ML – CLASSIFICATION ASSIGNMENT

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| --- | --- | --- | --- | --- |
| Evaluation Metrics | Random Forest Algorithm | Decision Tree Algorithm | SVM Algorithm |  |
| Product- Not Purchased | 85 | 85 | 85 |  |
| Product- Purchased | 49 | 49 | 49 |  |
| **Precision**-Correct and Wrong Classification of **Not Purchased Class** | 93% | 90% | 67% |  |
| **Precision**-Correct and Wrong Classification of **Purchased Class** | 86% | 82% | 88% |  |
| **Recall**-Correct Classification of **Not Purchased Class** | 92% | 89% | 99% |  |
| **Recall**-Correct Classification of  **Purchased Class** | 88% | 84% | 14% |  |
| **F1 Score-**Overall Performance of **Not Purchased Class** | 92% | 90% | 80% |  |
| **F1 Score-**Overall Performance of **Purchased Class** | 87% | 83% | 25% |  |
| **Macro Average-**Average Performance of **Precision** | 89% | 86% | 77% |  |
| **Macro Average-**Average Performance of **Recall** | 90% | 87% | 57% |  |
| **Macro Average-**Average Performance of **F1 Measure** | 90% | 86% | 52% |  |
| **Weighted Average-**Sum of Product of proportion rate -**Precision** | 90% | 87% | 74% |  |
| **Weighted Average-**Sum of Product of proportion rate -**Recall** | 90% | 87% | 68% |  |
| **Weighted Average-**Sum of Product of proportion rate -**F1 Score** | 90% | 87% | 59% |  |
| **Accuracy-Overall Performance of Model** | 90% | 87% | 68% |  |