# SPOTIFY ON PANDEMIC

CHANGE IN TRENDS OF MUSIC DURING COVID-19 LOCKDOWN

Team 7

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## WHAT ARE WE INTERESTED IN?



#### THE MUSIC TREND BEFORE/AFTER COVID-19

What kind of music people would listen to when they're on lockdown? Is there any noticeable change?

#### **COUNTRY/REGIONAL DIFFERENCES**

Is the trend any different across different countries? Is it related to how each country's dealing with the pandemic?

## DATASET

#### SPOTIFY DATASET 1921-2020, 160K+ TRACKS

- Artists
- Duration (ms)
- Characteristics of Music
  - o Acousticness
  - o Danceability
  - o Liveness
  - o etc.

# acousticness =	▲ artists =	# danceability =	# duration_ms =	# energy =	#
The index of track (Arbitrarily ordered)	The relative metric of the track being acoustic	The list of artists credited for production of the track	The relative measurement of the track being danceable	The length of the track in milliseconds (ms)	TI
0 1	33375 unique values	0.65 - 0.67 Count: 6,206	5108 5.40m		0
0.995	['Carl Woitschach']	0.708	158648	0.195	0
0.994	['Robert Schumann', 'Vladimir Horowitz']	0.379	282133	0.0135	0
0.604	['Seweryn Goszczyński']	0.7490000000000001	104300	0.22	0
0.995	['Francisco Canaro']	0.780999999999999	180760	0.13	0
0.99	['Frédéric Chopin', 'Vladimir Horowitz']	0.21	687733	0.204	0
0.995	['Felix Mendelssohn', 'Vladimir Horowitz']	0.424	352600	0.12	0
0.956	['Franz Liszt', 'Vladimir Horowitz']	0.444	136627	0.197	0
0.988	['Carl Woitschach']	0.555	153967	0.421	0
0.995	['Francisco Canaro', 'Charlo']	0.6829999999999999	162493	0.207	0

#### DATASITI

#### SPOTIFY'S WORLDWIDE DAILY SONG RANKING

- Position on Charts
- Tracks
- # Streams

The data we find on Kaggle is outdated (2017-2018) but they have provided us with a crawler

Or we can obtained the data manually at spotify charts website

<b>⊜</b> Spo	otify		Charts	
TOP 200	) <b>\</b>	/IRA	L 50 Filter by GLOBAL V	10/31/2020 ▼
				STREAMS ?
			positions by Ariana Grande	6,396,150
20			Mood (feat. iann dior) by 24kGoldn	5,498,059
			<b>Dakiti</b> by Bad Bunny, Jhay Cortez	4,483,611
T. M.			Lemonade (feat. Gunna, Don Toliver & NAV) by Internet Money	4,433,379
			<b>34+35</b> by Ariana Grande	4,215,780
			Blinding Lights by The Weeknd	3,833,640
			WAP (feat. Megan Thee Stallion) by Cardi B	3,716,587
			Hawái by Maluma	3,674,200
DYNOMITE DYNOMITE DYNOMITE DYNOMITE DYNOMITE DYNOMITE			Dynamite by BTS	3,626,329
63	10		What You Know Bout Love by Pop Smoke	3,549,812

# SHOPE OF ANALYSIS



### **MONTHLY TRENDS**

Approximately from December 2019 - Current Date



### **COUNTRY-BASED TRENDS**

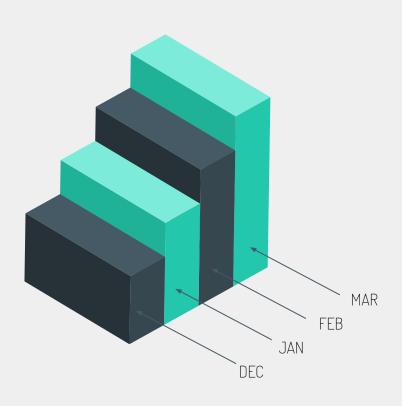
See if we can find any noticeable distinguish in different countries



## METHODS

- 1. K means clustering to categorize the data
- 1. Chi squared test
- 1. Correlation testing
- 1. Regression analysis

## WEUALIZATION



#### **GRAPH OF POPULARITY OVER TIME**

Compared number of stream times, ranking of music of each characteristics

#### **COMPARISON WITH COVID-19 SITUATION**

E.g. with graphs of recognized cases, lockdown policy, etc. over time

## VISUALIZATION

Visualize country-based information with maps, e.g. colored maps of popularity of music with certain characteristics, top genres of each country, etc.



# PLAN

Week	Tasks	Responsible Members
# 1 (11/03 - 11/10)	Collect/Examine Datasets	Peerapon/Wasachon
# 2 (11/11 - 11/17)	Perform Analysis with R code	Yang Zi Dong/ Mohamed
# 3 (11/18 - 11/24)	Visualization of the data	All
# 4 (11/25 - 11/31)	Final Report	All

# THANK YOU!

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