**READ ME**

* The tree is created with the help of the training set
* The validation test is used for pruning the data.
* Accuracy of the test data is finally measured and printed.

The folder consists of three java files namely decisionTree.java, Details.java and Tree.java.

Compile the file decisionTree.java by using the following command on cmd.

javac –Xlint decisionTree.java

Run the file with the main method ( decisionTree.java ) using the following method.

java decisionTree.java <K value> <L value> <path of training set> <path of validation set> <path of test set> <yes/no>

If yes is given, then the decision tree will be printed else it will not be printed.

**Example:**

For Data Set 1 :

java decisionTree.java 100 5 C:\eclipse\Tree\training\_set1.csv C:\eclipse\Tree\validation\_set1.csv C:\eclipse\Tree\test\_set1.csv yes

java decisionTree.java 100 10 C:\eclipse\Tree\training\_set1.csv C:\eclipse\Tree\validation\_set1.csv C:\eclipse\Tree\test\_set1.csv no

For Data Set 2 :

java decisionTree.java 200 10 C:\eclipse\Tree\training\_set2.csv C:\eclipse\Tree\validation\_set2.csv C:\eclipse\Tree\test\_set2.csv yes

java decisionTree.java 200 5 C:\eclipse\Tree\training\_set2.csv C:\eclipse\Tree\validation\_set2.csv C:\eclipse\Tree\test\_set2.csv no

**Sample Ouput:**

Inducing Decision Trees

1. Information Gain Heuristic

Decision Tree constructed using Training Set:C:\eclipse\Tree\training\_set.csv

Accuracy of pruned decision tree on Test Set: C:\eclipse\Tree\test\_set.csv: 73.0%

2. Variance Impurity Heuristic

Decision Tree constructed using Training Set:C:\eclipse\Tree\training\_set.csv

Accuracy of pruned decision tree on Test Set: C:\eclipse\Tree\test\_set.csv: 74.5%