A stylized illustration featuring a film strip and a movie reel. The film strip is orange and red, winding across the frame. A large, ornate movie reel is positioned on the right side, with several smaller reels visible behind it. The background is a warm, golden-yellow color with decorative swirls and dots.

MICROSOFT MOVIE ANALYSIS

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Project Description

This analytical project focuses on providing a guide for Microsoft Movie Studio on decision making on which kind of movies to make by studying factors like production budget, ratings, released_date, genres and finding if there is any correlation between these factors.



Problem Statement

Microsoft has a new movie studio and would like to produce movies that would bring in profits and enjoyed by the audience. The objective is to gain comprehensive insights into the characteristics and genres that resonate most with audiences.



Data Sources

The Internet Movie Database (IMBD).

Two tables movie_basic and movie_rating.

- **The Number tn**

The column of interest are production budget and worldwide gross

- **The Movie Database**

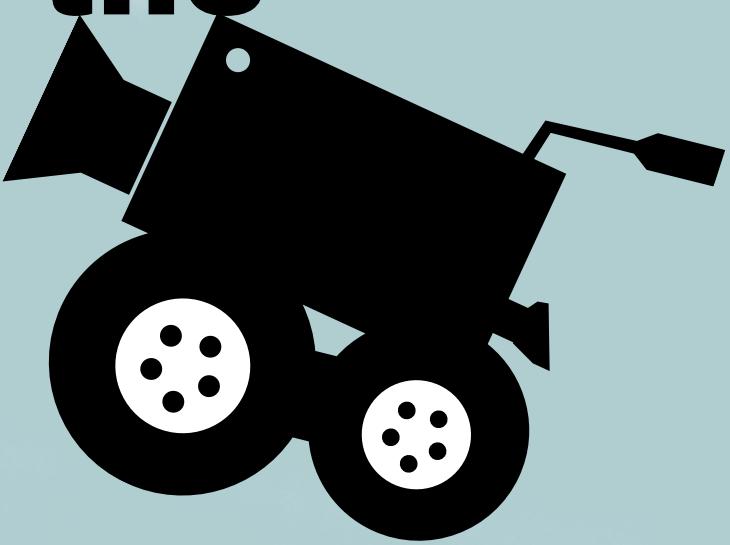
Genre_id column is used to map genre of the movies, to find which genre is more profitable.



Analysis

The TN and TMDB datasets were merged after dropping unnecessary columns and missing values. Analysis like Net profit, Return on Investment and finding profitable genre is performed using this dataset.

Internet Movie Database (IMDB) will be used to determine the ideal length of movie using the average rating and runtime minutes.



