Twitter Big Data Analysis

Project 2 Group 3

Clair Houlihan, Mindy Jen,

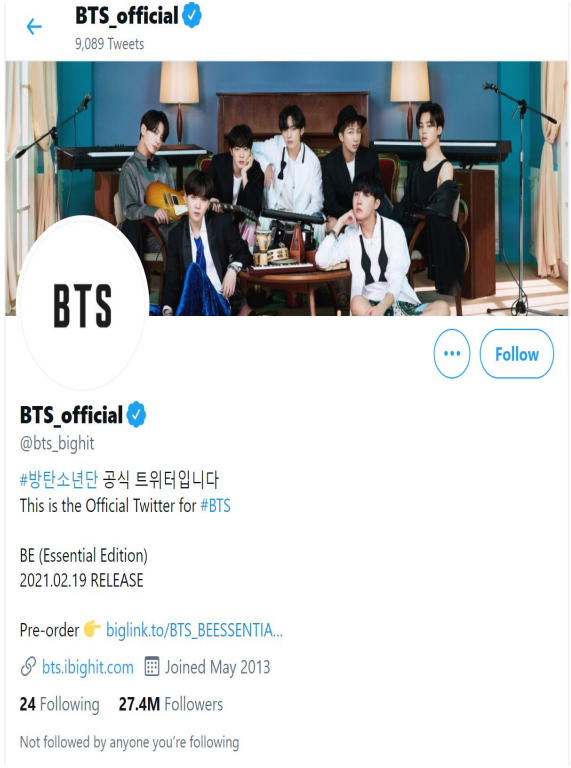
Jefferson Santiago, Melissa White,

Yasmin Yazdi

Main Theme - An overview of Group 3 Analysis

➔ Questions:

- **Clair:**
  - What are some of the other hashtags that are being used with #BTS?
  - What are the average amount of likes that a common BTS post receives?
- **Yasmin:**
  - What are the common words used with the BTS hashtag?
  - How does it vary with time?
- **Jeff:**
  - How is Kpop being compared/linked to American pop?
  - Which other Kpop artists are famous in the americas?
  - Which artist is the most trending on Twitter?
  - Which states/country tweets the most about Kpop?
- **Melissa:**
  - Analysis on tweets with BTS/BTS-related hashtags and mentions in different languages
  - How many languages are tweeting about BTS?
  - What is the distribution of languages tweeting about BTS?
- **Mindy:**
  - How is #BTS distributed globally?
  - What countries would you suggest BTS to hold a series of global concert tours in 2022?
  - What languages would you recommend BTS to speak in their global concert tours?



Filter Stream Data : Twitter API - Rule/Filed Objects

List of times and their corresponding time at another timezones

Time Hours (PDT)	CST	GMT+8 (Asia)	GMT 0 (Europe)	
12:00:00 AM	2:00:00 AM	4:00:00 PM	8:00:00 AM	
1:00:00 AM	3:00:00 AM	5:00:00 PM	9:00:00 AM	
2:00:00 AM	4:00:00 AM	6:00:00 PM	10:00:00 AM	
~~3:00:00 AM~~	~~5:00:00 AM~~	~~7:00:00 PM~~	~~11:00:00 AM~~	~~Melissa (Tuesday, Asia)~~
4:00:00 AM	6:00:00 AM	8:00:00 PM	12:00:00 PM	
5:00:00 AM	7:00:00 AM	9:00:00 PM	1:00:00 PM	
~~6:00:00 AM~~	~~8:00:00 AM~~	~~10:00:00 PM~~	~~2:00:00 PM~~	~~Jefferson (weekend)~~
~~7:00:00 AM~~	~~9:00:00 AM~~	~~11:00:00 PM~~	~~3:00:00 PM~~	
~~8:00:00 AM~~	~~9:00:00 AM~~	~~10:00:00 AM~~	~~11:00:00 AM~~	~~Mindy (Saturday)~~
~~9:00:00 AM~~	~~11:00:00 AM~~	~~1:00:00 AM~~	~~5:00:00 PM~~	
10:00:00 AM	12:00:00 PM	2:00:00 AM	6:00:00 PM	
~~11:00:00 AM~~	~~1:00:00 PM~~	~~3:00:00 AM~~	~~7:00:00 PM~~	~~Melissa (Monday, Europe)~~
~~12:00:00 PM~~	~~2:00:00 PM~~	~~4:00:00 AM~~	~~8:00:00 PM~~	~~Clair (Saturday)~~
~~1:00:00 PM~~	~~3:00:00 PM~~	~~5:00:00 AM~~	~~9:00:00 PM~~	~~Clair (Saturday)~~
~~2:00:00 PM~~	~~4:00:00 PM~~	~~6:00:00 AM~~	~~10:00:00 PM~~	~~Yasmin (Sunday)~~
~~3:00:00 PM~~	~~5:00:00 PM~~	~~7:00:00 AM~~	~~11:00:00 PM~~	~~Yasmin (Sunday)~~
4:00:00 PM	6:00:00 PM	8:00:00 AM	12:00:00 AM	
~~5:00:00 PM~~	~~7:00:00 PM~~	~~9:00:00 AM~~	~~1:00:00 AM~~	~~Melissa (Monday, CST)~~
6:00:00 PM	8:00:00 PM	10:00:00 AM	2:00:00 AM	
~~7:00:00 PM~~	~~9:00:00 PM~~	~~11:00:00 AM~~	~~3:00:00 AM~~	
~~8:00:00 PM~~	~~10:00:00 PM~~	~~12:00:00 PM~~	~~4:00:00 AM~~	~~Jefferson~~
~~9:00:00 PM~~	~~11:00:00 PM~~	~~1:00:00 PM~~	~~5:00:00 AM~~	
10:00:00 PM	12:00:00 AM	2:00:00 PM	6:00:00 AM	
11:00:00 PM	1:00:00 AM	3:00:00 PM	7:00:00 AM	

```
curl -X POST 'https://api.twitter.com/2/tweets/search/stream/rules' \
-H "Content-type: application/json" \
-H "Authorization: Bearer $TWITTER_BEARER_TOKEN" -d \
'{
  "add": [
    {
      "value": "@bts OR #bts",
      "tag": ""
    },
    {
      "value": "@kpop OR #kpop OR @k_pop OR #k_pop",
      "tag": ""
    }
]
}'
curl
'https://api.twitter.com/2/tweets/search/stream?tweet.fields=lang,geo,public_metrics,
created_at&expansions=geo.place_id&place.fields=full_name' -H "Authorization:
Bearer $TWITTER_BEARER_TOKEN"
```

