

# Analysis Visualization

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## 1. Top Director-Actor Pairs

Finds director-actor pairs who collaborated at least thrice and ranks them by average rating

**Query:**

```
SELECT
  d.primaryName AS director_name,
  a.primaryName AS actor_name,
  COUNT(*) AS movie_count,
  ROUND(AVG(r.averageRating), 2) AS avg_rating
FROM title_basics b
JOIN title_crew c ON b.tconst = c.tconst
JOIN title_principals p ON b.tconst = p.tconst
JOIN title_ratings r ON b.tconst = r.tconst
JOIN name_basics d ON c.directors = d.nconst
JOIN name_basics a ON p.nconst = a.nconst
WHERE p.category IN ('actor', 'actress')
  AND c.directors IS NOT NULL
GROUP BY d.primaryName, a.primaryName
HAVING COUNT(*) >= 3 -- at least 3 collaborations (could be increased)
ORDER BY avg_rating DESC
LIMIT 10;
```

**Output:**

director_name	actor_name	movie_count	avg_rating
Doo-sik Min	Jin-mok Lee	5	10
Dusan Milic	Milos Djordjevic	3	10
Dan Kennedy	Dawna Lee Heising	3	10
Brendon deVore	Jerry Rosenberg	3	10
Carlos González Sariñana	Pilar Ixquic Mata	3	10
Chris B	Chris B	6	10
Adam Kiss	Adam Kiss	4	10
Brendon deVore	Brendon deVore	3	10
Brendon deVore	Damon Mininni	8	10
Eleftherios Kostans	Dawna Lee Heising	3	10

## 2. Average IMDb Rating per Genre (Top 10 Genres)

Shows the highest-rated genres with a minimum of 50 titles

**Query:**

```

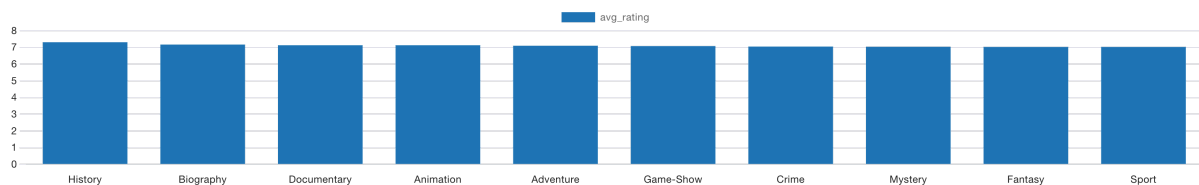
SELECT
  genre,
  ROUND(AVG(r.averageRating), 2) AS avg_rating,
  COUNT(*) AS total_titles
FROM (
  SELECT
    b.tconst,
    UNNEST(string_to_array(b.genres, ',')) AS genre
  FROM title_basics b
  JOIN title_ratings r ON b.tconst = r.tconst
  WHERE b.genres IS NOT NULL
) AS sub
JOIN title_ratings r ON sub.tconst = r.tconst
GROUP BY genre
HAVING COUNT(*) > 50
ORDER BY avg_rating DESC
LIMIT 10;

```

#### Output:

genre	avg_rating	total_titles
History	7.31	48965
Biography	7.17	33563
Documentary	7.13	209326
Animation	7.13	194527
Adventure	7.1	179663
Game-Show	7.08	41561
Crime	7.05	170822
Mystery	7.04	76995
Fantasy	7.03	66699
Sport	7.03	33146

#### Chart:



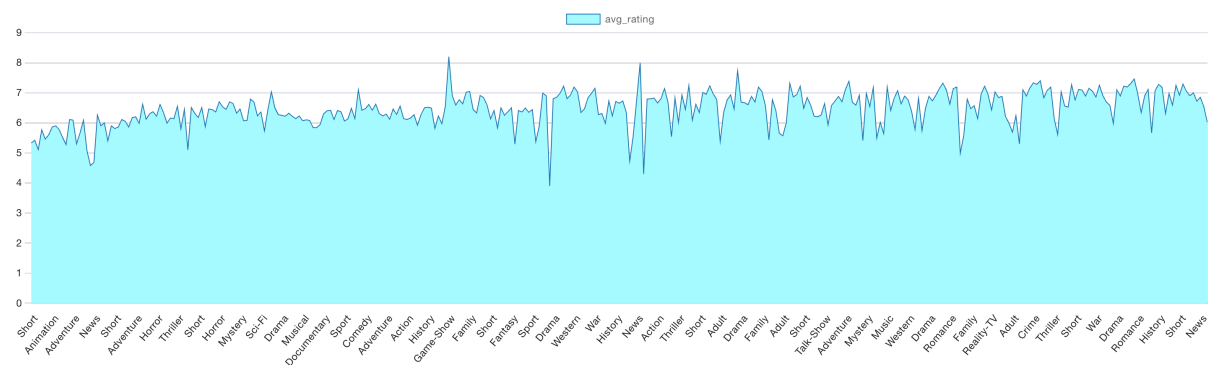
### 3. Average Rating of Each Genre per Decade

#### Output (Partial for 2020):

decade	genre	title_count	avg_rating
2020	Comedy	21852	6.89
2020	Action	15064	7.22

decade	genre	title_count	avg_rating
2020	Crime	13969	7.19
2020	Adventure	10666	7.31
2020	Animation	10168	7.46
2020	Romance	8654	6.97
2020	Thriller	8358	6.34
2020	Mystery	7865	6.9
2020	Documentary	6927	7.11
2020	Horror	5358	5.66

Chart:



## 4. Rating by Runtime Category

Explores how runtime affects average ratings across all titles

Query:

```
SELECT
CASE
  WHEN tb.runtimeMinutes < 60 THEN 'Short (<60min)'
  WHEN tb.runtimeMinutes BETWEEN 60 AND 89 THEN 'Medium (60–89min)'
  WHEN tb.runtimeMinutes BETWEEN 90 AND 119 THEN 'Feature (90–119min)'
  WHEN tb.runtimeMinutes >= 120 THEN 'Long (120+min)'
  ELSE 'Unknown'
END AS runtime_category,
COUNT(*) AS total_titles,
ROUND(AVG(tr.averageRating), 2) AS avg_rating
FROM title_basics tb
JOIN title_ratings tr ON tb.tconst = tr.tconst
WHERE tb.runtimeMinutes IS NOT NULL
GROUP BY runtime_category
ORDER BY total_titles DESC;
```

Output:

runtime_category	total_titles	avg_rating
Short (<60min)	695212	7.08

runtime_category	total_titles	avg_rating
Medium (60–89min)	206117	6.33
Feature (90–119min)	172777	6.11
Long (120+min)	61260	6.64

**Chart:**

