Microsoft Movie Analysis

Overview

This project is an analysis of movie data with the aim of providing recommendations for Microsoft's new movie studio. The analysis includes identifying the most popular movie genres, the most successful movies in terms of revenue and ratings, and the best time of year to release a movie. The project includes a Jupyter notebook with the data analysis, as well as a PowerPoint presentation summarizing the key findings.

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Data Understanding and Analysis

The data used for this analysis was obtained are in the folder zippedData are movie datasets from:
- [Box Office Mojo](#)
- [IMDB](#)
- [Rotten Tomatoes](#)
- [TheMovieDB](#)
- [The Numbers](#)

Description of data
The dataset contains information on over 5,000 movies, including budget, revenue, genre, release date, and ratings. The data was cleaned and preprocessed to remove duplicates and missing values. The analysis includes several visualizations to explore the relationships between different variables, such as the correlation between budget and revnue, and the distribution of movie genres.

BUSINESS UNDERSTANDING

The stakeholders for this project are Microsoft's new movie studio. The key business questions include:
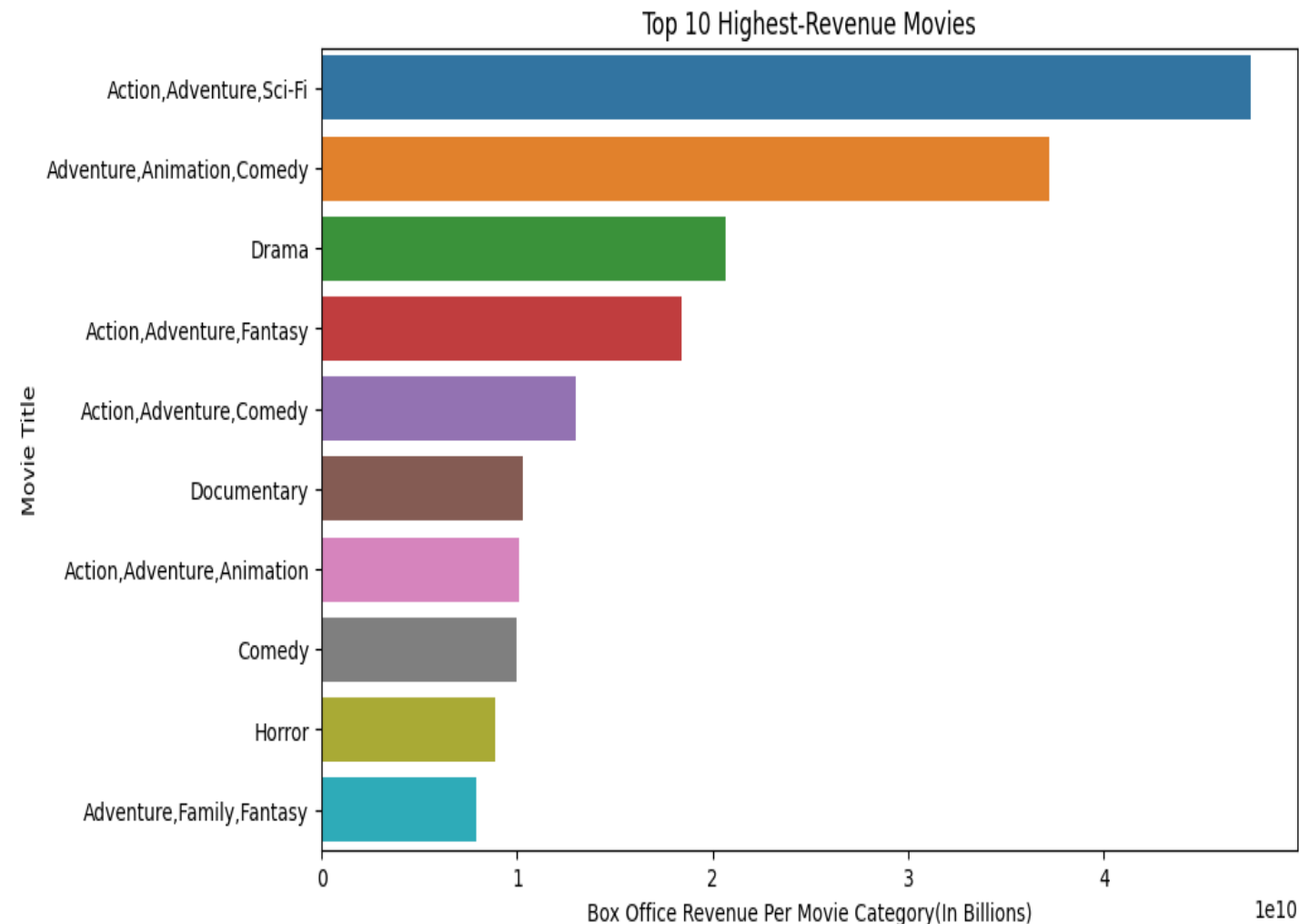
1. What are the most popular movie genres?

