

WEEBOI MUSIC

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Motivation

In our experience, different weather conditions will affect the type of music that we listening to. For example, when it's raining, we usually listen to slow music. So we want to know that different weather conditions in different country will affect to type of music in the same way or not.

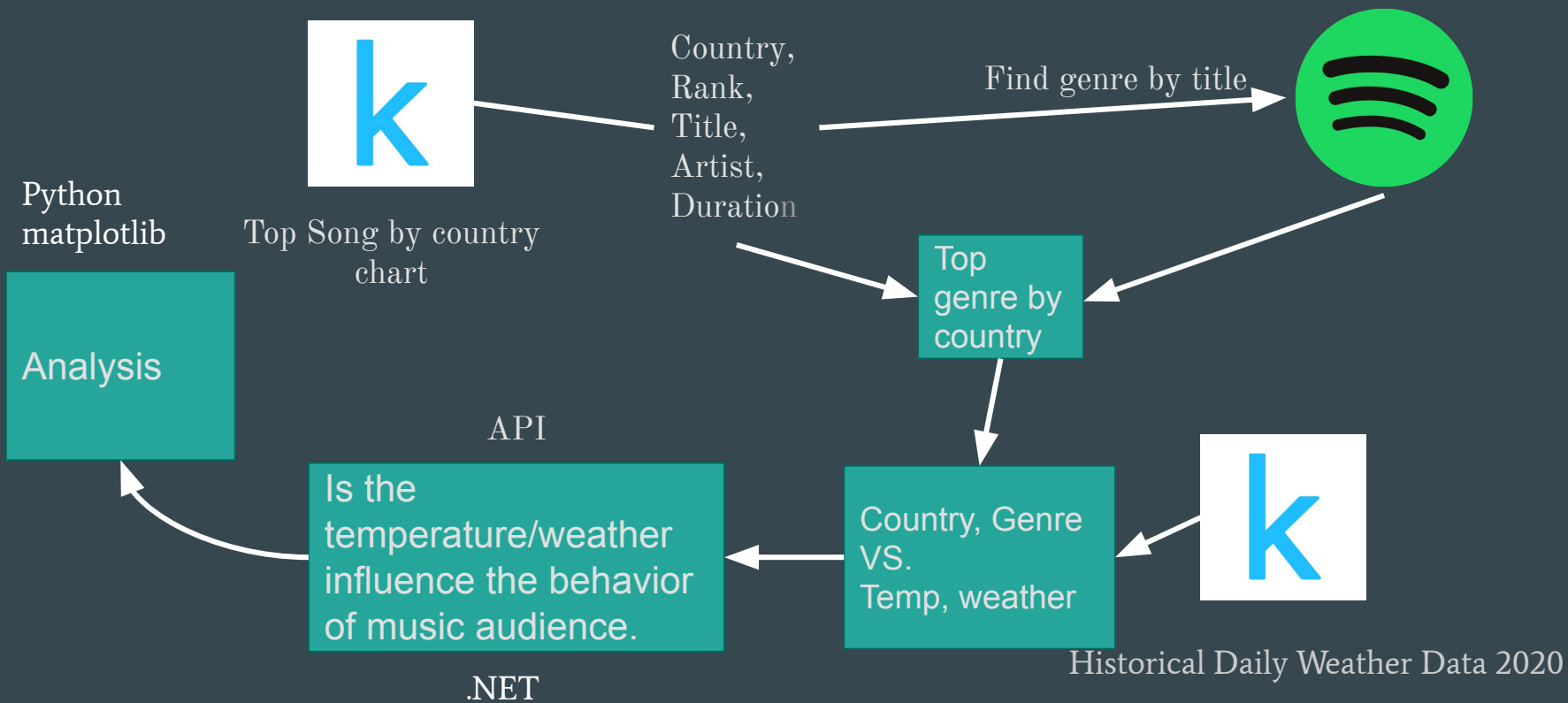
Pain Point

From our motivation, we want to know the relationship between temp/weather and music genre. But the top chart data from every country is very large, this can be a very time consuming if we look at the data one by one.

