Early Success Prediction for Movies Using Machine Learning

Department of Computer Science
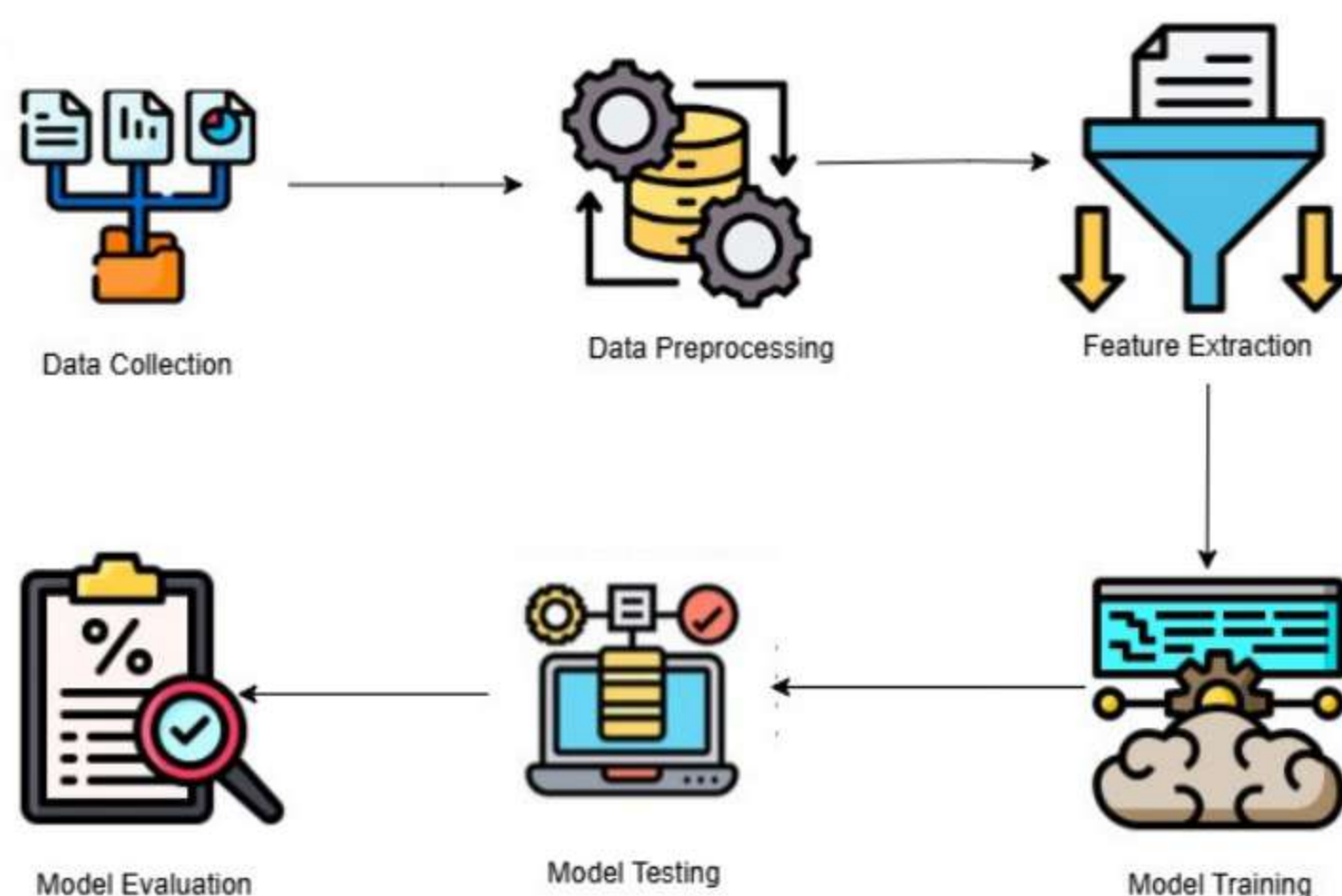University of Engineering and Technology, Lahore

Problem Statement

Movies struggle to predict box office success due to factors like competition, release timing, and genre popularity. Early predictions can help studios make better decisions, improve marketing, and allocate resources effectively. This project uses machine learning to predict early movie success and boost financial outcomes.