2. What are the most successful movies in terms of revenue and ratings?

3. What is the best time of year to release a movie?

- Summer
- Autumn
- Spring
- Winter

MOVIE GENRE THAT GENERATED REVENUE

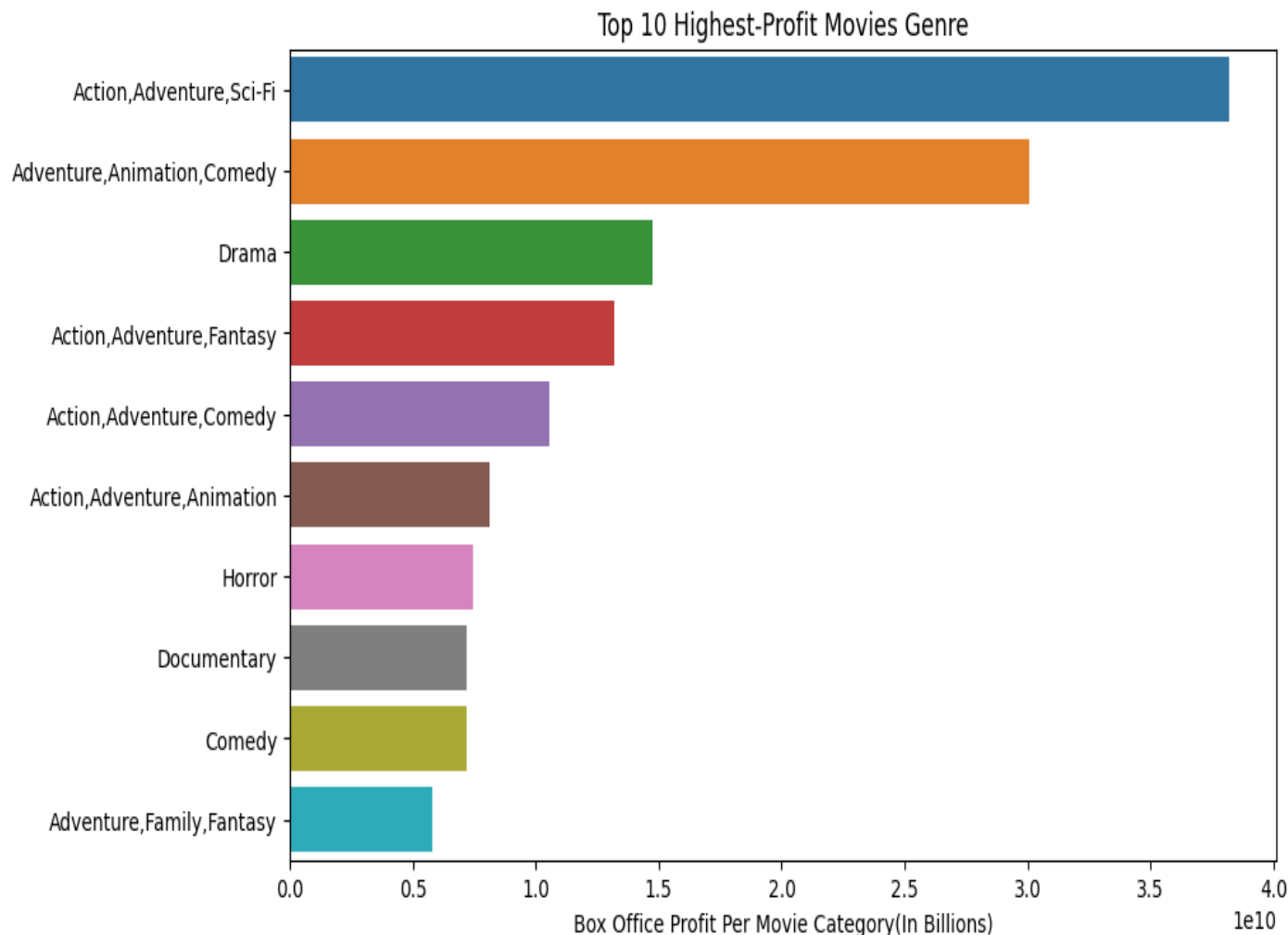Top 10 Highest-Revenue Movies

The bar plot shows the top 10 highest-revenue movies per genre.

