



Animation Movies Analysis

By
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Introduction

This is an analysis project which focuses on analyzing animated movies details through interactive visuals showcasing trends and patterns.

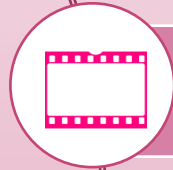
Microsoft Power BI was used to transform & analyze this dataset into interactive dashboards.

Process Workflow



Step 1

Data Collection



Step 2

Data Modelling



Step 3

Analysis & Transformation



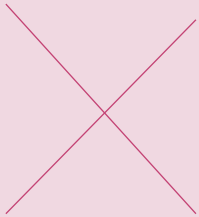
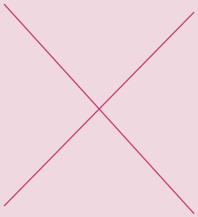
Step 4

Recommendation & Conclusion

Problem Statement

- The goal of this analysis is to:
 - Explore the animation movie dataset to understand the distribution of key variables.
 - Analyze user ratings and vote counts to identify popular animation movies.
 - Examine the revenue generated by animation movies and identify top-performing titles.
 - Explore trends in animation movie genres and identify popular genres over time.
 - Analyze production details, including budgets and production companies, to identify patterns and correlations.

Dataset Details

Dataset Details	Id	Title	Vote Average	Vote Count	Status	Release Date
	Revenue Runtime	Adult	Backdrop Path	Budget	Homepage	Imdb_id
	Original Language	Original Title	Overview	Popularity	Poster Path	Tagline
	Genres	Production Companies	Production Countries	Spoken Languages		

