

# Microsoft Movie Analysis

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# Business Problem

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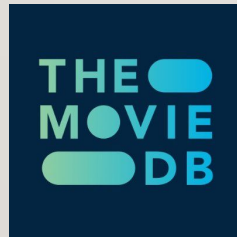
- **What variables of a film should Microsoft consider to create a profitable and successful movie?**
- **What are three recommendations can we provide?**

# Data

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

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



# Our Focus

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- 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

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	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

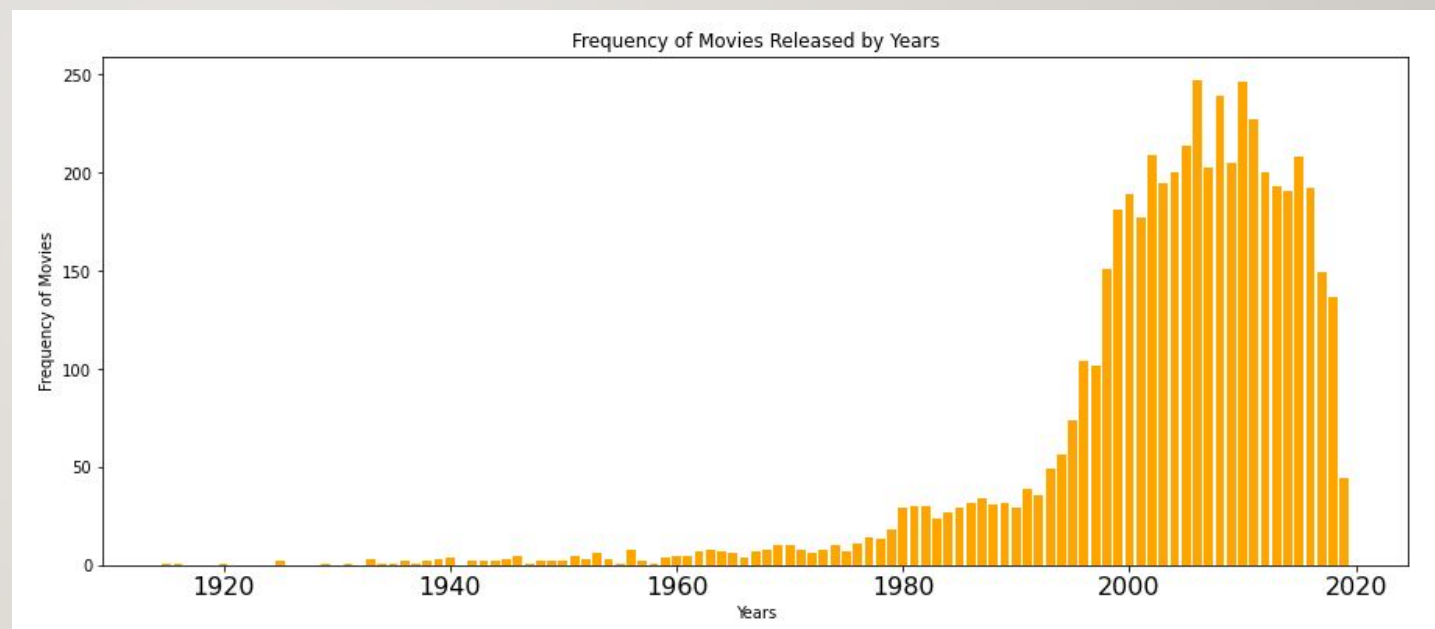
Profit = Revenue - Production Budget

# When is the best time to release movie?

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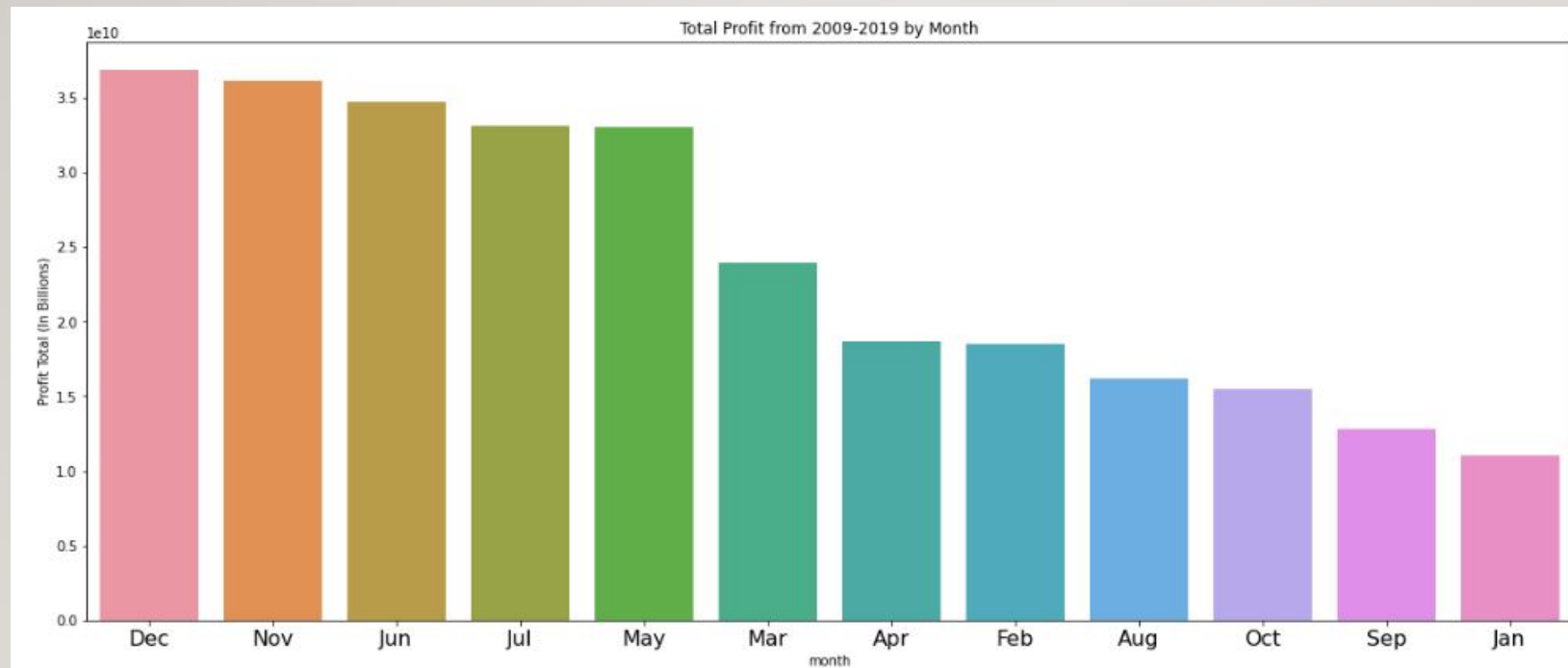
Approach → Frequency of Released Movies from  
The Numbers

