Name: Koy Sambo

Group: B

Confusion Matrix Exercise

I.   Topic: Medical Diagnosis

	1	0
1	350	50
0	10	90

Sum of all observation: 500

Precision: TP / (TP + FP): 350 / (350 + 50): 0.875

Recall: TP / (TP + FN) : 350 / (350 + 10): 0.97

F1 Score: 2(precision*recall) / (precision + recall) : 2(0.875*0.97) / (0.875+0.97) : 0.92

Accuracy: (TP + TN) / Sum of all observation : (350 + 90) / 500 : 0.88

II.   Topic: Sentiment Analysis

	1	0
1	300	100
0	150	450

Sum of all observation: 1000

Precision: TP / (TP + FP): 300 / (300 + 100) : 0.75

Recall: TP / (TP + FN) : 300 / (300 + 450) : 0.4

F1 Score: 2(precision*recall) / (precision + recall) : 0.52

Accuracy: (TP + TN) / Sum of all observation : (300 + 450) / 1000 : 0.75

III. Topic: Image Classification

	1	0
1	450	150
0	50	350

Sum of all observation: 1000

Precision: TP / (TP + FP) : 450 / (450 + 150) : 0.75

Recall: TP / (TP + FN) : 450 / (450 + 50) : 0.9

F1 Score: 2(precision*recall) / (precision + recall) : 2(0.75*0.9) / (0.75 + 0.9) : 0.818

Accuracy: (TP + TN) / Sum of all observation : (450 + 350) / 1000 : 0.8

IV. Topic: Spam Detection

	1	0
1	150	100
0	50	700

Sum of all observation: 1000

Precision: TP / (TP + FP) : 150 / (150 + 100) : 0.6

Recall: TP / (TP + FN) : 150 / (150 + 700) : 0.176

F1 Score: 2(precision*recall) / (precision + recall) : 2(0.6*0.176)/(0.6+0.176) : 0.272

Accuracy: (TP + TN) / Sum of all observation : (150 + 700) / 1000 : 0.85