Filter Stream Data Sampling for Various Types of Analyses

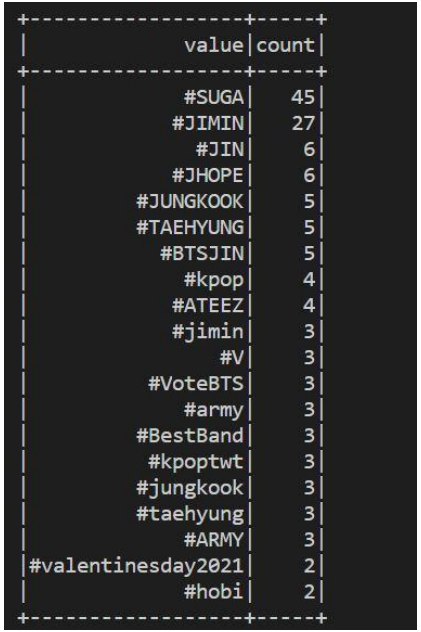
- ★ **Clair**
  - Requires the field value 'public_metrics' required for one of the analysis
- ★ **Yasmin**
  - Requires the field value 'text' required for two of the analysis
  - Requires the field value 'created_at' for one of the analysis
- ★ **Jeff**
  - Requires the field value 'public_metrics' required for two of the analysis
  - Requires the field value 'geo' for retrieving location of tweet
- ★ **Melissa**
  - Requires the field value 'lang' to retrieve languages for analysis
- ★ **Mindy**
  - Require one of the field_value options in tweet_fields be 'geo'
  - Retrieve place_object by calling expansions where location '**full_name**' is specified as field_value

Clair

What are some of the other hashtags that are being used with #BTS?

Some of the top ones are:

#SUGA #JIMIN #JIN #JHOPE #JUNGKOOK #TAEHYUNG, are all members of BTS. #ATEEZ is another kpop group. #VoteBTS relates to a poll of the most popular group in music, #ARMY is associated with the culture of BTS. #hobi and #V are nicknames for members of the group.



value	count
#SUGA	45
#JIMIN	27
#JIN	6
#JHOPE	6
#JUNGKOOK	5
#TAEHYUNG	5
#BTSJIN	5
#kpop	4
#ATEEZ	4
#jimin	3
#V	3
#VoteBTS	3
#army	3
#BestBand	3
#kpoptwt	3
#jungkook	3
#taehyung	3
#ARMY	3
#valentinesday2021	2
#hobi	2

Clair

What are some of the other hashtags that are being used with #BTS?

#BEwithSOPE is related to J-Hope, #gummyart appears to be an artist, #BLACKPINK is another kpop group, #Lighting appears to be related to BTS themed lighting, #DAY6 is a rock band from South Korea, #nct is another group from South Korea

value	count
#BTSARMY	20
#JIMIN	9
#BEwithSOPE	9
#SUGA	9
#gummyart	8
#btsfanart	5
#BLACKPINK	4
#TAEHYUNG	3
#Lighting	3
#bangtansonyeodan	3
#suga	3
#DAY6	3
#nct	3
#ARMY	3
#jhopeEnBBVA	2
#txt	2
#army	2
#DOYOUNG	2
#trophywife	2
#Army	2

Clair

```
avg: 612662.1
max: 851746
min: 426544
```

What are the average amount of likes that a common BTS post receives?

The average here is calculated with 10 of the most recent tweets (from the last few days) where the tweets were in both english and korean. The maximum and minimum amount of likes is posted for comparison.

Clair

What are the average amount of likes that a common BTS post receives?

Here are what the tweets look like for reference:

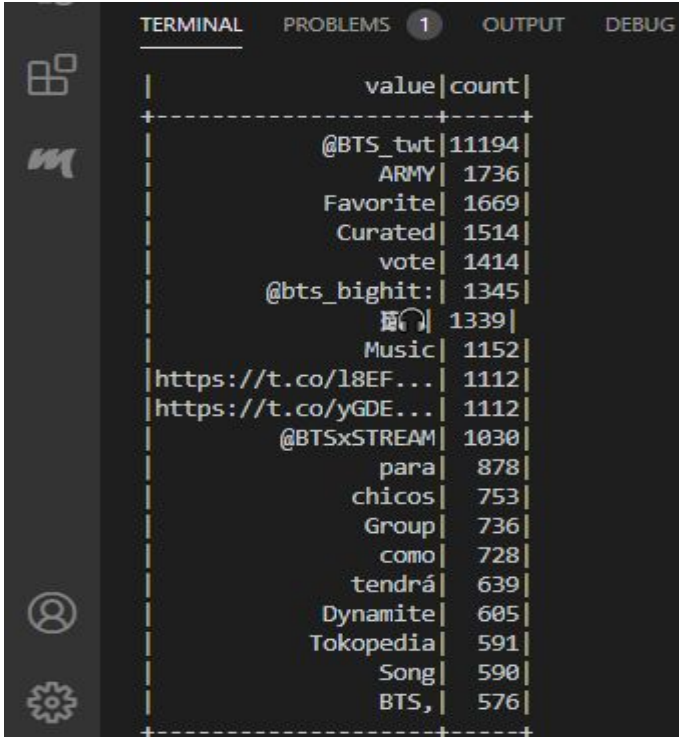

```
"lang":"en","public_metrics":{"retweet_count":169282,"reply_count":24847,"like_count":435895,"quote_count":14115},"id":"1361691812700639237","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 진 (Jin)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/NXDzVrDPG0\n\
"lang":"ko","public_metrics":{"retweet_count":206386,"reply_count":24143,"like_count":609287,"quote_count":11645},"id":"1361329423954235397","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 제이홉 (j-hope)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/wRyjFJ
"lang":"ko","public_metrics":{"retweet_count":86157,"reply_count":3070,"like_count":426544,"quote_count":956},"id":"1361152964442738692","text":"Hello Spotify Korea! \n이제 @SpotifyKR 에서 BTS의 음악을 감상해보세요!\n\nFollow BTS ➡ https://t.co/EZHsL97aBz\n\
"lang":"en","public_metrics":{"retweet_count":231771,"reply_count":26045,"like_count":679258,"quote_count":12404},"id":"1360967034536796165","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 뷔 (V)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/l8EFCJ9cbp\n\n#
"lang":"ko","public_metrics":{"retweet_count":99539,"reply_count":8162,"like_count":434529,"quote_count":4276},"id":"1360861369004826624","text":"[#방탄밤] 촬영장에 나타난 귀여운 방해꾼은 누구??\n(https://t.co/qmxlqzgScp)"},
"lang":"en","public_metrics":{"retweet_count":232003,"reply_count":23977,"like_count":704737,"quote_count":12255},"id":"1360604646515961859","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 지민 (Jimin)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/tRvLPwmer
"lang":"en","public_metrics":{"retweet_count":254508,"reply_count":28350,"like_count":773497,"quote_count":15926},"id":"1360242263213760515","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 정국 (Jung Kook)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/R5XdG
"lang":"en","public_metrics":{"retweet_count":241282,"reply_count":23243,"like_count":748910,"quote_count":14151},"id":"1359879875310493696","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by RM\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/GLroe4hprn\n\n#Cura
"lang":"ko","public_metrics":{"retweet_count":105809,"reply_count":3822,"like_count":462218,"quote_count":1742},"id":"1359804440660701184","text":"[네이버 포스트] 즐거운 설날 연휴 비티엣츠의 릴레이 연하장 비하인드와 함께해요\uD83C\uDF8A (@ https://t.co/DKCEkYdg9
"lang":"en","public_metrics":{"retweet_count":275799,"reply_count":37885,"like_count":851746,"quote_count":27736},"id":"1359517506893844482","text":"#BTS #방탄소년단 #BTS_BE Curated for ARMY by 슈가 (SUGA)\n\n\uD83D\uDDBC\uD83C\uDFA7 https://t.co/JYjbIyqFZn
```

