**Description:** - A machine learning project focused on building a content-based movie recommendation system using Python and machine learning techniques.

**Contents:** Processed TMDB movie dataset consisting of 10,000 movies and feature Extraction. Generated recommendations using cosine similarity through machine learning techniques. Developed a user-friendly GU using the Streamlit library in Python. Implemented content-based filtering based on user preferences to enhance

**Overview of the project and its objectives.**

**1.Data Collection:** Description of the dataset used for building the recommendation system. Steps taken to collect and preprocess the data.

**2.Exploratory Data Analysis (EDA):** Analysis of the dataset to gain insights into movie attributes and user preferences. Visualization of key statistics and distributions.

**3.Feature Engineering:** Creation of features based on movie attributes (e.g., genres, cast, director, keywords). Transformation of data into a format suitable for machine learning algorithms.

**4.Building the Recommendation System:** Implementation of content-based machine learning algorithms for generating movie recommendations. Evaluation of recommendation quality using relevant metrics.

**5.Deployment:** Steps to deploy the recommendation system for real-world usage. using the streamlit library for created GUI .