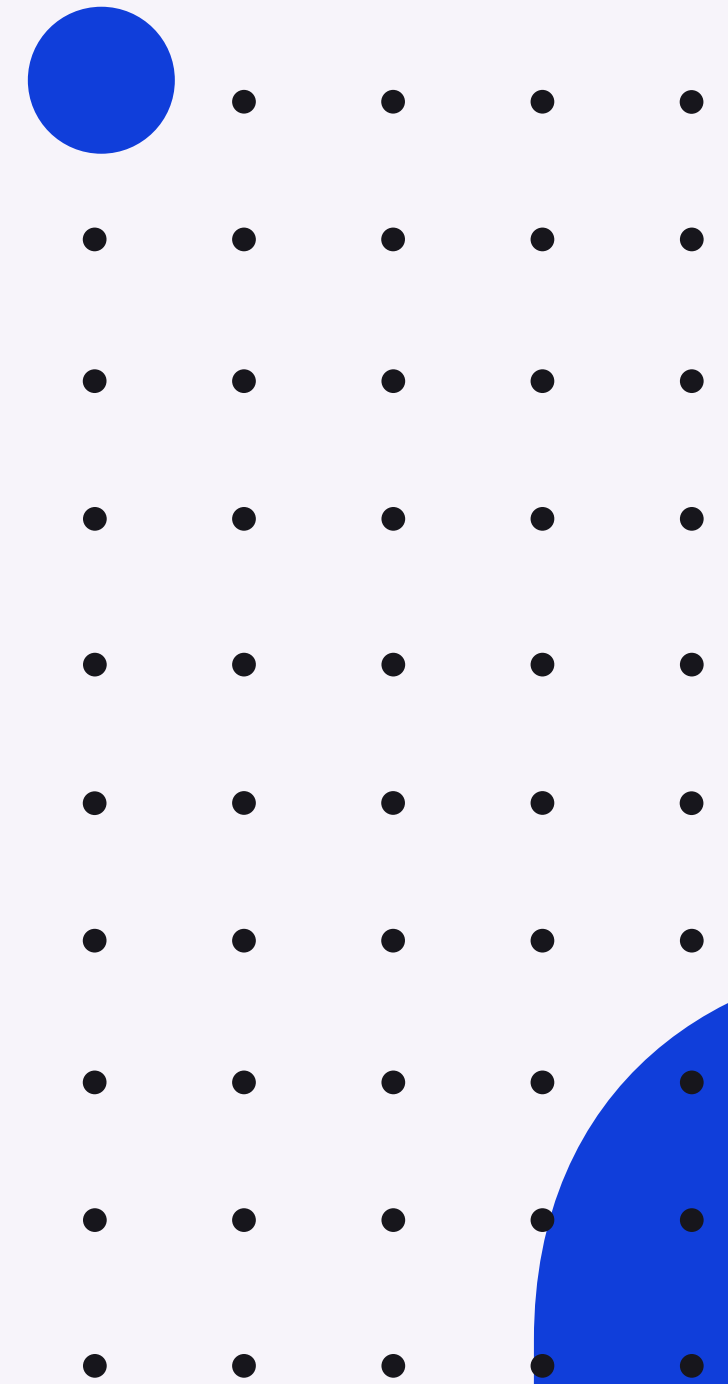
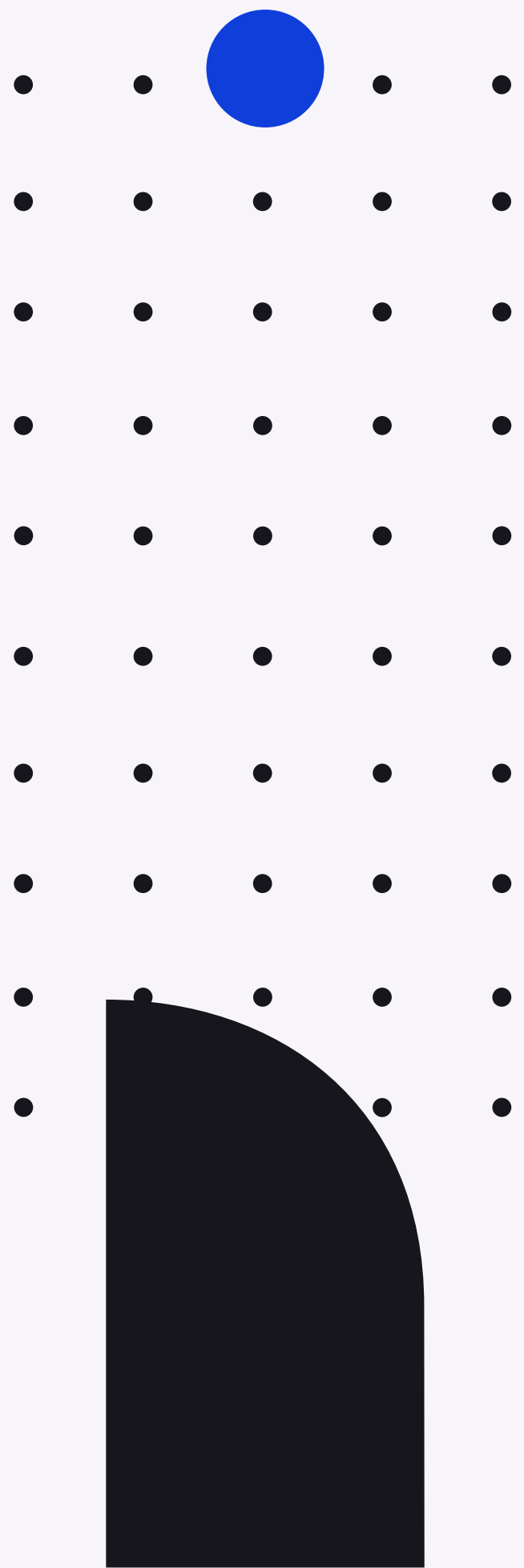


