```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import accuracy_score

# Sample data (use a real dataset for a full project)
data = {
    'text': [
        'The economy is growing rapidly this year',
        'Scientists discovered a new planet',
        'Click here to win a free iPhone!',
        'BREAKING: Celebrity found dead from overdose',
        'New study shows vaccines are effective',
        'Shocking truth about the COVID-19 vaccine'
    ],
    'label': ['REAL', 'REAL', 'FAKE', 'FAKE', 'REAL', 'FAKE']
}

# Load data
df = pd.DataFrame(data)

# Convert labels to binary
df['label'] = df['label'].map({'REAL': 0, 'FAKE': 1})

# Split data
X_train, X_test, y_train, y_test = train_test_split(df['text'], df['label'], test_size=0.3,
random_state=42)
```

```
# Vectorize text
vectorizer = TfidfVectorizer()
X_train_vec = vectorizer.fit_transform(X_train)
X_test_vec = vectorizer.transform(X_test)

# Train model
model = LogisticRegression()
model.fit(X_train_vec, y_train)

# Predict
y_pred = model.predict(X_test_vec)

# Output results
print("Accuracy:", accuracy_score(y_test, y_pred))
for text, pred in zip(X_test, y_pred):
    print(f"Text: {text} -> Predicted: {'FAKE' if pred == 1 else 'REAL'}")
```