Data sources

- Kaggle
 - Spotify Chart
 - Historical Daily Weather Data 2020
- Spotify api


Data pipeline



Database schemas

Name	Type
id 	int(11)
date	datetime
country	text
weather	text

Weather

Name	Type
id 	int(11)
date	datetime
region	text
genres	text
number	int(11)

Genres

#	Name	Type	
1	id	int(11)	
2	country	text	U
3	date	datetime	
4	temp	float	

Temp

Data Sharing API

Get top genre with temperature data

GET /getTopGenreWithTemp

Parameters

Name	Description
fromDate string(\$date-time) (query)	<input type="text" value="fromDate"/>
toDate string(\$date-time) (query)	<input type="text" value="toDate"/>

```
[
  {
    "region": "Andorra",
    "topListByMonth": [
      {
        "temp": 47.835,
        "region": "Andorra",
        "genre": "latin pop",
        "totalSong": 6,
        "date": "2020-01-04T00:00:00"
      },
      {
        "temp": 49.115,
        "region": "Andorra",
        "genre": "dance pop",
        "totalSong": 7,
        "date": "2020-01-05T00:00:00"
      }
    ]
  },
  {
    ...
  }
]
```

Data Sharing API

Get top genre with weather data

GET **/getTopGenreWithWeather**

Parameters

Name	Description
fromDate string(\$date-time) (query)	<input type="text" value="fromDate"/>
toDate string(\$date-time) (query)	<input type="text" value="toDate"/>

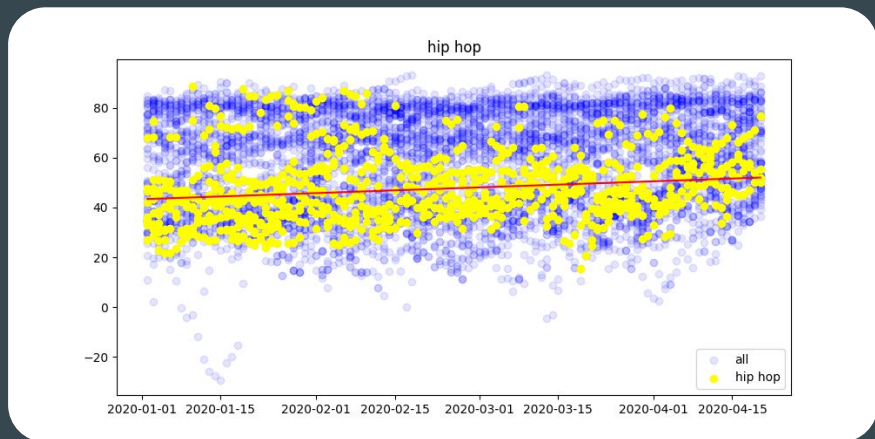
```
[
  {
    "region": "Andorra",
    "topListByMonth": [
      {
        "weather": "Overcast throughout the day.",
        "region": "Andorra",
        "genre": "latin arena pop",
        "totalSong": 6,
        "date": "2020-01-02T00:00:00"
      },
      {
        "weather": "Clear throughout the day.",
        "region": "Andorra",
        "genre": "latin arena pop",
        "totalSong": 6,
        "date": "2020-01-03T00:00:00"
      }
    ]
  },
  {
    "region": "Argentina"
```


Data visualization

We compare date with the temperature and label color with genre.

Our visualization using the scatter plot from matplotlib in python.

The blue dot is all genres and the yellow dot is the genre that we are interested in.



Data Info

Our data contain 50 genres.

'pop', 'reggaeton', 'cantautor', 'r&b', 'hip hop',
'rock', 'rap', 'drill', 'adult standards', 'alt z', '8d',
'francoton', 'funk', 'chanson', 'arrocha',
'samba-enredo', 'pagode', 'bossa nova',
'guaracha', 'mgp', 'dembow', 'russian dance',
'indie', 'hollywood', 'afrobeat', 'icelandic metal',
'icelandic folk', 'indian singer-songwriter', 'lo-fi
cover', 'indonesian singer-songwriter', 'jazz',
'korean ost', 'israeli mediterranean', "muzika
l'yeladim", 'anime', 'j-division', 'kayokyoku',
'soul', 'eurovision', 'carnaval', 'carnaval limburg',
'baroque', 'opm', 'manele', 'chinese new year',
'amapiano', 'latin talent show', 'danspunk',
'basshall', 'arabesk'

And 60 country

'Andorra', 'Argentina', 'Australia', 'Austria', 'Belgium',
'Bolivia', 'Brazil', 'Bulgaria', 'Canada', 'Chile',
'Colombia', 'Costa Rica', 'Denmark', 'Dominican
Republic', 'Ecuador', 'Egypt', 'Estonia', 'Finland',
'France', 'Germany', 'Greece', 'Guatemala',
'Honduras', 'Hungary', 'Iceland', 'India', 'Indonesia',
'Ireland', 'Israel', 'Italy', 'Japan', 'Latvia', 'Lithuania',
'Luxembourg', 'Malaysia', 'Mexico', 'Morocco',
'Netherlands', 'New Zealand', 'Norway', 'Panama',
'Paraguay', 'Peru', 'Philippines', 'Poland', 'Portugal',
'Romania', 'Saudi Arabia', 'Singapore', 'Slovakia',
'South Africa', 'Spain', 'Sweden', 'Switzerland',
'Thailand', 'Turkey', 'United Arab Emirates', 'United
Kingdom', 'Uruguay', 'Vietnam'

Data Info

Temperature: -29 to 93 fahrenheit

Weather: There are 153 unique value of whether. Ex Partly cloudy throughout the day.

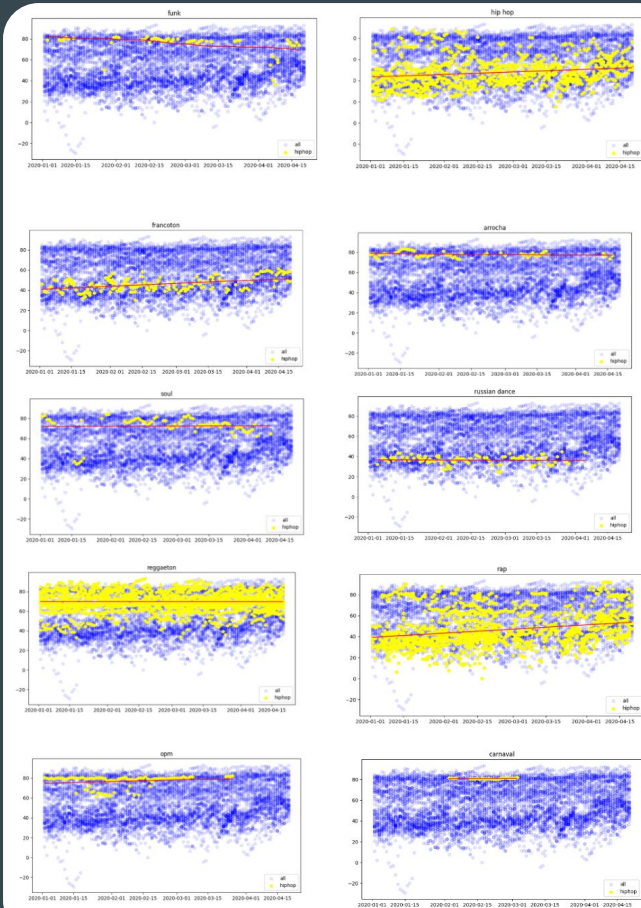
Data Analysis

From our scatter plot, we can see some relation between temperature and the listener's taste in 10 genres.

