This report summarizes the analysis conducted on the hip-hop streaming dataset. The analysis focuses on various metrics, including revenue generated, views, and performance of individual artists and playlists. The key findings are supported by visualizations that illustrate trends and patterns in the data, providing insights into the current state of hip-hop streaming.

2. Data Overview

The dataset consists of **[459]** playlist with **[53]** columns. Each row represents a unique entry related to hip-hop streaming, capturing key metrics such as:

- **Playlist Name:** The name of the playlist featuring hip-hop tracks.
- **Album Playlist:** The specific album to which the playlist belongs.
- **Views:** The total number of views or streams for each track.
- **Estimated Revenue:** The revenue generated from the streams.

Data was collected from **[YouTube]**. The dataset underwent a thorough cleaning process to ensure accuracy and relevance for analysis.

3. Analysis Methodology

The analysis was conducted using a combination of tools and methodologies to ensure comprehensive insights:

- **Tools Used:**
    1. **Python**: The primary programming language for data analysis.
    2. **Pandas**: A data manipulation library for handling and cleaning data.
    3. **Jupyter Notebook**: An interactive coding environment for executing Python code and visualizing results.
    4. **Visual Studio Code**: Used for coding and running scripts, particularly for creating visualizations with Matplotlib.
- **Steps Taken During the Analysis:**
    1. **Data Cleaning Process**:
        - Removed duplicates and irrelevant entries.
        - Handled missing values by either filling them with appropriate values or removing rows with excessive missing data.
        - Formatted data types for consistency (e.g., converting revenue to float).
    2. **Revenue Analysis**:
        - Calculated total revenue generated from streams.
        - Analyzed revenue distribution across different artists and playlists.
        - Identified trends in revenue over time.
    3. **View Analysis**:
        - Summarized total views and average views per artist.
        - Evaluated views across various playlists to identify popular tracks.
    4. **Playlist Performance Evaluation**:

- Compared the performance of playlists based on revenue and views.
- Identified top-performing playlists and potential opportunities for artists.

4. Key_Findings.docx

Title: Key Findings from Hip Hop Streaming Analysis

51 playlists per artist, 9 artists (451)

1. Overview of Findings

- The analysis provided several insights into the streaming performance of hip-hop artists based on the data collected.

2. Revenue Insights

- **Total Revenue:** The total estimated revenue generated from streaming was $196,407,226.6.
- **Top Artists by Revenue:**
  - Cardi B: $81,776,160.7
  - Travis Scott: $30,439,874.2
  - Drake: $26,216,580.52
- **Average Revenue per Artist:** The average revenue per artist from playlists is $436,460.504 (=AVERAGE(AG2:AO2)).

3. Views Insights

- **Total Views:** The total number of views across all playlists was 1.96E+9 million.
- **Top Playlists by Views:**
  - Playlist : Best of Cardi B â™« Playlist â™« Official Music Videos (1.76E+10)
  - Playlist B: Cardi B Album 3.98E+09 views

4. Playlist Impact

- Artists featured in popular playlists saw an increase in revenue by an average of X%.
- Playlists with more than X tracks generated significantly higher revenue compared to those with fewer tracks.

5. Recommendations

- Focus marketing efforts on playlists that are performing well to maximize revenue.
- Explore collaboration opportunities with top-performing artists.

6. Conclusion

- The analysis demonstrates the significant impact of streaming playlists on artist revenue and highlights the importance of strategic playlist placement in maximizing visibility and earnings.