

# TV SHOW POPULARITY ANALYSIS

## END TERM REPORT

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## **Student Declaration**

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## **Bonafied Certificate**

Certified that this project title of the project TV shows popularity analysis is the bonafied work of Prathmesh Agrawal who carried out the project work under my supervision.

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## 1. Background and objective of the project

### 1.1 Introduction

- This project helps in analysis of various Different TV shows, analysis is not only done on the Basis of TRP chart released by various magazines but also provides the public opinion about the show, what they think about the show broadly on three categories Positive, Negative, Neutral and this analysis is done from review, comments and tweets about show from social various social media platforms like twitter, youtube etc. It also find the recent tweets of any twitter account along with various stats like, reply, share as a bonus feature.

### 2.1 Objective

The only objective of this Project is to predict whether the viewers take the content of Show as positive, negative or neutral and what percentage on the basis of their review, comment and tweets on various social media platforms

## 3. Description

### 3.1 Module used

- BeautifulSoup - Extracting and arranging data that is extracted from social media platforms
- requests – For extracting the data from social media platforms
- tkinter – For GUI
- TextBlob – For sentiment analysis
- numpy – Plotting in graphs
- matplotlib – Plotting in graphs
- csv – For reading csv file

### 3. Work distribution

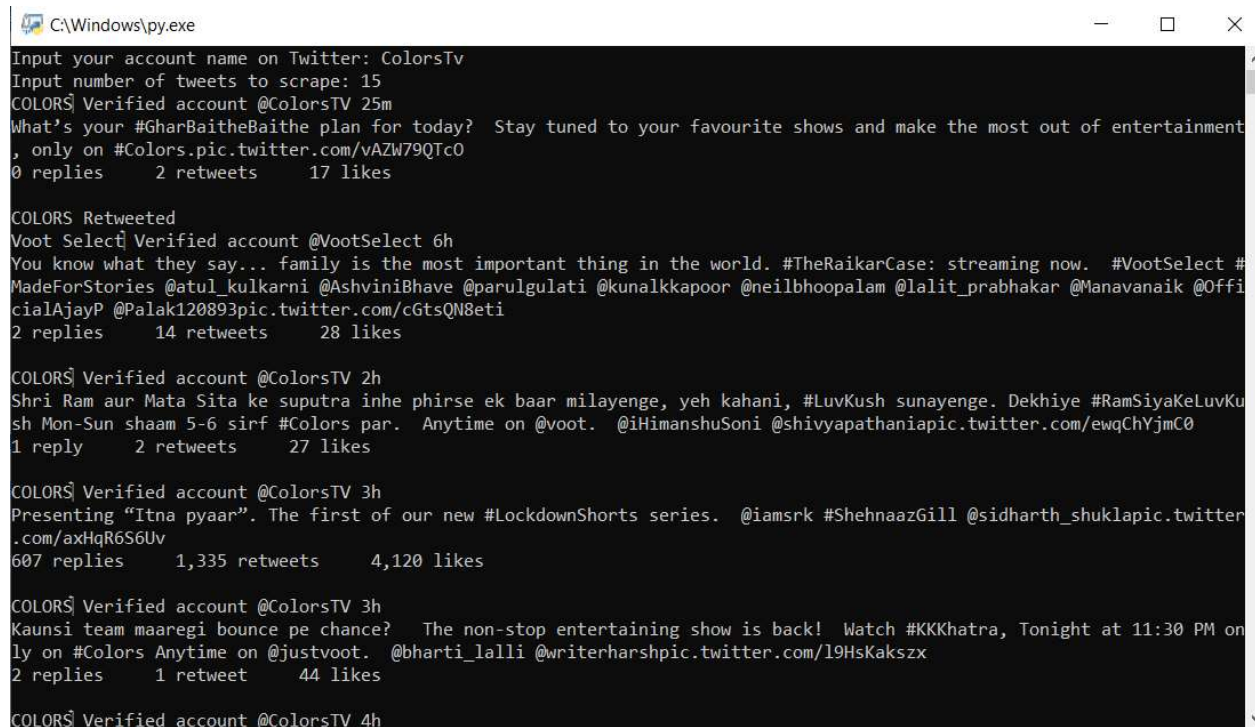
Registration no.	Roll no.	Name	Work
11802444	20	Prathmesh Agrawal	Web Scrapping, Sentiment Analysis, data visualization, GUI
11802411	12	Nandlal	Web Scrapping, Sentiment Analysis
11802501	30	Ruchi	Sentiment Analysis, Data visualization
11802612	05	Prateek	Sentiment Analysis, Data visualization

