

# LIGHTS, CAMERA, DATA

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MODULE: DSC PT07



# OVERVIEW

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- Microsoft wants to start creating original video content.
- This exploration incorporated various public movie datasets that contain information on films in the box office.
- They were then used to provide insight on the viability of the project for Microsoft, i.e. what the company should consider before embarking on the project.
- Some findings include the top grossing movies, movie genres and studios as well as genres that had the most movies.
- Recommendations given include using more recent data (2018 to date) to provide updated information. and look into modern-day content such as social media content, live streaming to be able to compete with established studios.



# BUSINESS PROBLEM

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The questions that guided the data exploration:

- What are the top grossing movies? The details will guide Microsoft on movie types to emulate.
- What is the performance of movies by genre - number of movies, gross income, ratings? This will inform on the genres worth investing in.
- How useful is the performance of a studio in terms of gross income? Microsoft may look into engaging the studios/directors for the content creation.



# DATA UNDERSTANDING

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The datasets used in this analysis are:

➤ Box Office Mojo

- Determining the income returns per movie over the years.

➤ TheMovieDB

- Gauging the performance of films in the box office, hence, deciding on, for instance, the most popular genres.

➤ IMDb - an SQL database

- The files of interest were `imdb.title.basics.csv.gz` (genre information and reviews) and `imdb.title.ratings.csv.gz`



# DATA PREPARATION

- Files were imported using appropriate functions in Pandas.
- Some columns were dropped while others were added.
- The three datasets were then merged into one DataFrame (movies) for a cleaner analysis.



# DATA ANALYSIS

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- Python libraries were used to conduct analysis.
  - Pandas
  - Numpy
  - Matplotlib
  - Sqlite3
- A Jupyter Notebook was used to edit and run the Python codes.



# EVALUATION

The top grossing movie is an Action, Adventure and Sci-fi movie.

This is a pointer that movies in these genres are likely to do well in the industry.

