1. \*\*Descriptive Analysis\*\*:

- What is the average track popularity each year?

- How has the average danceability of tracks changed over the years?

- Which artists have the highest average track popularity in the dataset?

2. \*\*Exploratory Analysis\*\*:

- Is there a correlation between track popularity and other musical features like danceability, energy, or valence?

- How do various genres (from `artist\_genres`) differ in terms of musical features like loudness, tempo, or acousticness?

- Are there any distinct clusters of songs when you consider features like danceability, energy, and valence?

3. \*\*Temporal Analysis\*\*:

- Are there observable trends in certain features like speechiness or instrumentalness over the years?

- How has the distribution of major (`mode`=1) vs. minor (`mode`=0) songs changed from 2010 to 2022?

4. \*\*Comparative Analysis\*\*:

- How do the top 10% most popular tracks differ from the bottom 10% in terms of musical characteristics?

- Are certain genres more prevalent in specific years?

5. \*\*Predictive Analysis\*\*:

- Can you build a model to predict a track's popularity based on its musical features?

- Based on the trend from 2010-2021, can you forecast the predominant musical feature for songs in 2023?

6. \*\*Pattern Mining\*\*:

- Are there common patterns in terms of song features for the most popular artists? For example, do top artists consistently produce high-energy tracks?

7. \*\*Hypothesis Testing\*\*:

- Is there a statistically significant difference in the tempo of songs between two genres, say pop and classical?

- Do songs with high danceability have a significantly different liveness score than songs with low danceability?

8. \*\*Recommendation\*\*:

- Can you build a recommendation system to suggest songs similar to a given track based on its features?