New Movie Studio Recommendations

Exploring the current landscape and trends of the movie industry to form recommendations for Microsoft's new movie studio.





Data sources

1

The Numbers:
movie id, release date, titles, production budget,
domestic gross, worldwide gross

2

Box Office Mojo:
movie title, studio, domestic gross, and foreign gross

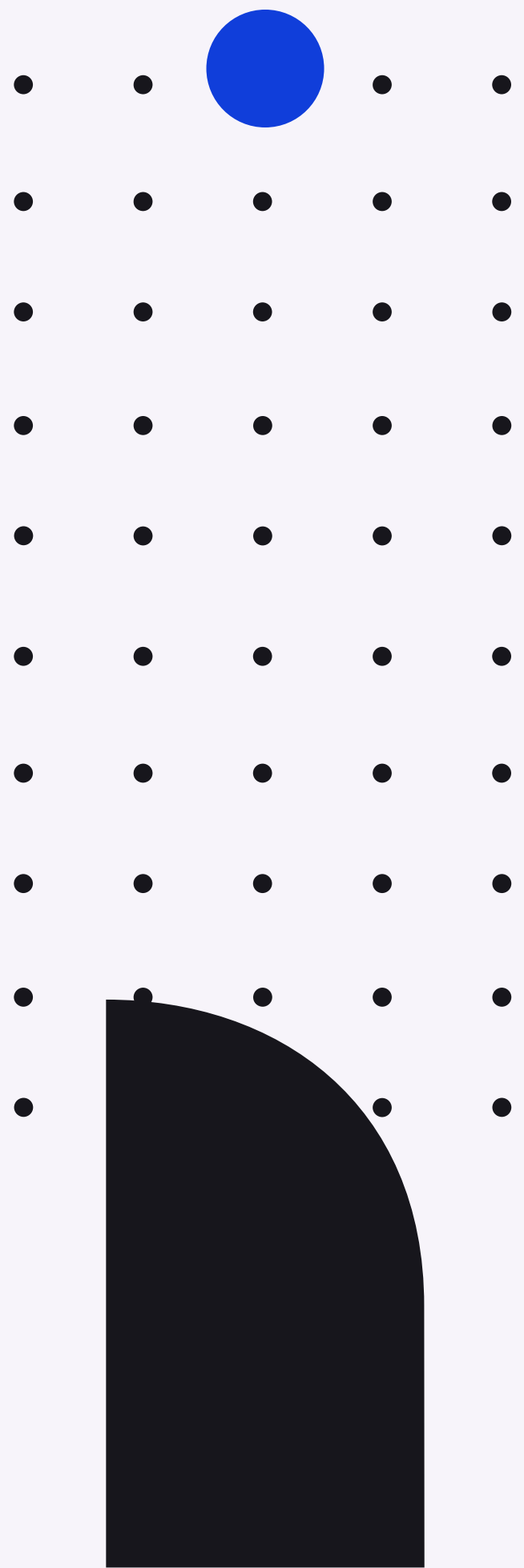
3

Rotten Tomatoes:
1. movie id, synopsis, rating, genre, director, writer,
theater date, box office, runtime, studio
2. movie id, review, rating, fresh, critic, top_critic,
publisher, date

4

The MovieDB:
genre ids, movie id, original language, original title,
popularity, release date, title, vote average, vote count

Focus: release season, domestic gross, foreign and worldwide gross, genre, box office, and popularity.



