

OCTOBER, 2021

MOVIES REVENUE PREDICTION PROPOSAL

ORGANISED BY:

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QUESTION/NEED:

What is the framing question of your analysis, or the purpose of the model/system you plan to build?

- To predict movie box office revenue with Linear Regression

DATA DESCRIPTION:

What dataset(s) do you plan to use, and how will you obtain the data?

- Movies title, production budget, worldwide gross
- It was obtained from (www.the-numbers.com)

What is an individual sample/unit of analysis in this project?

- Movies budget versus the worldwide gross

What characteristics/features do you expect to work with?

- Movie box office revenue

TOOLS:

01

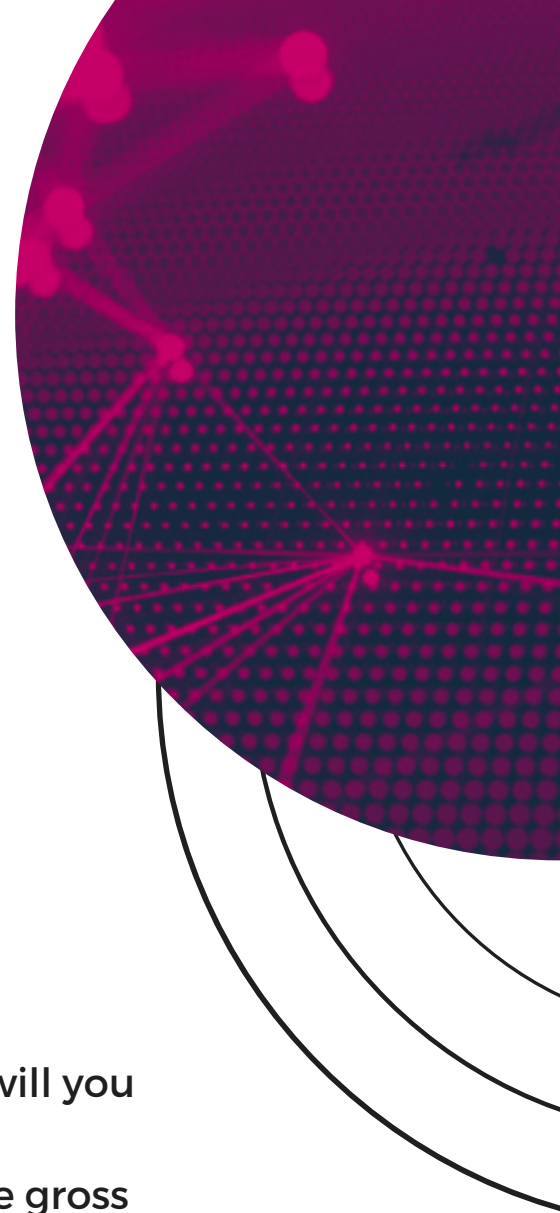
How do you intend to meet the tools requirement of the project?

- Clean the data by Pandas
- Leverage scikit-learn to apply Linear Regression

02

Are you planning in advance to need or use additional tools beyond those required?

- No



EXPLORATORY DATA ANALYSIS

To understand our data further and to put the initial hypothesis

Movies Data

```
df
```

| | Rank | Release Date | Movie Title | Production Budget (\$) | Worldwide Gross (\$) | Domestic Gross (\$) |
|------|------|--------------|--------------------------------|------------------------|----------------------|---------------------|
| 0 | 5293 | 8/2/1915 | The Birth of a Nation | \$110,000 | \$11,000,000 | \$10,000,000 |
| 1 | 5140 | 5/9/1916 | Intolerance | \$385,907 | \$0 | \$0 |
| 2 | 5230 | 12/24/1916 | 20,000 Leagues Under the Sea | \$200,000 | \$8,000,000 | \$8,000,000 |
| 3 | 5299 | 9/17/1920 | Over the Hill to the Poorhouse | \$100,000 | \$3,000,000 | \$3,000,000 |
| 4 | 5222 | 1/1/1925 | The Big Parade | \$245,000 | \$22,000,000 | \$11,000,000 |
| ... | ... | ... | ... | ... | ... | ... |
| 5386 | 2950 | 10/8/2018 | Meg | \$15,000,000 | \$0 | \$0 |
| 5387 | 126 | 12/18/2018 | Aquaman | \$160,000,000 | \$0 | \$0 |
| 5388 | 96 | 12/31/2020 | Singularity | \$175,000,000 | \$0 | \$0 |
| 5389 | 1119 | 12/31/2020 | Hannibal the Conqueror | \$50,000,000 | \$0 | \$0 |
| 5390 | 2517 | 12/31/2020 | Story of Bonnie and Clyde, The | \$20,000,000 | \$0 | \$0 |

5391 rows x 6 columns

```
df.shape
```

```
(5391, 6)
```

- The dataset contains six features (Rank, Release Date, Movie Title, Production Budget (\$), Worldwide Gross (\$), Domestic Gross (\$))
- A total of 5391 data points
- Zero values for Worldwide Gross (\$), Domestic Gross (\$)