

WHAT TYPES OF FILMS ARE CURRENTLY DOING THE BEST AT THE BOX OFFICE?

FLATIRON

EVAN HOLDER



APPROACH

In order to assess which films are currently doing the best at the box office, we will answer the following questions:

- Which genres are doing the best at the box office?
- What month are the best grossing movies released?
- How long should films run?
- What is the recommended budget for production?
- Extra: Recommend a director for Microsoft's first movie.



ASSUMPTIONS

- The metric we will use to describe which films are doing the **best** at the box office is worldwide gross (\$).
- Worldwide gross will be measured on the average.

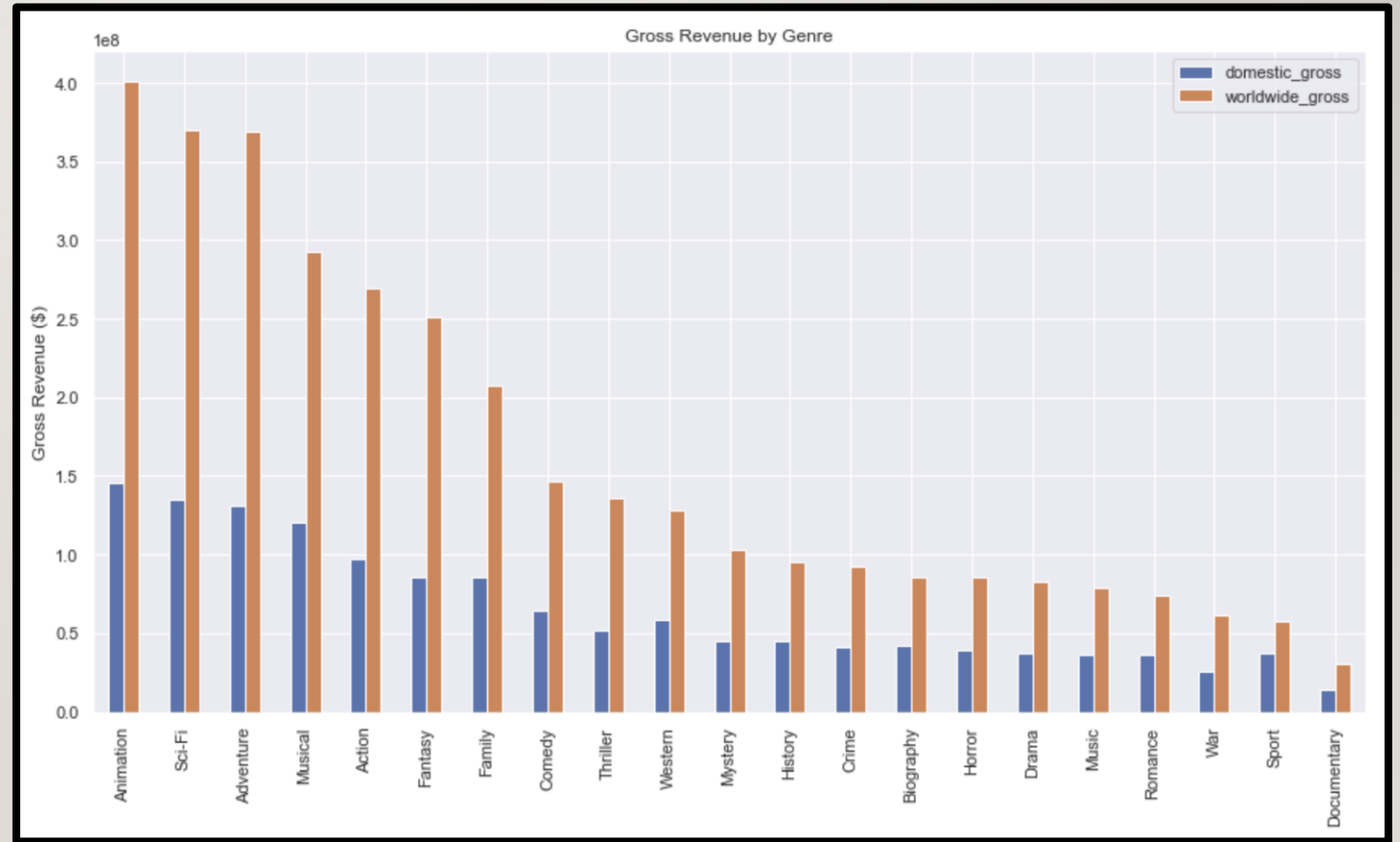


ANALYSIS - GENRE



ANALYSIS - GENRE

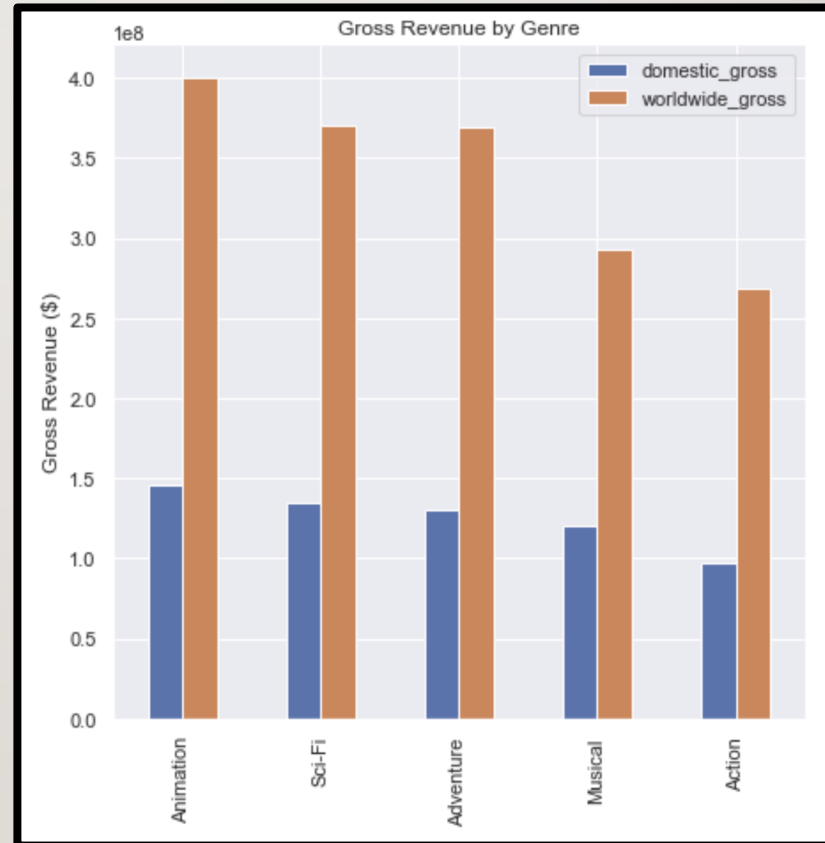
- Group by genre and aggregate the mean of domestic gross and worldwide gross



