

Bag of Words

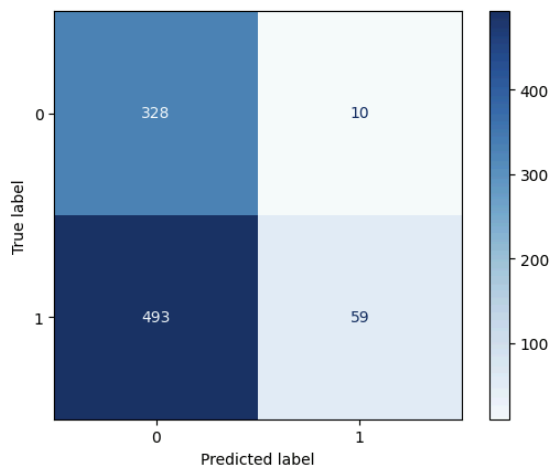
Naive Bayes:

(Q+C):

Best Parameters:

```
{'alpha': 0.001}
```

Confusion Matrix:



Classification Report:

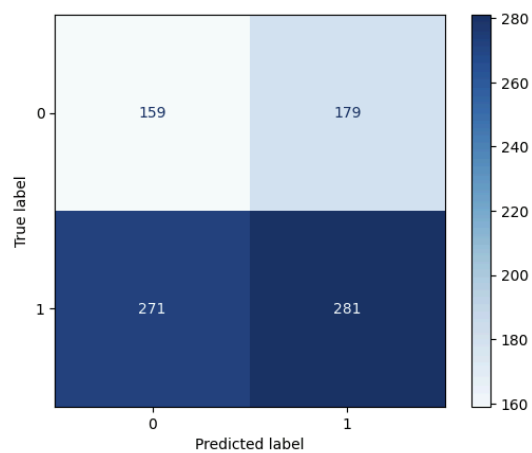
	precision	recall	f1-score	support
0	0.40	0.97	0.57	338
1	0.86	0.11	0.19	552
accuracy			0.43	890
macro avg	0.63	0.54	0.38	890
weighted avg	0.68	0.43	0.33	890

(L):

Best Parameters:

```
{'alpha': 100}
```

Confusion Matrix:



Classification Report:

	precision	recall	f1-score	support
0	0.37	0.47	0.41	338
1	0.61	0.51	0.56	552
accuracy	0.49			890
macro avg	0.49	0.49	0.48	890
weighted avg	0.52	0.49	0.50	890

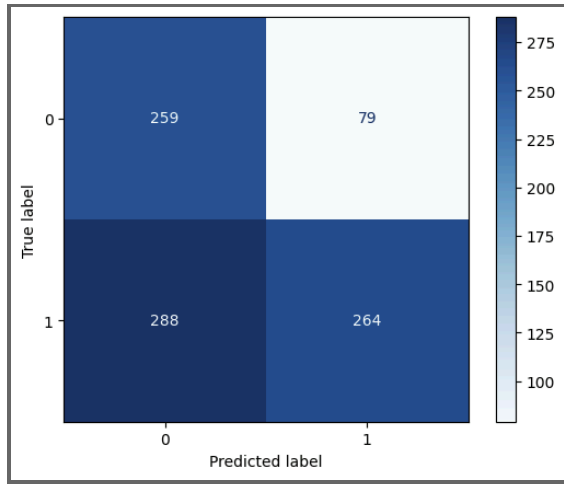
Logistic Regression

(Q+C):

Best Parameters:

```
{'C': 0.1, 'penalty': 'l1', 'solver': 'liblinear'}
```

Confusion Matrix:



Classification Report:

