

```
!pip install -q snsrape==0.3.4
```

## Importing required liabraries

```
import os
import pandas as pd
from datetime import date
```

```
today = date.today()
end_date = today
print(end_date)
```

```
2022-03-03
```

```
#giving search term list text files
search_term = ['aap','bsp','bjp','sp','congress']
from_date = '2021-01-01'
max_results = 1000
```

## Total Number of Tweets for Search Terms Extracting

## Importing required liabraries

```
import time
from datetime import date
from random import uniform
start = time.time()
```

```
start = time.time()
```

```
def Extract_tweets(search_term):
    ...
```

```
    This function is to Extracting Tweets from Twitter and create 5 file of Every Element
    ...
```

```
    os.system("snsrape --format '{content!r}'+ f" --max-results {max_results} --since {fro
```

```
for i in range(len(search_term)):
    Extract_tweets(search_term[i])
```

```
print('\n', f'Time: {time.time() - start}')
```

```
Time: 79.18754124641418
```

```
start = time.time()
```

```
text_files=['aap.txt','bjp.txt','bsp.txt','congress.txt','sp.txt']
```

```
def merge_text_files(text_files):
    ...
    Function to Merge all 5 Txt Extracted File
    ...
    with open('merged_file.txt', 'w') as outfile:#merge the files
        for i in text_files:
            with open(i) as infile:
                for line in infile:
                    outfile.write(line)
merge_text_files(text_files)

print('\n', f'Time: {time.time() - start}')
```


Time: 0.015130043029785156

```
import pandas as pd
df = pd.read_csv("merged_file.txt", header=None, #read the .csv file
                names=["Text"]) #under the header text
```

## Convert Merge .txt File To merge.csv

```
df.to_csv("merged_file.csv")
```

```
#Reading the data from converted .csv file
df
```

	Text 
0	'@Rizwank3315 Bhai aap ko dm karna he'
1	'@teamimrankhanpm Bismillah Hir Rahma Nir Rahi...
2	'@Shailes47245787 @Alienkumar1 @TeamKangana5 B...
3	'@mehmoodkakar604 @ShakilRai2 @YouTube AUS SE ...
4	'@ShubhiM42016011 Aap aaj aayiye thik hai'
...	...
4990	'@ffffffrd pse acho q em sp n tem n kkkk'
4991	'@laurent703611LP おつありです〜\nお腹すいた〜🍷'
4992	'@USPatriotSerena I call my #2s "taking a 45"!!!'
4993	'https://t.co/WGbYjZH0zr https://t.co/r0QhR5TVZz'
4994	'F4780FE3 :参戦ID\n参加者募集! \nLv200 リンドブルム\nhttps://...

4995 rows × 1 columns

## Cleaning of Data

## 1.Remove Usernames @

```
start = time.time()
df['Text'] = df['Text'].str.replace(r'\s*@w+', '', regex=True) #Remove username in @....
df['Text'] = df['Text'].str.replace(r'\s*\B@w+', '', regex=True)
df['Text'] = df['Text'].str.replace(r'\s*@S+', '', regex=True)
df['Text'] = df['Text'].str.replace(r'\s*@S+\b', '', regex=True)
print('\n', f'Time: {time.time() - start}')
```

Time: 0.08468270301818848

```
df.head(30)
```

Text



```

0          Rizwank3315 Bhai aap ko dm karna he
1      teamimrankhanpm Bismillah Hir Rahma Nir Rahim ...
2      Shailes47245787 Alienkumar1 TeamKangana5 Bhai ...
3      mehmoodkakar604 ShakilRai2 YouTube AUS SE BARR...
4          ShubhiM42016011 Aap aaj aayiye thik hai
5      ajaydevgn DisneyPlusHS sir vimal khana kab cho...
6      Kitne hurdles aae lekin apna kaam karte rahe A...

```

## 2.Remove Punctuation

```

8          AamAadmiPartv You are aood leader

start = time.time()
punctuation = '!'()-[]{};:'"\,<>./?@$%^&*~_''''
# Removing punctuations in string
# Using loop + punctuation string
def remov_punct(text):
    for i in text:
        if i in punctuation:
            text = text.replace(i, "")
    return text
print('\n', f'Time: {time.time() - start}')
```

Time: 0.00010323524475097656

```

17      AnindKoirimal rachavachadha raicadha AamAadmiP

```

```
df['Text']=df['Text'].apply(remov_punct)
```

```

19      Sangeet51434930 abhishek3588 AadeshRawal Aap b...