Yasmin

What are the common words used with the BTS hashtag?

Combined data showed Army, @BTS_twt, and Favorite as top words

Army refers to the fans of BTS



Yasmin

How does this vary over time?

At 7-8pm (CST) and 7-10am

Less english words used at night

Most popular (BTS_twt) shows up at 10pm the most

value	count
create	194
event	194
@kpopidol_en:	129
will	110
support	104
want	99
Whose	97
winn…	97
[VOTE]	97
April	97
We	97
fundraising	97
15-21	97
more	29
this	27
your	26
[FAN:DRIVE]	19
Request	18
65th	16
name	16

value	count
@BTS_twt	211
back	206
@jimintoday__:	167
방탄소년단	162
'Film	160
'시그널'	158
out'	157
곡이다.	156
[공식]	156
https://t.co/qNMK...	156
아웃'은	156
number와의	156
방탄소년단과	156
bac…	155
[redacted]	144
新曲「Film	122
@bts_bighit:	112
ARMY	110
@BTS_jp_official:	108

List of Popular Kpop Artist other than BTS based on tweets

ATEEZofficial {"value":"@ATEEZofficial","count":221}

- @ATEEZofficial

BLACKPINK {"value":"@BLACKPINK","count":62}

- @BLACKPINKOFFICIAL

Keeper {"value":"@reminniescence","count":29}

- keeper (@reminniescence)

Exo*

- EXO (@weareoneEXO)

BTS Tweets: {"value":"@BTS","count":15385}

- 방탄소년단 (@BTS_twt)

Which artist is the most trending on Twitter? (Other than BTS)

- Blackpink: #LISA, #JENNIE
- NCT: #Taeyong
- Exo: #EXO

```
{"text":"RT @kpopidol_en: [VOTE]\nWhose support event you want to create on #CHOEAEDOL\nApril 15-21\n\n❤️We will create a fundraising event for the winn…","sum(retweet_count)":2343191}
{"text":"RT @kpopspotifydata: Fastest Songs By Korean Artists To Reach 600 MILLION Streams On Spotify :\n\n#1 @BTS_twt - Dynamite - 144 Days\n#2 #BTS -…","sum(retweet_count)":174692}
{"text":"RT @kpopidol_en: Announcing the 120th #charityfairy★\n#Jin #BTS \n\nCelebrating #10300DaysWithJin  \n₩500k($410) Charity donated in the name of…","sum(retweet_count)":56222}
{"text":"RT @kpopidol_en: 👼Announcing the 65th #CharityAngel 👼\n#EXO #엑소 \n\n₩500k($410) Charity donated in the name of EXO~\n\n🏠Vote for your Bias\n💎Ido…","sum(retweet_count)":51854}
{"text":"RT @kennethcolereal: \"BTS helped save my mental health\" - @MsLeaSalonga https://t.co/uQBGlpwRF2 #BTS #kpop","sum(retweet_count)":30034}
{"text":"RT @kpopidol_en: 🖤❤️DONATION CERTIFICATION❤️🖤\n\n107th #CharityFairy : #DO #EXO\n\nIdols who receives &gt; 55,555,555 votes during anniversaries wou…","sum(retweet_count)":19719}
{"text":"RT @dreamwastaken: stop making fun of fandoms.\n\n#kpop is OUTSTANDING.\n\n#muffintwt is AMAZING.\n\n#sleepytwt is INCREDIBLE.\n\n#dttwt\n\n#hermitcr…","sum(retweet_count)":16860}
{"text":"RT @kpopggsuperior: .@BLACKPINK's #LISA is now the most subscribed Kpop Female Solo Artist/Individual on YouTube (5.65M) surpassing her bes…","sum(retweet_count)":10718}
{"text":"RT @kpopiness: At least he touches grass unlike kpop stans","sum(retweet_count)":8444}
{"text":"RT @kpop_sbs: [📹#사이드캠] TREASURE - MY TREASURE\n\n#인기가요 #TREASURE #트레저 #MYTREASURE @ygtreasuremaker\n\n💎https://t.co/hZDJcnoUZt https://t.co/jza…","sum(retweet_count)":7531}
{"text":"RT @kpophappenings_: when that kpop boy gave a plushie to a fan who was in a wheelchair today","sum(retweet_count)":7292}
{"text":"RT @ericnamofficial: Fam - please take a moment to sign this petition. We need these acts of hate to end NOW. https://t.co/ddLwMHBH1G #kpop…","sum(retweet_count)":7118}
{"text":"RT @kpophighindia: \"I don't want my face to be on every Billboard, but I want our kind, Desis to be known in the mainstream\" says Banglades…","sum(retweet_count)":6226}
{"text":"RT @mtvasia: february is right round the corner, so i wanna know which feb comeback are you most HYPED about? 🙌 \n\n#kpop #THESHOW #comeback…","sum(retweet_count)":5169}
{"text":"RT @dispatchsns: Which style do you prefer?\n\n🔗https://t.co/gvztkhTyfw\n\n#NCT #엔시티 #TAEYONG #태용 #tiktokstage #틱톡스테이지 #kpop #fyp","sum(retweet_count)":4801}
{"text":"RT @kpoplover727: Baekhyun said recently that Chanyeol's fine \n\n😬😬😬😬 😭😭😭😭😭😭😭 💞","sum(retweet_count)":3566}
{"text":"RT @radiokpopway: 🚨THE REQUESTS PLAYLIST🚨\n(Top 30 most requested)\n\nRequest your favorite #kpop songs!\n\nRequest time: Feb.12, 11pm to Feb.13…","sum(retweet_count)":2858}
{"text":"RT @pressreels: @_Weeekly's cuteness and freshness tickles us! Look forward to their honesty #kpop\n\nNOW: https://t.co/EWsUtD15T2 https://t.…","sum(retweet_count)":2714}
{"text":"RT @kpopggsuperior: .@BLACKPINK's #LISA &amp;amp; #JENNIE are currently tied as the Most Subscribed Kpop Female Solo/Individual on YouTube (5.64M)…","sum(retweet_count)":2649}
{"text":"RT @kpopggsuperior: \"Celebrity\" by #IU becomes the first song by a Female Artist to achieve 300th Perfect All-Kill in history 👏✨🔥 https://t…","sum(retweet_count)":2416}
```

