Guide: Merging and Analyzing Spotify Streaming Data

1. Introduction

This guide outlines the steps to merge your Spotify streaming data from multiple JSON files, load it into Excel using Power Query, and prepare it for analysis in Power BI or Tableau. By following these steps, you will be able to clean, transform, and visualize your streaming history efficiently.

2. Downloading Your Spotify Streaming Data

To obtain your personal streaming data from Spotify:

1. Contact Spotify to request your personal data.
2. Download the Streaming Data sent via email. The files will be named "StreamingHistory_music_*" and will be in JSON format.

3. Merging Multiple JSON Files

If you have received multiple JSON files, follow these steps to combine them into a single file:

1. Open the JSON Files in Notepad:
2. Start by opening the first JSON file in Notepad.
3. Edit the JSON Structure:
4. Locate the ending of the array "]" in the first file and replace the closing bracket "}" of the last entry with "},".
5. Open the next JSON file, copy its content, and paste it after the "}," from the first file, ensuring to remove the starting array bracket "[" and the ending array bracket "]".
6. Repeat the process for all subsequent JSON files.
7. Save the combined data as a new JSON file, e.g., Merged_SpotifyData.json.

4. Loading JSON Data into Excel via Power Query

Import the Merged JSON File:

1. Open Excel, go to the Data tab, and select Get Data > From File > From JSON.
2. Navigate to your merged JSON file and load it into Excel.
3. Edit the Code in Advanced Editor:
4. After loading the data, open the Power Query Editor.
5. Click on Advanced Editor and modify the code to ensure it aligns with your data structure. Here's an example:

```
let

    Quelle = Json.Document(File.Contents("D:\YourDirectory\Merged_SpotifyData.json")),

    #"Converted to Table" = Table.FromList(Quelle, Splitter.SplitByNothing(), null, null, ExtraValues.Error),
```

```
    #"Expanded Column" = Table.ExpandRecordColumn(#"Converted to Table", "Column1", {"endTime",
"artistName", "trackName", "msPlayed"}, {"endTime", "artistName", "trackName", "msPlayed"}),

    #"Renamed Columns" = Table.RenameColumns(#"Expanded Column",{{"artistName", "ArtistName"},
{"trackName", "TrackName"}}),

    #"Reordered Columns" = Table.ReorderColumns(#"Renamed Columns",{"endTime", "ArtistName",
"TrackName", "msPlayed"})

in

    #"Reordered Columns"
```

5. Data Transformation and Analysis

Clean and Transform the Data:

1. Use Power Query's features to clean and transform your data, such as filtering by date, renaming columns, or removing unnecessary data.
2. Leverage PowerPivot for more advanced data modeling if needed.
3. Load Data into Power BI or Tableau
4. Once the data is prepared, load it into Power BI or Tableau for visualization and analysis.
5. Create dashboards and reports to explore your streaming history, track trends, and gain insights into your listening habits.

6. Final Steps and Considerations

1. Backup Your Data: Always keep a copy of your original JSON files before performing any transformations.
2. Document Your Process: Keep a record of the steps and changes you make to ensure reproducibility and for future reference.