Our Findings → Highest Released Movies  
2009-2019



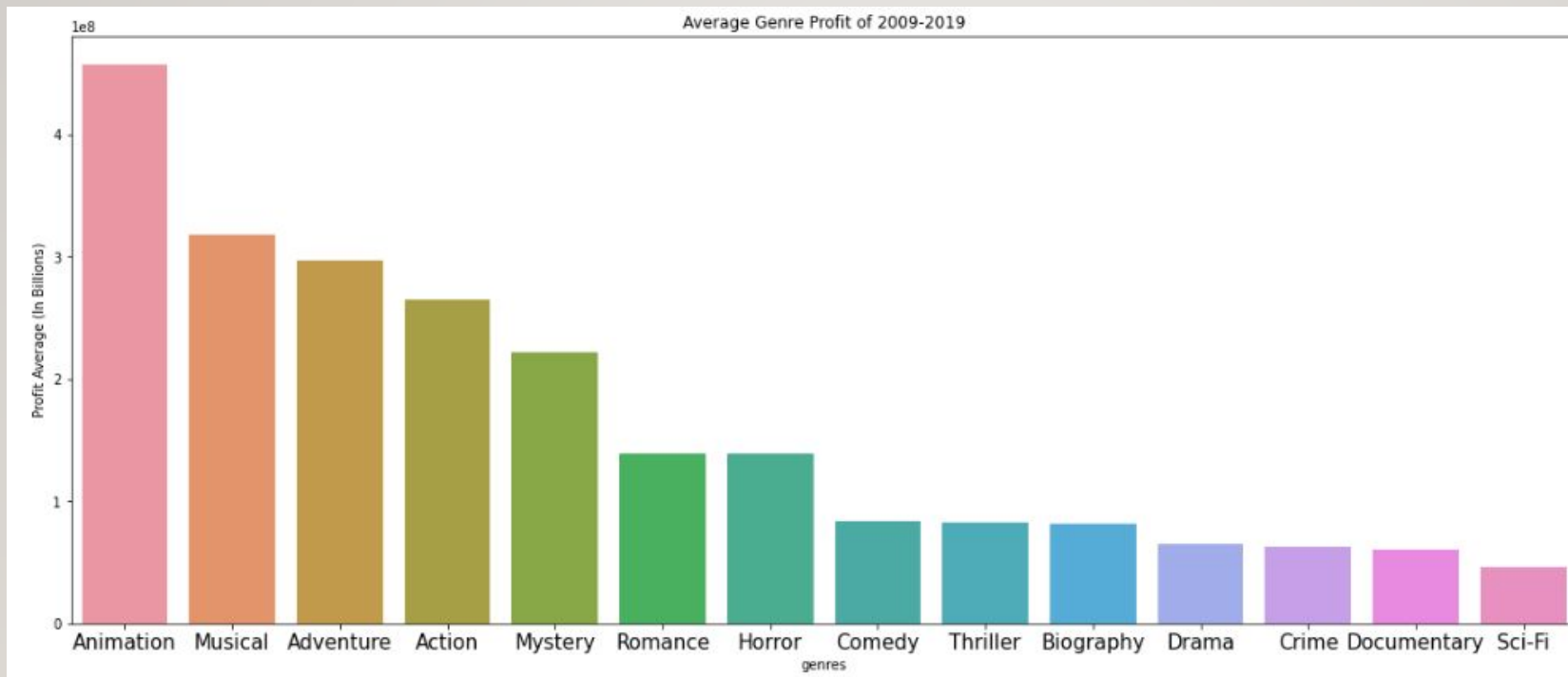
# Our Findings

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