Which US states tweets the most about Kpop?

- California : 42 tweets
- Texas: 70 tweets
- Illinois: 31 tweets
- New York: 32 tweets


```
{"Place":["Rio de Janeiro, Brazil"],"count":197}
{"Place":["İstanbul, Türkiye"],"count":89}
{"Place":["Myanmar"],"count":64}
{"Place":["Sao Paulo, Brazil"],"count":62}
{"Place":["Jeddah, Kingdom of Saudi Arabia"],"count":49}
{"Place":["Riyadh, Kingdom of Saudi Arabia"],"count":47}
{"Place":["Ciudad Autónoma de Buenos Aires, Argentina"],"count":46}
{"Place":["Los Angeles, CA"],"count":42}
{"Place":["Houston, TX"],"count":38}
{"Place":["Bogotá, D.C., Colombia"],"count":35}
{"Place":["Manhattan, NY"],"count":32}
{"Place":["Saladoblanco, Colombia"],"count":32}
{"Place":["Chicago, IL"],"count":31}
{"Place":["Brasília, Brazil"],"count":29}
{"Place":["Dallas, TX"],"count":27}
{"Place":["Toronto, Ontario"],"count":26}
{"Place":["New Delhi, India"],"count":25}
{"Place":["Dubai, United Arab Emirates"],"count":25}
```

Melissa: Twitter Data Analysis on Languages

Analysis on tweets with BTS and BTS-related hashtags and mentions in different languages:

- How many languages are tweeting about BTS?
- What is the distribution of languages?

Languages

```
"created_at": "2021-02-17T01:36:18.000Z",
"id": "1361851939273596930",
"text": "@bts_bighit HALA OMG CUTEEEEE",
"lang": "et"
```

```
"lang": "es",
"id": "1361849831011024896",
"created_at": "2021-02-17T01:27:56.000Z",
"text": "@bts_bighit Estoy llorando mares"
```

```
"lang": "pt",
"id": "1361852301540020224",
"text": "@bts_bighit Amei o Bangtani! Kkk💜💖💗✨",
"created_at": "2021-02-17T01:37:45.000Z"
```

```
"lang": "in",
"text": "@bts_bighit @ARMYTEAMIID ada yg tau cara download video design ruang semua member di sini?",
"id": "1361850443488395266",
"created_at": "2021-02-17T01:30:22.000Z"
```

lang

Note: if no language classification can be made the provided result is 'und' (for undefined).

Example: `recommend #paris lang:en`

The list below represents the currently supported languages and their corresponding BCP 47 language identifier:

Amharic: `am`	German: `de`	Malayalam: `ml`	Slovak: `sk`
Arabic: `ar`	Greek: `el`	Maldivian: `dv`	Slovenian: `sl`
Armenian: `hy`	Gujarati: `gu`	Marathi: `mr`	Sorani Kurdish: `ckb`
Basque: `eu`	Haitian Creole: `ht`	Nepali: `ne`	Spanish: `es`
Bengali: `bn`	Hebrew: `iw`	Norwegian: `no`	Swedish: `sv`
Bosnian: `bs`	Hindi: `hi`	Oriya: `or`	Tagalog: `tl`
Bulgarian: `bg`	Latinized Hindi: `hi-Latn`	Panjabi: `pa`	Tamil: `ta`
Burmese: `my`	Hungarian: `hu`	Pashto: `ps`	Telugu: `te`
Croatian: `hr`	Icelandic: `is`	Persian: `fa`	Thai: `th`
Catalan: `ca`	Indonesian: `in`	Polish: `pl`	Tibetan: `bo`
Czech: `cs`	Italian: `it`	Portuguese: `pt`	Traditional Chinese: `zh-TW`
Danish: `da`	Japanese: `ja`	Romanian: `ro`	Turkish: `tr`
Dutch: `nl`	Kannada: `kn`	Russian: `ru`	Ukrainian: `uk`
English: `en`	Khmer: `km`	Serbian: `sr`	Urdu: `ur`
Estonian: `et`	Korean: `ko`	Simplified Chinese: `zh-CN`	Uyghur: `ug`
Finnish: `fi`	Lao: `lo`	Sindhi: `sd`	Vietnamese: `vi`
French: `fr`	Latvian: `lv`	Sinhala: `si`	Welsh: `cy`
Georgian: `ka`	Lithuanian: `lt`		

IETF language tag

An IETF BCP 47 language tag is a code to identify human languages. For example, the tag en stands for English; es-Latin American Spanish; rm-sursilv for Sursilvan; gsw-u-sd-

[Building rules | Docs | Twitter Developer]

Language Statistics

- Our sample data consisted of 714, 836 tweets
- Out of those tweets, people tweeted in 64 different languages

```
total tweets about BTS
+------------+
|total_tweets|
+------------+
|714836      |
+------------+
```

```
number of languages
+--------------------+
|count(DISTINCT lang)|
+--------------------+
|64                  |
+--------------------+
```