Top Grossing Movies

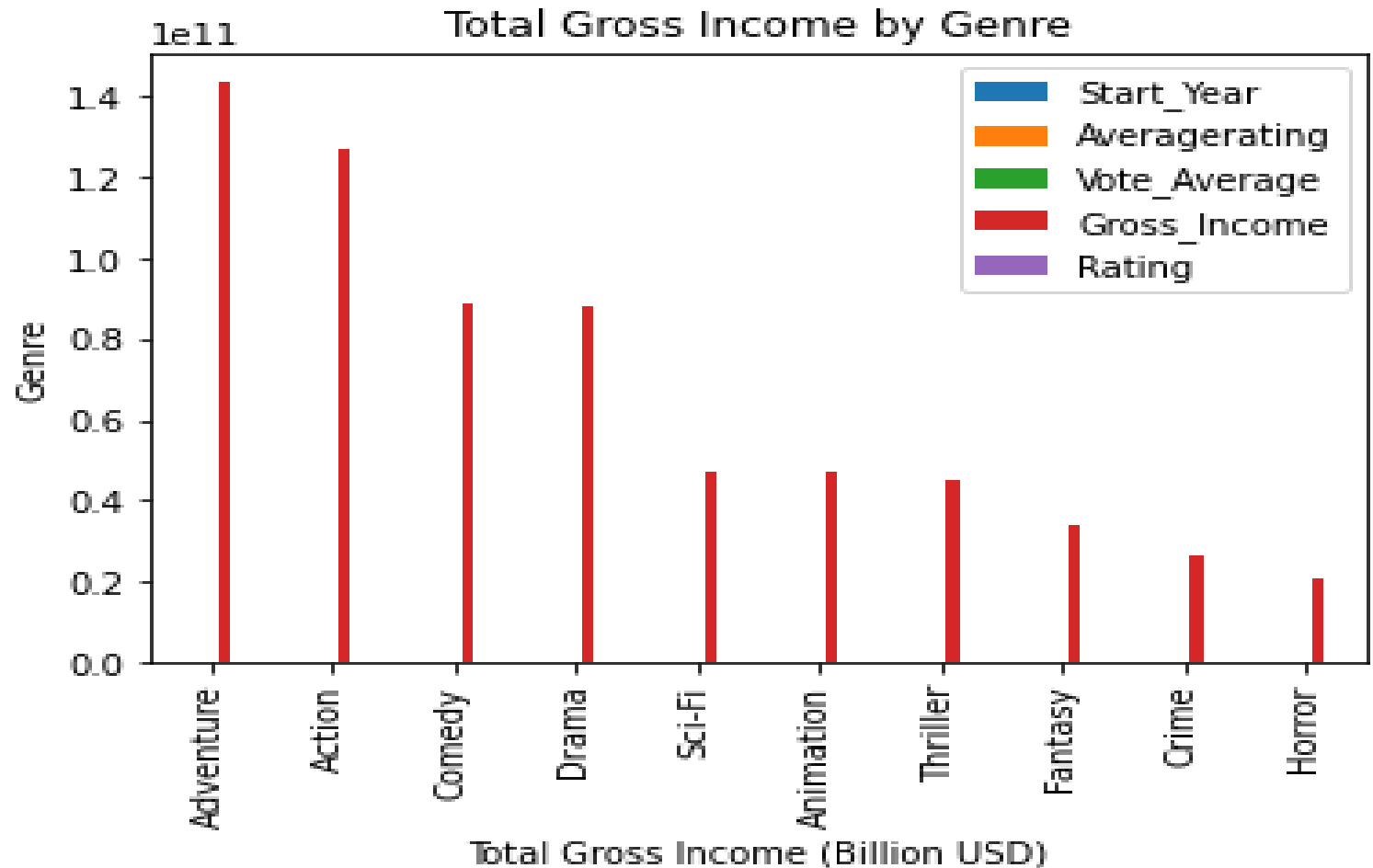
index	Title	Start_Year	Genres	Averagerating	Vote_Average	Studio	Gross_Income
2878	Avengers: Infinity War	2018	Action,Adventure,Sci-Fi	8.500000	8.300000	BV	2052399557
2878	Avengers: Infinity War	2018	Action,Adventure,Sci-Fi	8.500000	8.300000	BV	2052399557
2878	Avengers: Infinity War	2018	Action,Adventure,Sci-Fi	8.500000	8.300000	BV	2052399557
6	Jurassic World	2015	Action,Adventure,Sci-Fi	7.000000	6.600000	Uni.	1670430819
6	Jurassic World	2015	Action,Adventure,Sci-Fi	7.000000	6.600000	Uni.	1670430819
6	Jurassic World	2015	Action,Adventure,Sci-Fi	7.000000	6.600000	Uni.	1670430819
2421	Furious 7	2015	Action,Crime,Thriller	7.200000	7.300000	Uni.	1515334379
2421	Furious 7	2015	Action,Crime,Thriller	7.200000	7.300000	Uni.	1515334379
2421	Furious 7	2015	Action,Crime,Thriller	7.200000	7.300000	Uni.	1515334379
2198	Avengers: Age of Ultron	2015	Action,Adventure,Sci-Fi	7.300000	7.300000	BV	1405400000
2198	Avengers: Age of Ultron	2015	Action,Adventure,Sci-Fi	7.300000	7.300000	BV	1405400000
2198	Avengers: Age of Ultron	2015	Action,Adventure,Sci-Fi	7.300000	7.300000	BV	1405400000



## EVALUATION (CONT.)

The genres with the highest grossing are Adventure, Action and Comedy.

It may be good business to build a foundation with these genres in the content creation business.





## EVALUATION (CONT.)

**Most movies produced were in the Drama, Comedy and Action genres.**

### Possibilities

- The genres are cheaper and faster to produce.
- That there higher returns on investment from these genres
- There is more demand for these genres than most other genres.

