

# ***OTT Platform Analysis Tool***

## ***Project Report***

**Team Name – Hatori**

**Team Members – Ushnish Chakravarty and Mayank Jha**

## **1. INTRODUCTION**

### **1.1 Overview**

We present a model where we will be analysing different OTT platform data like Netflix, Amazon Prime and Disney+Hotstar.

### **1.2 Purpose**

Our main objective is to find the main insights from their respective dataset and compare them against each other to help the user take a predictive guess to choose the best OTT subscription as per their basis.

## **2. LITERATURE SURVEY**

### **2.1 Existing problem**

In recent years, the appearance of various OTT platforms has introduced a confusing problem i.e. difficulty in choosing which OTT platform to subscribe to. Netflix, Amazon Prime Video, and Disney+Hotstar are some of the many OTT platforms that are well-known.

As these platforms are coming up with new ways to stand out among competitors by presenting original content, it is evident that more customers are being lost in deciding which platform would be suitable for their use. Moreover, most of the available recommendation systems are focused on suggesting the content but not the platforms that hold and provide those contents.

## **2.2 Proposed solution**

To ease the choice confusion, our study aims to present a guideline for choosing the appropriate OTT platform that fits one's personal preferences. We achieve this by analysing different OTT platforms datasets and then we perform operations like cleaning the data, filtering it, exploring and preparing the dashboards.

## **3. Technology Architecture:**

**3.1 IBM Cognos Analytics :** To upload, clean, filter, explore datasets and prepare dashboards.

**3.2 IBM Cloud :** To make an OTT platform recommendation chatbot using IBM Watson Assistant.

## **4. EXPERIMENTAL INVESTIGATIONS**

### **4.1 Analysis:**

Our whole analysis was basically done on IBM Cognos Analytics. We made three dashboards of Netflix, Amazon Prime Video and Disney+Hotstar. In all these dashboards we made some common schema of graphs to compare the three OTT platforms. The graphs which were most commonly used were Bar Chart, Column Chart & Pie Chart.

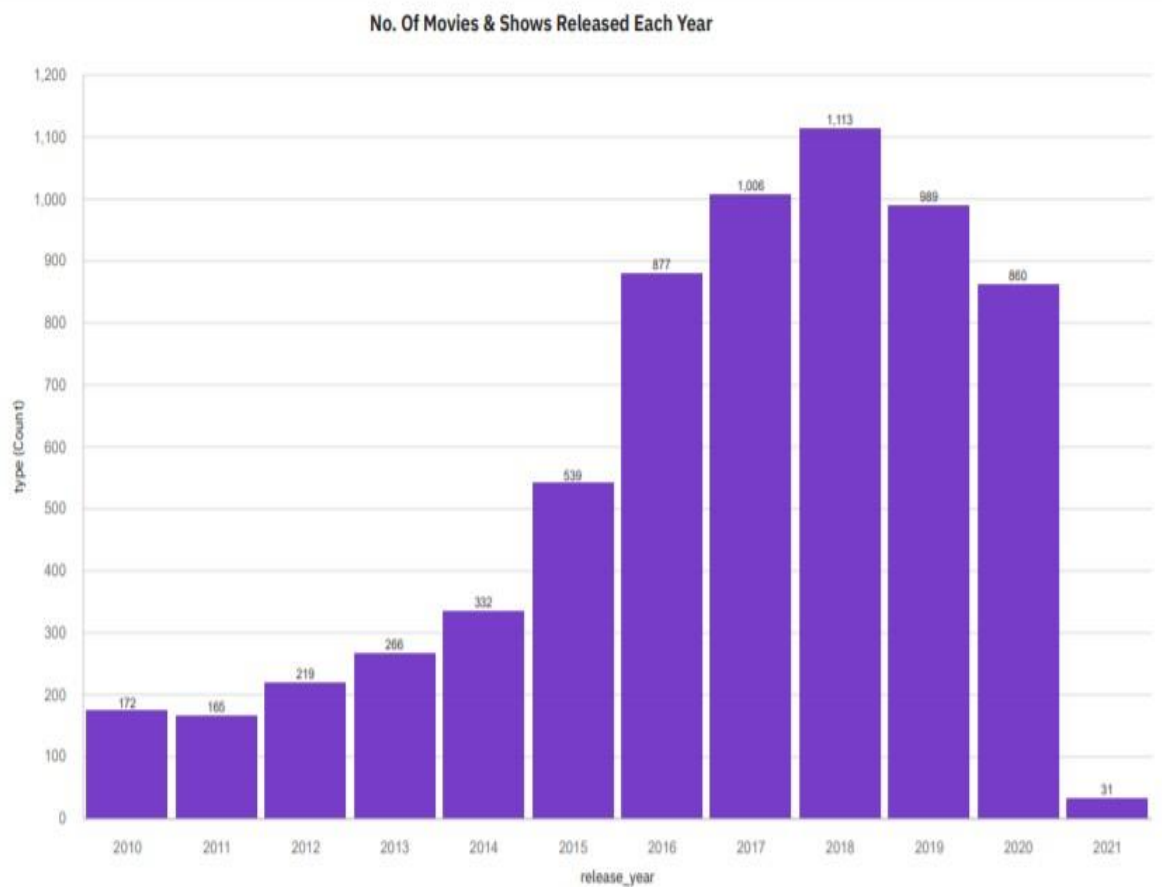
The factors that we considered while making these graphs included :-

