Problem statement

The public can be fickle, and the industry is in flux. Just about any movie is an extremely risky investment, even a film starring big-name actors and actresses. The profitability of a film has always been an important reference for investment in film production. If a film does not make a return or even a profit, the interests of the film investors cannot be protected. The profitability of a film is also directly related to the prospects of the production company. If a film is not guaranteed to be profitable, a studio may face the dilemma that no one will invest in it.

Based on TMDB Movie Dataset, our purpose is to examine what characteristics should be common to movies that are financially successful? In other words, what factors correlate with the profitability of a film at a statistical level? So, this report explores the dataset and answer various questions about the factors that lead to a movie's financial success. From the database, we selected some representative movie features to ask questions and examine:

* Is there a correlation between the genre of the film and the profitability of the film?
* Is there a correlation between the popularity of the film and the profitability of the film?
* Is there a correlation between the runtime of the film and the profitability of the film?
* Is there a correlation between the rate of the film and the profitability of the film?

By examining these questions, we can get a rough overview of the characteristics of profitable films, and furthermore, we can make a brief consideration and analysis of the logical relationship between these factors and film profitability.