Unclean Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	id	title	vote_average	vote_count	status	release_date	revenue	runtime	adult	backdrop_path	budget	homepage	imdb_id	original_language	original_title	overview	popularity	poster_path	tagline	genres	production_companies	production_countries	spoken_languages			
16	177572	Big Hero 6	7.738	14732	Released	#####	6.58E+08	102	FALSE	/5tub2Kw6	1.65E+08	http://mov	tt2245084	en	Big Hero 6	A special b	98.41	/2mxS4wUimwLml1x	Adventure	Walt Disne	United Sta	English				
17	20352	Despicabl	7.227	14147	Released	7/8/2010	5.34E+08	95	FALSE	/euCnMxN	69000000	http://www	tt1323594	en	Despicabl	Villainous	47.416	/b1BT309C	Superbad.	Family, An	Illuminatic	United Sta	English			
18	324857	Spider-Ma	8.404	14024	Released	12/6/2018	3.75E+08	117	FALSE	/qGQf2OH	90000000	https://ww	tt4633694	en	Spider-Ma	Struggling	80.675	/iiZdoQBI	More than	Action, Ad	Columbia I	United Sta	English, Japanese, Spanish			
19	10193	Toy Story 3	7.792	13777	Released	6/16/2010	1.07E+09	103	FALSE	/uAfhysSkr	2E+08	http://disn	tt0435761	en	Toy Story 3	Woody, Bu	69.145	/AbbXspMl	No toy gets	Animation	Pixar, Walt	United Sta	English, Spanish			
20	920	Cars	6.936	12906	Released	6/8/2006	4.62E+08	117	FALSE	/sd4xN5xi8	1.2E+08	http://disn	tt0317219	en	Cars	Lightning M	47.447	/abW5AzH	Ahhh... it's	Animation	Pixar, Walt	United Sta	English, Italian, Japanese, Yiddish			
21	863	Toy Story 2	7.589	12904	Released	#####	4.97E+08	92	FALSE	/91qfG6Va	90000000	http://toys	tt0120363	en	Toy Story 2	Andy head	73.516	/2MFIhZAV	The toys ar	Animation	Pixar	United Sta	English			
22	62177	Brave	7.012	12591	Released	6/21/2012	5.39E+08	93	FALSE	/qx9ts2hB	1.85E+08	http://disn	tt1217209	en	Brave	Brave is se	58.647	/1XAuDtM	Change yo	Animation	Walt Disne	United Sta	English			
23	425	Ice Age	7.348	12296	Released	3/10/2002	3.83E+08	81	FALSE	/a9ykRAW	59000000	http://www	tt0268380	en	Ice Age	With the in	70.773	/gLHHZU	They came	Animation	20th Cent	United Sta	English			
24	10191	How to Tra	7.813	12089	Released	3/18/2010	4.95E+08	98	FALSE	/59vDC1B	1.65E+08	http://www	tt0892769	en	How to Tra	As the son	54.176	/yGmAOE	One adven	Fantasy, A	DreamWor	United Sta	English			
25	260513	Incredibler	7.481	12061	Released	6/14/2018	1.24E+09	118	FALSE	/mabuNsG	2E+08	https://mo	tt3606756	en	Incredibler	Elastigirl s	49.215	/9lFKBtaVl	It's time to	Action, Ad	Walt Disne	United Sta	English			
26	82690	Wreck-It R	7.3	11546	Released	11/1/2012	4.71E+08	101	FALSE	/ziC23LkM	1.65E+08	http://disn	tt1772341	en	Wreck-It R	Wreck-It R	46.617	/zWolGZ7n	The story o	Family, An	Walt Disne	United Sta	English			
27	277834	Moana	7.6	11502	Released	#####	6.91E+08	107	FALSE	/iYlKMV7P	1.5E+08	http://mov	tt3521164	en	Moana	In Ancient	17.963	/vNjFiwtsl	The ocean	Adventure	Walt Disne	United Sta	English			
28	127380	Finding Do	7.042	11429	Released	6/16/2016	1.03E+09	97	FALSE	/8yYuFJRsc	2E+08	http://mov	tt2277860	en	Finding Do	Dory is reu	26.562	/3UvE8NL	An unforge	Adventure	Pixar, Walt	United Sta	English			
29	809	Shrek 2	7.249	11323	Released	5/19/2004	9.29E+08	93	FALSE	/wD44moE	1.5E+08	http://www	tt0298148	en	Shrek 2	Shrek, Fior	82.153	/2yYP0PQj	Once upon	Animation	DreamWor	United Sta	English			
30	812	Aladdin	7.645	10547	Released	#####	5.04E+08	95	FALSE	/5OeY4U2	28000000	http://mov	tt0103639	en	Aladdin	Princess Ja	52.027	/fhyun1mj	Wish grant	Animation	Walt Disne	United Sta	English			
