IMDB Movie Analysis

Problem Statement

Integrate movies data related to crew, box office performance, movie details and name changes.

Source Data:

MySQL : Load this SQL DB file to your local MySQL database and use as source connection

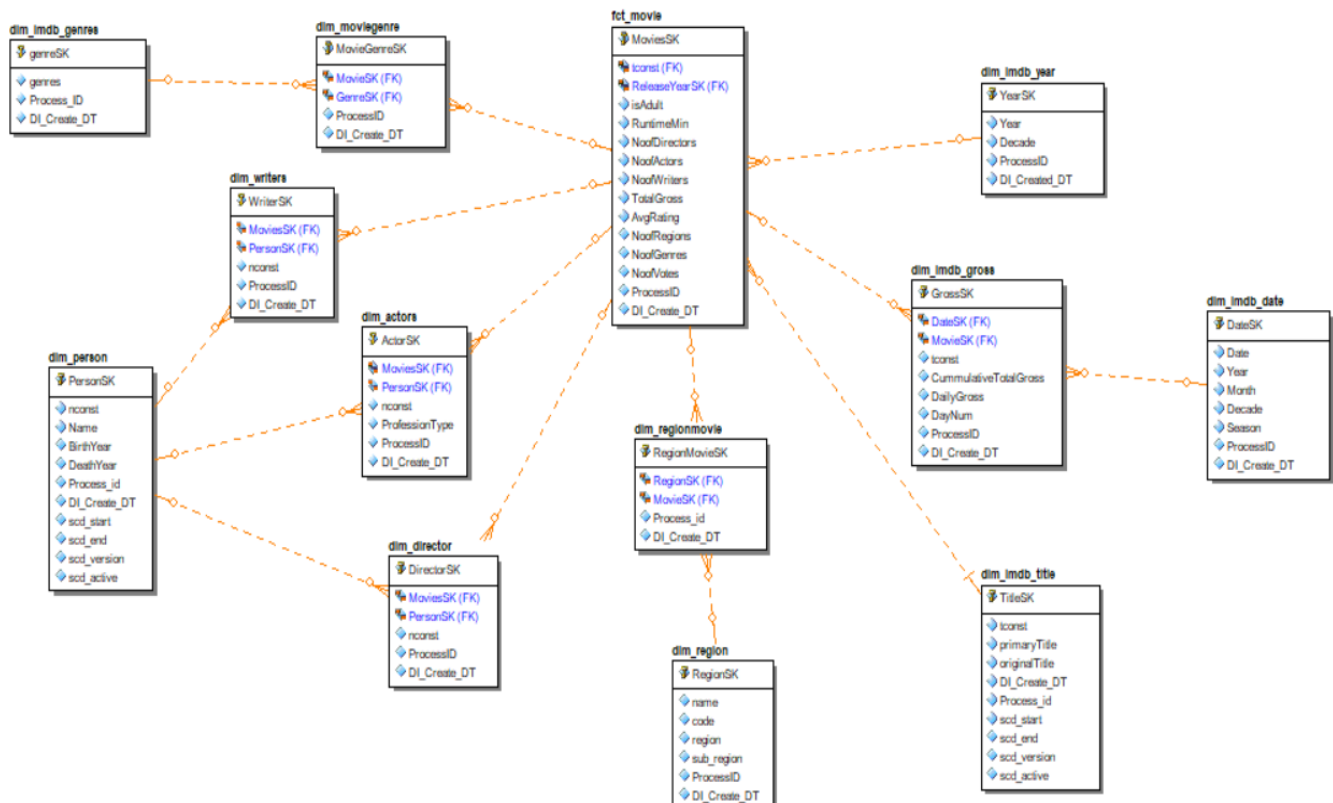*Revenue related TSV files* with Movie box office numbers

SCD2 related data JSON files: There are 2 JSON file contains Movie titles changes file contains actor name changes

BI Requirements:

Trend Analysis, Genre Analysis, Performance Metrics, Director Success Metrics, Actor and Actress Film Records, Seasonal Analysis, Release Regions and Movie Success.
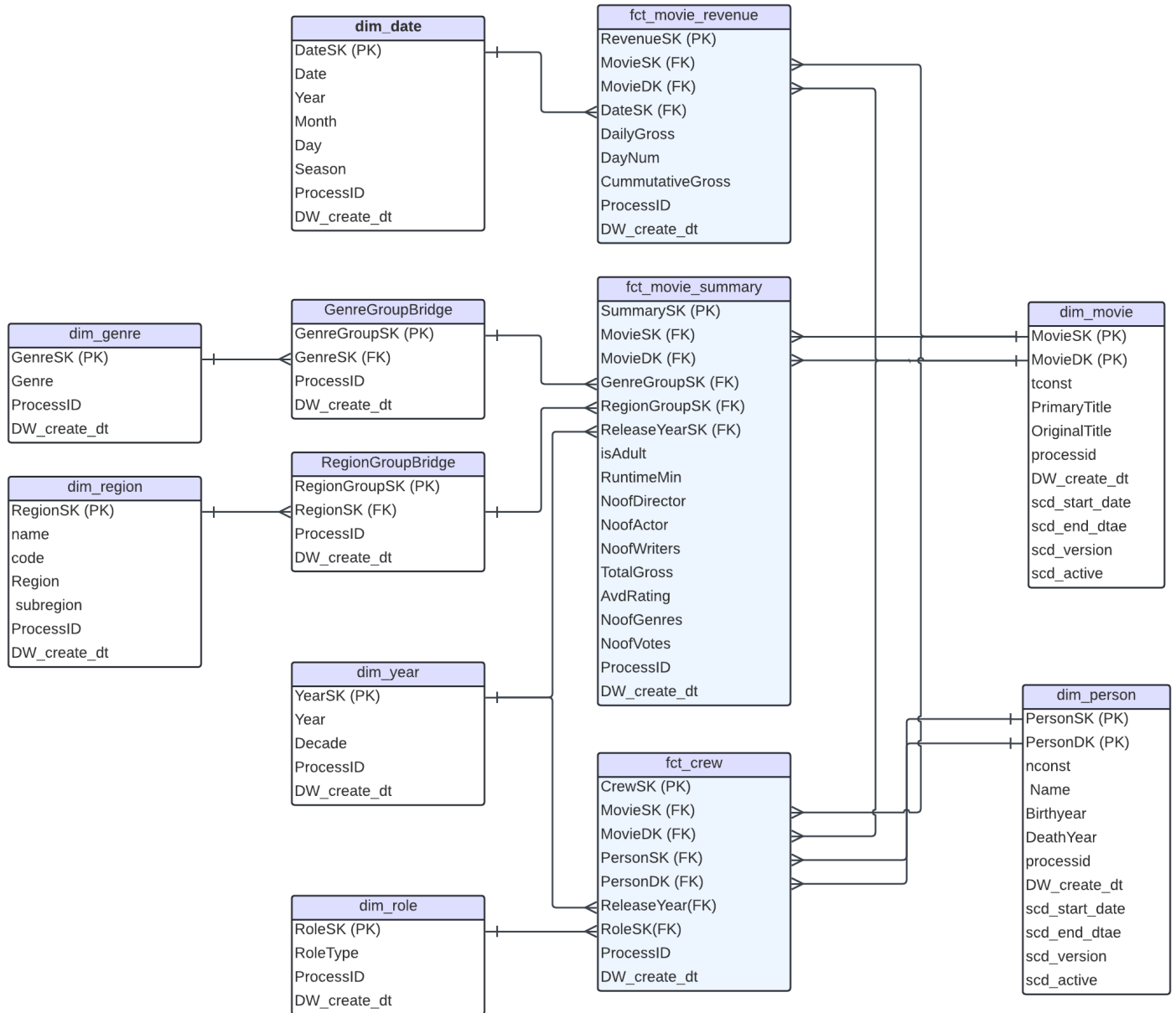
Solution: GitHub