ANALYSIS - GENRE

- Average top five genres:

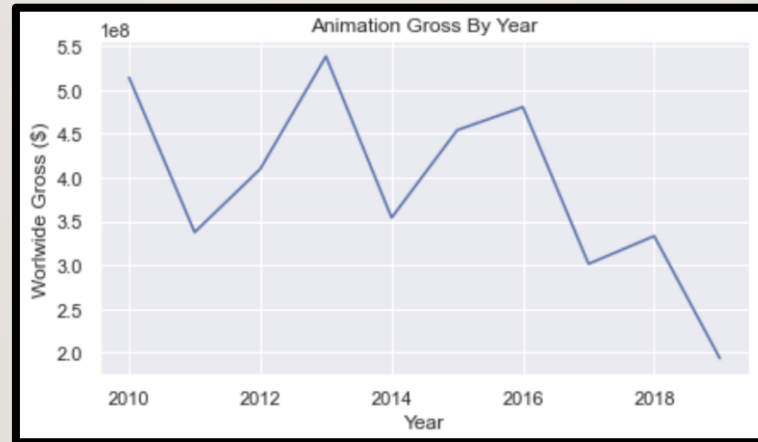
1. Animation
2. Sci-Fi
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Average top five genres:

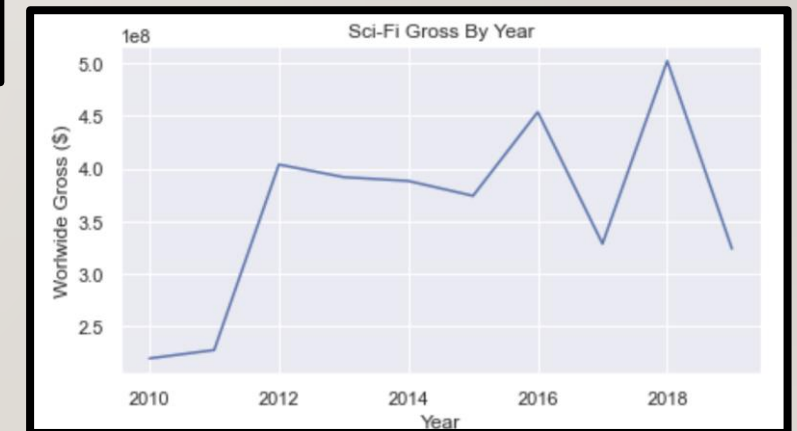
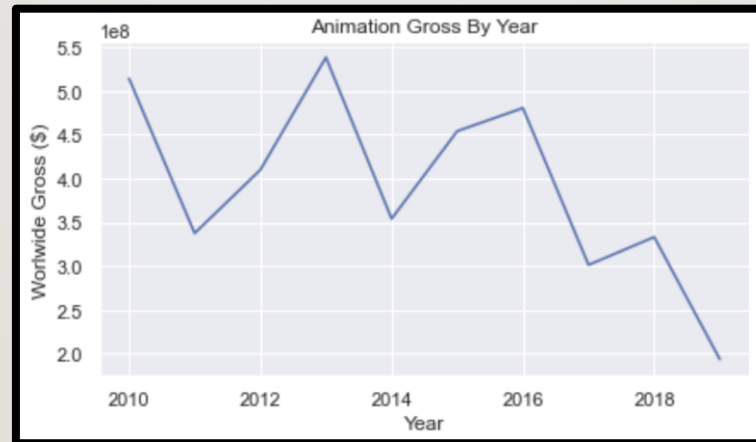
1. Animation
2. Sci-Fi
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Average top five genres:

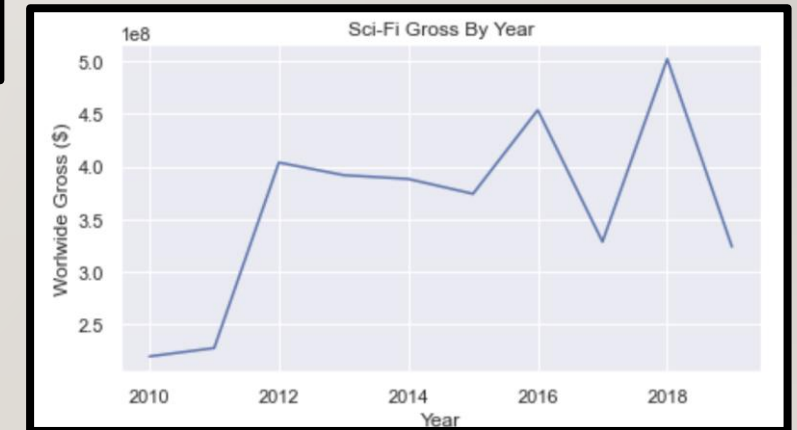
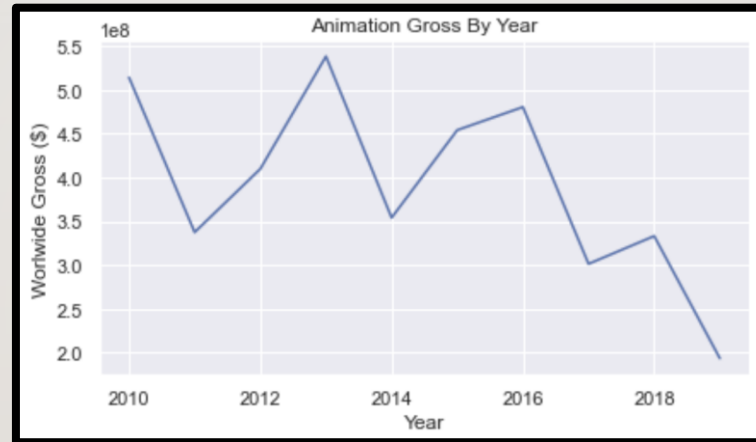
1. Animation
2. Sci-Fi
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Top five genres:

