Classification – Confusion Matrix Assignment

Decision Tree

1. What is the Overall Performance of the model in Decision Tree?

Accuracy = T(NP) + T(P) = 91%

T(NP) + F(NP) + T(P) + F(P)

1. What is the Correct Classification of Not Purchased?

Recall = T(NP) = 90%

T(NP) + F(NP)

1. What is the Correct Classification of Purchased?

Recall = T(P) = 93%

T(P) + F(P)

1. What is the Correct and Wrong Classification of Not Purchased?

Precision = T(NP) = 96%

T(NP) + F(P)

1. What is the Correct and Wrong Classification of Purchased?

Precision = T(P) = 83%

T(P) + F(NP)

1. What is the Overall Performance of Not Purchased?

F1 Measure = 2\*Recall NP\*Precision NP = 93%

Recall NP + Precision NP

1. What is the Overall Performance of Purchased?

F1 Measure = 2\*Recall P\*Precision P = 87%

Recall P + Precision P

1. What is the Average Performance of Precision?

Macro Average of Precision = Precision NP + Precision P = 89%

2

1. What is the Average Performance of Recall?

Macro Average of Recall = Recall NP + Recall P = 91%

2

1. What is the Average Performance of F1 Measure?

Macro Average of F1 Measure = F1 Measure NP + F1 Measure P = 90%

2

1. What is the sum of product of proportion rate of Precision?

Weighted Average of Precision = Precision NP \* Count of NP/Total Count +Precision P\* count of P/Total Count = 91%

1. What is the sum of product of proportion rate of each class in Recall?

Weighted Average of Recall = Recall NP \* Count of NP/Total Count + Recall P\* count of P/Total Count = 91%

1. What is the sum of product of proportion rate of each class in F1 Measure?

Weighted Average of F1 Measure = F1 Measure NP \* Count of NP/Total Count + F1 Measure P\* count of P/Total Count = 91%