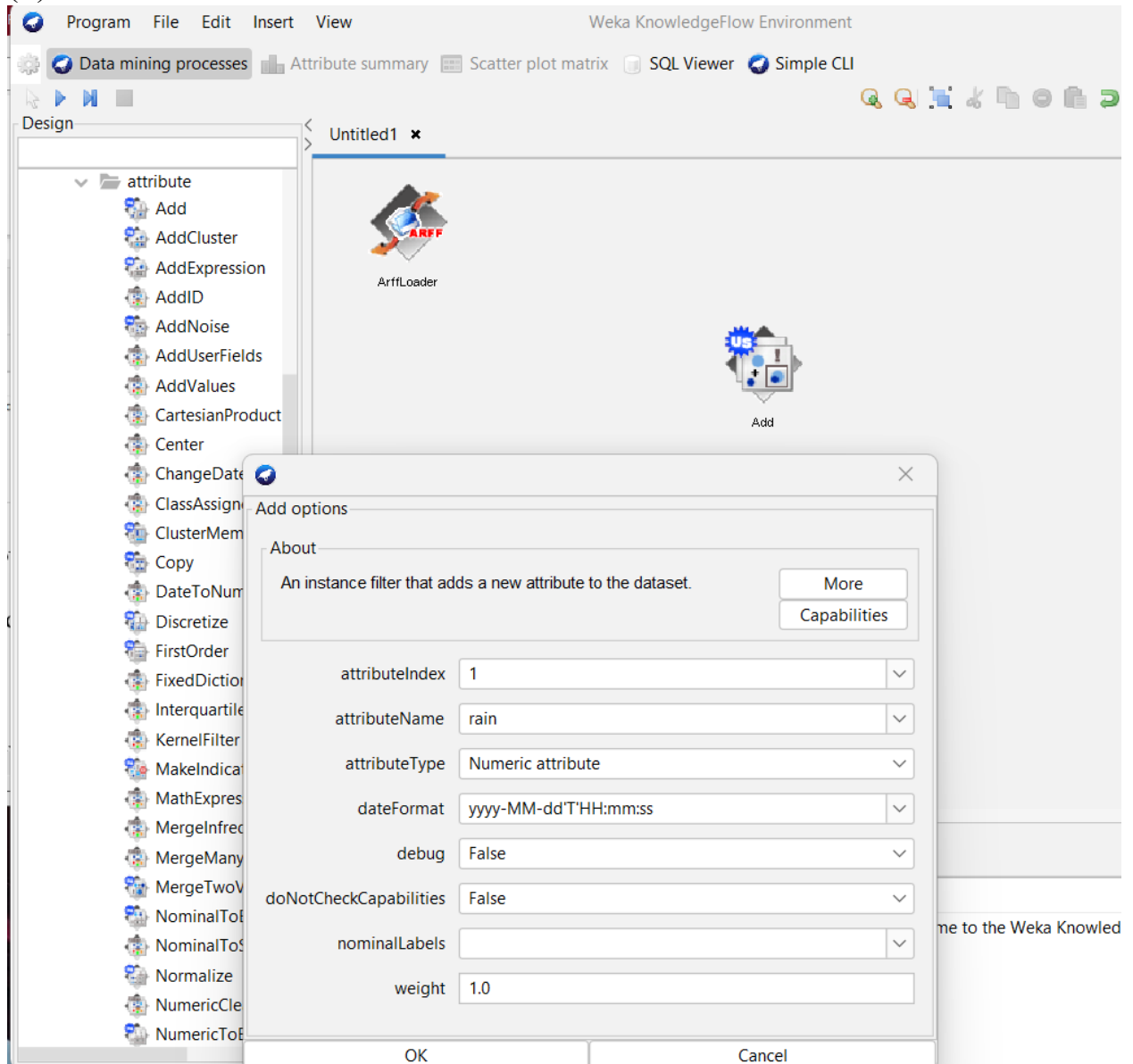
The screenshot shows the Weka KnowledgeFlow Environment interface. The top menu bar includes Program, File, Edit, Insert, and View. Below the menu bar, there are tabs for Data mining processes, Attribute summary, Scatter plot matrix, SQL Viewer, and Simple CLI. The main workspace is titled "Untitled1" and contains a single component labeled "ArffLoader". A dialog box titled "ArffLoader options" is open, displaying the following settings:

- About: Reads a source that is in arff (attribute relation file format) format. (More button)
- retainStringVals: False
- useRelativePath: False
- Filename: C:\Program Files\Weka-3-8-6\data\weather.numeric.arff (Browse... button)

The dialog box has OK and Cancel buttons at the bottom. Below the dialog box, there is a Status and Log section. The Status section shows a table with the following data:

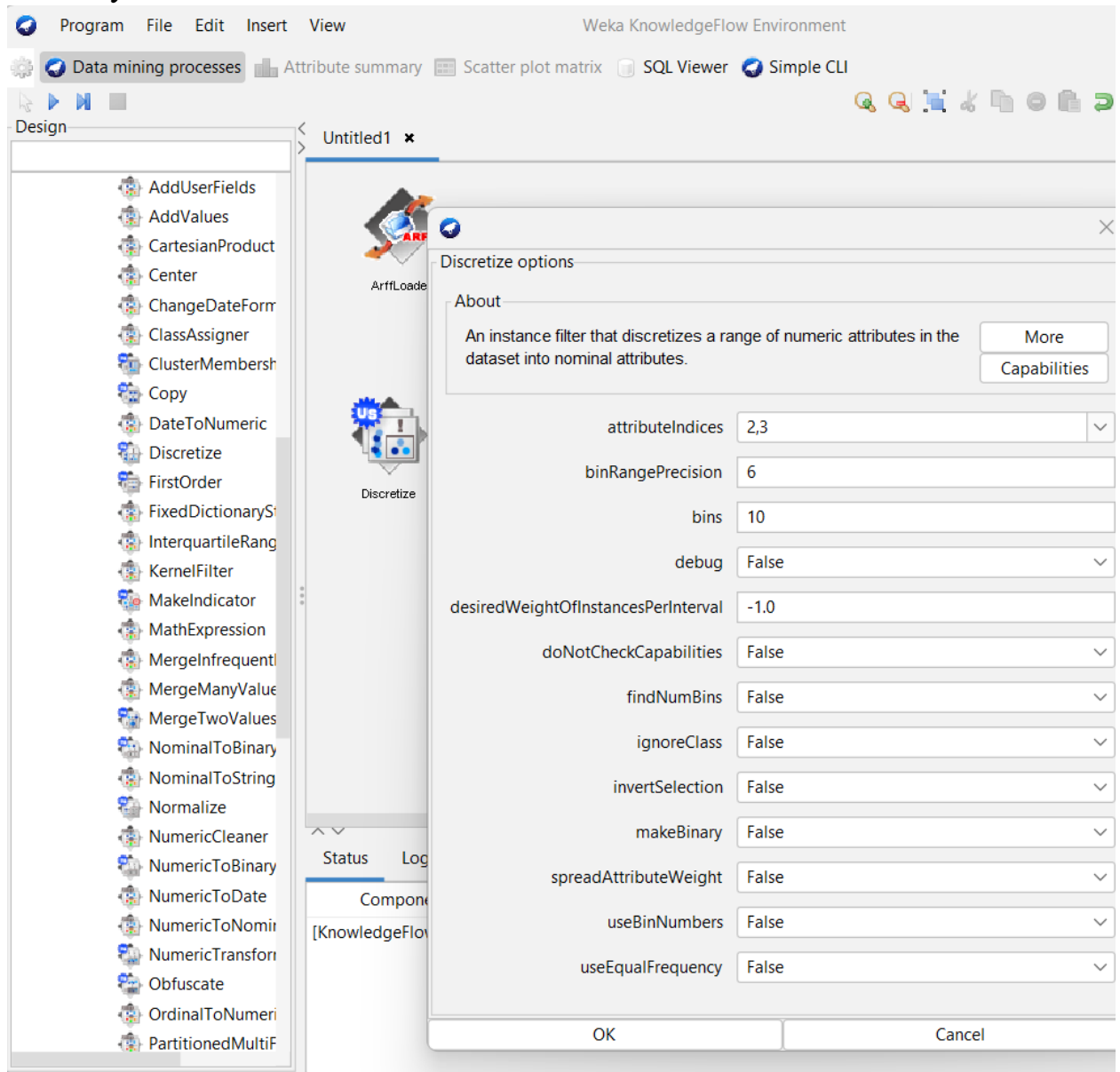
Component	Parameters	Time	Status
[KnowledgeFlow]		-	Welcome to the Weka Knowledge Flow

- b) (i) Insert “Add” component from “Unsupervised” filters.
(ii) Set the index and the name of the index and the name of the attribute.