```

```
df.head(20)
```

Text



0	Rizwank3315 Bhai aap ko dm karna he
1	teamimrankhanpm Bismillah Hir Rahma Nir Rahim ...
2	Shailes47245787 Alienkumar1 TeamKangana5 Bhai ...
3	mehmoodkakar604 ShakilRai2 YouTube AUS SE BARR...
4	ShubhiM42016011 Aap aaj aayiye thik hai
5	ajaydevgn DisneyPlusHS sir vimal khana kab cho...
6	Kitne hurdles aae lekin apna kaam karte rahe A...
7	Aap yadi kisi aesi cheez par kabja karke baith...
8	AamAadmiParty You are good leader
9	BoistSharmal live on bhi aani reporting mein iss

### 3.Remove Emojis

```
start = time.time()
df = df.astype(str).apply(lambda x: x.str.encode('ascii', 'ignore').str.decode('ascii'))
print('\n', f'Time: {time.time() - start}')
```


Time: 0.013239860534667969

0	Aap ki baat main charkaai hupstocANET / gfrun
---	---

```
df.head(50)
```

- 18 HeijnekampJaap Dit is gewoon een samenvatting ...
- 19 Sangeet51434930 abhishek3588 AadeshRawal Aap b...
- 20 AAgharkar Iqrasaysthat Meri wajah se aap logon...
- 21 Parveen40918171 Bilkul sahi Pharmaya aap ne
- 22 Main to corrt pol se yehi kahunga ki aap apne ...
- 23 SubhasiniMaurya Sahi kha rahi hai aap
- 24
- 25 AamAadmiParty Salute
- 26 SyiedSuhail Aree Iska data
- 27 RJDforIndia yadavtejashwi RJD apna time yaad k...
- 28 RockingNainaa accha ji agar koi raji ho jaye t...
- 29 DharendraDr DeependerSHooda KirenRijju Gajab ...
- 30 stichtingaap ZEMBLA Ziek
- 31 AamAadmiParty httpstc...
- 32 AAPnnNew Insider Filing on ADVANCE AUTO PARTS ...
- 33 Paytm Very bad service no support i called man...
- 34 RadhikaKhera Wah WahMere Dil ki baat likh di a...
- 35 ImSatyayadav Gobar ko khaane se aur mooth pina...
- 36 DelhiPolice dtpttraffic AamAadmiParty PIBHomeAf...
- 37 kyabataye iMemeStore Admins aur aap
- 38 Zohi786 HamzyKhanx iamqadirkhawaja In SHA ALLA...
- 39 DiyaGhosh ParmarVeera baesakhiiz guys ye kya b...
- 40 MessiTheKing19 lakshayhere Ok bro toh aap ka n...
- 41 AribaShahid FootballPak BabarEnthusiast Aap lo...
- 42 AAgharkar Iqrasaysthat Ye Kab ka description d...
- 43 Around 500000 people across NSW have been orde...
- 44 AamAadmiParty 1
- 45 ReenaRoy8587 Reena ji aap kya job karte ho ji
- 46 fearlessssoul Madam chay me kefin hota hai jo ...
- 47 reply Aap bhi Scenes outsides a Bandra restaur...
- 48 DrUditraj Deshhit me ek kaam kiya he
- 49 TeamKangana5 Agar aap negative comments padh k...

```
df.tail(20)
```

	Text 
4975	excited nako maka kuhag sp huhuhu
4976	cirogomes E a ideia de pagar a dvida do carto ...
4977	nishisp
4978	awawasp
4979	isislimax Akakakakakakak mas eu ganhei a conqu...
4980	iiyokinisinaide nnnspu200dnnnnnnn
4981	BIGBANG1nnn
4982	Timberflakes Whodat4lyfe1 spsalas StanLew24950...
4983	mi compaera me regal una pulcera uwu
4984	imrrkt GitanjaliMoha20 SP
4985	Video   020322 4K WONHO Eye On You I Sho...
4986	jinoias MAS O GOSTO EH HORRIVEL
4987	ZDROWCO TSzulc TashWitk ireneuszkulesza Kazimi...
4988	AnaliseVerdao mariapmihok homenagem
4989	Another 20 tweet Zacktivation I vote for Zack ...
4990	ffffffrd pse acho q em sp n tem n kkkk
4991	laurent703611LP n
4992	USPatriotSerena I call my 2s taking a 45
4993	httpstcoWGbYjZH0zr httpstcor0QhR5TVZz
4994	F4780FE3 IDnnLv200 nhttpstcoL0MPuOHPQj

#### 4.Remove Null Rows data

```
df['Text'] = df['Text'].str.lower() #Lower all the data
```

```
df.head() #Display top 5
```

Text



```
0      rizwank3315 bhai aap ko dm karna he
1      teamimrankhanpm bismillah hir rahma nir rahim ...
2      shailes47245787 alienkumar1 teamkangana5 bhai ...
3      mehmoodkakar604 shakilrai2 youtube aus se barr...
```

```
df.dropna() #Drop the NULL values
```

