

MICROSOFT'S NEW MOVIE STUDIO PROJECT

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Class : DSFP COHORT 15

SCHOOL : MORINGA

Business Problem

- Microsoft sees all the big companies creating original video content and they want to get in on the fun. They have decided to create a new movie studio, but they don't know anything about creating movies.

Objectives

- Explore what types of films are currently doing the best at the box office.
- Translate those findings into actionable insights that the head of Microsoft's new movie studio can use to help decide what type of films to create.

Methodology.

Data acquisition

- ❖ Downloading the data inform of a zipped file.
- ❖ The folder contained csv files with different movie data sets.
- ❖ Most of the data used was collected from the IMDb movie website and other movie websites.

Importing and loading the data.

- ❖ I created a function to read the files using `pd.read_csv`.

Displaying and Inspecting the data.

- ❖ Checking for any missing values in all the dataframes.
- ❖ Checking for duplicates.
- ❖ Checking for unnecessary rows and columns
- ❖ Checking for data types.
- ❖ Checking for number of rows and columns.

Methodology.

Data cleaning

- ❖ Filling the null values with the mean in int columns and Not_given in string columns.
- ❖ Dropping unnecessary columns.
- ❖ Dropping duplicates in each data frame

Merging the dataframes.

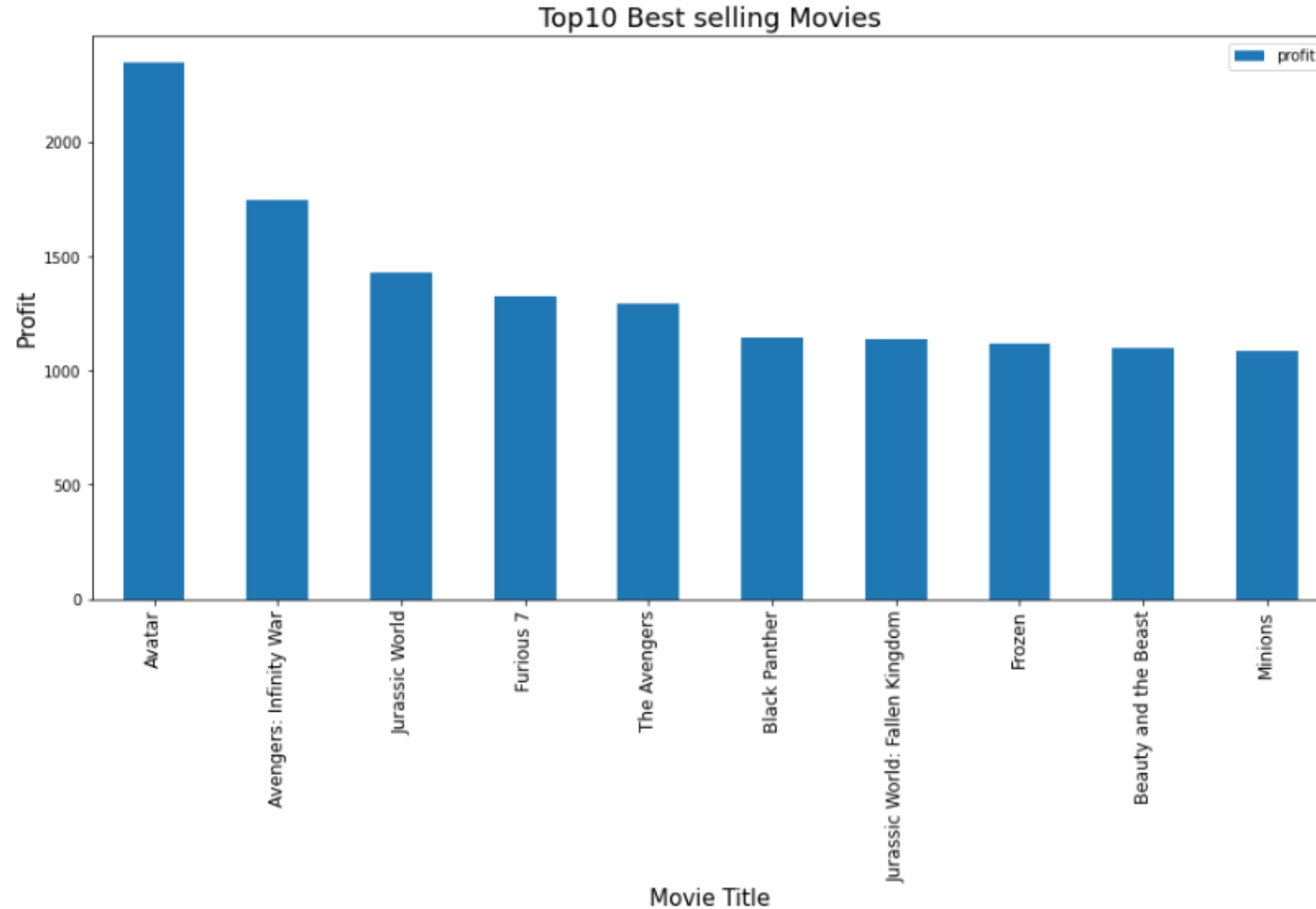
- ❖ I merged the necessary dataframes for easier analysis.

Data Analysis

- ❖ Analyze the movies and their genres with highest profit, based on profit generated from the worldwide gross.
- ❖ Top10_Most popular movies and their genres.
- ❖ Find the relationship between production budget and profit generated.
- ❖ Find the most popular Genres in the top 1000 popular movies.
- ❖ Find the most popular language that is used in the top 1000 popular movies