31	38757	Tangled	7.599	10539	Released	#####	5.92E+08	100	FALSE	/cWczNud	2.6E+08	http://disn	tt0398286	en	Tangled	When the k	84.14	/ym7Kst6a	They're tak	Animation	Walt Disne	United Sta	English			
32	93456	Despicabl	6.916	10523	Released	6/26/2013	9.71E+08	98	FALSE	/4UvNg6Jf	76000000		tt1690953	en	Despicabl	Gru is recr	46.283	/5Fh4NdoE	Back 2 Wo	Animation	Illuminatic	United Sta	English			
33	9502	Kung Fu Pa	7.24	10503	Released	6/4/2008	6.32E+08	90	FALSE	/vndouqEy	1.3E+08	http://www	tt0441773	en	Kung Fu Pa	When the \	52.866	/wWt4JYXT	Prepare for	Action, Ad	DreamWor	United Sta	English			
34	372058	Your Name	8.514	10303	Released	8/26/2016	3.58E+08	106	FALSE	/dIWwZW7	0	https://ww	tt5311514	ja	あゝあゝあゝ	High schoo	68.999	/q719jXXE	It was alm	Romance, Co	Mix Wav	Japan	Japanese			
35	953	Madagasc	6.892	10103	Released	5/25/2005	5.42E+08	86	FALSE	/8NCftAWf	75000000	https://ww	tt0351283	en	Madagasc	Alex the lic	54.83	/zMpJY5CJ	Someoneâ	Family, An	DreamWor	United Sta	English, French, German, Portuguese, Spanish			
36	211672	Minions	6.395	9969	Released	6/17/2015	1.16E+09	91	FALSE	/c7xTZ9EA	74000000	http://www	tt2293640	en	Minions	Minions St	26.414	/vIOgaxUi	Before Gru	Family, An	Illuminatic	United Sta	English			
37	62211	Monsters U	7	9903	Released	6/19/2013	7.44E+08	104	FALSE	/pk42IGbT	2E+08		tt1453405	en	Monsters U	A look at th	44.116	/y7thwJ7zE	School nev	Animation	Pixar, Walt	United Sta	English			
38	508442	Soul	8.15	9473	Released	#####	1.36E+08	101	FALSE	/4JNggqfyJ	1.5E+08	https://ww	tt2948372	en	Soul	Joe Gardne	48.876	/hm58Jw4l	Is all this li	Animation	Walt Disne	United Sta	English			
39	10020	Beauty and	7.734	9256	Released	#####	4.25E+08	84	FALSE	/jsgrkKhPxY	25000000	http://disn	tt0101414	en	Beauty and	Follow the	72.077	/uJU0UvQ	The most b	Romance, Walt	Disne	United Sta	French, English			
40	301528	Toy Story 4	7.5	9093	Released	6/19/2019	1.07E+09	100	FALSE	/q62bpQ6	1.75E+08	https://ww	tt1979376	en	Toy Story 4	Woody has	61.083	/w9kR8qbr	Get Ready	Family, Ad	Walt Disne	United Sta	English			
41	950	Ice Age: Th	6.688	9085	Released	3/29/2006	6.61E+08	91	FALSE	/wRTZaxAi	80000000	http://www	tt0438097	en	Ice Age: Th	Diego, Mar	54.381	/vdluBXie4	Kiss Your M	Animation	20th Cent	United Sta	English			
42	330457	Frozen II	7.272	9060	Released	#####	1.45E+09	103	FALSE	/xJWPZIYO	1.5E+08	https://mo	tt4520988	en	Frozen II	Elsa, Anna	70.221	/mInJaa34	The past is	Family, An	Walt Disne	United Sta	English			
43	82702	How to Tra	7.673	8929	Released	6/5/2014	6.22E+08	102	FALSE	/skTFNMsl	1.45E+08	http://how	tt1646971	en	How to Tra	Five years	42.798	/d13Uj86L	The trainin	Fantasy, A	DreamWor	United Sta	English			
44	10674	Mulan	7.915	8920	Released	6/18/1998	3.04E+08	88	FALSE	/mUYV0Zd	90000000		tt0120762	en	Mulan	To save he	73.011	/5TYgKxYh	Courage. F	Animation	Walt Disne	United Sta	English, Mandarin			
45	4935	Howl's Mo	8.402	8720	Released	9/9/2004	2.36E+08	119	FALSE	/nv5wwZo	24000000	https://hov	tt0347149	ja	あゝあゝあゝ	Sophie, a y	79.888	/6pZgH10j	The two liv	Fantasy, A	Studio Ghil	Japan	Japanese			
46	568124	Encanto	7.63	8611	Released	#####	2.53E+08	102	FALSE	/3G1Q5xF	50000000	https://mo	tt2953050	en	Encanto	The tale of	147.124	/4j0PNHKM	There's a li	Animation	Walt Disne	United Sta	Spanish, English			

