CLASSIFICATION Assignment: Evaluation Metrics

Total count in the test set = 120

Total count of Purchased in the test set = 79

Total count of Not Purchased in the test set = 41

ALGORITHM 1: RANDOM FOREST

1. What is the percentage of correct classification of both (Purchased and Not Purchased) to the total input of the test set in Random Forest? **92%**
2. What is the percentage of correct classification of both (Purchased) to the total input of the test set in Random Forest? **90%**
3. What is the percentage of correct classification of both (Not Purchased) to the total input of the test set in Random Forest? **92%**
4. What is the percentage of correct classification of both (Purchased) to sum of correctly classified as (Purchased) and wrongly classified as (Purchased) in the test set in Random Forest? **86%**
5. What is the percentage of correct classification of both (Not Purchased) to sum of correctly classified as (Not Purchased) and wrongly classified as (Not Purchased) in the test set in Random Forest? **95%**
6. What is the overall performance of Purchased in Random Forest? **88%**
7. What is the overall performance of Not Purchased in Random Forest? **94%**
8. What is the average performance of precision (correctly and wrongly classified) in Random Forest? **90%**
9. What is the average performance of recall (correctly and wrongly classified) in Random Forest? **91%**
10. What is the average performance of F1-measure (correctly and wrongly classified) in Random Forest? **91%**
11. What is the sum of product of proportion rate (weight) of each class for Precision in Random Forest? **92%**
12. What is the sum of product of proportion rate (weight) of each class for Recall in Random Forest? **92%**
13. What is the sum of product of proportion rate (weight) of each class for F1-measure in Random Forest? **92%**

ALGORITHM 2: DECISION TREE

1. What is the percentage of correct classification of both (Purchased and Not Purchased) to the total input of the test set in Decision Tree? **90%**
2. What is the percentage of correct classification of both (Purchased) to the total input of the test set in Decision Tree? **83%**
3. What is the percentage of correct classification of both (Not Purchased) to the total input of the test set in Decision Tree? **94%**
4. What is the percentage of correct classification of both (Purchased) to sum of correctly classified as (Purchased) and wrongly classified as (Purchased) in the test set in Decision Tree? **87%**
5. What is the percentage of correct classification of both (Not Purchased) to sum of correctly classified as (Not Purchased) and wrongly classified as (Not Purchased) in the test set in Decision Tree? **91%**
6. What is the overall performance of Purchased in Decision Tree? **85%**
7. What is the overall performance of Not Purchased in Decision Tree? 93%
8. What is the average performance of precision (correctly and wrongly classified) in Decision Tree? **89%**
9. What is the average performance of recall (correctly and wrongly classified) in Decision Tree? **88%**
10. What is the average performance of F1-measure (correctly and wrongly classified) in Decision Tree? **89%**
11. What is the sum of product of proportion rate (weight) of each class for Precision in Decision Tree? **90%**
12. What is the sum of product of proportion rate (weight) of each class for Recall in Decision Tree? **90%**
13. What is the sum of product of proportion rate (weight) of each class for F1-measure in Decision Tree? **90%**

ALGORITHM 3: SUPPORT VECTOR MACHINE

1. What is the percentage of correct classification of both (Purchased and Not Purchased) to the total input of the test set in SVM? **91%**
2. What is the percentage of correct classification of both (Purchased) to the total input of the test set in SVM? **88%**
3. What is the percentage of correct classification of both (Not Purchased) to the total input of the test set in SVM? **92%**
4. What is the percentage of correct classification of both (Purchased) to sum of correctly classified as (Purchased) and wrongly classified as (Purchased) in the test set in SVM? **86%**
5. What is the percentage of correct classification of both (Not Purchased) to sum of correctly classified as (Not Purchased) and wrongly classified as (Not Purchased) in the test set in SVM? **94%**
6. What is the overall performance of Purchased in SVM? **87%**
7. What is the overall performance of Not Purchased in SVM? **93%**
8. What is the average performance of precision (correctly and wrongly classified) in SVM? **90%**
9. What is the average performance of recall (correctly and wrongly classified) in SVM? **90%**
10. What is the average performance of F1-measure (correctly and wrongly classified) in SVM? **90%**
11. What is the sum of product of proportion rate (weight) of each class for Precision in SVM? **91%**
12. What is the sum of product of proportion rate (weight) of each class for Recall in SVM? **91%**
13. What is the sum of product of proportion rate (weight) of each class for F1-measure in SVM? **91%**