



Green University Of Bangladesh
Department Of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
Semester: (Fall, Year: 2023), B.Sc. in CSE (DAY)

LAB REPORT NO - 08
Course Title: Data Mining Lab
Course Code: CSE-436 **Section:** D2

Lab Experiment Name: Weka Implement

Student Details

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Submission Date : 29th December 2023
Course Teacher Name : Meherunnesa Tania

Lab Report Status

Mark:.....	Signature:.....
Comments:.....	Date:.....

1 INTRODUCTION

In this lab report we are going to run Neural Network classification algorithm and evaluate the results of the method on a data file. Also make training model and use the training model to evaluate a testing file and compare accuracy values.

2 OBJECTIVE

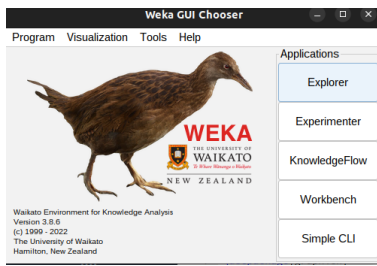
The aim of this lab is to know about the weka. From this lab we are going to learn how we can do classifying, clustering and perform data analysis using weka. The main aim of this lab is to run Neural Network classification algorithm and evaluate the results of the method on a data file. Also make training model and use the training model to evaluate a testing file and compare accuracy values.

3 PROCEDURE

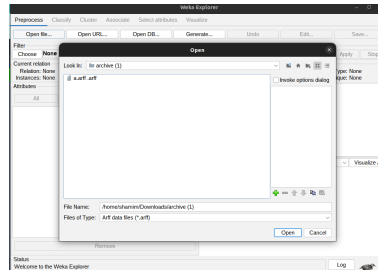
Algorithm 1 Using weka to run Neural Network classification algorithm and evaluate the result

- 1: First open the weka .
 - 2: Click the explorer as shown in figure 1(a).
 - 3: Click the "open file" and add the Iris data set as shown in Figure 1(b).
 - 4: Click the "Classify" and Classify the data using multi layer perception as shown in figure-1(c)
 - 5: Then evaluate the results of the method on a data file and show the accuracy values for different parameters.
 - 6: END
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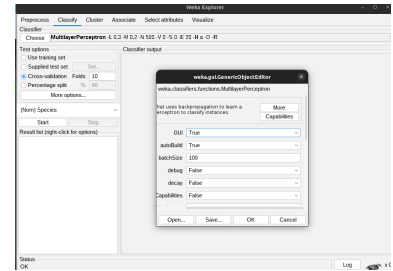
4 IMPLEMENTATION



(a) Explorer



(b) Import data set



(c) Use multi layer perception

Figure 1: running Neural Network classification

5 OUTPUT

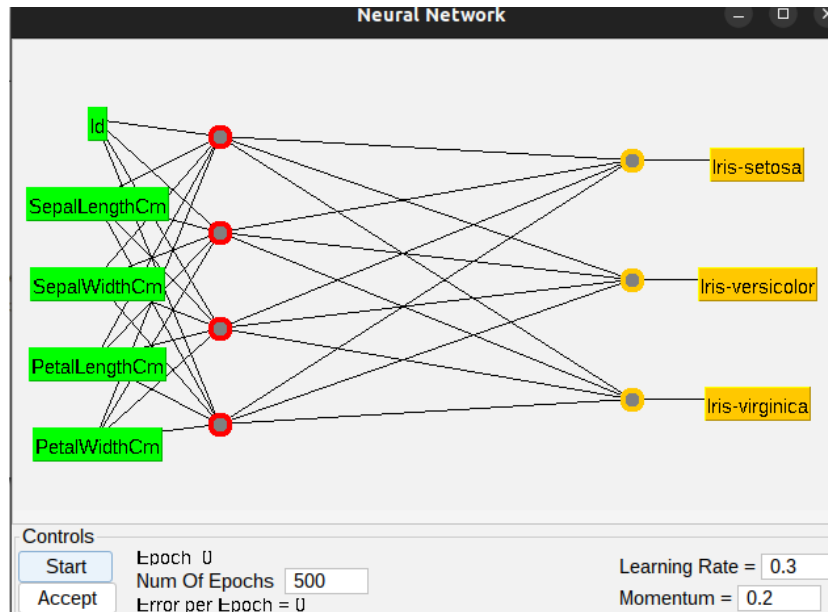


Figure 2: Underlying Neural Network after using Multi layer Perceptron Algorithm

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== Summary ==
Correctly Classified Instances      50          33.3333 %
Incorrectly Classified Instances    100         66.6667 %
Kappa statistic                    0
Mean absolute error                0.4444
Root mean squared error            0.4714
Relative absolute error            99.9997 %
Root relative squared error       100.0015 %
Total Number of Instances         150

== Detailed Accuracy By Class ==

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	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.000	0.000	?	0.000	?	?	0.538	0.322	Iris-set
	1.000	1.000	0.333	1.000	0.500	?	0.317	0.247	Iris-ver
	0.000	0.000	?	0.000	?	?	0.713	0.601	Iris-vir
Weighted Avg.	0.333	0.333	?	0.333	?	?	0.523	0.390	

```

== Confusion Matrix ==
a b c <-- classified as
0 50 0 | a = Iris-setosa
0 50 0 | b = Iris-versicolor
0 50 0 | c = Iris-virginica

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Figure 3: Accuracy details

6 DISCUSSION & ANALYSIS

In this lab report, I successfully run Neural Network classification algorithm and evaluate the results of the method on a data file. Also make training model and use the training model to evaluate a testing file and compare accuracy values for different parameters which shown in figure 2 and 3. Here I use the Iris Data set. The most difficult part was to use multi layer perception but with my teacher help I overcome from that. Overall it was a grate experiment to completed.