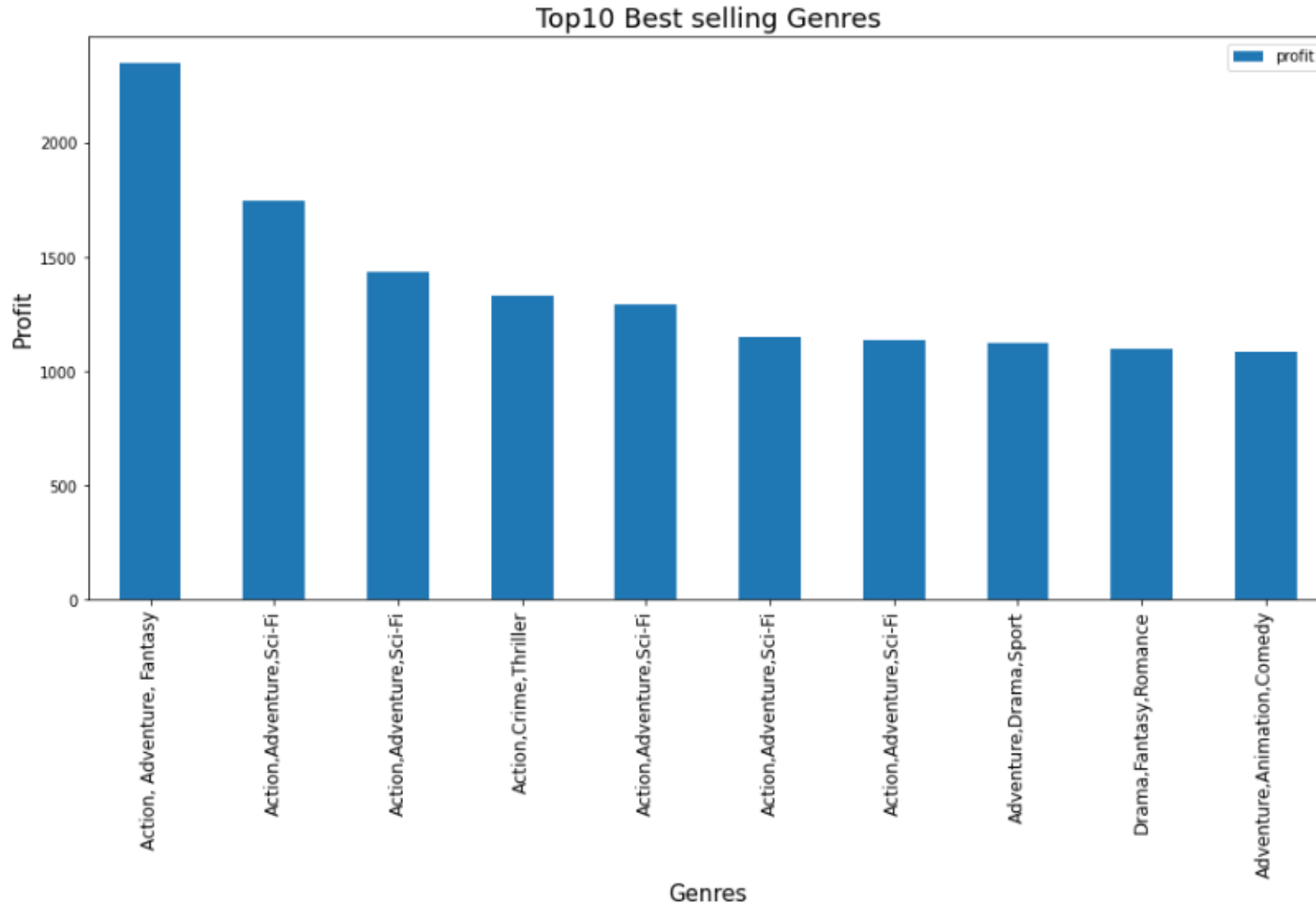
Findings

- Top10 Best selling movies, based on profit generated worldwide.