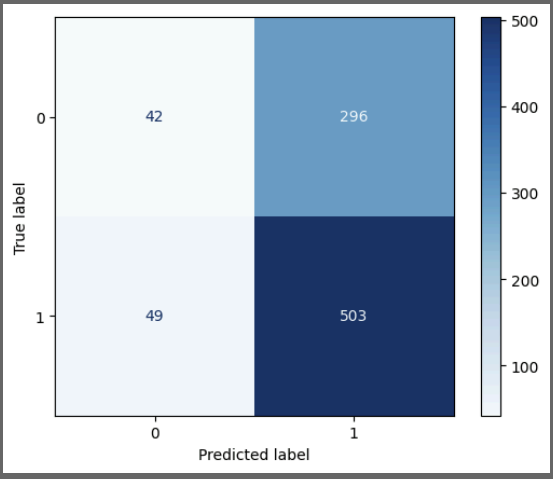
	precision	recall	f1-score	support
0	0.47	0.77	0.59	338
1	0.77	0.48	0.59	552
accuracy	0.59			890
macro avg	0.62	0.62	0.59	890
weighted avg	0.66	0.59	0.59	890

(LA):

Best Parameters:

```
{'C': 0.1, 'penalty': 'l1', 'solver': 'liblinear'}
```

Confusion Matrix:



Classification Report:

Classification Report:

	precision	recall	f1-score	support
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0	0.46	0.12	0.20	338
1	0.63	0.91	0.74	552

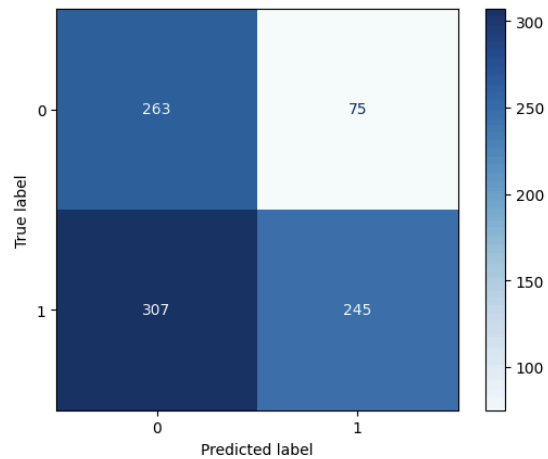
accuracy			0.61	890
macro avg	0.55	0.52	0.47	890
weighted avg	0.57	0.61	0.54	890

SVM (Q+C):

Best Parameters:

```
{'C': 1, 'kernel': 'rbf'}
```

Confusion Matrix:



Classification Report:

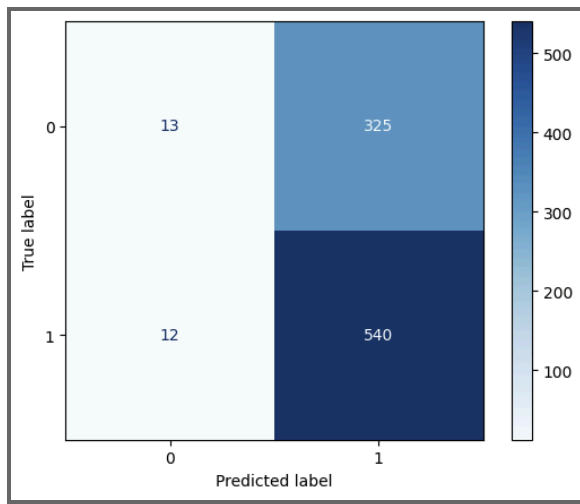
	precision	recall	f1-score	support
0	0.46	0.78	0.58	338
1	0.77	0.44	0.56	552
accuracy			0.57	890
macro avg	0.61	0.61	0.57	890
weighted avg	0.65	0.57	0.57	890

(LA):

Best Parameters:

```
{'C': 1, 'kernel': 'rbf'}
```

Confusion Matrix:



Classification Report:

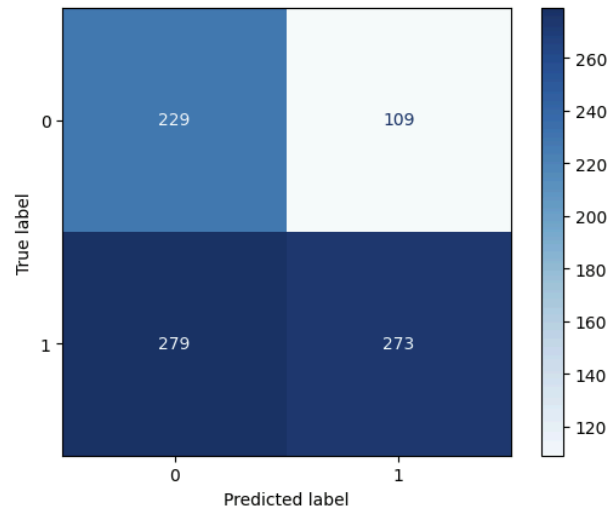
	precision	recall	f1-score	support
0	0.52	0.04	0.07	338
1	0.62	0.98	0.76	552
accuracy			0.62	890
macro avg	0.57	0.51	0.42	890
weighted avg	0.58	0.62	0.50	890

Decision Tree (Q+C):

Best Parameters:

```
{'criterion': 'entropy', 'max_features': None}
```

Confusion Matrix:



Classification Report:

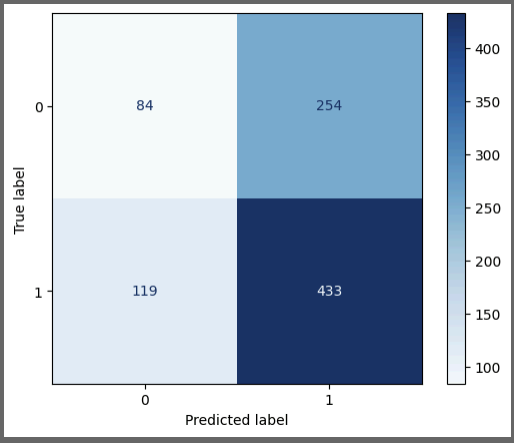
	precision	recall	f1-score	support
0	0.45	0.68	0.54	338
1	0.71	0.49	0.58	552
accuracy	0.56			890
macro avg	0.58	0.59	0.56	890
weighted avg	0.61	0.56	0.57	890

(LA):

Best Parameters:

```
{'criterion': 'entropy', 'max_features': None}
```

Confusion Matrix:



Classification Report:

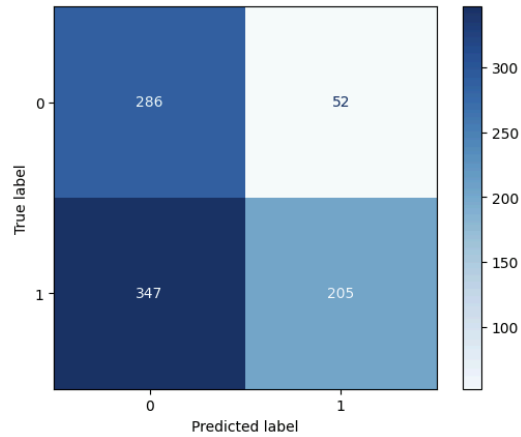
	precision	recall	f1-score	support
0	0.41	0.25	0.31	338
1	0.63	0.78	0.70	552
accuracy			0.58	890
macro avg	0.52	0.52	0.50	890
weighted avg	0.55	0.58	0.55	890

Random Forest (Q+C):

Best Parameters:

```
{'criterion': 'entropy'}
```

Confusion Matrix:



Classification Report:

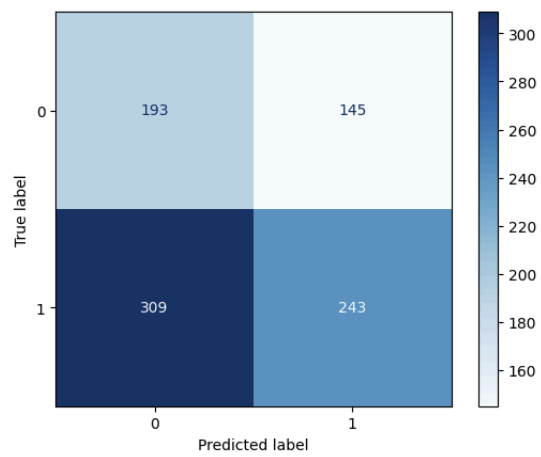
	precision	recall	f1-score	support
0	0.45	0.85	0.59	338
1	0.80	0.37	0.51	552
accuracy	0.55			890
macro avg	0.62	0.61	0.55	890
weighted avg	0.67	0.55	0.54	890

(LA):

Best Parameters:

```
{'criterion': 'entropy'}
```

Confusion Matrix:



Classification Report:

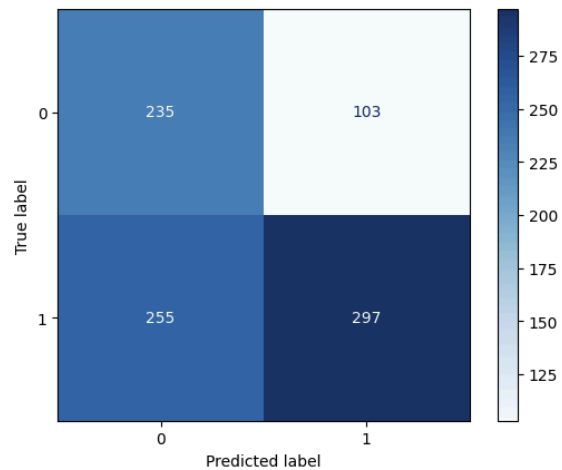
	precision	recall	f1-score	support
0	0.38	0.57	0.46	338
1	0.63	0.44	0.52	552
accuracy			0.49	890
macro avg	0.51	0.51	0.49	890
weighted avg	0.53	0.49	0.50	890

XGBoost (Q+C):

Best Parameters:

```
{'criterion': 'friedman_mse', 'n_estimators': 50}
```

Confusion Matrix:



Classification Report:

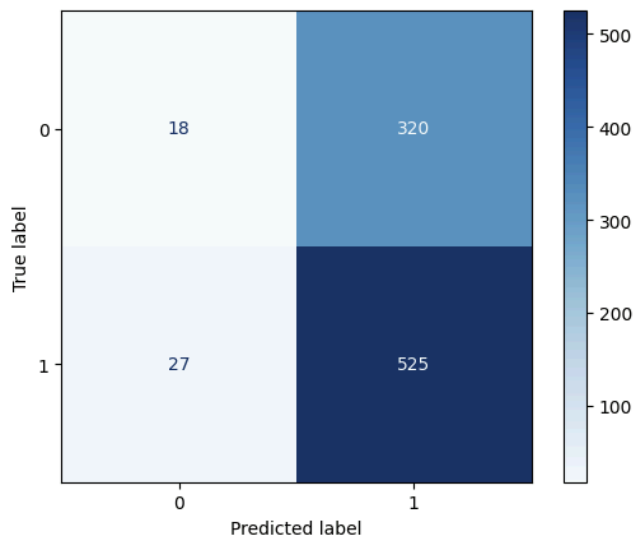
	precision	recall	f1-score	support
no	0.48	0.70	0.57	338
yes	0.74	0.54	0.62	552
accuracy			0.60	890
macro avg	0.61	0.62	0.60	890
weighted avg	0.64	0.60	0.60	890

(LA):

Best Parameters:

```
{'criterion': 'friedman_mse', 'n_estimators': 200}
```

Confusion Matrix:



Classification Report:

	precision	recall	f1-score	support
0	0.40	0.05	0.09	338
1	0.62	0.95	0.75	552
accuracy	0.61			890
macro avg	0.51	0.50	0.42	890
weighted avg	0.54	0.61	0.50	890