

```

▶ #Collect data for most liked hashtags
sortedmostliked={};
for i in toplikes[2:12]:
    hashtag=i[0];
    l1=[];
    for i in tw.Cursor(api.search, q=hashtag).items(1000):
        if(i.lang=='en'):
            l1.append(i);
    sortedmostliked[hashtag]=l1;

```

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[50] with open('mostliked.pickle', 'wb') as write:
      pickle.dump(sortedmostliked, write, protocol=pickle.HIGHEST_PROTOCOL)

```

```

▶ data2=[];
  for i in sortedmostliked:
      for j in sortedmostliked[i]:
          data2.append(j.id_str);
  dataframe1=pd.DataFrame(data=data2, columns=['ID']);
  dataframe1.head()

```

```

↳
      ID
0  1385536554894958600
1  1385536548758646784
2  1385536543931072516
3  1385536539434921985
4  1385536528009502724

```

```

[91] dataframe1.to_csv("mostliked.csv")

```

For most retweeted Hashtags:

Filename: **sortedretweet.pickle**(for coding) and **mostretweet.csv**(for submission)

```
#Collected data for most retweeted hashtags:
sortedretweet={};
for i in topretweet[2:12]:
    hashtag=i[0];
    l1=[];
    for i in tw.Cursor(api.search, q=hashtag).items(1000):
        if(i.lang=='en'):
            l1.append(i);
    sortedretweet[hashtag]=l1;
```

```
[93] data2=[];
      for i in sortedretweet:
          for j in sortedretweet[i]:
              data2.append(j.id_str);
      dataframe1=pd.DataFrame(data=data2,columns=['ID']);
      dataframe1.head()
```

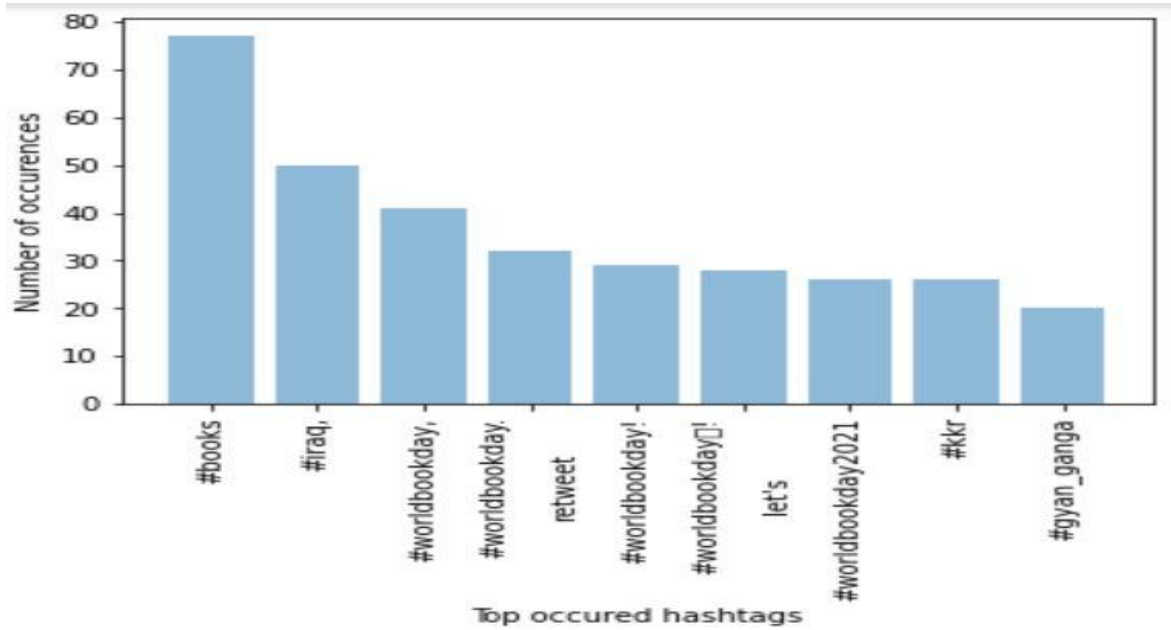
	ID
0	1385540271400755201
1	1385539877341581315
2	1385539652682088451
3	1385539449694609408
4	1385539445701677056

