EX.NO 3A: VISUALIZING DATASET USING WEKA TOOL

AIM:

To visualize dataset using WEKA tool.

PROCEDURE:

1.Open Start -> Programs -> Accessories -> Notepad

2.Type the following training data set with the help of Notepadfor Weather Table.

```
@relation weather

@attribute outlook {sunny, overcast, rainy}
@attribute temperature real
@attribute humidity real @attribute
windy {TRUE, FALSE}@attribute play
{yes, no}

@data sunny,85,85,FALSE,no
sunny,80,90,TRUE,no
overcast,83,86,FALSE,yes
rainy,70,96,FALSE,yes
rainy,68,80,FALSE,yes
rainy,65,70,TRUE,no
overcast,64,65,TRUE,yes
sunny,72,95,FALSE,no
sunny,69,70,FALSE,yes
rainy,75,80,FALSE,yes
sunny,75,70,TRUE,yes
overcast,72,90,TRUE,yes
overcast,81,75,FALSE,yes
rainy,71,91,TRUE,no
```

3.After that the file is saved with .arff file format.
4.Minimize the arff file & then open Start -> Programs -> weka .
5.Click on weka-3-4, then Weka dialog box is displayed on the screen.
6.In that dialog box there are four modes, click on explorer.
7.Explorer shows many options. In that click on ‘open file’ and select the arff file.
8.Click on edit button which shows weather table on weka.

OUTPUT:


Weka Explorer
Preprocess
Classify
Cluster
Associate
Select attributes
Visualize
Plot Matrix
outlook
temperature
humidity
windy
play
play
windy
humidity
temperature
Status
OK
Log
x 0

RESULT:

Thus the visualization of dataset using WEKA tool has been executed successfully.

EX.NO:3B PRE-PROCESSING DATASET USING WEKA TOOL

AIM:

To apply the pre-processsing technique to the training dataset of weather table.

PROCEDURE:

1.Open Start -> Programs -> Accessories -> Notepad.

2.Type the following training data set with the help of Notepad forEmployee Table.

```
@relation employee @attribute
name {x,y,z,a,b} @attribute id
numeric
@attribute salary {low,medium,high}
@attribute exp numeric
@attribute gender {male,female}
@attribute  phone numeric @data
x,101,low,2,male,250311
y,102,high,3,female,251665
z,103,medium,1,male,240238
a,104,low,5,female,200200
b,105,high,2,male,240240
```

3.After that the file is saved with .arff file format.

4.Minimize the arff file & then open Start -> Programs -> weka .

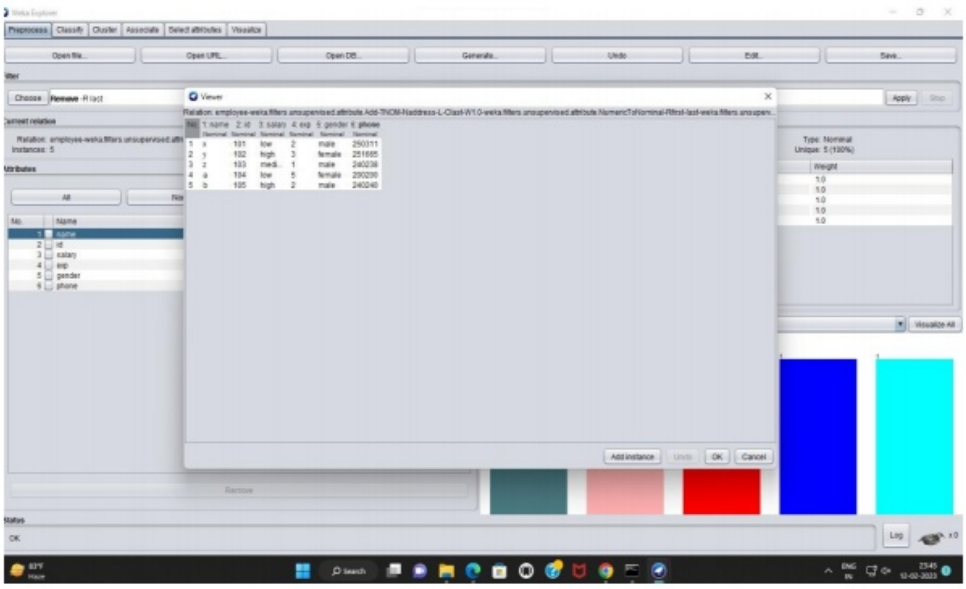
5.Click on weka-3-4, then Weka dialog box is displayed on the screen.

