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Section- H

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PROJECT OBJECTIVES:

The objective of this project is to perform a comprehensive analysis of the Amazon Prime Movies platform to derive meaningful insights into user preferences, content trends, and the overall performance of the streaming service. Through data-driven analysis, my aim is to provide recommendations to enhance user experience, optimize content acquisition, improve the platform's competitiveness in the streaming market.

GENERAL DESRIPTION OF DATA:

This dataset compiles information about movies released before 2021. It includes details such as movie titles, directors, cast members, countries of origin, durations, and categories. With 9668 rows and 12 columns, it offers a comprehensive view of the world of movies.

URL- https://www.kaggle.com/code/ahmedsalouh/amazon-prime-movies-analysis/notebook

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	Movie	The Grand Seduction	Don McKellar	Brendan Gleeson, Taylor Kitsch, Gordon Pinsent	Canada	March 30, 2021	2014	NaN	113 min	Comedy, Drama	A small fishing village must procure a local d
1	s2	Movie	Take Care Good Night	Girish Joshi	Mahesh Manjrekar, Abhay Mahajan, Sachin Khedekar	India	March 30, 2021	2018	13+	110 min	Drama, International	A Metro Family decides to fight a Cyber Crimin
2	s3	Movie	Secrets of Deception	Josh Webber	Tom Sizemore, Lorenzo Lamas, Robert LaSardo, R	United States	March 30, 2021	2017	NaN	74 min	Action, Drama, Suspense	After a man discovers his wife is cheating on
3	s4	Movie	Pink: Staying True	Sonia Anderson	Interviews with: Pink, Adele, Beyoncé, Britney	United States	March 30, 2021	2014	NaN	69 min	Documentary	Pink breaks the mold once again, bringing her
4	s5	Movie	Monster Maker	Giles Foster	Harry Dean Stanton, Kieran O'Brien, George Cos	United Kingdom	March 30, 2021	1989	NaN	45 min	Drama, Fantasy	Teenage Matt Banting wants to work with a famo
5	s6	Movie	Living With Dinosaurs	Paul Weiland	Gregory Chisholm, Juliet Stevenson, Brian Hens	United Kingdom	March 30, 2021	1989	NaN	52 min	Fantasy, Kids	The story unfolds in a an English seaside town
6	s7	Movie	Hired Gun	Fran Strine	Alice Cooper, Liberty DeVitto, Ray Parker Jr.,	United States	March 30, 2021	2017	NaN	98 min	Documentary, Special Interest	They are the "First Call, A-list" musicians, j

ANALYSIS

1- We want to know how many directors as a unique and how many times it occurs.

Unique Directors:

- Girish Joshi
- Glenn Miller
- John-Paul Davidson
- Stephen Warbeck
- Emily Skye
- Steve Barker

No. of times Director's occurrence:

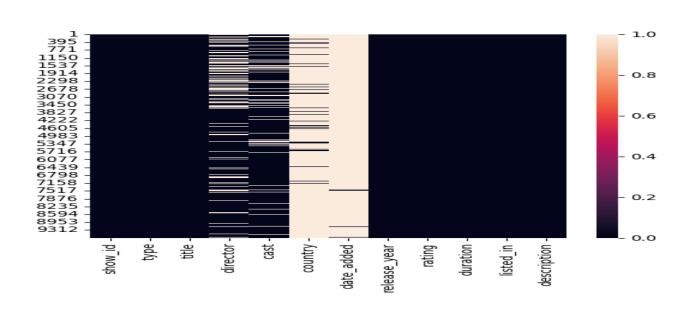
Mark Knight	105
Cannis Holder	61
Moonbug Entertainment	37
Arthur van Merwijk	30
Jay Chapman	23

2- Descriptive statistics of release year

- Release year count- 9331.000000
- Mean 2008.194299
- Std Deviation- 19.143763
- Min- 1920.000000
- 25%- 2006.000000
- 50%-2016.000000
- 75%- 2020.000000
- Max- 2021.000000

Here we can get the Average number of movies released in year 2008 Maximum movies released in 2021, and there is a significant increase in released movie from 2008 to 2021

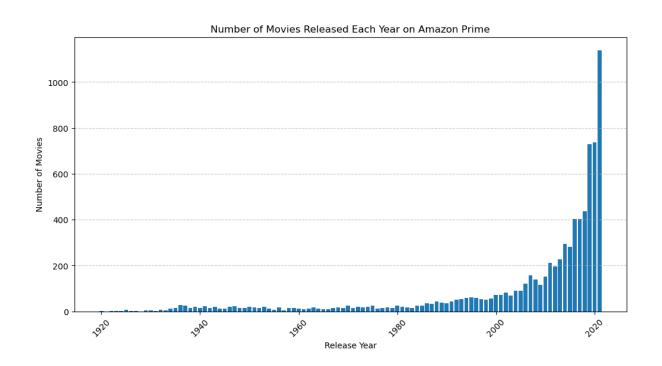
3- How many null values present, show all the null values in the heatmap.