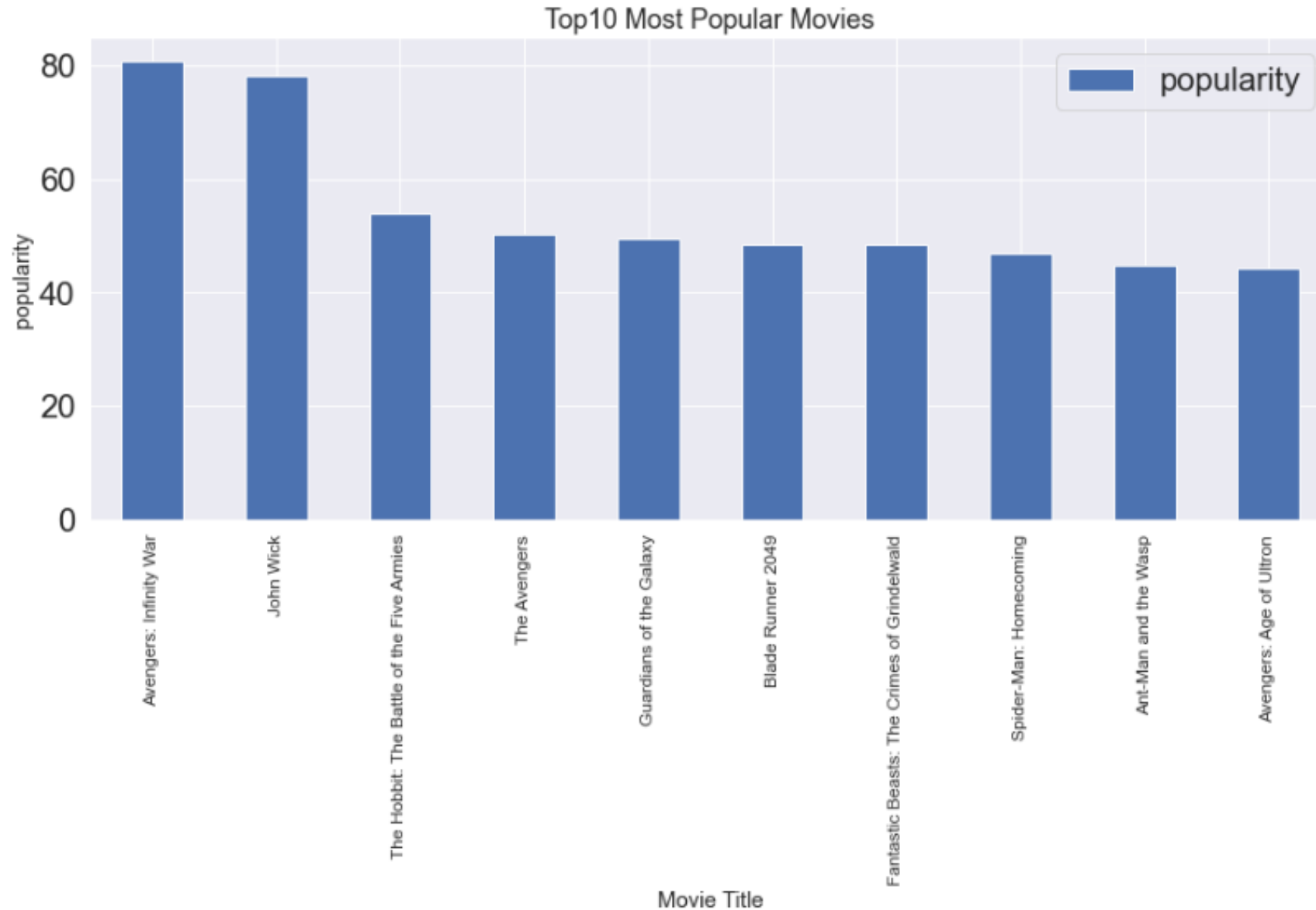
Findings

- **Top10 Best selling movie Genres, based on profit generated worldwide.**



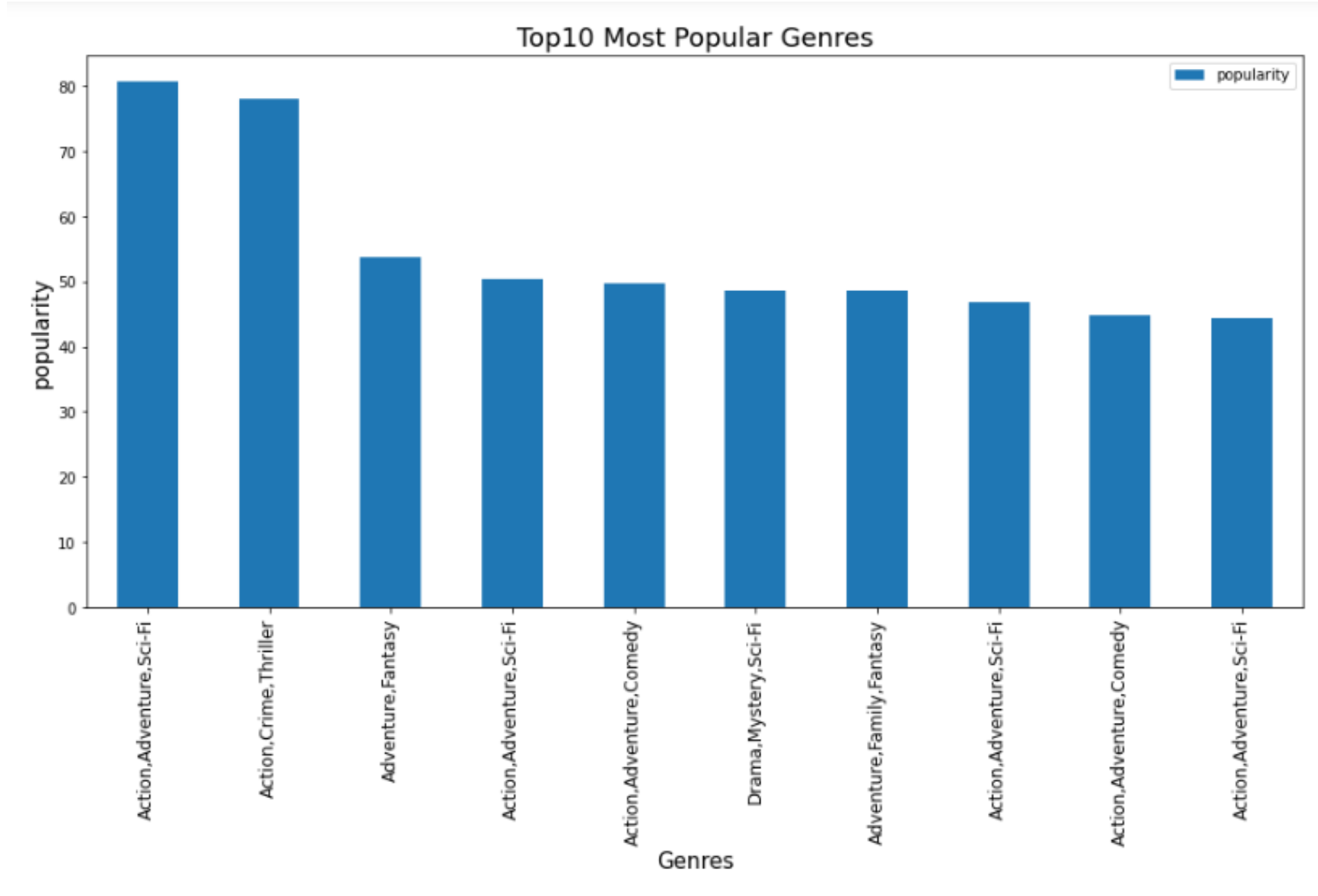
Findings

- Top10_Most popular movies



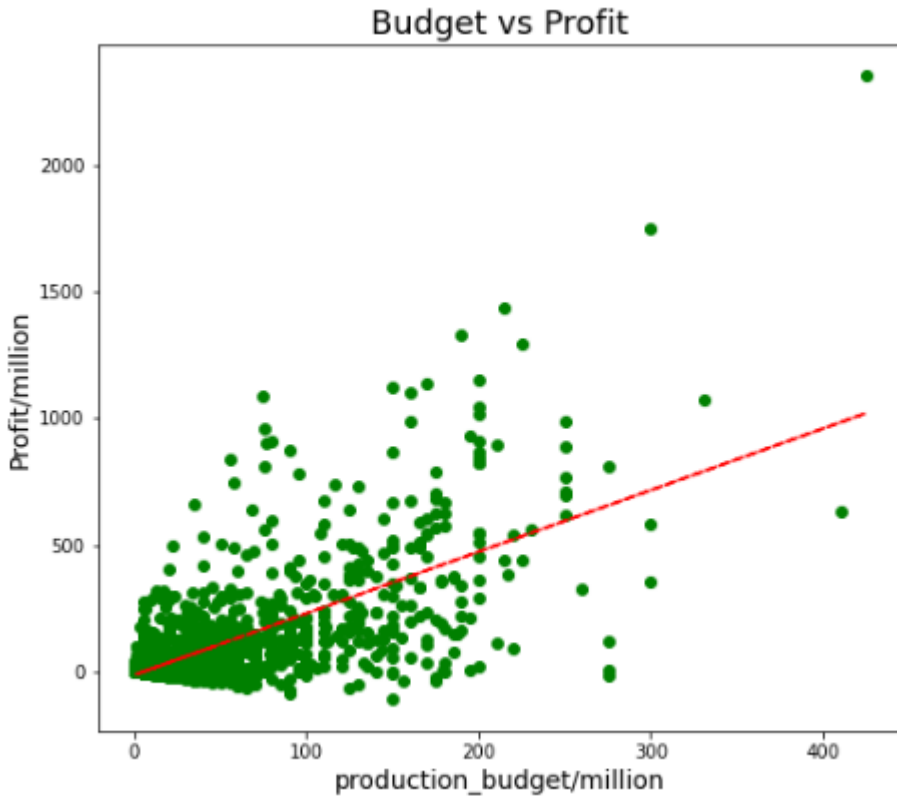
Findings

- Top10_Most popular movie genres



Findings

- **The relationship between production budget and profit generated.**



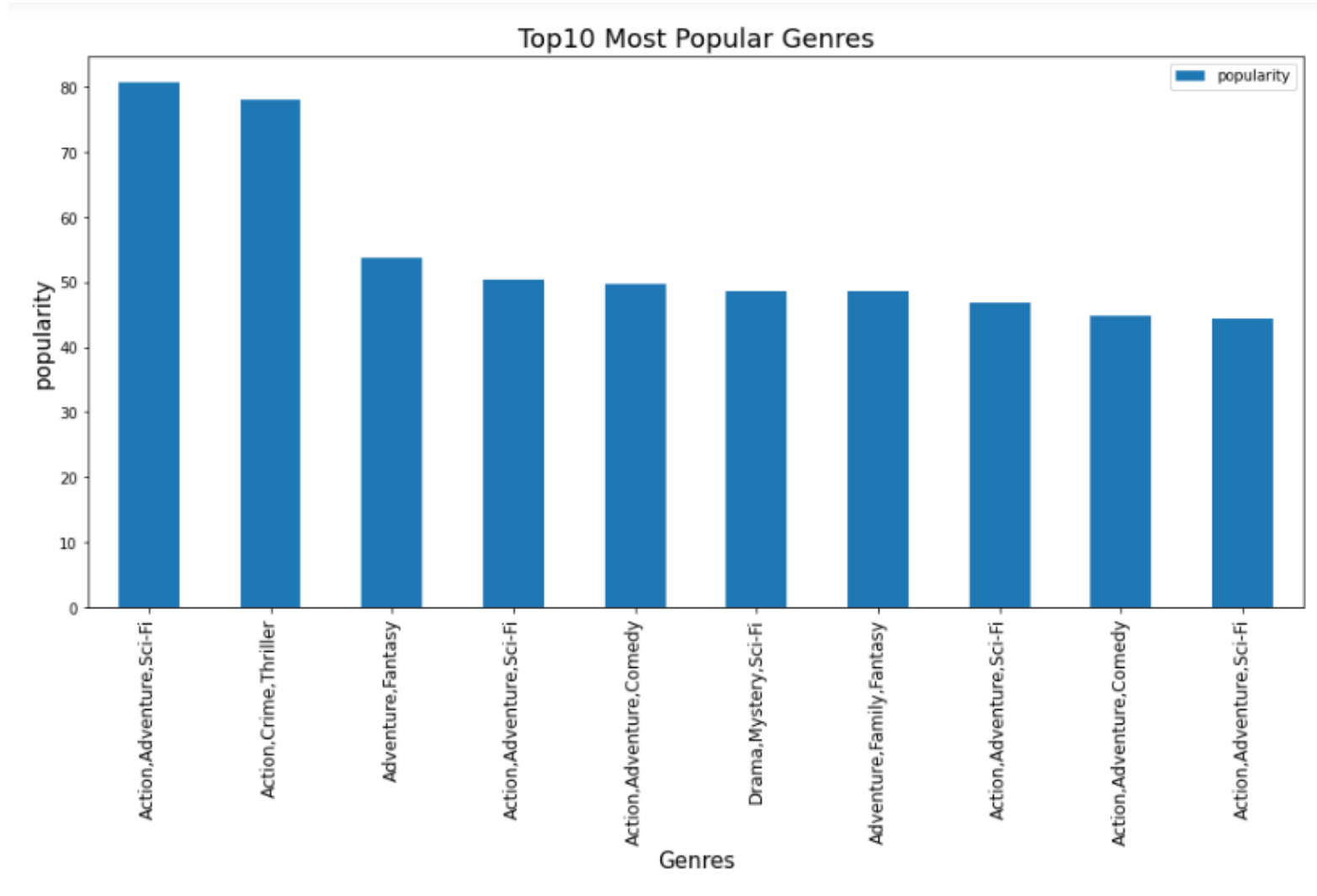
