CHATBOT SONG RECOMMENDER SYSTEM

[1]Mugdha Sarode, [2]Vaishanavi Bodke, [3]Leena Hire, [4]Kaveri Borse, [5]Prof. V. B. Ohol

[1,2,3,4]Students, [5]prof.
Sandip Polytechnic, Nashik, Maharashtra, India

Abstract- **Technology has a great impact on every part of lives, which also includes our day-to-dayhabits. In present scenario, fields like artificial intelligence and machine learning are on great boom. With the help of advancement in these fields, large number of people are interacting through the system via chat bots and voice assistants. Considering above factors, this project is aimed to implement the Machine Learning based Chat Bot Song Recommender System that includes chat bot to assist user and recommend songs using theNatural Language Processing. In this paper we will discuss methodology, algorithms and the flow of the system. Keywords: Interactive Chat Bot, Interactive System User Interface,Recommender System, MYSQL Server, Natural Language Processing, Sentimental Analysis.**

I.EXISTING SYSTEM

Technology has a great impact on every part of lives, which also includes our day-to-dayhabits. In present scenario, fields like artificial intelligence and machine learning are on great boom. With the help of advancement in these fields, large number of people are interacting through the system via chat bots and voice assistants. Considering above factors, this project is aimed to implement the Machine Learning based Chat Bot Song Recommender System that includes chat bot to assist user and recommend songs using theNatural Language Processing. In this paper we will discuss methodology, algorithms and the flow of the system. Keywords: Interactive Chat Bot, Interactive System User Interface,Recommender System, MYSQL Server, Natural Language Processing, Sentimental Analysis.

II.PROPOSED SYSTEM

The proposed system work develops a personalized system, where the user's current emotion is analyzed with the help of the chat bot. The chat bot identifies the user's Sentiment by chat conversation with the user. Based on the input provided by the user, current emotion or mood is analyzed by the chat bot and it will suggest song to the user. The objective of our application is to identify the mood expressed by the user and once the mood is identified, songs are played by the application. The application solves the basic needs of music listeners without troubling them as existing applications do.
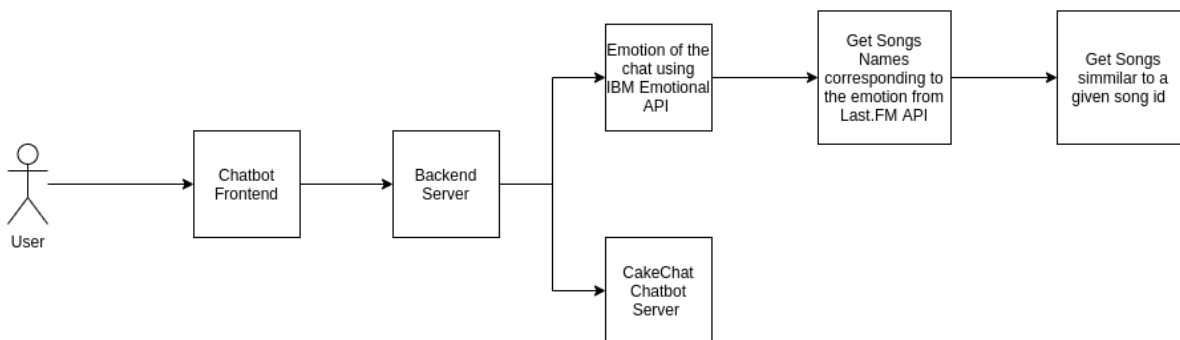

High-Level Approach
- User starts the conversation
- Emotional Analysis of the conversation is done using the IBM Emotional API
- Get the reply to the conversation from the Cake chat Chatbot
- Based on the Emotion which the app perceives, top songs are retrieved using Last.fm songs API
- **If a user listens to a particular song for some time, a similar song would be recommended to the user using Last.fm API.**

Primary goals
- Setting up an open-source project locally and handling the errors being faced
- Using multiple services to build up a new service over them.
- Having a real-world chatbot, to which you can literally chat like you chatting to a real person and enjoying the music recommended by the system.