The highest revenue movie genres are Action, Adventure, and Sci-Fi.

This suggests that these genres are popular among people and have a high potential for generating revenue.

Therefore, if Microsoft is looking to produce a profitable movie, they may consider creating a movie within one of these genres.
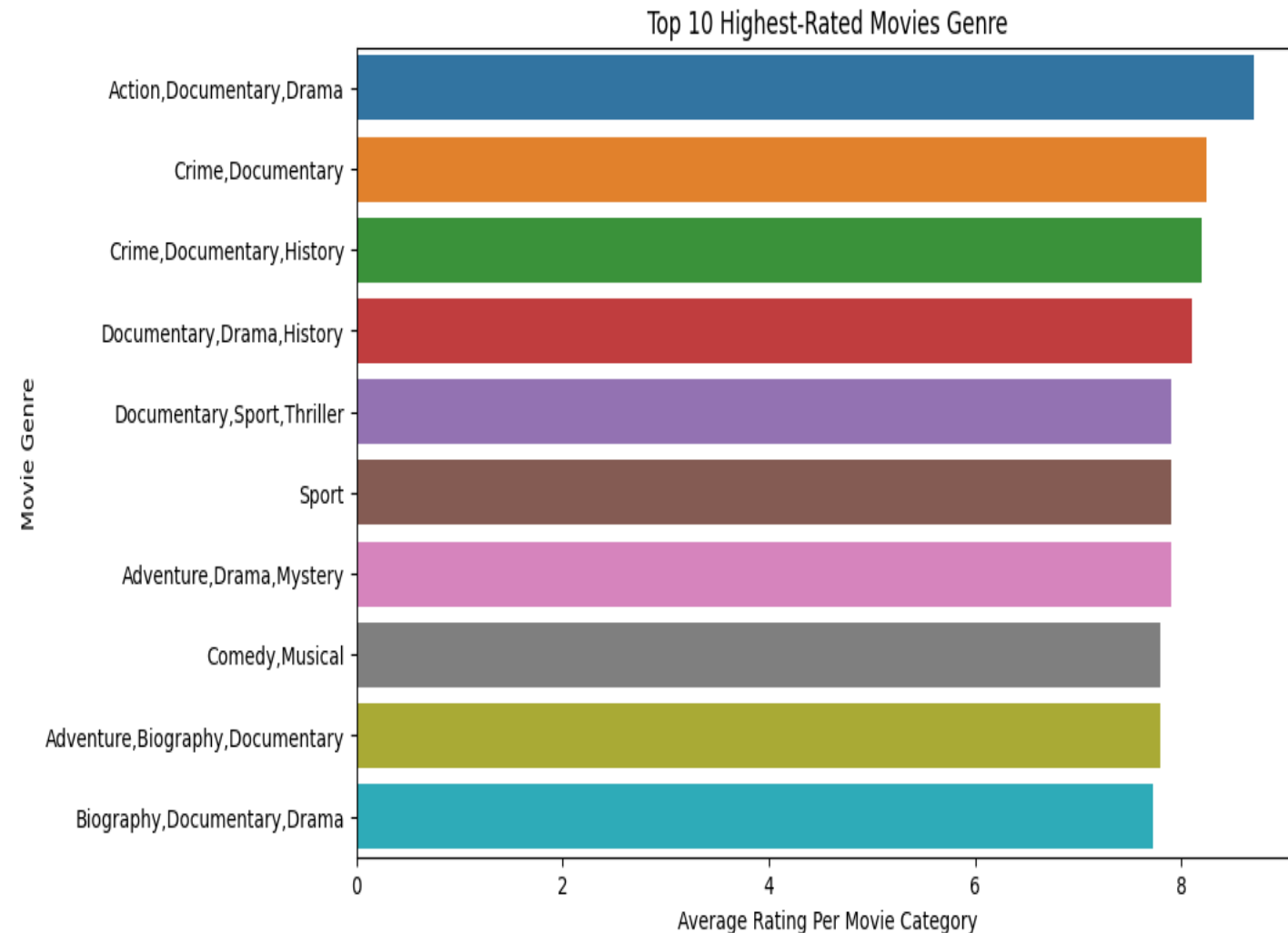
MOST PROFITABLE MOVIE GENRES