- Number of Movies and Shows each year
- Maturity Rating
- IMDb rating
- Language
- Duration time

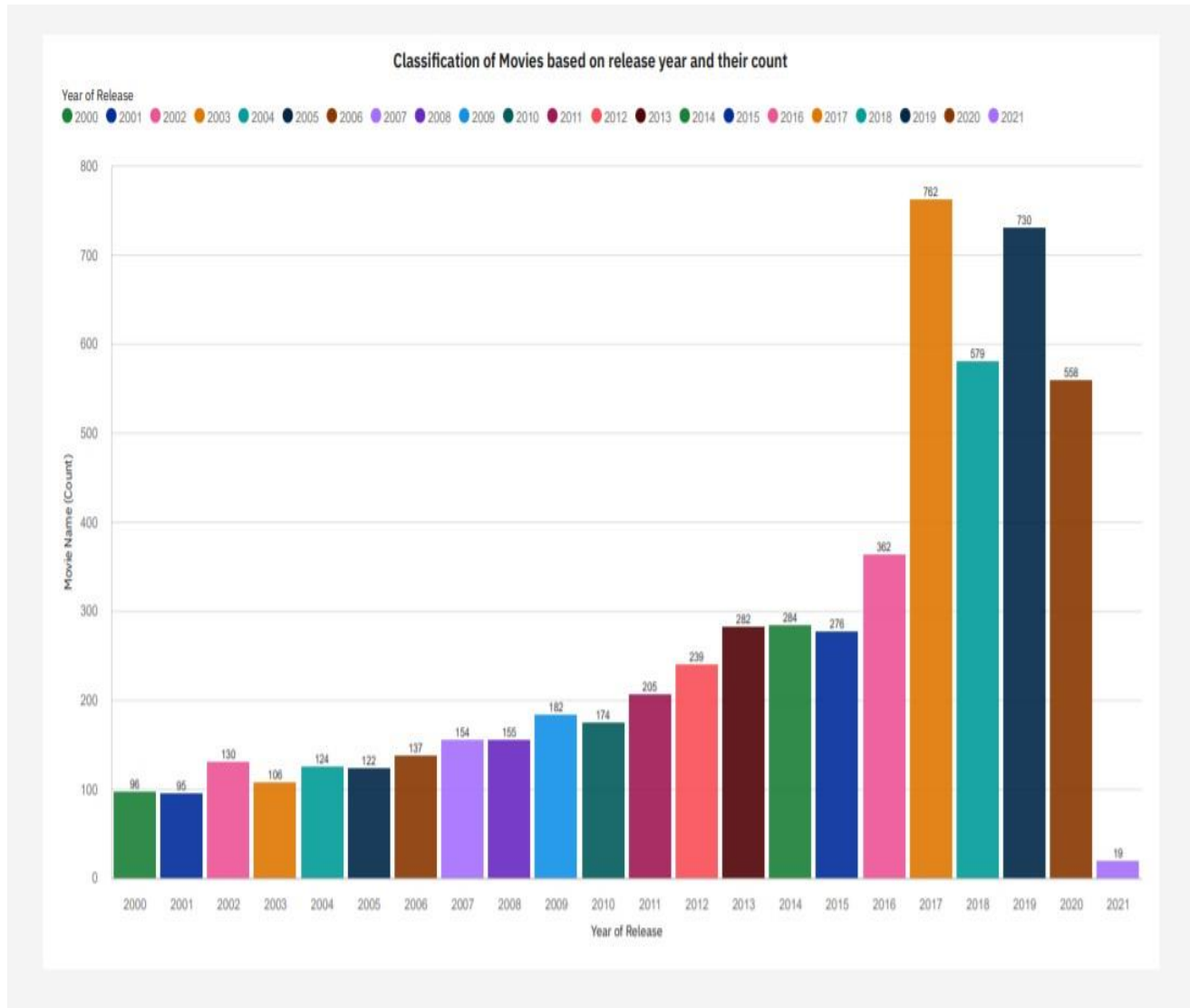
## 5. Result

### 5.1 On the basis of number of movies and shows released each year

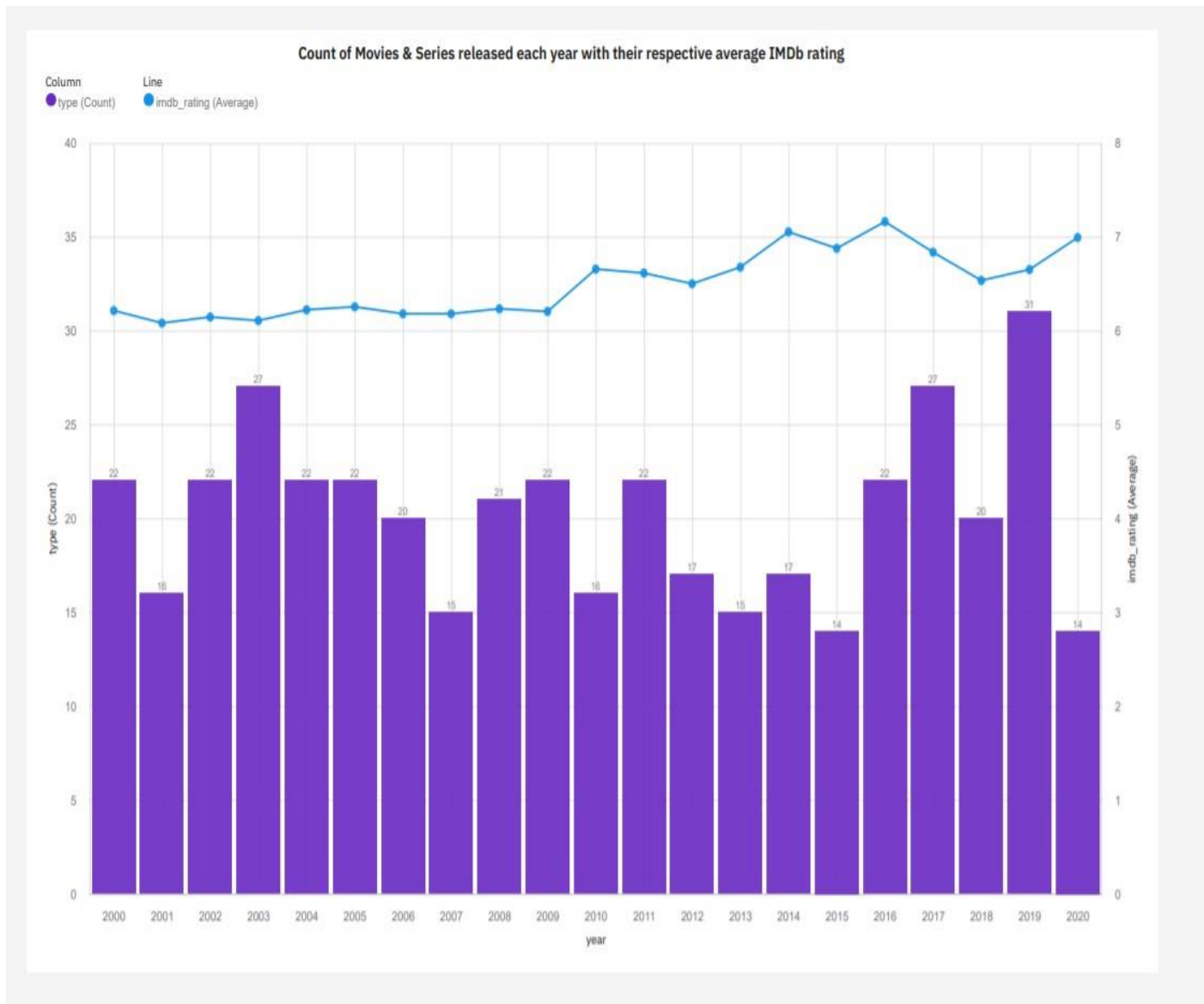
#### Netflix



## Amazon Prime Video



## Disney+Hotstar