- From the scatter plot, we can see a generally tight positive correlation between a movie production budget and the profit. We can also observe some outlier points, where some movies have less than 200 million\$ production budget and make higher profits of upto 2 billion\$ and other movies with higher production budgets such as 400 million\$ and made less profits as low as negative profits.

Findings

- **Find popular Genres**
 - Some movies have been categorized with more than one movie genre.
 - Movies such as Avatar have a combination of genres i.e action, adventure and Fantasy.
 - In order to find the most popular genre there is need to split these genres into three columns for easier analysis

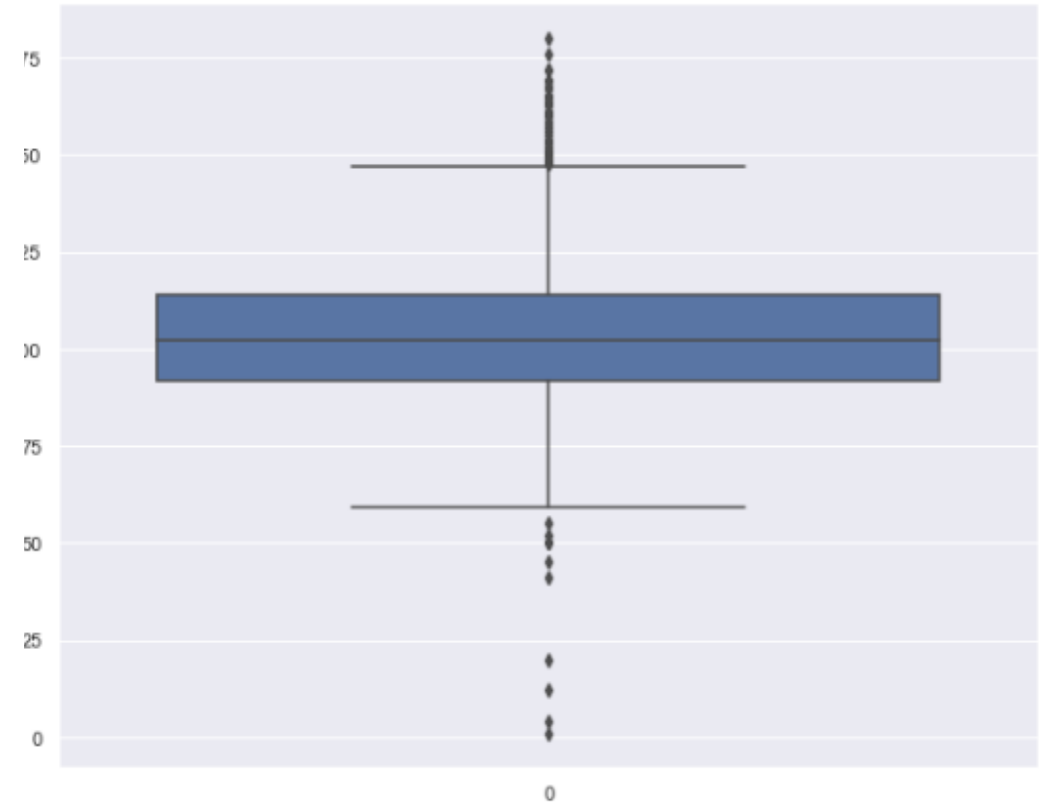
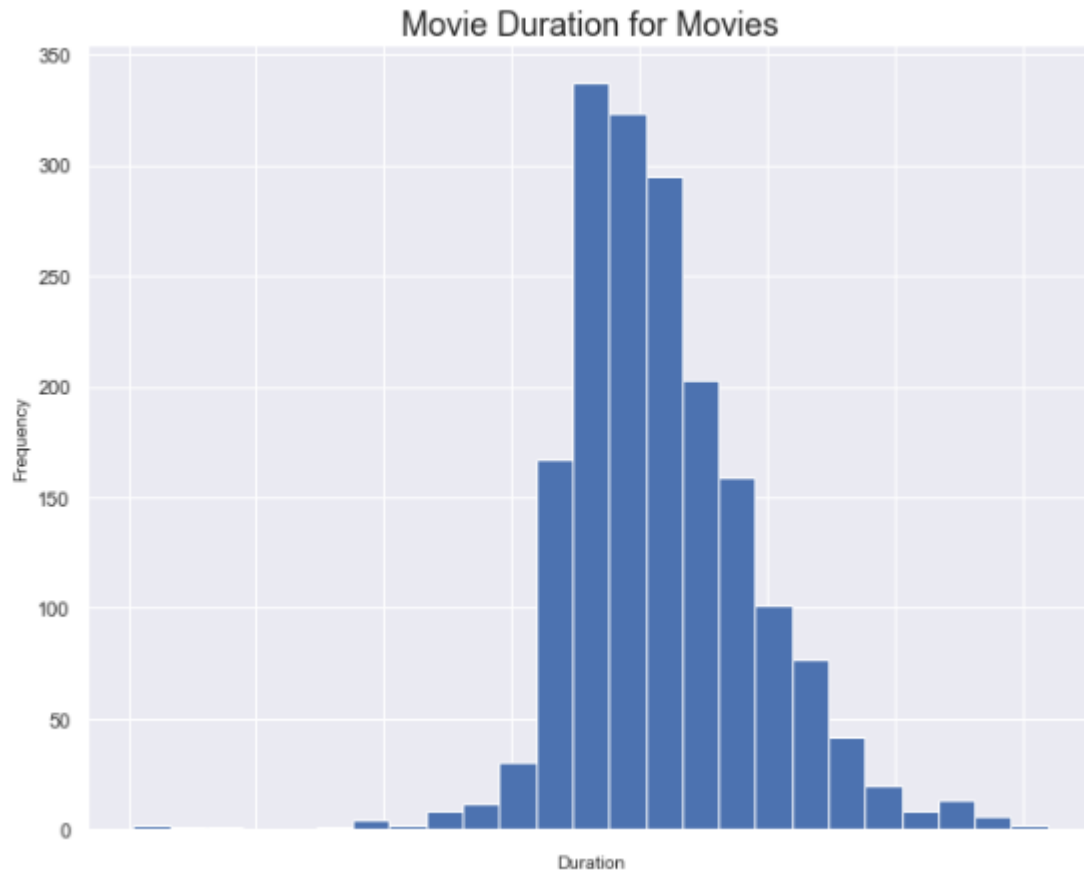
Findings

