

# MICROSOFT MOVIE PROJECT PRESENTATION

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# OVERVIEW

Let us now take a quick dive into the project presentation at hand.

## Who is Microsoft and what are they doing?

Microsoft is an American multinational technology that wishes to dive into the movie production industry.

The company does not have a clear idea of the kind of movie genres they should produce and have tasked me with the role of finding out the best performing genres so as to give recommendations



# BUSINESS UNDERSTANDING



## What do i need to understand ?

Before beginning this analysis, i need to identify the problem statement which in this case is:

Conduct an analysis on the movie genres that are performing well based on different factors and give three recommendations to Microsoft based on my findings.

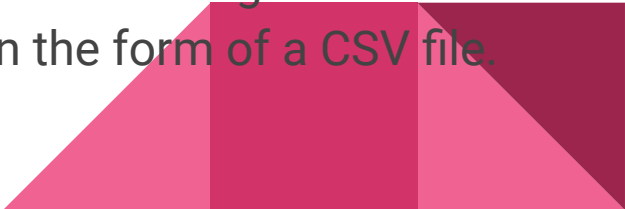
# DATA UNDERSTANDING

Before conducting my analysis, i needed to have a clear understanding of the dataset that i intend to work with.

This was done by analysing the shape,structure, the format of the dataset, number of rows and columns

In my case , I made use of the IM.DB and The Numbers datasets that were provided to conduct the analysis.

The IM.DB dataframe had to be obtained from a large dataset storage section defined as a database , while The Numbers dataset was in the form of a CSV file.



# DATA UNDERSTANDING

The IM.DB dataset has two separate dataframes which represent information in form of rows and columns.

In my analysis, I chose to combine these two tables, based on a column name that they had in common, as well as The Numbers data frame, again based on a common column.

Once the data frames had been combined into a single data frame, I conducted my analysis on the final merged dataframe.

The next step is to clean the data.



# DATA UNDERSTANDING

What is data cleaning?

-Data cleaning refers to checking for and taking care of irregularities in your dataset, ie. values that are not consistent with the others.

In order to work with a clean dataset, i had to check for inconsistencies such as :

- Missing and null values
- Duplicated values
- Outliers and extraneous variables

The combined dataset had some missing values and duplicates.

