***FAKE NEWS DETECTION USING NLP***

***TEAM MEMBER***

***731721106021- R.T.Subha Geetha***

***PHASE-2 PROJECT SUBMISSION***

***PROJECT: Fake News Detection***

******

***INTRODUCTION:***

* ***Fake news detection is a critical task in today's information age. It involves the identification and verification of misleading or fabricated information presented as factual news.***
* ***With the proliferation of social media and digital platforms, the spread of fake news has become a significant concern, impacting public discourse and decision-making.***
* ***In this context, advanced technologies, such as natural language processing and machine learning, play a vital role in developing tools and algorithms to detect and combat fake news effectively.***
* ***This is a challenging and evolving field that aims to safeguard the integrity of information and promote responsible journalism in the digital era***

***CONTENT FOR PROJECT PHASE-2:***

***Consider the Utilizing advanced algorithms and data analysis to identify misinformation and disinformation in digital content.***

***DATA SOURCE:***

***Employing robust methodologies to assess the credibility and authenticity of information providers to enhance the accuracy of news verification processes.***

***DATA INFORMATIONS:*** [***https://colab.research.google.com/drive/15PiygXfYg7HuMUlC5iylFiJO5Q2coRjE?usp=sharing***](https://colab.research.google.com/drive/15PiygXfYg7HuMUlC5iylFiJO5Q2coRjE?usp=sharing)

***SOURCE CODE:***

%pip install transformers datasets --quiet

*# Imports for Dataset*

import time

import numpy as np

import pandas as pd

import nltk

import string

import tensorflow as tf

from nltk.corpus import stopwords

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

nltk.download('stopwords')

*# Data Visualization*

import plotly.express as px

*# Classification Model*

from transformers import AutoTokenizer, TFAutoModelForSequenceClassification

*# Model Training*

from tensorflow.keras.optimizers import Adam

from tensorflow.keras.callbacks import ModelCheckpoint

*# Data set management*

CLASS\_NAMES = ["Fake", "Real"]

MAPPING\_DICT = {

"Fake":0,

"Real":1

}

*# Model Callbacks*

model\_name = "BERTFakeNewsDetector"

MODEL\_CALLBACKS = [ModelCheckpoint(model\_name, save\_best\_only=True)]

fake\_news\_filepath = "/kaggle/input/fake-and-real-news-dataset/Fake.csv"

real\_news\_filepath = "/kaggle/input/fake-and-real-news-dataset/True.csv"