4- In which year highest number of TV shows and Movies were release.

2021	1425
2020	923
2019	899
2018	592
2017	531

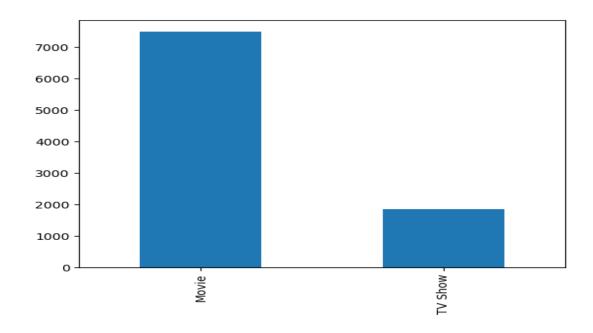
5-Trend Analysis with graph.



FINDING AND INFERENCES

1- How many movies and TV shows in the dataset, show along with graph?

Movie 7483 TV Show 1848



Inference- From the data, it appears that there are 7,483 movi es and 1,848 TV shows in the dataset. This information indicate s that viewers on the platform are more inclined to watch movi es rather than TV shows, or that the platform focuses more on movie content due to higher demand. Depending on the objectives of the platform, this data might influence future content ac quisition and production strategies

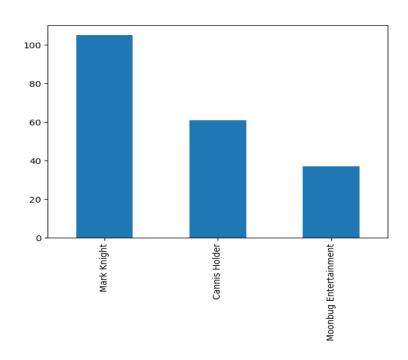
2-Top 3 Director who gave the highest number of movie and TV shows released on prime.

• Mark Knight	105
• Cannis Holder	61
• Moonbug Entertainment	37

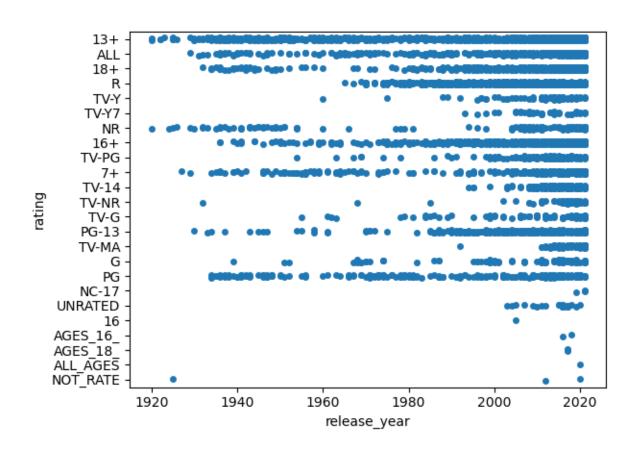
Inference- Information highlights the key directors who have made a substantial impact on the content catalog of Amazon Prime, potentially driving viewership and engagement on the platform.

1

Graph:



3-In which year the rating is highest, show in a plot.



4-To find Number of Adult rated movies to analyse whether Amazon prime is safe for kids or not.

Number of movies with a rating above '18+':4423

Inference This information suggests that Amazon Prime has a significant number of adult-rated movies in its catalog.

Parental Guidance: Parents and guardians should exercise cauti on and use parental controls to restrict access to adult-rated co ntent on Amazon Prime to ensure a safe viewing experience for children.

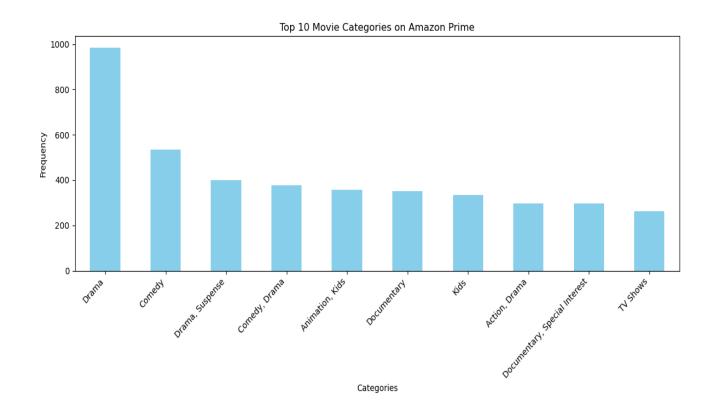
Diverse Content: While Amazon Prime offers a wide range of content, including adult-rated movies, it also provides age-appropriate options for viewers of all ages. Users should be aware of the content rating and choose content accordingly.