So I cleaned the dataset to only contain the unique values to work with



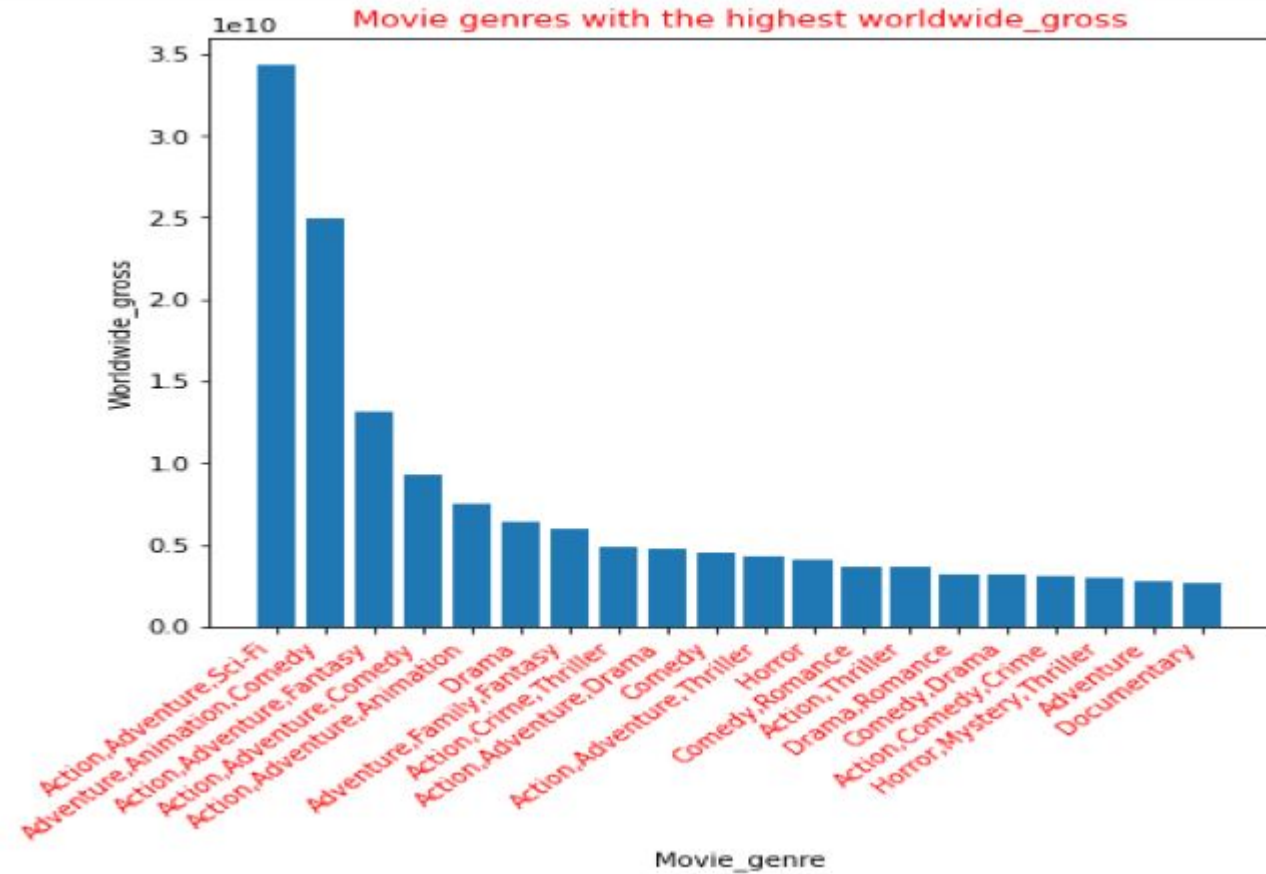
# DATA ANALYSIS

Once the data frame was clean , I began my investigation by plotting a bar graph to show the movie genres that had the highest worldwide gross. This was done so as to give a recommendation of the movie genre to produce, based on the genres that had the highest worldwide gross income.

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# Movie genres and worldwide gross bar chart





# Movie\_genres and worldwide\_gross Bar chart

Interpretation:

Evidently , from the bar chart , the movie genre that is generating the highest worldwide\_gross is the combined Action , Adventure and Sci -Fi.

If Microsoft's intention is to produce the best movie genre generating the highest world\_wide gross , then the combined Action,Adventure and Sci-Fi would be the best pick.



# Movie genres that generated the highest gross\_profits

A number of production companies can shy away from producing a movie due to the risk of incurring a very high production budget and having very low returns

