**Project Name -** Song Recommendation system

**Participants -**


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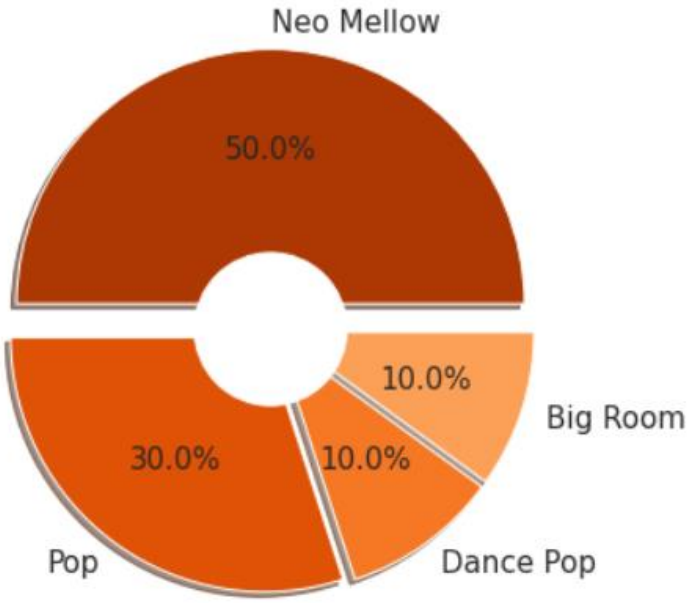
**Abstract -**


The explosion of networks in recent decades has made the internet the primary source for accessing information in several media, including audio, video, books, and music, among others. People listen to music, an activity they engage in rarely since they believe it to be a significant aspect of their lives. People occasionally believe it is difficult to choose among millions of options. As a result of commercial music streaming services that can be accessed through mobile devices, there are currently more options for digital music than there were in the previous era. Music service providers require a productive way to manage songs and assist their customers in discovering music by providing high-quality recommendations.

A music recommendation system is a program that learns from a user's prior listening history and suggests songs the user would probably want to hear in the future. The music provider can pre-select and then present the appropriate songs to their consumers based on the characteristics of the music that has been heard before by employing a music recommender system. Sorting through all of this digital music takes a lot of effort and results in information fatigue. Therefore, it is quite helpful to develop a music recommender system that can automatically search through music libraries and offer appropriate songs to consumers. Consequently, there is a critical need for an effective recommendation system.




Donut Chart for the 'Genre' of 5 most popular songs on Spotify in the year 2014

**Project Design and Milestones -** We will be using Python as a programming language. We will use Jupyter notebook for the development of the recommendation system. Along with the system, we will provide a javascript based React web client (website) for the code to function and for users to get recommendations.

**Resources and Related Projects -**

1) Dataset - This contains the dataset for the project we will be working on. There are multiple columns and features present for us to explore and deep dive into.
2) Music Recommendation System using machine learning - In this project, connections between users and songs are discovered using a sample data set of songs so that users will be suggested new songs based on their prior listening habits. They use Pandas and NumPy libraries to carry out their job. Along with CountVectorizer, they also employ Cosine similarity. Additionally, a front-end flask will display the suggested songs when certain music is processed.
3) Deep Learning in music recommendation systems - This article discusses the various systems that exist as of now and the current challenges faced by programmers. We plan to try and attempt to solve one of those challenges.