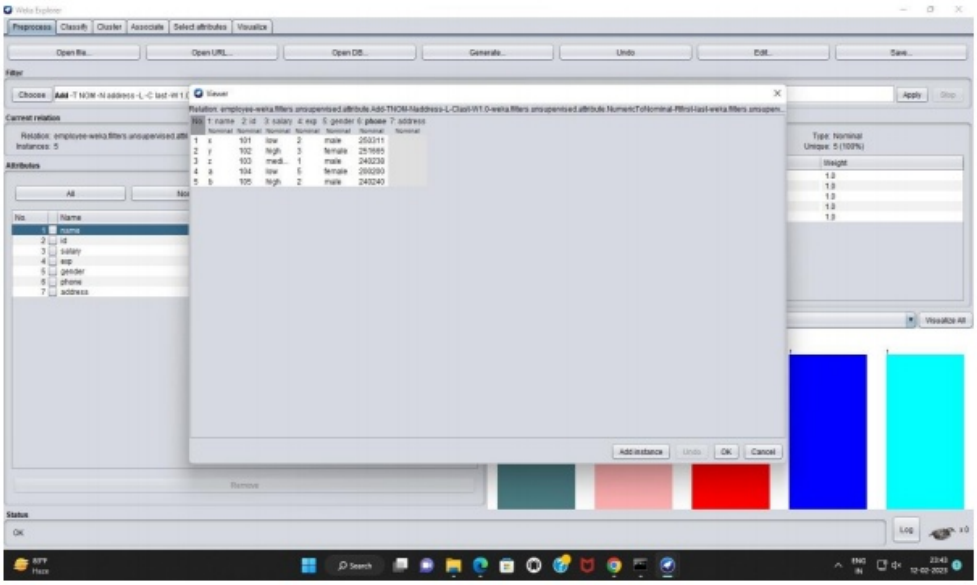
6.In that dialog box there are four modes, click on explorer.

7.Explorer shows many options. In that click on ‘open file’ andselect the arff file.

8.Click on edit button which shows employee table on weka.

OUTPUT:





RESULT:

Thus the pre-processsing technique to the training dataset of weather table has been executed successfully.

EX.NO:3C ASSOCIATION RULE MINING OF DATASET IN WEKA TOOL USING APRIORI ALGORITHM

AIM:

To demonstrate association rule mining of dataset in weka tool using Apriori algorithm.

PROCEDURE:

1.Open Start -> Programs -> Accessories -> Notepad.

2.Type the following training data set with the help of Notepad forEmployee Table.

```
@relation employee @attribute
name {x,y,z,a,b} @attribute id
numeric
@attribute salary {low,medium,high}
@attribute exp numeric
@attribute gender {male,female}
@attribute  phone numeric @data
x,101,low,2,male,250311
y,102,high,3,female,251665
z,103,medium,1,male,240238
a,104,low,5,female,200200
b,105,high,2,male,240240
```

3.After that the file is saved with .arff file format.

4.Minimize the arff file & then open Start -> Programs -> weka .

