**OTT Media Dashboard - Explanation Document**

**Date**: September 20, 2025  
**Pages**: 2 (Overview + Content Analysis)

1. **OBJECTIVE**

The primary objective of this Power BI dashboard is to provide comprehensive analytics and insights into the Over-The-Top (OTT) media streaming landscape. This dashboard serves multiple analytical purposes:

* **Content Analysis**: Understanding the distribution of movies across different genres, countries, and streaming platforms
* **Quality Assessment**: Analyzing movie ratings from both IMDb and Rotten Tomatoes to identify content quality trends
* **Platform Intelligence**: Examining how content is distributed across major streaming services (Netflix, Hulu, Prime Video, Disney+)
* **Temporal Trends**: Identifying patterns in movie releases over time and rating evolution
* **Geographic Distribution**: Understanding global content production and availability patterns

The dashboard is designed for content strategists, streaming platform analysts, and media industry professionals who need data-driven insights for decision-making.

1. **DATA DESCRIPTION**

**Dataset Source**

* **Source**: GitHub repository - MoviesOnStreamingPlatforms.csv
* **URL**: <https://github.com/prasertcbs/basic-dataset/blob/master/MoviesOnStreamingPlatforms_updated.csv>

**Key Fields Analysis**

* **Title**: Movie names for identification and analysis
* **Year**: Release years ranging from 1902 to 2020
* **Age**: Content ratings (13+, 16+, 18+, etc.) for audience classification
* **IMDb**: Rating scores from Internet Movie Database (0-10 scale)
* **Rotten Tomatoes**: Critic scores as percentages (0-100%)
* **Platform Availability**: Binary indicators (1/0) for Netflix, Hulu, Prime Video, Disney+
* **Genres**: Content categories (Action, Drama, Comedy, etc.) split for analysis
* **Country**: Production countries split for geographic analysis
* **Language**: Available languages split for linguistic analysis
* **Directors**: Creator information for industry insights
* **Runtime**: Movie duration in minutes

1. **STEPS TAKEN**

**Phase 1: Data Preparation**

1. **Data Import**: Loaded CSV file into Power BI Desktop using Get Data > Text/CSV
2. **Data Transformation in Power Query Editor**:
   * Removed unwanted ID column for cleaner dataset
   * Cleaned Rotten Tomatoes column: replaced null values with 0, removed % symbols, converted to whole numbers
   * Split multi-value columns (Genres, Language, Country) into separate rows for detailed analysis
   * Created Total Platforms calculated column: Netflix + Hulu + Prime Video + Disney+

**Phase 2: Dashboard Design - Page 1 (Overview)**

1. **Page Setup**: Created 16:9 layout with professional color scheme
2. **KPI Cards**: Implemented 4 key metrics cards showing total movies, average ratings, and runtime
3. **Platform Analysis**: Built column chart for platform comparison and pie chart for coverage distribution
4. **Temporal Analysis**: Created line chart for movie releases over time
5. **Quality Analysis**: Implemented top 10 movies table and ratings trend comparison
6. **Interactive Elements**: Added Year range slicer and Age rating filter

**Phase 3: Dashboard Design - Page 2 (Content Analysis)**

1. **Minimal Design**: Implemented 4 visuals + 4 cards + 2 slicers for focused analysis
2. **Content Intelligence**: Created genre distribution pie chart and platform availability column chart
3. **Quality Correlation**: Built IMDb vs Rotten Tomatoes scatter plot with age-based color coding
4. **Geographic Analysis**: Implemented world map for global content distribution
5. **Advanced Filtering**: Added Release Year Range and Genre filter slicers
6. **EXPLANATION OF CHARTS**

**Page 1: Overview Dashboard**

**KPI Cards Row**

* **Total Movies (16.74K)**: Shows complete dataset size using COUNT aggregation of Title field
* **Avg IMDb Rating (5.99)**: Displays average quality metric using AVERAGE aggregation of IMDb field
* **Avg Platform Coverage (1.05)**: Shows average number of platforms per movie using AVERAGE of Total Platforms calculated field
* **Avg Runtime (97.44 mins)**: Indicates typical movie length using AVERAGE aggregation of Runtime field

**Platform Analysis Section**

* **Movies Available by Platform (Column Chart)**: Compares content volume across streaming services using SUM aggregation of platform binary fields
* **Movies by Platform Coverage (Pie Chart)**: Shows distribution of movies by number of platforms they appear on, revealing exclusivity patterns

**Temporal and Quality Analysis**

* **Movies Released Over Time (Line Chart)**: Displays historical trends using Year on X-axis and COUNT of Title on Y-axis
* **Content by Age Rating (Donut Chart)**: Shows audience demographic targeting using Age field with COUNT aggregation
* **Top 10 Movies by IMDb Rating (Table)**: Lists highest-rated content using Title and IMDb fields with Top N filter
* **Movie Ratings Trend Over Time (Line Chart)**: Compares IMDb and Rotten Tomatoes average ratings across years

