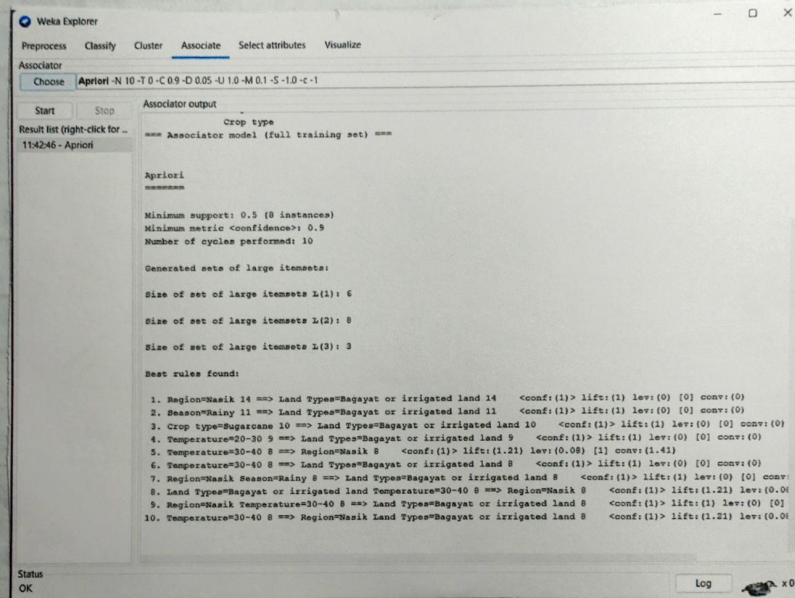


Practical No. 09

Aim:

Perform association techniques on agriculture datasets



The screenshot shows the Weka Explorer interface with the 'Associate' tab selected. The 'Apriori' algorithm is chosen, and the 'Result list (right-click for...)' shows '11:42:46 - Apriori'. The 'Apriori output' pane displays the following information:

```
==== Associator model (full training set) ====

Apriori
=====

Minimum support: 0.5 (8 instances)
Minimum metric <confidence>: 0.9
Number of cycles performed: 10

Generated sets of large itemsets:

Size of set of large itemsets L(1): 6
Size of set of large itemsets L(2): 8
Size of set of large itemsets L(3): 3

Best rules found:

1. Region=Masik 14 ==> Land Type=Bagayat or irrigated land 14 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
2. Season=Rainy 11 ==> Land Type=Bagayat or irrigated land 11 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
3. Crop type=Sugarcane 10 ==> Land Type=Bagayat or irrigated land 10 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
4. Temperature=30-40 9 ==> Land Type=Bagayat or irrigated land 9 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
5. Temperature=30-40 8 ==> Region=Masik 8 <conf:(1)> lift:(1.21) lev:(0.08) [1] conv:(1.41)
6. Temperature=30-40 8 ==> Land Type=Bagayat or irrigated land 8 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
7. Region=Masik Season=Rainy 8 ==> Land Type=Bagayat or irrigated land 8 <conf:(1)> lift:(1) lev:(0) [0] conv:(0)
8. Land Type=Bagayat or irrigated land Temperature=30-40 8 ==> Region=Masik 8 <conf:(1)> lift:(1.21) lev:(0.08)
9. Region=Masik Temperature=30-40 8 ==> Land Type=Bagayat or irrigated land 8 <conf:(1)> lift:(1) lev:(0) [0]
10. Temperature=30-40 8 ==> Region=Masik Land Type=Bagayat or irrigated land 8 <conf:(1)> lift:(1.21) lev:(0.08)
```

Apriori Algorithm output

Conclusion:

Hence, I explored and performed association technique on agriculture dataset.

Aim: Perform association techniques on agriculture datasets.

Theory:

The sample dataset used for this example is agricultural dataset.

Step 1: Open the data file in Weka explorer. It is presumed that the required data fields have been ~~dis~~ discretized.

Step 2: Clicking on the associate tab will bring up the interface for association rule mining.

Step 3: We will use apriori algorithm. This is the default algorithm.

Step 4: In order to change the parameters of the for the run (example support, confidence, etc.) we click on the text box ~~in~~ immediately to the right of the choose button.

Conclusion:

Explore and perform Association technique on Agriculture dataset.