Methods



1

Modelling box office data from datasets as early as 1915 to up 2020

2

Correlation matrices for variables

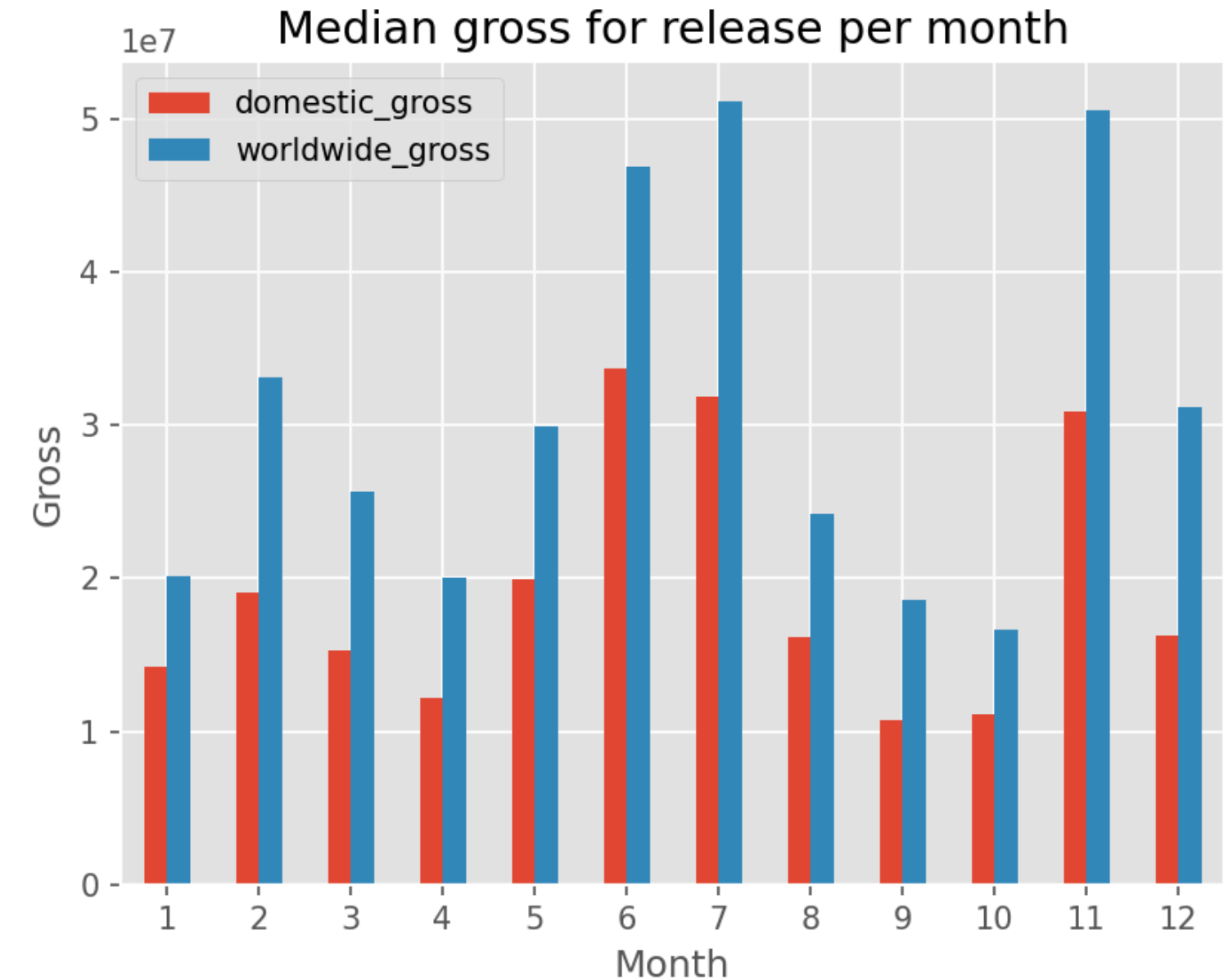
3

Comparison between different datasets for similar/same variables to minimise bias

