





#### DATA SCIENTIST

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EXPLORATORY DATA ANALYSIS ON OWNING AND RUNNING A PROFITABLE MOVIE STUDIO.

## INTRODUCTION

MICROSOFT WANTS TO CREATE A NEW MOVIE STUDIO. I HAVE BEEN CHARGED WITH EXPLORING WHAT TYPES OF FILMS ARE DOING THE BEST AT THE BOX OFFICE, THEN TRANSLATING THOSE FINDINGS INTO ACTIONABLE INSIGHTS THAT THE HEAD OF MICROSOFT'S NEW MOVIE STUDIO CAN USE TO HELP DECIDE WHAT TYPE TO CREATE.

#### BUSINESS UNDERSTANDING.



A FILM PRODUCTION COMPANY CREATES, PRODUCES, AND MARKETS LONG- OR SHORT-FORM FILM OR VIDEO CONTENT. AS THE OWNER OF A FILM OR VIDEO PRODUCTION COMPANY, YOU'LL CREATE, PRODUCE, MARKET, AND FIND DISTRIBUTION FOR DIGITAL OR ANALOG FILM OR VIDEO CONTENT. THIS MIGHT TAKE THE FORM OF MOVIES, TELEVISION PROGRAMMING, DOCUMENTARIES, INDUSTRIAL FILMS, COMMERCIALS, OR OTHER RELATED WORK. THE FILM INDUSTRY IS A COMPLEX AND MULTIFACETED ECOSYSTEM THAT INCLUDES VARIOUS STAKEHOLDERS SUCH AS PRODUCERS, DIRECTORS, ACTORS, AND DISTRIBUTORS, AMONG OTHERS.

## PROBLEM STATEMENT

One of the most significant creative challenges facing the film industry today is the lack of originality. Many movies released by studios are either sequels or remakes, rather than original content. While sequels and remakes can be profitable, the overreliance on them has led to a lack of diversity in the industry's output. This is because studios often prioritize established franchises over new and innovative ideas, which can limit the range of content available to audiences. The project seeks to investigate the current genres of movies that are doing well at the box office, so that the movies produced can be profitable to the movie studio.

# Main Objective

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This project seeks to explore what types of films are currently doing the best at the box office, then translate those findings into actionable insights that can be used to decide what type of films to create.

## **Specific Objectives**

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- i) To analyze the data set so as to come up with recommendations about the movies to produce.
- ii) To investigate whether starting and operating a movie studio is a profitable venture to pursue.
- iii) To show whether the number of movies produced affect the total gross of the studio or it is the genre.

#### DATA UNDERSTANDING

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- 1) THE DATA IS FROM BOM WHICH IS ONE OF THE MOST POPULAR MOVIES SITE. THE DATASET CONTAINS 3387 ROWS AND 5 COLUMNS.
- 2) THE TN DATA HAS 5782 ROWS AND 6 COLUMNS.
- 3) THE DATABASE FROM IMDB SHOWS HOW THE MOVIE DATA IS CONNECTED USING PRIMARY KEYS AND FOREIGN KEYS. THIS PROJECT WILL USE MOVIE\_BASICS, MOVIE\_AKAS AND MOVIE\_RATINGS TABLES. THE THREE TABLES HAVE 73856 ROWS AND 7 COLUMNS.

#### **EXPLORATORY DATA ANALYSIS.**

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I took a sample of 15 genres from the data to establish which genres have the highest ratings.

