Microsoft Movie Analysis

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Student pace: Part-Time

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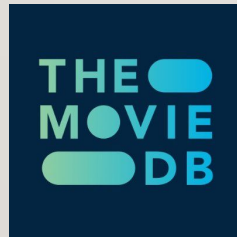
Instructor name: Claude Fried

Business Problem

- **What variables of a film should Microsoft consider to create a profitable and successful movie?**

- **What are three recommendations can we provide?**

Data

Microsoft is looking to create a movie studio using movie datasets from:

- Box Office Mojo
- IMDB
- Rotten Tomatoes
- TheMovieDB
- The Numbers

Our Focus

- When is the best time to release movie?

- Which genre generates the most profit?

- Does production budget correlate profitable movie?

How Profit is using The Numbers

|	id	release_date	movie	production_budget	domestic_gross	worldwide_gross	revenue	profit
0	1	Dec 18, 2009	Avatar	425000000	760507625	2776345279	3536852904	3111852904
1	2	May 20, 2011	Pirates of the Caribbean: On Stranger Tides	410600000	241063875	1045663875	1286727750	876127750
2	3	Jun 7, 2019	Dark Phoenix	350000000	42762350	149762350	192524700	-157475300
3	4	May 1, 2015	Avengers: Age of Ultron	330600000	459005868	1403013963	1862019831	1531419831
4	5	Dec 15, 2017	Star Wars Ep. VIII: The Last Jedi	317000000	620181382	1316721747	1936903129	1619903129

Revenue = Domestic Gross + Worldwide Gross

Profit = Revenue - Production Budget

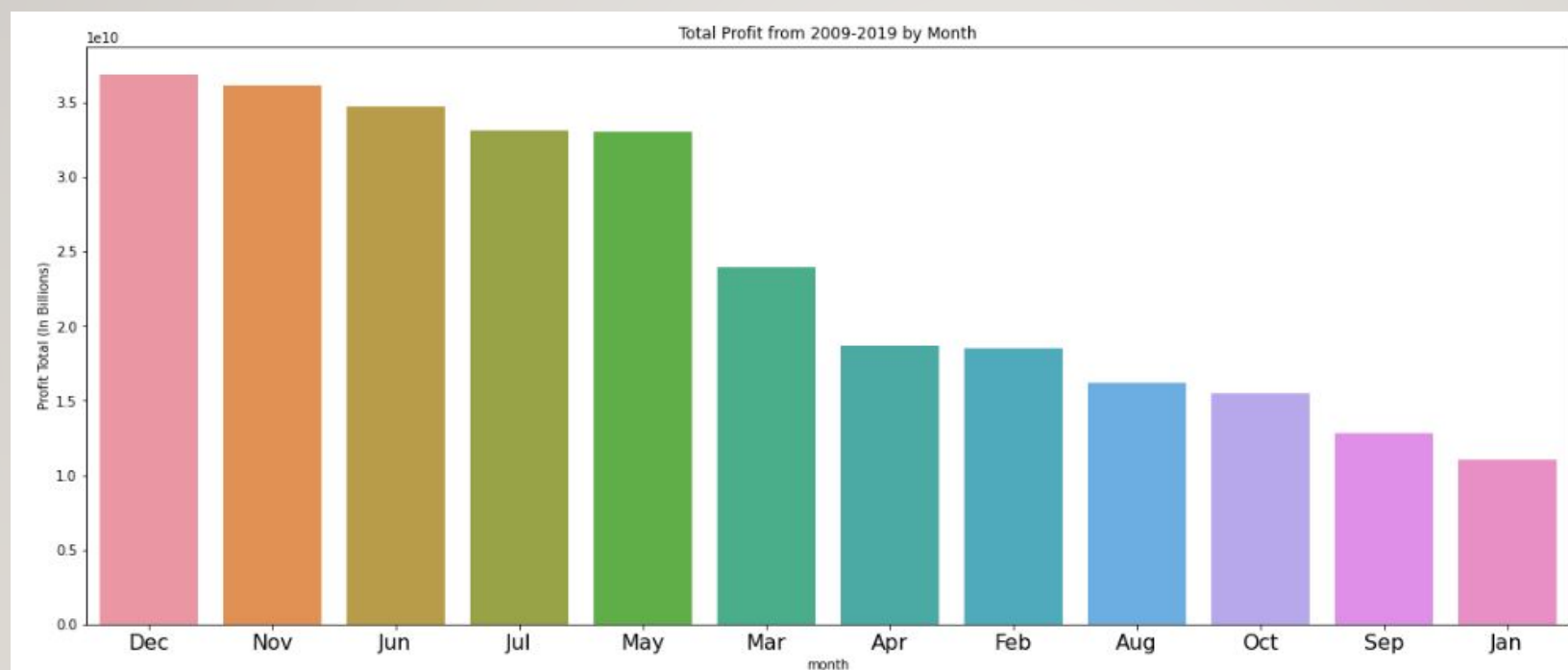# When is the best time to release movie?