Text



```
0      rizwank3315 bhai aap ko dm karna he
1      teamimrankhanpm bismillah hir rahma nir rahim ...
2      shailes47245787 alienkumar1 teamkangana5 bhai ...
3      mehmoodkakar604 shakilrai2 youtube aus se barr...
4      shubhim42016011 aap aaj aayiye thik hai
...
4990      fffffffrd pse acho q em sp n tem n kkkk
4991      laurent703611lp n
4992      uspatriotserena i call my 2s taking a 45
4993      httpstcowgbyjzh0zr httpstcor0qhr5tvzz
4994      f4780fe3 idnnlv200 nhttpstcol0mpuohpqj
```

```
4995 rows × 1 columns
```

```
df.isnull().sum() #Return Sum of NULL Values if exists
```

```
Text      0
dtype: int64
```

```
df.info() #Extract the information
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 4995 entries, 0 to 4994
Data columns (total 1 columns):
#   Column  Non-Null Count  Dtype
---  -
0   Text    4995 non-null      object
dtypes: object(1)
memory usage: 39.1+ KB
```

```
df.describe() #Describe the dataset
```



	Text
<b>count</b>	4995
<b>unique</b>	4763
<b>top</b>	

Give label to the data

```
start = time.time()
df['label'] = df.Text.str.extract('(aap|bsp|bjp|sp|congress)') # if list aap|bsp|bjp|sp|co
df['label'] = df['label'].replace(['aap', 'bsp', 'bjp', 'sp', 'congress'], '1') # replaced all
df['label'] = df['label'].fillna(0) #fill 0 remaining all
print('\n', f'Time: {time.time() - start}')
```

Time: 0.018356800079345703

```
df.head(40)
```

8	aamaadmiparty you are good leader	0
9	rajatsharmalive ap bhi apni reporting mein iss...	0
10	aryan11626940 aap ki din mangal may ho	1
11	yadavakhilesh tonti bhaiya didi ne bengal me h...	1
12	brickmack cries in aap	1
13	ptshekhhardixit pmoindia aap bhi indian ho cab ...	1
14	aryan11626940 aap ki baat me dam hai dear	1
15	aap ki baar modi charkar httpstcoxnly7gfuch	1
16	manishakimball svidyasagar arre aap hamesha it...	1
17	arvindkejriwal raghavchadha msisodia aamaadmip...	0
18	heijnekampjaap dit is gewoon een samenvatting ...	1
19	sangeet51434930 abhishek3588 aadeshrawal aap b...	1
20	aagharkar iqrasythat meri wajah se aap logon...	1
21	parveen40918171 bilkul sahi pharmaya aap ne	1
22	main to corrt pol se yehi kahunga ki aap apne ...	1
23	subhasinimaurya sahi kha rahi hai aap	1
24		0
25	aamaadmiparty salute	0
26	syyedsuhail aree iska data	0
27	rjdforindia yadavtejashwi rjd apna time yaad k...	1
28	rockingnainaa accha ji agar koi raji ho jaye t...	1
29	dharendradr deenendershooda kirenriiiuu daiah ...	1

```
df['label'].isnull().sum()
```

```
0
```

```
count the data i.e values of 0 and 1 in the dataset
```

34	radnikakhera wan wanmere dii ki baat likh di a...	1
----	---	---

```
(df['label'] == 0).sum() #0 labeled data
```

```
1623
```

37	kvahatave imemestore admins aur aap	1
----	-------------------------------------	---


```
(df['label'] == '1').sum() #1 labeled data
```

```
3372
```

```
df.info()
```


```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 4995 entries, 0 to 4994
Data columns (total 2 columns):
#   Column  Non-Null Count  Dtype
---  -
0    Text    4995 non-null     object
1   label    4995 non-null     object
dtypes: object(2)
memory usage: 78.2+ KB
```

df

	Text	label	
0	rizwank3315 bhai aap ko dm karna he	1	
1	teamimrankhanpm bismillah hir rahma nir rahim ...	1	
2	shailes47245787 alienkumar1 teamkangana5 bhai ...	1	
3	mehmoodkakar604 shakilrai2 youtube aus se barr...	1	
4	shubhim42016011 aap aaj aayiye thik hai	1	
...	...	...	
4990	ffffffrd pse acho q em sp n tem n kkkk	1	
4991	laurent703611lp n	0	
4992	uspatriotserena i call my 2s taking a 45	1	
4993	httpstcowgbyjzh0zr httpstcor0qhr5tvzz	0	
4994	f4780fe3 idnnlv200 nhttpstcol0mpuohpqj	0	

4995 rows × 2 columns

df.describe()

	Text	label	
count	4995	4995	
unique	4763	2	
top		1	
freq	51	3372	