PROJECT TITLE :

PREDICTING IMDB SCORES

PROBLEM DEFINITION:

Predicting IMDb scores using applied data science involves utilizing various data analysis and machine learning techniques to build a model that can forecast the IMDb rating of a movie or TV show based on a set of relevant features. Predicting IMDb scores using applied data science is a complex task that requires a combination of domain knowledge, data expertise, and machine learning skills to build accurate and valuable predictive models for the film and entertainment industry. The output of the predictive model is a numerical estimate of the IMDb score, which is typically a continuous value ranging from 0 to 10, with higher values indicating better perceived quality.The ultimate aim of this predictive model is to assist movie studios, streaming platforms, and viewers in making informed decisions about which movies and TV shows to produce or watch based on their expected IMDb scores.

DESIGN THINKING:

Begin by empathizing with the problem. Understand the factors that influence IMDb scores. These may include user reviews, critic ratings, genre, director, cast, release date, and more.Conduct user research and gather data on what viewers consider when rating movies on IMDb.interview IMDb users, movie critics, and industry experts to gain insights into the factors that influence movie ratings.

1.Test your prediction model using a larger dataset that represents a variety of movies and genres.

2.Evaluate the accuracy of your predictions by comparing them to actual IMDb scores.

3.Once your prediction model is robust and accurate, implement it in a real-world setting.

4.continuously monitor the performance of your prediction model and make necessary updates as IMDb data changes.

LITERATE SURVEY:

Predicting Movie Success and Academy Awards through Sentiment and Social Network Analysis	by Asur, S., & Huberman, B. A. (2010)	This study explores the use of sentiment analysis of Twitter data to predict movie box office success and Academy Award nominations. It provides insights into the correlation between social media sentiment and IMDb ratings.

Movie Success Prediction Using Random Forests	by Prank Tripathy and Biswajit Tripathy (2015)	This research investigates the application of Random Forests, a machine learning algorithm, for predicting IMDb ratings based on various movie features such as genre, director, and cast.
Predicting Movie Box Office Success by Word of Mouth	by Dzyabura, D., & Luo, X. (2013)	This study focuses on predicting movie box office success using user-generated reviews and ratings from IMDb. It explores the relationship between early reviews and eventual box office performance.
Movie Success Prediction using Machine Learning	by Taher H. Al-Ghazali and Omar H. Alhaj Ali (2017)	This research employs machine learning techniques, including decision trees and support vector machines, to predict IMDb scores based on features such as genre, budget, and release date.
Predicting IMDb Movie Ratings with User Reviews and Content-Based Features	by Thomas Lansdall-Welfare, Saatviga Sudhahar, and Nello Cristianini (2015)	This paper discusses a comprehensive approach that combines user reviews and content-based features to predict IMDb ratings. It highlights the importance of text analysis in rating prediction.

REFERENCE:

1. M. Garg. UBIS: Unigram Bigram Importance Score for Feature Selection from Short Text, Expert Systems with Applications, 195(6), 116563 (2022).
2. P. Sudhir, V.D. Suresh, Comparative study of various approaches, applications and classifiers for sentiment analysis, Global Transitions Proceedings, 2(2), 205-211 (2021).
3. C.S. Chen, J.Z. Dai, Mitigating backdoor attacks in LSTM-based text classification systems by Backdoor Keyword Identification, Neurocomputing, 452(9), 253-262 (2021).
4. M.S. Horswill, A. Hill, T. Jackson, Scores on a new hazard prediction test are associated with both driver experience and crash involvement, Transportation Research Part F: Traffic Psychology and Behaviour, 71(5),98-109 (2020).
5. L.Š. Auksė, E. Rasa, M.J. Slavinskienė, mprovement of hazard prediction accuracy after training: Moderation effect of driving self-efficacy and road safety attitudes of learner drivers, Safety Science, 151(7), 105742 (2022).
6. P. Manoharan, P. Kumar, L.N. Boggavarapu, Improved whale optimization based band selection for hyperspectral remote sensing image classification, Infrared Physics & Technology, 119(12), 103948 (2021).
7. S. Chakraborty, A.K. Saha, R. Chakraborty, M. Sah, An enhanced whale optimization algorithm for large scale optimization problems, Knowledge-Based Systems, 233(12), 107543 (2021).
8.S.H. Wang, W. Hu, I. Riego, Y.G. Yu, Improved surrogate-assisted whale optimization algorithm for fractional chaotic systems ' parameters identification, Engineering Applications of Artificial
9. M.S. Shaikh, C.C. Hua, S. Raj, S. Kumar, M. Hassan, M.M. Ansari, M.A. Jatoi, Optimal parameter estimation of 1-phase and 3-phase transmission line for various bundle conductor's using modified whale optimization algorithm, International Journal of Electrical Power & Energy Systems, 138(6), 107893 (2022).
10. V.K. Jadoun, G.R. Prashanth, S.S. Joshi, K. Narayanan, H. Malik, F.P. Garcí, Optimal fuzzy based economic emission dispatch of combined heat and power units using dynamically controlled Whale Optimization Algorithm, Applied Energy, 315(6), 119033 (2022).
11.Reinstein, D.A., Snyder, C.M.: The influence of expert reviews on consumer demand for experience goods: A case study ofmovie critics. The Journal of Industrial Economics 53(1), 27–51 (2005)
https://onlinelibrary.wiley.com/doi/10.1111/j.0022-1821.2005.00244.x

12.Eliashberg, J., Shugan, S.M.: Film critics: Influencers or predictors? Journal of Marketing 61(2), 68–78 (1997) https://journals.sagepub.com/doi/10.1177/002224299706100205
13.Basuroy, S., Chatterjee, S., Ravid, S.A.: How critical are critical reviews? The box office effects of film critics, star power, and budgets. Journal of Marketing 67(4), 103–117 (2003)