Results

Understanding seasonality of movie release success

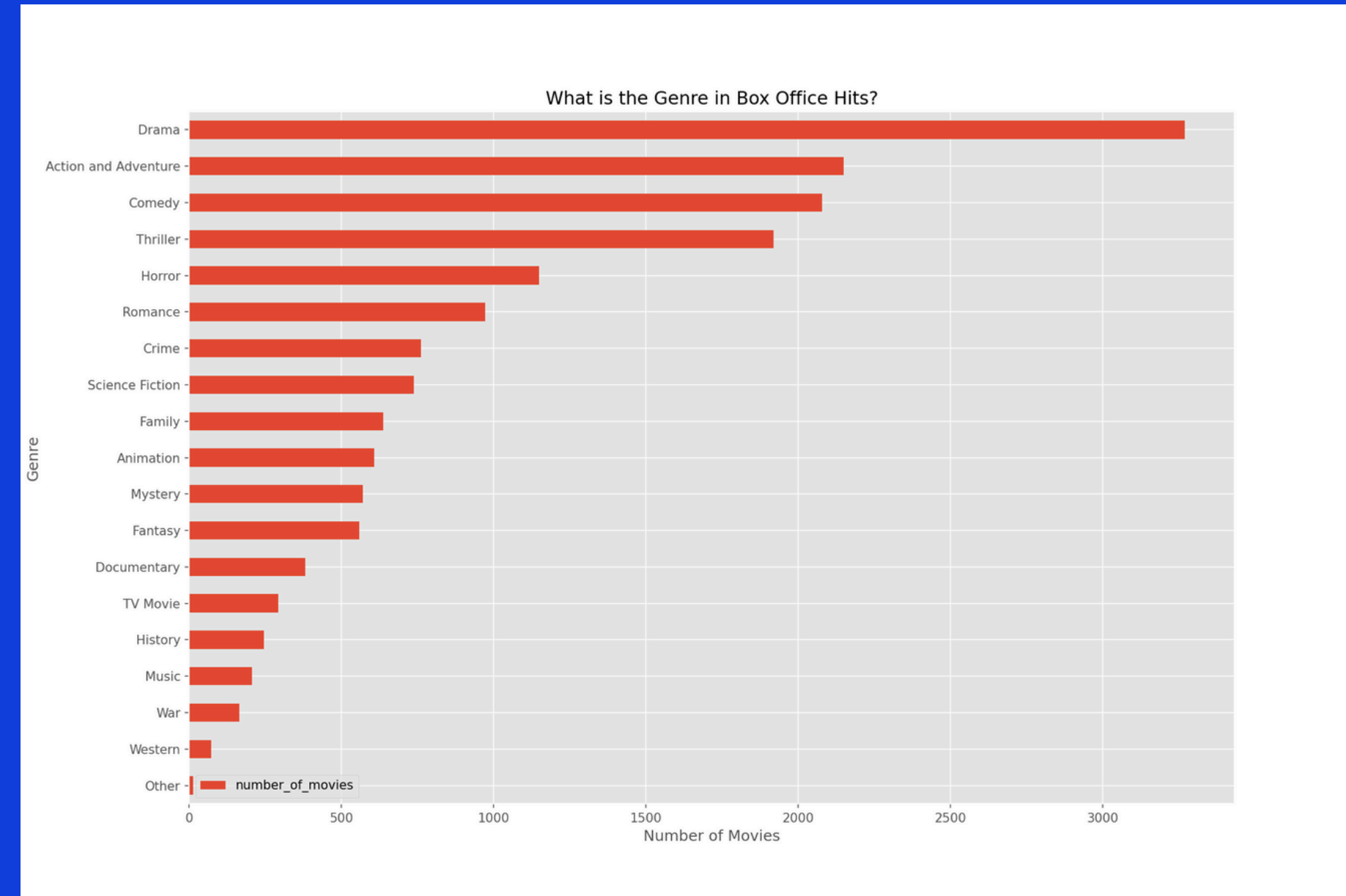
- **Highest domestic gross median** for movie releases is for releases in **June, July, November**. Roughly **100-150% more** than other months.
- **Highest worldwide gross median** for movie releases is for releases in **July, Nov, June**. Roughly **150-250% more** than other months.