Data Model: I created a Data Model in Dec 2023 for the Project. I have updated this model as this has design and implementation flaws.
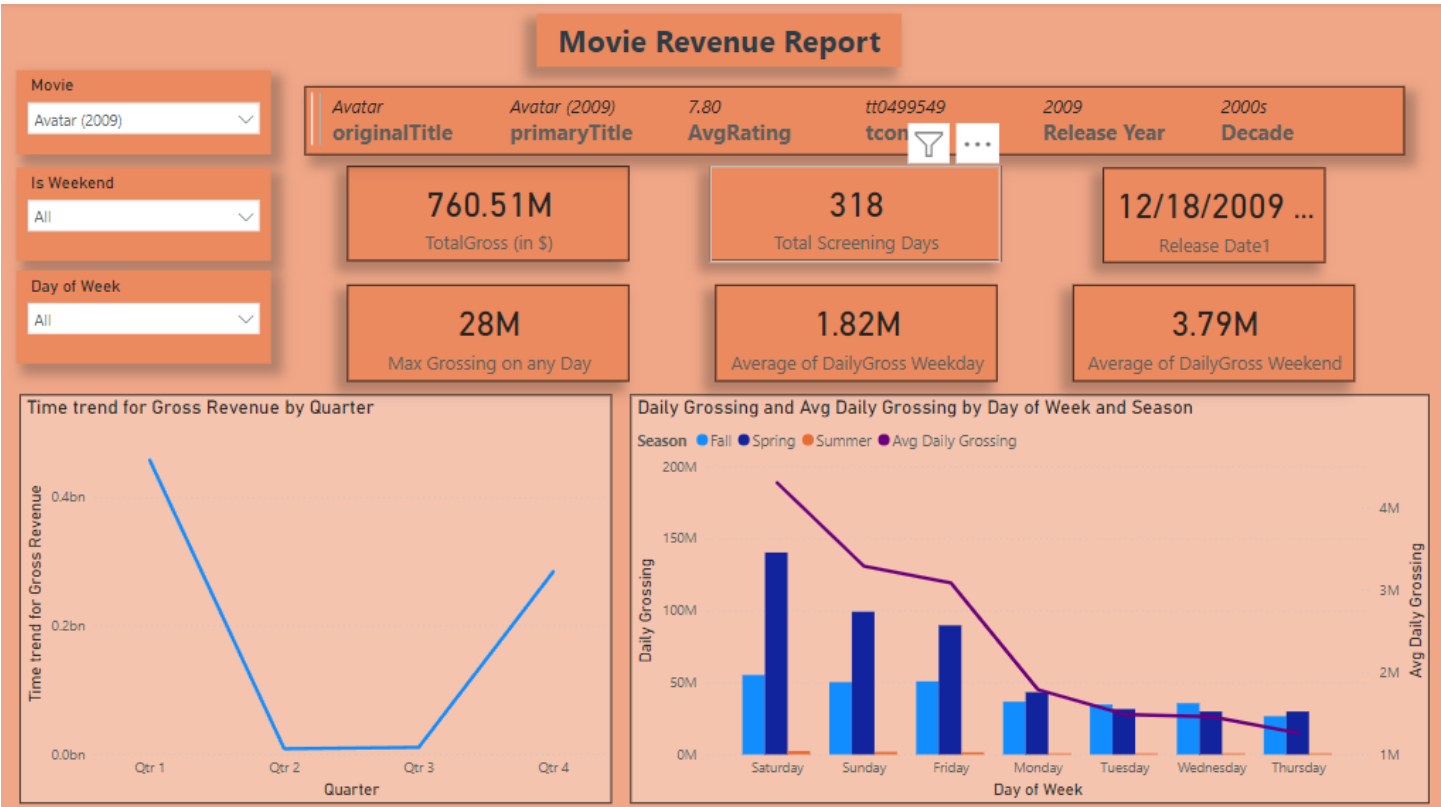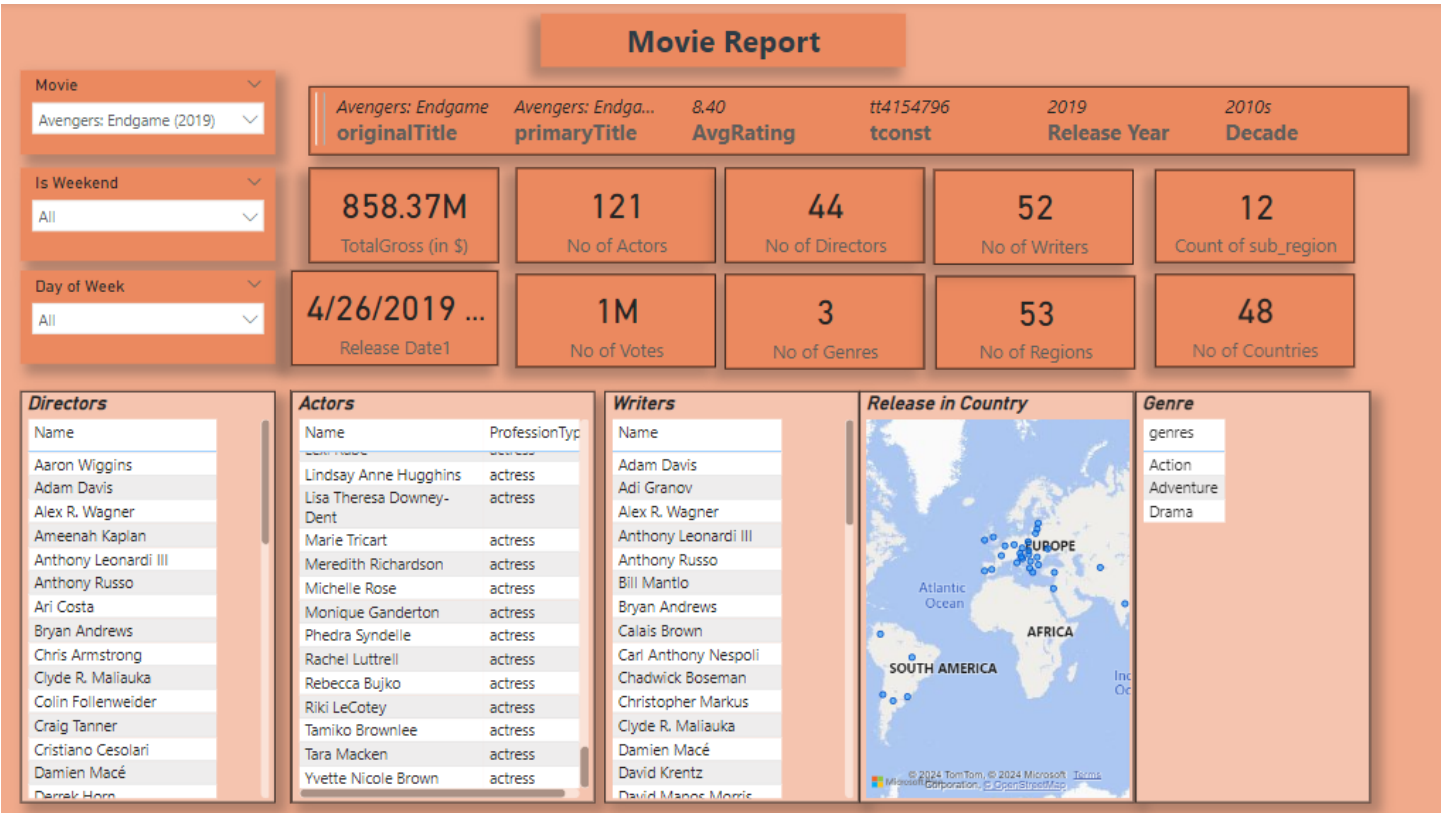
Updated Model:

1. Reduced dependency
2. Implement Conformed Dimensions
3. Keys Consistency
4. Improved Performance

dim_date
DateSK (PK)
Date
Year
Month
Day
Season
ProcessID
DW_create_dt

fct_movie_revenue
RevenueSK (PK)
MovieSK (FK)
MovieDK (FK)
DateSK (FK)
DailyGross
DayNum
CummutativeGross
ProcessID
DW_create_dt

GenreGroupBridge
GenreGroupSK (PK)
GenreSK (FK)
ProcessID
DW_create_dt

dim_genre
GenreSK (PK)
Genre
ProcessID
DW_create_dt

fct_movie_summary
SummarySK (PK)
MovieSK (FK)
MovieDK (FK)
GenreGroupSK (FK)
RegionGroupSK (FK)
ReleaseYearSK (FK)
isAdult
RuntimeMin
NoofDirector
NoofActor
NoofWriters
TotalGross
AvdRating
NoofGenres
NoofVotes
ProcessID
DW_create_dt

dim_movie
MovieSK (PK)
MovieDK (PK)
tconst
PrimaryTitle
OriginalTitle
processid
DW_create_dt
scd_start_date
scd_end_dtae
scd_version
scd_active

dim_region
RegionSK (PK)
name
code
Region
 subregion
ProcessID
DW_create_dt

RegionGroupBridge
RegionGroupSK (PK)
RegionSK (FK)
ProcessID
DW_create_dt

dim_year
YearSK (PK)
Year
Decade
ProcessID
DW_create_dt

fct_crew
CrewSK (PK)
MovieSK (FK)
MovieDK (FK)
PersonSK (FK)
PersonDK (FK)
ReleaseYear(FK)
RoleSK(FK)
ProcessID
DW_create_dt

dim_person
PersonSK (PK)
PersonDK (PK)
nconst
 Name
Birthyear
DeathYear
processid
DW_create_dt
scd_start_date
scd_end_dtae
scd_version
scd_active

dim_role
RoleSK (PK)
RoleType
ProcessID
DW_create_dt

BI Reports

Reports are based on the old Dimensional Model. I have used DAX and Power Query to enhance my reports.

Movie Report

Movie
Avengers: Endgame (2019)

Is Weekend
All

Day of Week
All

| Avengers: Endgame | Avengers: Endga... | 8.40 | tt4154796 | 2019 | 2010s |
| originalTitle | primaryTitle | AvgRating | tconst | Release Year | Decade |

| 858.37M | 121 | 44 | 52 | 12 |
| TotalGross (in $) | No of Actors | No of Directors | No of Writers | Count of sub_region |

| 4/26/2019 ... | 1M | 3 | 53 | 48 |
| Release Date1 | No of Votes | No of Genres | No of Regions | No of Countries |

Directors

Name
Aaron Wiggins
Adam Davis
Alex R. Wagner
Ameenah Kaplan
Anthony Leonardi III
Anthony Russo
Ari Costa
Bryan Andrews
Chris Armstrong
Clyde R. Maliauka
Colin Follenweider
Craig Tanner
Cristiano Cesolari
Damien Macé
Derrek Horn

Actors

Name	ProfessionTyp
Lindsay Anne Hugghins	actress
Lisa Theresa Downey-Dent	actress
Marie Tricart	actress
Meredith Richardson	actress
Michelle Rose	actress
Monique Ganderton	actress
Phedra Syndelle	actress
Rachel Luttrell	actress
Rebecca Bujko	actress
Riki LeCotey	actress
Tamiko Brownlee	actress
Tara Macken	actress
Yvette Nicole Brown	actress

Writers

Name
Adam Davis
Adi Granov
Alex R. Wagner
Anthony Leonardi III
Anthony Russo
Bill Mantlo
Bryan Andrews
Calais Brown
Carl Anthony Nespoli
Chadwick Boseman
Christopher Markus
Clyde R. Maliauka
Damien Macé
David Krentz
David Manos Morris

Release in Country

Genre

genres
Action
Adventure
Drama

Movie Revenue Report

Movie
Avatar (2009)

Is Weekend
All

Day of Week
All

| Avatar | Avatar (2009) | 7.80 | tt0499549 | 2009 | 2000s |
| originalTitle | primaryTitle | AvgRating | tconst | Release Year | Decade |

| 760.51M | 318 | 12/18/2009 ... |
| TotalGross (in $) | Total Screening Days | Release Date1 |

