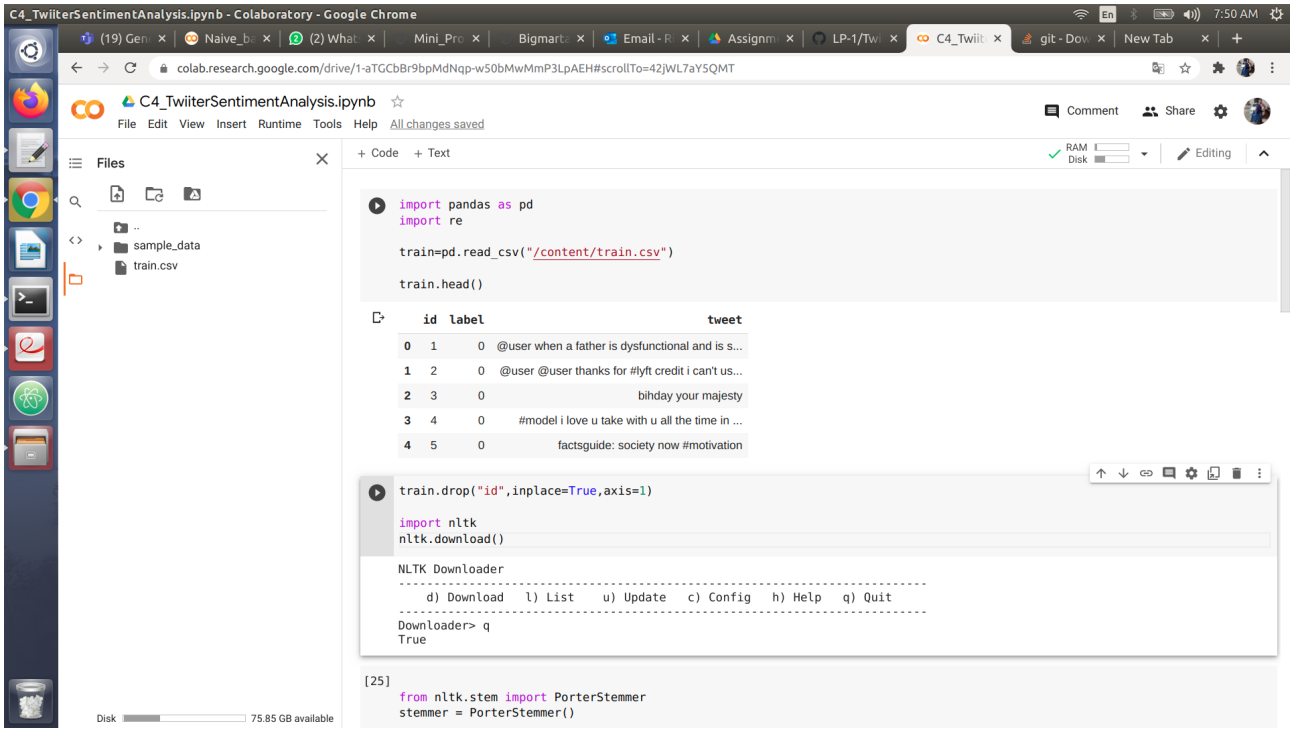
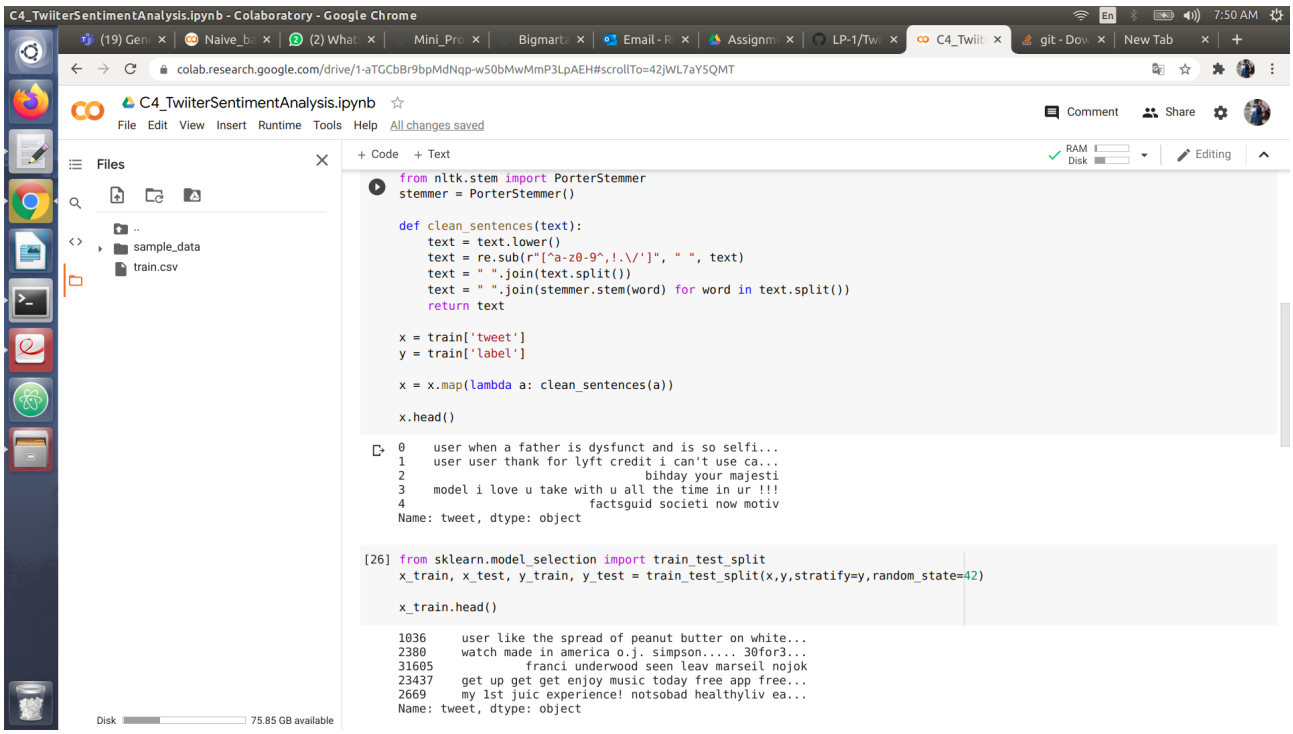
CODE:::

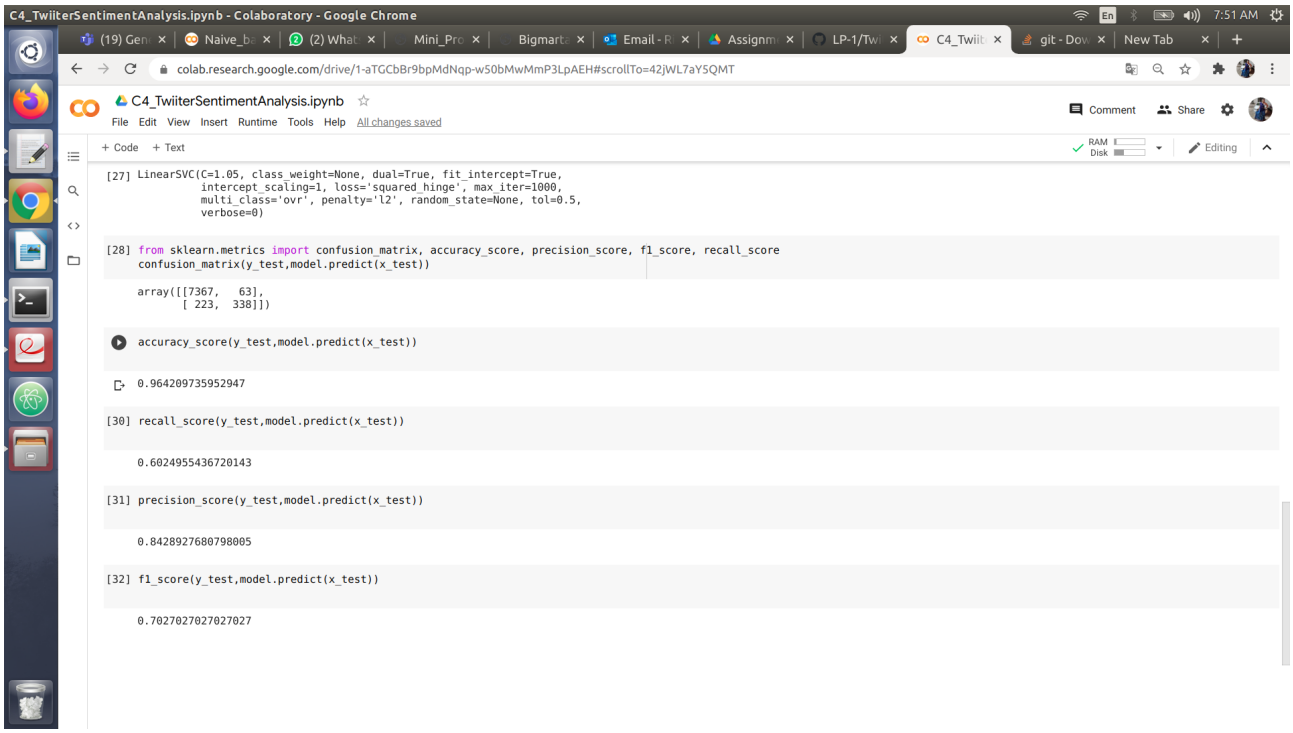
```
# -*- coding: utf-8 -*-
"""Twiter_Sentiment_Analysis.ipynb

Automatically generated by Colaboratory.