```
[94] dataframe1.to_csv("mostretweet.csv")
```

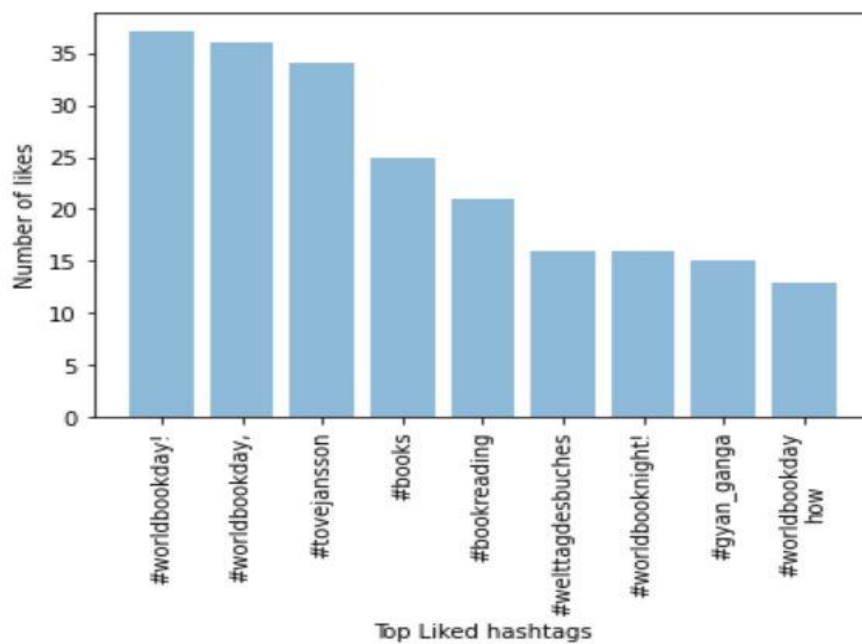
1)

Plot for top 10 hashtags

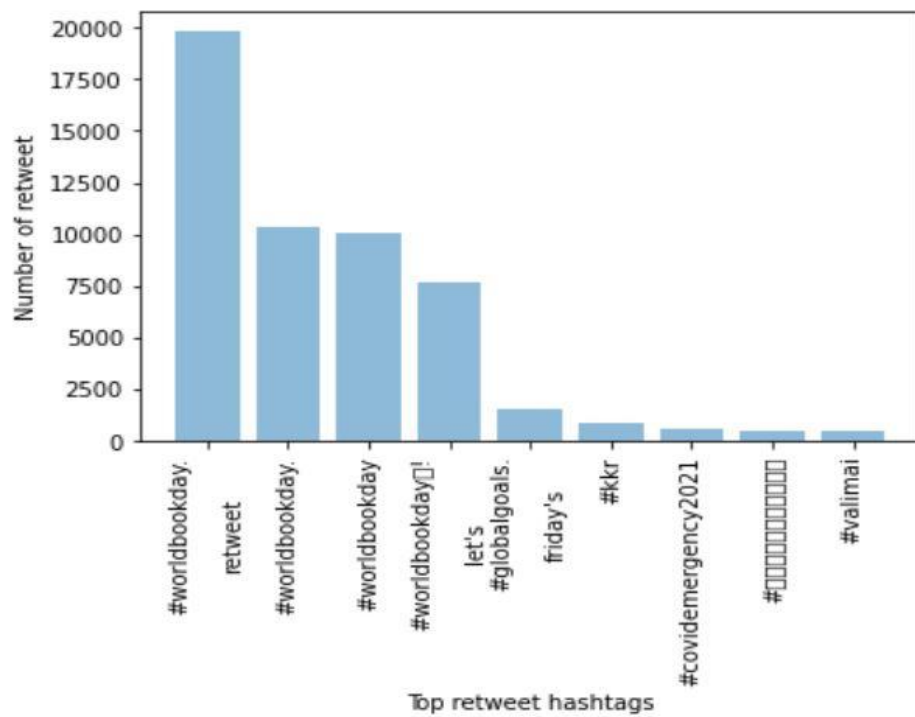
a) For most number of occurrences:



b) For most number of likes



c) For most number of retweets



Coefficient of traffic manipulation table:

a)

Table for most occurred hashtags

	Hashtag	R	F	U	Coefficient
0	#worldbookday.	41.8	11.8	1.133072	17.113072
1	#books	51.2	16.0	1.172965	22.292965
2	#iraq,	86.5	8.2	1.035088	17.885088
3	#worldbookday,	39.4	11.2	1.124000	16.264000
4	#worldbookday.\n\nretweet	96.3	5.8	1.008089	16.438089
5	#worldbookday!	42.4	14.7	1.215292	20.155292
6	#worldbookday📖!\n\nlet's	84.9	8.3	1.034375	17.824375
7	#worldbookday2021	40.8	9.1	1.075092	14.255092
8	#kkrr	65.9	26.7	1.562069	34.852069
9	#gyan_ganga	8.6	7.8	1.304348	9.964348

b)

Table for most liked hashtags

	Hashtag	R	F	U	Coefficient
0	#worldbookday	44.5	15.7	1.222222	21.372222
1	#worldbookday!	45.4	15.7	1.217647	21.457647
2	#worldbookday,	45.9	16.0	1.226378	21.816378
3	#tovejansson	3.5	4.8	1.142857	6.292857
4	#books	58.1	17.0	1.191819	24.001819
5	#bookreading	2.1	6.2	1.160000	7.570000
6	#welttagdesbuches	2.8	4.9	1.020833	6.200833
7	#worldbooknight!	58.8	22.0	1.328398	29.208398
8	#gyan_ganga	9.0	7.8	1.291667	9.991667
9	#worldbookday\nhow	75.9	11.6	1.076754	20.266754

c)

Table for most retweeted hashtags

	Hashtag	R	F	U	Coefficient
0	#worldbookday.\n\nretweet	9.7	5.0	1.000000	6.970000
1	#worldbookday.	5.8	6.2	1.218182	7.998182
2	#worldbookday	5.9	6.2	1.214286	8.004286
3	#worldbookday📖!\n\nlet's	8.0	5.4	1.042553	7.242553
4	#globalgoals.\n\nfriday's	9.9	5.0	1.000000	6.990000
5	#kkkr	6.9	6.2	1.155844	8.045844
6	#covidemergency2021	6.5	5.2	1.027778	6.877778
7	#புத்தகதினம்	0.0	0.0	0.000000	0.000000
8	#valimai	3.7	3.9	1.772727	6.042727
9	#worldbookday,	5.0	6.1	1.215686	7.815686

Inference:

We have got some hashtags which are totally different from that of the prominent topic which is “#worldbookday” such as “#valimai”, “#kkkr”, “tove jansson”.

Comments:

The above stated hashtags are used with the prominent hashtag to spam. These are probably done by spammers since there are tweets which will get retweeted hence with these tweets “#kkkr” will also get retweeted multiple times which will make it as trending datapage.

Presence of these trending hashtags.