

EX : 5 Generating association rules using fp-growth algorithm

Procedure:

Step1: Open the data file in Weka Explorer. It is presumed that the required data fields have been discretized. In this example it is age attribute.

Step2: Clicking on the associate tab will bring up the interface for association rule algorithm.

Step3: We will use FP-Growth algorithm. This is the default algorithm.

Step4: Inorder to change the parameters for the run (example support, confidence etc) we click on the text box immediately to the right of the choose button.

Data set:

Shopping.arff

@relation shopping

@attribute milk{yes,no}

@attribute bread{yes,no}

@attribute honey{yes,no}

@attribute ghee{yes,no}

@attribute jam{yes,no}

@data

yes,yes,no,no,yes

no,yes,no,yes,no

no,yes,yes,no,no

yes,yes,no,yes,no

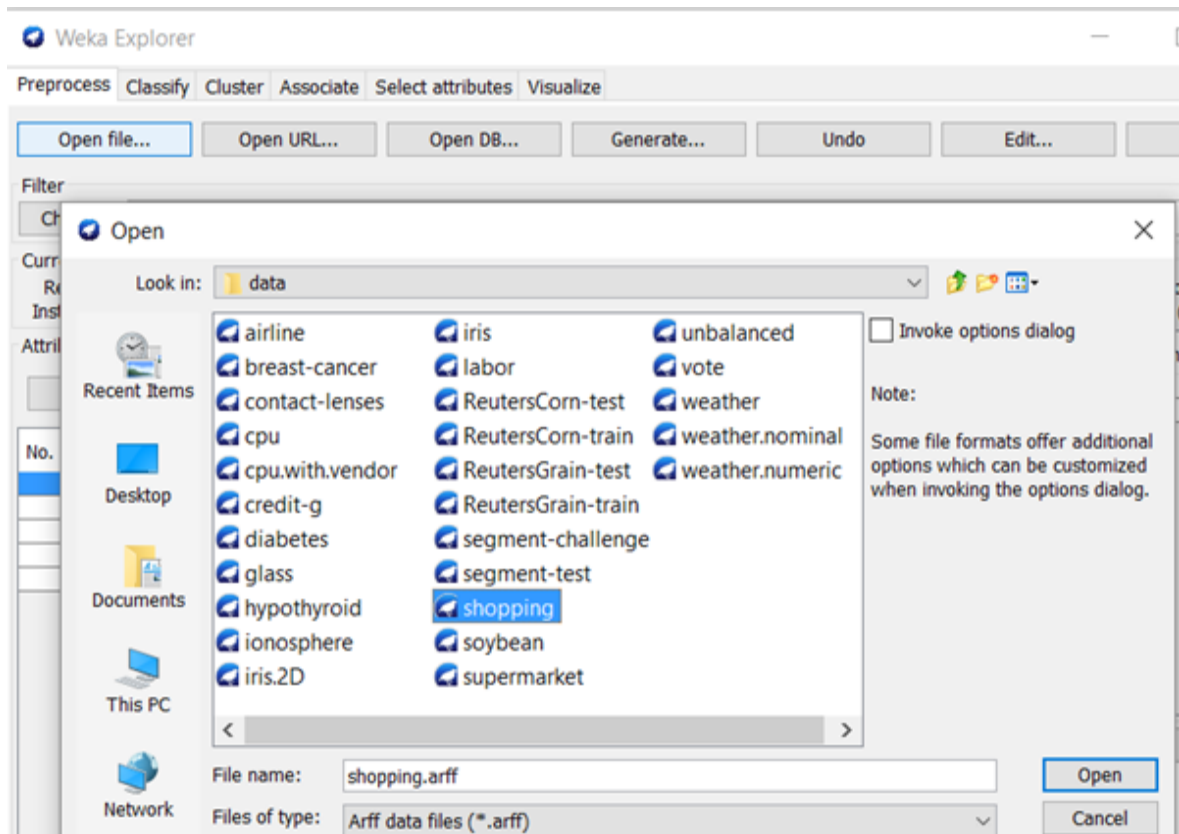
yes,no,yes,no,no

no,yes,yes,no,no

yes,no,yes,no,no

yes,yes,yes,no,yes

yes,yes,yes,no,no

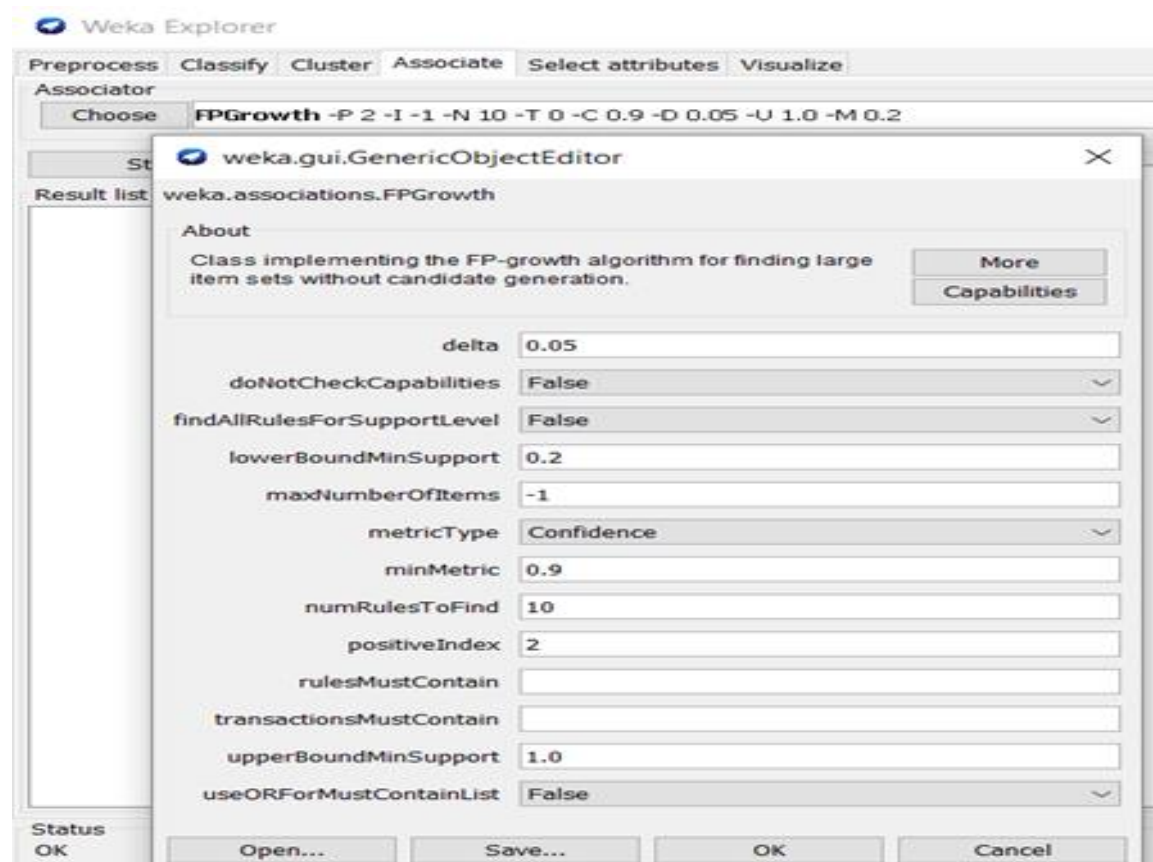
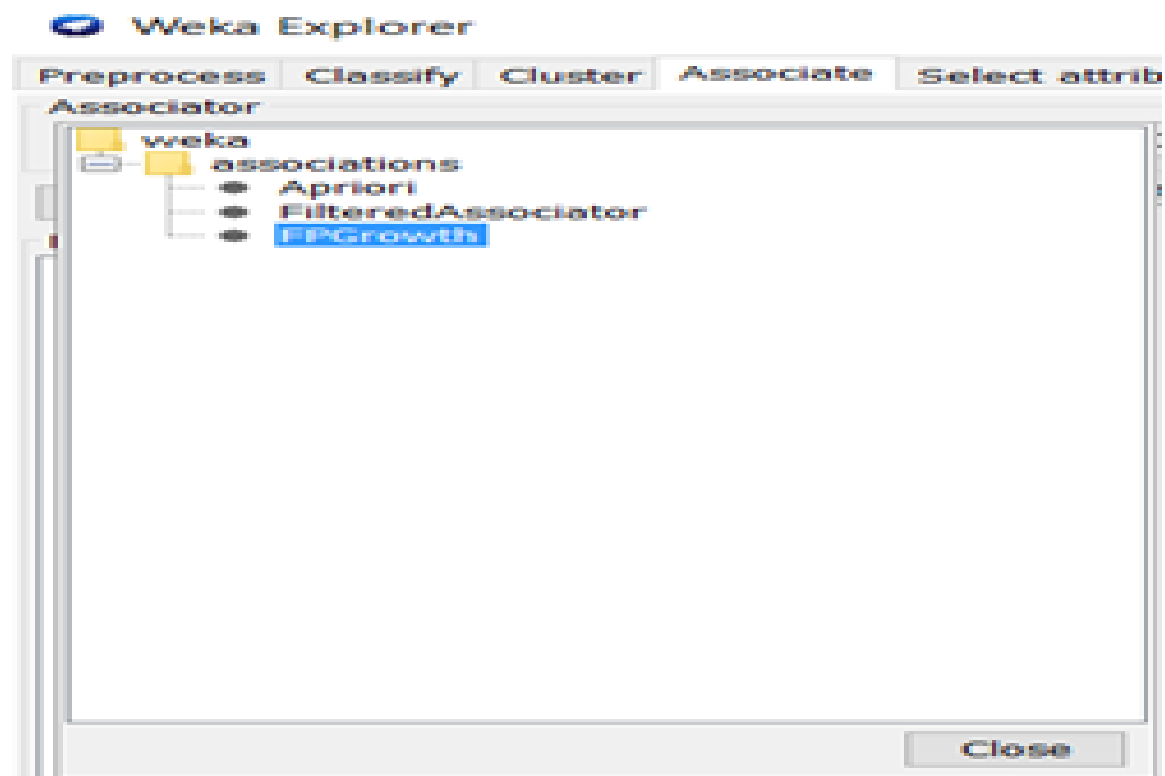