Viewer Responsibility: It is essential for viewers to be responsible for their content choices, especially when children have access to the platform. Parental supervision and content filtering to ols can help control access to adult content.

Recommendation Algorithms: Amazon Prime's recommendation algorithms should be fine-tuned to ensure that adult content is not recommended for underage viewers.

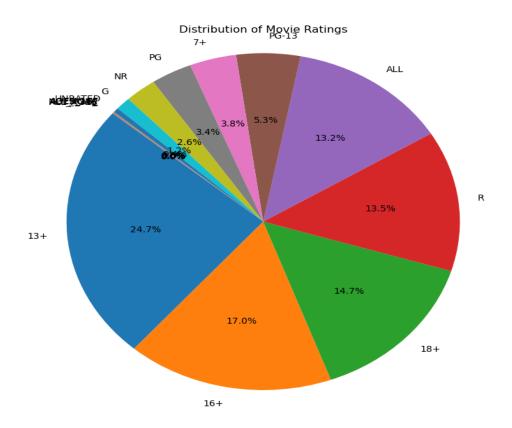
This information serves as a reminder to users and parents that while Amazon Prime offers a vast library of content, it includes adult-rated material, necessitating responsible content selectio n and viewing practices.

5- Frequency Distribution graph on Different Genres.



Inference- Customers on Amazon prime love to watch Drama as it is the highest watching genre and on second position it comes Comedy and then Drama- Suspense. It can be inferencing that producer of the content creator should invest on such genre to engage the audience and collect good revenue.

6- Distribution of Content Rating on Pie chart.



	Rating	Count
0	13+	1849
1	16+	1272
2	18+	1097
3	R	1010
4	ALL	988
5	PG-13	393
6	7+	288
7	PG	253
8	NR	194
9	G	93
10	UNRATED	33
11	NC-17	3
12	AGES_18_	3
13	NOT_RATE	3
14	AGES_16_	2
15	$-\frac{1}{6}$	1
16	ALL_AGES	1

Inference-

Diverse Ratings: Amazon Prime offers content with a wide rang e of content ratings, catering to different age groups and viewe r preferences.

Majority in Age-Based Ratings: Ratings like '13+', '16+', '18+', and '7+' are primarily age-based classifications, indicating that a significant portion of the content is categorized according to a ge-appropriateness.

'Mature' Content: Ratings like 'R' and 'NR' suggest the presence of mature or unrestricted content on the platform. Viewers sho uld exercise caution when accessing content with these ratings.

Family-Friendly: Ratings like 'ALL', 'PG', 'PG-13', and 'G' signify family-friendly content suitable for a broader audience, includin g children.

Limited Explicit Content: Ratings like 'NC-17' are relatively rare , indicating that explicit or adult-only content is not prevalent o n Amazon Prime.

Overall, this distribution of content ratings on Amazon Prime re flects the platform's effort to provide a diverse selection of cont ent that caters to viewers of all ages and preferences while also offering mature content for specific audiences. Users can use th ese ratings to make informed choices about the content they co nsume.

MANAGERIAL IMPLICATION

- 1. **Content Strategy**: Analyze which types of content (movies or TV shows) perform better in terms of viewership or ratings. Use this information to make decisions about the acquisition and production of new content.
- 2. **User Engagement**: Understand user preferences based on the genres, ratings, or other attributes of content. Tailor recommendations and marketing efforts to improve user engagement.
- 3. **Regional Preferences**: Analyze whether there are regional variations in content preferences. Consider offering localized content to cater to diverse audiences.
- 4. **Content Licensing**: Evaluate the cost-effectiveness of licensing content from different studios or production companies. Identify high-performing content partners.
- 5. **User Experience**: Assess the impact of content quality and availability on user retention. Improve the user experience by focusing on popular and high-quality content.
- 6. **Competitive Analysis**: Compare the content library with competitors (other streaming platforms) to identify gaps or opportunities for differentiation.
- 7. **Content Curation**: Develop algorithms or strategies for better content curation to match users with content they are likely to enjoy.
- 8. **Age Ratings**: Monitor and enforce age ratings to ensure the platform is safe for users of all ages.
- 9. **Subscription Models**: Analyze the impact of content on subscription growth or retention. Consider adjusting subscription pricing or models based on content performance.
- 10. **User Feedback**: Pay attention to user reviews and feedback to address any content-related issues or trends.