Approach → Frequency of Released Movies from The Numbers

Our Findings → Highest Released Movies 2009-2019

Frequency of Movies Released by Years

Our Findings

Total Profit from 2009-2019 by Month
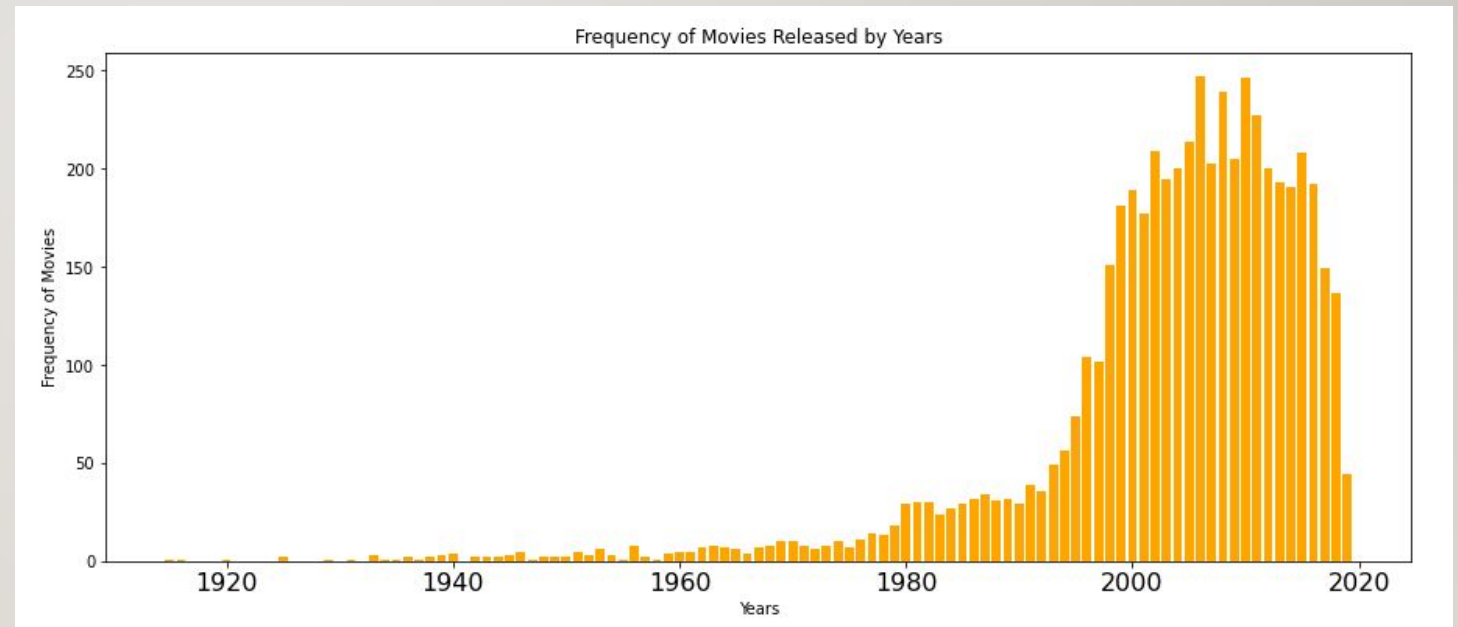
month	
Dec	36895039342
Nov	36185606279
Jun	34725658063
Jul	33076967720
May	33066662834
Mar	23959256445
Apr	18728675148
Feb	18469315515
Aug	16191285586
Oct	15470826032
Sep	12801290611
Jan	11030612629

