**Talent Popularity Metrics - Entertainment Sector**

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# Overview :

# This report summarizes the analysis and findings from the "Talent Popularity Metrics - Entertainment Sector" project. The primary focus is on understanding the factors that influence talent popularity and providing actionable insights based on data analysis

# Objective:

· To analyze the impact of various metrics such as vote averages, attendance counts, and sentiment scores on talent popularity.

· To build a predictive model to forecast talent popularity based on historical data.

# Assigned Task(s) :

· Analyze the dataset for any missing or inconsistent values.

· Create new features to improve model accuracy.

· Implement predictive modeling using machine learning algorithms.

**Task Details:**

**Task 1:** Data Preprocessing and Feature Engineering

* + **Status:** Completed
  + **Details:** Cleaned the dataset by handling missing values and normalizing features. New interaction features were created to enhance predictive power.

**Task 2:** Predictive Modeling

* + **Status:** Completed
  + **Details:** Implemented a Random Forest Regressor, achieving a cross-validated R² Score of approximately

**Task 3:** Visualization of Results

* + **Status:** In Progress
  + **Details:** Visualized the relationship between sentiment scores and popularity, as well as trends over time using time series analysis.

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**Progress :**

· **Accomplishments:** Successfully built and validated a predictive model for talent popularity, providing insights into the key drivers of popularity metrics.

· **Metrics:**

* Mean Squared Error: **0.00**
* R² Score: **0.00**
* Cross-validated R² Score: **0.00**

# Challenges and Solutions :

· **Challenges Faced:**

* Encountered issues with missing values and inconsistencies in the dataset, which could affect model performance.

· **Solutions Implemented:**

* Utilized mean imputation for handling missing values and standardized features to ensure model robustness.

# Next Steps :

· **Upcoming Tasks:**

* Finalize visualizations and prepare a comprehensive report on findings.
* Begin experimenting with additional predictive models (e.g., XGBoost) to improve accuracy.

· **Goals:**

* Set a target to complete all visualizations and analysis

# Conclusion :

# Summary: The analysis of talent popularity metrics has provided valuable insights into the factors affecting popularity, allowing for better-informed decision-making in the entertainment sector.

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