1. Sci-Fi
2. Animation
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Top five genres:

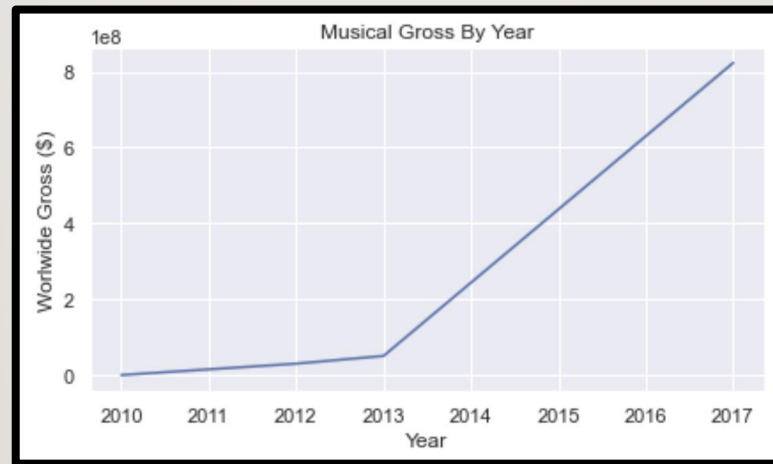
1. Sci-Fi
2. Animation
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Top five genres:

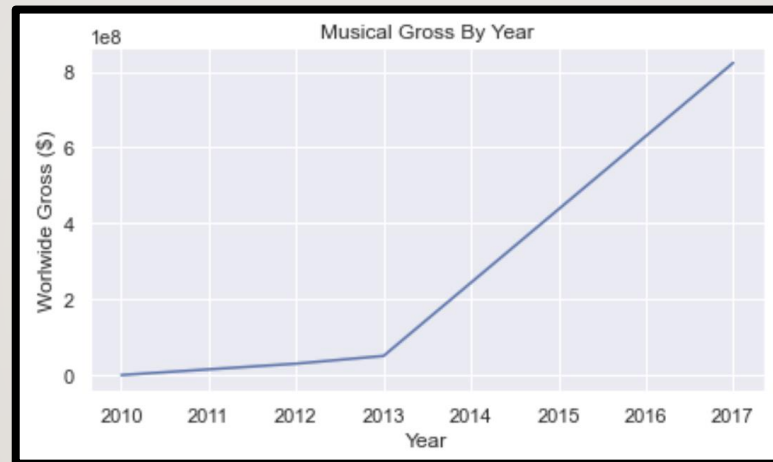
1. Sci-Fi
2. Animation
3. Adventure
4. Musical
5. Action



ANALYSIS - GENRE

- Top five genres:

1. Sci-Fi
2. Animation
3. Adventure
4. Musical
5. Action



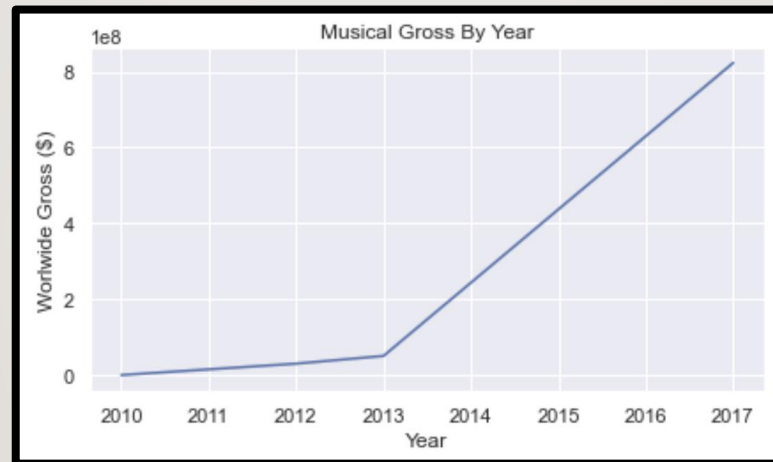
Genre	Count
Drama	617
Comedy	454
Action	394
Adventure	325
Thriller	214
Crime	200
Romance	166
Horror	134
Biography	124
Sci-Fi	124
Fantasy	107
Mystery	107
Animation	92
Family	80
Music	45
History	36
Sport	30
Documentary	26
War	16
Western	9
Musical	6



ANALYSIS - GENRE

- Top five genres:

