ML Assignment - 1 Report

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Section: A1

1. Telco-Customer-Churn

With Adaboost

	Test	Train
K=5	79.773	78.9315
K=10	79.48899	79.42847
K=15	80.05677	79.570465
K=20	79.134	79.535

Only Decision Tree:

Performance Measure	Testing	Training
Accuracy	72.463	94.48
Recall	45.11	83.73
Specificity	82.132	98.3357
Precision	47.16	94.753
False Discovery Rate	52.841	5.247
F1 score	46.111	88.9047

2. Adult Names

With Adaboost

	Test	Train
K=5	82.04	82.46
K=10	83.2	83.46
K=15	83.2	83.58
K=20	83.44	83.51

Only Decision Tree:

Performance Measure	Testing	Training
Accuracy	79.4	92.56
Recall	51.65	77.55
Specificity	88.24	97.24
Precision	58.317	89.781
False Discovery Rate	41.682	10.218
F1 score	54.7848	83.221

3. Credit Card Fraud

With Adaboost

	Test	Train
K=5	98.7613	98.8681
K=10	98.5231	98.7966
K=15	98.666	98.92767
K=20	98.57074	98.8562

Only Decision Tree:

Performance Measure	Testing	Training
Accuracy	98.43	99.523
Recall	78.261	90.25
Specificity	99.352	99.9874
Precision	84.706	99.724
False Discovery Rate	15.294	0.2762
F1 score	81.356	94.7506