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Animation_Movies

+

Ready Accessibility: Unavailable

Average: 60265.77206 Count: 51945 Sum: 4519932.905

89%

Data Cleaning Process



```
graph LR; A[Data Cleaning Process] --> B[1 Open & Duplicate Dataset in Microsoft Excel]; B --> C[2 Freeze Top Rows & Adjust Columns]; C --> D[3 Use Excel Function to filter for blanks]; D --> E[4 Use Production countries & language to fill in blank(Spoken Languages)]; E --> F[5 Import & Transform to Power BI query]; F --> G[6 Apply to power pivot for visualization];
```

1

Open & Duplicate Dataset in Microsoft Excel

2

Freeze Top Rows & Adjust Columns

3

Use Excel Function to filter for blanks

4

Use Production countries & language to fill in
blank(Spoken Languages)

5

Import & Transform to Power BI query

6

Apply to power pivot for visualization

	budget	homepage	imdb_id	original_language	original_title	overview
99% 0% < 1%	Valid Error Empty	Valid Error Empty	Valid Error Empty	Valid Error Empty	Valid Error Empty	Valid Error Empty
156 distinct, 93 unique	557 distinct, 552 unique	1000 distinct, 1000 unique	14 distinct, 7 unique	998 distinct, 996 unique	1000 dist	
1Gk6LjdTc2EI...	175000000	http://movies.disney.com/inside-out	tt2096673	en	Inside Out	Grown-ups
fW07RA587e5...	175000000	http://disney.go.com/disneypictures/up/	tt1049413	en	Up	Carl Fredricksen
ZDdLiFB9qwb...	94000000	http://movies.disney.com/finding-nemo	tt0266543	en	Finding Nemo	Nemo
OL52YuvdtY4...	175000000	https://www.pixar.com/feature-films/coco	tt2380307	en	Coco	Despacito
9FoWigdlqgp...	180000000	https://www.pixar.com/feature-films/walle/	tt0910970	en	WALL·E	What's Up?
PCYZxxDMXKp...	115000000	http://movies.disney.com/monsters-inc	tt0198781	en	Monsters, Inc.	Lovable
Jwyjb0QiZzZ...	300000000	http://toystory.disney.com/toy-story	tt0114709	en	Toy Story	Led Zep
KxUsPMxzWVu...	45000000	http://movies.disney.com/the-lion-king	tt0110357	en	The Lion King	A young lion
OG3Nx2bpFOhL...	92000000	http://disney.go.com/disneyvideos/animatedfilms/...	tt0317705	en	The Incredibles	Bob Parr
tO3j6wks52F...	60000000	http://www.dreamworksanimation.com/shrek/	tt0126029	en	Shrek	It's a
xQ44f5A3RTW...	150000000	http://disney.go.com/disneypictures/ratatouille	tt0382932	en	Ratatouille	Remy
Fa9U5XKqi8d...	150000000	http://movies.disney.com/frozen	tt2294629	en	Frozen	Young
bIH2KOZq0gH...	150000000	http://movies.disney.com/zootopia	tt2948356	en	Zootopia	Detective
J7wQioKia9Bz...	19000000	http://movies.disney.com/spirited-away	tt0245429	ja	千と千尋の神隠し	A young girl
blA1CgDEWB5...	165000000	http://movies.disney.com/big-hero-6	tt2245084	en	Big Hero 6	A superhero
a4f9BMnWbmXP...	69000000	http://www.despicable.me/	tt1323594	en	Despicable Me	Villain
K8XeKQzhxcz...	90000000	https://www.sonypictures.com/movies/spidermanint...	tt4633694	en	Spider-Man: Into the Spid...	Struck
glzdgd3dZRz...	200000000	http://disney.go.com/toystory/	tt0435761	en	Toy Story 3	Woody
rJOWwNiZEil...	120000000	http://disney.go.com/disneyvideos/animatedfilms/...	tt0317219	en	Cars	Lightning
l8biIiw2vxk...	90000000	http://toystory.disney.com/toy-story-2	tt0120363	en	Toy Story 2	Andy
QxhryitxnLL...	185000000	http://disney.go.com/brave/#/home	tt1217209	en	Brave	Brave

Insight & Analysis



Notable Studios

- ❖ Disney Animation,
- ❖ Walt Disney Pictures
- ❖ Warner Bros Pictures
- ❖ Studio Ghibli

Common Movie Themes

- ❖ Family friendship, Adventure,
- ❖ Finding one's purpose
- ❖ Overcoming challenges

25 Popular Animated Films

- ❖ Pixar,
- ❖ Disney,
- ❖ DreamWorks

Most Language spoken
English

Most Common Genres



Family, Animation, &
Comedy

Successful Films



Inside Out,
Up, WALL-E, &
Ratatouille

Box Office Successes



Toy Story, Frozen
Finding Nemo,
The Incredibles

Most Successful Studio



Pixar Studio

Vote Average

MIN:0
MAX:10
AVG:3

Films Year Span

1995
(Toy Story)
--
2018 (Spider-Man)