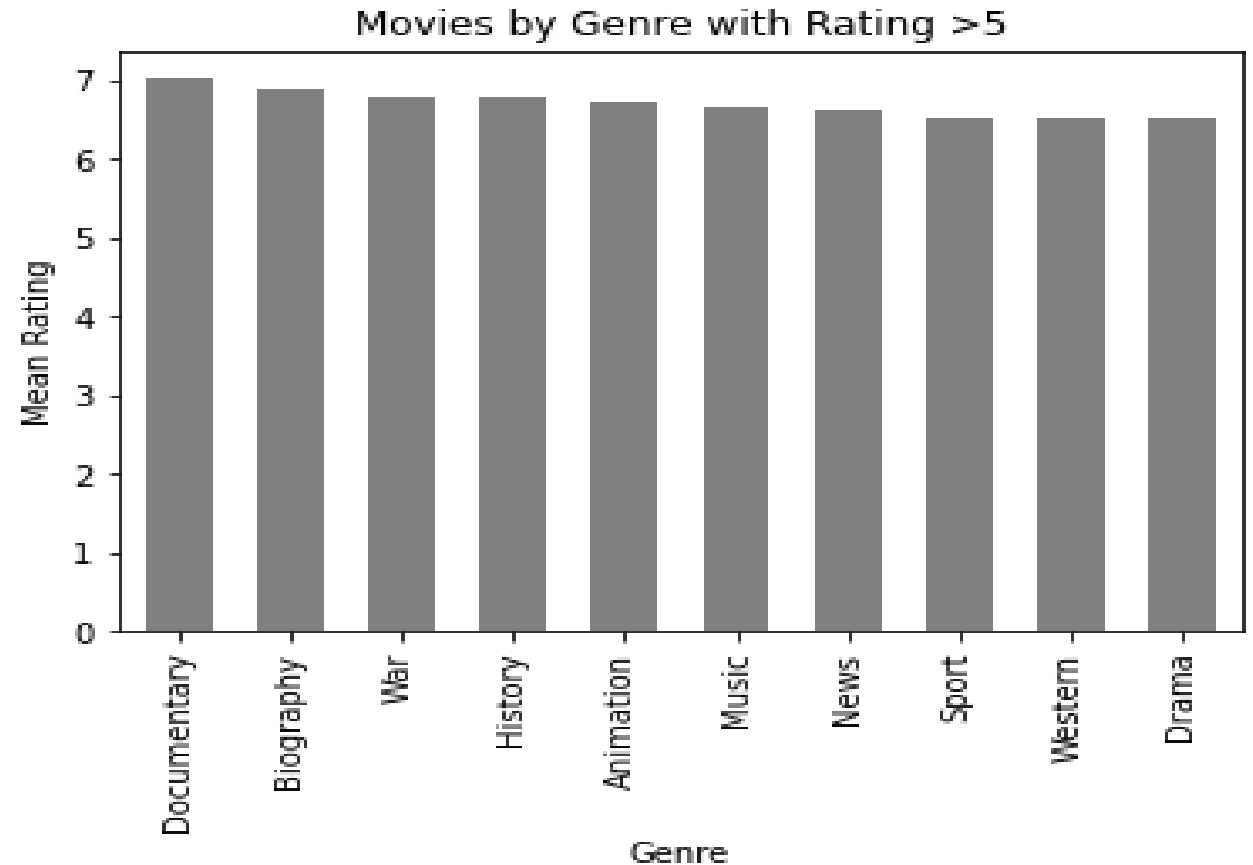
Genre	
Drama	1937
Comedy	958
Action	661
Thriller	539
Adventure	491
Romance	481
Crime	433
Biography	329
Horror	315
Mystery	243
Documentary	231
Fantasy	194
Sci-Fi	160
Animation	158



## EVALUATION (CONT.)

Documentaries, Biography and War movies had the highest ratings on average.

It may mean one of two things - the fans are more responsive and/or the production quality standards are high.