Top 10 Highest-Profit Movies Genre

The bar plot represents the top 10 highest-profit movies per genre, and it reveals that the genres of Action, Adventure, and Sci-fi have the highest average profits among their respective movies.

This implies that if Microsoft is aiming to create a more profitable movie, they should consider producing a movie within one of these genres.

MOST HIGH RATED MOVIE GENRES

Top 10 Highest-Rated Movies Genre

The bar plot shows the top 10 highest-rated movies per genre Action, Documentary and Drama have the highest average rating of the movies in that genre.
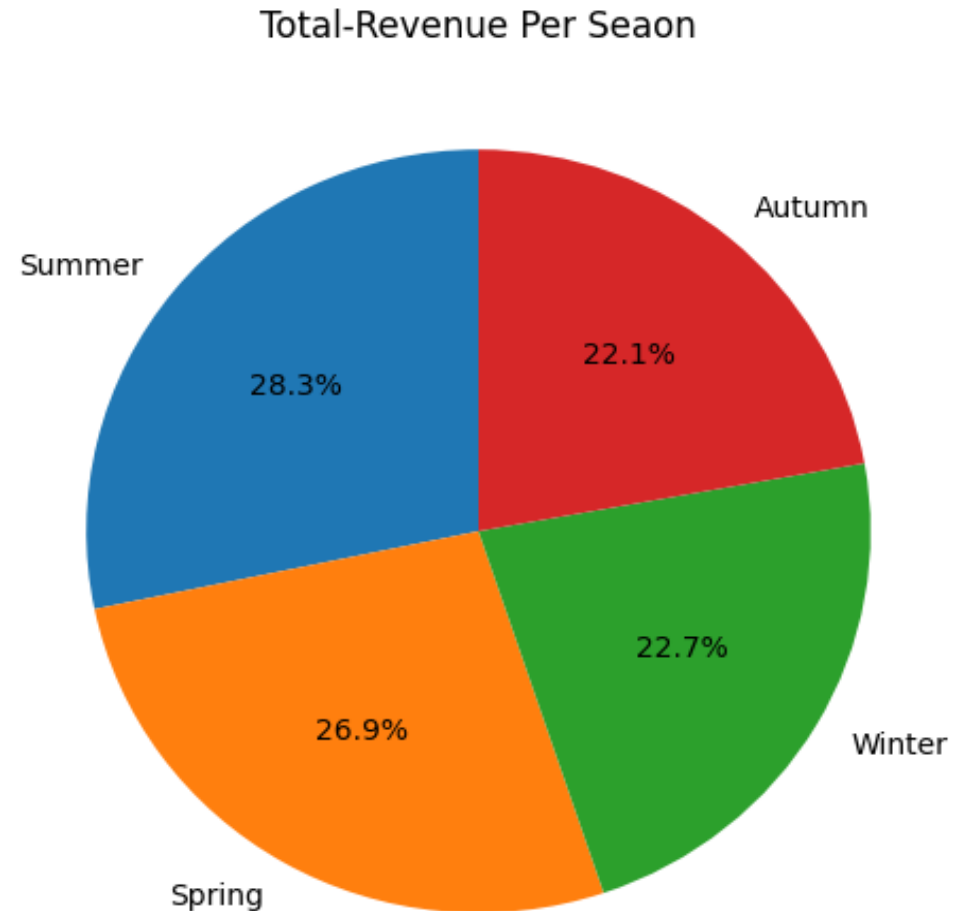
This suggests that if Microsoft is looking to create a well-received movie, they should consider producing a movie within one of these genres.