1. Sci-Fi
2. Animation
3. Adventure
4. ~~Musical~~
5. Action



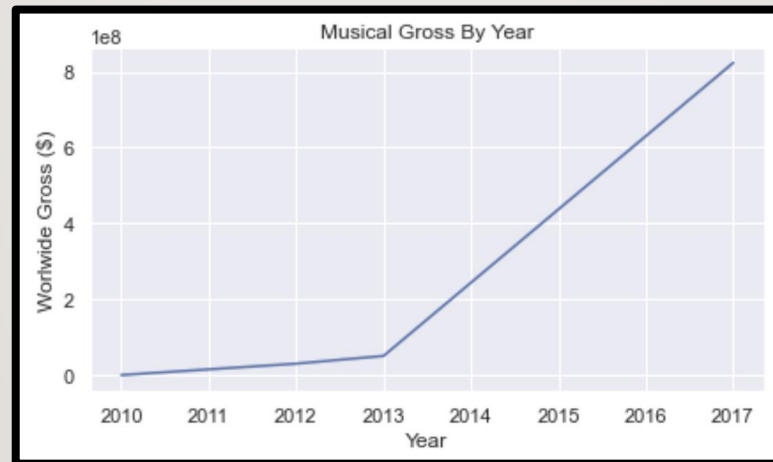
Genre	Count
Drama	617
Comedy	454
Action	394
Adventure	325
Thriller	214
Crime	200
Romance	166
Horror	134
Biography	124
Sci-Fi	124
Fantasy	107
Mystery	107
Animation	92
Family	80
Music	45
History	36
Sport	30
Documentary	26
War	16
Western	9
Musical	6



ANALYSIS - GENRE

- Top five genres:

1. Sci-Fi
2. Animation
3. Adventure
4. Action
5. Fantasy



Genre	Count
Drama	617
Comedy	454
Action	394
Adventure	325
Thriller	214
Crime	200
Romance	166
Horror	134
Biography	124
Sci-Fi	124
Fantasy	107
Mystery	107
Animation	92
Family	80
Music	45
History	36
Sport	30
Documentary	26
War	16
Western	9
Musical	6



RECOMMENDATION - GENRE

- Top five recommended genres:
 1. Sci-Fi
 2. Animation
 3. Adventure
 4. Action
 5. Fantasy