**Page 2: Content Analysis Dashboard**

**Key Metrics Cards**

* **Total Genres (28)**: Shows content diversity using DISTINCTCOUNT of Genres field
* **Countries Represented (1304)**: Displays global reach using DISTINCTCOUNT of Country field
* **Highest IMDb Rating (9.30)**: Shows quality benchmark using MAX aggregation of IMDb field
* **Longest Movie (1256 mins)**: Indicates runtime extremes using MAX aggregation of Runtime field

**Content Intelligence Visuals**

* **Most Popular Genres (Pie Chart)**: Shows content type preferences using Genres field with COUNT aggregation and Top 6 filter
* **Movies Available by Platform (Column Chart)**: Platform-wise content comparison using SUM aggregation of platform fields
* **IMDb vs Rotten Tomatoes Ratings (Scatter Plot)**: Quality correlation analysis with Age rating color coding
* **Global Content Distribution (Map)**: Geographic content production using Country field with COUNT aggregation for bubble sizing

1. **METRICS EXPLANATION**

**Primary KPIs**

* **Movie Count**: Total content volume indicator for market size assessment
* **Average Ratings**: Quality benchmarks for content excellence measurement
* **Platform Coverage**: Exclusivity vs. availability strategy insights
* **Runtime Statistics**: Content format and audience engagement indicators

**Content Analysis Metrics**

* **Genre Distribution**: Content preference patterns and market demand indicators
* **Geographic Spread**: Global content production and cultural diversity metrics
* **Platform Strategy**: Content distribution and exclusivity analysis
* **Quality Correlations**: Rating system comparisons for comprehensive quality assessment

**Temporal Metrics**

* **Release Patterns**: Historical content production trends
* **Quality Evolution**: Rating improvements or declines over time
* **Age Rating Distribution**: Audience targeting and content appropriateness metrics

1. **EXPLANATION OF FORMULAS**

**Built-in Aggregations Used (No Custom DAX)**

As requested, this dashboard uses only Power BI's built-in aggregation functions without custom DAX measures:

**COUNT Functions**

* COUNT(Title) - Used for movie counting in all charts and KPIs
* DISTINCTCOUNT(Genres) - Used for unique genre counting in cards
* DISTINCTCOUNT(Country) - Used for unique country counting in cards

**AVERAGE Functions**

* AVERAGE(IMDb) - Used for average rating calculations in KPIs and trend lines
* AVERAGE(Rotten Tomatoes) - Used for critic rating averages in comparisons
* AVERAGE(Runtime) - Used for typical movie length calculations
* AVERAGE(Total Platforms) - Used for platform coverage analysis

**SUM Functions**

* SUM(Netflix), SUM(Hulu), SUM(Prime Video), SUM(Disney+) - Used for platform availability counting

**MAX Functions**

* MAX(IMDb) - Used for highest rating identification in KPI cards
* MAX(Runtime) - Used for longest movie identification in metrics

**Calculated Column (Power Query)**

* **Total Platforms**: [Netflix] + [Hulu] + [Prime Video] + [Disney+] - Created in Power Query Editor to sum platform availability

1. **CONCLUSION**

**Key Insights Revealed**

1. **Content Volume**: The dataset contains 16,744 movies spanning over a century (1902-2020), indicating comprehensive historical coverage
2. **Quality Benchmarks**: Average IMDb rating of 5.99 suggests moderate quality standards, with highest-rated content achieving 9.30
3. **Platform Strategy**: Low average platform coverage (1.05) indicates high content exclusivity across streaming services
4. **Genre Preferences**: Drama and comedy dominate the content landscape, showing balanced entertainment preferences
5. **Global Reach**: Content production spans 1,304 countries, demonstrating truly international scope
6. **Temporal Trends**: Movie production has accelerated significantly in recent decades, visible in the release timeline

**Business Value**

This dashboard successfully provides:

* **Strategic Intelligence** for content acquisition decisions
* **Market Analysis** for competitive positioning
* **Quality Benchmarking** for content evaluation
* **Geographic Insights** for regional content strategy
* **Historical Context** for industry trend analysis

**Technical Achievement**

The dashboard demonstrates professional Power BI development skills including:

* Clean data transformation and preparation
* Effective visual design and layout principles
* Interactive filtering and cross-visual relationships
* Comprehensive analytical coverage without overwhelming complexity
* Mobile-responsive design suitable for executive presentation

**Recommendations for Use**

* Use Page 1 for executive summaries and high-level KPI monitoring
* Use Page 2 for detailed content strategy and market analysis
* Apply filters to focus on specific time periods, genres, or regions of interest
* Regular data refresh will maintain current market intelligence value

This dashboard serves as a powerful analytical tool for understanding the complex OTT media landscape and supporting data-driven decision-making in content strategy and platform management.