Results

Understanding genre of successful movies

- Genre of movies that are popular and/or make above average in box offices are Drama, Comedy, and Action and Adventure.
- Running data models on dataset from Rotten Tomatoes and TMDB generate the same results, although the users of these sites are quite different, which means that bias has been minimised.

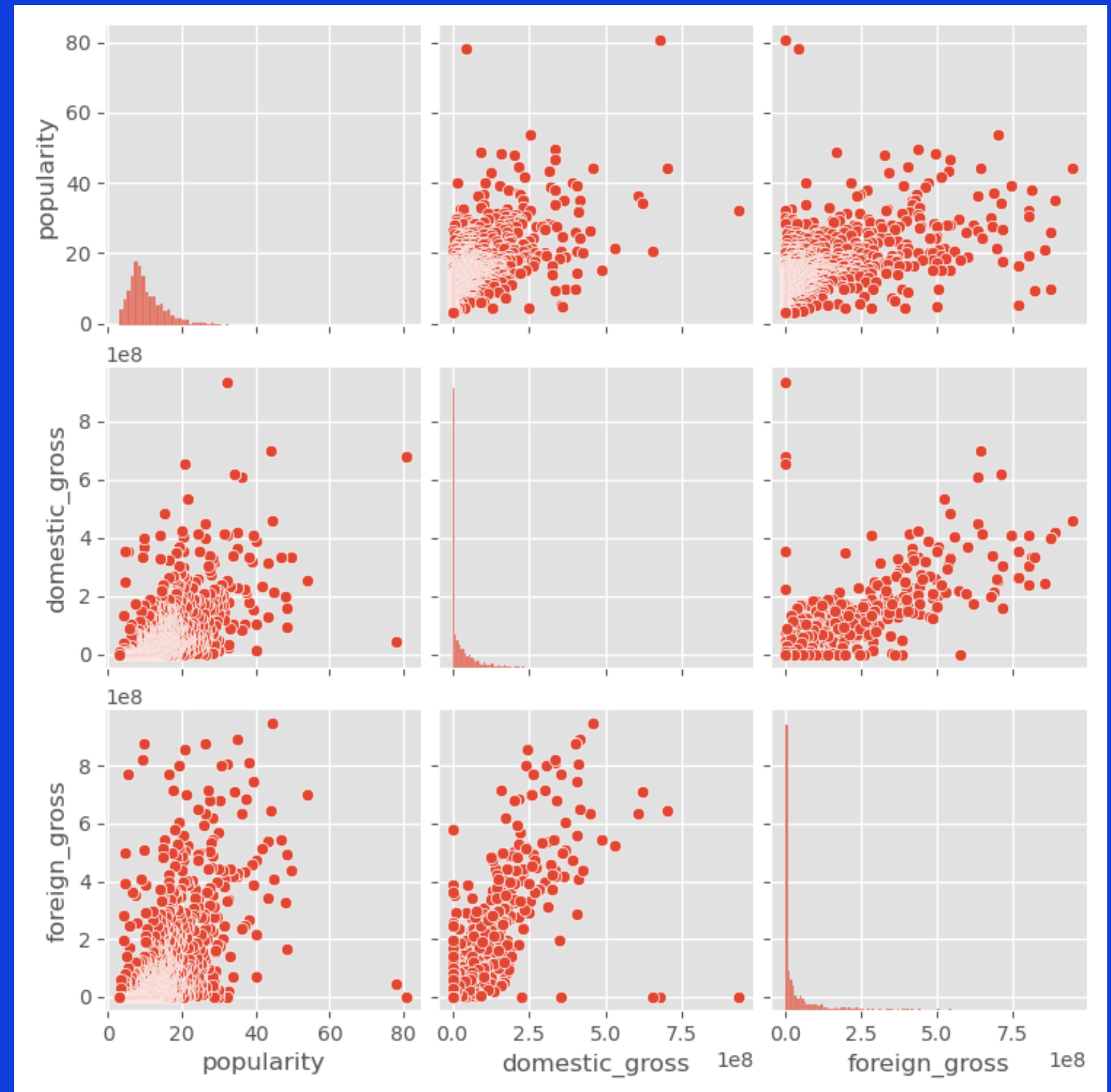


Result

Understanding relationship between popularity/ market size with movie success

Popularity has a quite high correlation to domestic gross and foreign gross (0.6). This means that focusing on marketing is essential to increase popularity of the movie to increase viewing.