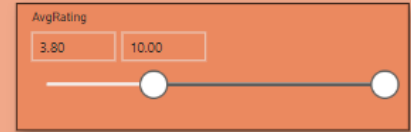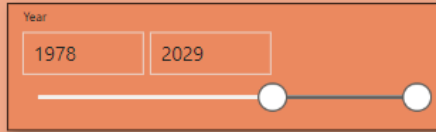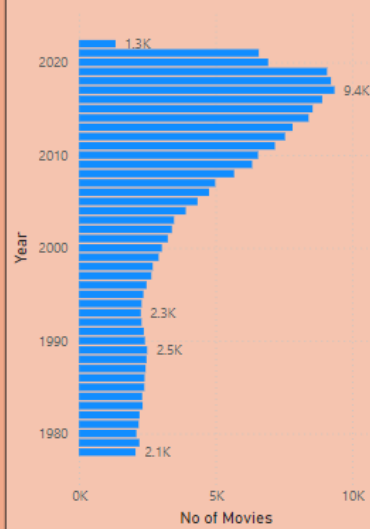| 28M | 1.82M | 3.79M |
| Max Grossing on any Day | Average of DailyGross Weekday | Average of DailyGross Weekend |

Time trend for Gross Revenue by Quarter

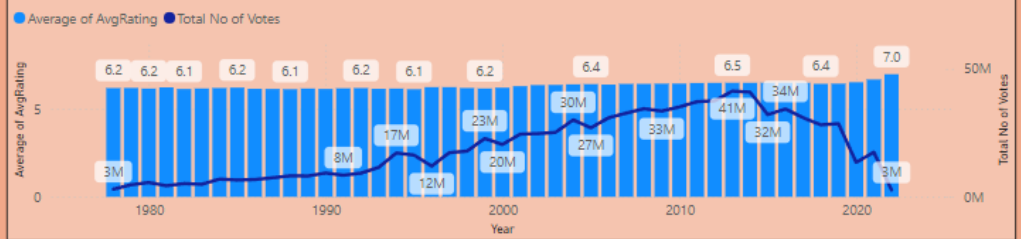**Daily Grossing and Avg Daily Grossing by Day of Week and Season**

Trend Analysis Report

Year
1978 2029

RuntimeMin
1 13108

AvgRating
3.80 10.00

No of Movies by Year

Average of RuntimeMin by Year

97.55 99.91 99.88 97.85 95.18 101.33 97.32

95.10 96.05 95.82 94.66 91.96 93.25

Average of AvgRating and Total No of Votes by Year

● Average of AvgRating ● Total No of Votes

6.2 6.2 6.1 6.2 6.1 6.2 6.1 6.2 6.4 6.5 6.4 7.0

3M 17M 23M 30M 34M 41M 32M 3M
8M 20M 27M 33M
12M

Actor Dashboard

Stan Lee	*1922*	*2018*	*nm0498278*
Name	**BirthYear**	**DeathYear**	**nconst**

Actor Name
Stan Lee

primaryTitle
All

nconst
All

87.51M	0	4	12
TotalGross (in $)	No of Movies as Director	No of Regions	Count of sub_region

8	0	8	54
No of Movies as Actor	No of Movies as Writer	No of genres	No of Countries

Movies

primaryTitle	originalTitle
Black Panther (2018)	Black Panther
Doctor Strange	Doctor Strange
Guardians of the Galaxy...	Guardians of the Galaxy V...
Gue Kapok Jatuh Cinta	Gue Kapok Jatuh Cinta
Jugular Wine: A Vampir...	Jugular Wine: A Vampire ...
NA	Na

Released in Countries

Genre

Action 4
Adventure 4
Comedy 3
Fantasy 2
Sci-Fi 2
Family 1
Horror 1
Romance 1
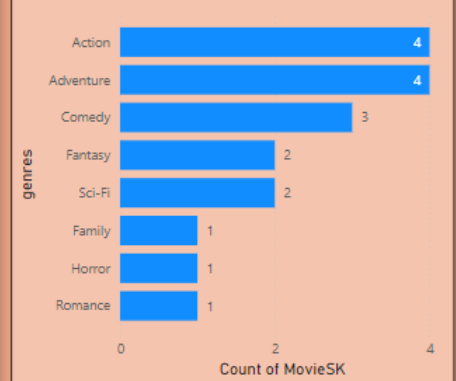
Count of MovieSK

Director Dashboard

Director Name
A.J. Briones

primaryTitle
All

nconst
All

A.J. Briones	*9999*	*9999*	*nm2310077*
Name	**BirthYear**	**DeathYear**	**nconst**

152.10M	5	4	12
TotalGross (in $)	No of Movies as Director	No of Regions	Count of sub_region

