



# exploring **IMDB** **MOVIE**



Trends Using SQL

Presented by - VINAY KUMAR PANIKA




# GENERAL MOVIE ANALYSIS



# 1. Top 10 Highest-Rated Movies

```
SELECT TOP 10 names,  
score,genre  
FROM idmb  
ORDER BY score DESC;
```



names	score	genre
Pretty Young Sister 4	100	Drama, Romance
The Chosen: Season 3 - Episodes 1 & 2	100	Drama, History
Furin, hentai, monmon chômon	100	Drama
Housekeeper	100	Romance
Simulant	100	Science Fiction, Thriller
Orgasm Lecture 2	100	Drama
El asistente	100	Comedy
Female Boss Hooker	100	Drama, Romance
Rebound	98	Drama
Directing Annabelle: Creation	93	Documentary



# 2. Top 10 Movies with the Highest Revenue

```
SELECT TOP 10 names, genre,  
revenue  
FROM idmb  
ORDER BY revenue DESC;
```


names	genre	revenue
Avatar	Action, Adventure, Fantasy, Science Fiction	2923706112
Avengers: Endgame	Adventure, Science Fiction, Action	2794731776
Avatar: The Way of Water	Science Fiction, Adventure, Action	2316794880
Titanic	Drama, Romance	2222985472
Titanic	Drama, Romance	2222985472
Louis Tomlinson: All of Those Voices	Documentary, Music	2081794048
Star Wars: The Force Awakens	Adventure, Action, Science Fiction, Fantasy	2068223616
Avengers: Infinity War	Adventure, Action, Science Fiction	2048359808
Spider-Man: No Way Home	Action, Adventure, Science Fiction	1910048256
BTS: Permission to Dance on Stage - LA	Music, Documentary	1748017408

### 3. Distribution of Movies by Genre


```
SELECT genre, COUNT(*) AS movie_count  
FROM idmb
```

```
GROUP BY genre
```

```
ORDER BY movie_count DESC;
```



genre	movie_count
Drama	556
Comedy	372
Drama, Romance	268
Horror	258
Horror, Thriller	202
Comedy, Romance	187
Documentary	131
Action, Thriller	122
Comedy, Drama	121
Romance	117
Thriller	108



# 4. Average Movie Score Across Different Genres

```
SELECT genre, AVG(score) AS avg_score
FROM idmb
GROUP BY genre
ORDER BY avg_score DESC;
```

genre	avg_score
Adventure, Animation, Comedy, Fantasy, Mystery	85
Fantasy, Drama, Crime	85
Romance, Animation, Drama	85
Animation, Comedy, Romance	84.66666666666667
Animation, Family, Fantasy, Adventure, Comedy	83
Animation, Action, Adventure, Fantasy, Thriller	83
Animation, Action, Comedy, Mystery, Crime, Fantasy	83
Animation, Action, Science Fiction, Drama	83
Animation, Thriller	83
Adventure, Fantasy, Action, Family	83
Adventure, Fantasy, Animation	83



# 5. Correlation Between Movie Rating and Budget

SELECT

$$\frac{(\text{COUNT}(\ast) \ast \text{SUM}(\text{score} \ast \text{budget}) - \text{SUM}(\text{score}) \ast \text{SUM}(\text{budget}))}{(\text{SQRT}((\text{COUNT}(\ast) \ast \text{SUM}(\text{score} \ast \text{score}) - \text{SUM}(\text{score}) \ast \text{SUM}(\text{score})) \ast (\text{COUNT}(\ast) \ast \text{SUM}(\text{budget} \ast \text{budget}) - \text{SUM}(\text{budget}) \ast \text{SUM}(\text{budget})))}$$

AS correlation

FROM idmb

WHERE budget > 0 AND score IS NOT NULL;

correlation

-0.212976991148691



# **FiNANCiAL ANALYSiS**



# 6. Movies with Highest ROI

```
SELECT TOP 10 names, ((revenue - budget) / budget) AS ROI
FROM idmb
WHERE budget > 0 AND revenue > 0
ORDER BY ROI DESC;
```

names	ROI
Down	257720415
Girl in the Box	7700769.4
Tom and Jerry: The Movie	5268685.17142857
The Umbrellas of Cherbourg	5013772.71428571
The Wailer	680705.24
20th Century Girl	648172.042016807
The Reluctant Dragon	360945.266666667
The Platform	358138.066666667
77+33=?	56017.0113636364
Mortal Kombat: Rebirth	40071.9642666667