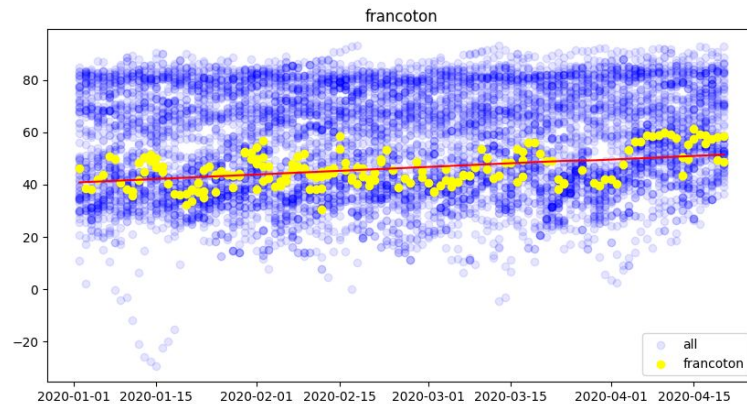
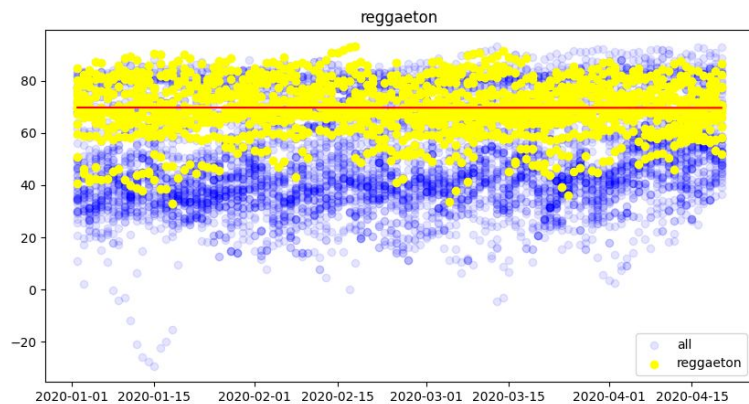
Blue point is include all genres.

Yellow

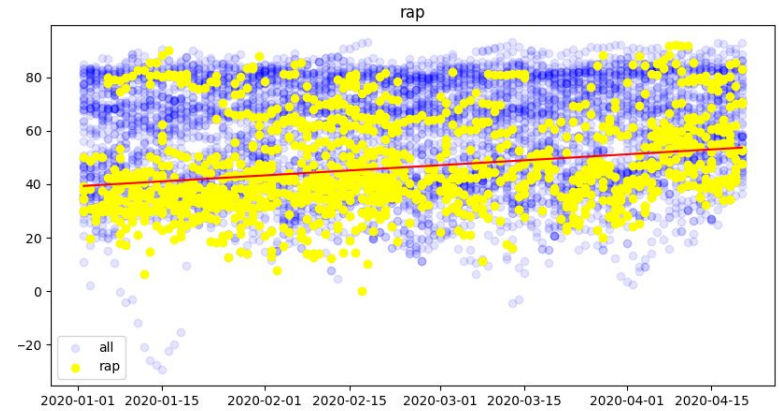
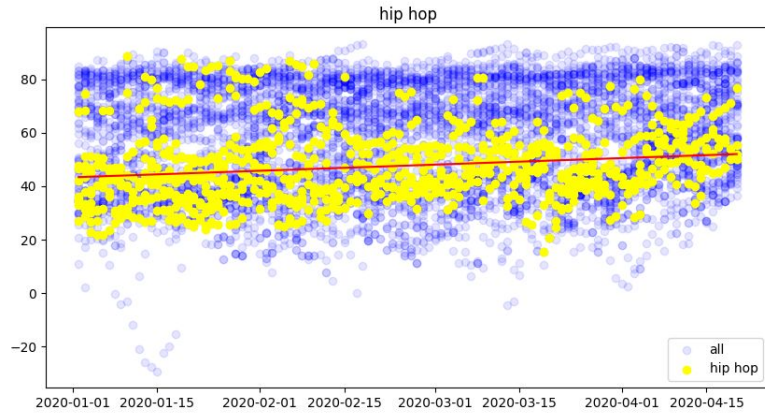
HipHop, Funk, Francoton,
Arrocha, Soul, Russian Dance,
Reggaeton, Rap, Opm, and
Carnaval.



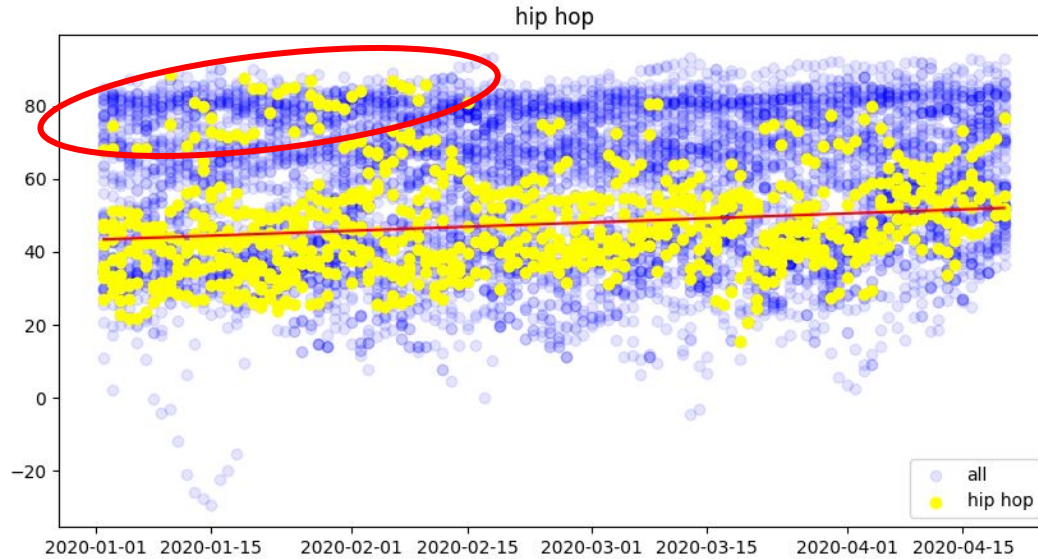
Data Analysis (Temperature)



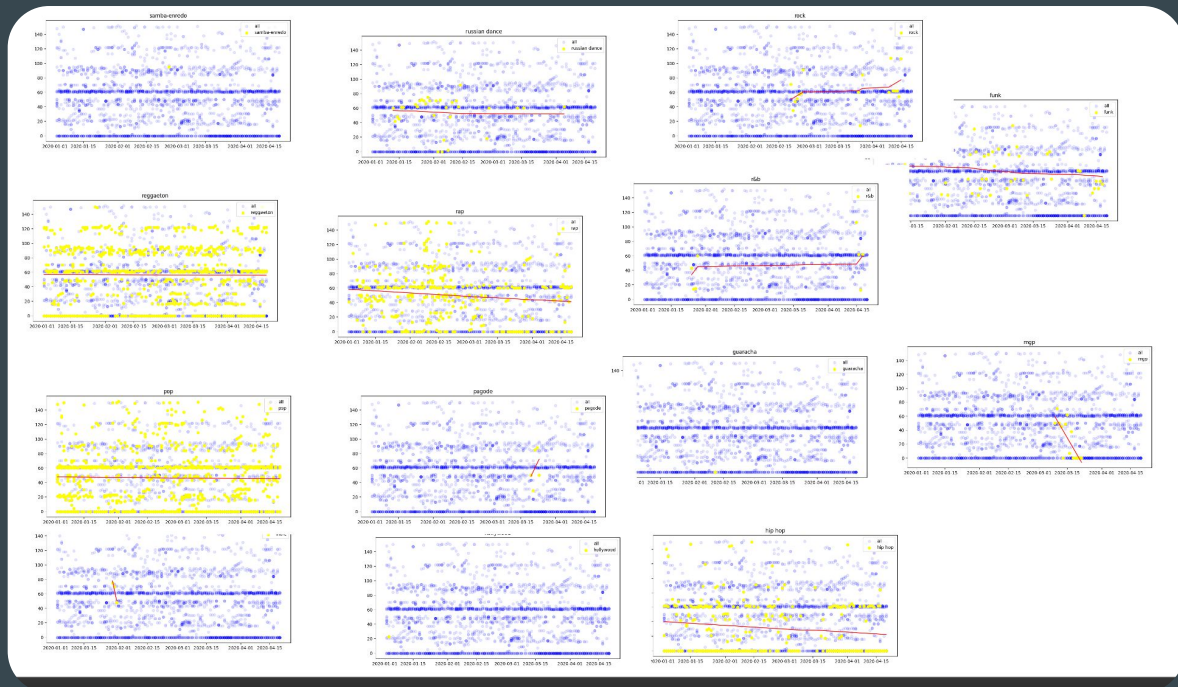
Data Analysis (Temperature)



Data Analysis (Temperature)



Data Analysis (Weather)



Conclusion

From the result the we've shown, weather doesn't have any impact on the taste of listeners. On the other hand, temperature have a impact to the taste of listeners in some genres but it is not only factor that can impact the taste of listeners.