

The background features four decorative film strips, one in each corner, arranged diagonally. They are light green with white dashed lines representing sprocket holes.

# Movie Studio

Industry Analysis

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# Business Problem

The company aspires to enter the competitive field of original video content production by establishing a new movie studio. To succeed in this endeavor, it's crucial to understand the current market trends. This project involves conducting exploratory data analysis to provide actionable insights for our business stakeholders.

Our goal is to explore and analyze film industry data to identify:

- How should the movie be budgeted?
- What genres are most profitable?
- What are the best directors for each genre?
- When should a movie be released?
- What should be the approximate runtime?

# Data used

Used data with movies financial results such revenue and profit, genres, movie ratings, popularity, release dates, directors.

**TheNumbers**

6 columns, 5782 rows

**TheMovieDb**

10 columns, 26517 rows

**IMDB**

8 tables

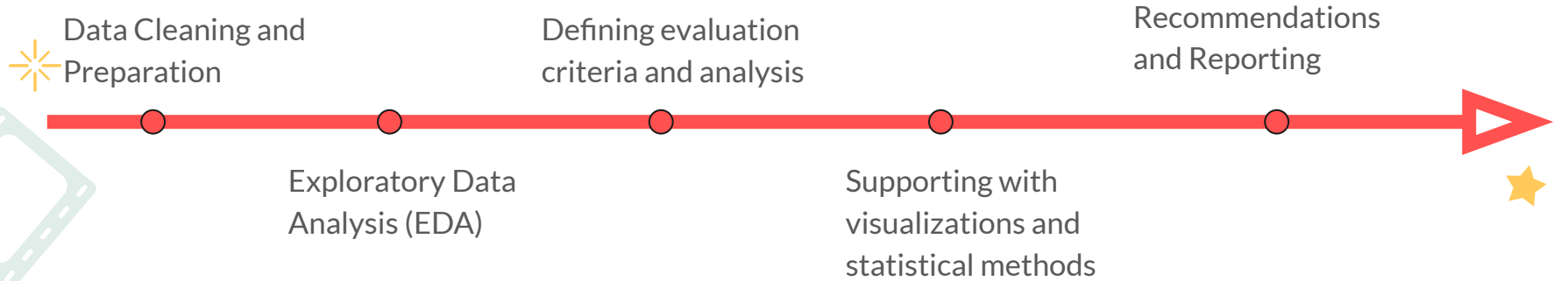
**Bom Office Mojo**

5 columns, 3387 rows

**Rotten Tomatoes**

12 columns, 1560 rows  
8 columns, 54432 rows

# Data Analysis Steps



★ EDA Tools: Python Pandas, SQL Lite, Numpy

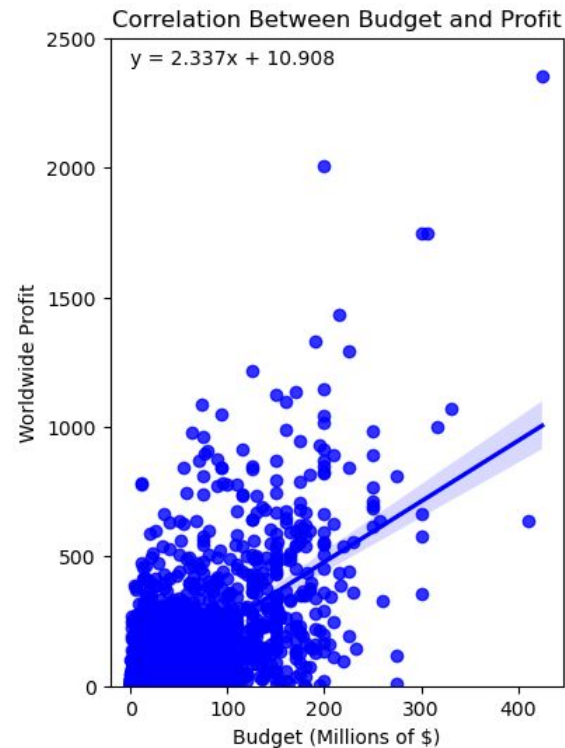
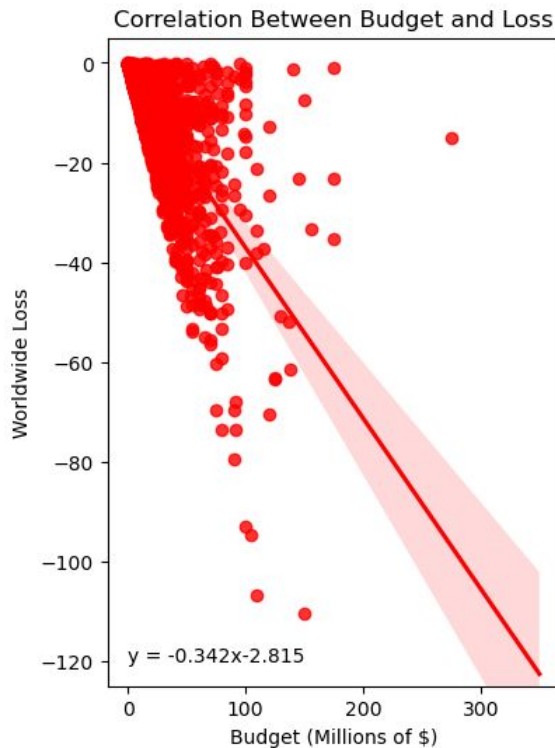
Visualization Tools: Seaborn and Matplotlib

Statistical Tools: T-test, Linear regression modelling

# Investment Risk and Profit

A higher investment may yield higher profits or higher losses

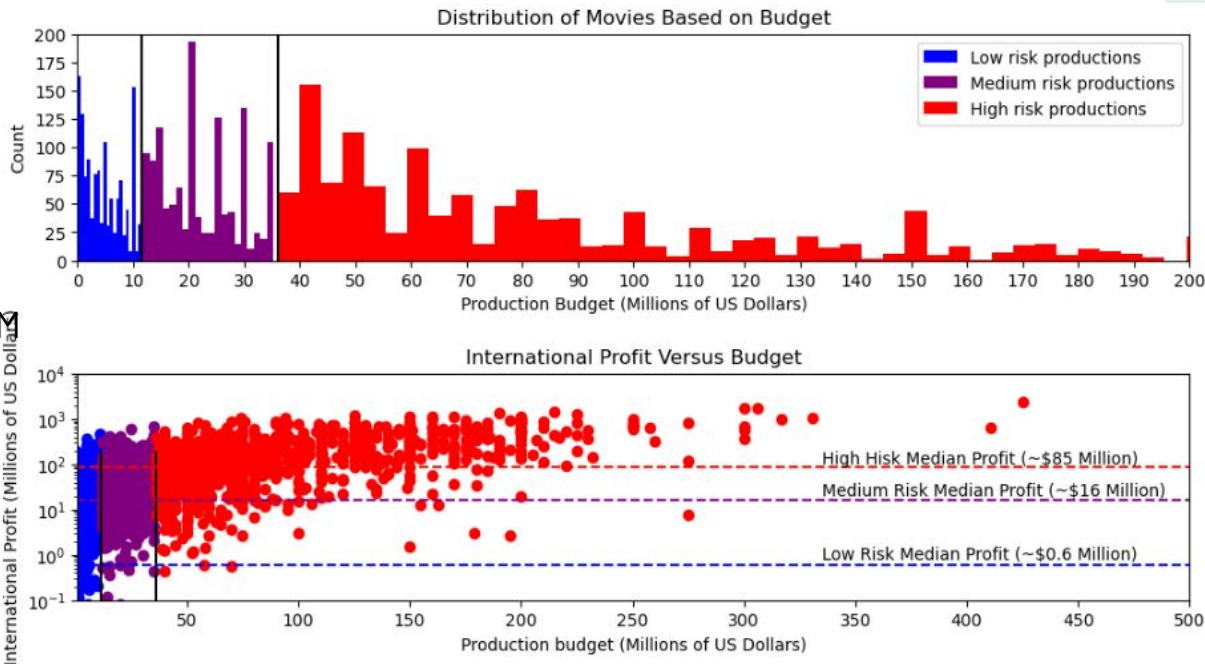
Correlation between higher budget and higher losses is positive.



# Investment Risk and Profit



- Low Risk: Budget < \$11.5M
- Medium Risk: \$11.5M < Budget < \$36M
- High Risk: Budget > \$36M



We split recommendations in low, medium and high risk based on profit/losses!

# Fluxogram on risk analysis

Join The Numbers data with  
IMDB and Movie DB

# Fluxogram on risk analysis

Join The Numbers data with  
IMDB and Movie DB

Obtain genres with top profit

	genres	worldwide_net
0	Horror	15434588.0
1	Mystery	14371155.5
2	Romance	2681937.0
3	Fantasy	2438210.0
4	Thriller	1889796.0



# Fluxogram on risk analysis



Join The Numbers data with  
IMDB and Movie DB



Obtain genres with top profit



T-Test each genre  
distribution and select most  
profitable

## Horror

T scores for profit of:

\$20 million = -3.6017645678829213

\$35 million = -0.6797071532264725

\$50 million = 2.242350261429976

Probability for profit of:

\$20 million = 0.9997733937949502

\$35 million = 0.7510316219789762

\$50 million = 0.013343571801237686

Average cost of horror movies below \$11.50 million are \$4.51 millions



## Mystery

T scores for profit of:

\$20 million = -2.769851906203676

\$35 million = 0.009069978403655641

\$50 million = 2.7879918630109874

Probability for profit f:

\$20 million = 0.9966272916473534

\$35 million = 0.49639116153943286

\$50 million = 0.003203179748977769

Average cost of mystery movies below \$11.50 million are \$4.97 millions

# Fluxogram on risk analysis



Join The Numbers data with  
IMDB and Movie DB

Obtain genres with top profit

T-Test each genre  
distribution and select most  
profitable

Find best directors from  
genre

	director	worldwide_net
0	Jordan Peele	250367951.0
1	John R. Leonetti	250362920.0
2	Tod Williams	174512032.0
3	Henry Joost	169928918.0
4	Adam Robitel	157885588.0

# Fluxogram on risk analysis

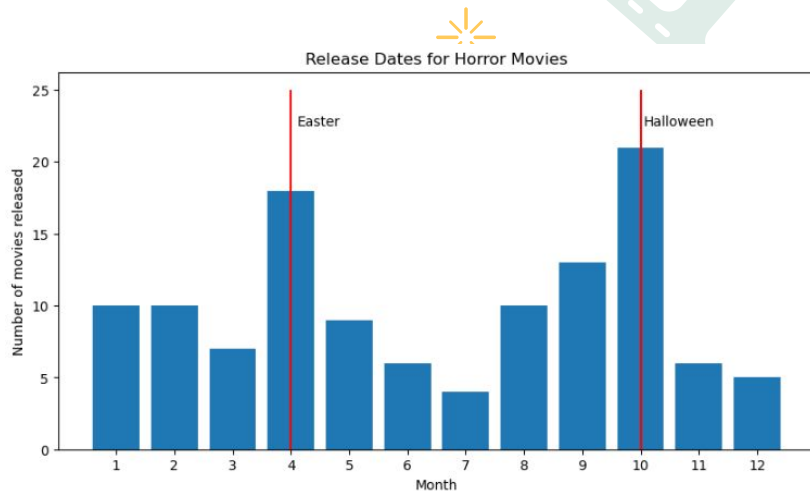
Join The Numbers data with  
IMDB and Movie DB

Obtain genres with top profit

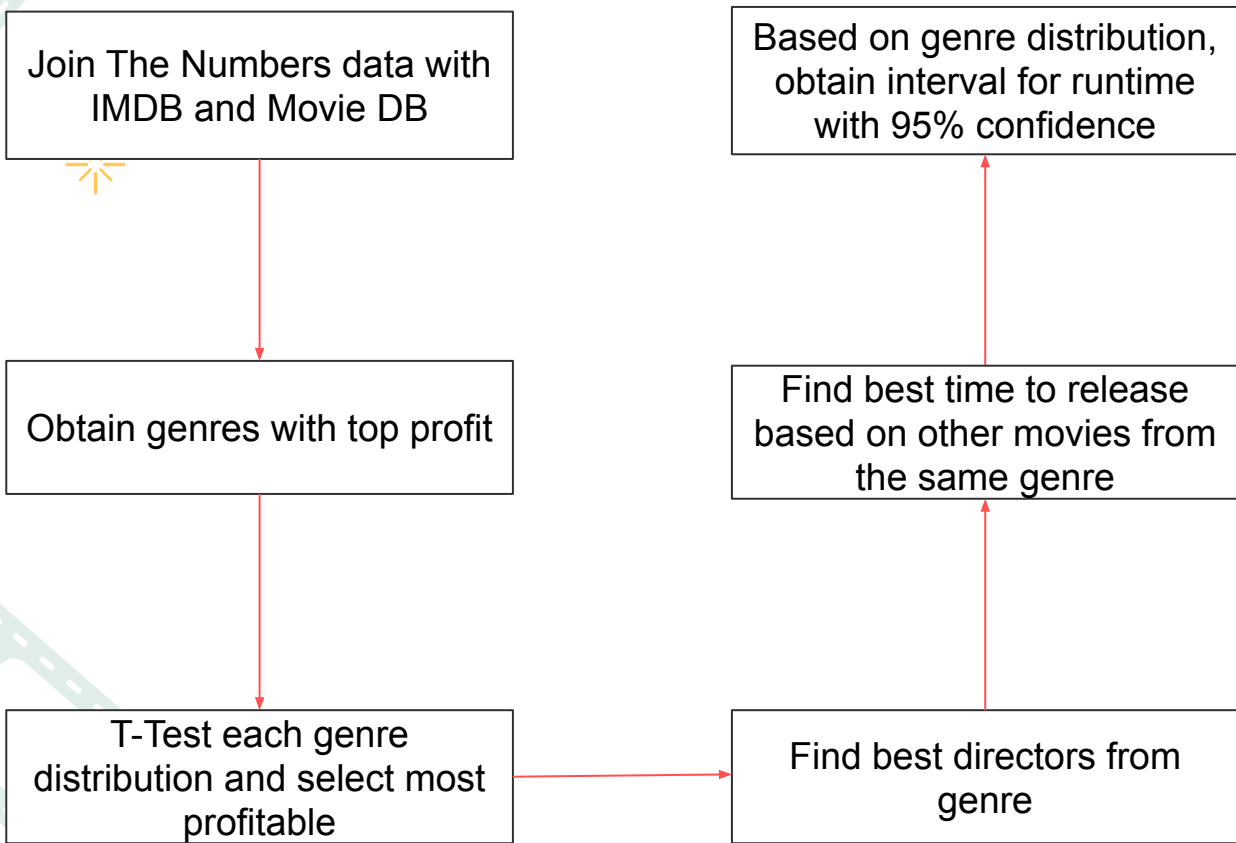
T-Test each genre  
distribution and select most  
profitable

Find best time to release  
based on other movies from  
the same genre

Find best directors from  
genre



# Fluxogram on risk analysis



# Recommendations

## Low Risk:

- Genre: Horror
- Director: Jordan Peele or John R. Leonetti
- Best release date: Halloween (October) or Easter (April)
- Runtime: 96 to 100 minutes
- Average cost: \$7.53 millions

## Medium Risk:

- Genre: Music
- Director: Damien Chazelle (La La Land)
- Best release date: August
- Runtime: 96 to 113 minutes
- Average cost: \$21.93 millions

## High Risk:

- Genre: Sci-Fi
- Director: Michael Bay (Transformers), Anthony Russo (Marvel), Francis Lawrence (Hunger Games)
- Best release date: March (Spring Break) or June (Summer)
- Runtime: 112 to 120 minutes
- Average cost: \$155.73 millions



# Thank you

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