Language Statistics

- Top results out of total sample:
  - English (33.3%), Japanese (14.7%), “Undefined”* (8.6%), Korean (8.6%), Spanish (7.8%)
- Least popular languages (<0.0000013%):
  - Maldivian (dv), Lao (lao), Armenian (hy), Georgian (ka)

lang	count	lang_to_total_ratio
en	237903	0.33280780486713035
ja	105124	0.14706030474122736
und	61767	0.08640723186856845
ko	58544	0.08189850539144643
es	55966	0.07829208377865693
th	42058	0.05883587284356132
pt	33260	0.04652815470961171
in	28573	0.03997140602879542
ar	21328	0.029836214180595268
tr	17710	0.02477491340671147
fr	10083	0.014105333251263227
tl	8658	0.01211186901610999
hi	4831	0.006758193487737048
it	3541	0.004953583759072011
ru	3264	0.004566082290203627
de	2138	0.0029908958138649983
nl	1982	0.0027726639397008543
fa	1756	0.002456507506616902
pl	1752	0.0024509118175357705
sl	128	1.7906205059622067E-4
mr	104	1.454879161094293E-4
is	104	1.454879161094293E-4
te	103	1.4408899383914632E-4
sr	76	1.063180925415060 3E-4
gu	56	7.833964713584655E-5
ml	52	7.274395805471465E-5
bg	47	6.574934670329977E-5
pa	41	5.7355813081601934E-5
kn	40	5.595689081131896E-5
ps	28	3.9169823567923274E-5
am	23	3.21752122165084E-5
si	14	1.9584911783961637E-5
ckb	13	1.8185989513678664E-5
km	13	1.8185989513678664E-5
or	12	1.6787067243395687E-5
dv	9	1.2590300432546767E-5
lo	5	6.99461135141487E-6
hy	4	5.595689081131896E-6
ka	3	4.196766810848922E-6

*If no language classification can be made, the provided result is “und” for undefined

Language Statistics and Timezones

"Americas" ~7-8pm CST

```
language count / total tweets = ratio
+----+-----+---------------------+
|lang|count|lang_to_total_ratio  |
+----+-----+---------------------+
|ko  |7874 |0.2830744895024446   |
|ja  |7691 |0.2764955421340236   |
|en  |5241 |0.1884167385677308   |
|in  |1802 |0.06478285878631004  |
```

Korean: 28.3%
Japanese: 27.6%
English: 18.8%

"Asia" ~7-8pm

```
+----+-----+---------------------+
|lang|count|lang_to_total_ratio  |
+----+-----+---------------------+
|ko  |11463|0.349407138720395    |
|und |6919 |0.21090011278080897  |
|en  |6356 |0.19373914103697382  |
|ja  |2285 |0.0696497698661871   |
|in  |2034 |0.06199896363580943  |
|es  |1409 |0.042948151309171824 |
```

Korean: 34.9%
English: 19.4%
Japanese: 6.96%
Indonesian: 6.2%

"Europe" ~7-8pm

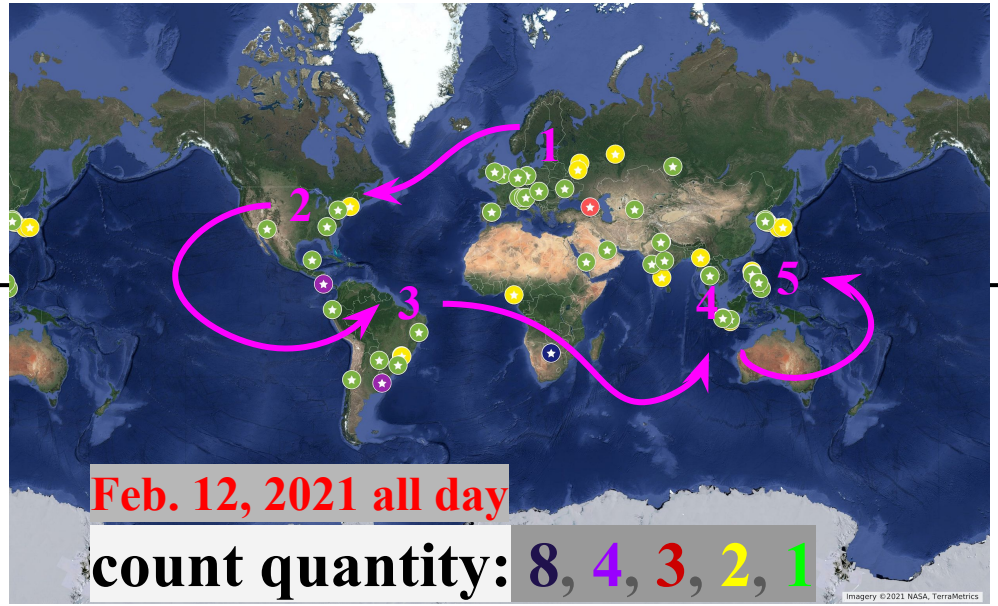
```
+----+-----+---------------------+
|lang|count|lang_to_total_ratio  |
+----+-----+---------------------+
|ja  |8101 |0.31402876303446137  |
|ko  |7674 |0.2974764507500872   |
|en  |4228 |0.1638950265534752   |
|es  |1385 |0.053688413381400936 |
|in  |1298 |0.05031592820870644  |
|und |1178 |0.04566422452223127  |
|pt  |836  |0.03240686901577703  |
|fr  |457  |0.017715238205992946 |
```

Japanese: 31.4%
Korean: 29.7%
...
Portuguese: 3.2%
French: 1.77%

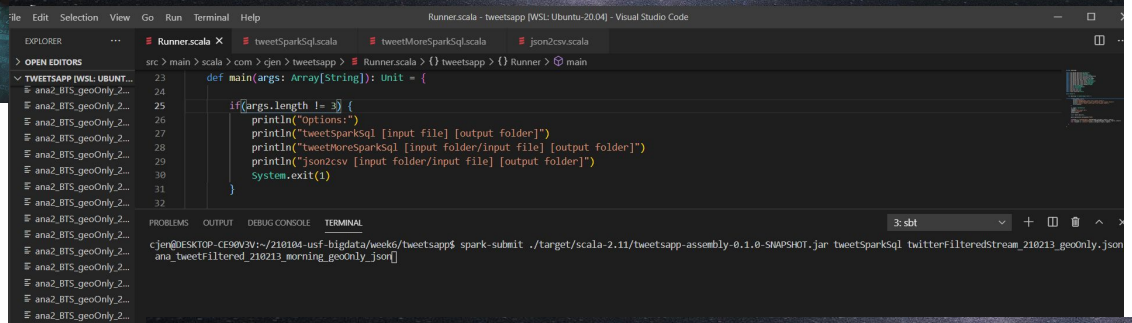
Mindy: How is #BTS distributed globally?