### Findings :-

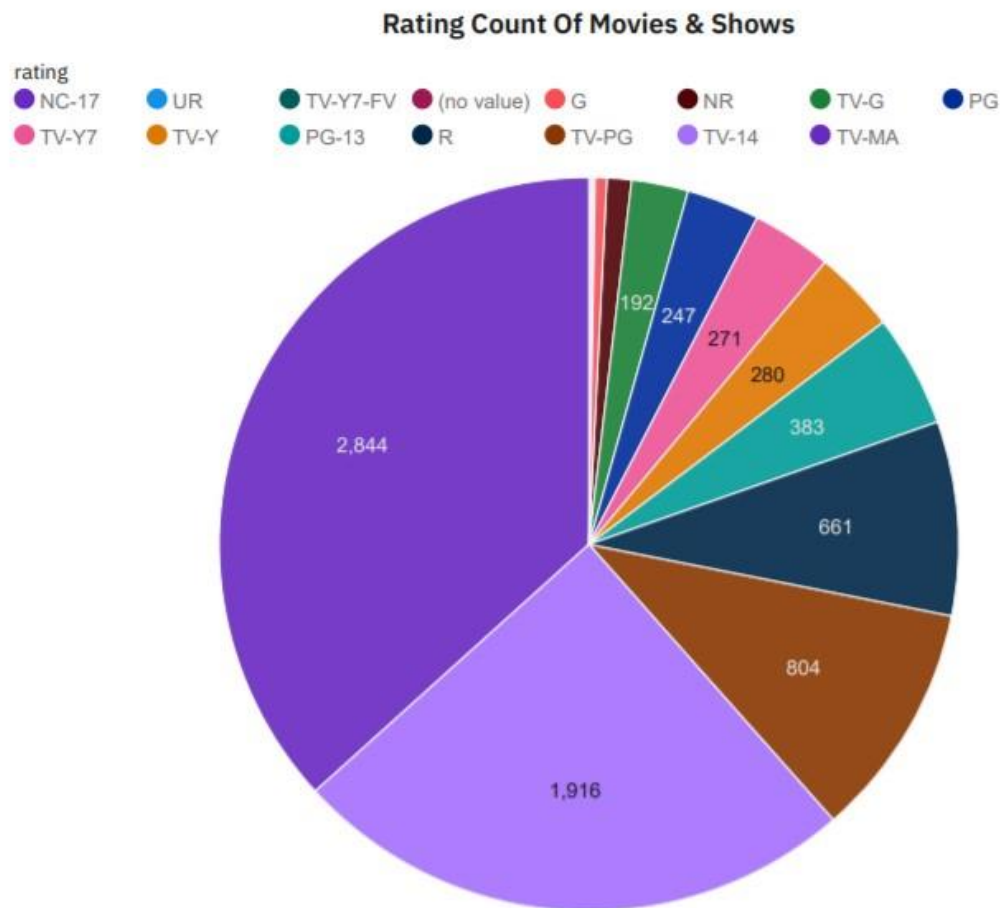
1.) It is found that 2021 was the year in which the minimum number of movies were released. It was due to almost no movies being shot because of Covid-19 pandemic.

2.) Netflix had the most number of movies and shows released during Covid - 19 which were around 860.