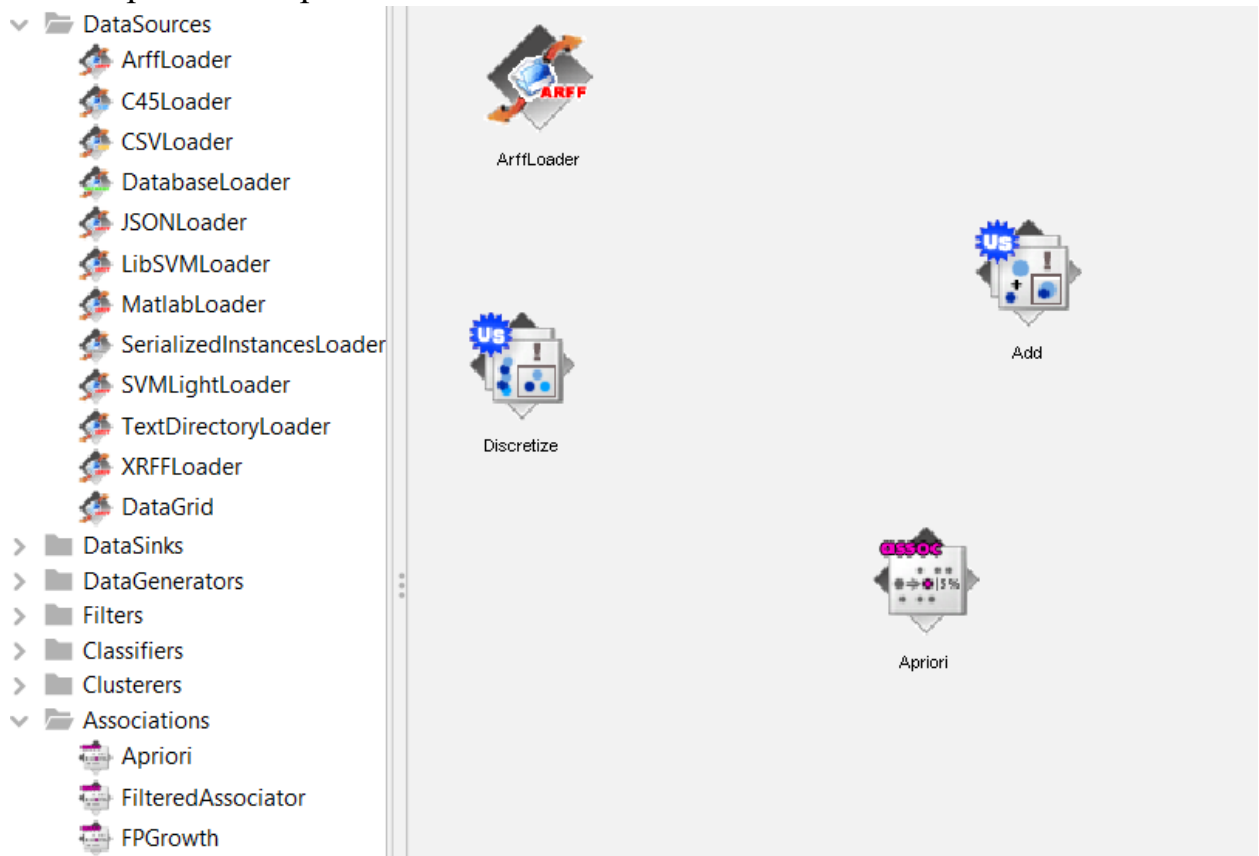


- c) (i) Add “Discretize” filter from “Unsupervised” filters.
(ii) Type “2,3” values in attribute indices to discretize temperature and

humidity attributes.



d) Add “Apriori” component from “Associations”.



e) (i) Add “TextViewer” from “Visualization”.

(ii) Run the “Knowledge Flow” and see the results in “TextViewer” by clicking on “Show Results” option.

f) (i) Load the “ArffLoader” and specify the directory where we want to save and run the “Knowledge Flow”.

(ii) The “.arff” file will be saved.