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

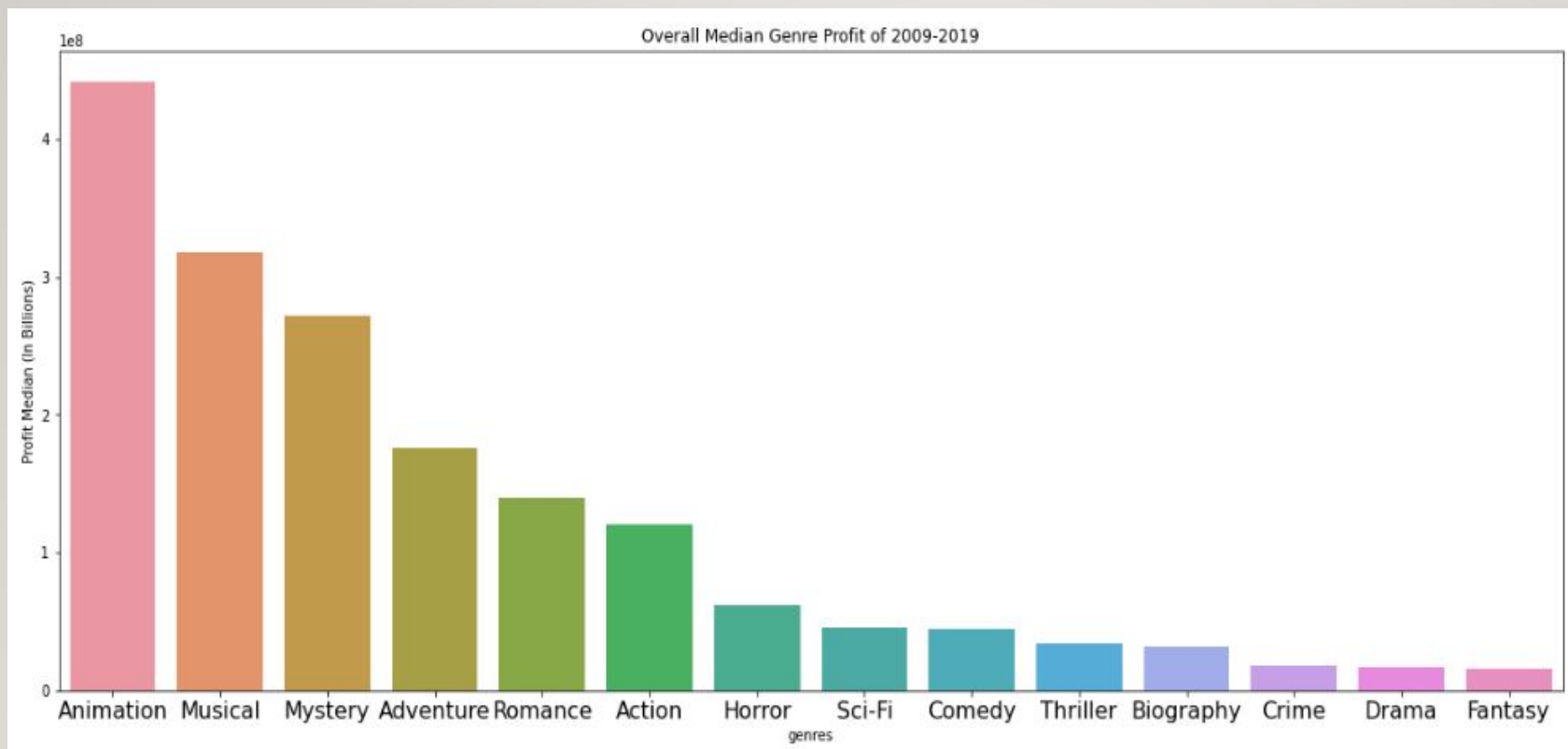
# What genre generates the most profit by Average?



