

EX.NO : 21

Date :

DATA PREPROCESSING AND ANALYSIS FOR DATASET USING WEKA

AIM:

TO Create data preprocessing and analysis for dataset using weka.

DESCRIPTION:

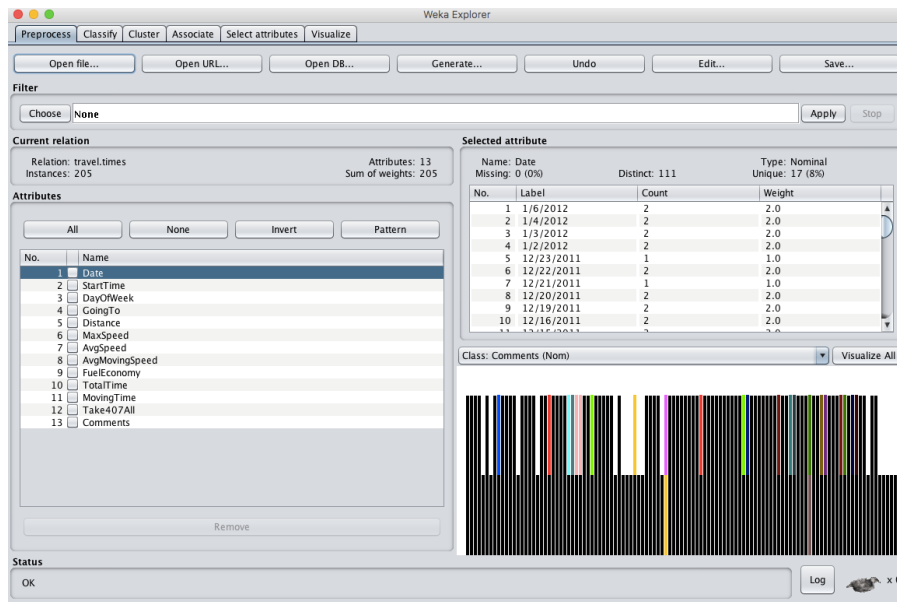
Consider a dataset of traveltimes.csv file where it contains the columns of (or) attributes as Date, StartTime, DayOfWeek, GoingTo, Distance, MaxSpeed, AvgSpeed, AvgMovingSpeed, FuelEconomy, TotalTime, MovingTime, Take407All comments.

PROCEDURE :

- 1.Download WEKA And Install
- 2.Start WEKA
- 3.Open The Data/iris.arff Dataset
- 4.Select And Run An Algorithm
- 5.Review The Results



PREPROCESS:



OBSERVATION :

A. ATTRIBUTE TYPE :

S.NO	ATTRIBUTE	TYPE
1.	Date	Nominal
2.	Start Time	Nominal
3.	Day Of Week	Nominal
4.	Going To	Nominal
5.	Distance	Numeric
6.	Max Speed	Numeric
7.	Avg Speed	Numeric
8.	Avg Moving Speed	Numeric

9.	Fuel Economy	Nominal
10.	Total Time	Numeric
11.	Moving Time	Numeric
12.	Comments	Nominal
13.	Take 407 All	Nominal

B.PERCENTAGE OF MISSING VALUES :

S.NO	ATTRIBUTE	Percentage Of Missing Values
1.	Date	0 %
2.	Start Time	0 %
3.	Day Of Week	0 %
4.	Going To	0 %
5.	Distance	0 %
6.	Max Speed	0 %
7.	Avg Speed	0 %
8.	Avg Moving Speed	0 %
9.	Fuel Economy	8 %
10.	Total Time	0 %
11.	Moving Time	0 %
12.	Comments	88 %
13.	Take 407 All	0 %

B. MIN, MAX, MEAN, STANDARD DEVIATION :

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Clusterer

Choose EM -I 100 -N -1 -X 10 -max -1 -il-cv 1.0E-6 -il-iter 1.0E-6 -M 1.0E-6 -K 10 -num-slots 1 -S 100

Cluster mode

- ☒ Use training set
- ☐ Supplied test set
- ☐ Percentage split
- ☐ Classes to clusters evaluation
- ☒ Store clusters for visualization

Ignore attributes

Start Stop

Result list (right-click for options)

- 00:09:20 - SimpleKMeans
- 00:09:29 - EM

Clusterer output

EM

Number of clusters selected by cross validation: 6

Number of iterations performed: 36

Attribute	Cluster	0	1	2	3	4	5
		(0.14)	(0.27)	(0.2)	(0.04)	(0.27)	(0.06)
Date							
1/4/2012		1	1	1	1	3	1
1/4/2012		1	2	1	1	2	1
1/2/2012		1	1	1	1	3	1
1/2/2012		1.0058	1.9937	1	1	2.0005	1
12/19/2011		1	1.0002	1	1	1.9998	1
12/22/2011		1	2.0436	1.9564	1	1	1
12/21/2011		1	1.9547	1.0453	1	1	1
12/20/2011		1	1.0214	1	1	1.9825	1
12/19/2011		1	1.0002	1	1	2.9998	1
12/16/2011		1.0032	2	1	1	1.9968	1
12/15/2011		1	1.0026	1.9974	1	2	1
12/14/2011		1	2.378	1.0007	1	1.0234	1.0029
12/13/2011		1	2.0036	1.0003	1	1.0234	1.0029
12/12/2011		1	1.9995	1	1	1	1.0005
12/8/2011		1.0014	1.994	1.006	1	1.9986	1
12/6/2011		1	1.759	1.0002	2	2.0436	1
12/7/2011		1	1.9991	1.0001	1	2.0008	1
12/6/2011		1	1.0212	1.9987	1	1.9791	1
12/5/2011		1	2	1	1	1	1
12/1/2011		1	1.005	1.0001	1	2.9999	1
11/20/2011		1	1.0054	1.0004	1	1.0241	1
11/29/2011		1	1.0003	1.9997	2	1	1
11/28/2011		1	1.5866	2.4134	1	1.0001	1
11/24/2011		1	2.1209	1.0058	1	1.0733	1
11/23/2011		1	1.0001	1.9992	1	1	2.0007
11/22/2011		1	1.0051	1	1	2.0349	1

Status

OK

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1/2/2012		1.0058	1.9937	1	1	2.0005	1
12/19/2011		1	1.0002	1	1	1.9998	1
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12/16/2011		1.0032	2	1	1	1.9968	1
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12/6/2011		1	1.759	1.0002	2	2.0436	1
12/7/2011		1	1.9991	1.0001	1	2.0008	1
12/6/2011		1	1.0212	1.9987	1	1.9791	1
12/5/2011		1	2	1	1	1	1
12/1/2011		1	1.005	1.0001	1	2.9999	1
11/20/2011		1	1.0054	1.0004	1	1.0241	1
11/29/2011		1	1.0003	1.9997	2	1	1
11/28/2011		1	1.5866	2.4134	1	1.0001	1
11/24/2011		1	2.1209	1.0058	1	1.0733	1
11/23/2011		1	1.0001	1.9992	1	1	2.0007
11/22/2011		1	1.0051	1	1	2.0349	1

Status

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11/23/2011		1	1.0001	1.9992	1	1	2.0007
11/22/2011		1	1.0051	1	1	2.0349	1

Status

OK

RESULT :

Thus, the dataprocessing and analysis for a dataset using weka tool has been successfully completed.