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has participated and presented a paper titled

PERSONALIZED MUSIC RECOMMENDATION MODEL BASED ON MACHINE LEARNING

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Personalized Music Recommendation model based on Machine Learning

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***Abstract*—A music recommendation system suggests songs to an individual user on his preferences. There are many different sorts of music to choose from. The world of music is so vast that it is impossible to listen to all the songs one desires. As a result, we create a model that supports a user in discovering music that he could enjoy. It collects individuals who share the user's passions and picks knowledge and resemblance associations depending on the user's past. The information gathered from user evaluations is used to make suggestions. The main focus of the study is on the context-aware recommendation process's insufficient integration of context data with the emergence of new attractions. Using libraries like NumPy and Pandas, we used a library of songs to uncover connections across individuals and music so that a hit album might be offered to individuals derived from history. In addition to Count Vectorizer (CV), we'll use Cosine similarity (CS). In addition, when a piece of given music is processed, a front end with a flask will provide us with the suggested tracks.**

Keywords— Music recommendation system, NumPy, Pandas and Count Vectorizer.

I. INTRODUCTION

The Web's capabilities are expanding due to the fast expansion of the Internet and technology. On the one hand, the resources available through the Internet are growing increasingly abundant, bringing considerable comfort to people's lives. However, on the other side, the enormous data space provides users with more options. Simultaneously, users get lost in a sea of data to find the information they need, a phenomenon known as "information overload." To address these issues, a proposed recommendation system was developed, which dynamically offers objects that match users' interests based on their preferences [1-3].

Choosing a suitable recommendation system is critical to the effective implementation of a personalized recommendation engine, and the algorithm's performance directly affects recommendation quality. The most prevalent recommendation approaches are frequent pattern evaluation, sentiment classification recommendation, hybrid recommendation [4-8], and content-based recommendation technology [9-12].

In the field of recommendation, collaboration filtering suggestion is now the most widely used effective at the same time and the most active area of study in the field of recommendation algorithms. Collaborative filtering identifies how comparable individuals' interests are now, and filters and screens target consumers depending on similar ones.

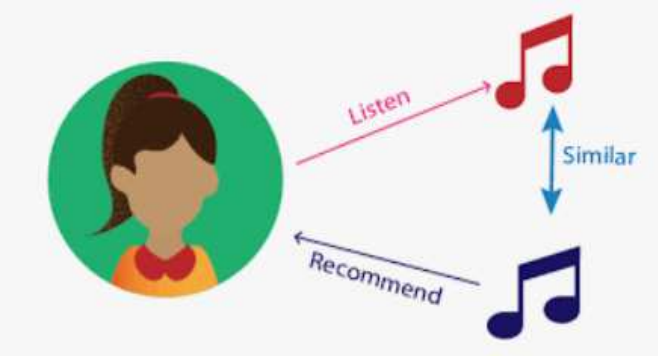

Fig. 1. Basic recommendation scheme

The primary premise of collaborative filtering would be that users share comparable values, beliefs, levels of knowledge, and curiosity inclinations, as well as a similar need for information [13 - 16]. As a result, collaborative filtering technology has a benefit over traditional methods, some topics that are not easy to analyze material for, such as abstract resource objects and personal taste. Collaborative filtering expertise can efficiently utilize the data to analyze many users with comparable interests, allowing for fewer user feedback and faster-personalized learning of hidden interests. The coordinated filtering system has piqued the interest of a growing number of academics due to its wide range of applications [17]. Meanwhile, the combined filtering technique has been elevated with research domains in ML. Collaborative filtering recommendation (CFR) and Content-

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