

# MOOD BASED MUSIC RECOMMENDATION SYSTEM USING SENTIMENTAL ANALYSIS

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## OBJECTIVE

The objective of a mood-based recommendation system using sentiment analysis is to analyze a paragraph of user-provided text to determine their current emotional state. Based on this analysis, the system will then recommend songs. This approach aims to create a more personalized and engaging listening experience by dynamically matching songs to the user's mood as expressed through their text.

## ABSTRACT

A mood-based music recommendation system leverages sentiment analysis to personalize music suggestions according to the user's emotional state. By analyzing text input provided by the user—such as a paragraph describing their feelings mood—the system employs natural language processing techniques to gauge the sentiment expressed. This analysis allows the system to categorize the user's emotional state, such as happiness, sadness, or stress. Based on this mood assessment, the system then curates and recommends a playlist of songs that align with or complement the identified sentiment. The goal is to enhance user experience by delivering music that resonates with their current emotional condition, thereby increasing engagement and satisfaction.

## HARDWARE & SOFTWARE REQUIREMENTS

**RAM:** 4GB

**Hard Disk:** 1GB of free Hard Disk space

**Operating System:** Compatible with Windows, macOS, and Linux operating systems.

**Coding Language:** Python

**IDE:** Visual Studio, Google Colab

## EXISTING SYSTEM

Users provide textual input describing their current mood or feelings, which is analyzed using sentiment analysis algorithms. Sentiment analysis and mood detection algorithms often struggle with the subtleties and complexities of human emotions. Misinterpretations can lead to recommendations that do not accurately reflect the user's true mood. Processing this data swiftly and delivering timely recommendations can be challenging, especially with complex analysis algorithms. Delays in response time can impact user experience, making the system feel sluggish or unresponsive.

## PROPOSED SYSTEM

A mood-based music recommendation system is designed to provide personalized music suggestions based on the user's emotional state. The core functionality of such systems involves analyzing various inputs to assess the user's mood and then recommending music that aligns with or enhances that mood. Based on the detected mood, the system's recommendation engine curates a playlist or suggests specific tracks that match or improve the user's emotional state. Modern mood-based music recommendation systems often feature user-friendly interfaces that allow for easy input of mood-related data, such as text descriptions, voice commands, or biometric readings. Advanced systems leverage real-time processing capabilities to quickly analyze user inputs and determine their emotional state. This speed ensures that recommendations are delivered almost instantly, keeping pace with the user's changing mood and maintaining engagement.

## CONCLUSION

Mood-based music recommendation systems represent a significant advancement in personalizing the listening experience by aligning music suggestions with the user's emotional state. By leveraging sophisticated technologies such as real-time sentiment analysis, multi-modal data integration, and adaptive algorithms, these systems offer a highly responsive and intuitive interface that enhances user engagement. The ability to quickly and accurately interpret mood inputs ensures that music recommendations are both timely and relevant, contributing to a more satisfying and emotionally resonant experience.

## REFERENCES

1. [Sentiment Analysis: First Steps With Python's NLTK Library – Real Python](#)
2. [Recursive Deep Models for Semantic Compositionality Over a Sentiment Treebank \(stanford.edu\)](#)
3. <https://chatgpt.com/c/2a7dc767-15ef-4ffc-8caa->

**Guide Name:**

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