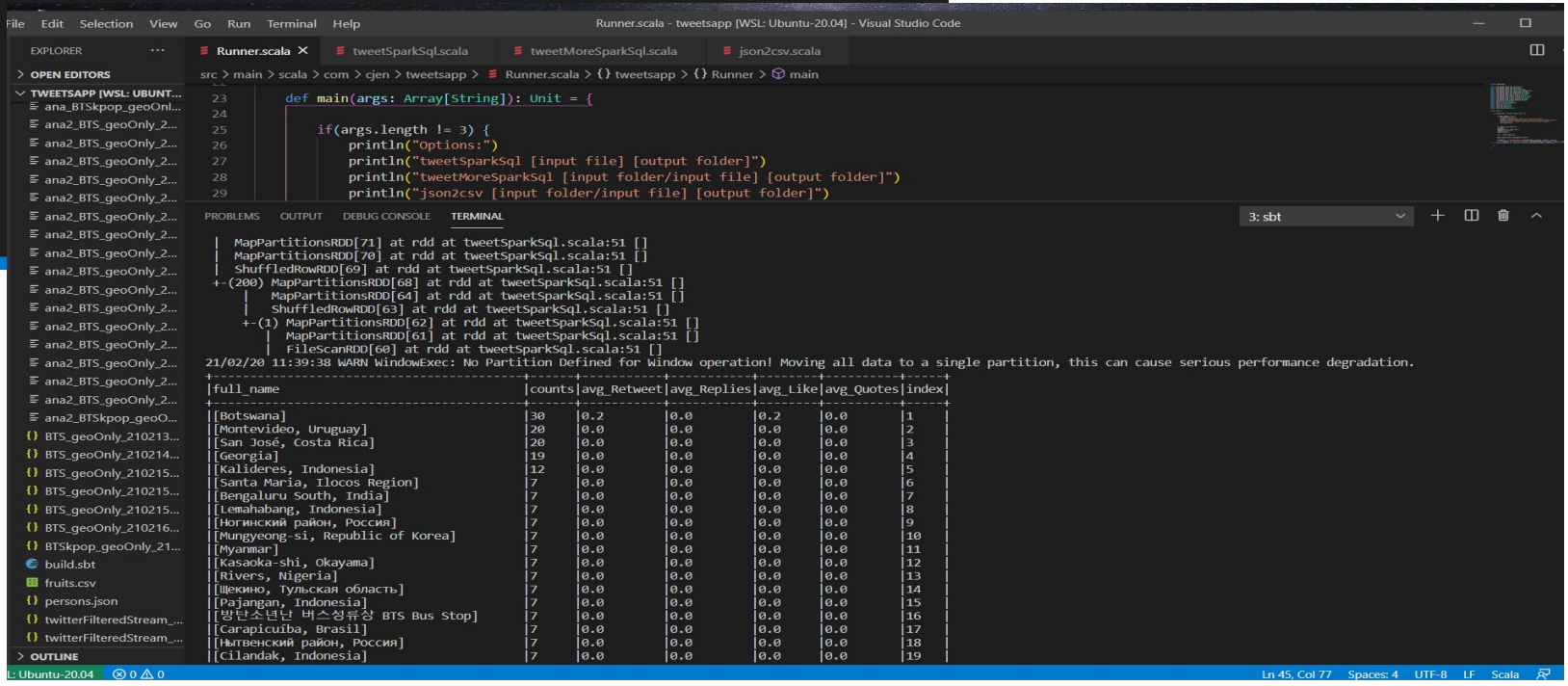
Q1: What countries would you suggest BTS to hold a series of global concert tours in 2022?

Q2: What languages would you recommend BTS to speak in their global concert tours?



Mindy: How is #BTS distributed globally?

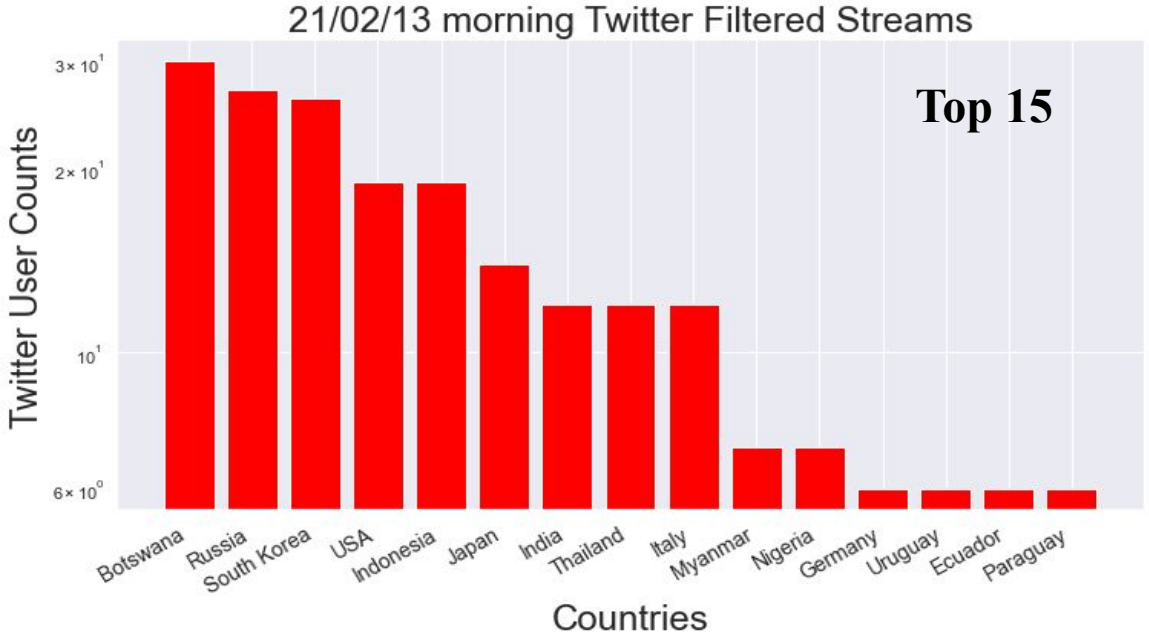




Q1: What countries would you suggest BTS to hold a series of global concert tours in 2022?