# 7. Trend of Budget vs. Revenue Over the Years

```
SELECT YEAR(date) AS release_year,  
       AVG(budget) AS avg_budget,  
       AVG(revenue) AS avg_revenue  
FROM idmb  
WHERE budget > 0 AND revenue > 0  
GROUP BY YEAR(date)  
ORDER BY release_year;
```

release_year	avg_budget	avg_revenue
1903	106400000	524759360
1907	5985	39962472
1915	5055000	13945506
1920	18000	8811
1923	7873666.666666667	29328611.666666667
1925	4644800	4522550
1928	32595000	214851632
1929	80800000	517852448
1930	1448864	3270000
1931	36728750	152079626
1932	12655303.5	24810965.75

# 8. Percentage of Movies That Made a Profit vs. a Loss

```
SELECT
  SUM(CASE WHEN revenue > budget THEN 1 ELSE 0 END) * 100.0 /
COUNT(*) AS profit_percentage,
  SUM(CASE WHEN revenue <= budget THEN 1 ELSE 0 END) * 100.0 /
COUNT(*) AS loss_percentage
FROM idmb
WHERE budget > 0 AND revenue > 0;
```

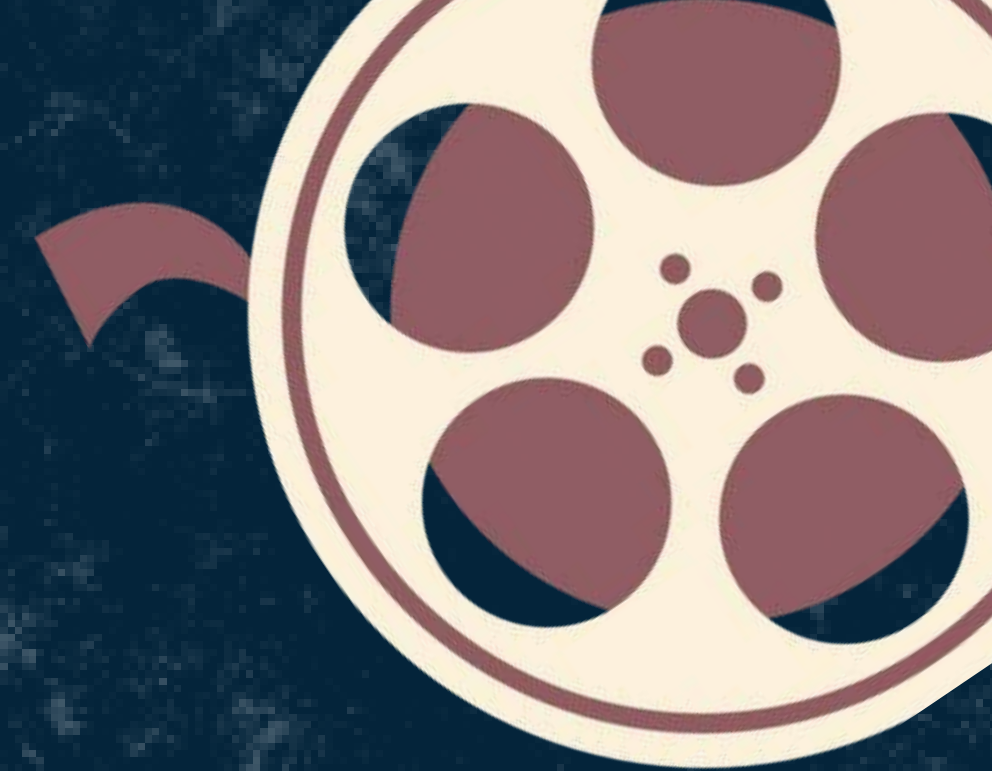
profit_percentage	loss_percentage
80.805853462964	19.194146537035



# 9. Countries with the Highest-Grossing Movies

```
SELECT Country, SUM(revenue) AS total_revenue FROM idmb
WHERE revenue > 0
GROUP BY Country
ORDER BY total_revenue DESC;
```

Country	total_revenue
Australia	939589365541.125
United States of America	729926488928.125
Japan	204321832622.5
South Korea (Republic of Korea)	125327907899.5
France	66142198489.8125
Spain	51693964633
United Kingdom (Great Britain)	51132205974.75
Mexico	47924669816.5
Italy	43992157172.625
Hong Kong	38718653225.25
Germany (Deutschland)	29745309967.625



# 10. Total Revenue Contribution by Each Country

```
SELECT Country, SUM(revenue) AS total_revenue FROM idmb
WHERE revenue > 0
GROUP BY Country
ORDER BY total_revenue DESC;
```

