## Artificial Intelligence and Machine

## Learning

Project Report

Semester-IV (Batch-2022)

**Movie Recommender System**

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Description automatically generated with low confidence

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**Abstract: -**

The digital revolution in entertainment has brought forth an era of unparalleled content diversity, prompting the need for intelligent recommender systems. This project endeavours to contribute to this landscape by developing a sophisticated Movie Recommender System using the Movielens Dataset – a vast repository comprising over a million movie ratings from a diverse user base.

The primary objectives of this project are threefold. First, an in-depth exploration of the Movielens Dataset unveils intricate patterns, user behaviours, and movie characteristics. Through advanced data visualization techniques, including word clouds, the project distils meaningful insights, spotlighting the most favoured movies within the dataset. Second, the implementation of a robust movie recommender system takes centre stage, leveraging collaborative filtering algorithms and machine learning models. This system aims to deliver precise and personalized recommendations tailored to individual user profiles.

The significance of this project transcends academic boundaries. It not only contributes to the ongoing discourse on recommender systems but also presents a practical application of data science methodologies in the realm of digital entertainment. The Movielens Dataset, as a testing ground, provides a unique opportunity to explore the intricacies of user preferences and content recommendation strategies.

Furthermore, the project holds practical importance for the industry by offering a blueprint for the development of effective movie recommender systems. The potential impact on user satisfaction, engagement, and content discoverability on streaming platforms is substantial.

As an educational resource, this project serves as a hands-on experience for aspiring data scientists and researchers. It navigates through the intricate interplay between data science, machine learning, and user-centric design principles. Through the lens of the Movielens Dataset, participants gain practical insights into the complexities of recommendation algorithms and their real-world applications.

In summary, this project encapsulates a holistic journey – from dataset exploration and visualization to the implementation of a robust recommender system – with a focus on enhancing the user experience in the dynamic landscape of digital entertainment. The subsequent sections unfold the analytical journey, unveiling the insights derived from the dataset and showcasing the transformative impact of personalized content recommendations.