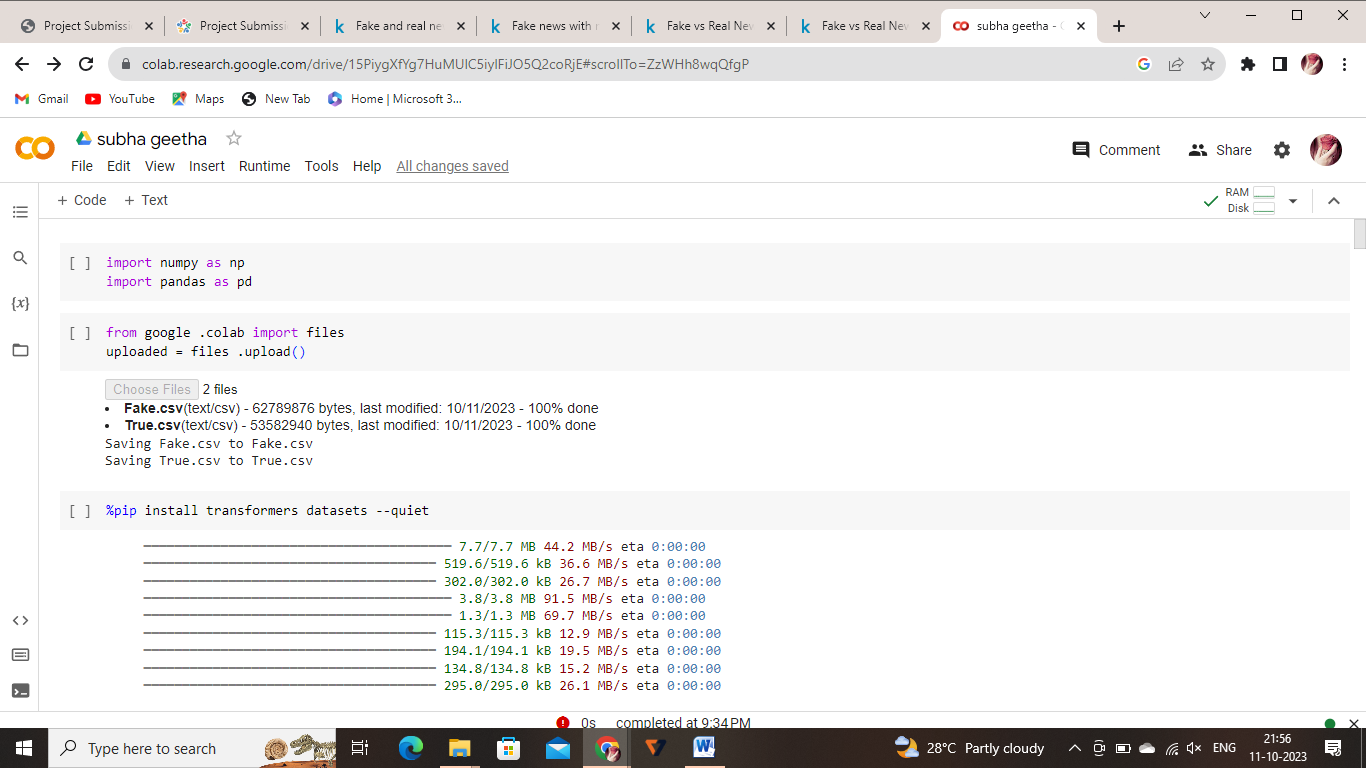
In [5]:

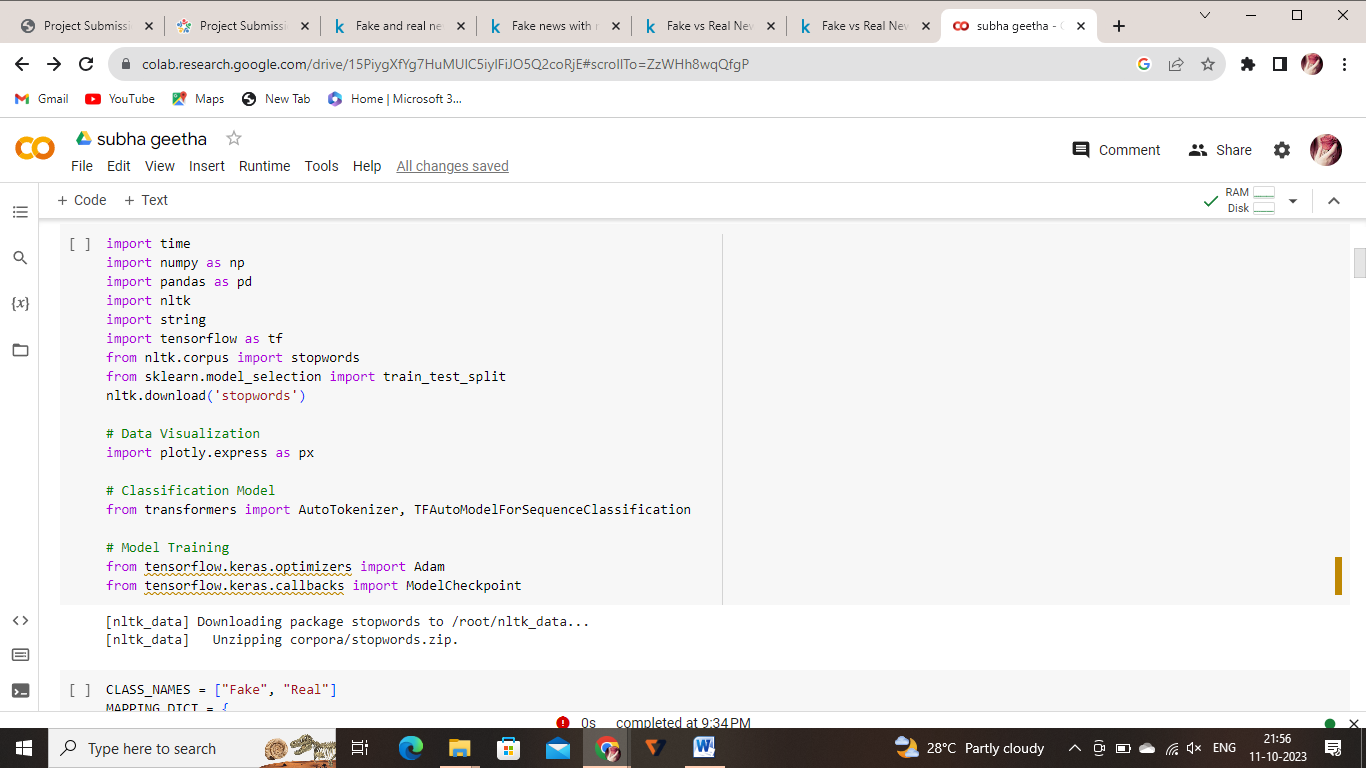
fake\_df = pd.read\_csv(fake\_news\_filepath)