TOTAL REVENUE PER SEASON

The pie chart shows the percentage of total revenue generated by movies in each season of the year.

The largest percentage of revenue was generated by movies released in the summer season, which accounted for 28.3% of total revenue.

This suggests that releasing movies in the summer season might be more profitable for Microsoft, as these season generates the highest total revenue.
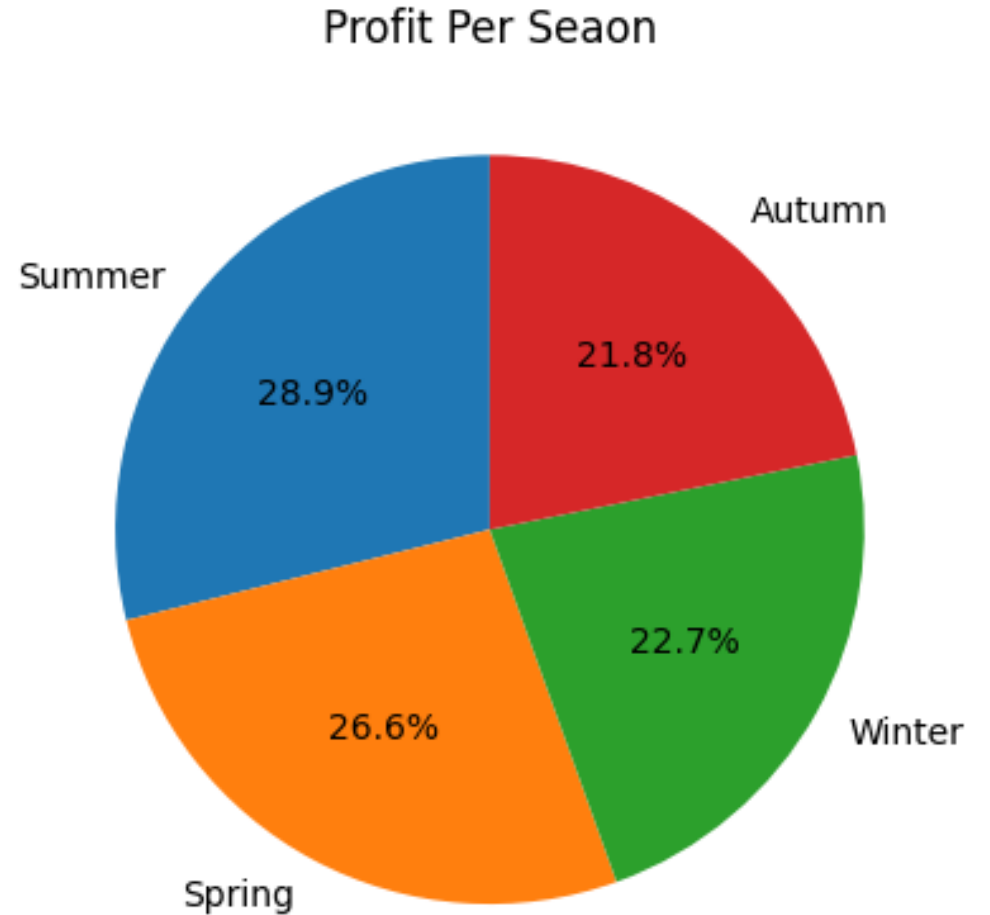