Tweet texts MUST contain **BTS** and/or **kpop**

More in Appendix

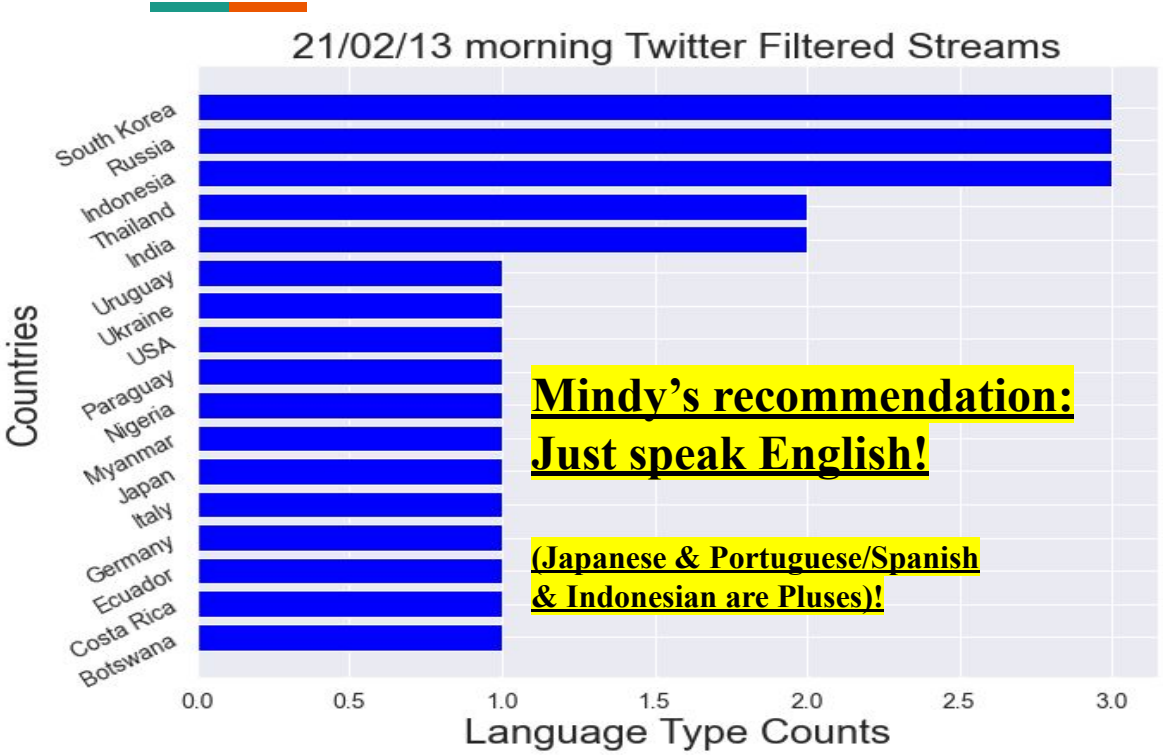


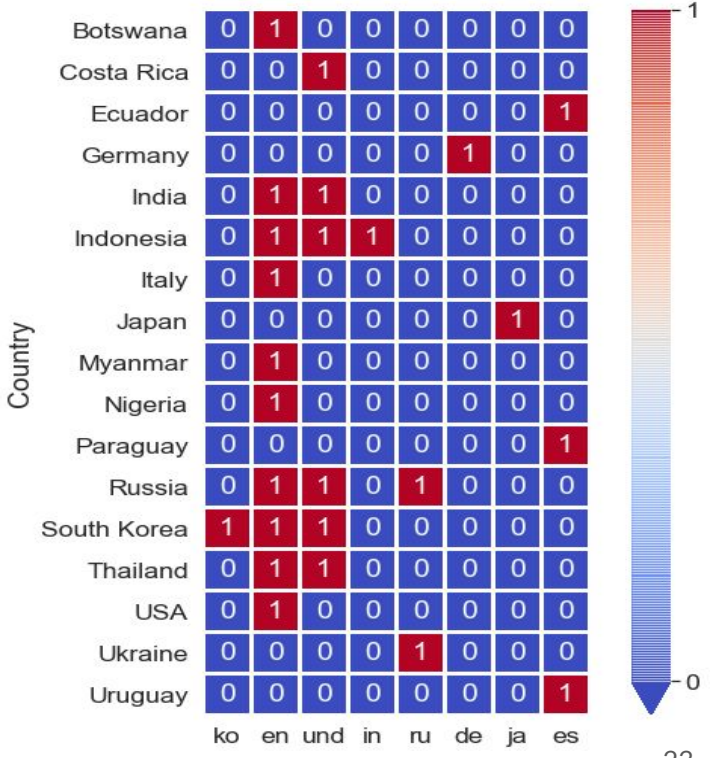
2/12 all day, 2/13 afternoon, 2/14 afternoon
2/15 morning, 2/15 afternoon, 2/15 night-1, night-2
2/16 morning

Mindy's recommendation: Italy (1), NYC (2), Brazil (3), Indonesia (4), Japan (5)

Q2: What languages would you recommend BTS to speak in their global concert tours?

More in Appendix





Conclusion

- **Clair**
  - People who tweet about #BTS commonly add members from the group to their tweet.
  - People also tweet about other musical acts from south korea with #BTS
  - The BTS tweets in english tend to be higher on average then their tweets in korean
- **Yasmin**
  - Most popular words are Army, Favorite, and @BTS_twt. This varies depending on the time of day but popular words show up at 10pm the most
- **Jeff**
  - Ateez, Blackpink, Keeper, exo are kpop artists that are also popular around the world also
  - Blackpink is trending in twitter more than BTS
  - Texas tweets more about kpop than other states followed by California, New York and Illinois
- **Melissa**
  - Languages: There is a large amount of language diversity among BTS tweets since 64 languages out of 70 supported languages tweeted about BTS. Some languages tweet more than others at certain times
- **Mindy**
  - I would suggest BTS to hold concert tours in countries as follows: Italy, NYC, Brazil, Indonesia and Japan
  - I would advise BTS to primarily speak English in their concert tours. However, it's better to also speak a bit of Japanese in Japan, Indonesian in Indonesia, Spanish & Portuguese in both Italy and Brazil in order to gain their popularities and visibilities in these countries.

Courtesy to Jeff (volunteered to manage our GitHub project repo.)

Thank You / Q&A / GitHub

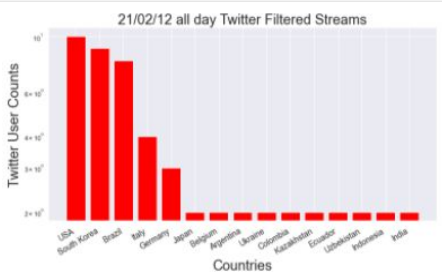
Github Link

https://github.com/Jeffy892/project-2

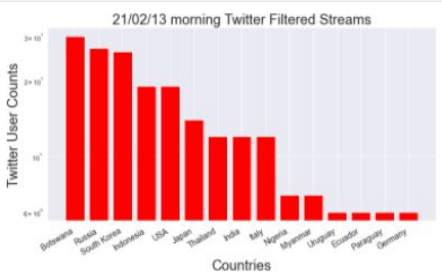
We're ready to move on to Project 3...