Country	total_revenue
Australia	939589365541.125
United States of America	729926488928.125
Japan	204321832622.5
South Korea (Republic of Korea)	125327907899.5
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# TIME- BASED TRENDS





# 11. Number of Movie Releases Over the Years

```
SELECT YEAR(date) AS release_year, COUNT(*) AS movie_count
FROM idmb
GROUP BY YEAR(date)
ORDER BY movie_count DESC;
```

release_year	movie_count
2022	935
2021	618
2019	465
2018	465
2020	448
2017	430
2016	382
2023	372
2015	347
2014	343
2013	296

# 12. Revenue Trends Over the Years

```
SELECT YEAR(date) AS release_year, SUM(revenue) AS total_revenue
FROM idmb
WHERE revenue > 0
GROUP BY YEAR(date)
ORDER BY total_revenue DESC;
```

release_year	total_revenue
2022	350330034271.375
2021	208387105648
2020	141663164315.75
2019	137434492137.188
2018	123235026006.875
2023	116859267409.5
2017	116763938391.75
2016	96965602651.125
2015	91841433851.25
2014	85974112604.75
2013	68488808724.25

# 13. Years with the Highest Number of Blockbuster Movies

```
SELECT YEAR(date) AS release_year, SUM(revenue) AS total_revenue
FROM idmb
WHERE revenue > 0
GROUP BY YEAR(date)
ORDER BY total_revenue DESC;
```

release_year	blockbuster_count
2022	17
2019	13
2018	10
2020	9
2021	8
2017	8
2016	7
2023	7
2015	6
2010	5
2012	4



# 14. Yearly Trend of Movie Budgets and Revenues

```
SELECT YEAR(date) AS release_year,  
       AVG(budget) AS avg_budget,  
       AVG(revenue) AS avg_revenue  
FROM idmb  
WHERE budget > 0 AND revenue > 0  
GROUP BY YEAR(date)  
ORDER BY release_year;
```

release_year	avg_budget	avg_revenue
1903	106400000	524759360
1907	5985	39962472
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1929	80800000	517852448
1930	1448864	3270000
1931	36728750	152079626
1932	12655303.5	24810965.75

# 15. Year with the Highest Average Movie Score

```
SELECT TOP 1 YEAR(date) AS release_year, AVG(score) AS avg_score
FROM idmb
WHERE score IS NOT NULL
GROUP BY YEAR(date)
ORDER BY avg_score DESC;
```