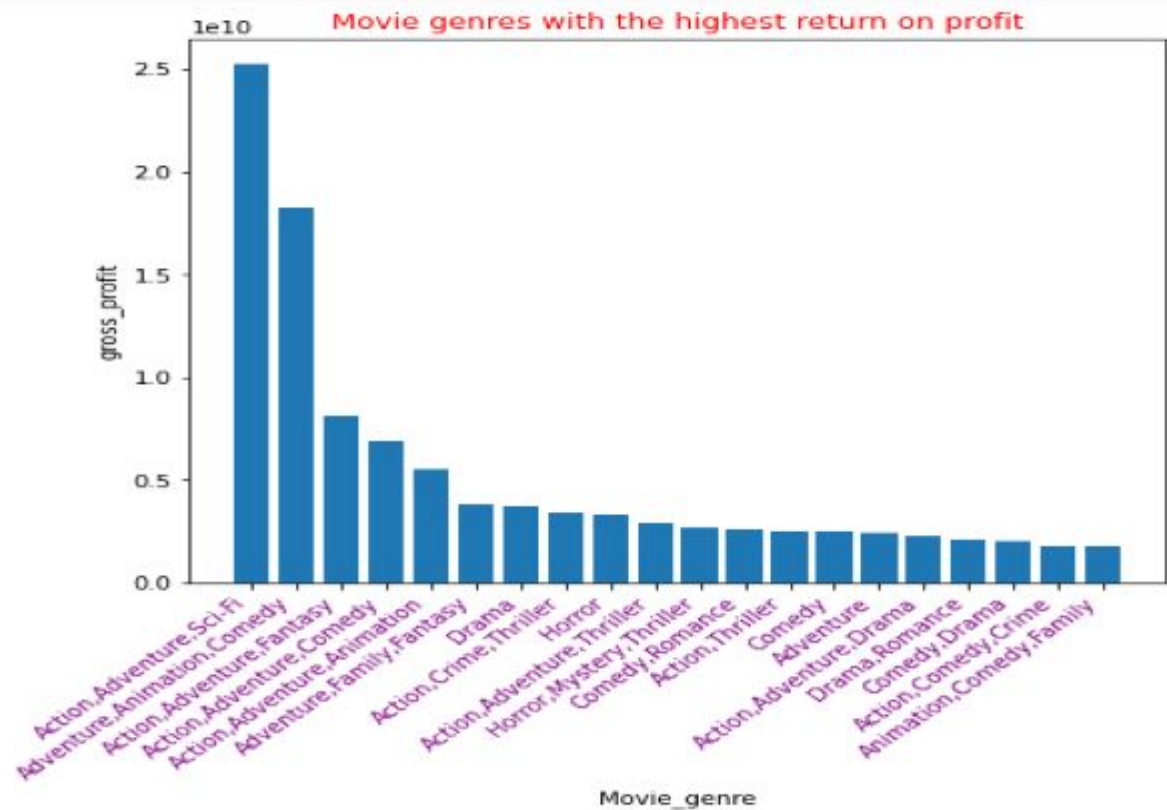
However, there are movie genres that generate high gross profit having put the production\_budget into consideration.

Let us look at a bar graph showing movie\_genres that had the highest gross profit

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# Movie\_genres with the highest gross\_profits



# Movie\_genres with the highest gross\_profits

Interpretation:

The movie\_genre that generated the highest profit was the combined Action,Adventure ,Sci-Fi genre followed by the combined Adventure,Animation comedy genre

This plot is very similar if not exact to the world\_wide gross income plot.

This should signal that there is a very strong relationship between the worldwide gross and gross\_profits.



# Movie genres based on average ratings

Another way to identify a very good performing movie genre is through the average ratings.

The movie genres with the highest average ratings would be best recommended in this case