Total-Revenue Per Seaon
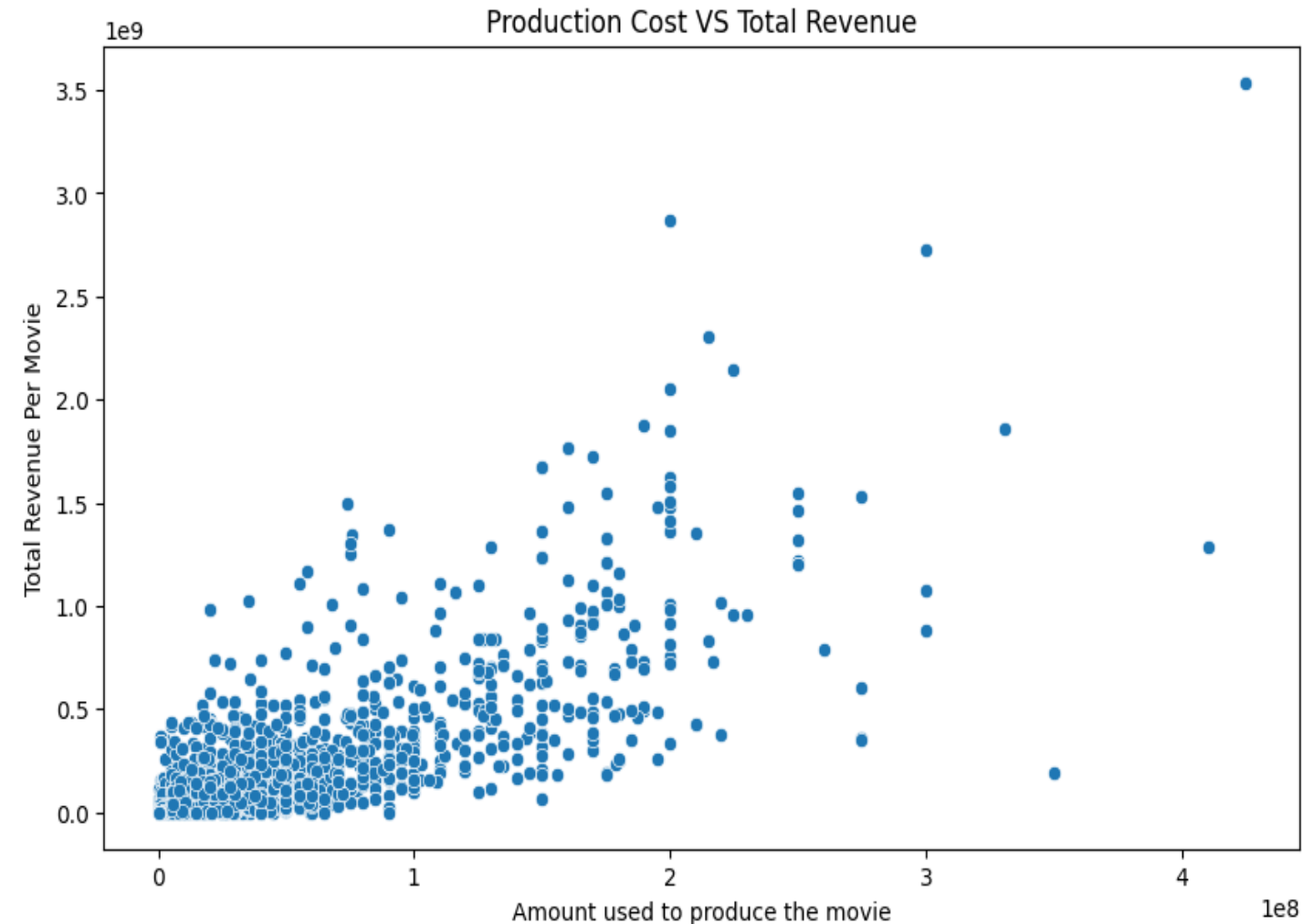
PROFIT PER SEASON

The pie chart shows the proportion of profits generated by movies in each season.

The chart indicates that the highest profits were earned in the Summer season, accounting for 28.9% of the total profits. The Spring season followed, contributing 26.6% of the total profits, while Winter and Autumn were responsible for 22.7% and 21.8%, respectively.

This information could be useful for Microsoft to determine the optimal season to release their movies, based on potential profits they should produce their movie during Summer.

Profit Per Seaon

Summer 28.9%
Autumn 21.8%
Winter 22.7%
Spring 26.6%

PRODUCTION COST VS TOTAL REVENUE

Production Cost VS Total Revenue

A positive correlation between production budget and Total revenue means that as the production budget for a movie increases, its total revenue also tends to increase.

This indicates that there is a relationship between the two variables, and that movies with larger budgets are more likely to generate higher revenues.

CONCLUSION

Based on the analysis, the following conclusions can be drawn:

- *The most popular movie genres are action, adventure, and sci-fi.*
- *The highest-grossing movies tend to be action or adventure movies, with a few exceptions.*
- *The best time of year to release a movie is during the summer months (May to August).*
- *There is a positive correlation between budget and revenue, but it is not always a guarantee of success.*
- *High-quality movies with strong ratings and positive reviews are more likely to perform well at the box office.*

THANK YOU