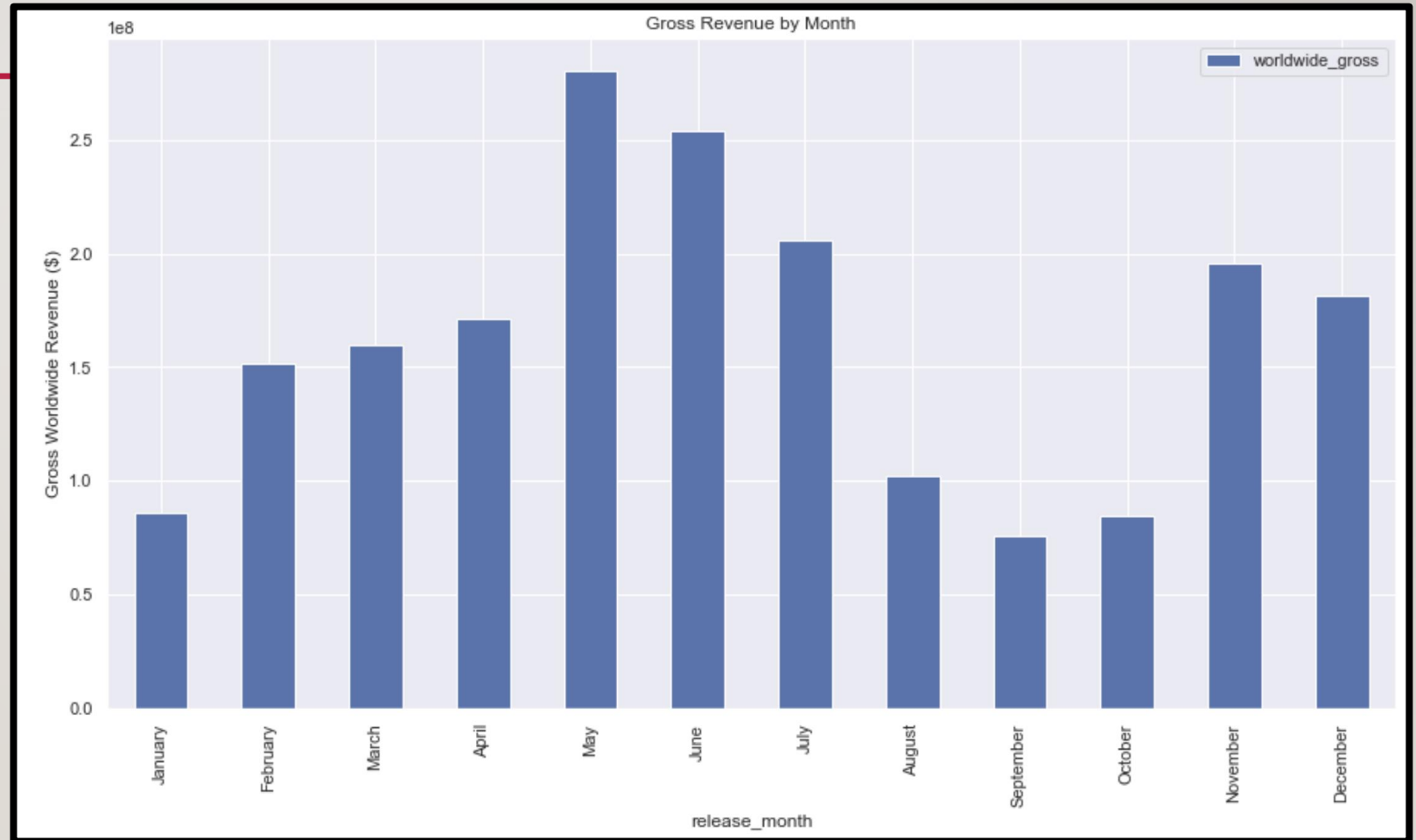


ANALYSIS – RELEASE MONTH



ANALYSIS – RELEASE MONTH

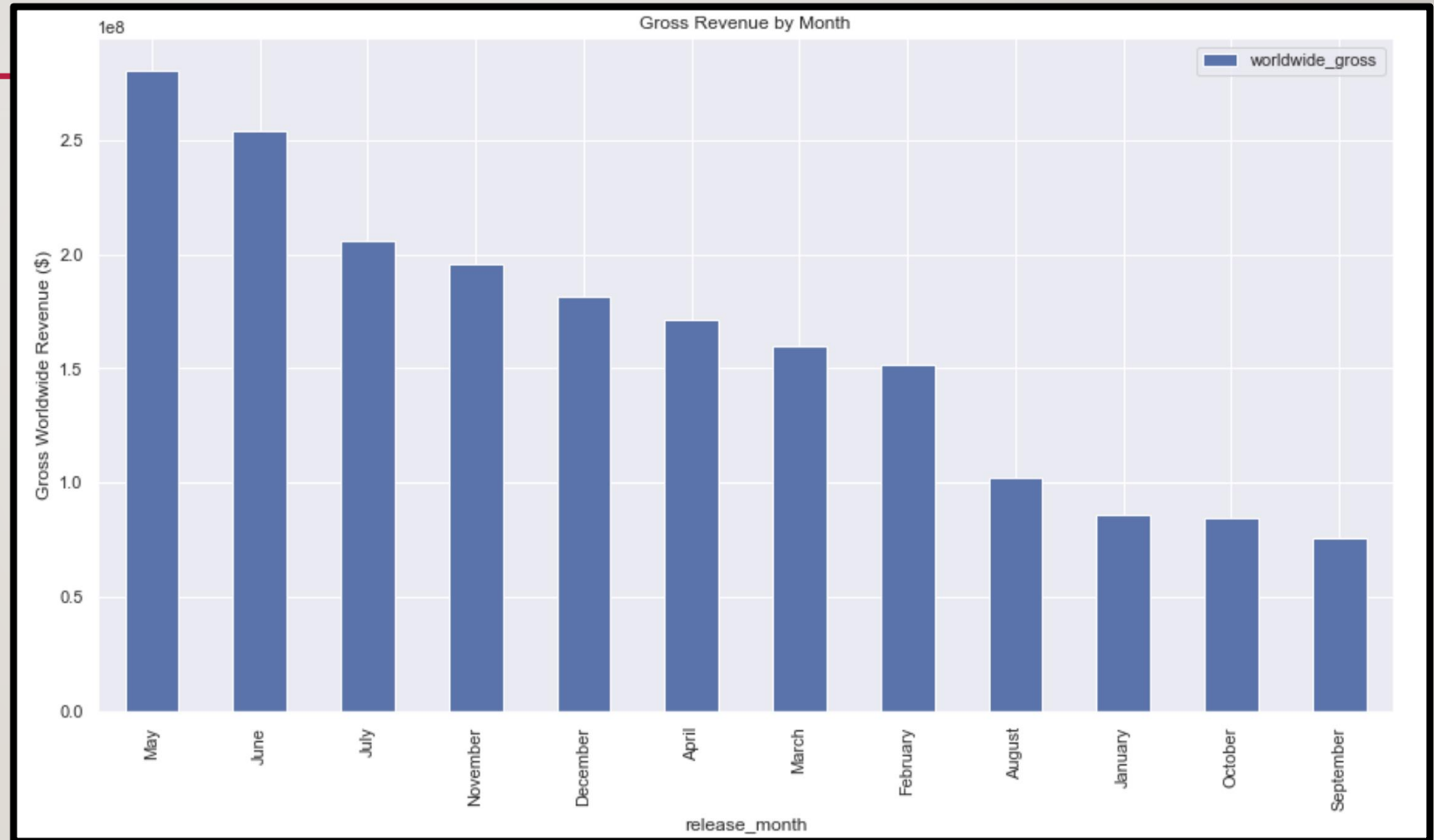
- Group by release month and take the average worldwide gross:



ANALYSIS – RELEASE MONTH

- Average top five release months:

1. May
2. June
3. July
4. November
5. December



RECOMMENDATION – RELEASE MONTH

- Top five recommended release months:

1. May
2. June
3. July
4. November
5. December

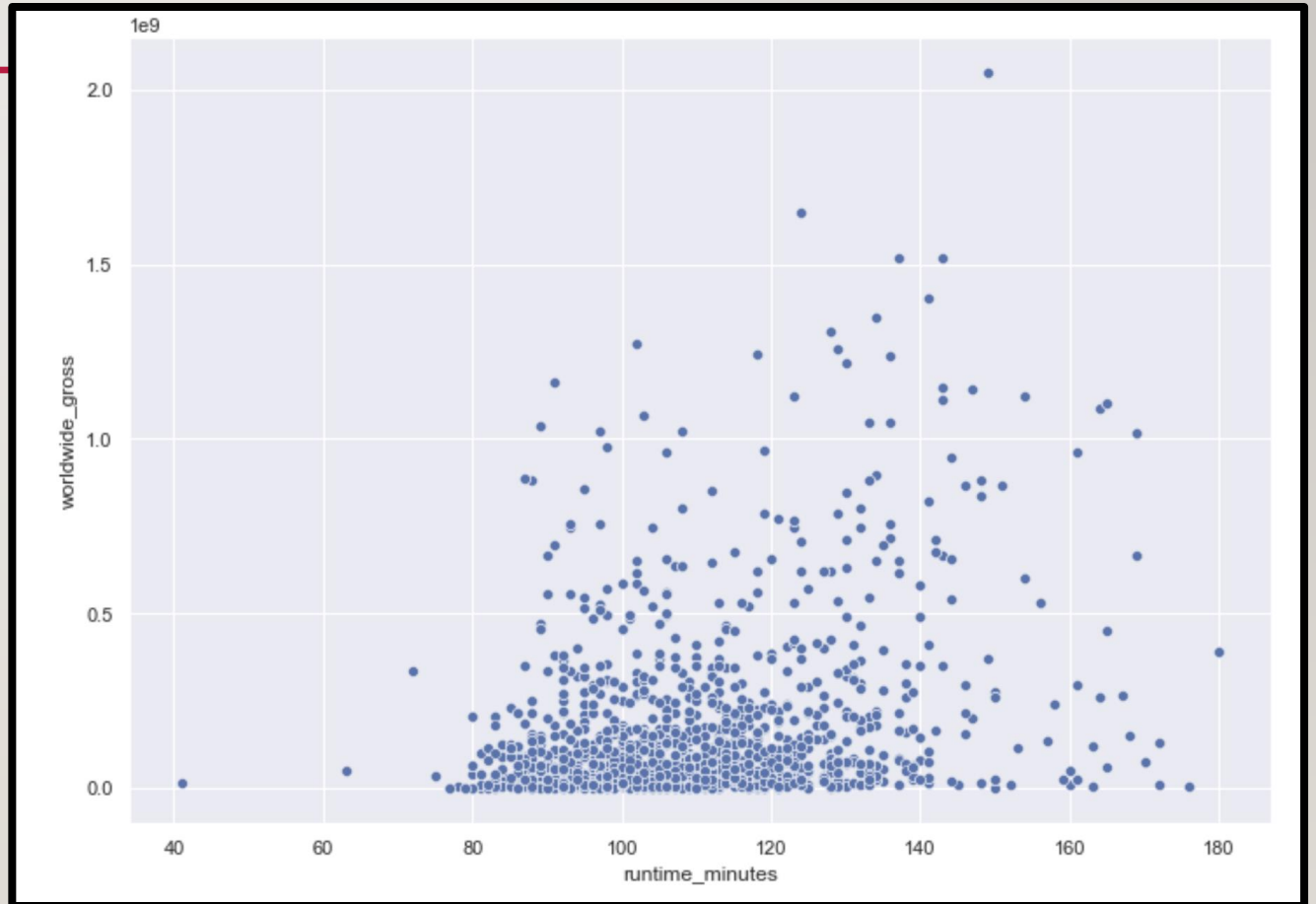


ANALYSIS – BUDGET



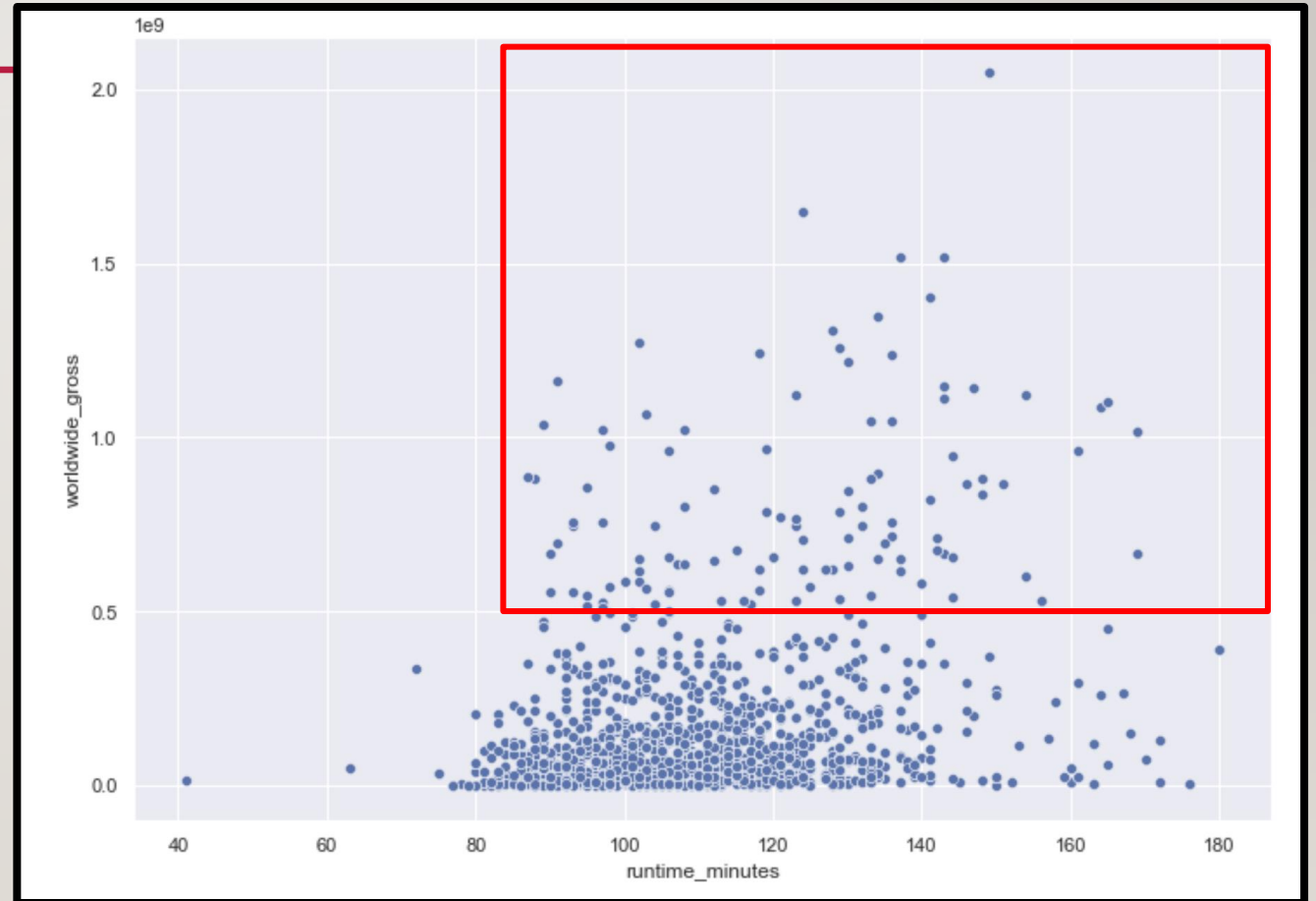
ANALYSIS – BUDGET

- Plot worldwide gross v. runtime on scatterplot



ANALYSIS – MOVIE LENGTH

- Plot worldwide gross v. runtime on scatterplot
- No movie with a runtime less than 80 minutes made more than \$50,000,000



RECOMMENDATION – MOVIE LENGTH

- Film lengths should be greater than 80 minutes long.