- Find popular Genres



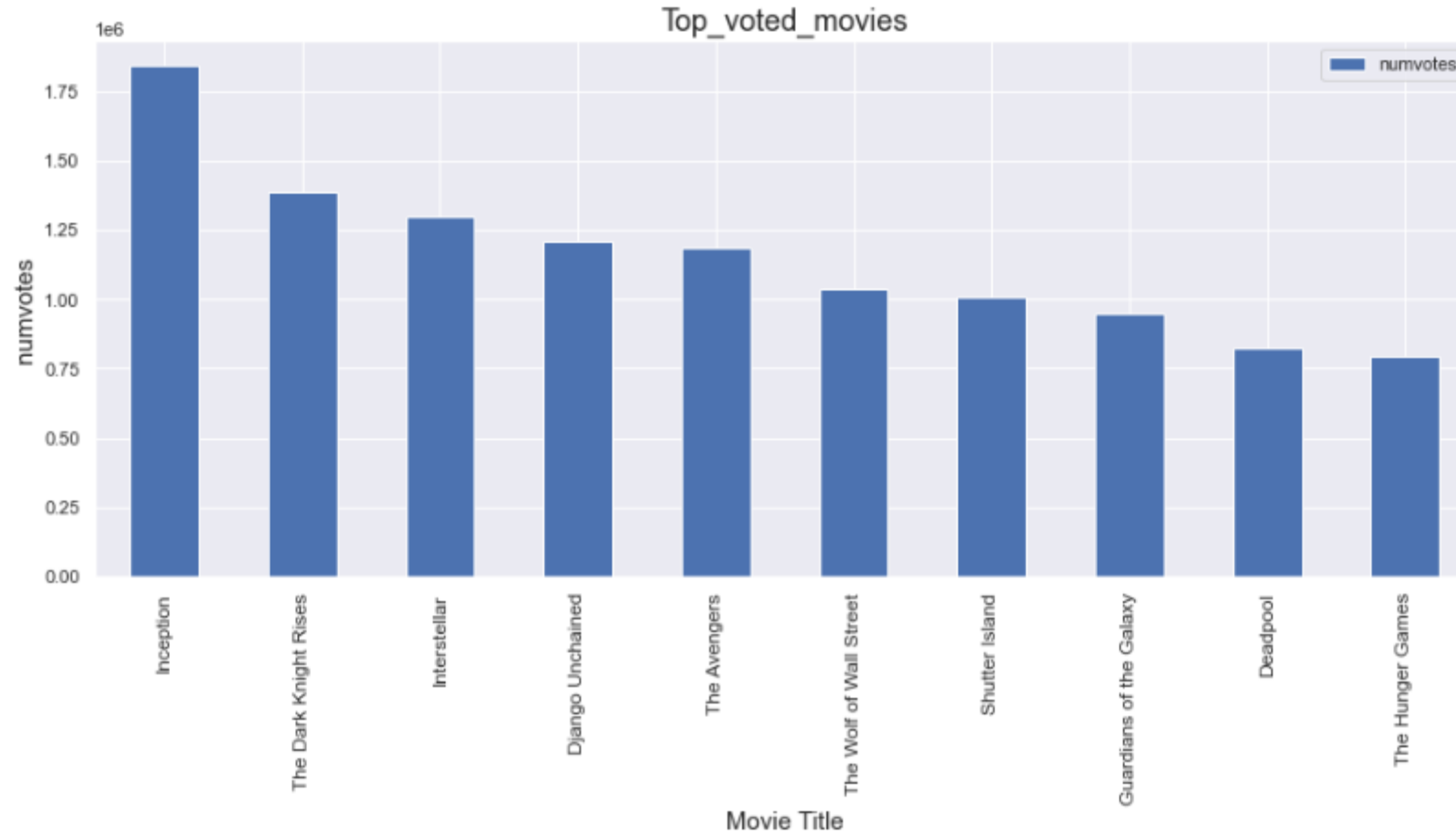
Findings

- Run time



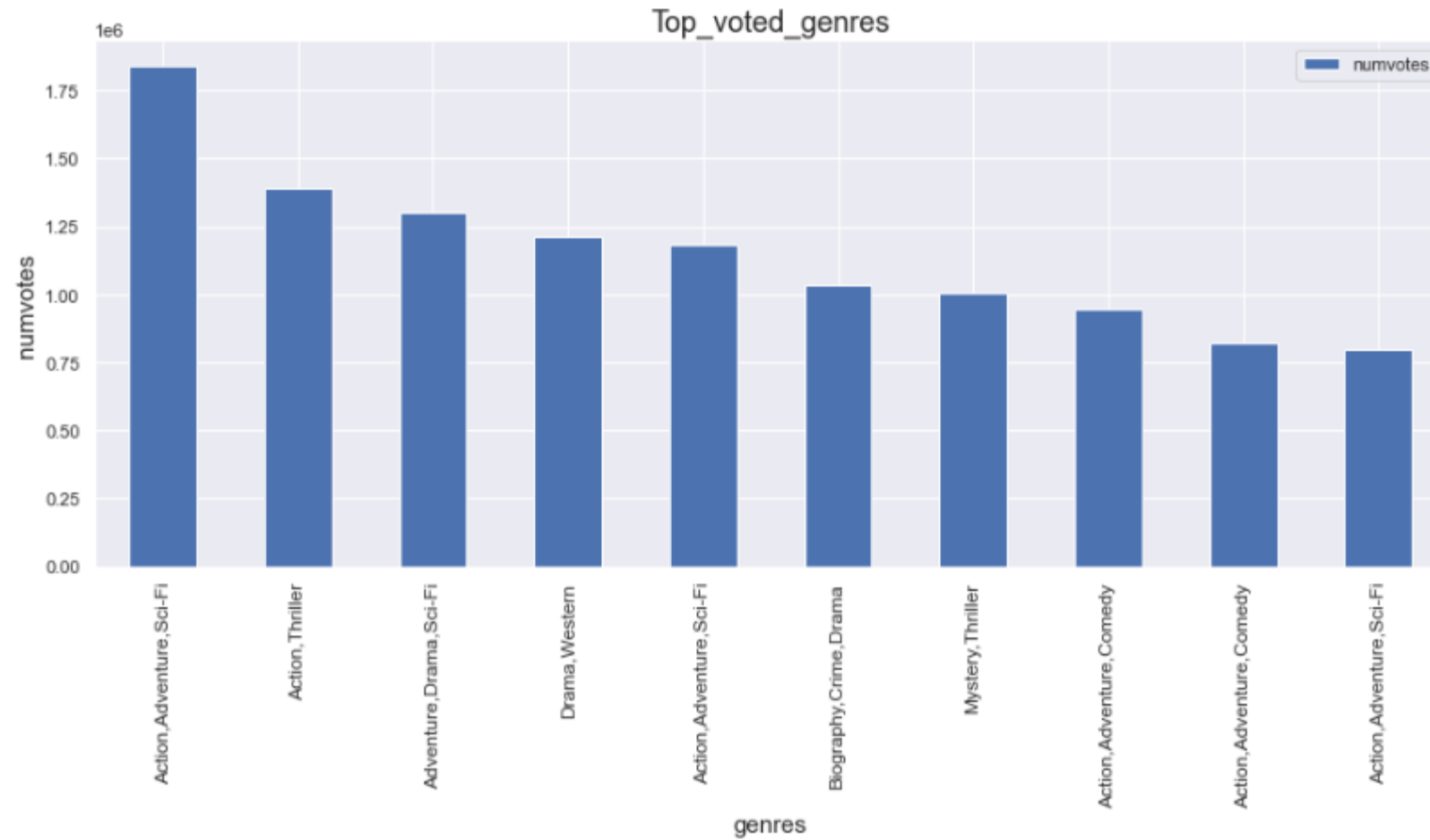
Findings

- Top voted movies



Findings

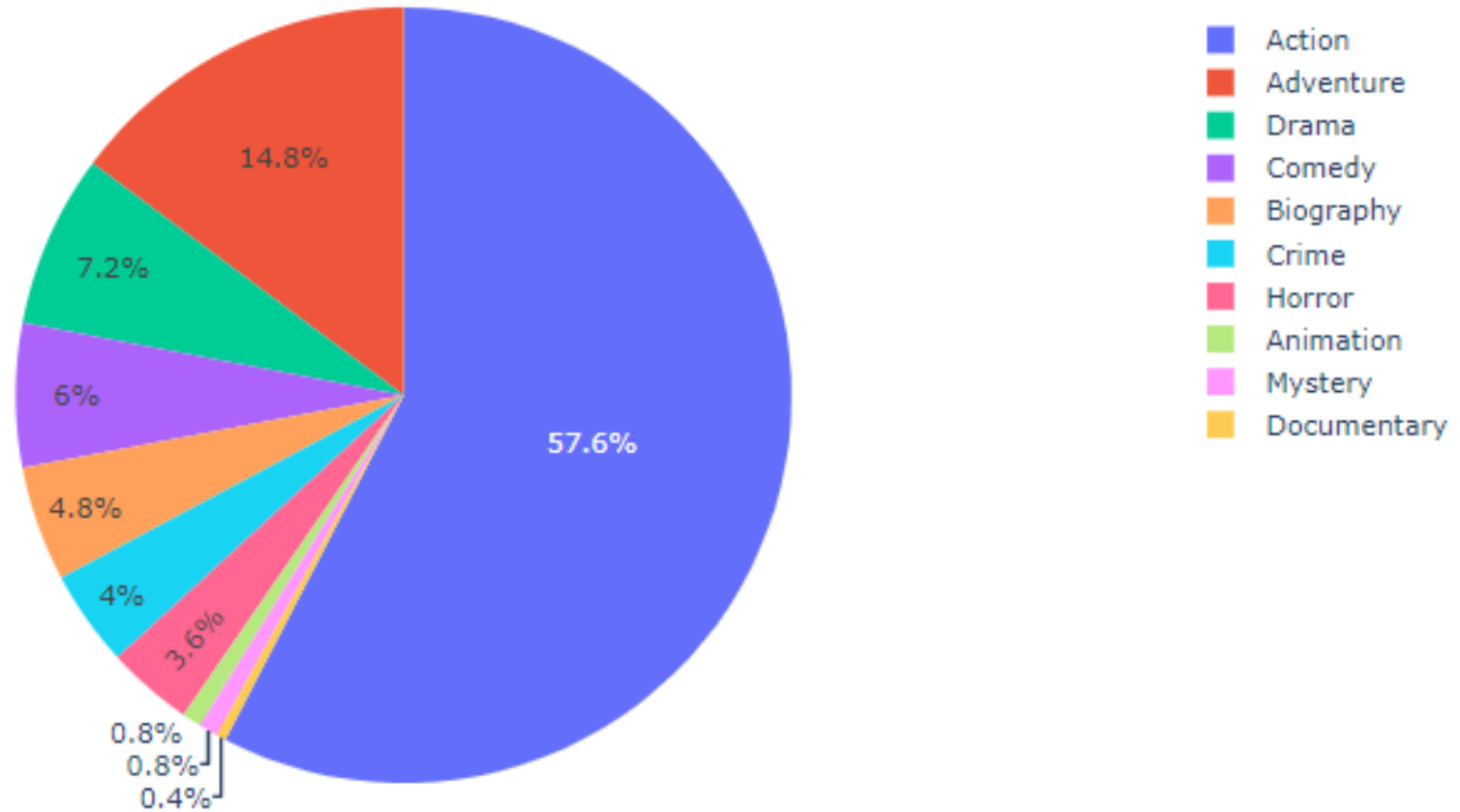