## 4. Implementation with Codes

### 4.1 Web Scrapping

```
def webscraping():
    handle = input('Input your account name on Twitter: ')
    ctr = int(input('Input number of tweets to scrape: '))
    res=requests.get('https://twitter.com/'+handle)
    bs=BeautifulSoup(res.content,'lxml')
    all_tweets = bs.find_all('div',{'class':'tweet'})
    if all_tweets:
        for tweet in all_tweets[:ctr]:
            context = tweet.find('div',{'class':'context'}).text.replace("\n", " ").strip()
            content = tweet.find('div',{'class':'content'})
            header = content.find('div',{'class':'stream-item-header'})
            user = header.find('a',{'class':'account-group js-account-group js-action-profile js-user-profile-link js-nav'}).text.replace("\n", " ").strip()
            time = header.find('a',{'class':'tweet-timestamp js-permalink js-nav js-tooltip'}).find('span').text.replace("\n", " ").strip()
            message = content.find('div',{'class':'js-tweet-text-container'}).text.replace("\n", " ").strip()
            footer = content.find('div',{'class':'stream-item-footer'})
            stat = footer.find('div',{'class':'ProfileTweet-actionCountList u-hiddenVisually'}).text.replace("\n", " ").strip()
            if context:
                print(context)
            print(user,time)
            print(message)
            print(stat)
            print()
    else:
        print("List is empty/account name not found.")
```

### Output-



```
C:\Windows\py.exe
Input your account name on Twitter: ColorsTv
Input number of tweets to scrape: 15
COLORS Verified account @ColorsTV 25m
What's your #GharBaitheBaithe plan for today? Stay tuned to your favourite shows and make the most out of entertainment
, only on #Colors.pic.twitter.com/vAZW79QTc0
0 replies 2 retweets 17 likes

COLORS Retweeted
Voot Select Verified account @VootSelect 6h
You know what they say... family is the most important thing in the world. #TheRaikarCase: streaming now. #VootSelect #
MadeForStories @atul_kulkarni @AshviniBhave @parulgulati @kunalk Kapoor @neilbhoopalam @lalit_prabhakar @Manavanaik @Offi
cialAjayP @Palak120893pic.twitter.com/cGtsQN8eti
2 replies 14 retweets 28 likes

COLORS Verified account @ColorsTV 2h
Shri Ram aur Mata Sita ke suputra inhe phirse ek baar milayenge, yeh kahani, #LuvKush sunayenge. Dekhiye #RamSiyaKeLuvKu
sh Mon-Sun shaam 5-6 sirf #Colors par. Anytime on @voot. @iHimanshuSoni @shivapathaniapic.twitter.com/ewqChYjmC0
1 reply 2 retweets 27 likes

COLORS Verified account @ColorsTV 3h
Presenting "Itna pyaar". The first of our new #LockdownShorts series. @iamsrk #ShehnaazGill @sidharth_shuklapic.twitter
.com/axHqR6S6Uv
607 replies 1,335 retweets 4,120 likes

COLORS Verified account @ColorsTV 3h
Kaunsi team maaregi bounce pe chance? The non-stop entertaining show is back! Watch #KKKhattri, Tonight at 11:30 PM on
ly on #Colors Anytime on @justvoot. @bharti_lalli @writerharshpic.twitter.com/l9HsKakszx
2 replies 1 retweet 44 likes

COLORS Verified account @ColorsTV 4h
```

