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Project Progress Report

The Emotional Impact of Music: Analyzing How Musical Characteristics Influence Listeners' Well-Being

Project Scope Update

The project scope remains unchanged. It continues to explore how musical features such as valence, energy, and tempo affect listeners' emotional well-being.

Data Sources

Two Kaggle datasets were processed in Python. The *Spotify Music Dataset* was split into two parts by popularity and later merged into one after removing rows with missing values. The *Music and Mental Health Dataset* was also cleaned by dropping NaN values.

For the API component, the YouTube Data API v3 was implemented using the `googleapiclient.discovery` library. A script searches each `track_name` on YouTube and retrieves `viewCount`, `likeCount`, `commentCount`, and the top-level comments, with the API key securely stored in a `.env` file.

Issues / Difficulties

The current implementation successfully collects views, likes, comment counts, and top-level comments through Youtube API. However, the main challenge remains in analyzing comment sentiment. Further work will focus on detecting emotional tone from comment text to better understand audience reactions, for example, identifying positive and negative words and handling linguistic negations such as "not good" or "not bad."