ment-195167al196177197159mas196177

January 9, 2024

[1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

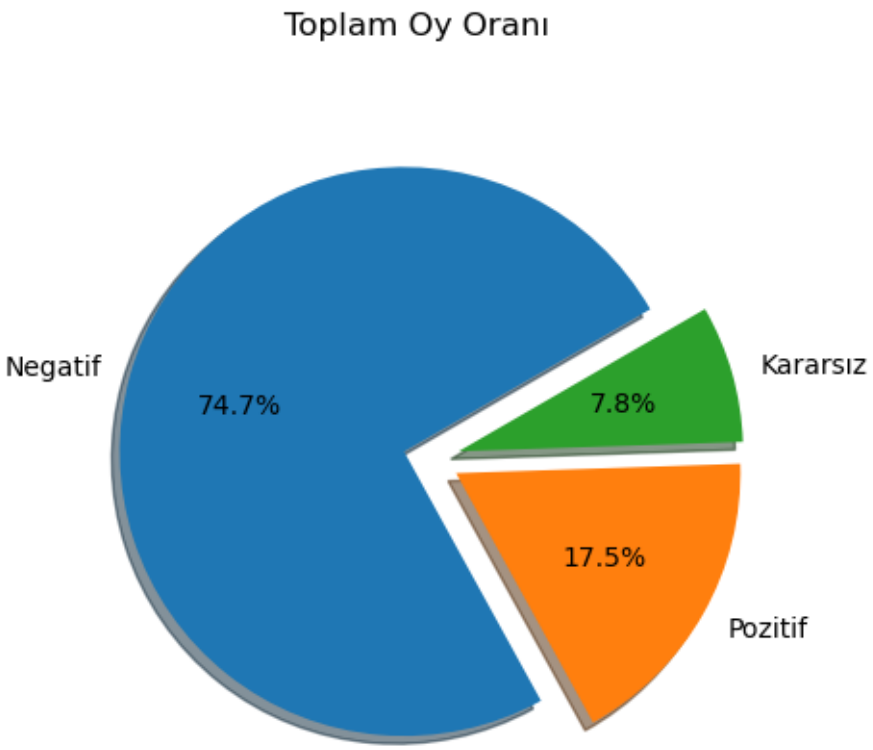
[2]:
```
data=pd.read_csv(r"C:\Users\Dell\Desktop\NLP-Sentiment\sentimentSet.csv")
```

[3]:
```
data.head()
```

[3]:

	sentiment	tweets
0	-1	eşim tsk deniz kuvvetleri personeliyaklaşık 1 …
1	-1	pandemi+ramazan denk gelince keyfim kaçık oldu…
2	-1	kimsenin sorgulama endişesi gününü kurtardığın…
3	-1	bağışıklık güçlendirmek mesala stokin fırtınas…
4	-1	zaman vietnam kore dünya ülkelerinin ülke ehli…

[4]:
```
grup=data["sentiment"].value_counts()
fig, ax = plt.subplots()
fig.suptitle("Toplam Oy Oranı")
ax.pie(grup, explode=(0.1,0.1,0.1), labels=["Negatif","Pozitif","Kararsız"],␣
↪autopct='%1.1f%%', shadow=True, startangle=30)
plt.show()
grup
```



[4]:
```
sentiment
-1    2066
 1     485
 0     216
Name: count, dtype: int64
```

[5]:
```
import re
import nltk
nltk.download("stopwords")

from nltk.stem.porter import PorterStemmer
ps=PorterStemmer()

from nltk.corpus import stopwords
```

```
[nltk_data] Downloading package stopwords to
[nltk_data]     C:\Users\Dell\AppData\Roaming\nltk_data…
[nltk_data]   Package stopwords is already up-to-date!
```

[6]:
```
tweets=[]
for i in range(len(data)):
```

```
    tweet=re.sub("[^a-zA-ZİıöÖÜüşŞçÇğĞ]"," ",data["tweets"][i])
    tweet=tweet.lower()
    tweet=tweet.split()
    tweet=[ps.stem(kelime) for kelime in tweet if not kelime in set(stopwords.
 ↪words('turkish'))]
    tweet=' '.join(tweet)
    tweets.append(tweet)
```

[7]:
```
tweets[1]
```

[7]:
```
'pandemi ramazan denk gelinc keyfim kaçık olduğundan kilo vermiştim der falan
istemesek oturunca yağlanıyoruz'
```

[8]:
```
data["tweets"][1]
```

[8]:
```
'pandemi+ramazan denk gelince keyfim kaçık olduğundan kilo vermiştim ders falan
istemesek oturunca yağlanıyoruz'
```

[9]:
```
from sklearn.feature_extraction.text import CountVectorizer
cv=CountVectorizer(max_features=2000)
X=cv.fit_transform(tweets).toarray()
y=data.iloc[:,0].values
```

[10]:
```
from sklearn.model_selection import train_test_split
X_train,X_test,y_train,y_test = train_test_split(X,y,test_size=0.
 ↪2,random_state=0)
```

[11]:
```
from sklearn.naive_bayes import GaussianNB
gnb=GaussianNB()
gnb.fit(X_train,y_train)

y_pred=gnb.predict(X_test)

from sklearn.metrics import confusion_matrix,accuracy_score
cm=confusion_matrix(y_test,y_pred)
print(cm)
acc=accuracy_score(y_test,y_pred)
print(acc)
```

```
[[374   7  31]
 [ 27   7  10]
 [ 52  11  35]]
0.7509025270758123
```

[14]:
```
from sklearn.svm import SVC
svc=SVC()
svc.fit(X_train,y_train)
```

```
y_pred=svc.predict(X_test)
cm=confusion_matrix(y_test,y_pred)
print(cm)
acc=accuracy_score(y_test,y_pred)
print(acc)
```

```
[[392   0  20]
 [ 40   0   4]
 [ 47   0  51]]
0.7996389891696751
```

[ ]: