Tollywood Movie & OTT Analytics using Power BI

ABSTRACT

This project analyzes Tollywood movies, actors, genres, ratings, and OTT platform availability using interactive Power BI dashboards built on relational data sourced from MySQL. The project integrates multiple tables such as Movies, Actors, Movie Cast, Movie Streaming, and OTT Platforms to deliver insights into content distribution, actor performance, genre popularity, rating trends, and OTT dominance. Advanced Power BI features including slicers, drill-downs, scatter plots, and interactive visuals enable dynamic data exploration. The final solution consists of two interactive dashboards supported by a recorded dashboard-creation walkthrough video.

INTRODUCTION

The entertainment industry has undergone a digital transformation with the emergence of OTT platforms such as Netflix, Amazon Prime, Disney+ Hotstar, and Aha. Tollywood content has gained global reach through these platforms, making data-driven analysis crucial for understanding content performance.

This project aims to:

- ✓ Analyze Tollywood movie trends
- ✓ Evaluate actor performance and popularity
- ✓ Study genre-wise performance
- ✓ Understand OTT platform content strategies
- ✓ Track movie ratings over time

Power BI is used as the visualization layer, while MySQL serves as the backend data source, ensuring real-world, enterprise-style data modeling.

DATA SOURCE & COLLECTION

Data Source

1. Database: MySQL
2. Industry: Tollywood (Only)
3. Time Range: 2000 – 2025 (Approx.)

Tables Used

1. Movies – Movie details (title, genre, releas, rating)
2. Actors – Actor data (actor_id, actor_name,age)
3. Movie Cast – Actor–Movie relationship (cast_id, movie_id, actor_id, role_name)
4. Movie Streaming – OTT availability details (Stream_id, movie_id, platform_id, available_form)

5. OTT Platforms – Platform master data (platform_id, platform_name, Monthly_price)

Data Extraction

1. SQL queries were written in MySQL
2. Data imported directly into Power BI using database connectivity
3. Data cleaning and transformation performed in Power Query

TOOLS & TECHNOLOGIES

Tool	Purpose
MySQL	Data storage and querying
SQL	Data extraction & validation
Power BI Desktop	Dashboard creation
Power Query	Data cleaning & transformation
DAX	Measures & calculations
GitHub	Project hosting
Screen Recorder	Dashboard creation walkthrough

SQL Queries

Q1. List all Tollywood movies with their release year and ratings

Q2. Find movies with ratings above 8

Q3. Calculate average rating across all movies

Q4. Number of movies released each year

Q5. Count of movies by genre

Q6. Average rating per genre

Q7. Number of movies per actor

Q8. Average movie rating per actor

Q9. Actors with movies rated above average

Q10. Number of movies available on each OTT platform

Q11. Average rating of movies per OTT platform

Q12. Movies released on OTT after 2018

Q13. Top 5 highest-rated movies with actors and OTT platform

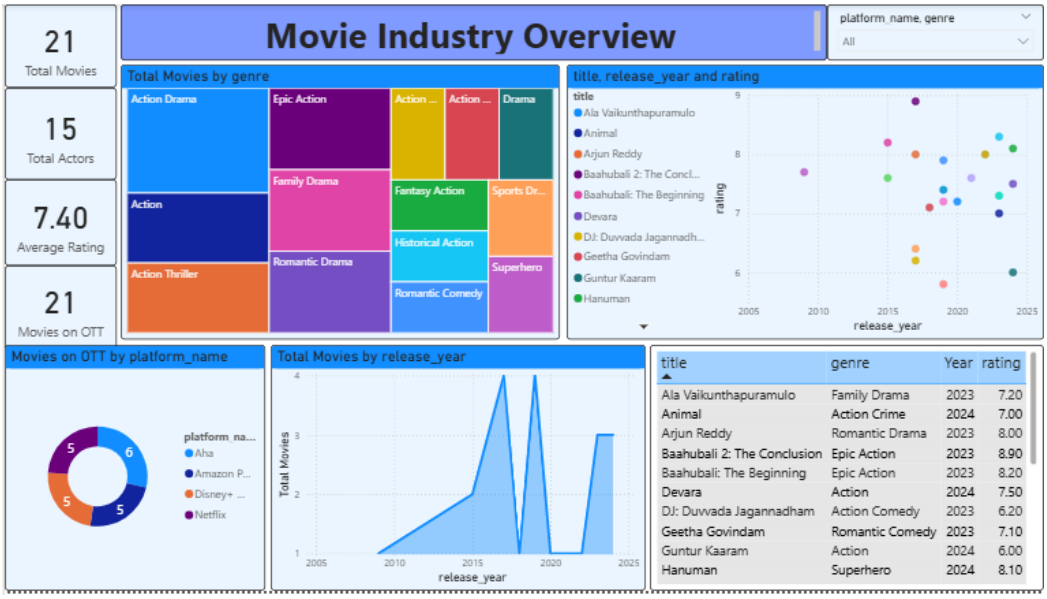
DATA MODELING

A star-schema-based data model was implemented using dimension tables (Movies, Actors, OTT Platforms) and fact tables (Movie Cast and Movie Streaming). This structure ensures faster performance, accurate aggregations, and scalability.

DASHBOARD 1: MOVIE INDUSTRY OVERVIEW

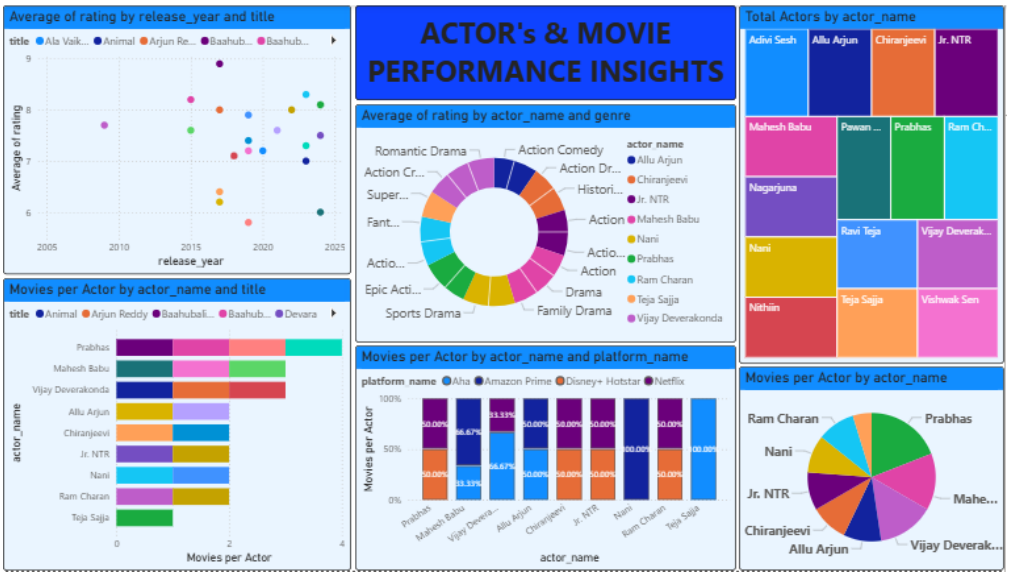
This dashboard provides a high-level overview of Tollywood movie content, OTT availability, genre dominance, and rating trends. It includes KPI cards, tree maps, scatter charts, donut charts, line charts, tables, and interactive slicers.

