### Summary

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## Description

Our project aims to create a movie database released in 2018 and predict the box office of a new movie based on the records in the database. We will crawl all the movies released in 2018 as well as the their features and box office, then we will analyze the relationship between different features such as profits, genres and metascore. Our system features on predicting box office of a new movie using machine learning methods in order to maximize the profit for the investors.

#### Usefulness

It is difficult to predict whether a movie will succeed or not, in that many factors influence the box office of movie. For instance, the fame of actors and director, the quality of movie as well as the type of movie are essential elements affecting the attraction of movie. Therefore, such unpredictability nature causes the film business to become the high risk investment for investors. Here comes this application adopting data analysis to forecast box office. The application takes the factors into consideration, which can help the investors by doing the risk management and controlling the cost to maximize the profit.

#### Realness

The data is basically adopted from IMDB website and they are the information about movies that are showed in 2018. The actors/actresses, the name and the types of movies are the important part we are looking at.

# **Functionality**

- Basic Functions:
  - Crawled movie data from IMDB website including actors, movie names, genres and so on
  - o Use SQL query to create, modify and search the database.
- Advance Functions:
  - Analytics between different features
  - Box office prediction for a newly released movie
  - o Recommend similar movies for given preference

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#### Reference:

https://cloud.tencent.com/info/3f29682cb0c090962f83b12d08c8772e.html
https://www.imdb.com/search/title?year=2018&title\_type=feature&sort=boxoffice\_gross\_us,desc
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https://wiki.illinois.edu/wiki/display/CS411SP19/Stage+1%3A+Functional+Description+and+ER+Design