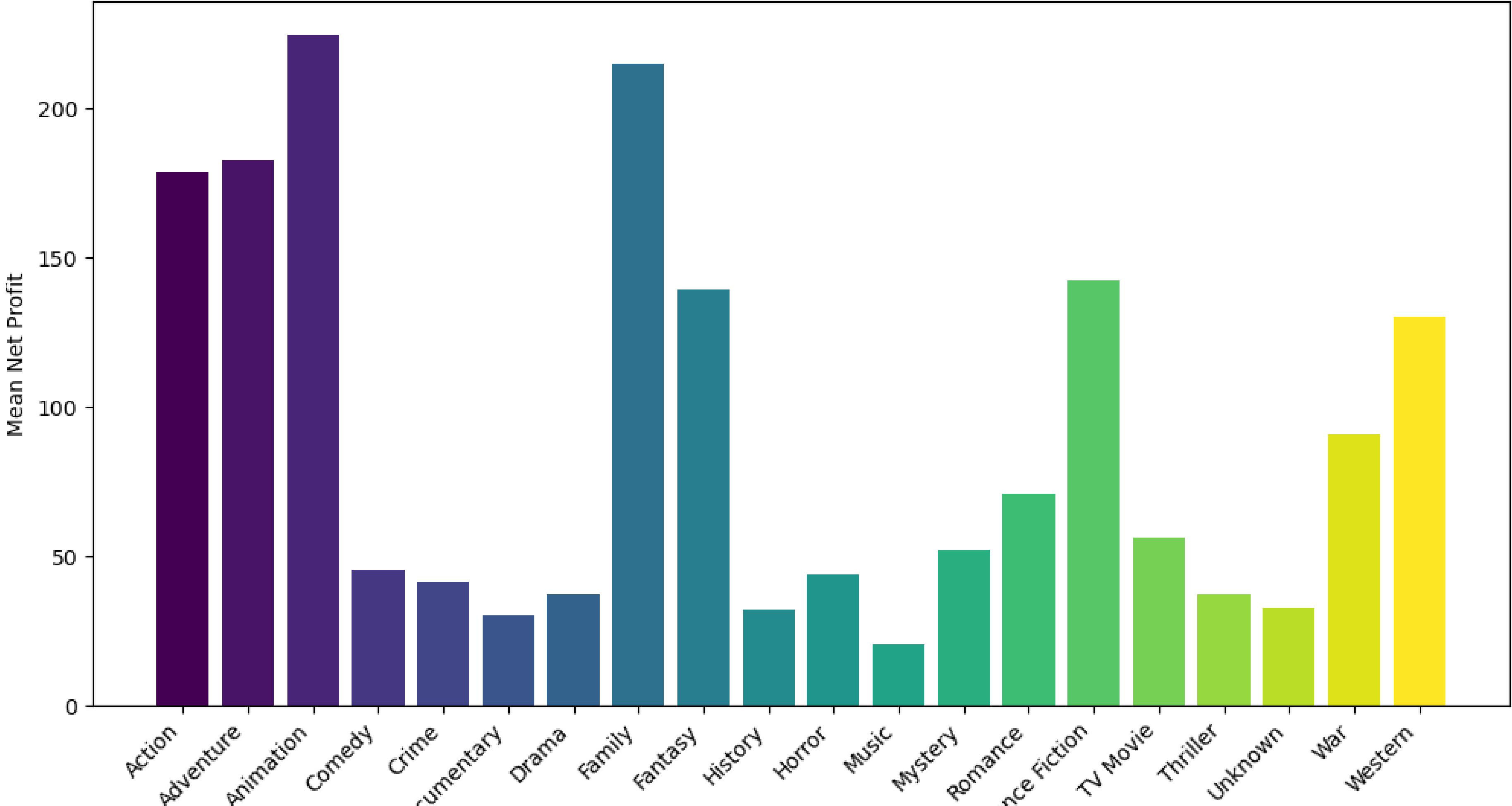
Visualizations

Mean Net Profit by genre

A bar graph is used to visualize mean net profit by genre.

Animation genre has the highest net profit followed by family genre.