- Top voted Genres



Findings

- Find popular Genres

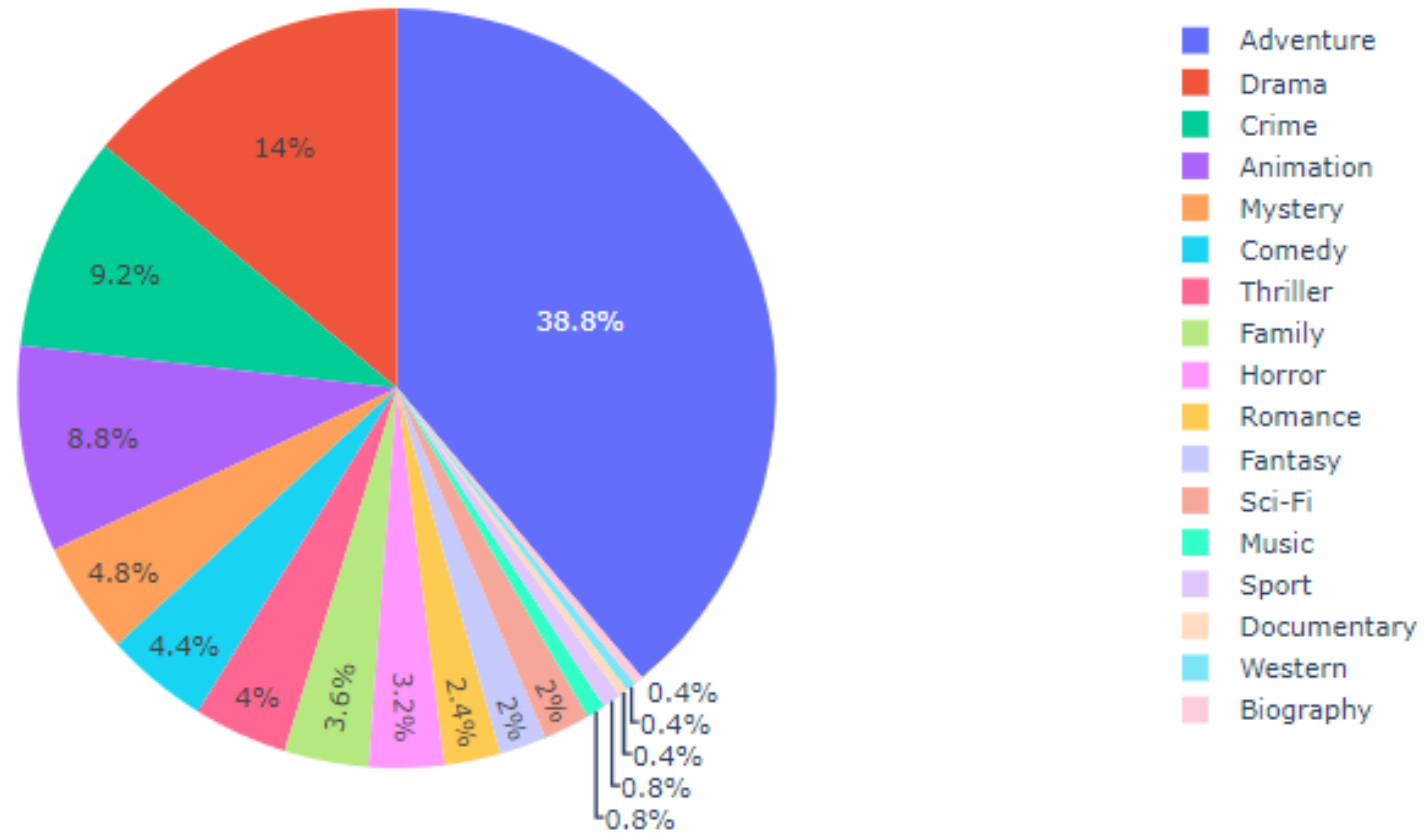
Most Popular Movie Genres Based on Top250 popular Movies in the First Genre column



