

Classification Report and Insights

Methodology:

Data Segmentation, Preprocessing, Feature Encoding, and Model Training were conducted with Decision Tree and Random Forest classifiers.

Performance Metrics:

Accuracy: 0.8663366336633663

F1-score: precision recall f1-score support

0	0.87	0.98	0.93	341
1	0.71	0.24	0.36	63
accuracy		0.87		404
macro avg	0.79	0.61	0.64	404
weighted avg	0.85	0.87	0.84	404

Business Insights:

The feature importance plot shows that annual income and family status play crucial roles in customer classification.