Original file is located at
    https://colab.research.google.com/drive/1KxBs2KPAiQ22Gk8hxwxWCYVaKDaoICkV
"""

import pandas as pd
import re

train=pd.read_csv("/content/train.csv")

train.head()

train.drop("id",inplace=True,axis=1)

import nltk
nltk.download()

from nltk.stem import PorterStemmer
stemmer = PorterStemmer()

def clean_sentences(text):
    text = text.lower()
    text = re.sub(r"[^a-z0-9^,!.\/']", " ", text)
    text = " ".join(text.split())
    text = " ".join(stemmer.stem(word) for word in text.split())
    return text

x = train['tweet']
y = train['label']

x = x.map(lambda a: clean_sentences(a))

x.head()

from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test = train_test_split(x,y,stratify=y,random_state=42)

x_train.head()

from sklearn.feature_extraction.text import TfidfVectorizer

vectorizer = TfidfVectorizer(stop_words='english')

x_train = vectorizer.fit_transform(x_train)

x_test = vectorizer.transform(x_test)
```

```
from sklearn.svm import LinearSVC

model = LinearSVC(C=1.05, tol=0.5)

model.fit(x_train,y_train)

from sklearn.metrics import confusion_matrix, accuracy_score, precision_score, f1_score,
recall_score
confusion_matrix(y_test,model.predict(x_test))

accuracy_score(y_test,model.predict(x_test))

recall_score(y_test,model.predict(x_test))

precision_score(y_test,model.predict(x_test))

f1_score(y_test,model.predict(x_test))
```

OUTPUT:::




C4_TwiiterSentimentAnalysis.ipynb - Colaboratory - Google Chrome
colab.research.google.com/drive/1-aTGCbBr9bpMdNqp-w50bMwMmP3LpAEH#scrollTo=42jWL7aY5QMT
C4_TwiiterSentimentAnalysis.ipynb
File Edit View Insert Runtime Tools Help All changes saved
Comment
Share
Editing
Files
sample_data
train.csv
Disk 75.85 GB available
+ Code + Text
from nltk.stem import PorterStemmer
stemmer = PorterStemmer()
def clean_sentences(text):
text = text.lower()
text = re.sub(r"[^a-z0-9^,!.\/']", " ", text)
text = " ".join(text.split())
text = " ".join(stemmer.stem(word) for word in text.split())
return text
x = train['tweet']
y = train['label']
x = x.map(lambda a: clean_sentences(a))
x.head()
0 user when a father is dysfunct and is so selfi...
1 user user thank for lyft credit i can't use ca...
2 bihday your majesti
3 model i love u take with u all the time in ur !!!
4 factsguid societi now motiv
Name: tweet, dtype: object
[26] from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test = train_test_split(x,y,stratify=y,random_state=42)
x_train.head()
1036 user like the spread of peanut butter on white...
2380 watch made in america o.j. simpson..... 30for3...
31605 franci underwood seen leav marseil nojok
23437 get up get get enjoy music today free app free...
2669 my 1st juic experience! notsobad healthyliv ea...
Name: tweet, dtype: object


C4_TwiiterSentimentAnalysis.ipynb - Colaboratory - Google Chrome
colab.research.google.com/drive/1-aTGCbBr9bpMdNqp-w50bMwMmP3LpAEH#scrollTo=42jWL7aY5QMT
C4_TwiiterSentimentAnalysis.ipynb
File Edit View Insert Runtime Tools Help All changes saved
Comment
Share
Editing
+ Code + Text
[27] LinearSVC(C=1.05, class_weight=None, dual=True, fit_intercept=True,
intercept_scaling=1, loss='squared_hinge', max_iter=1000,
multi_class='ovr', penalty='l2', random_state=None, tol=0.5,
verbose=0)
[28] from sklearn.metrics import confusion_matrix, accuracy_score, precision_score, f1_score, recall_score
confusion_matrix(y_test,model.predict(x_test))
array([[7367, 63],
[223, 338]])
accuracy_score(y_test,model.predict(x_test))
0.964209735952947
[30] recall_score(y_test,model.predict(x_test))
0.6024955436720143
[31] precision_score(y_test,model.predict(x_test))
0.8428927680798005
[32] f1_score(y_test,model.predict(x_test))
0.7027027027027027