Findings

- Find popular Genres

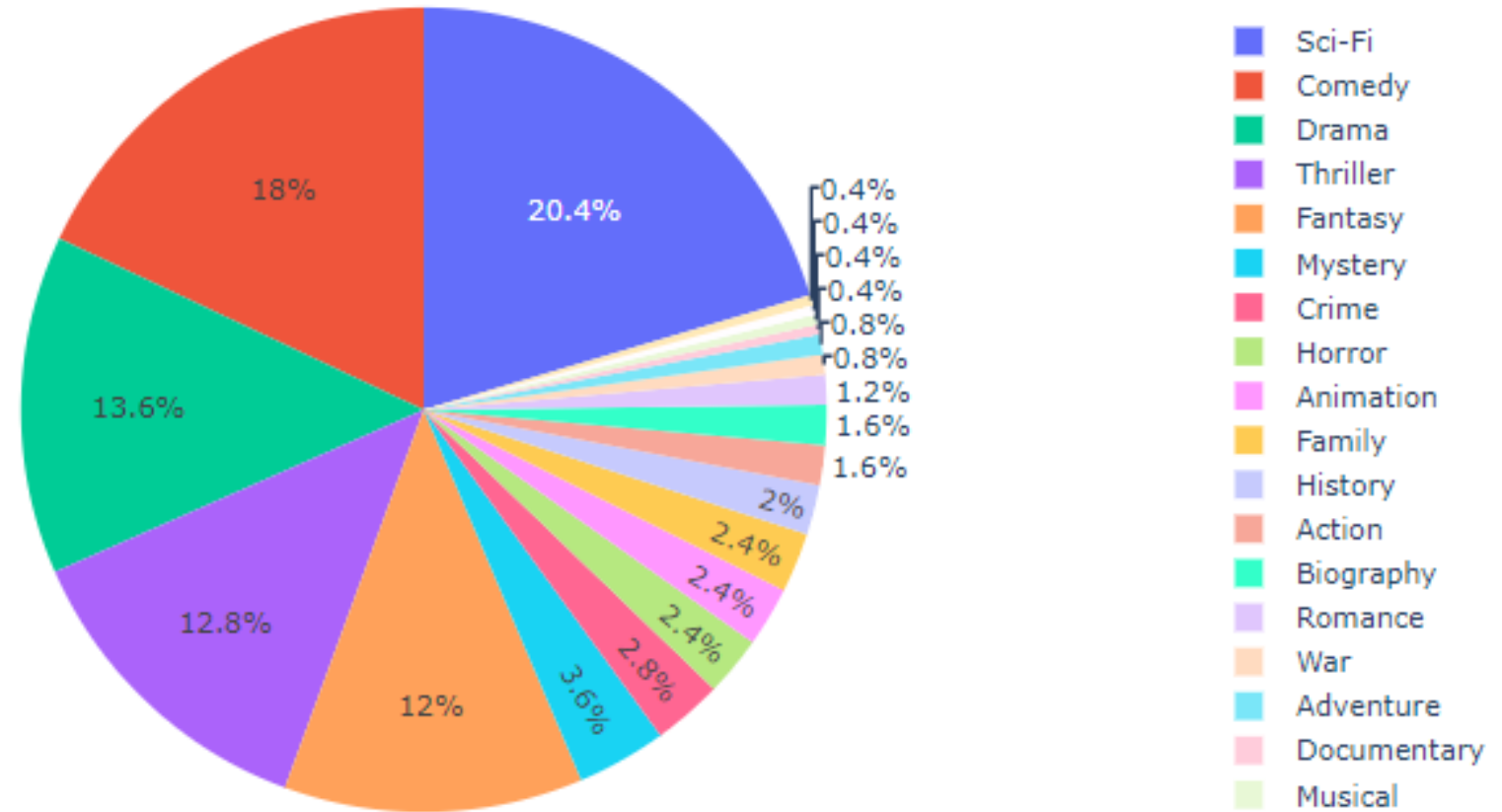
Most Popular Movie Genres Based on Top250 popular Movies in the Second Genre column



Findings

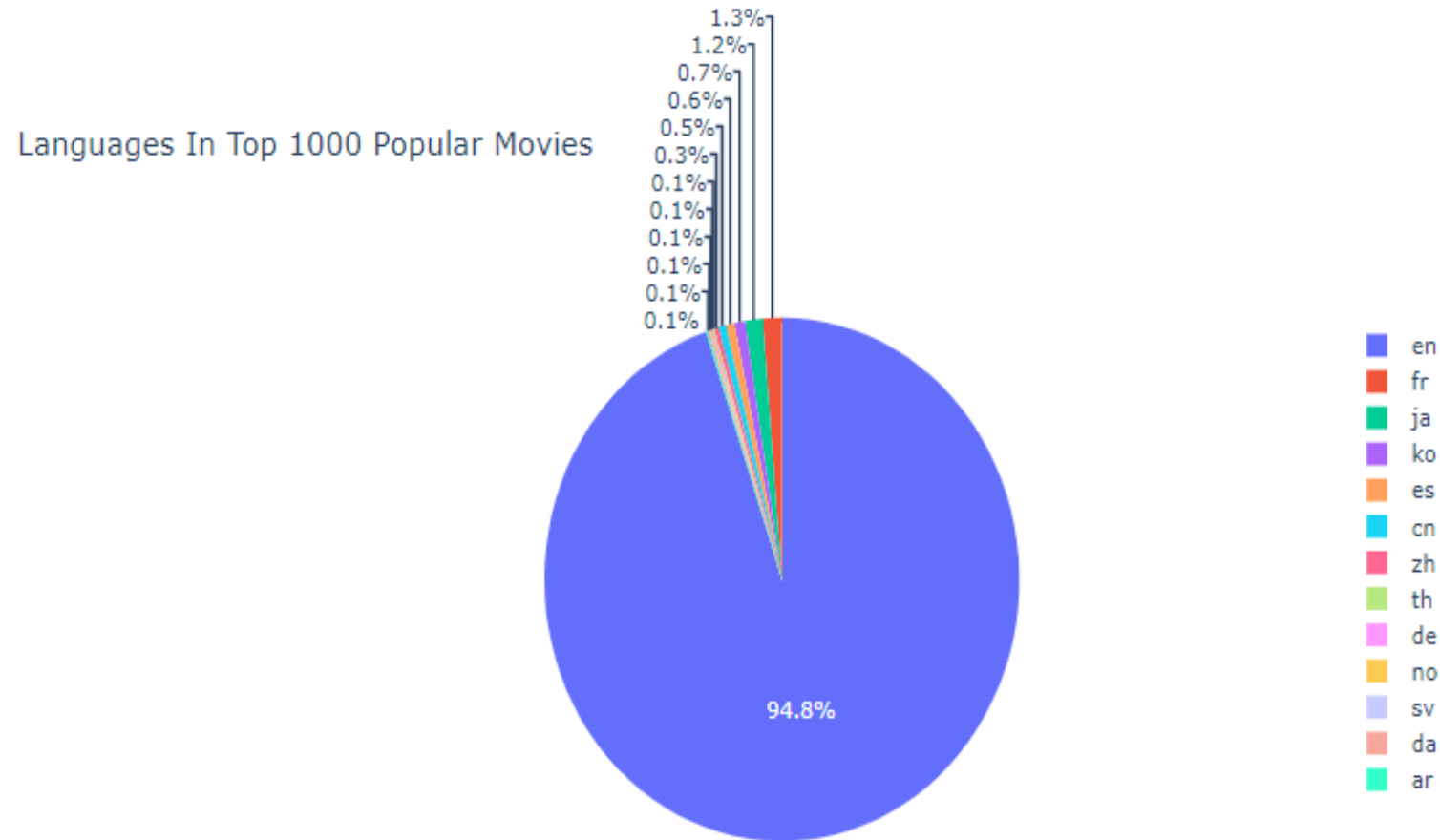
- Find popular Genres

Most Popular Movie Genres Based on Top250 popular Movies in the Third Genre column



Findings

- **The Most used Language in Top1000 popular movies**



Conclusion

- From the correlation analysis between production budget and profit generated we notice that production budget influences the amount of profit generated But in some instances its not always the case.
- We also see that most popular movies and most profitable movies are the ones that have a combination of movie genres.

Conclusion

- From the pie charts above we can see that there are three most popular genres i.e.

❖ Action, Adventure and Sci-Fi.

- These three genre combinations makes up the most popular movies and can make a good combination for the audience .
- Other popular movie genres include.

❖ Drama, Animation ,crime and Comedy genres.

Conclusion

- Documentary, and Biography movies perform poorly in terms of popularity and profitability.
- From the findings we realize that the most popular movies are in English with 94% appearance in the top 1000 popular movies
- Most movies have a run time of about 104 minutes.
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