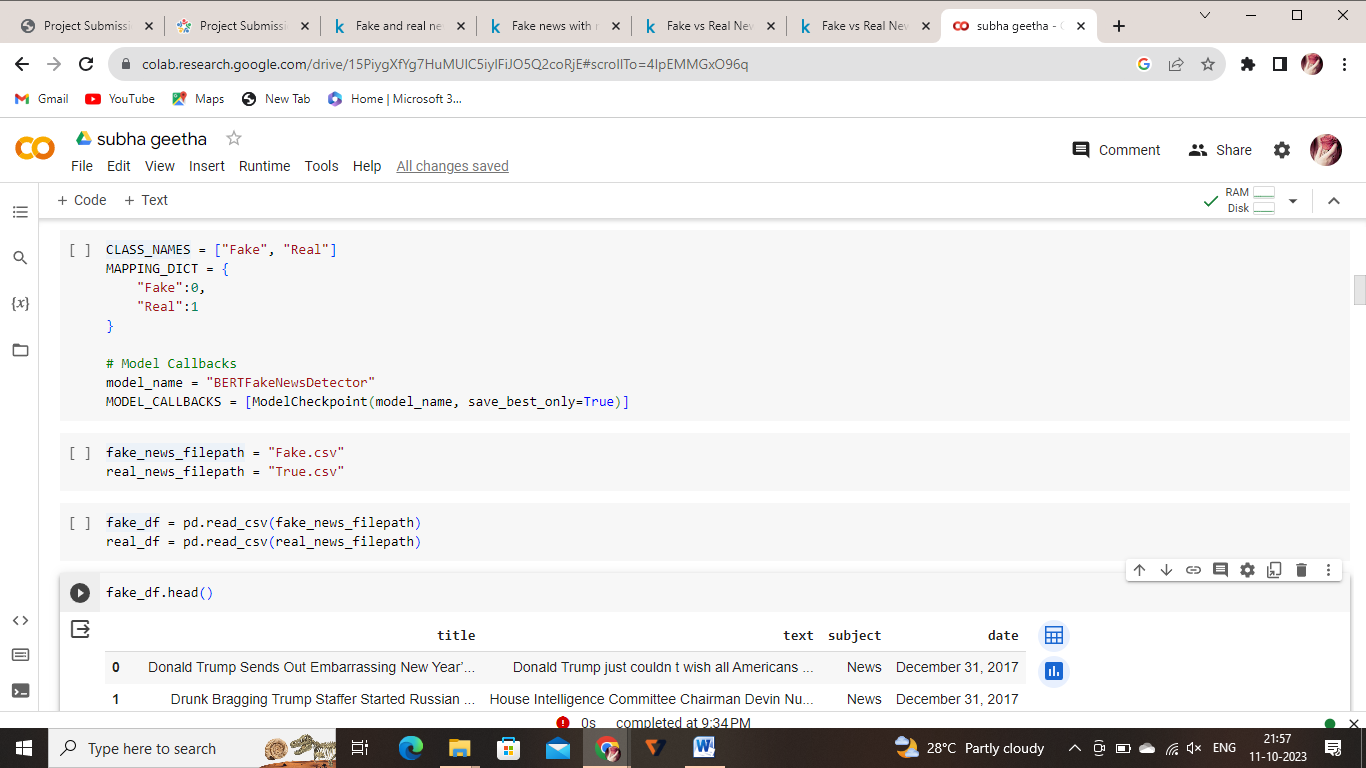
real\_df = pd.read\_csv(real\_news\_filepath)

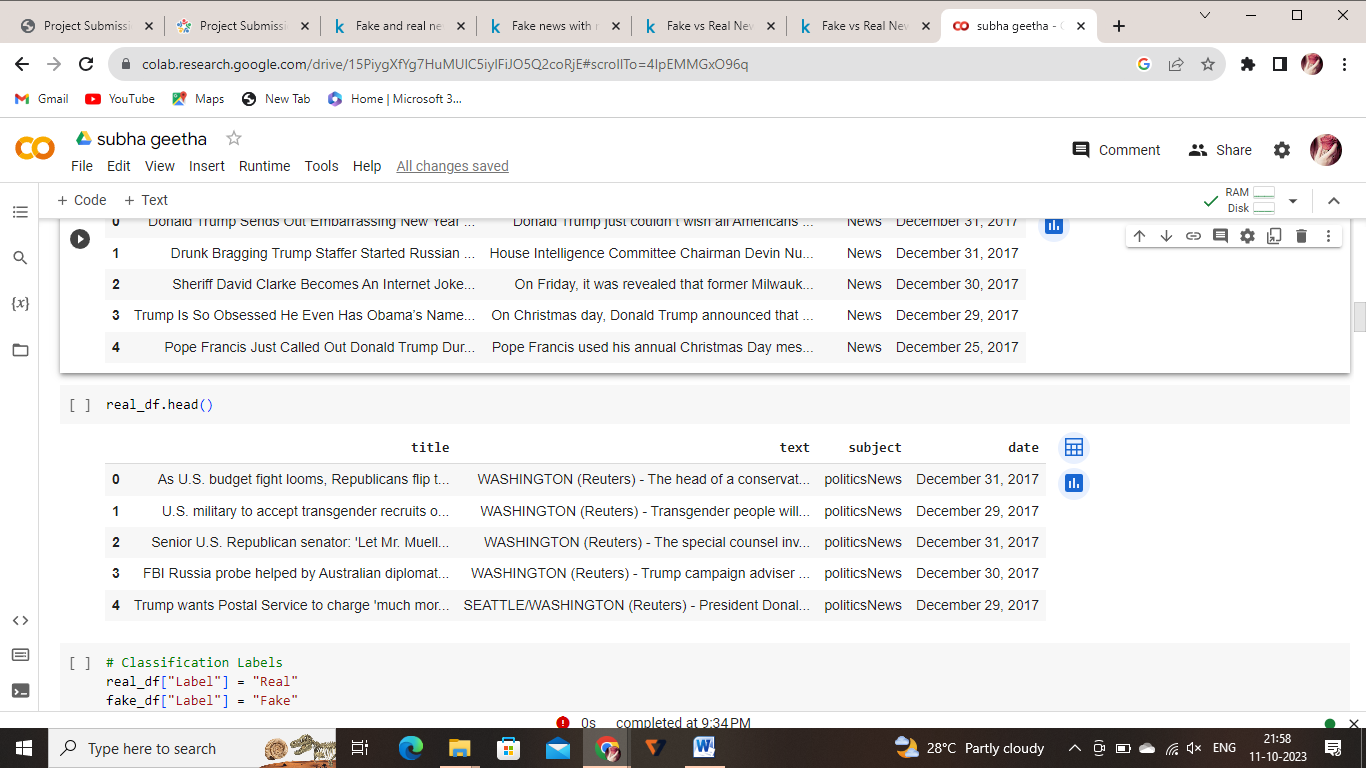
In [6]:

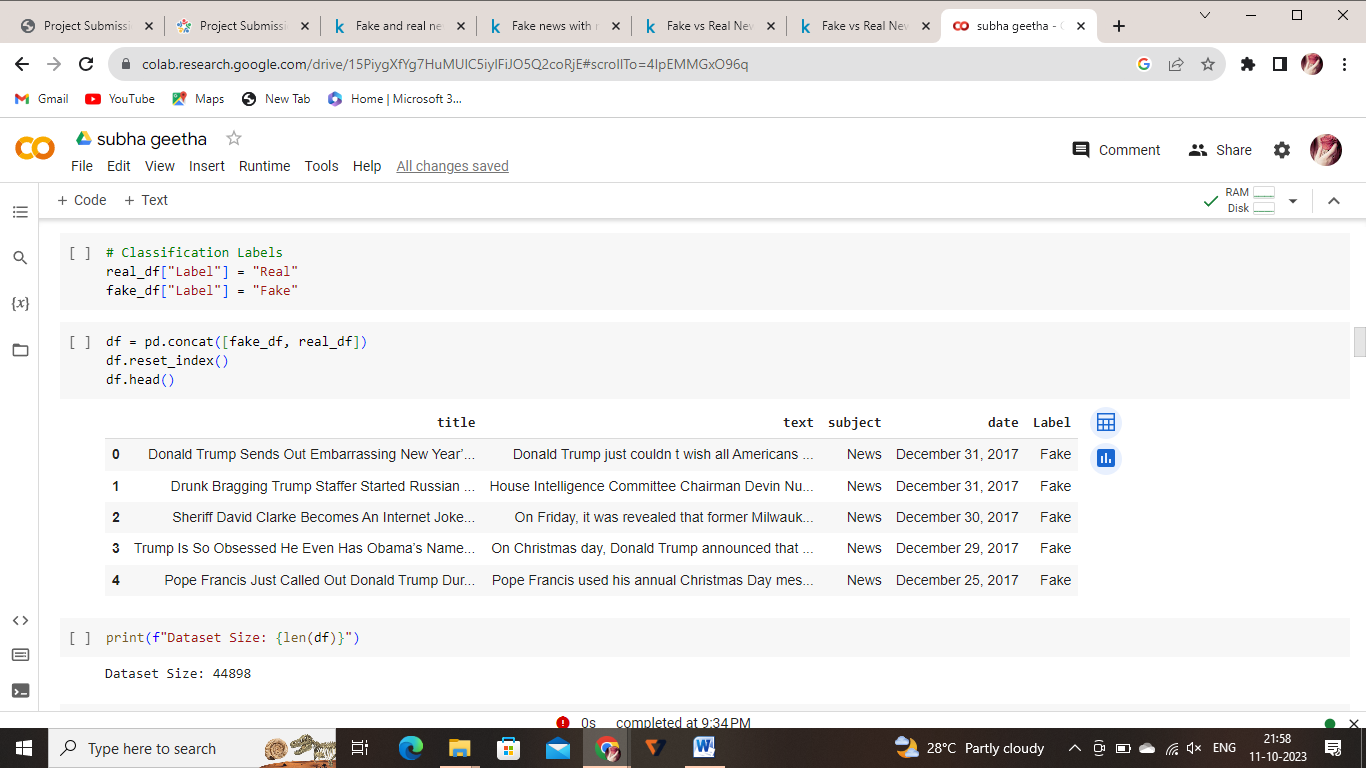
linkcode

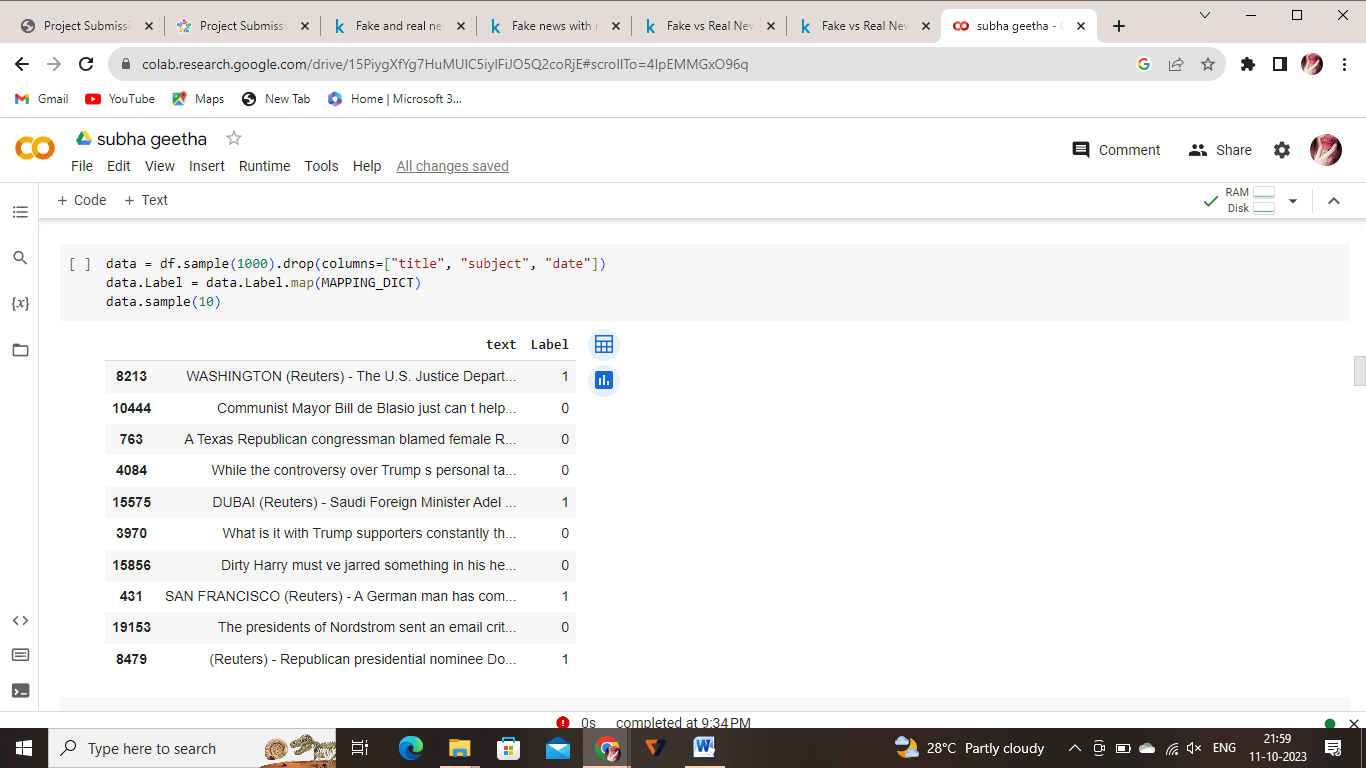
fake\_df.head()











***DATASET LINK:***

[**https://www.kaggle.com/datasets/clmentbisaillon/fake-and-real-news-dataset**](https://www.kaggle.com/datasets/clmentbisaillon/fake-and-real-news-dataset)

***That’s all the informations we gathered…!***