```python
!pip install google-api-python-client
!pip install -q transformers
from transformers import pipeline
sentiment_pipeline = pipeline("sentiment-analysis")
from googleapiclient.discovery import build
import pandas as pd
import seaborn as sns
from matplotlib import pyplot as plt
import json
api_key = 'AIzaSyDt-sdpHBbr-LZJYFbYTWmFbKqS561xxv4'
youtube = build('youtube','v3',developerKey=api_key)
videoIds=[
    ["nopEs-K4ExM", "World's Fastest Car!"],
    ['kTny1iFuTh0', "Cheetahs Takedown a Wildebeest | The Way of the Cheetah" ],
    ['4fHMbXWcoq0', "How to tie a tie EASY WAY"],
    ['X0tOpBuYasI', "Black Adam - Official Trailer 1"],
    ['qEVUtrk8_B4', "John Wick: Chapter 4 (2023 Movie) Official Trailer "],
    ['I6Dgml4wuNs', "How to Comment on YouTube Videos? "],
]
all_comments=[]
for k in videoIds:
  commentsList = []
  request = youtube.commentThreads().list(
          part="snippet",
          maxResults=100,
          videoId=k[0]
      )
  response = request.execute()
  for i in range(len(response['items'])):
      comment =
response['items'][i]['snippet']['topLevelComment']['snippet']['textOriginal']
      commentsList.append(comment)

  all_comments.append(commentsList)
sentiments=[]
k=0
for j in all_comments:
  t=sentiment_pipeline(j)
  p=0
  n=0
  for i in t:
    if i['label']=="NEGATIVE":
      n+=1
    elif i['label']=="POSITIVE":
      p+=1
  sentiments.append([videoIds[k][1], p,n])
  k+=1
```

all_comments

```
 'Thank you',
 "Don't be so guttless.",
 'Thank you so much for helping me how to comment I really appreciate it
 'Hi',
 'X\n0:57',
 "Thanks  they do hide that. I don't own a computer. Roku on TV and that
 'It's about time that YouTube make it easier to comment for the beginni
 'Thanx!',
 'WOW',
 'Thanks',
 'Thank you',
 'HOLY BISCUIT THANKS GREEN SHIRT MAN',
 'Good vedio',
 'Thank you',
 'Ohh Tysm!!',
 'Hi',
```

```python
for i in sentiments:
  print(i[0],"\n positive: ",i[1]," negative: ",i[2])
```

```
World's Fastest Car!
 positive:  54   negative:  46
Cheetahs Takedown a Wildebeest | The Way of the Cheetah
 positive:  56   negative:  44
How to tie a tie EASY WAY
 positive:  74   negative:  26
Black Adam - Official Trailer 1
 positive:  45   negative:  55
John Wick: Chapter 4 (2023 Movie) Official Trailer
 positive:  54   negative:  41
How to Comment on YouTube Videos?
 positive:  71   negative:  29
```