What genre generates the most profit by Average?
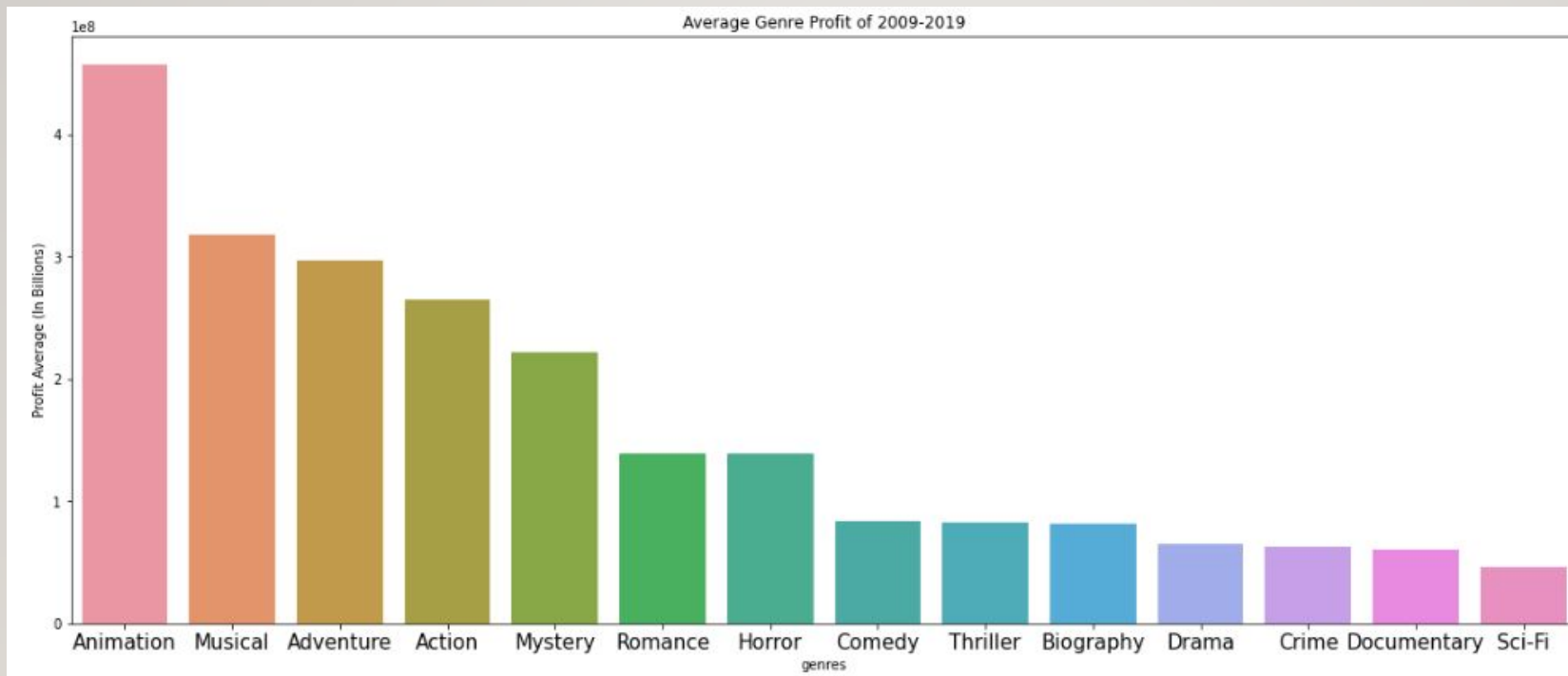
What genre generates the most profit by Median?