Objective

- Uses Machine Learning to predict early sucess of movies using various factors.
- Considers Generes , Generes Combination Popularity, box office compeion etc.
- Provides actionable insights for movie marketing strategies and audience targeting.
- Utilizes predictive modeling techniques to estimate future box office performance.

Methodology

Data Collection → Data Preprocessing → Feature Extraction → Model Training → Model Testing → Model Evaluation

Technologies

Dataset

- The dataset was obtained from IMDB having 27k rows and 24 columns
- The dataset is composed of both categorical data (e.g., title, genres, status, original_language) and numerical data (e.g., vote_average, revenue, budget, runtime).
- The dataset includes movie details and performance data, enabling a full analysis of factors driving success.

Outcomes

- The accuracy obtained in this project was 92%
- This project aims to provide organizations with valuable insights into the potential success of movies, enabling them to optimize marketing strategies and audience targeting.
- The predictions will help studios forecast box office performance, enabling better resource allocation and strategic planning.

Predicted vs Actual Values
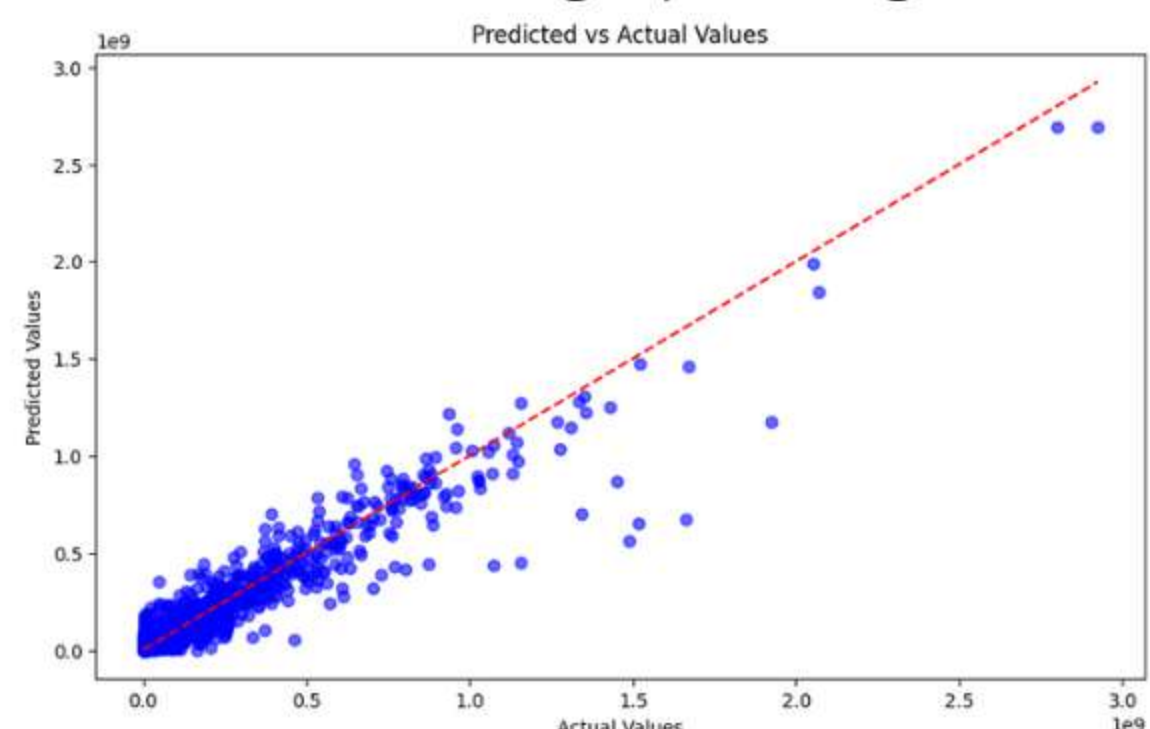
Submitted By:

- Muhammad Tayyab   2022-CS-135
- Muhammad Ahmed   2022-CS-144
- Muhammad Saad Akmal   2022-CS-148
- Muhammad Robass Atif   2022-CS-150

Supervised By:

Dr. Amna Zafar