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## PREDICTION SUMMARY:

### FEATURES USED:

After preprocessing and dropping the Non-numeric fields, the model uses following features:

1. Year
2. Runtime(Minutes)
3. Rating
4. Votes
5. Revenue(Millions)
6. Sentiment(from the movie description)

### MODEL PERFORMANCE:

On the test set -20% split

- **R<sup>2</sup> score:** Measures how well predictions approximate actual outcomes .  
➔ Interpretation: Approximately **66%** of the variance in movie success is explained by the model.
- **Mean Absolute Error(MAE):** Average magnitude of errors between predicted and actual success.  
➔ Interpretation: On average, the model's predictions are off by **0.20 units** success.

### INSIGHTS:

- **Rating, revenue** and **votes** have a **strong positive effect** on movie's success prediction.
- **Sentiment Score** and **runtime** have a **slightly positive impact**.
- **Metascore** shows a **moderate positive effect**.
- **Year** has a **small but positive effect**.

This concludes that well rated , widely watched and highly-revenue films with positive descriptions tend to be more successful.