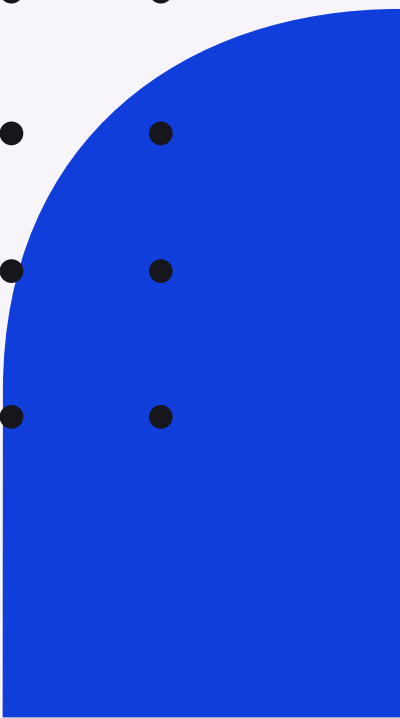
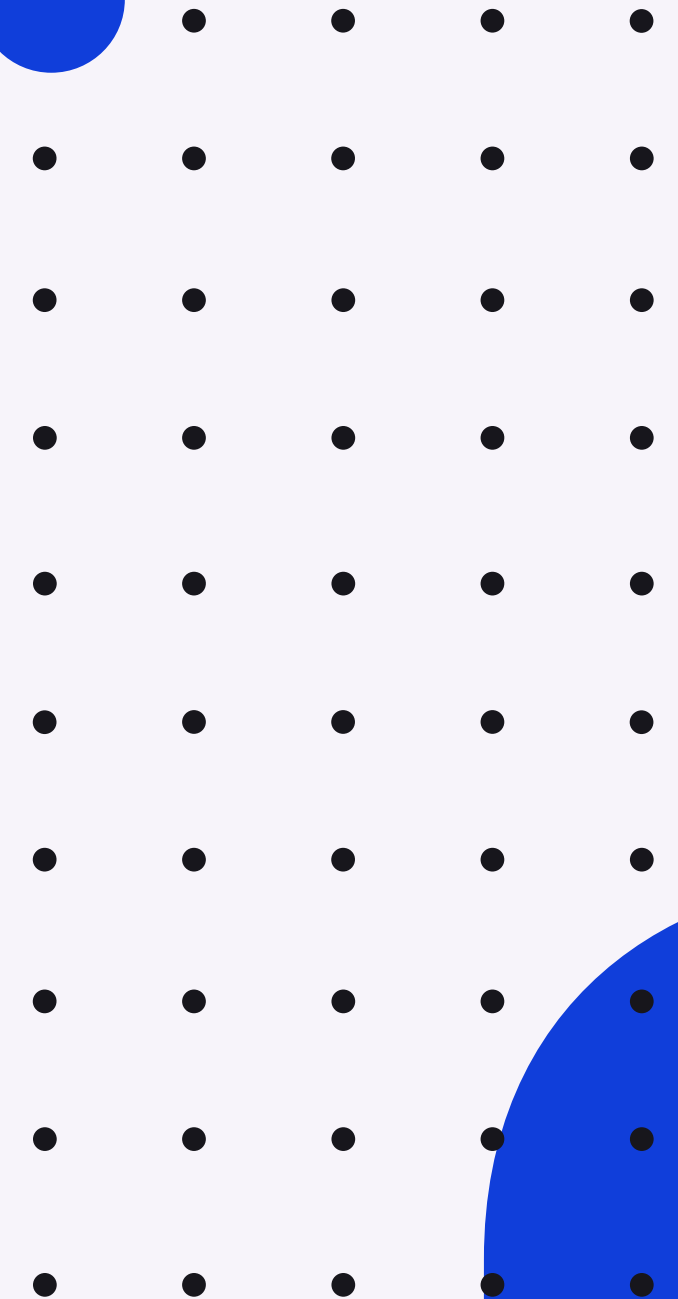
	popularity	domestic_gross	foreign_gross	month
popularity	1.000000	0.634081	0.620673	0.101050
domestic_gross	0.634081	1.000000	0.774173	0.067952
foreign_gross	0.620673	0.774173	1.000000	0.059967
month	0.101050	0.067952	0.059967	1.000000