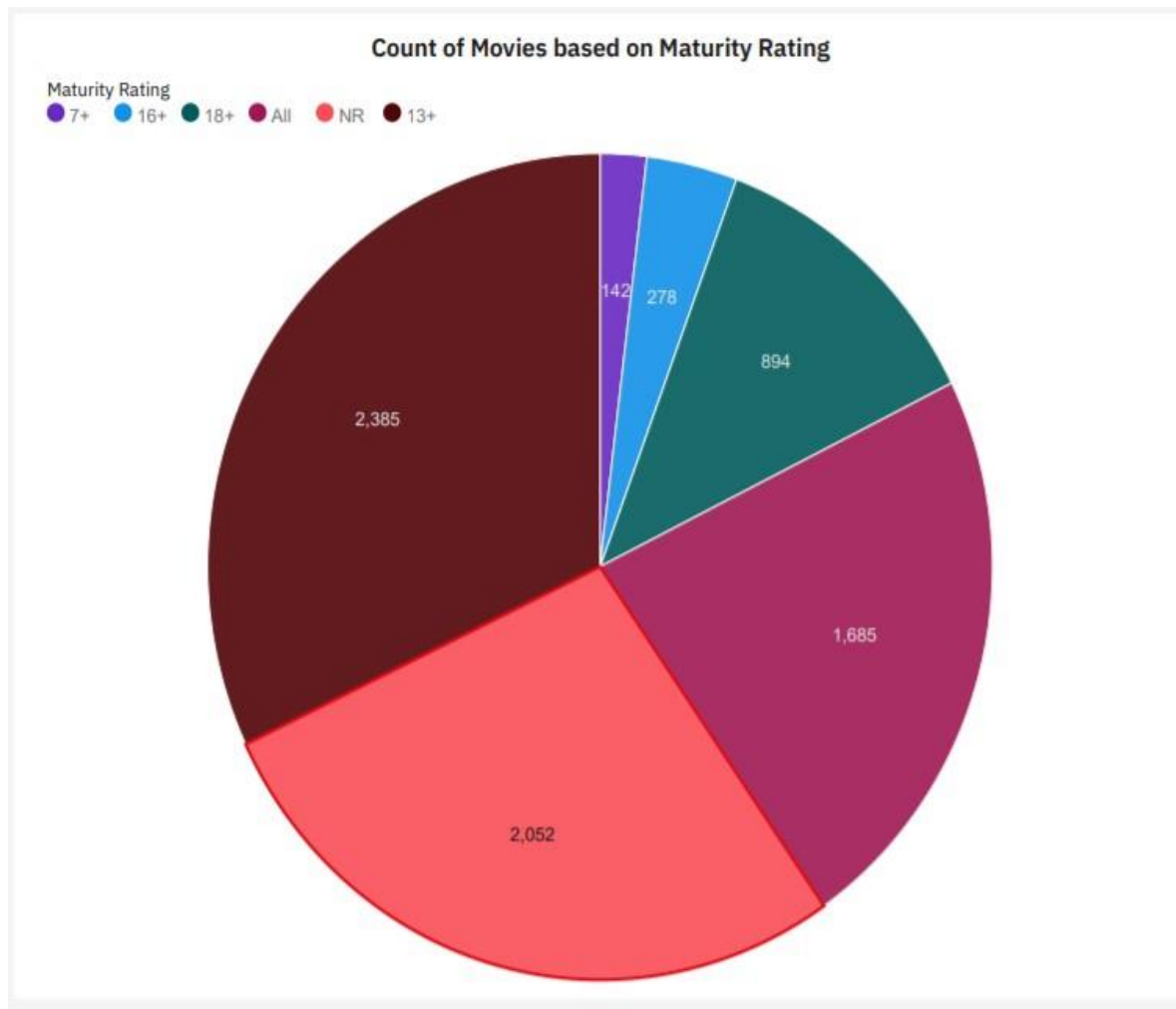
3.) Disney+Hotstar had the least number of movies released during the pandemic

