

```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
from textblob import TextBlob
from wordcloud import WordCloud
import plotly.graph_objects as go
import plotly.express as px
```

```
from google.colab import files
files=files.upload()
```

Choose Files | pawan kalyan.csv

- **pawan kalyan.csv**(text/csv) - 272345 bytes, last modified: 3/26/2023 - 100% done
Saving pawan kalyan.csv to pawan kalyan.csv

```
from google.colab import files
files=files.upload()
```

Choose Files | jagan1.csv

- **jagan1.csv**(text/csv) - 278126 bytes, last modified: 3/26/2023 - 100% done
Saving jagan1.csv to jagan1.csv

```
jagan_reviews = pd.read_csv("jagan1.csv",encoding='ISO-8859-1',low_memory=False)
pawan_reviews = pd.read_csv("pawan kalyan.csv")
```

```
print(jagan_reviews.head())
print(pawan_reviews.head())
```

	People	Review \
0	manny_rosen	@amma please tell us how many shares the Crim...
1	osi_abdul	https://t.co/atM98CpgF7 Like, comment, RT #P...
2	Patsyrw	Your AG Barr is as useless & corrupt as y...
3	seyedebrahimi_m	Mr. Jagan! Wake Up! Most of the comments bel...
4	James09254677	After 4 years you think you would have figure...

	Unnamed: 2	Unnamed: 3
0	NaN	NaN
1	NaN	NaN
2	NaN	NaN
3	NaN	NaN
4	NaN	NaN

	People	Review
0	MarkHodder3	@Pawan Kalyan And we'll find out who won in 20...
1	K87327961G	@Pawan Kalyan Your Democratic Nazi Party canno...
2	OldlaceA	@Pawan Kalyan So did Lying Barr
3	penblogger	@Pawan Kalyan It's clear you didnt compose thi...
4	Aquarian0264	@Pawan Kalyan I will vote in person thank you.

```
textblob1 = TextBlob(jagan_reviews["Review"][10])
print("jagan :",textblob1.sentiment)
textblob2 = TextBlob(pawan_reviews["Review"][500])
print("pawan :",textblob2.sentiment)
```

```
jagan : Sentiment(polarity=0.15, subjectivity=0.3125)
pawan : Sentiment(polarity=0.6, subjectivity=0.9)
```

```
def find_pol(review):
    return TextBlob(review).sentiment.polarity
jagan_reviews["Sentiment Polarity"] = jagan_reviews["Review"].apply(find_pol)
print(jagan_reviews.tail())
pawan_reviews["Sentiment Polarity"] = pawan_reviews["Review"].apply(find_pol)
print(pawan_reviews.tail())
```

	People	Review \
2783	4diva63	@realysrangan For the 1/100 time, absentee ball...
2784	hidge826	@realysrangan If you re so scared of losing, re...
2785	SpencerRossy	@realysrangan I rarely get involved with foreig...
2786	ScoobyMcpherson	@realysrangan This is the moment when Jagan beg...
2787	bjklinz	@realysrangan I m sorry, ys. No. #POTUS

	Unnamed: 2	Unnamed: 3	Sentiment Polarity
2783	NaN	NaN	0.000
2784	NaN	NaN	0.000
2785	NaN	NaN	0.225
2786	NaN	NaN	0.000
2787	NaN	NaN	-0.500

```

People                                Review \
2535 meryn1977 @Pawan Kalyan You'll just try to calm those wa...
2536 BSNelson114 @Pawan Kalyan 96 days 96 dias #VotePawan Kalya...
2537 KenCape1 @Pawan Kalyan YOU THINK YOU CAN DO THAT??? YOU...
2538 LeslyeHale @Pawan Kalyan Trump wants our children back at...
2539 rerickre @Pawan Kalyan ... and I know, because it's muc...

Sentiment Polarity
2535 0.15
2536 0.00
2537 0.00
2538 0.10
2539 0.20

jagan_reviews["Expression Label"] = np.where(jagan_reviews["Sentiment Polarity"]>0, "positive", "negative")
jagan_reviews["Expression Label"][jagan_reviews["Sentiment Polarity"]==0]="Neutral"
print(jagan_reviews.tail())
pawan_reviews["Expression Label"] = np.where(pawan_reviews["Sentiment Polarity"]>0, "positive", "negative")
pawan_reviews["Expression Label"][jagan_reviews["Sentiment Polarity"]==0]="Neutral"
print(pawan_reviews.tail())

```

```

People                                Review \
2783 4diva63 @realysrigan For the 1/100 time, absentee ball...
2784 hidge826 @realysrigan If you re so scared of losing, re...
2785 SpencerRossy @realysrigan I rarely get involved with foreig...
2786 ScoobyMcpherson @realysrigan This is the moment when Jagan beg...
2787 bjklinz @realysrigan I m sorry, ysr. No. #POTUS

```

```

Unnamed: 2 Unnamed: 3 Sentiment Polarity Expression Label
2783 NaN NaN 0.000 Neutral
2784 NaN NaN 0.000 Neutral
2785 NaN NaN 0.225 positive
2786 NaN NaN 0.000 Neutral
2787 NaN NaN -0.500 negative

```

```

People                                Review \
2535 meryn1977 @Pawan Kalyan You'll just try to calm those wa...
2536 BSNelson114 @Pawan Kalyan 96 days 96 dias #VotePawan Kalya...
2537 KenCape1 @Pawan Kalyan YOU THINK YOU CAN DO THAT??? YOU...
2538 LeslyeHale @Pawan Kalyan Trump wants our children back at...
2539 rerickre @Pawan Kalyan ... and I know, because it's muc...