release_year	avg_score
1907	80





# COUNTRY SPECiFiC INSiGHTS



# 16. Country Producing the Highest-Rated Movies on Average

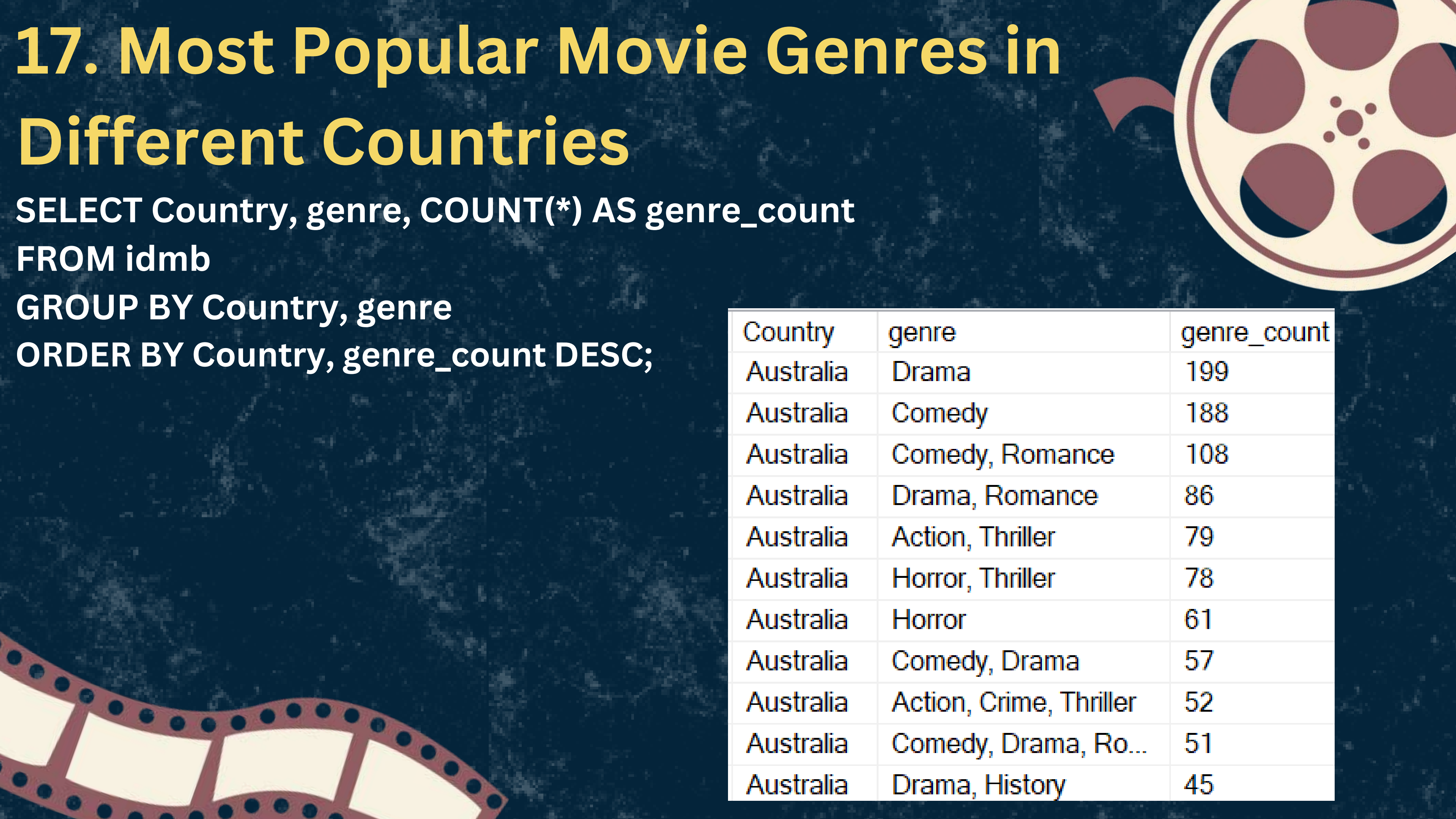
```
SELECT TOP 1 Country, AVG(score) AS avg_rating  
FROM idmb  
WHERE score IS NOT NULL  
GROUP BY Country  
ORDER BY avg_rating DESC;
```

Country	avg_rating
Soviet Union (historical)	79.8



# 17. Most Popular Movie Genres in Different Countries

```
SELECT Country, genre, COUNT(*) AS genre_count
FROM idmb
GROUP BY Country, genre
ORDER BY Country, genre_count DESC;
```



Country	genre	genre_count
Australia	Drama	199
Australia	Comedy	188
Australia	Comedy, Romance	108
Australia	Drama, Romance	86
Australia	Action, Thriller	79
Australia	Horror, Thriller	78
Australia	Horror	61
Australia	Comedy, Drama	57
Australia	Action, Crime, Thriller	52
Australia	Comedy, Drama, Ro...	51
Australia	Drama, History	45

# 18. Budget Allocation Across Different Countries

```
SELECT Country, AVG(budget) AS avg_budget
FROM idmb
WHERE budget > 0
GROUP BY Country
ORDER BY avg_budget DESC;
```

Country	avg_budget
Slovakia	174600000
Uruguay	163370000
Hungary	157200000
Paraguay	153000000
Singapore	126500000
Indonesia	114411138.818182
Bolivia	111940000
Philippines	109765993.928571
Brazil	103203176.947368
Mauritius	100971600
Turkey	98957106.4736842





# 19. Average Movie Rating for Each Country

```
SELECT Country, AVG(score) AS avg_score
FROM idmb
WHERE score IS NOT NULL
GROUP BY Country
ORDER BY avg_score DESC;
```

Country	avg_score
Soviet Union (historical)	79.8
Puerto Rico	76
Southeast Asia	76
Czech Republic (Czechia)	72.5
Dominican Republic	72
Paraguay	71
Mexico	70.2058823529412
Mauritius	70
Guatemala	68
Denmark	67.33333333333333
Austria	67

# 20. Country with the Most Movies in the Dataset

```
SELECT TOP 1 Country, COUNT(*) AS movie_count  
FROM idmb  
GROUP BY Country  
ORDER BY movie_count DESC;
```

Country	movie_count
Australia	4879





# CONTACT INFORMATION



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Thank you for your time and consideration.  
I hope this project provides valuable insights.  
Please feel free to connect with me for any  
discussions or suggestions.

