 

import pandas as pd   
import numpy as np   
from sklearn.feature\_extraction.text import TfidfVectorizer from sklearn.model\_selection import train\_test\_split   
from sklearn.linear\_model import LogisticRegression from sklearn.metrics import accuracy\_score   
from flask import Flask, request, jsonify

# 1. Data Collection   
data = pd.read\_csv('news.csv') # Replace with your dataset path

# 2. Data Preprocessing   
data = data.dropna()   
data['text'] = data['text'].str.lower()

# 3. EDA (Exploratory Data Analysis)   
print(data['label'].value\_counts())

# 4. Model Training   
X = data['text']   
y = data['label']

vectorizer = TfidfVectorizer()   
X\_vectorized = vectorizer.fit\_transform(X)

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X\_vectorized, y, test\_size=0.2, random\_state=42)   
model = LogisticRegression()   
model.fit(X\_train, y\_train)

 

 

# 5. Model Evaluation   
y\_pred = model.predict(X\_test)   
print("Accuracy:", accuracy\_score(y\_test, y\_pred))

# 6. Fake News Detection Interface (Flask API)   
app = Flask(\_\_name\_\_)

@app.route('/predict', methods=['POST'])   
def predict():   
 text = request.json['text']   
 vectorized\_text = vectorizer.transform([text]) prediction = model.predict(vectorized\_text)[0] return jsonify({'prediction': prediction})

if \_\_name\_\_ == '\_\_main\_\_':   
app.run(debug=True)

 