```

```

Sentiment Polarity Expression Label
2535 0.15 Neutral
2536 0.00 Neutral
2537 0.00 negative
2538 0.10 Neutral
2539 0.20 positive

```

```

<ipython-input-15-c3441a01f83a>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame

```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus

```
jagan_reviews["Expression Label"][jagan_reviews["Sentiment Polarity"]==0]="Neutral"
```

```

<ipython-input-15-c3441a01f83a>:5: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame

```

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus

```
pawan_reviews["Expression Label"][jagan_reviews["Sentiment Polarity"]==0]="Neutral"
```

```

reviews1 = jagan_reviews[jagan_reviews['Sentiment Polarity'] == 0.0000]
print(reviews1.shape)
cond1=jagan_reviews['Sentiment Polarity'].isin(reviews1['Sentiment Polarity'])
jagan_reviews.drop(jagan_reviews[cond1].index, inplace = True)
print(jagan_reviews.shape)
reviews2 = pawan_reviews[pawan_reviews['Sentiment Polarity'] == 0.0000]
print(reviews2.shape)
cond2=pawan_reviews['Sentiment Polarity'].isin(reviews1['Sentiment Polarity'])
pawan_reviews.drop(pawan_reviews[cond2].index, inplace = True)
print(pawan_reviews.shape)

```

```

(1453, 6)
(1335, 6)
(1509, 4)
(1031, 4)

```

```

np.random.seed(10)
remove_n =324
drop_indices = np.random.choice(jagan_reviews.index, remove_n, replace=False)
df_subset_jagan = jagan_reviews.drop(drop_indices)
print(df_subset_jagan.shape)

```

```
(1011, 6)
```

```

np.random.seed(10)
remove_n = 31
drop_indices = np.random.choice(pawan_reviews.index, remove_n, replace=False)
df_subset_pawan = pawan_reviews.drop(drop_indices)
print(df_subset_pawan.shape)

```

```
(1000, 4)
```

```

count_1 = df_subset_jagan.groupby('Expression Label').count()
print(count_1)
negative_per1 = (count_1['Sentiment Polarity'][0]/1000)*100
positive_per1 = (count_1['Sentiment Polarity'][1]/1000)*100
count_2 = df_subset_pawan.groupby('Expression Label').count()
print(count_2)
negative_per2 = (count_2['Sentiment Polarity'][0]/1000)*100
positive_per2 = (count_2['Sentiment Polarity'][1]/1000)*100
Politicians = ['Pawan Kalyan', 'YSR Jagan']
lis_pos = [positive_per1, positive_per2]
lis_neg = [negative_per1, negative_per2]

```

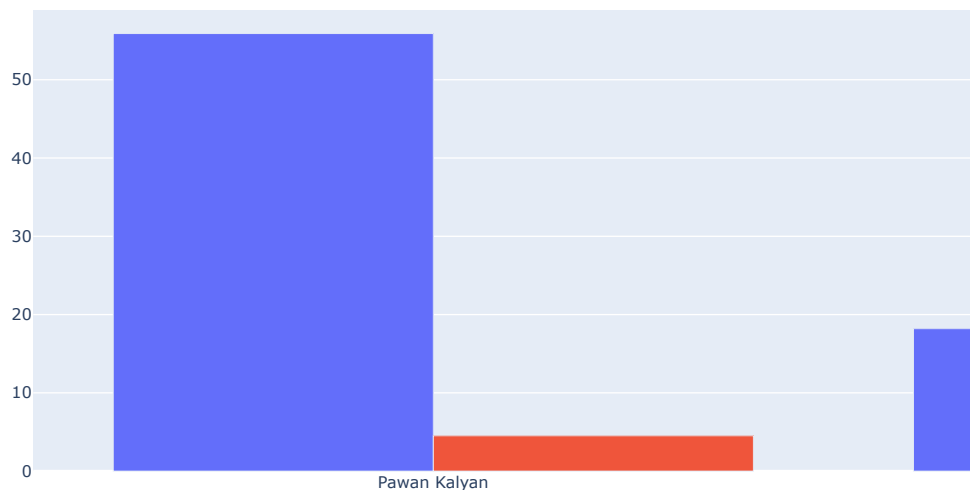
	People	Review	Unnamed: 2	Unnamed: 3	Sentiment Polarity
Expression Label					
negative	452	452	0	0	452
positive	559	559	0	0	559

	People	Review	Sentiment Polarity
Expression Label			
Neutral	520	520	520
negative	182	182	182
positive	298	298	298

```

fig = go.Figure(data=[
    go.Bar(name='Positive', x=Politicians, y=lis_pos),
    go.Bar(name='Negative', x=Politicians, y=lis_neg)
])
# Change the bar mode
fig.update_layout(barmode='group')
fig.show()

```



✓ 0s completed at 15:54 ● ✕