Appendix

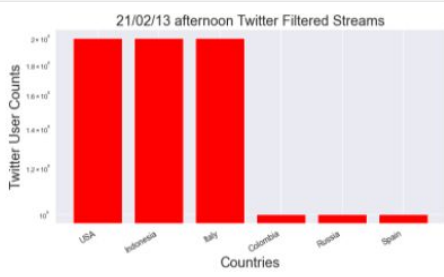
02/12 all day



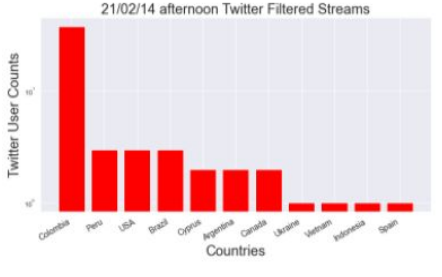
02/13 morning



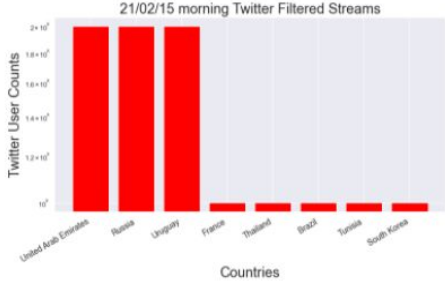
02/13 afternoon



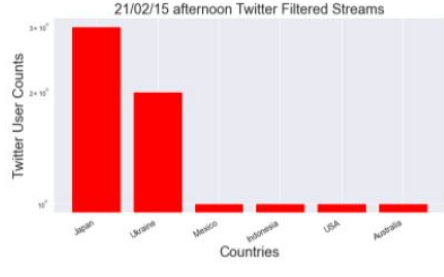
02/14 afternoon



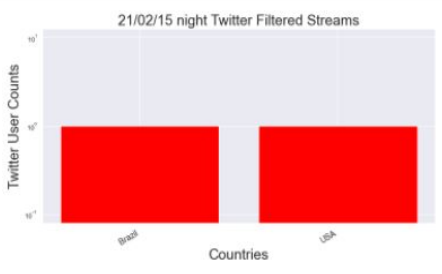
02/15 morning



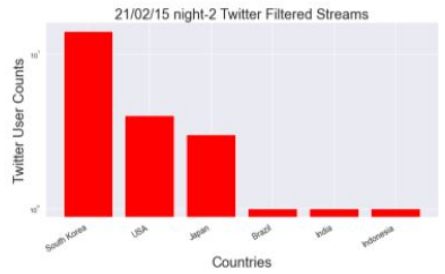
02/15 afternoon



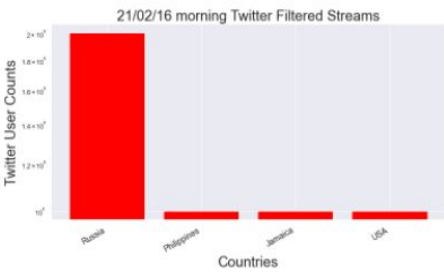
02/15 evening

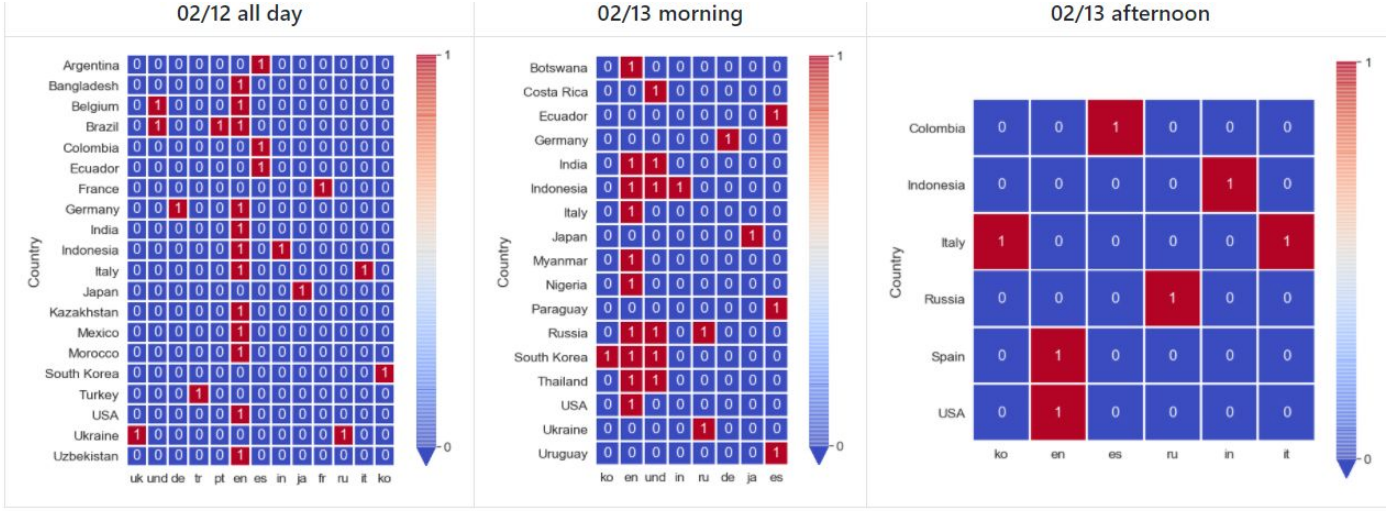


02/15 night



02/16 morning




02/12 all day
Argentina
Bangladesh
Belgium
Brazil
Colombia
Ecuador
France
Germany
India
Indonesia
Italy
Japan
Kazakhstan
Mexico
Morocco
South Korea
Turkey
USA
Ukraine
Uzbekistan
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02/13 morning
Botswana
Costa Rica
Ecuador
Germany
India
Indonesia
Italy
Japan
Myanmar
Nigeria
Paraguay
Russia
South Korea
Thailand
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Cyprus
Indonesia
Peru
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Thailand
Tunisia
United Arab Emirates
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02/15 afternoon
Australia
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Japan
Mexico
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