



## Web application that recommends for search-based Music Player

**Hardik Chordia<sup>1</sup>, Anuj Singh<sup>2</sup>, Charul Saini<sup>3</sup>, Abhilasha<sup>4</sup>**

Department of Artificial Intelligence and Data Science  
 Jaipur Engineering College and Research Center Foundation  
<sup>1</sup>mohitsr4200@gmail.com

### Abstract

Human nature plays a significant role in extracting an individual's emotional state. It helps in determining their liking, disliking, extracting, and understanding the emotions that an individual has based on various features such as search history, and recommendations that were played by them randomly. A survey affirmed that the masses use Music to express something within them. They often co-relate to a particular part of music according to their taste. Considering these actions and how music pulsates a part of the human mind and body, my project will deal with extracting the user's search history to determine his liking of music based on which we are going to recommend more songs to them. A playlist of songs relatable to the previous search of the user will be displayed to the user. This can be aided to alleviate the mood of the user to some other songs sometimes and can also get song quickly according to their liking, saving time from looking up different songs and parallel creating software that can be used anywhere with the help of providing the functionality of music going according to the user nature.

### Article Status

Available online:

*Keywords: Music, taste, Web application, Recommendation, Search-based recognition*

*2024 Pratibodh Ltd. All rights reserved.*

### 1. Introduction

On average, people spend around 18 hours per week listening to music, right from 17.8 hours a year ago. Weekly or monthly listening is less common compare to daily music listening with 68% of people aged 18-34 years old reporting listening to music every day and time spent weekly listening to songs is 16 hours and 13 minutes. This clearly states that music acts as a mind relaxer and provides the user some mind peace. Looking at the rapid growth of technology in hearing field several music players with features such as fast forward, marking favourite, share, download, etc. have been developed but applications that recommend songs based on the previous search history without repeating the song that was searched by the user is yet to arrive. Therefore, my project can play a significant role in this scenario as this music player implies working on the nature of the user according to their taste in the music. It recommends the songs which were similar to the songs that the user searched before based on that it is going to display some songs which are similar to the searched song in the music application. According to the user find, the music will be displayed and from the music displayed the user can select the song that they want to listen and the song will start playing from the predefined directories.

### 2. Review of the Application

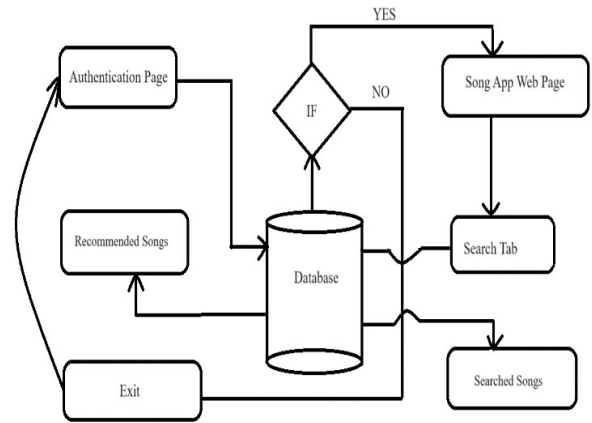
There are many applications that provide facilities and services for music playlist generation or play a particular song and in this process, all manual work is involved. Now to provide, there are various possible ways and approaches have been proposed and

developed to classify the human emotional state of behavior. The proposed approaches have only focused on understanding the nature of an individual on the basis of their search history. Several research papers give a brief about the idea:

- A. In this paper, the Authors state that, Nowadays, people tend to increasingly have more stress due to the bad economy, high living expenses, etc. Taking note of music may be a key activity that assists in scaling back stress. However, it's going to be unhelpful if the music doesn't suit the present emotion of the listener. Moreover, there's no music player that is in a position to pick songs that support the user's emotions. To unravel this problem, this paper proposes a nature-based music player, which is positioned to suggest songs that support the user's emotions: classic, pop, sad, happy, neutral, energetic bands, and melodious. The appliance receives either the user's search history or the searched song type from the search tab bar and user history. It then uses the classification method to spot the user's likes. This paper presents 2 sorts of classification methods; the search history based. Then, the appliance returns songs that have similar types, based on user-to-user. [1]
- B. Authors implies that Digital audio is straightforward to record, play, process, and manage. Its ubiquity means devices for handling it are cheap, letting more people record and play music and speech. Additionally, the web has improved access to recorded audio. So, the quantity of recorded music that folks own has rapidly increased. Most current audio players

compress audio files and store them in internal memory. Because storage costs have consistently declined, the quantity of music that will be stored has rapidly increased. A player with 16 GB of memory can hold approximately 3,200 songs if each song is stored in compressed format and occupies 5 MB each. Effectively organizing such large volumes of music is difficult. People often listen repeatedly to a small number of favorite songs, while others remain unjustifiably neglected. We've developed Affection, an efficient system for managing music collections. Affection groups pieces of music that convey similar emotions and labels each group with a corresponding icon. These icons let listeners easily select music consistent with their emotions.

