**Content Release Strategy Optimization - Entertainment Sector**

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# Overview :

# The purpose of this report is to detail the progress and insights gained from the Content Release Strategy Optimization task within the entertainment sector. The focus is on analyzing data to develop predictive models that guide content release strategies based on performance metrics.

# Objective:

· Analyzing trends in content performance based on key metrics such as popularity, attendance, and sentiment.

· Developing predictive models to estimate content performance.

· Generating strategic recommendations based on the analysis to optimize content release strategies.

# Assigned Task(s) :

·· Data preparation and exploration.

· Building predictive models for popularity and attendance.

· Visualizing results and generating insights.

· Drafting recommendations for content release strategies.

# Task Details :

# ● Task 1: Content Release Strategy Optimization

# ● Status: Completed

# ● Details:

# This task involved analyzing the dataset to identify key metrics affecting content performance. Predictive models were built using linear regression to estimate popularity and attendance. The results were visualized through plots, and actionable insights were generated based on model predictions.

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# **● Task 2: Model Development and Performance Evaluation**

# ● Status: Completed

# ● Details:

# In this task, we built and evaluated two predictive models: one for popularity and another for attendance count. Linear regression models were trained using a cleaned dataset that included key features such as valuation, vote\_average, attendance\_count, sentiment\_scores, and more. The model's performance was assessed using metrics such as Mean Squared Error (MSE) and R-squared. Below is a summary of the model performance, followed by visualizations that illustrate actual vs. predicted values and content-specific insights.

# Model Performance Visualization:

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# **Scatter Plot for Popularity:** This plot visualizes the actual popularity values against the predicted popularity values generated by the linear regression model. It helps identify how well the model predicts content popularity and highlights any significant deviations.

# **Scatter Plot for Attendance:** Similar to the popularity plot, this scatter plot shows the relationship between actual and predicted attendance values. It is essential to evaluate if the model provides reliable attendance estimates, which is critical for release strategy planning.

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**Progress :**

● **Accomplishments:**

Completed data analysis and visualization.

Developed and validated predictive models for popularity and attendance.

Generated insights and recommendations for optimizing content release strategies.

● **Metrics:**

**Popularity Model:**

* + **Mean Squared Error (MSE):** 0.0
  + **R-squared:** 1.0

**Attendance Model:**

* + **Mean Squared Error (MSE):** 0.0
  + **R-squared:** 1.0

#### ****Feature Importance:****

**For Popularity Prediction:**

* + **compound\_score:** 0.0
  + **valuation:** 0.0

**For Attendance Prediction:**

* + **compound\_score:** -1.339946e-12
  + **valuation:** 5.000000e+00

# Challenges and Solutions :

● Challenges Faced:

Data quality issues such as missing values and inconsistent data formats.

Difficulty in interpreting sentiment scores for actionable insights.

● Solutions Implemented:

Used data preprocessing techniques to clean the dataset and ensure consistency.

Developed a clear methodology for interpreting sentiment scores in the context of content performance.

# Next Steps :

**● Upcoming Tasks:**

Further refine predictive models with additional data sources.

Conduct deeper analysis on specific genres or content types.  
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**● Goals:**

Achieve at least a 10% improvement in model accuracy with additional features.

Provide more detailed strategic recommendations based on further analysis.

# Conclusion :

# Summary: In conclusion, the analysis conducted in this task has provided valuable insights into content performance within the entertainment sector. Predictive models have identified key factors influencing popularity and attendance, guiding recommendations for future content release strategies.

# **Acknowledgments**: Thank the audience for their time and attention.