

PREDICTION OF LAPTOP USAGE USING WEKA TOOL

N.Vandhana¹, V.NagaRajeshwari², S.Divya³, BanuPriya⁴

¹Assistant Professor, ^{2,3,4}M.Sc (CS & IT),

Department of Computer Science & Information Technology,

Nadar Saraswathi College of Arts and Science, Theni District, Tamil Nadu, (India)

ABSTRACT

A **laptop**, often called a **notebook**, is a portable personal computer with a clamshell form factor, suitable for mobile use. Laptops are commonly used in a variety of settings, such as at work, in education, and for personal multimedia. A survey among peopoles using questionnaire regarding the reason for laptop usage like entertainment, work and education. In this paper, one of the consideration is laptop usage of college student's data set is to be analyzed and concluded that in "WEKA TOOL" to visualize the output chart by the Decision tree algorithm.

Keywords: Laptop, Decision Tree

I. INTRODUCTION

Laptops are used by everyone in various fields. Nowadays the main users of the laptops are college students. They used in a variety of setting such as work, share the educational materials, preparing the assignments, project work and for personal multimedia. The paper is based on how the laptop is utilized by the students.

II. METHODOLOGY

2.1 Data Mining

Data mining is the process of discovering interesting knowledge, such as associations, patterns, changes, significant structures and anomalies, from large amounts of data stored in databases or data warehouses or other information repositories.

2.2 Decision tree

The decision tree technique involves constructing a tree to model the classification process. Once a tree is built, it is applied to each tuple in the database and results in classification for that tuple. The following issues are faced by most decision tree algorithms:

- Choosing splitting attributes
- Ordering of splitting attributes
- Number of splits to take
- Balance of tree structure and pruning

- Stopping criteria

2.3 Classification and Predictions

There are two forms of data analysis that can be used for extract models describing important classes or predict future data trends. These two forms are as follows:

- Classification
- Prediction

These data analysis help us to provide a better understanding of large data. Classification predicts categorical and predictions models predict continuous valued function.

As input to the model five variables are used, whose names and coding is shown in Table.

S.No	Variable	Coding
1.	Name	Name
2.	Status	Male Female
3.	Accessing place	House College Working Place
4.	Accessing time	<=1 hour 2 to 5 hour 5 to 10 hour
5.	Class	Entertainment Education Work

III. RESULT AND DISCUSSION

This research aimed to analyze the usage habit laptop among the rural and urban area people.

Classifier output

Scheme:weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: laptop2-weka.filters.unsupervised.attribute.Remove-R1-3-

weka.filters.unsupervised.attribute.Remove-R6-8

Instances: 19

Attributes: 5

Number of Leaves : 4

Size of the tree : 7

Time taken to build model: 0.1 seconds

=== Evaluation on training set ===

=== Summary ===

Correctly Classified Instances	19	100	%
Incorrectly Classified Instances	0	0	%
Kappa statistic		1	
Mean absolute error	0		
Root mean squared error	0		
Relative absolute error	0	%	
Root relative squared error	0	%	
Total Number of Instances	19		

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	ROC Area	Class
	1	0	1	1	1		entertain
	1	0	1	1	1		study
	1	0	1	1	1		work

Weighted

Avg.	1	0	1	1	1	1	
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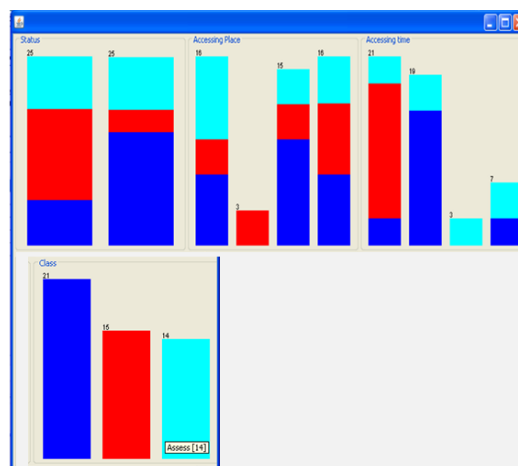
=== Confusion Matrix ===

a b c <-- classified as

9 0 0 | a = entertain

0 7 0 | b = study

0 0 3 | c = work



According to analysis the above graph shown the people are interested to use the laptop for entertainment, study and working purpose.

IV. CONCLUSION

In this paper, we discussed about the laptop usage habit among the peoples. Most of the peoples use the laptops for entertainment purpose and few numbers of peoples are used for education and their working purpose.

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