MACHINE LEARNING

CLASSIFICATION

Decision Tree:

1) Count of **Purchased:** **49**

2) Count of **UnPurchased**: **85** } **Sppport**

3(a) What is the percentage of correctly classified &wrongly classified of **Purchased?**

0.88 **Precision**

3(b) What is the percentage of correctly classified &wrongly classified of **UnPurchased?**

0.88

4(a) What is the percentage of correctly classified of **Purchased?**

0.78 **Recall**

4(b) What is the percentage of correctly classified of **UnPurchased?**

0.94

5(a) What is the percentage of overall performance of **Purchased?**

0.83 **F1-Measure**

5(b) What is the percentage of overall performance of **UnPurchased?** **0.91**

6) What is the percentage of overall performance of **Purchased & UnPurchased?**

0.88 — **Accuracy**

7(a) What is the percentage of average performance of **Precision?**

0.88

7(b) What is the percentage of average performance of **Recall?**

0.86 — **Macro Average**

7(c) What is the percentage of average performance of **F1-Measure?**

0.86

8(a) What is the sum of product of propostion rate of **Precision?**

0.88

8(b) What is the sum of product of propostion rate of **Recall**

0.88 — **Weighted Average**

8(c) What is the sum of product of propostion rate of **F1-Measure?**

0.88

Random Forest:

1) Count of **Purchased:** **49**

2) Count of **UnPurchased**: **85** } **Sppport**

3(a) What is the percentage of correctly classified &wrongly classified of **Purchased?**

0.88

3(b) What is the percentage of correctly classified &wrongly classified of **UnPurchased?**

0.93

} **Precision**

4(a) What is the percentage of correctly classified of **Purchased?**

0.88

4(b) What is the percentage of correctly classified of **UnPurchased?**

0.93

} **Recall**

5(a) What is the percentage of overall performance of **Purchased?**

0.88

5(b) What is the percentage of overall performance of **UnPurchased?**

0.93

} **F1-Measure**

6) What is the percentage of overall performance of **Purchased & UnPurchased?**

0.91 — **Accuracy**

7(a) What is the percentage of average performance of **Precision?**

0.90

7(b) What is the percentage of average performance of **Recall?**

0.90 — **Macro Average**

7(c) What is the percentage of average performance of **F1-Measure?**

0.90

8(a) What is the sum of product of propostion rate of **Precision?**

0.91

8(b) What is the sum of product of propostion rate of **Recall**

0.91 — **Weighted Average**

8(c) What is the sum of product of propostion rate of **F1-Measure?**

0.91

Support Vector Machine:

1) Count of **Purchased:** **49**

2) Count of **UnPurchased**: **85** } **Sppport**

3(a) What is the percentage of correctly classified &wrongly classified of **Purchased?**

0.00

3(b) What is the percentage of correctly classified &wrongly classified of **UnPurchased?**

0.63

} **Precision**

4(a) What is the percentage of correctly classified of **Purchased?**

0.00

4(b) What is the percentage of correctly classified of **UnPurchased?**

1.00

} **Recall**

5(a) What is the percentage of overall performance of **Purchased?**

0.00

5(b) What is the percentage of overall performance of **UnPurchased?**

0.78

} **F1-Measure**

6) What is the percentage of overall performance of **Purchased & UnPurchased?**

0.63 **Accuracy**

7(a) What is the percentage of average performance of **Precision?**

0.32

7(b) What is the percentage of average performance of **Recall?**

0.50 **Macro Average**

7(c) What is the percentage of average performance of **F1-Measure?**

0.39

8(a) What is the sum of product of propostion rate of **Precision?**

0.40

8(b) What is the sum of product of propostion rate of **Recall**

0.63 **Weighted Average**

8(c) What is the sum of product of propostion rate of **F1-Measure?**

0.49

Comparing the above three algorithm ,the best model is

Random Forest

(Based on Accuracy)