0	4	7	56
No of Movies as Actor	No of Movies as Writer1	No of genres	No of Countries

Movies

A Night of Horror: Nigh...	A Night of Horror: Nightm...
primaryTitle	originalTitle
Avatar (2009)	Avatar
primaryTitle	originalTitle
Battleship	Battleship
primaryTitle	originalTitle
Dawn of the Planet of t...	Dawn of the Planet of the ...
primaryTitle	originalTitle
NA	Na
primaryTitle	originalTitle

Movie released countries

Genre

(Genre bar chart — genres vs Count of MovieSK)
- Action
- Adventure
- Drama
- Fantasy
- Horror
- Mystery
- Sci-Fi
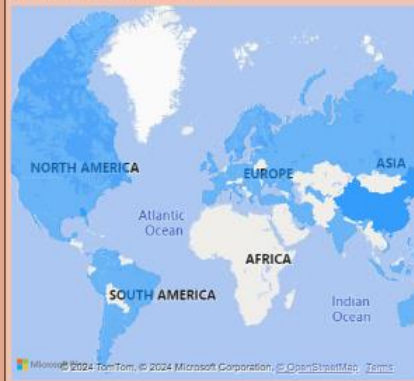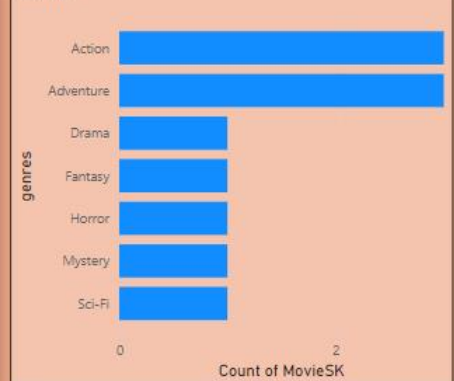
Region Report

Region

Select all	Africa	Americas	Asia	Europe	NA	Oceania

No of Movies by Country

No of Movies by region
- Europe
- Americas
- Asia
- Oceania
- NA
- Africa

(0.0M – 0.5M – 1.0M, No of Movies)
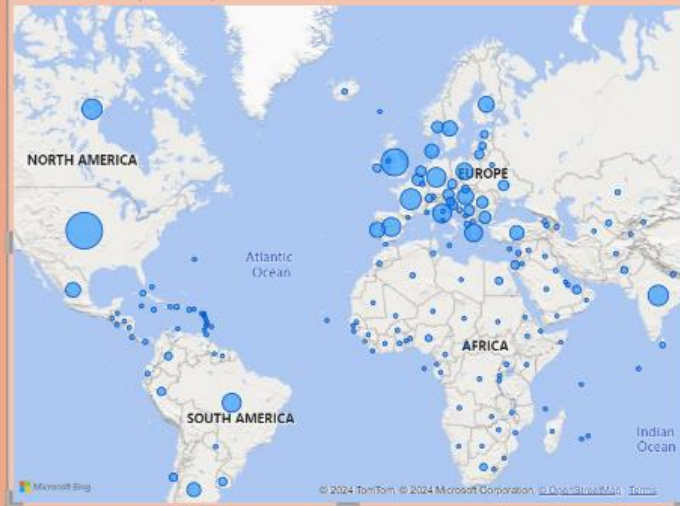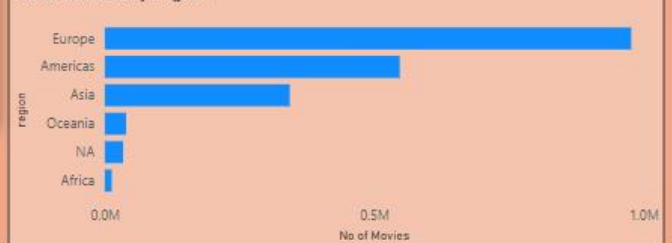
No of Movies by sub_region

(bar chart by sub_region: Northern America, Northern Europe, Southern Europe, Western Europe, Eastern Europe, Latin America and the ..., Eastern Asia, South-eastern Asia, Western Asia, Australia and New Zea..., NA, Sub-Saharan Africa, Northern Africa, Central Asia, Melanesia, Micronesia, Polynesia)