

## Naïve Bayes News Classifier - Results Analysis

### Performance Metrics

- **Accuracy:** The model achieved an accuracy of **78.3%** on the test dataset.
- **Confusion Matrix:**

Actual \ Predicted	Fake (0)	Real (1)
Fake (0)	261	128
Real (1)	85	506

### Key Observations

1. **False Positives (128 cases):** Some fake headlines were misclassified as real, indicating overlap in language usage between fake and real news.
2. **False Negatives (85 cases):** Some real headlines were classified as fake, there is some room to optimize this algorithm.
3. **Model Bias:** The classifier performs better at detecting real news but has a slightly higher misclassification rate for fake news.