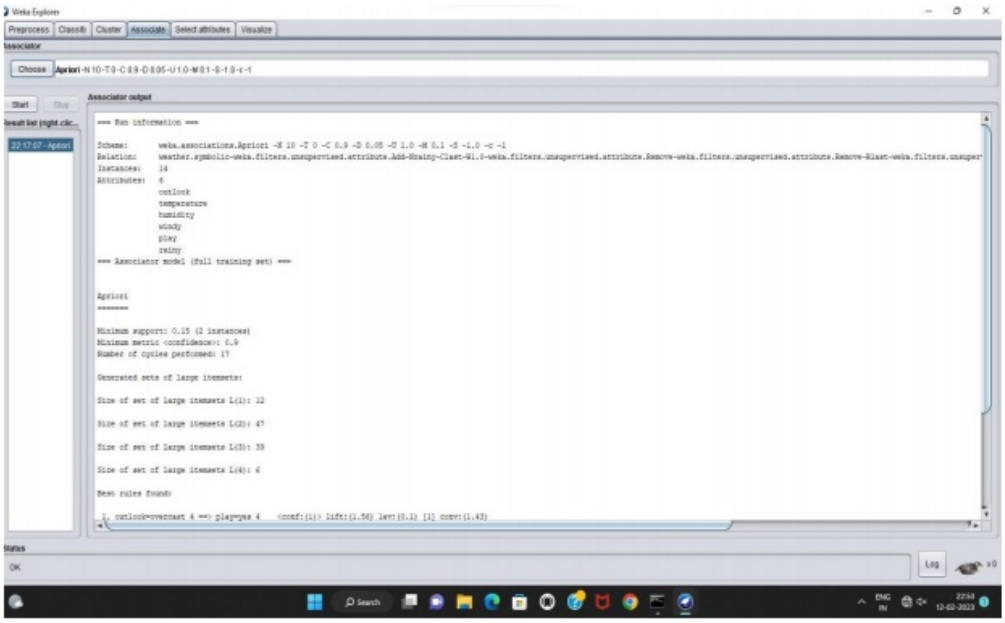
5.Click on weka-3-4, then Weka dialog box is displayed on the screen.

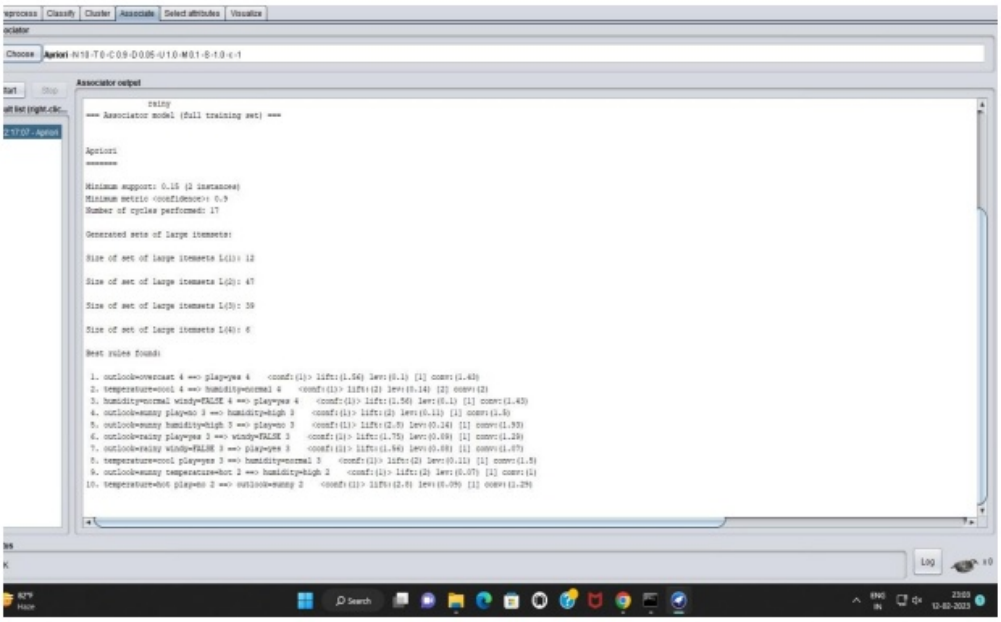
6.In that dialog box there are four modes, click on explorer.

