#### **Fake News Detection**

#### Approach:

- Preprocessed textual data using TF-IDF vectorization.
- Trained multiple classifiers (Naïve Bayes, Random Forest) and selected the best model.
- Evaluated performance using accuracy and F1-score.

# Challenges:

- Dealing with imbalanced datasets (real vs. fake news).
- Feature extraction optimization for better classification.

# **Model Performance & Improvements:**

- Best model achieved 92% accuracy.
- Could improve with deep learning approaches (LSTMs, transformers).

### **Deployment:**

https://hasantahir248-fake-news-detection-app-zsk5cd.streamlit.app/