## 5.2 On the basis of Maturity Rating :-

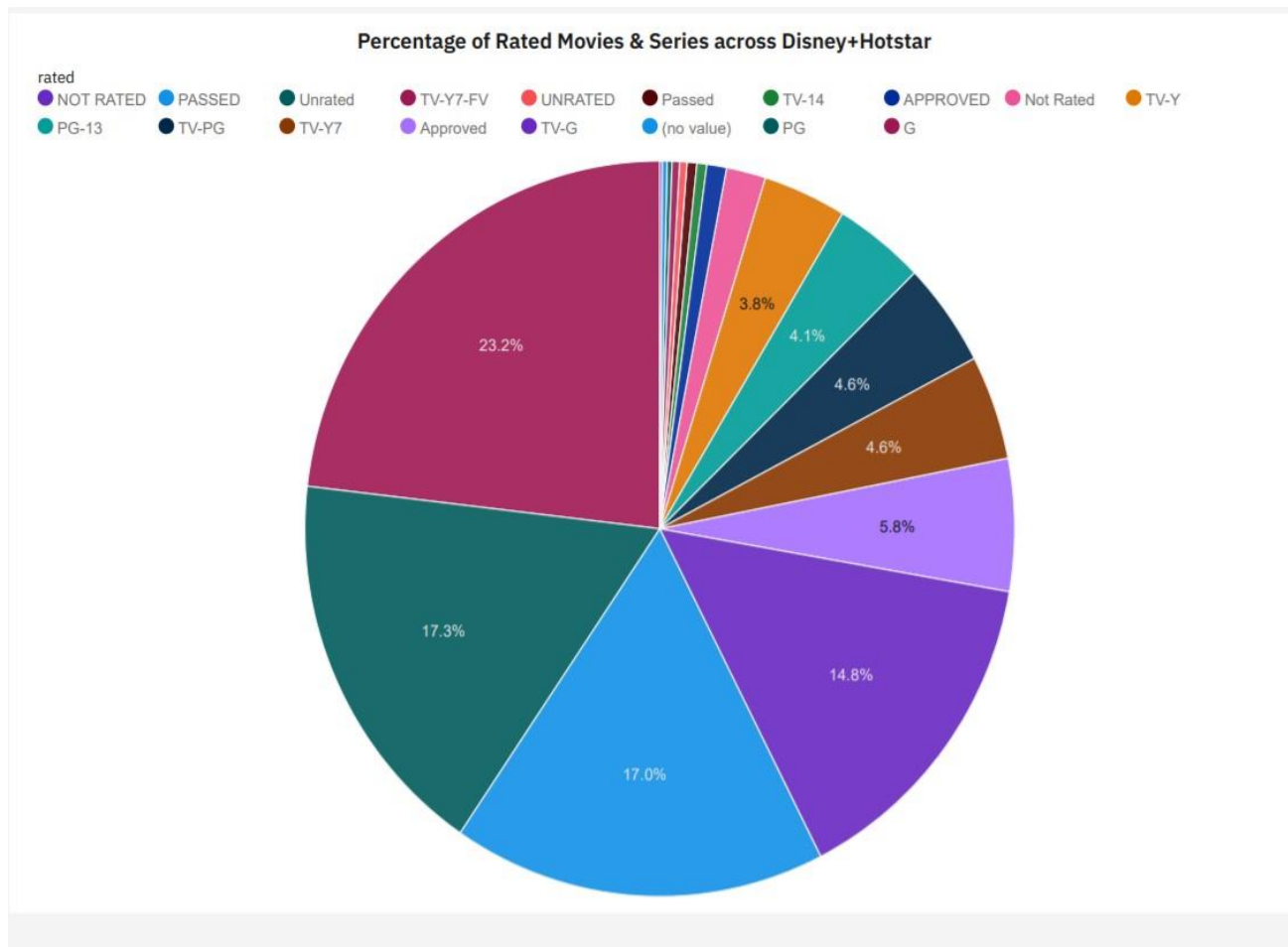
### Netflix



## Amazon Prime Video



## Disney+Hotstar :-



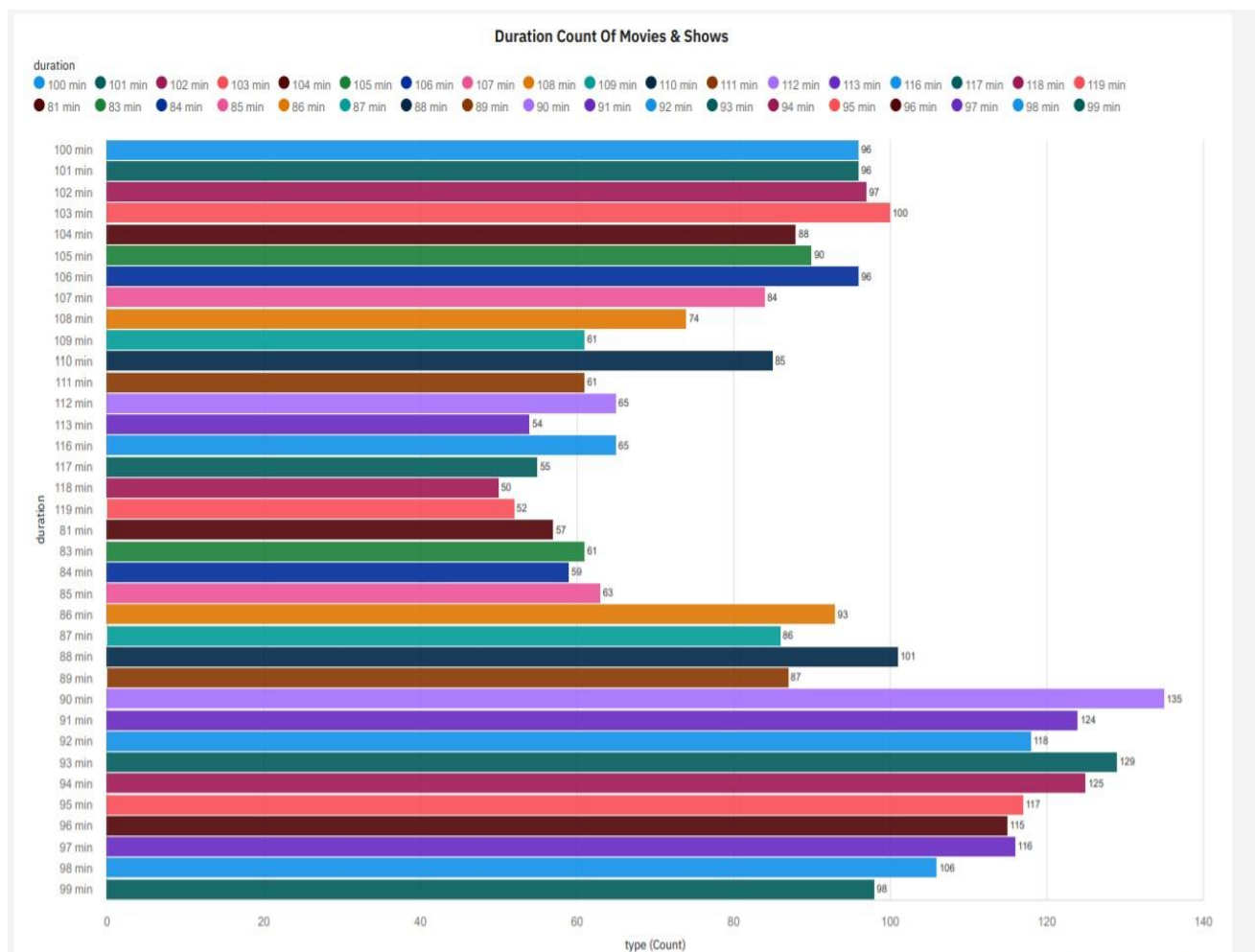
## Findings :-

1. The highest number of movies and shows were rated as TV - MA ( Mature Audience ) which were around 2,844 and 1916 were rated as TV - 14 ( unsuitable for children under 14 years ) on Netflix.
2. The highest number of movies were rated as 13+ which were around 2,385 and 894 were rated as 18+ on Amazon Prime Video.
3. The highest percentage of movies and series were rated as G ( general audience ) which accounted for around 23.2%. About 17.3% were rated as PG-13 on Disney+Hotstar

