Abstract 1:

With the popularity of music streaming services growing, so has the use of music recommendation systems. The objective of this project is to create a music recommendation system that can provide consumers tailored music suggestions based on their musical tastes. A list of suggested tracks that the user is likely to appreciate will be generated by the algorithm using user behavior data like as listening history, favorite artists, and genres along with the features of music like explicitly, dancability, energy, key, loudness and a dozen more features..

With the help of a variety of techniques, including knowledge-based graphs, neural networks, the Annoy model, and singular value decomposition (SVD), this project aims to create a music recommendation system. Users would receive tailored music suggestions from the proposed system based on their listening habits, tastes, and music characteristics. A music encyclopedia may be created with the use of the knowledge-based graph, and latent components can be extracted from audio signals or metadata using neural networks. Fast and effective similarity searches will be made possible using the Annoy model, and suggestions will be produced through matrix factorization using SVD. The system's performance will be compared to other cutting-edge music recommendation systems, and it will be judged on its accuracy, coverage, and diversity criteria. By offering more precise and varied music suggestions, the suggested approach has the potential to improve the user experience.

Abstract 2:

With the popularity of music streaming services growing, so has the use of music recommendation systems. The objective of this project is to create a music recommendation system that can provide consumers tailored music suggestions based on their musical tastes. A list of suggested tracks that the user is likely to appreciate will be generated by the algorithm using user behavior data like as listening history, favorite artists, and genres along with the features of music like explicitly, dancability, energy, key, loudness and a dozen more features..

The system will employ machine learning algorithms to evaluate user data and produce recommendations, such as user based and item based collaborative filtering and content-based filtering. A knowledge graph-based strategy will also be investigated, which adds semantic connections between musical pieces to improve the precision of suggestions.

Python and a number of machine learning libraries, including scikit-learn, Tensorflow, and Keras, will be used to construct the suggested system. The effectiveness of the system will be assessed using measures like accuracy, recall, and F1 score and will be contrasted to other music recommendation systems already in use.

A highly accurate and customized music recommendation system that can provide consumers a smooth listening experience and assist them in finding new music they are likely to like is what this project is anticipated to produce.