genres	
Animation	4.576364e+08
Musical	3.180832e+08
Adventure	2.971924e+08
Action	2.652424e+08
Mystery	2.223556e+08
Romance	1.392270e+08
Horror	1.385364e+08
Comedy	8.416916e+07
Thriller	8.209884e+07
Biography	8.193116e+07
Drama	6.486076e+07
Crime	6.331204e+07
Documentary	6.092307e+07
Sci-Fi	4.586825e+07

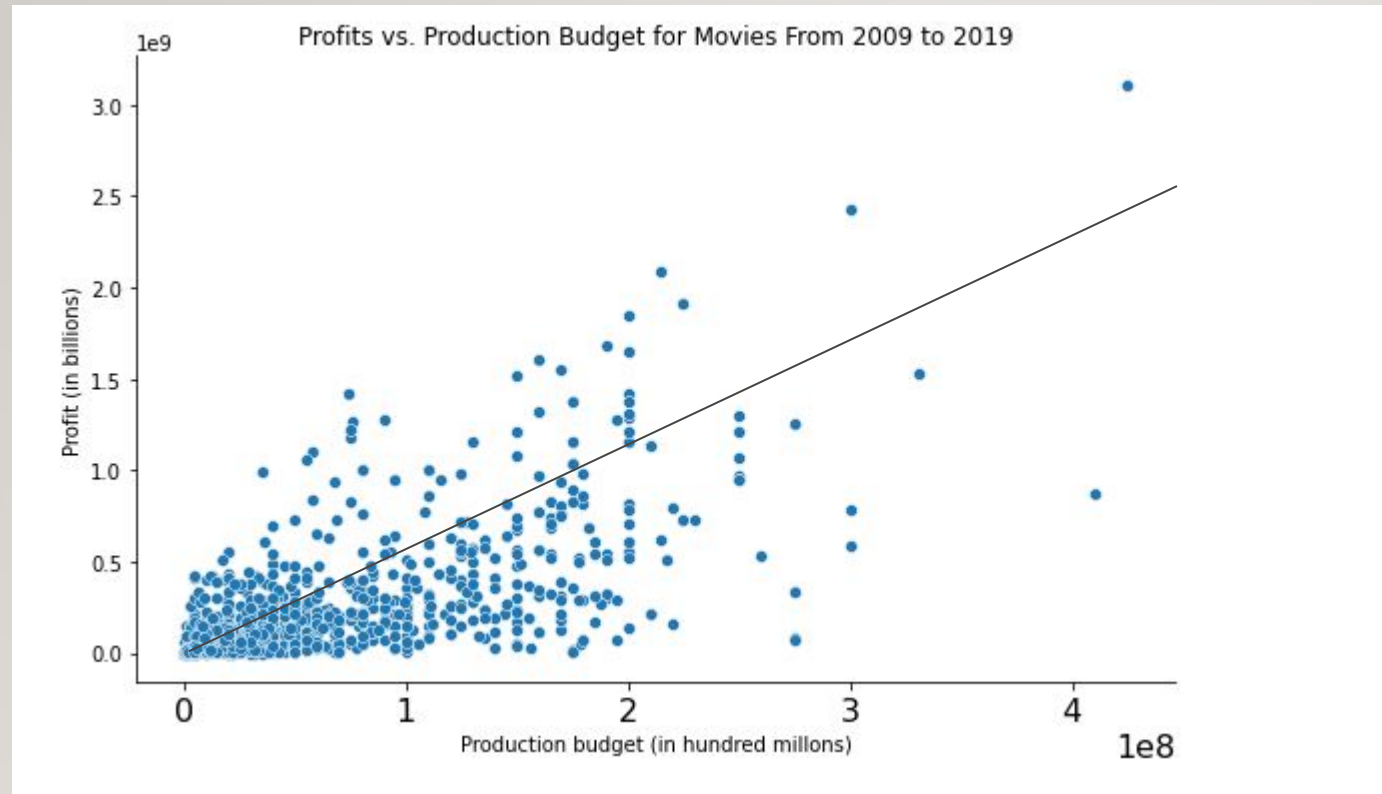


# What genre generates the most profit by Median?



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?



$r = .695$  - medium positive correlation

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

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- 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

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- 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
- How Does Popularity Correlate to Most Frequently Watched Genres



# Thank You!

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