Overall Median Genre Profit of 2009-2019
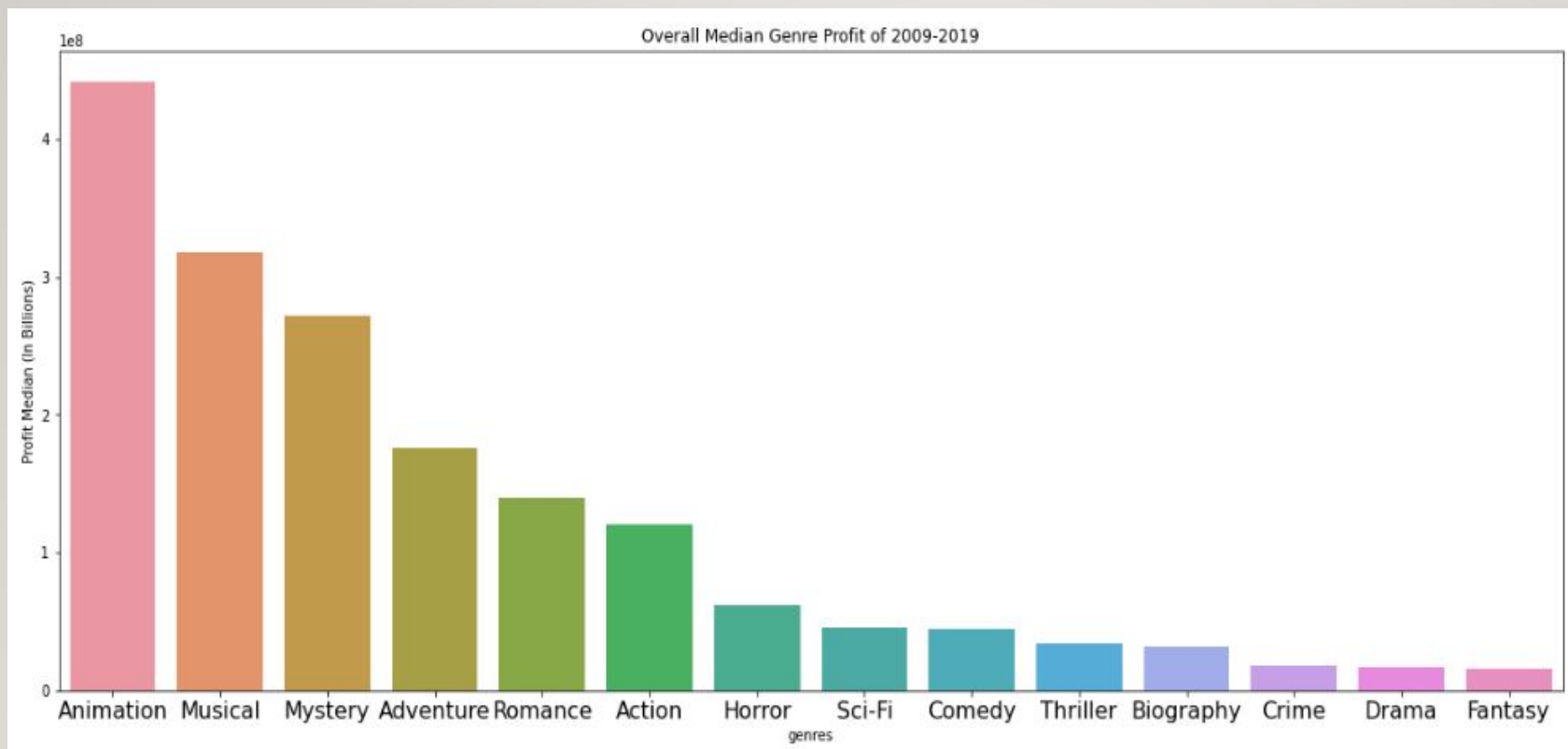
genres	
Animation	441818860.0
Musical	318083159.0
Mystery	271395649.0
Adventure	175620158.5
Romance	139226970.0
Action	120528329.5
Horror	62007958.0
Sci-Fi	45868254.0
Comedy	44984029.5
Thriller	33411152.0
Biography	32274273.0
Crime	17881006.0
Drama	16776929.0
Fantasy	15525724.0

Does high production budget lead to a profitable movie?