## 4.2 Sentiment Analysis

```
def SentimentAnalysis(Data):
    positive = 0
    wpositive = 0
    spositive = 0
    negative = 0
    wnegative = 0
    snegative = 0
    neutral = 0
    for i in range(0,50):
        analysis = TextBlob(Data[i])
        if (analysis.sentiment.polarity >=-0.03 and analysis.sentiment.polarity <= 0.03):
            neutral += 1
        elif (analysis.sentiment.polarity > 0.03 and analysis.sentiment.polarity <= 0.3):
            wpositive += 1
        elif (analysis.sentiment.polarity > 0.3 and analysis.sentiment.polarity <= 0.55):
            positive += 1
        elif (analysis.sentiment.polarity > 0.55 and analysis.sentiment.polarity <= 1):
            spositive += 1
        elif (analysis.sentiment.polarity > -0.3 and analysis.sentiment.polarity <= -0.03):
            wnegative += 1
        elif (analysis.sentiment.polarity > -0.55 and analysis.sentiment.polarity <= -0.3):
            negative += 1
        elif (analysis.sentiment.polarity > -1 and analysis.sentiment.polarity <= -0.55):
            snegative += 1
    return wpositive,positive,spositive,neutral,wnegative,negative,snegative
```

## 4.3 Data visualization

### a. Bar Graph

```
def TrpChart(trp,show_name):
    fig= plt.figure(figsize=(10,6))
    left = [1, 2, 3, 4, 5]
    plt.ylim(0,5)
    plt.bar(left, trp, tick_label = show_name,width = 0.2, color = ['red', 'green'],zorder=2)
    plt.xlabel('Show Name')
    plt.ylabel('TRP')
    plt.title('TRP Comparison Show Wise')
    plt.grid(axis="y")
    plt.show()
```