Mean Net Profit by Genre

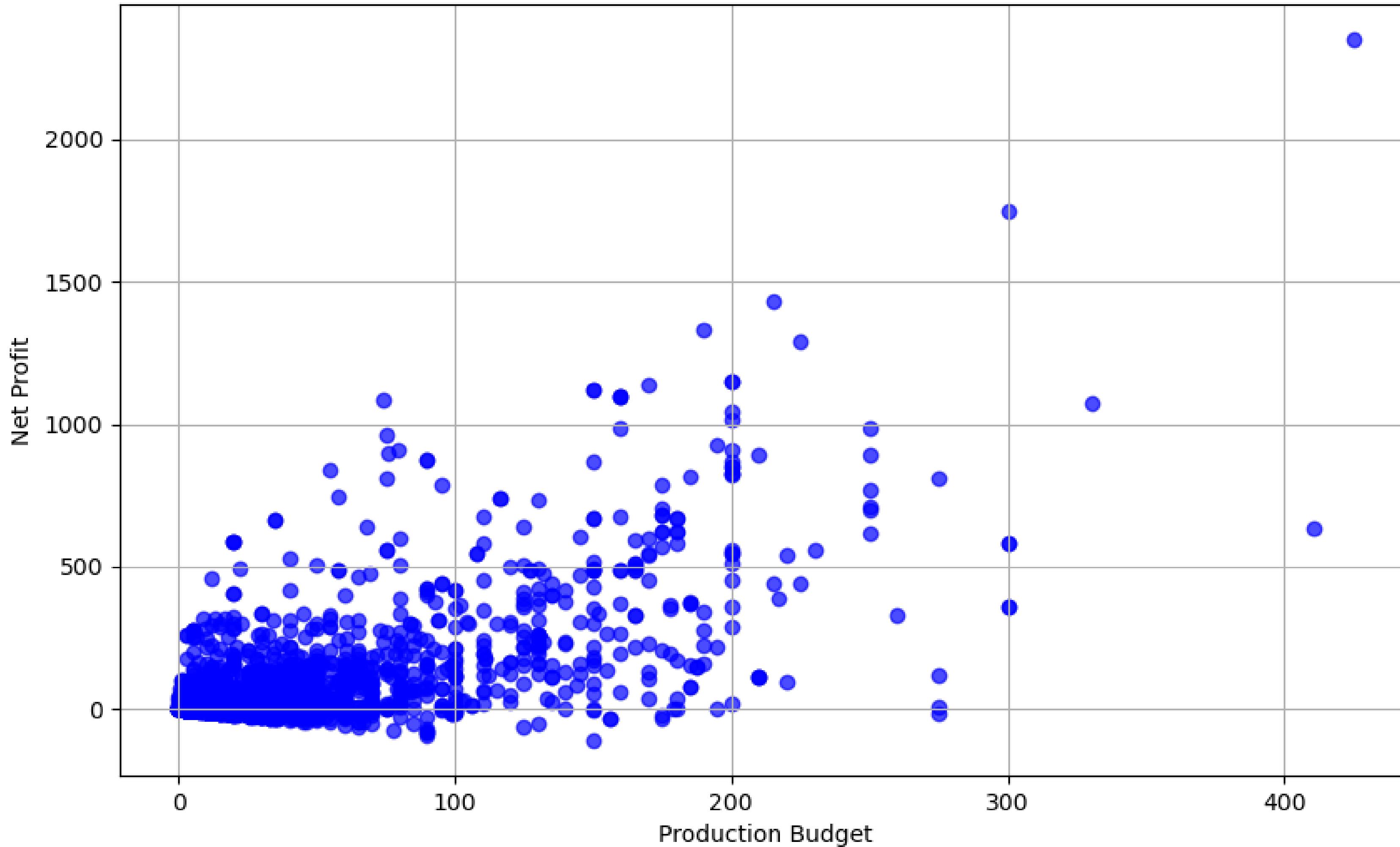


Relationship between Production Budget and Net Profit

Scatter plots to visualize correlation between Production Budget and Net Profit.

The scatter plot shows an upward trend, indicating a positive relationship between production_budget and net_profit. As the production budget increases, there is a tendency that the net profit would increase too.