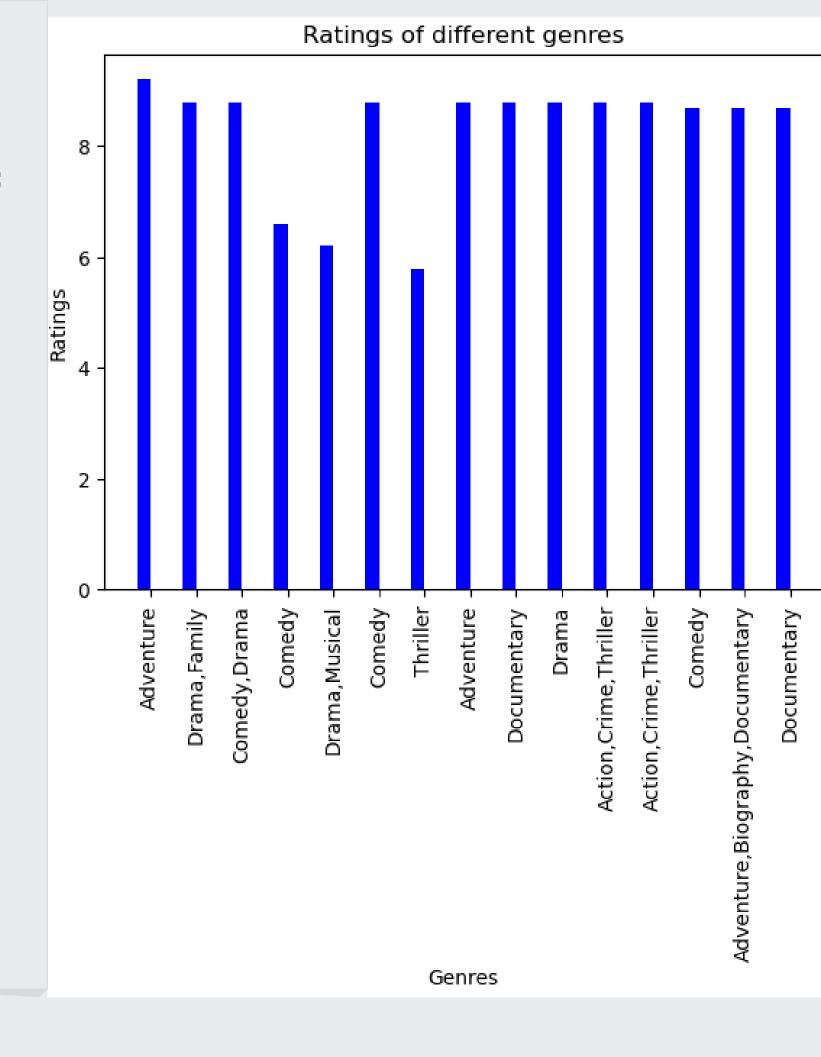
Calculated the mean of every genre to find out which genres had the highest average ratings. This analysis shows that Documentary has the highest average rating of 7.3, Drama with 6.5, Adventure 6.3, Action 5,8 and comedy 5.8.

Calculating the total gross for the top 100 movies. These two visualizations show the number of movies produced by each studio and their total gross per studio. We see that universal produces the most number of movies but in terms of total gross Beuna vista leads.

#### RECOMMENDATIONS

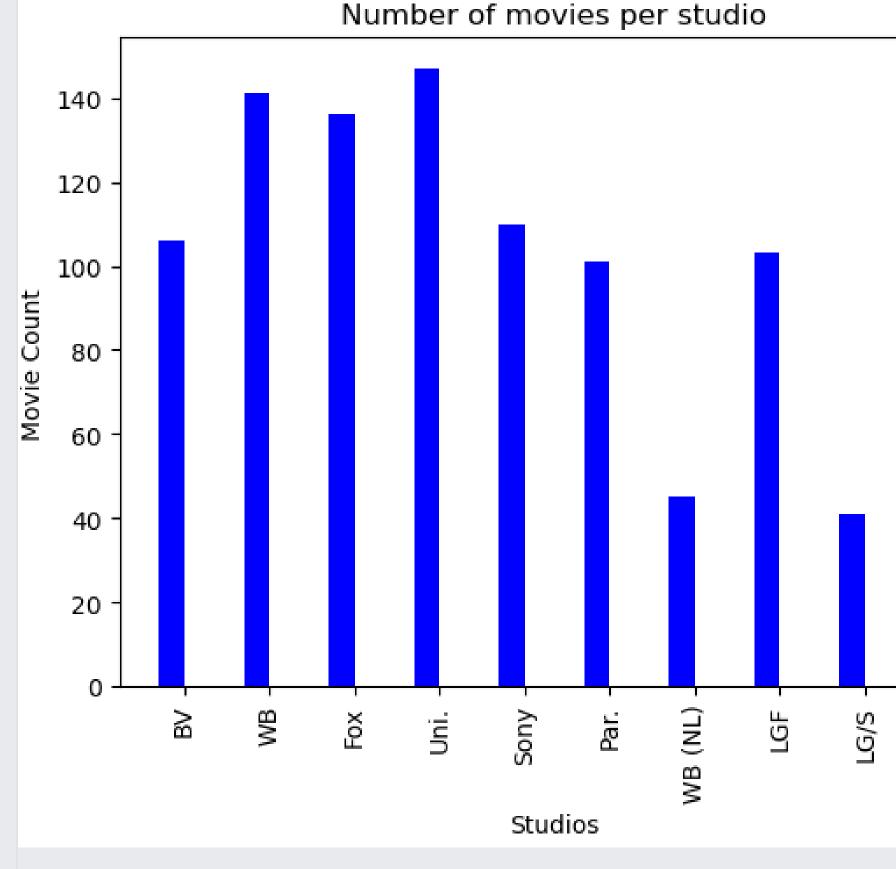
This visualization shows different ratings of different genres of movies.

