**DWDM (WEKA ASSIGNMENT)**

Data set Used: **VOTE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Classifier** | **Test Options** | **Corrected Classified** | **Incorrect Classified** | **TP** | **F-Measure** | **Time Taken** |
| **NAÏVE BAYES** | Training Set | 90.34% | 9.65% | 0.90 | 0.90 | 0.03 |
| % Split (66%) | 91.21% | 8.78% | 0.91 | 0.91 | 0 |
| Cross Validation (4) | 90.57% | 9.42% | 0.90 | 0.90 | 0 |
| **DECISION TREE (RANDOM FOREST)** | Training Set | 99.31% | 0.68% | 0.99 | 0.99 | 0.08 |
| % Split (66%) | 98.64% | 1.35% | 0.98 | 0.98 | 0.01 |
| Cross Validation (4) | 95.40% | 4.59% | 0.95 | 0.95 | 0.09 |
| **DECISION TREE (J48)** | Training Set | 97.24% | 2.75% | 0.97 | 0.97 | 0.01 |
| % Split (66%) | 97.29% | 2.70% | 0.97 | 0.97 | 0 |
| Cross Validation (4) | 95.63% | 4.36% | 0.95 | 0.95 | 0 |
| **IBK** | Training Set | 99.77% | 0.22% | 0.99 | 0.99 | 0.07 |
| % Split (66%) | 91.89% | 8.10% | 0.91 | 0.91 | 0 |
| Cross Validation (4) | 93.10% | 6.89% | 0.93 | 0.93 | 0 |

**Conclusion**

After using the predefined data set (Vote) of Weka, we concluded that *Training Set Method* of **IBK Classifier** was having the highest accuracy of **99.77%** but if we compare all three test options, **Decision Tree (Random Forest)** was leading the chart with an average of **97.78% of accuracy**.

On the grounds of speed, **Decision Tree (J48)** was the fastest classifier for the given data set as total time taken for all three test options was only **0.01 seconds** and the slowest classifier was **Decision Tree (random Forest)** of which all three testing options took **0.18** Seconds.

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