Analyzing Song Streams on Spotify

Project Scope:

This project analyzes the artists statistics on a popular Music streaming platform called Spotify. The Document possess the objective of the project, Data source Platform and the Data Cleaning or validation process and finally the analysis results and Insights.
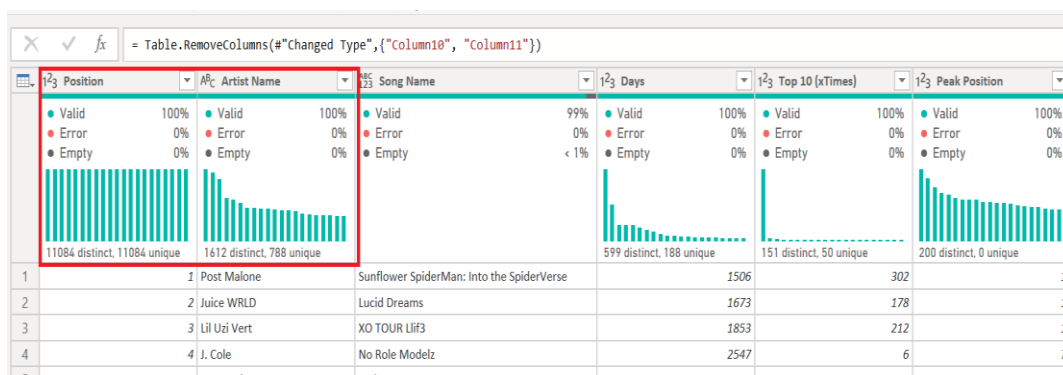
Objective:

The outcome of the project will determine the artists who are ranked frequently on Spotify and list the difference on total streams during the peak and non-peak times.

Data Source and Limitation:

The source of the data used in the project is fetched from Kaggle. The Limitation is that the Dataset is static but has the data that talks about streaming (Dynamic in Real-time) performance of the Artists on Spotify Platform and the exact time period the dataset created is unknown. These two facts lead to a conclusion that the dataset is good to perform descriptive analysis and the real time statistics cannot be calculated.

Data Exploration and validation:

- *The Below snippet shows that we have 1612 artists who listed multiple songs on this music platform and no Positions are duplicated.*

- Based on exploration, (Fig -1) the field Top 3 position (xTimes) is of Data type whole number; however, the values use special character to denote the number of times the artist reached the top position. For efficient analysis changing the header more meaningful and removing the special characters on the records.
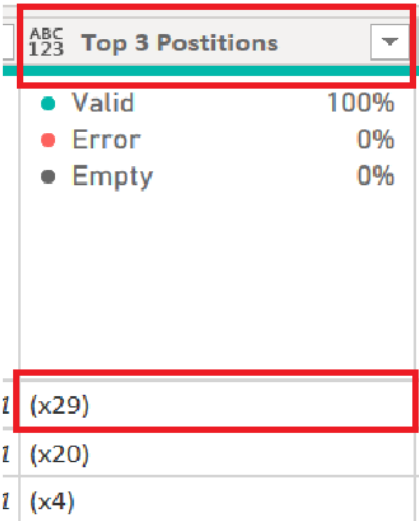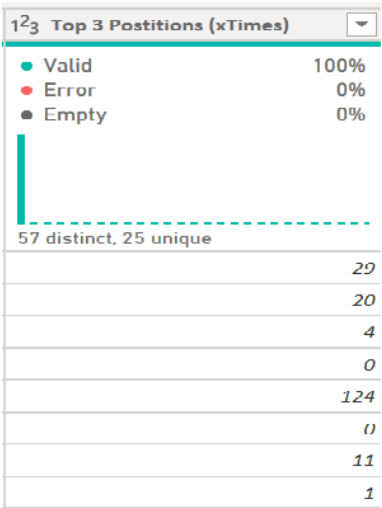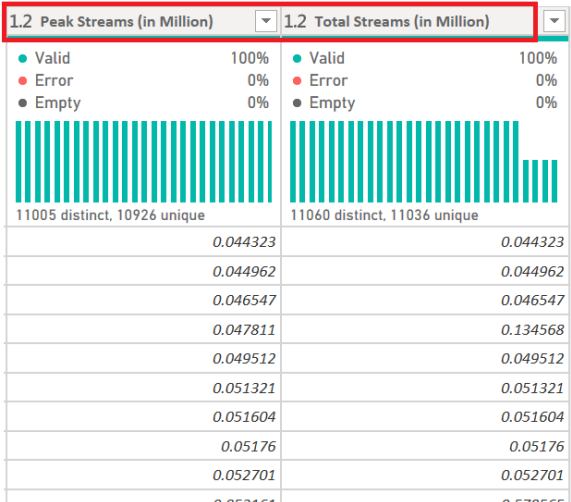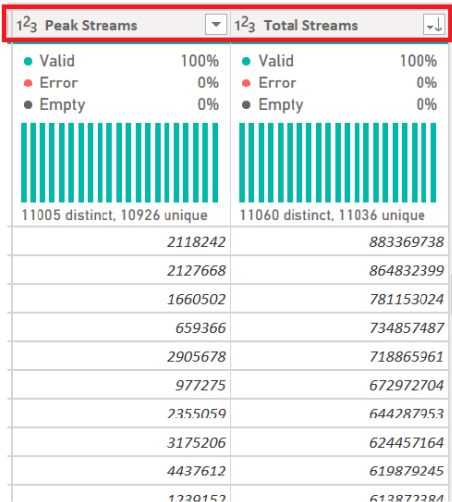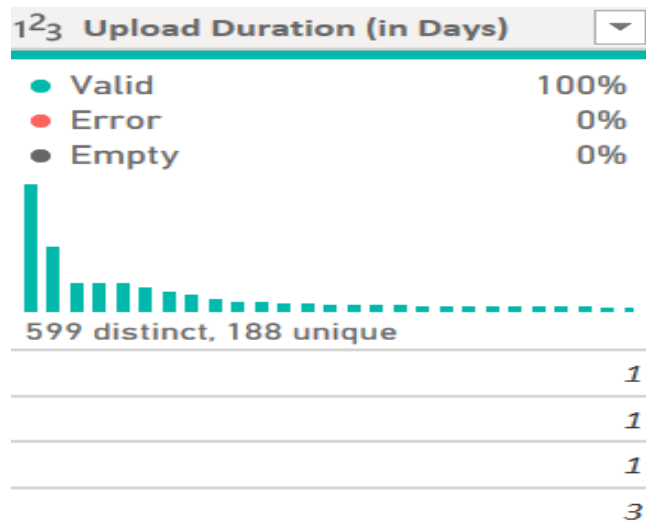

Fig -1

Fig - 2

- As the below represented streaming Count is hard to read and could potentially impact the readability of our charts, Converting the streaming data in Million.

- *Also Based on the last change, we further notice that for few songs the Peak streams and the total streams are almost the same and further exploring reveals that our Dataset possess data of songs that uploaded a 1 day ago". Hence for Better analysis on the statistics and considering the Limitation of the dataset, removing which are uploaded in the last 7 days.*

1²3 Upload Duration (in Days) ▼	
● Valid	100%
● Error	0%
● Empty	0%

599 distinct, 188 unique

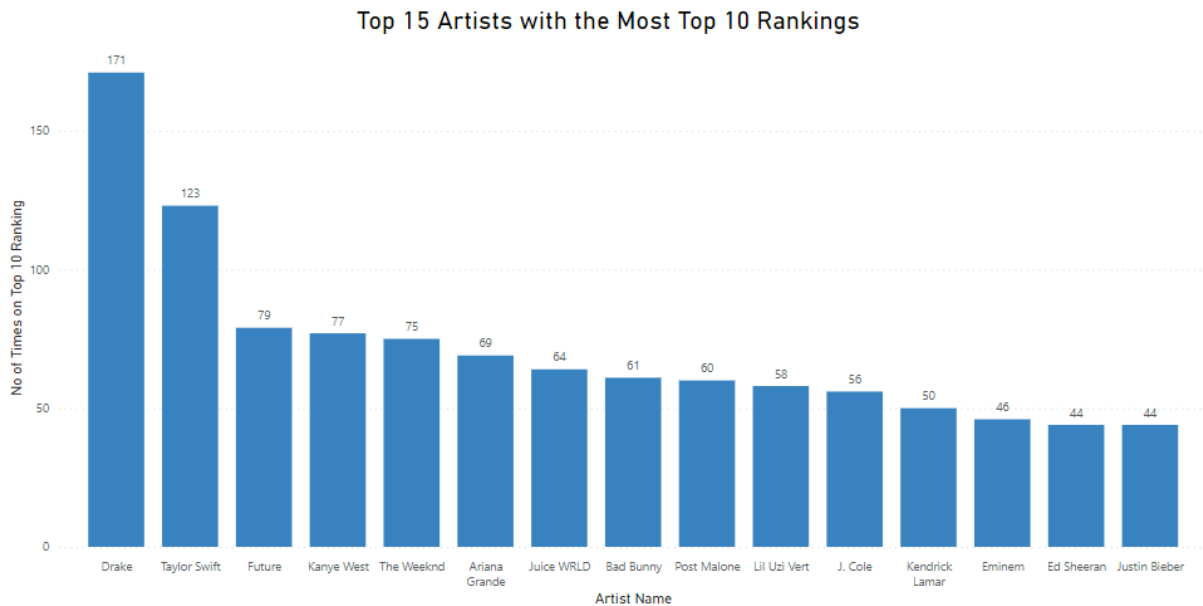|	
	1
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- Rounding off the numbers in million to two Decimal Points considering streaming count are dynamic in real – time and analyzing a dynamic data with a static dataset will not fetch appropriate result.
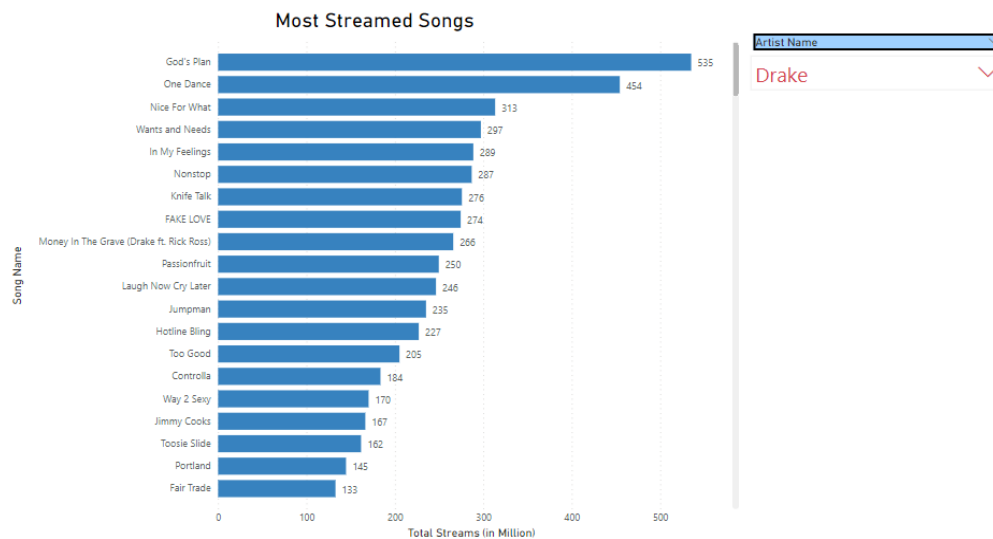
1.2 Peak Streams (in Million) ▼		1.2 Total Streams (in Million) ▼	
● Valid	100%	● Valid	100%
● Error	0%	● Error	0%
● Empty	0%	● Empty	0%
	0.05		0.58
	0.05		0.49
	0.05		0.47
	0.05		0.45
	0.05		0.57
	0.06		0.49
	0.06		0.69
	0.06		1.16
	0.06		1.3

