Predictive Model Summary:

- **Model used:** Random Forest Classifier

- **Features considered:** IMDB Rating, Gross, Runtime, Votes, Meta score, Sentiment Compound

- **Target variable:** Success (1 = Successful, 0 = Not successful)

- **Model accuracy score: 1.0**

```
Accuracy Score: 1.0

Classification Report:
              precision    recall  f1-score   support

           0       1.00      1.00      1.00       154
           1       1.00      1.00      1.00        46

    accuracy                           1.00       200
   macro avg       1.00      1.00      1.00       200
weighted avg       1.00      1.00      1.00       200
```

- **Key findings:**

  - Movies with **higher ratings and grosses** tend to succeed.

  - **Positive sentiment** in overview text slightly correlates with success.

  - Among genres, **Drama and Action** have higher average sentiment scores.

Important Features:

Gross Revenue

IMDB Rating

No of Votes

Sentiment Compound

```
🎬 Average Sentiment per Genre:

Main_Genre
Family       0.652500
Fantasy      0.018650
Comedy      -0.010852
Film-Noir   -0.021600
Animation   -0.072138
Adventure   -0.077936
Biography   -0.117292
Drama       -0.118899
Western     -0.191450
Horror      -0.260991
Mystery     -0.282808
Action      -0.328543
Crime       -0.384421
Thriller    -0.624900
Name: Sentiment_Compound, dtype: float64
```

Sentiment Visuals

IMDB Rating vs Gross Revenue (Success Highlighted)

Average Sentiment Score per Main Genre

Feature Importance in Predicting Movie Success