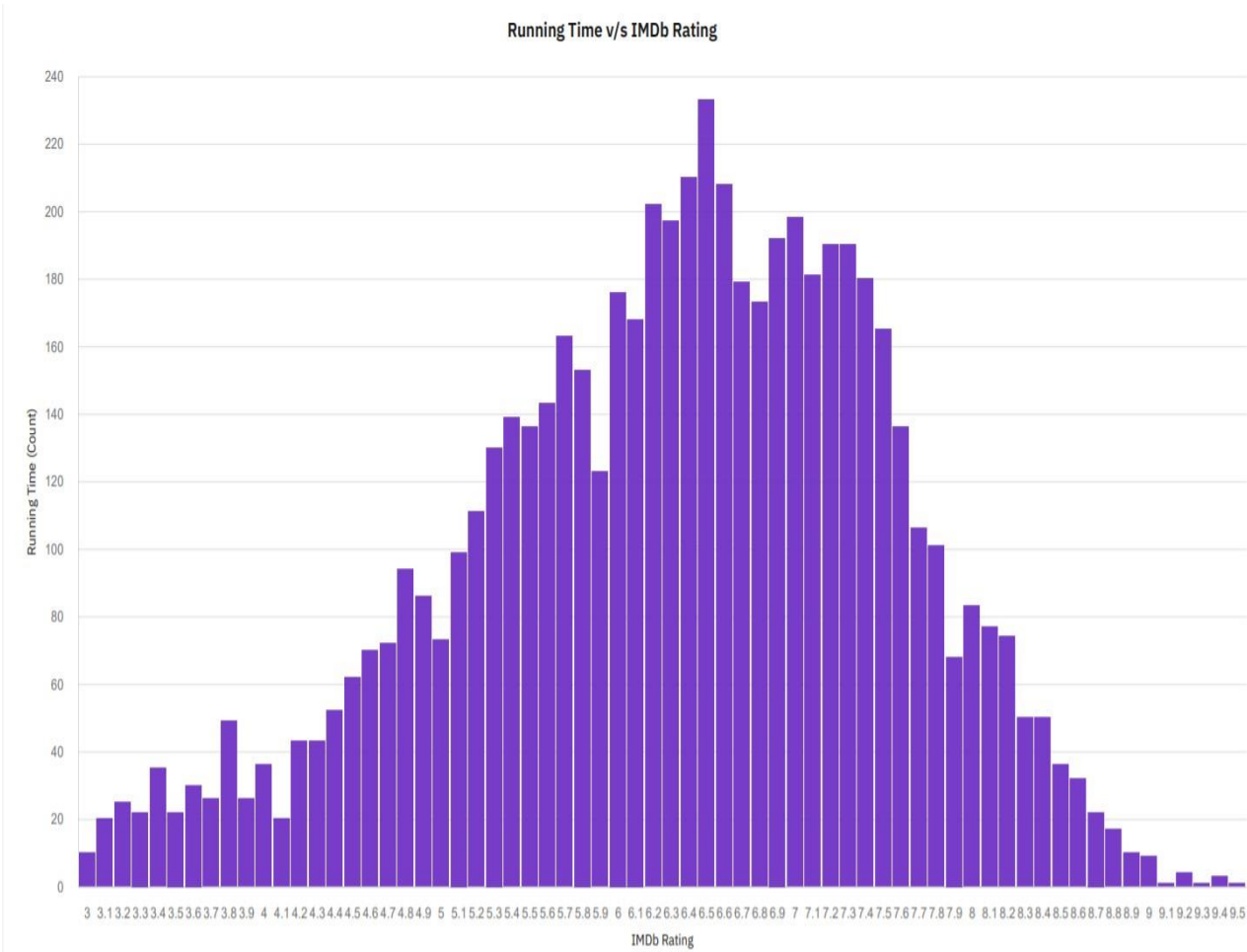


## 5.3 On the basis of ratings and duration time :-