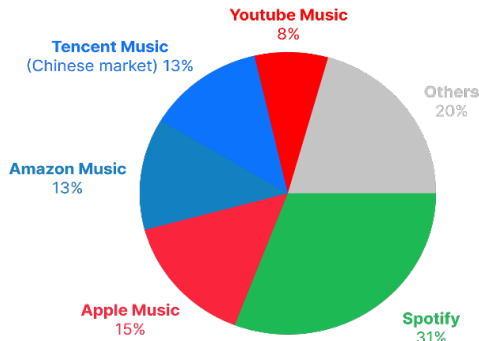
**3. Flow of the Application:**



**4. Working of the application:**

The Web App starts from the email authentication page where they need to give their email and password to get redirected to the web app account and there, they can search for any song file they like in the search bar and the search file will be displayed on the screen. And based on the previous search of the user the app is going to recommend songs to the user based on their liking. If the user wants to get log out of there account, they can simply click on the logout button on the user account section of the screen.

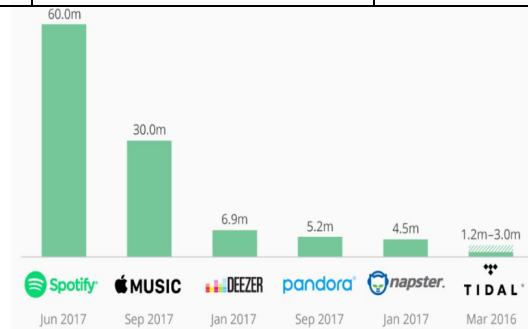
Global Music Streaming Market (as of Q2 2021)



Sr. No.	Name	Problem Identified	Advantages	Ref. Link
1.	Spotify	1. No facial extraction 2. Manual browsing through playlist 3. Random Songs recommendation	1. Easily accessible 2. High availability 3. Abundant songs collection	<a href="https://www.spotify.com/in-en/">https://www.spotify.com/in-en/</a>
2.	Gaana	1. No facial extraction 2. Manual browsing through playlist 3. Random songs recommendation	1. Easily accessible 2. High availability 3. Abundant songs collection	<a href="https://gaana.com/">https://gaana.com/</a>
3.	Hungama	1. No facial extraction 2. Manual browsing through playlist 3. Random Songs recommendation	1. Easily accessible 2. High availability 3. Abundant songs collection	<a href="https://www.hungama.com/">https://www.hungama.com/</a>
4.	Jio-Saavan	1. No facial extraction 2. Manual browsing through playlist 3. Random songs recommendation	1. Easily accessible 2. High availability 3. Abundant songs collection	<a href="https://www.jiosaavn.com/">https://www.jiosaavn.com/</a>

**5. Number of users that uses music apps:**

'm' stands for million user all around the world, And the numbers are increasing every day. As Spotify being the most famous music app, it has yet to add this feature in their app system for better user experience.



## References and notes

1. Kamal Naina Soni, Kushagra Agrawal, Navni Pandya, Nupur Agrawal "Web Application for Emotion-based Music Player" International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429 Volume 9 Issue XII Dec 2021.
2. Shlok Gikla, Husain Zafar, Chintan Soni, Kshitija Waghurdekar "SMART MUSIC INTEGRATING AND MUSIC MOOD RECOMMENDATION" 2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSpNET).
3. Srushti Sawant, Shraddha Patil, Shubhangi Biradar, "EMOTION BASED MUSIC SYSTEM", International Journal of Innovations & Advancement in Computer Science, IJIACS ISSN 2347-8616 volume 7, Issue 3 March 2018.
4. Hafeez Kabini, Sharik Khan, Omar Khan, Shabana Tadvi "Emotion Based Music Player" International Journal of Engineering Research and General Science, Volume 3, Issue 1, 2015.
5. A. R. Patel, A. Vollal, P. B. Kadam, S. Yadav, R. M. Samant, "MoodyPlayer: A Mood based Music Player".
6. Histograms of Oriented Gradients for Human Detection Navneet Dalal and Bill Triggs INRIA Rhone-Alps, 655 Avenue de l'Europe, Montbonnot 38334, France.
7. Deepak Ghimire, Sung Wan Jeong, Joonwhoan Lee, Sang Hyun Park, "Facial Expression Recognition based on Local Region-Specific Features and SVM" in Multimedia Tools and Applications, Vol. 76, Issue 6, pp. 7803–7821, March 2017.
8. Anukriti Dureha "An accurate algorithm for generating a music playlist based on facial expressions" International Journal of Computer Applications, Volume 100-No.9, 2014.