#Importing Libraries

import pandas as pd

import numpy as np

from sklearn.model\_selection import train\_test\_split

from sklearn.pipeline import Pipeline

from sklearn.feature\_extraction.text import CountVectorizer

from sklearn.feature\_extraction.text import TfidfTransformer

from sklearn.metrics import accuracy\_score, confusion\_matrix,classification\_report

from sklearn.linear\_model import LogisticRegression

#Reading CSV files

true = pd.read\_csv("True.csv")

fake = pd.read\_csv("Fake.csv")

#Specifying fake and real

fake['target'] = 'fake'

true['target'] = 'true'

#News dataset

news = pd.concat([fake, true]).reset\_index(drop = True)

news.head()

#Train-test split

x\_train,x\_test,y\_train,y\_test = train\_test\_split(news['text'], news.target, test\_size=0.2, random\_state=1)

#Logistic regression classification

pipe1 = Pipeline([('vect', CountVectorizer()), ('tfidf', TfidfTransformer()), ('model', LogisticRegression())])

model\_lr = pipe1.fit(x\_train, y\_train)

lr\_pred = model\_lr.predict(x\_test)

print("Accuracy of Logistic Regression Classifier: {}%".format(round(accuracy\_score(y\_test, lr\_pred)\*100,2)))

print("\nConfusion Matrix of Logistic Regression Classifier:\n")

print(confusion\_matrix(y\_test, lr\_pred))

print("\nCLassification Report of Logistic Regression Classifier:\n")

print(classification\_report(y\_test, lr\_pred))