Vote count

MIN:0 votes
MAX: 19,463 votes
AVG:41 above votes



Animated Movie Performance Dashboard



Total Movies



50.20K

Total Languages



102

Total Revenue



97bn

Total Genres



2649

Age Suitability

18+

Adult

False

True

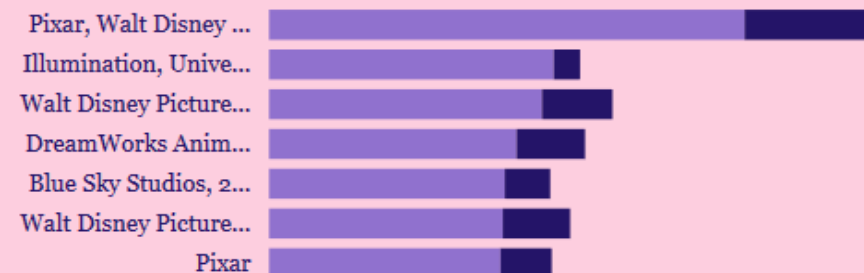
Top 5 Movies by Revenue



Frozen II The Super Mario Bros. Movie Frozen Incredibles 2 Minions

Production Companies Revenue vs. Budget

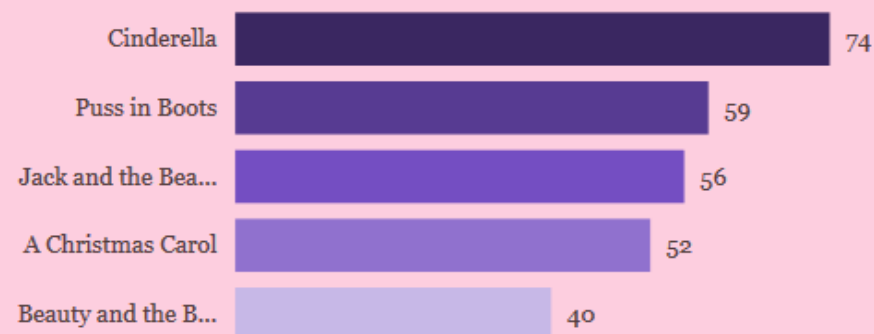
● Sum of revenue ● Sum of budget



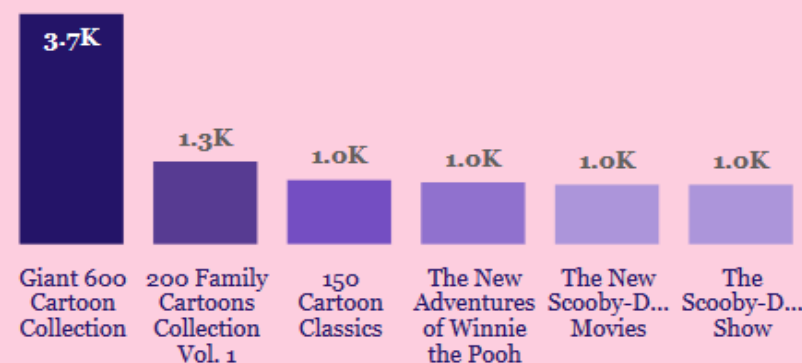
Release Year

1878 1879 1880 1881
1882 1883 1884 1885
1886 1887 1888 1889

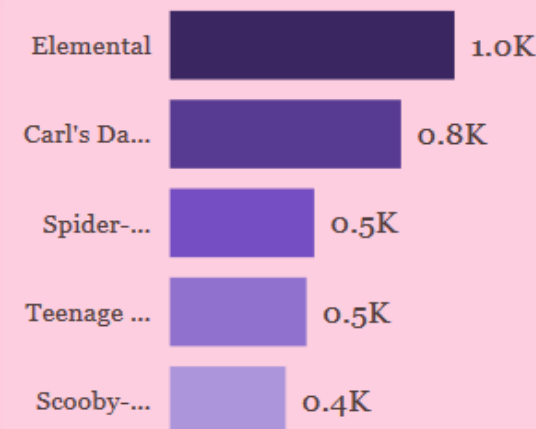
Top 5 Average Rated Movies



5 Longest Runtime



Top 5 Most Watched Movies

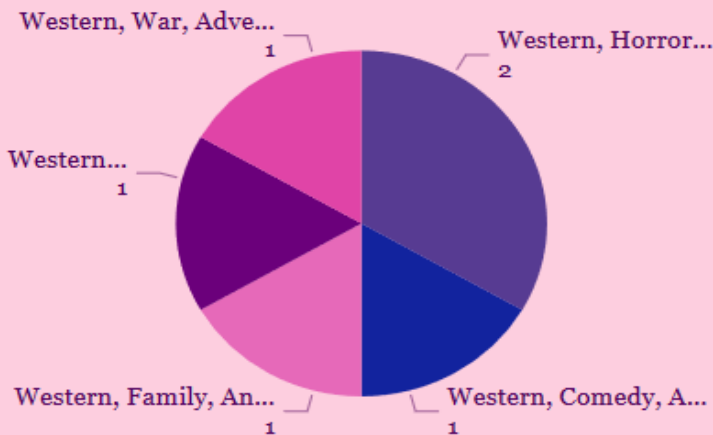




Animated Movie Performance Dashboard



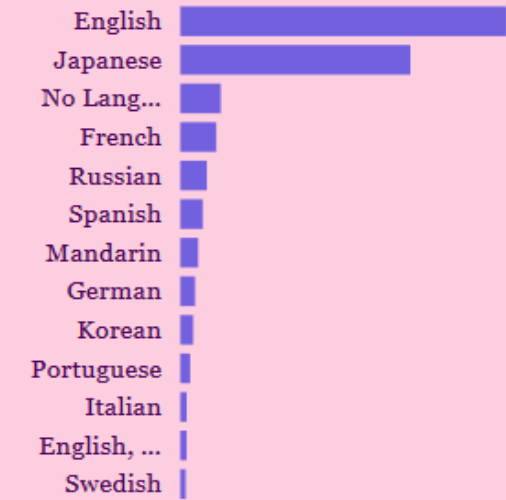
Top 5 Genres



Vote Count vs Release Year



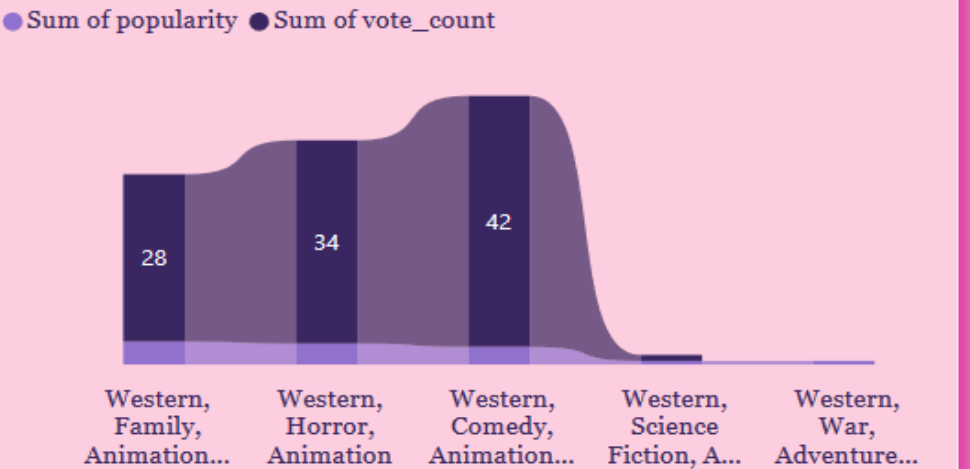
Languages Spoken



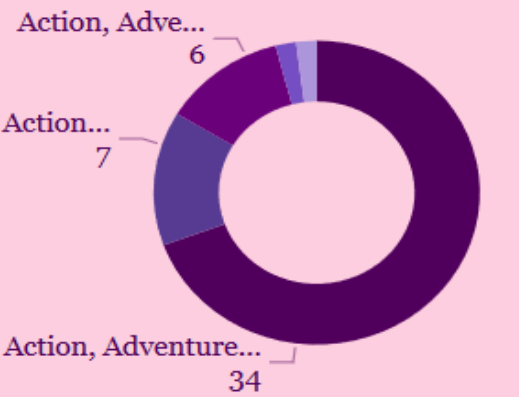
Movie Status



Popularity Score vs Vote count



Least 5 Genres





Recommendation

- Producer & Storytellers should focus on family-friendly, emotionally related stories with high-quality animation and compelling characters. Films like *Inside Out*, *Up*, *Finding Nemo*, and *Coco* shows the enduring appeal and commercial success of this approach.
- Expanding into underrepresented narratives and perspectives can help animated movies to reach a different dynamic of audience globally.
- Alternative distribution methods such as streaming platforms should be considered to adapt to evolving audience preferences and consumption patterns.



Limitation

- It did not include information about audience demographics, marketing strategies which can influence a movie's performance.
- It lacked enough details about budgets.
- There is no recent date of production, which isn't enough to give fair evaluation knowing animated movies is an ever-evolving genre.



Conclusion

In conclusion, with expansion to include newer films, this dataset presents opportunities to gain insights on animated film success factors and industry trends.

Further analysis of relationships between measures such as ratings, revenues and genres could yield additional strategic guidance for filmmakers and studios.



Thank
You!