

## Experiment No: 9

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Title: Experiments with Association rule - learning  
WEKA.

### Theory:

Association rule learning - some consulting work for a start-up looking into customer behavior in saas app. We were interested in pattern of behaviour that indicated churn or conversion from free to paid accounts weeks pouring over the data, looking at correlations & plots. I come with bunch of rules that indicated outcomes & presented ideas for possible intervention to influence those outcomes. I ascribed numbers to the rules such as support and Fith.

- 1) Start the WEKA Explorer -
- 2) Load the supermarket dataset - This is dataset of sale information. The data is nominal and each instance represents, a customer transaction at super-market. the product purchased and the departments involved. There is not much information about this data set online.

### 3) Discover Association Rules -

- click the "Associate" tab in the WEKA explore. The "Apriori" algorithm will already be selected. This is the most well known association rule learning method.
- In principle Algorithm is quite simple. It builds up attribute - value(item) sets that maximize the number of instances that can be explained (coverage of the dataset). The search through item space is very much similar to problem faced with attribute selection and subset search.

### 4) Analyze Results -

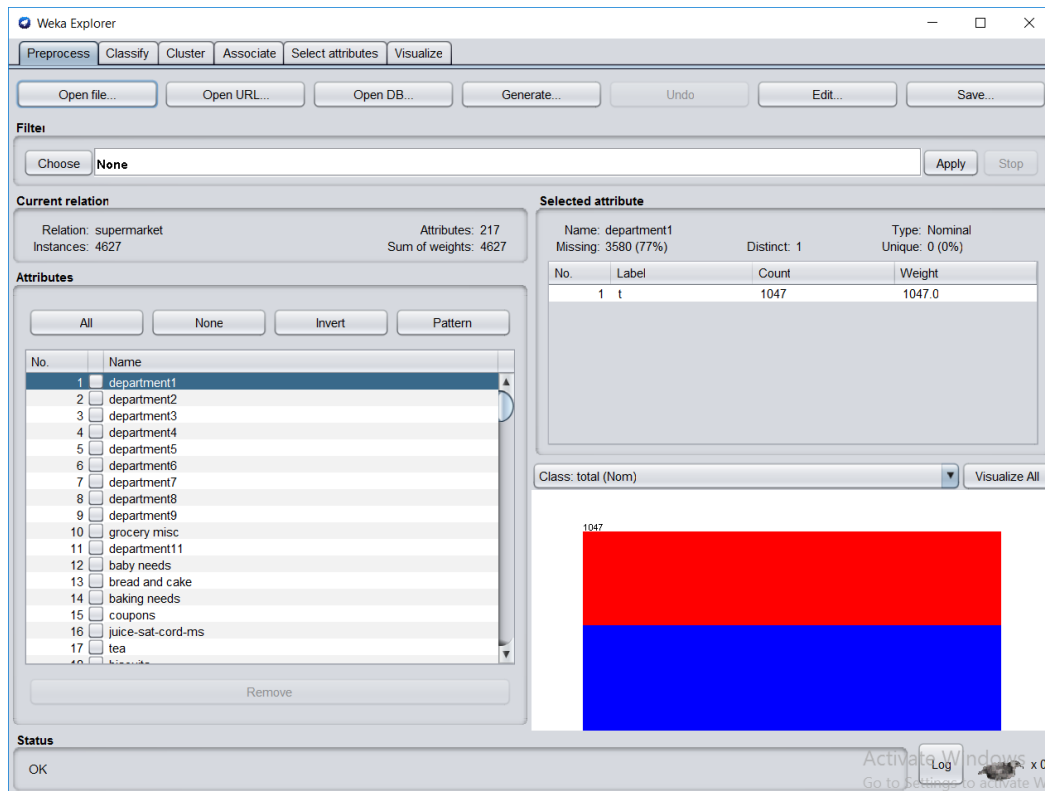
- The real work for association rule learning is in the interpretation of the results.

### Conclusion :

Thus I have studied and understood the Association Rule learner on WEKA.

Output:

Load the supermarket database



Discover Association Rules