Relationship between Production Budget and Net Profit



Production Budget and ROI

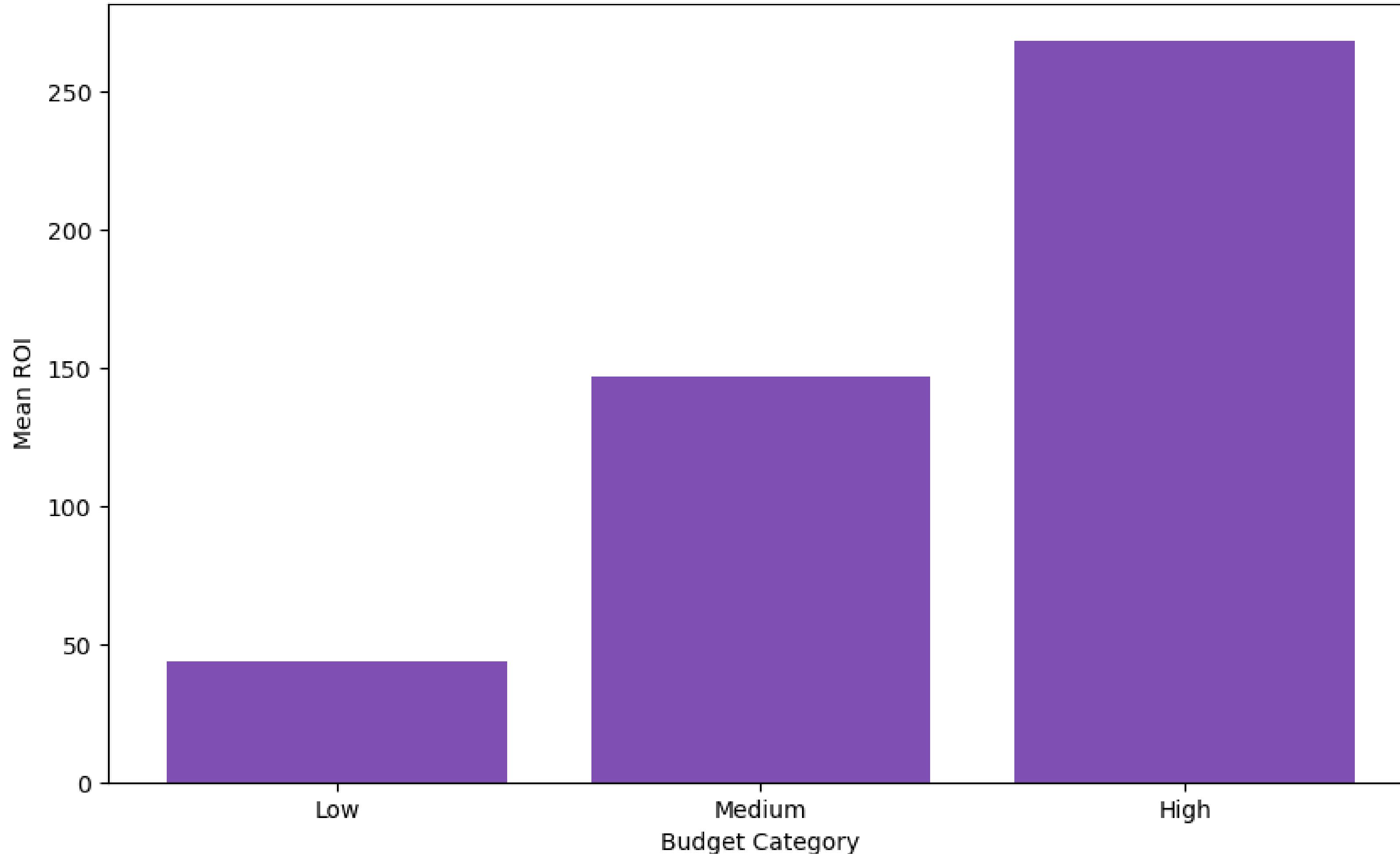
Return On Investment

**ROI = (Net
Profit/production_budget) * 100%**

**ROI column is categorized into three categories of
Low, Medium and High to create a bar graph**

High budget movies generates huge profits

Mean ROI by Budget Category

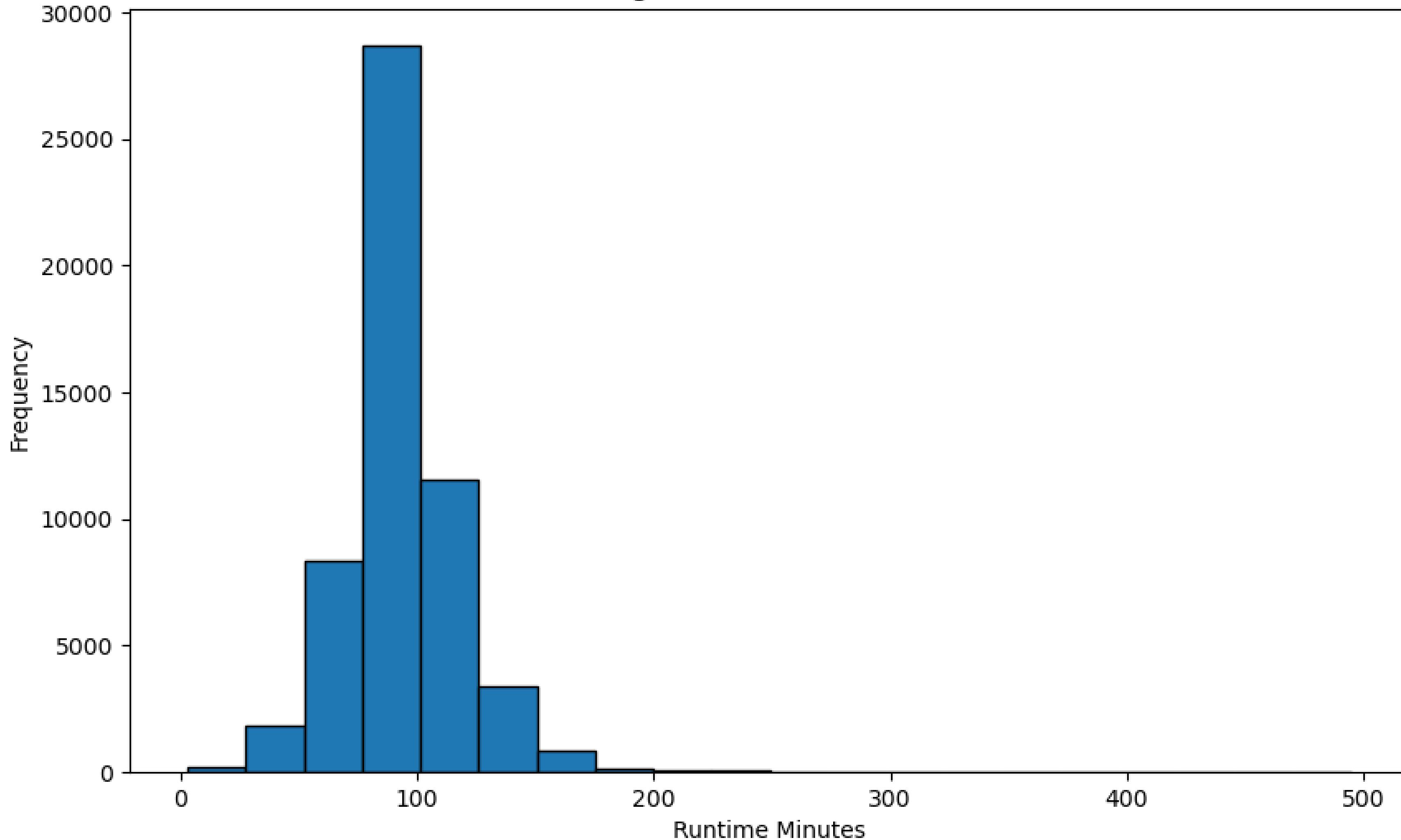


Movie Length

Average_rating of above 5.0 and runtime minutes is used to create a histogram to visualize what lenght of movie do the audience prefer.

Movie of lenght 80 to 90 minutes has more rating .

Histogram of Runtime Minutes



Conclusions

Production Budget:

investing in high budget movies generates huge profits. It is recommended to allocate at least 250 million budget for a movie.



A group of three yellow Minions with blue overalls are standing together against a light blue background. They have large, white, bulging eyes and are looking towards the right side of the frame.

Genre:

**it is recommended to
focus more on animation
genre as it would
significantly generate
more profit.**

Movie Length:

**Movies that ranges from 80 to 90 minutes
is recommended as they are more
enjoyed by the audience.**



Recommendations

It is recommended to allocate at least 250 million budget for a movie.

it is recommended to focus more on animation genre as it would significantly generate more profit.

It is recommended to make movies with runtime of 90 minutes.

The end!



Thank you!