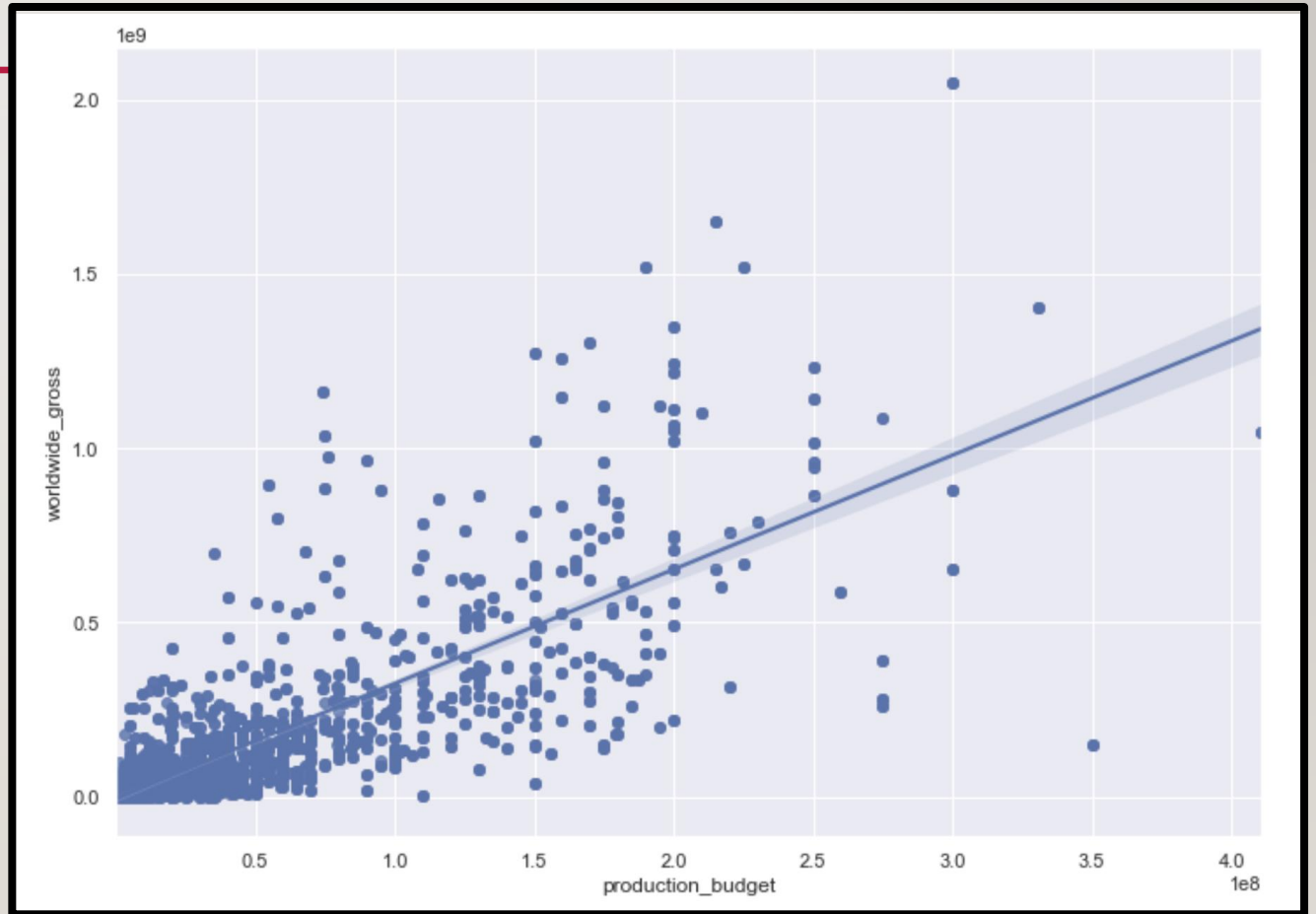


ANALYSIS – BUDGET



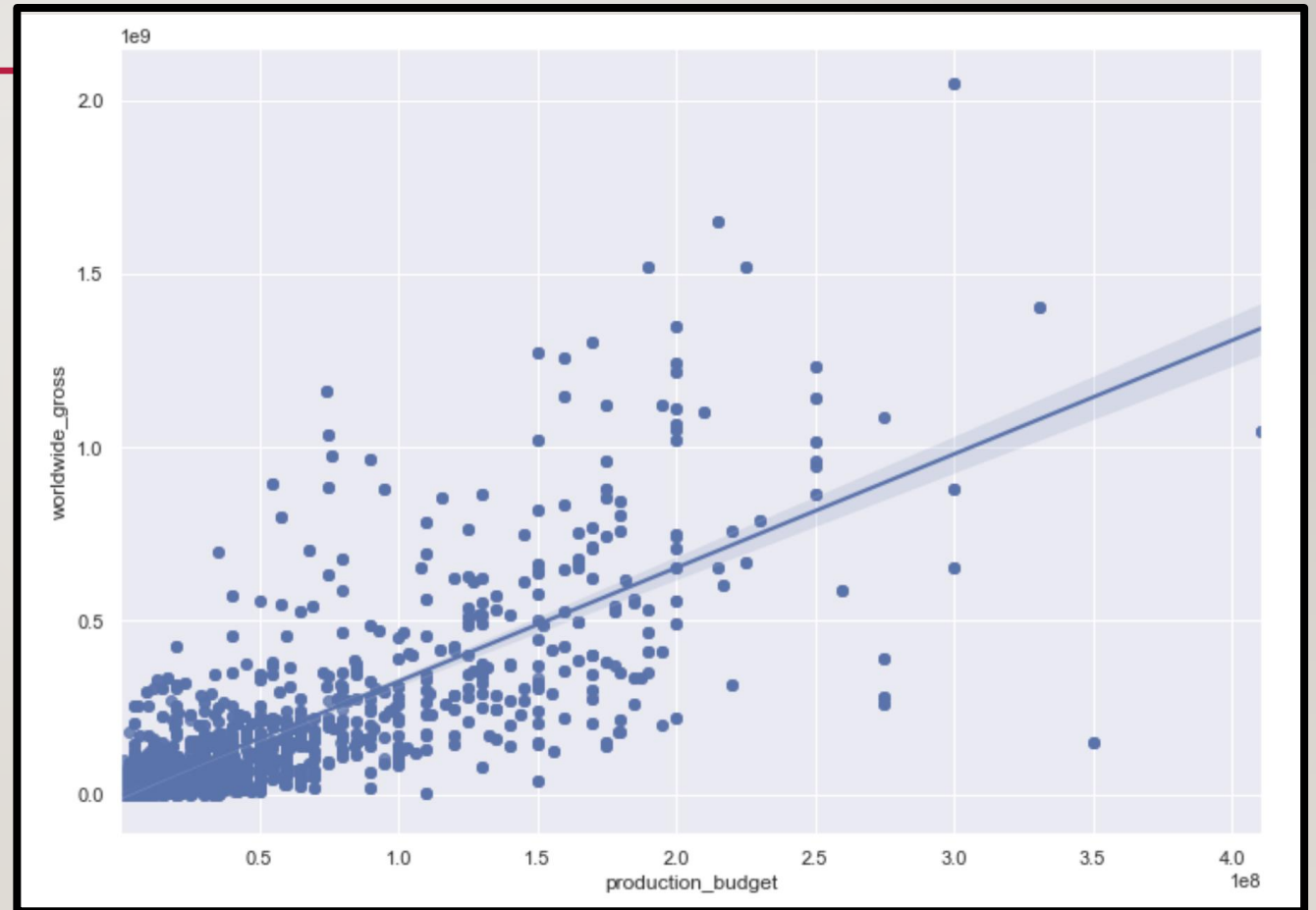
ANALYSIS – BUDGET

- Plot worldwide gross v. budget on scatterplot.
- Add regression line



ANALYSIS – BUDGET

- Plot worldwide gross v. budget on scatterplot.
- Add regression line
 - Slope ~ 3.3 (\$/\$) – for every budget dollar spent, \$3.3 dollars will be earned.



RECOMMENDATION – BUDGET

- Microsoft should expect to make \$3.3 on every dollar spent. Spend one-third of the desired revenue on production budget.



ANALYSIS – DIRECTOR



ANALYSIS – DIRECTOR

- Let's pick a director for Microsoft's first movie.
- Assuming the film is a Sci-Fi movie (#1 recommended genre) , this director's Sci-Fi movies will gross the most on average worldwide.



ANALYSIS – DIRECTOR

- To start, we'll have to break apart the individual directors from the directors columns – just like we did with genres in the genres column.

	directors	worldwide_gross
Sci-Fi	nm1325899	465195589
Sci-Fi	nm0751577,nm0751648	1140069413
Sci-Fi	nm0002653	370569776
Sci-Fi	nm0751577,nm0751648	714401889
Sci-Fi	nm0281396,nm1349818	1123061550



ANALYSIS – DIRECTOR

- To start, we'll have to break apart the individual directors from the directors columns – just like we did with genres in the genres column.

	director	worldwide_gross
11	nm0751577	2048134200
12	nm0751648	2048134200
17	nm0751577	1140069413
18	nm0751648	1140069413

	directors	worldwide_gross
Sci-Fi	nm1325899	465195589
Sci-Fi	nm0751577,nm0751648	1140069413
Sci-Fi	nm0002653	370569776
Sci-Fi	nm0751577,nm0751648	714401889
Sci-Fi	nm0281396,nm1349818	1123061550



ANALYSIS – DIRECTOR

- To start, we'll have to break apart the individual directors from the directors columns
- Next, we'll match the director with the director's names in imdb_names

	director	worldwide_gross	director_name
0	nm1024677	334522294	John Krasinski
1	nm0000631	238521247	Ridley Scott
2	nm0001675	402976036	Robert Rodriguez
3	nm1294036	30295028	Nima Nourizadeh
4	nm2648685	2102779	Mike Cahill
...
115	nm0281508	159487563	Ruben Fleischer
116	nm0006476	2665322	Paul McGuigan
117	nm0001741	27573078	Bryan Singer
118	nm0001741	416456852	Bryan Singer
119	nm0891216	47508505	Matthew Vaughn



ANALYSIS – DIRECTOR

- To start, we'll have to break apart the individual directors from the directors columns
- Next, we'll match the director with the director's names in imdb_names
- Finally, we'll group by director and aggregate the worldwide_gross mean.

worldwide_gross	
director_name	
Colin Trevorrow	1.648855e+09
Joss Whedon	1.460475e+09
Ryan Coogler	1.348258e+09
J.A. Bayona	1.305773e+09
Anthony Russo	1.300869e+09



ANALYSIS – DIRECTOR

- To start, we'll have to break apart the individual directors from the directors columns
- Next, we'll match the director with the director's names in imdb_names
- Finally, we'll group by director and aggregate the worldwide_gross mean.
- Colin Trevorrow's Sci-Fi movies gross the most on average

worldwide_gross	
director_name	
Colin Trevorrow	1.648855e+09
Joss Whedon	1.460475e+09
Ryan Coogler	1.348258e+09
J.A. Bayona	1.305773e+09
Anthony Russo	1.300869e+09



RECOMMENDATION – DIRECTOR

- Microsoft should hire Colin Trevorrow for their first Sci-Fi movie.



CLOSING RECOMMENDATIONS

1. Top five recommended genres:
 1. Sci-Fi
 2. Animation
 3. Adventure
 4. Action
 5. Fantasy
2. Movies should be released in:
 1. May
 2. June
 3. July
 4. November
 5. December
3. Film lengths should be greater than 80 minutes long
4. Spend one-third of the desired revenue on production budget.
5. Microsoft should hire Colin Trevorrow for their first Sci-Fi movie.