First recommendation: Looking at the genres, documentaries have high average ratings, followed by Drama genre with average rating of 6.5 and adventure genre with average rating of 6.3. I would recommend that Microsoft focuses on the production of these three genres.



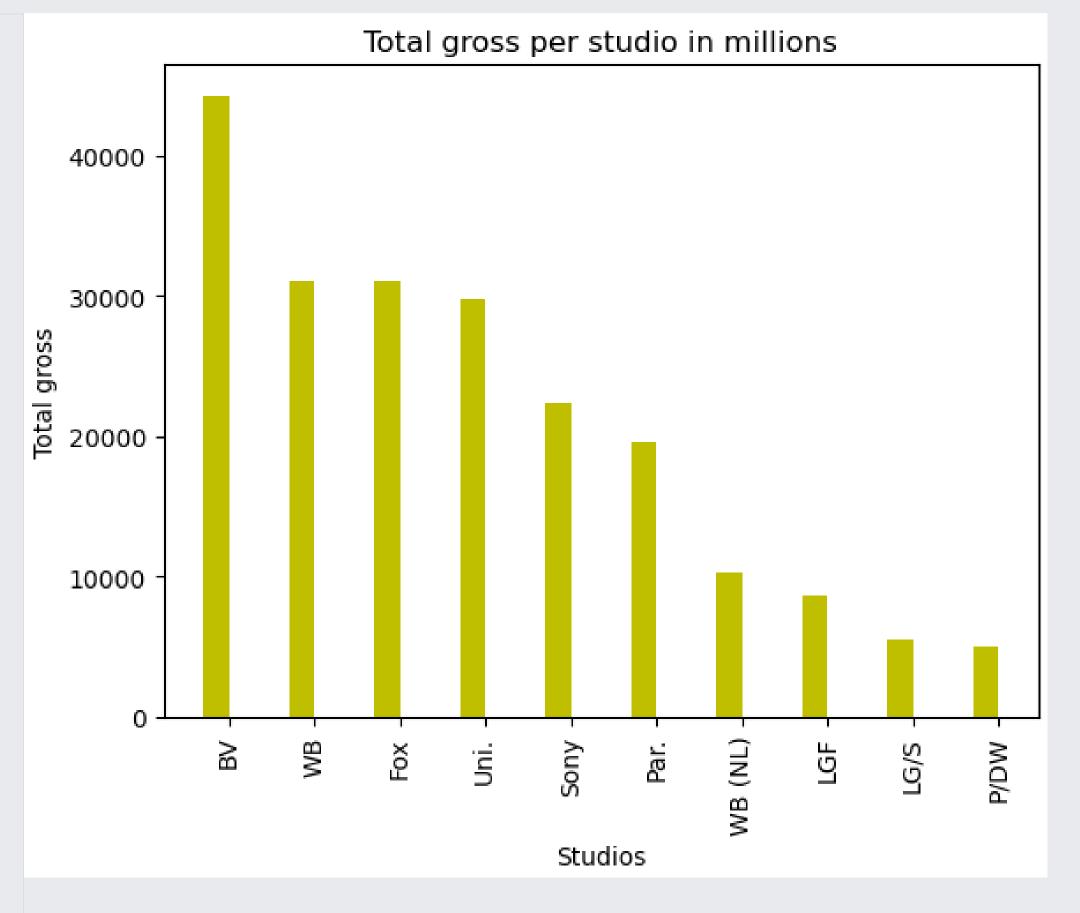
#### Recommendation.

Total gross is not affected by the number of movies that you produce as a studio rather it is proportional to the ratings and the genres that you are producing. Therefore, I would recommend that Microsoft focuses on producing the movies with the highest ratings.



#### Recommendations

The movie studio industry is very lucrative if you look at the total gross per studio from 2010 - 2018 as we can see from the two visualizations. I would recommend that they start producing movies.



### Conclusions

The movie industry is a good venture to venture in, if done well in terms of the genre being produced. Microsoft should go ahead and develop the studio based on the recommendations that I have given them. Movies with the highest rating do well since they are the most watched and thus bringing more income to the studio.

# THANK YOU