7.Explorer shows many options. In that click on 'open file' andselect the arff file.

8.Click on edit button which shows employee table on weka.

OUTPUT:


Weka Explorer
Preprocess
Classify
Cluster
Associate
Select attributes
Visualize
Associator
Choose
Apriori -N 10 -T 0 -C 0.9 -D 0.05 -U 1.0 -M 0.1 -S -1.0 -c -1
Start
Stop
Associator output
Result list (right-clic...
22:17:07 - Apriori
=== Run information ===
Scheme: weka.associations.Apriori -N 10 -T 0 -C 0.9 -D 0.05 -U 1.0 -M 0.1 -S -1.0 -c -1
Relation: weather.symbolic-weka.filters.unsupervised.attribute.Add-Rising-Clas1-R1.0-weka.filters.unsupervised.attribute.Remove-weka.filters.unsupervised.attribute.Remove-Blast-weka.filters.unsuper
Instances: 14
Attributes: 6
outlook
temperature
humidity
windy
play
rainy
=== Associator model (full training set) ===
Apriori
=======
Minimum support: 0.15 (2 instances)
Minimum metric <confidence>: 0.9
Number of cycles performed: 17
Generated sets of large itemsets:
Size of set of large itemsets L(1): 12
Size of set of large itemsets L(2): 47
Size of set of large itemsets L(3): 39
Size of set of large itemsets L(4): 6
Best rules found:
1. outlook=overcast 4 ==> play=yes 4 <conf:(1)> lift:(1.56) lev:(0.1) [1] conv:(1.43)
Status
OK
Log
x 0


rainy
=== Associator model (full training set) ===
Apriori
=======
Minimum support: 0.15 (2 instances)
Minimum metric <confidence>: 0.9
Number of cycles performed: 17
Generated sets of large itemsets:
Size of set of large itemsets L(1): 12
Size of set of large itemsets L(2): 47
Size of set of large itemsets L(3): 39
Size of set of large itemsets L(4): 6
Best rules found:
1. outlook=overcast 4 ==> play=yes 4 <conf:(1)> lift:(1.56) lev:(0.1) [1] conv:(1.43)
2. temperature=cool 4 ==> humidity=normal 4 <conf:(1)> lift:(2) lev:(0.14) [2] conv:(2)
3. humidity=normal windy=FALSE 4 ==> play=yes 4 <conf:(1)> lift:(1.56) lev:(0.1) [1] conv:(1.43)
4. outlook=sunny play=no 3 ==> humidity=high 3 <conf:(1)> lift:(2) lev:(0.11) [1] conv:(1.5)
5. outlook=sunny humidity=high 3 ==> play=no 3 <conf:(1)> lift:(2.8) lev:(0.14) [1] conv:(1.93)
6. outlook=rainy play=yes 3 ==> windy=FALSE 3 <conf:(1)> lift:(1.75) lev:(0.09) [1] conv:(1.29)
7. outlook=rainy windy=FALSE 3 ==> play=yes 3 <conf:(1)> lift:(1.56) lev:(0.08) [1] conv:(1.07)
8. temperature=cool play=yes 3 ==> humidity=normal 3 <conf:(1)> lift:(2) lev:(0.11) [1] conv:(1.5)
9. outlook=sunny temperature=hot 2 ==> humidity=high 2 <conf:(1)> lift:(2) lev:(0.07) [1] conv:(1)
10. temperature=hot play=no 2 ==> outlook=sunny 2 <conf:(1)> lift:(2.8) lev:(0.09) [1] conv:(1.29)
Log
x 0

RESULT:

Thus the association rule mining of dataset in weka tool using Apriori algorithm has been executed successfully.