

Practical No. 7

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Class: B.Tech Cybersecurity	Batch: K2
Date of Practical: 05/03/2022	Date of Submission: 05/03/2022
Grade:	

Aim: To study Experimenter feature in WEKA tool

Prerequisite:

- Understanding of the basic data mining tasks

Outcome: After successful completion of this experiment students will be able to

- Understand and use the Experimenter feature in WEKA Tool.

Theory:

The Weka Experiment Environment enables the user to create, run, modify, and analyse experiments in a more convenient manner than is possible when processing the schemes individually. For example, the user can create an experiment that runs several schemes against a series of datasets and then analyze the results to determine if one of the schemes is (statistically) better than the other schemes. The Experimenter comes in two flavours, either with a simple interface that provides most of the functionality one needs for experiments, or with an interface with full access to the Experimenter's capabilities. You can choose between those two with the Experiment Configuration Mode radio buttons:

- Simple
- Advanced

Both setups allow you to setup standard experiments that are run locally on a single machine, or remote experiments, which are distributed between several hosts. The distribution of experiments cuts down the time the experiments will take until completion, but on the other hand the setup takes more time.

(TO BE COMPLETED BY STUDENTS)

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Create and run an experiment environment in WEKA tool on the Iris data set. Analyze the results obtained.

The screenshot shows the Weka Experiment Environment window. At the top, there are tabs for 'Setup', 'Run', and 'Analyse'. Below these, the 'Experiment Configuration Mode' is set to 'Simple'. There are buttons for 'Open...', 'Save...', and 'New'. The 'Results Destination' section shows 'ARFF file' selected and a filename path: '/Users/anish/Documents/NMIMS/academics/SEM_IV/Data Warehousing & Mining/Lab/Lab7/analysis'. The 'Experiment Type' section has 'Cross-validation' selected, 'Number of folds' set to 10, and 'Classification' selected. The 'Iteration Control' section has 'Number of repetitions' set to 10, with 'Data sets first' selected. The 'Datasets' section has 'Add new...', 'Edit selected...', and 'Delete selected' buttons, a 'Use relative paths' checkbox, and a list containing '/Applications/weka-3-8-3/data/iris.arff'. The 'Algorithms' section has similar buttons and a list containing 'IBk -K 3 -W 0 -A weka.core.neighboursearch.LinearNNSearch -A weka.core.EuclideanDistance -B 20 -M a'. At the bottom, there are 'Up' and 'Down' buttons for both datasets and algorithms, and a 'Notes' section.

Weka Experiment Environment

Setup Run Analyse

Source

Got 200 results

File... Database... Experiment

Actions

Perform test Save output Open Explorer...

Configure test

Testing with: Paired T-Tester (corrected)

Select rows and cols: Rows Cols Swap

Comparison field: Percent_correct

Significance: 0.05

Sorting (asc.) by: <default>

Test base: Select

Displayed Columns: Select

Show std. deviations: ☐

Output Format: Select

Test output

Tester: weka.experiment.PairedCorrectedTTester -G 4,5,6 -D 1 -R 2 -S 0.05 -result-

Analysing: Percent_correct

Datasets: 1

Resultsets: 2

Confidence: 0.05 (two tailed)

Sorted by: -

Date: 5/3/22 12:29 PM

Dataset	(1) lazy.IBk	(2) lazy.
iris	(100) 95.20	94.67
	(v/ /*)	(0/1/0)

Key:

(1) lazy.IBk '-K 3 -W 0 -A \"weka.core.neighboursearch.LinearNNSearch -A \"weka.core

(2) lazy.KStar '-B 20 -M a' 332458330800479083

Result list

12:27:22 - Available resultsets

12:29:08 - Percent_correct - lazy.IBk '-K 3 -W 0 -A \"we

Weka Experiment Environment

Setup Run Analyse

Start Stop

Log

12:26:43: Started

12:26:50: Finished

12:26:50: There were 0 errors

Status

Not running

Analysis report created in the desired location


