```
In [76]: import pandas as pd
In [77]: from textblob import TextBlob
In [78]: import matplotlib.pyplot as plt
In [79]: import seaborn as sns
In [80]: from wordcloud import WordCloud
In [82]: df=pd.read_csv(r"C:\Users\EL BODA\Documents\abdelrahman mamoon.csv")
In [83]: df
```

Out[83]: Range\_URL Rar

	gc		
@LearnEnglishWithTVSe	https://www.youtube.com/@LearnEnglishWithTVSeries	DON'T MISS OUT On This Big Opportunity! ??????	0
@July-	https://www.youtube.com/@July-MF	I'm from Brazil, I study alone and I have an E	1
@alimostafa3₄	https://www.youtube.com/@alimostafa3485	The hair is unbelievable and the characters ar	2
@vegat	https://www.youtube.com/@vegatofu	I deeply respect what your team has been doing	3
@clydedo5(	https://www.youtube.com/@clydedo5098	The characters speak distinctly in animated mo	4
		•••	•••
@soma-sou	https://www.youtube.com/@soma-soumi	From india	296
@owl_iver7:	https://www.youtube.com/@owl_iver7345	Nada supera el doblaje de papi Chayanne	297
@TawsifAhmedSa <sub>!</sub>	https://www.youtube.com/@TawsifAhmedSagor	Hey, i am from Bangladesh	298
@firol	https://www.youtube.com/@firologi	I need Flynn	299
@kidstudio2	https://www.youtube.com/@kidstudio232	Coupon 7MILIION is invalid.	300

Out[86]: comments Range\_URL Rar

@Learn English With TVSe	https://www.youtube.com/@LearnEnglishWithTVSeries	DON'T MISS OUT On This Big Opportunity! ??????	0
@July-	https://www.youtube.com/@July-MF	I'm from Brazil, I study alone and I have an E	1
@alimostafa34	https://www.youtube.com/@alimostafa3485	The hair is unbelievable and the characters ar	2
@vegat	https://www.youtube.com/@vegatofu	I deeply respect what your team has been doing	3
@clydedo5(	https://www.youtube.com/@clydedo5098	The characters speak distinctly in animated mo	4
		•••	•••
@lauralupu1 <sup>*</sup>	https://www.youtube.com/@lauralupu1151	What is the discount or bonus code? I want to	288
@achievewithgyanu(	https://www.youtube.com/@achievewithgyanu632	How can speak English that only saw the video	292
@Whitesnake69	https://www.youtube.com/@Whitesnake6918	I'm from Bangladesh	293
@firol	https://www.youtube.com/@firologi	I need Flynn	299
@kidstudio⁄	https://www.youtube.com/@kidstudio232	Coupon 7MILIION is invalid.	300

In [87]: df.head(10)

Out [87]: Range\_URL Range

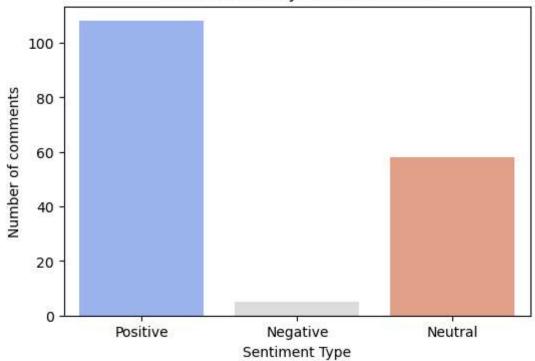
@Learn English With TV Serie:	https://www.youtube.com/@LearnEnglishWithTVSeries	DON'T MISS OUT On This Big Opportunity! ??????	0
@July-MI	https://www.youtube.com/@July-MF	I'm from Brazil, I study alone and I have an E	1
@alimostafa348!	https://www.youtube.com/@alimostafa3485	The hair is unbelievable and the characters ar	2
@vegatofu	https://www.youtube.com/@vegatofu	I deeply respect what your team has been doing	3
@clydedo509{	https://www.youtube.com/@clydedo5098	The characters speak distinctly in animated mo	4
@Aadityakumarra	https://www.youtube.com/@Aadityakumarrai	Hello sir, I m from Nepal \nrecently, I m stud	5
@chandnidas236€	https://www.youtube.com/@chandnidas2366	i really appreciate your hard work and it's li	6
@mammchannel136!	https://www.youtube.com/@mammchannel1365	The new word that I picked up was gallivanting	7
@thuyhien753!	https://www.youtube.com/@thuyhien7535	I love how this channel focusing on our speaki	8
@breastave	https://www.youtube.com/@breastave	l'm from Japan.	9

comments Range\_URL Range

Listening to the videos in

```
thi...
In [88]: def analyze_sentiment(text):
             analysis=TextBlob(str(text))
             score=analysis.sentiment.polarity
             if score>0:
                 return "Positive"
             elif score<0:</pre>
                 return "Negative"
                 return "Neutral"
In [89]: df["Sentiment"]=df["comments"].apply(analyze sentiment)
In [90]: print("\nTotal number of comments:",len(df))
         print("Sentiment distribution:\n",df["Sentiment"].value_counts())
        Total number of comments: 171
        Sentiment distribution:
         Sentiment
        Positive
                  108
        Neutral
                    58
        Negative
                      5
        Name: count, dtype: int64
In [92]: plt.figure(figsize=(6,4))
         sns.countplot(x=df["Sentiment"],palette="coolwarm")
         plt.title("Sentiment Analysis of comments")
         plt.xlabel("Sentiment Type")
         plt.ylabel("Number of comments")
         plt.show()
        C:\Users\EL BODA\AppData\Local\Temp\ipykernel_1192\3011280602.py:2: FutureWarning:
        Passing `palette` without assigning `hue` is deprecated and will be removed in v0.1
        4.0. Assign the `x` variable to `hue` and set `legend=False` for the same effect.
          sns.countplot(x=df["Sentiment"],palette="coolwarm")
```

## Sentiment Analysis of comments



```
In [104... text=" ".join(df["comments"].astype(str))
wordcloud=WordCloud(width=800,height=400,background_color="white").generate(text)

In [105... plt.figure(figsize=(10,5))
   plt.imshow(wordcloud,interpolation="bilinear")
   plt.axis("off")
   plt.title("Most Frequent Words in comments")
   plt.show()
```