Profits vs. Production Budget for Movies From 2009 to 2019
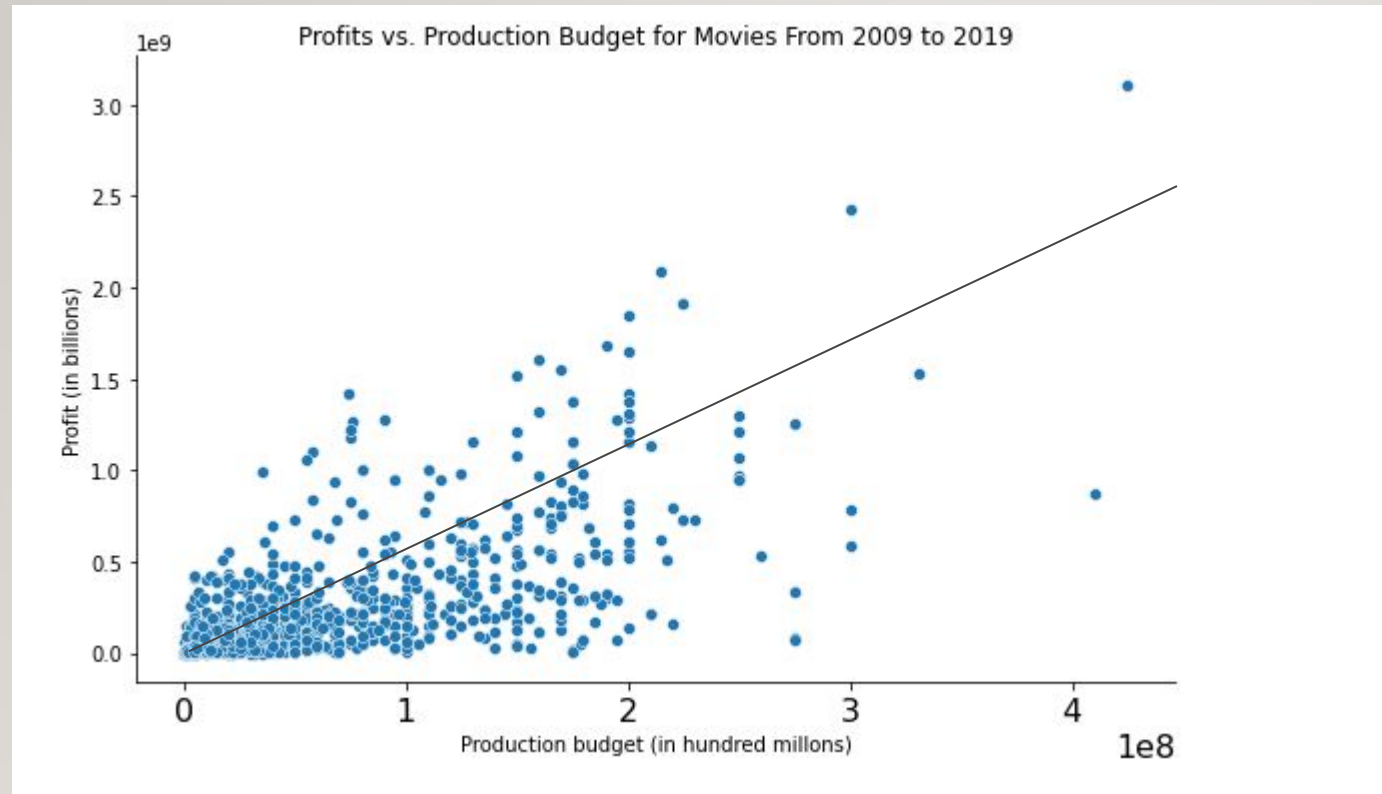
r = .695 - medium positive correlation

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Profit average is 195253814.61282468
Profit median is 86891570.5
Production Budget average is 51453731.858766235
Production Budget median is 30000000.0
```

- Budget at least 20M - 30M

Overview of our Recommendations

- Release the movie in the months of December, November, June, July and May
- We have the choices of creating an Animated Movie, Musicals, Adventure, Action and Mystery
- 20M-30M budget will lead to good profitable movie.

Future Insights If Given More Time

- Profits of the movies from streaming platforms

- Highly Rated Directors

- Taking A Closer Look on Production Budget Ranges and Profitability Percentages

- Highly Rated Movie Studios

Thank You!