## Output-



```
def ComparisonBetweenShows():
    BiggBoss13=[]
    BiggBoss13=ReadFile('BiggBoss13.txt')
    BiggBoss13_wpositive,BiggBoss13_positive,BiggBoss13_spositive,BiggBoss13_neutral,BiggBoss13_wnegative,BiggBoss13_negative,BiggBoss13_snegative = SentimentAnalysis(BiggBoss13)
    BiggBoss13Positive=(BiggBoss13_wpositive+BiggBoss13_positive+BiggBoss13_spositive)*2
    BiggBoss13Negative=(BiggBoss13_wnegative+BiggBoss13_negative+BiggBoss13_snegative)*2
    BiggBoss13Neutral=BiggBoss13_neutral

    Roadies=[]
    Roadies=ReadFile('Roadies.txt')
    Roadies_wpositive,Roadies_positive,Roadies_spositive,Roadies_neutral,Roadies_wnegative,Roadies_negative,Roadies_snegative = SentimentAnalysis(Roadies)
    RoadiesPositive=(Roadies_wpositive+Roadies_positive+Roadies_spositive)*2
    RoadiesNegative=(Roadies_wnegative+Roadies_negative+Roadies_snegative)*2
    RoadiesNeutral=Roadies_neutral

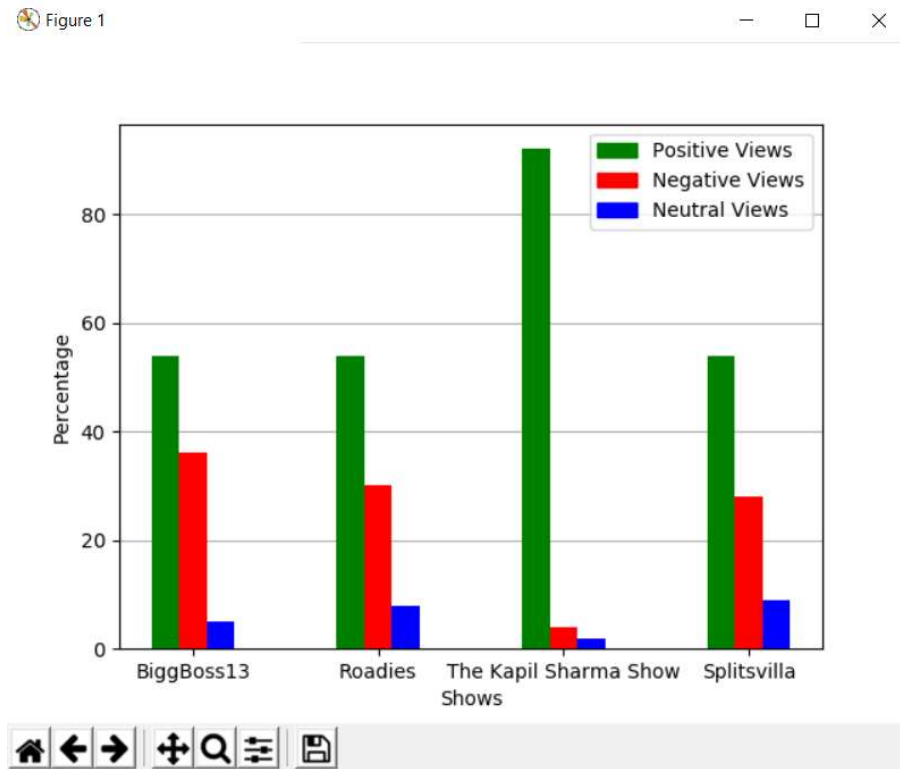
    TheKapilSharmaShow=[]
    TheKapilSharmaShow=ReadFile('TheKapilSharmaShow.txt')
    TheKapilSharmaShow_wpositive,TheKapilSharmaShow_positive,TheKapilSharmaShow_spositive,TheKapilSharmaShow_neutral,TheKapilSharmaShow_wnegative,TheKapilSharmaShow_negative,TheKapilSharmaShow_snegative = SentimentAnalysis(TheKapilSharmaShow)
    TheKapilSharmaShowPositive=(TheKapilSharmaShow_wpositive+TheKapilSharmaShow_positive+TheKapilSharmaShow_spositive)*2
    TheKapilSharmaShowNegative=(TheKapilSharmaShow_wnegative+TheKapilSharmaShow_negative+TheKapilSharmaShow_snegative)*2
    TheKapilSharmaShowNeutral=TheKapilSharmaShow_neutral

    Splitsvilla=[]
    Splitsvilla=ReadFile('Splitsvilla.txt')
    Splitsvilla_wpositive,Splitsvilla_positive,Splitsvilla_spositive,Splitsvilla_neutral,Splitsvilla_wnegative,Splitsvilla_negative,Splitsvilla_snegative = SentimentAnalysis(Splitsvilla)
    SplitsvillaPositive=(Splitsvilla_wpositive+Splitsvilla_positive+Splitsvilla_spositive)*2
    SplitsvillaNegative=(Splitsvilla_wnegative+Splitsvilla_negative+Splitsvilla_snegative)*2
    SplitsvillaNeutral=Splitsvilla_neutral

    labels=['BiggBoss13','Roadies','The Kapil Sharma Show','Splitsvilla']
    positive=[BiggBoss13Positive, RoadiesPositive, TheKapilSharmaShowPositive, SplitsvillaPositive]
    negative=[BiggBoss13Negative, RoadiesNegative, TheKapilSharmaShowNegative, SplitsvillaNegative]
    neutral=[BiggBoss13Neutral, RoadiesNeutral, TheKapilSharmaShowNeutral, SplitsvillaNeutral]
    x = np.arange(4)
    bar_width=0.15
    plt.bar(x,positive,width=bar_width,color='green',zorder=2)
    plt.bar(x+bar_width,negative,width=bar_width,color='red',zorder=2)
    plt.bar(x+bar_width*2,neutral,width=bar_width,color='blue',zorder=2)
    plt.xticks(x+bar_width*2,labels)
    plt.xlabel('Shows')
    plt.ylabel('Percentage')
    green_patch= mpatches.Patch(color='green',label='Positive Views')
    red_patch= mpatches.Patch(color='red',label='Negative Views')
    blue_patch= mpatches.Patch(color='blue',label='Neutral Views')
    plt.legend(handles=[green_patch, red_patch, blue_patch])
    plt.grid(axis="y")
    plt.show()
```