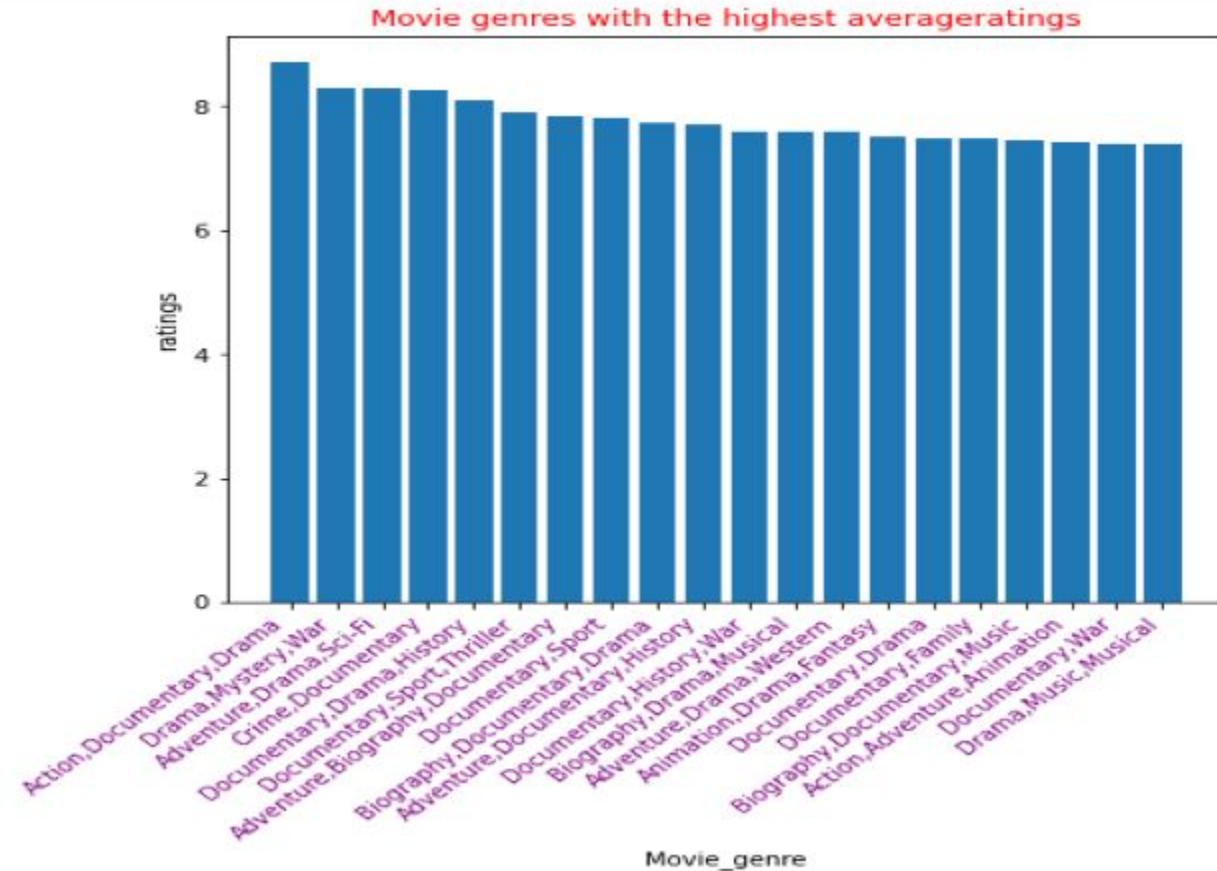
However , the downside of using this factor is that the average ratings are affected by the number of votes cast and in my analysis , i could not associate a relationship between the average ratings and production budget as well as gross profits.

Making a conclusion using this factor alone would therefore be biased and may not be the best method.

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# Movie genres with the highest average ratings



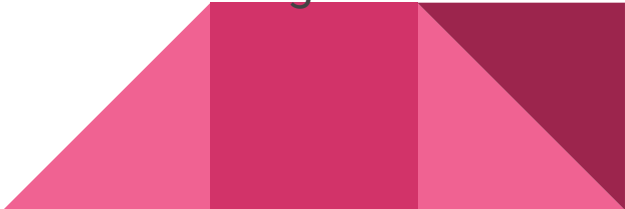
# Movie genres with the highest average ratings

Interpretation:

Based on the average ratings bar graph, the genre that appears to have the highest average ratings would be the Action, Documentary and Drama combined genre

There appears to be no relationship between the average ratings and gross, worldwide\_gross.

A genre however to note, that appears both in the top 20 average ratings as well as gross\_profit chart is the combined Action, Adventure and Animation genre.



# Is there any relationship between production budget and gross profits?





# Is there any relationship between production budget and gross profits?

Having a look at the scatter plot illustrated, there is an evident linear relationship between the production budget and gross profits

What does this mean?

The movie genres that tend to have the highest production budgets also have the highest gross profits

If Microsoft wishes to produce movie genres that generate the highest gross profits, then they should consider the high production costs factor.



# RECOMMENDATIONS

- a) If Microsoft wishes to produce a movie genre that has the highest worldwide\_gross income , then the recommended genre would be the combined Action,Adventure and Sci-Fi movie genre
- b)If Microsoft wishes to produce a movie genre that has the highest gross profits based on the production budget,then the recommended genre would be the combined Action,Adventure and Sci-Fi movie genre
- c)If Microsoft intends to produce a movie genre that has the highest average ratings,then the recommended genre would be the combined Action,Adventure and Sci-Fi movie genre

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# RECOMMENDATIONS

d) If Microsoft wishes to produce the best movie genre based on the high worldwide gross and gross profit, then high production costs must be put into consideration.



## Next Step

Have a look at the situation and determine the best genre to produce based on some unseen factors.

Try to maximize on the choice taken for absolute and maximum results.



# QUESTIONS?

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**THANK YOU!**

