

# IMDb MOVIES ANALYSIS REPORT

A Deep Dive into Ratings, Trends, and Audience Insights



This report delivers a modern data-driven perspective on IMDb's top-rated movies.

It explores how audience preferences, critic scores, and genre dynamics come together to define cinematic excellence.

Leveraging analytics and visualization, it reveals how filmmakers, actors, and genres influence movie ratings and global audience appeal.

*"In cinema, data speaks louder than dialogue."*



# 1. Dataset Description

**1.1 Source:** IMDb Top-Rated Movies dataset (user-rated, CSV file).

**1.2 Columns:**

- Title – Movie title
- Director – Director of the movie
- Stars – Main actors/actresses
- Tags – Genres/keywords (comma-separated)
- IMDb Rating – Viewer rating (0–10 scale)
- Meta Score – Critic rating (0–100 scale)
- Votes – Audience vote count

**1.3 Data Quality:**

- No major missing values.
- Votes contained shorthand (K/M) → cleaned and converted to numeric.
- Ratings and scores cast to numeric for proper analysis.

# 2. Operations Performed

## 2.1 Data Cleaning & Preparation

- Normalized Votes (e.g., 5K → 5000, 2M → 2000000).
- Casted IMDb Rating and Meta Score to double type.
- Split Tags and Stars into individual values for frequency analysis.

## 2.2 Descriptive Analytics

- Summary statistics for ratings and scores.
- Top/bottom movies by IMDb and Meta Score.
- Distinct directors, stars, and tag counts.

## 2.3 Relationship & Comparative Analysis

- Correlation between IMDb Rating and Meta Score.
- Score gap analysis (IMDb vs Meta Score).
- Directors with consistently high/low ratings.
- Popularity by tags and stars.

## 2.4 Visualization

- Histograms (IMDb Ratings).
- Scatter plots (IMDb vs Meta Score).
- Word clouds (tags, title words).
- Bar charts (top movies, directors, stars, tags).
- Donut and polar charts (rating distributions, categories).

## 3. Key Insights

### 3.1 Ratings & Scores

- IMDb Ratings mostly fall between 7.5–9.0.
- High correlation with Meta Score, but notable gaps exist for some movies.
- Consistently high-performing directors have minimum ratings  $\geq 8$ .

### 3.2 Director & Star Insights

- Certain directors (e.g., Christopher Nolan, Steven Spielberg) dominate top ratings.
- Stars with frequent appearances often align with higher-rated films.
- Directors with 3+ movies show a wide spread in consistency (std dev analysis).

### 3.3 Tag/Genre Trends

- Drama and Action tags are most common.
- Tags like Biography and History often carry higher IMDb averages.
- Combined tags (Action + Drama) appear in many top movies.

### 3.4 Audience & Critics Alignment

- Correlation indicates alignment, but large score gaps highlight cases where audiences and critics disagree.
- Some highly rated IMDb movies received lower Meta Scores and vice versa.

## 4. Recommendations

### 4.1 For Filmmakers

- Focus on consistently high-performing genres (Drama, Action, Biography).
- Collaborating with high-reputation directors/stars increases likelihood of top ratings.

### 4.2 For Platforms (e.g., streaming services)

- Highlight directors with strong consistency (all films rated  $\geq 8$ ).
- Promote movies where both audience and critics align highly.

### 4.3 For Analysts

- Explore predictive models to estimate rating success of upcoming releases.
- Build clustering models using Tags, Ratings, and Votes to profile audience preferences.
- Study critic–audience divergence for deeper insights into perception gaps.