III.USECASE DIAGRAM
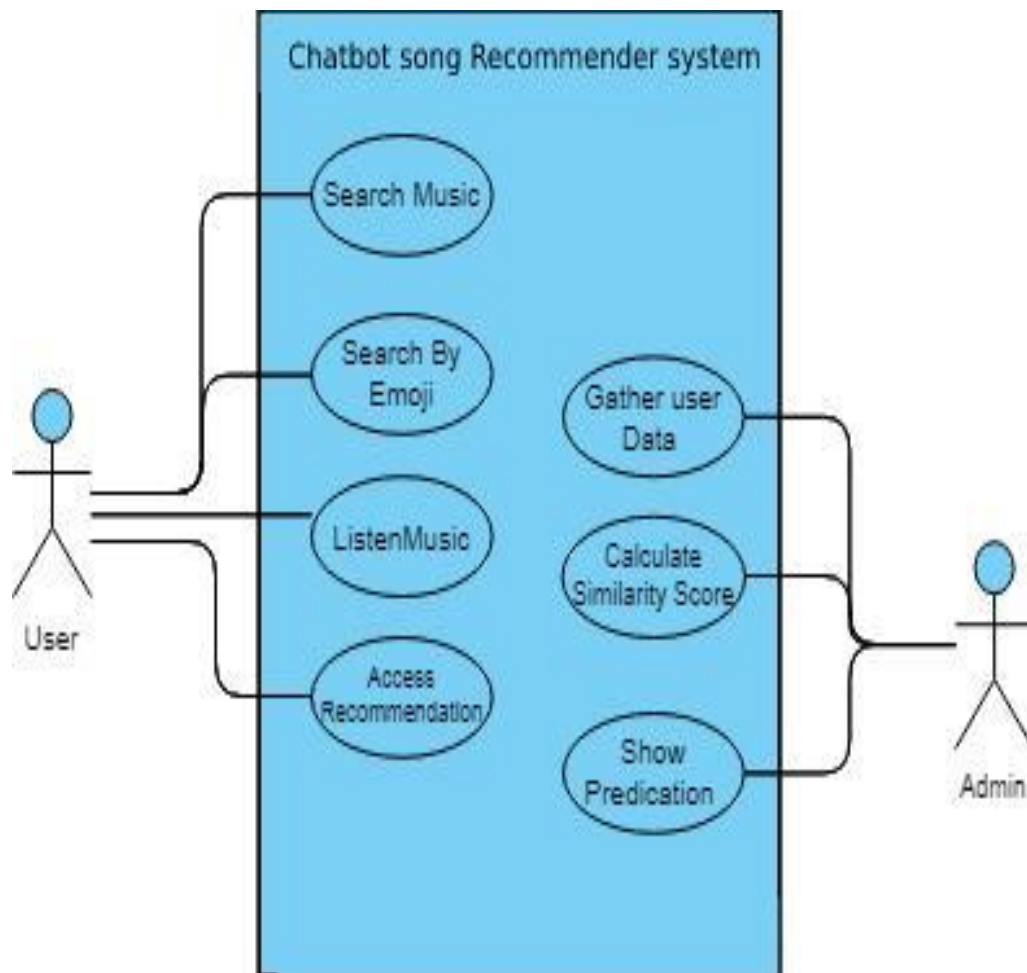
IV.RESULTS AND DISCUSSION

SVD (Singular Value Decomposition) Algorithm: SVD could also be a matrix factorization technique that is typically wont to diminish the quantity of feature of a dataset by reducing the matrix from N space to K space where K < N. For the point of the same framework be that as it may, we are just interested about by the matrix factorization part keeping same dimensional. The matrix factorization is completed on theuser item ratings matrix built.

V.CONCLUSION

We have presented a survey and methodology for building the chat bot song recommender system. To perform this, we first identified various approaches for building a chat bot known to date. We then evaluated the considered algorithms which are useful in building of our system in terms of their ability to work on the recommendation process of the system. We also gathered all the requirements needed for building our system and Studied the overall process involved in chat bot's working. Lastly we summarized the deployment requirements of our system. On the conclusion note our "Chat bot Song Recommender System" is used to facilitate the use by people to automate and give them better music player experience. The application solves the basic needs of music listeners without troubling them as existing applications do

REFERENCES:

1. J. B. Schafer, D. Frankowski, J. Herlocker, and S. Sen, "Collaborative filteringrecommender systems," The Adaptive Web: Methods and Strategies of Web Personalization, pp. 291-324,2007.
2. M. J. Pazzani and D. Billsus, "Contentbased recommendation systems," TheAdaptiveWeb: Methods and Strategies ofWeb Personalization, pp. 325-341, 2007.
3. E. J. Humphrey, J. P. Bello, and Y. LeCun, "Moving beyond feature design: deeparchitectures and automatic feature learning inmusic informatics," in Proc. 13th Int"lConf. Music Info.Retrieval, pp. 403- 408, October2012.
4. E. J. Humphrey, J. P. Bello, and Y. LeCun, "Moving beyond feature design: deeparchitectures and automatic feature learning inmusic informatics," in Proc. 13th Int"lConf. Music Info.Retrieval, pp. 403- 408, October2012.
5. W. Hsu, and C. J. Lin, "A comparison of methods for multiclass support vector machines,"IEEE Tran. Neural Networks, vol. 13, no. 2, pp. 415-425, 2002. e-ISSN: 2582-5208 International Research Journal of Modernization in Engineering Technologyand Science (Peer-Reviewed, Open Access, Fully Refereed International Journal)
6. Volume:04/Issue:04/April-2022 Impact Factor- 6.752 www.irjmets.com www.irjmets.com @International Research Journal of Modernization in Engineering, Technology and Science [2124]
7. R. E. Fan, K. W. Chang, C. J. Hsieh, X. R. Wang, and C. J. Lin, "LIBLINEAR: a library for large linear classification," J. Machine Learning Research, vol. 9, pp. 1871-1874, 2008.
8. V. Oord, S. Dieleman, and B. Schrauwen, "Deep content- based music recommendation," in Proc. 26th Int'l Conf. Neural Info.Process. Systems, pp.2643- 2651,
9. December 2013