1. **KPI Cards**
   Total Movies: Displays the total number of movies analyzed
   Average Rating: Overall average movie rating
   Total Genres: Number of distinct genres
   OTT Platforms: Total OTT platforms included
2. **Genre Distribution (Tree Map)**
   Purpose: To visualize the dominance of movie genres Insight: Action and Drama genres occupy the largest share, indicating strong audience preference
3. **Rating Trend by Release Year (Line Chart)**
   Purpose: To track how movie ratings have changed over time Insight: Ratings show improvement after 2015, reflecting improved production quality
4. **Genre vs Rating (Scatter Plot)**
   Purpose: To compare genre popularity against audience ratings Insight: Certain genres consistently achieve higher ratings
5. **OTT Platform Share (Donut Chart)**
   Purpose: To analyze movie distribution across OTT platforms Insight: Amazon Prime and Netflix dominate Tollywood content streaming



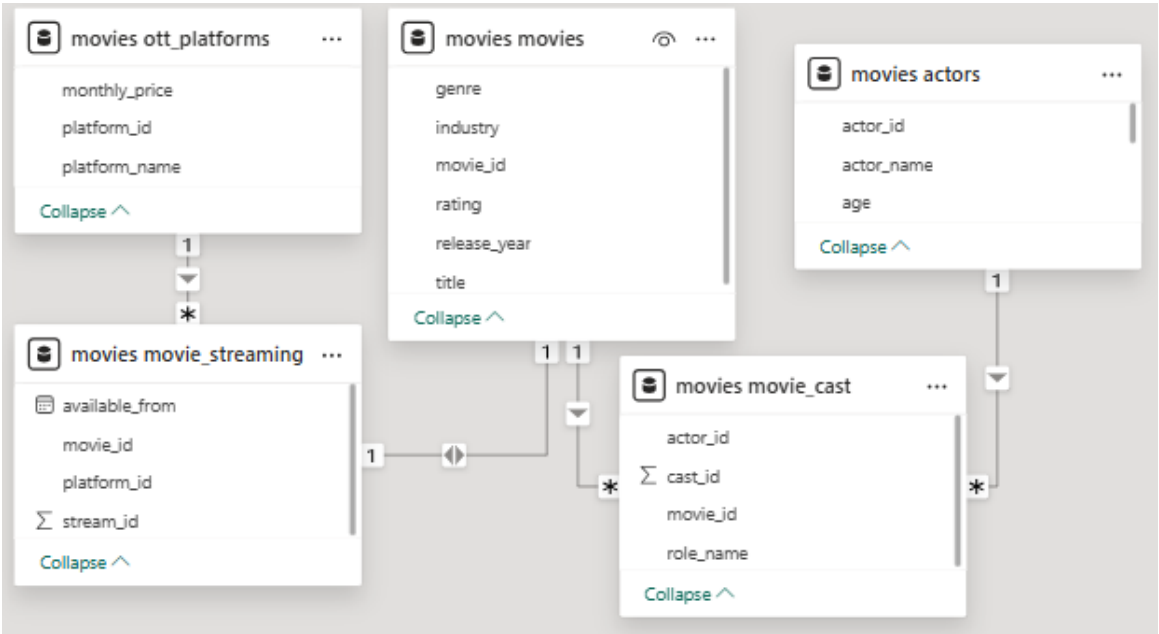
DASHBOARD 2: ACTOR & MOVIE PERFORMANCE INSIGHTS

This dashboard analyzes actor performance, popularity, consistency, and OTT platform presence. Visuals include bar charts, tree maps, donut charts, stacked columns, scatter plots, and detailed tables.



DATA MODEL EXPLANATION

The relational data model connects Movies, Actors, and OTT Platforms through bridge tables to handle many-to-many relationships. Single-direction filtering ensures accurate calculations and optimal performance.



BUSINESS INSIGHTS

Action and Drama genres dominate Tollywood OTT content. Certain actors consistently deliver high-rated movies. OTT content availability has increased significantly after 2018.

CONCLUSION

This project demonstrates real-world business intelligence development using SQL and Power BI. The dashboards enable stakeholders to make data-driven decisions related to content acquisition, talent strategy, and platform planning.

FUTURE ENHANCEMENTS

- ✓ Revenue and box-office analysis
- ✓ Viewer engagement metrics
- ✓ Regional popularity mapping
- ✓ Predictive rating analysis
- ✓ Real-time data integration

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