Insights:

- *From the below chart, it looks like Drake (171 times) has ranked the top 10 ranking more times than any other artists on this platform, who is followed by Taylor swift (123 times).*

Top 15 Artists with the Most Top 10 Rankings

- *Out of Curiosity, the most streamed Drake's Song was fetched and below is the result with no one's surprise. As the Slicer is enabled in report, the top streamed song of other Artists can be fetched as well.*

Most Streamed Songs

- *A Tabular representation has been made with a calculated column to show the difference in percentage of Total streaming and Peak streaming to prove that, Most of the Audience still enjoy the song even after their peak time and it never fell 58% from Total stream.*

Song Name	Total Streams (in Million)	Peak Streams (in Million)	Peak_x_Total stream Realtion
Sunflower SpiderMan: Into the SpiderVerse	883.37	2.12	99.76%
Lucid Dreams	864.83	2.13	99.75%
XO TOUR Llif3	781.15	1.66	99.79%
No Role Modelz	734.86	0.66	99.91%
ROCKSTAR	718.87	2.91	99.60%
Goosebumps	672.97	0.98	99.85%
Blinding Lights	644.29	2.36	99.63%
Jocelyn Flores	624.46	3.18	99.49%
SAD!	619.88	4.44	99.28%
All Girls Are The Same	613.87	1.24	99.80%
HUMBLE.	606.31	4.06	99.33%
Circles	598.52	3.44	99.43%
SICKO MODE	586.64	4.13	99.30%
Drip Too Hard (Lil Baby & Gunna)	583.44	1.76	99.70%
Congratulations	546.04	1.26	99.77%
I Fall Apart	543.14	1.28	99.76%
Heat Waves	540.75	1.23	99.77%
God's Plan	534.99	4.74	99.11%

Song Name	Total Streams (in Million)	Peak Streams (in Million)	Peak_x_Total stream Realtion
Story of My Life	0.98	0.41	58.16%
When To Say When	4.58	1.64	64.19%
Anxiety Intro	6.34	2.27	64.20%
Rich Interlude	7.71	2.75	64.33%
Sasuke	3.44	1.15	66.57%
This Love (Taylorâ€™s Version)	5.28	1.76	66.67%
Currents	7.30	2.39	67.26%
SIR BAUDELAIRE	5.75	1.87	67.48%
Higher We Go Intro	3.51	1.14	67.52%
Fearless (Taylorâ€™s Version)	5.21	1.69	67.56%
Mother I Sober	5.49	1.78	67.58%
Crown	7.07	2.29	67.61%
Not You Too	5.13	1.66	67.64%
Hey Brother	2.64	0.84	68.18%