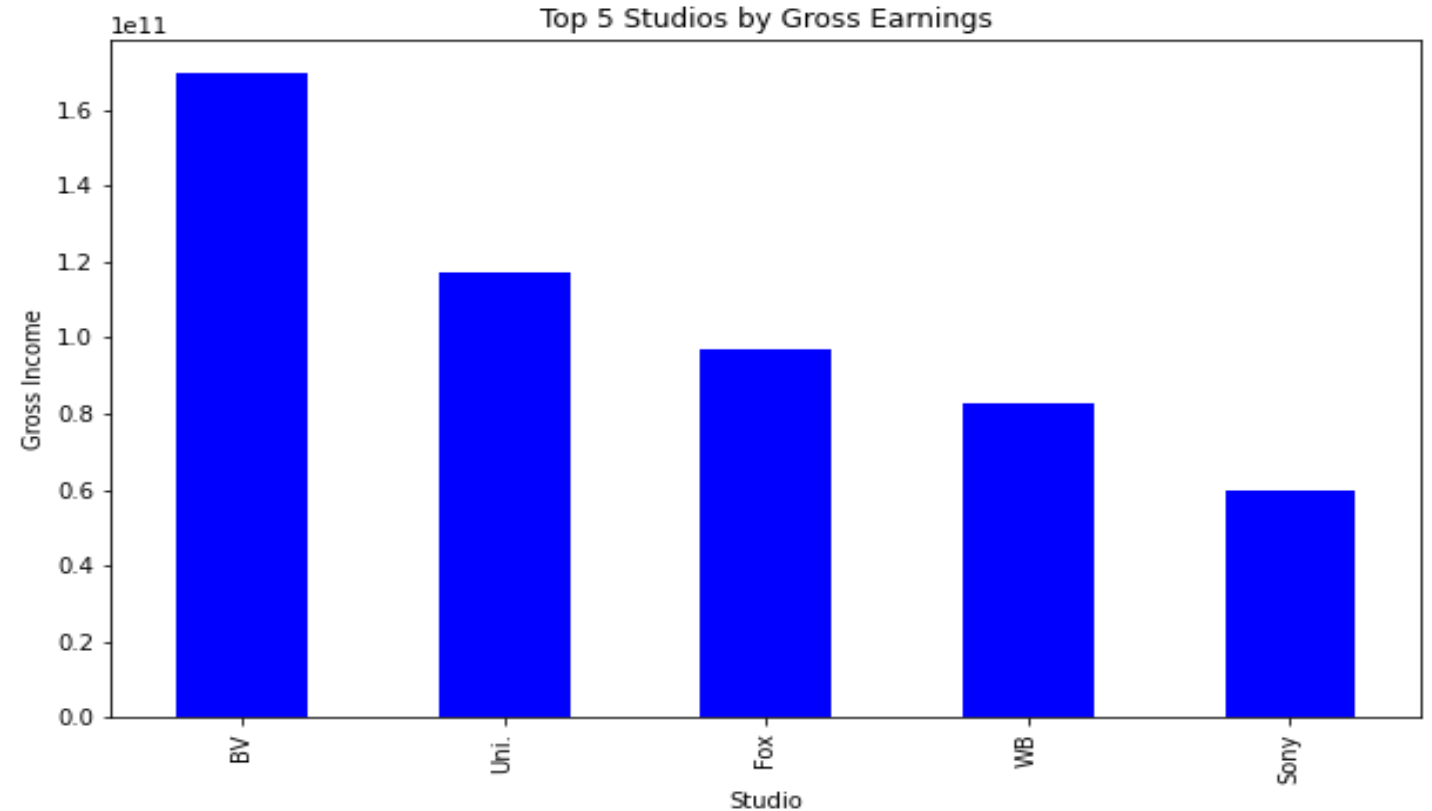
## EVALUATION (CONT.)

Buena Vista, Universal Pictures and Fox Studios grossed the highest income of all the studios represented in the datasets.

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Engaging the skillsets in these studios is important to ensure quality production.

Emulating the culture of the studios in the content creation business will be good practice for the business.



# CONCLUSION AND RECOMMENDATIONS

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- The project is viable.
- Conduct further analysis using more recent data (2018 to date) to provide updated information.
- Look into modern-day content such as social media content, live streaming, 3-D and 4-D, etc. This will place them on a better playing ground with more established studios.



**THE END**



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project review date/time:6/3/2024
- Instructor name: SAM G/SAM KARU/WINNIE A
- Blog post URL:[https://github.com/wafulaandree/PhaseOneProject\\_Movies](https://github.com/wafulaandree/PhaseOneProject_Movies)