Viewer

Relation: shopping

No.	1: milk Nominal	2: bread Nominal	3: honey Nominal	4: ghee Nominal	5: jam Nominal
1	yes	yes	no	no	yes
2	no	yes	no	yes	no
3	no	yes	yes	no	no
4	yes	yes	no	yes	no
5	yes	no	yes	no	no
6	no	yes	yes	no	no
7	yes	no	yes	no	no
8	yes	yes	yes	no	yes
9	yes	yes	yes	no	no

Undo OK Cancel



Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Associator

Choose **FPGrowth** -P 2 -I -1 -N 10 -T 0 -C 0.9 -D 0.05 -U 1.0 -M 0.2

Start Stop

Associator output

Result list (right-click to open)

19:57:09 - FPGrowth

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=== Run information ===
Scheme:      weka.associations.FPGrowth -P 2 -I -1 -N 10 -T 0 -C 0.9 -D 0.05 -U 1.0 -M 0.2
Relation:    shopping
Instances:   9
Attributes:  5
              milk
              bread
              honey
              ghee
              jam
=== Associator model (full training set) ===

FPGrowth found 7 rules (displaying top 7)

1. [milk=no]: 3 ==> [jam=no]: 3 <conf:(1)> lift:(1.29) lev:(0.07) conv:(0.67)
2. [bread=no]: 2 ==> [jam=no]: 2 <conf:(1)> lift:(1.29) lev:(0.05) conv:(0.44)
3. [bread=no]: 2 ==> [ghee=no]: 2 <conf:(1)> lift:(1.29) lev:(0.05) conv:(0.44)
4. [ghee=no, milk=no]: 2 ==> [jam=no]: 2 <conf:(1)> lift:(1.29) lev:(0.05) conv:(0.44)
5. [bread=no]: 2 ==> [jam=no, ghee=no]: 2 <conf:(1)> lift:(1.8) lev:(0.1) conv:(0.89)
6. [jam=no, bread=no]: 2 ==> [ghee=no]: 2 <conf:(1)> lift:(1.29) lev:(0.05) conv:(0.44)
7. [ghee=no, bread=no]: 2 ==> [jam=no]: 2 <conf:(1)> lift:(1.29) lev:(0.05) conv:(0.44)
```

Status
OK

Log x 0