Recommendations



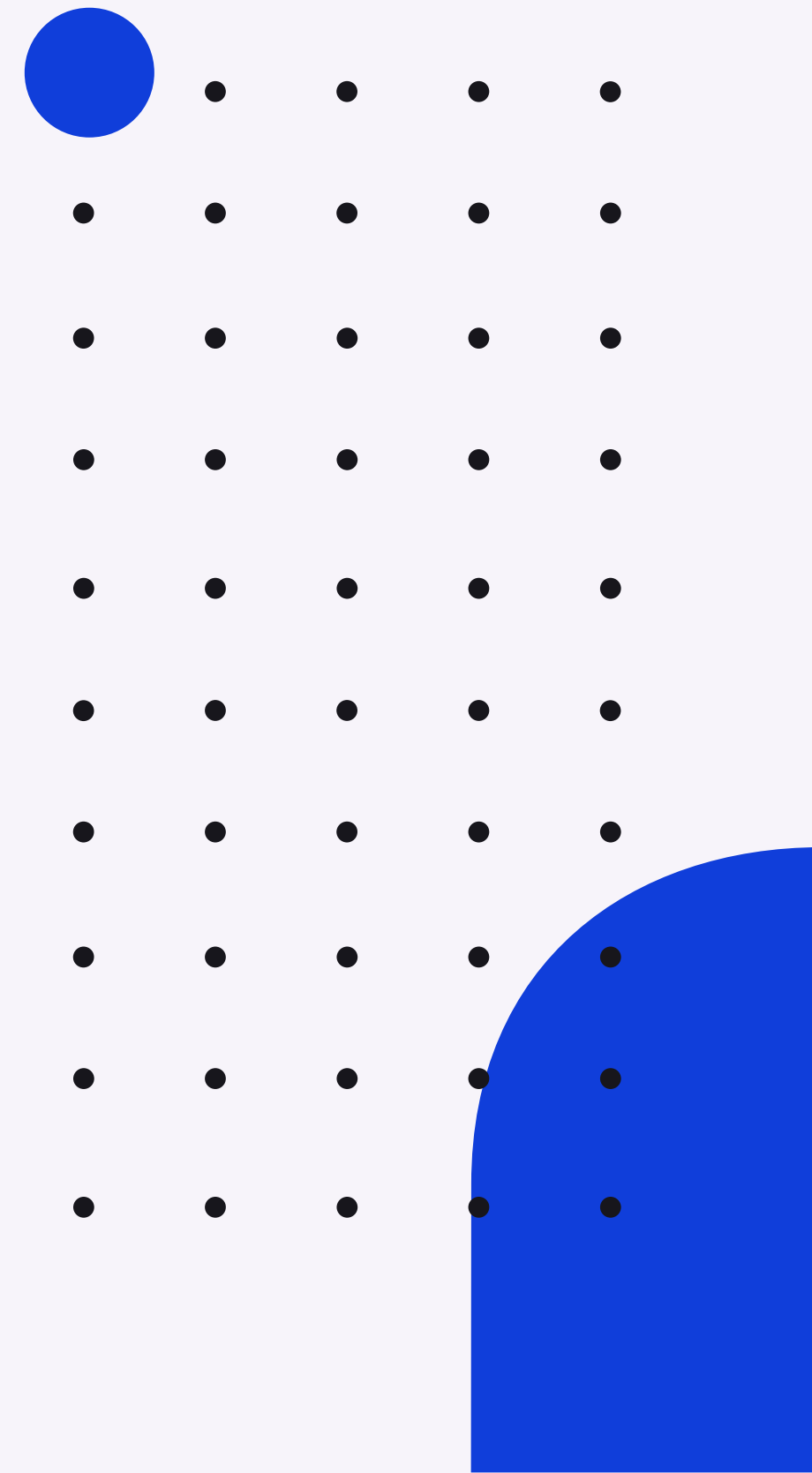
- Plan to release first movie in June, July, or November
- Pick main genre of movie to be Action and Adventure - there can be a combination with Drama or Comedy.
- Invest in marketing to boost popularity of movie before and during release. It is worth inserting cultural easter eggs or relatable references to capture large global markets, especially the Chinese and/or Indian populations.



Future steps



- Determine causality between variables. Is it popular because it does well in the box office? Or is it making a hit in the box office because it is popular?
- Better modelling of content of individual movies that perform well on box office. Perhaps by scanning through movie synopses for common themes.
- Analyse what type of movies didn't do well in box office and why.



Thank you!



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