REPORT FOR DECISION TREE AND RANDOM FOREST

Report for Social_Network_Ads:

Algorithm: Decision Tree Classifier
Learning method: Supervised Learning – Classification
Parameters: criterion='entropy', splitter=random, random_state=0

Accuracy:

What is the overall performance of the model? (Or) What is the accuracy level of the model? (Or) How much accurately does the model predict the result of the test dataset?

0.89 = 89%

Recall:

Out of 'purchased' input, how much does the model correctly predicts as purchased? And same for not-purchased.

0.82 = 82% for purchased and **0.93 = 93%** for not-purchased

Precision:

For 'Purchased' classification, how much does it predicts as 'purchased' out of correct and wrong prediction? Same for not-purchased

0.87 = 87% for purchased and **0.90 = 90%** for not-purchased

F1 Measures:

What is the overall performance of purchased? Same for not-purchased

0.84 = 84% for purchased and 0.91 = 91% for not-purchased

	precision	recall	f1-score	support
0	0.90	0.93	0.91	85
1	0.87	0.82	0.84	49
accuracy			0.89	134
macro avg	0.88	0.87	0.88	134
weighted avg	0.89	0.89	0.89	134

Algorithm: Random Forest Classifier
Learning method: Supervised Learning – Classification
Parameters: criterion=gini, random_state=0

Accuracy:

What is the overall performance of the model? (Or) What is the accuracy level of the model?

0.91 = 91%

Recall:

Out of 'purchased' input, how much does the model correctly predicts as purchased? And same for not-purchased.

0.92 = 92% for purchased and **0.91 = 91%** for not-purchased

Precision:

For 'Purchased' classification, how much does it predicts as 'purchased' out of correct and wrong prediction? Same for not-purchased

0.85 = 85% for purchased and **0.95 = 95%** for not-purchased

F1 Measures:

What is the overall performance of purchased? Same for not-purchased

0.88 = 88% for purchased and 0.93 = 93% for not-purchased

	precision	recall	f1-score	support
0	0.95	0.91	0.93	85
1	0.85	0.92	0.88	49
accuracy			0.91	134
macro avg	0.90	0.91	0.91	134
weighted avg	0.91	0.91	0.91	134