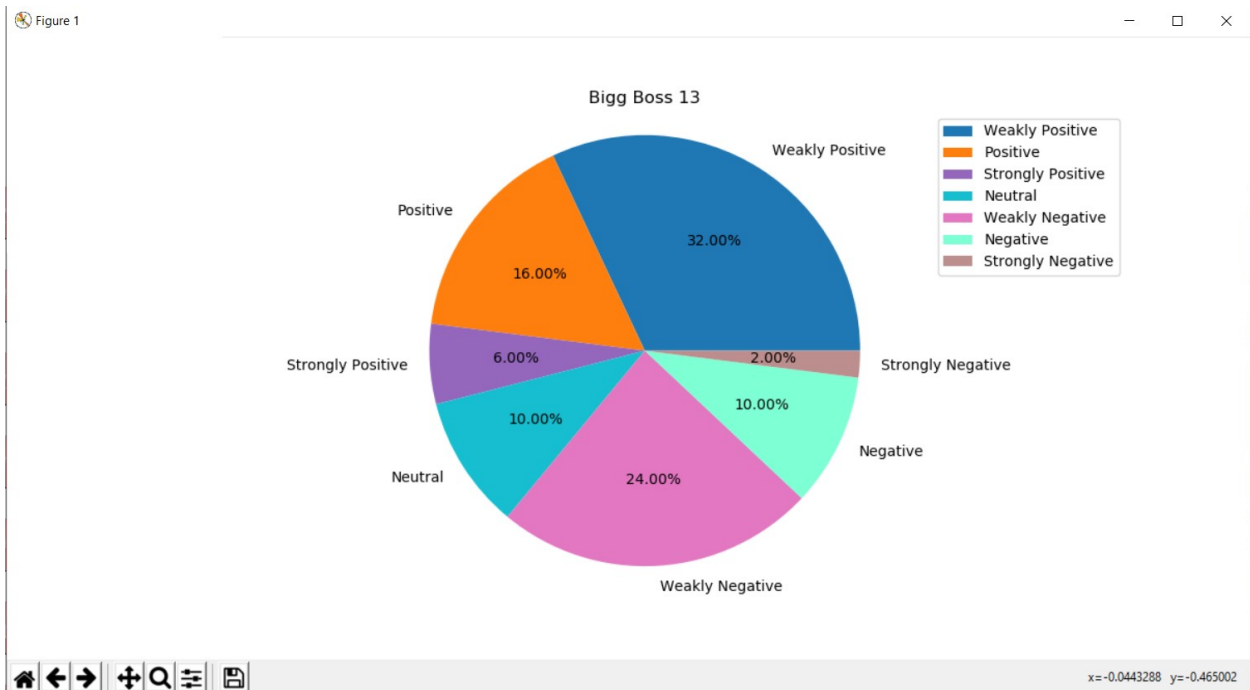
Output-



b. Pie-Chart

```
def PlotPieChart(values,Title):  
    fig= plt.figure(figsize=(12,6))  
    labels='Weakly Positive','Positive','Strongly Positive','Neutral','Weakly Negative','Negative','Strongly Negative'  
    color=['tab:blue','tab:orange','tab:purple','tab:cyan','tab:pink','aquamarine','rosybrown']  
    plt.pie(values,labels=labels,colors=color,autopct='%1.2f%%')  
    plt.axis('equal')  
    plt.title(Title)  
    plt.legend()  
    plt.show()
```

## Output-



## 5. Technology and framework used

In this Program Python language is used along with some additional module mentioned above and various websites are used as a source of data

## 6. SWOT Analysis

Strength- Easy to use, Accuracy percentage is 89.85%

Weakness- very slow analysis over large samples

Opportunity- Is very useful in Selection of which type of content viewers like and what to show for good TRP

Threat- Other analysis software