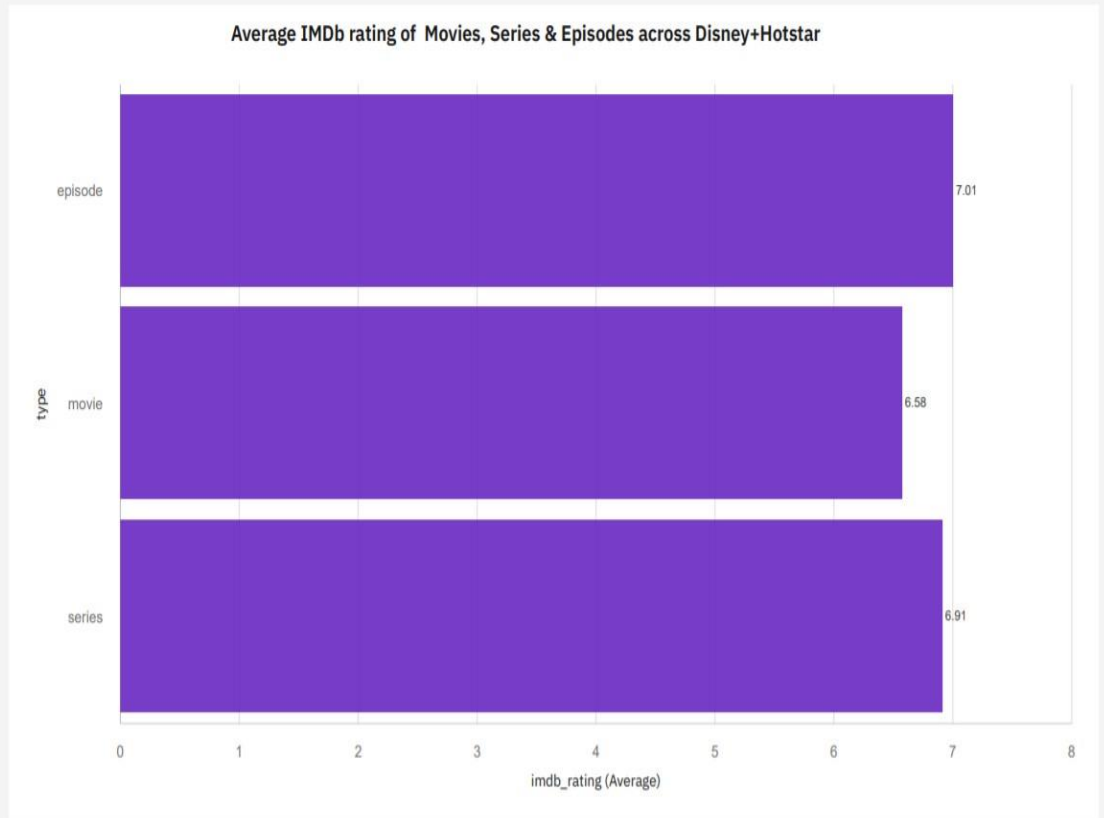
### Netflix



# Amazon Prime Video



## Disney+Hotstar

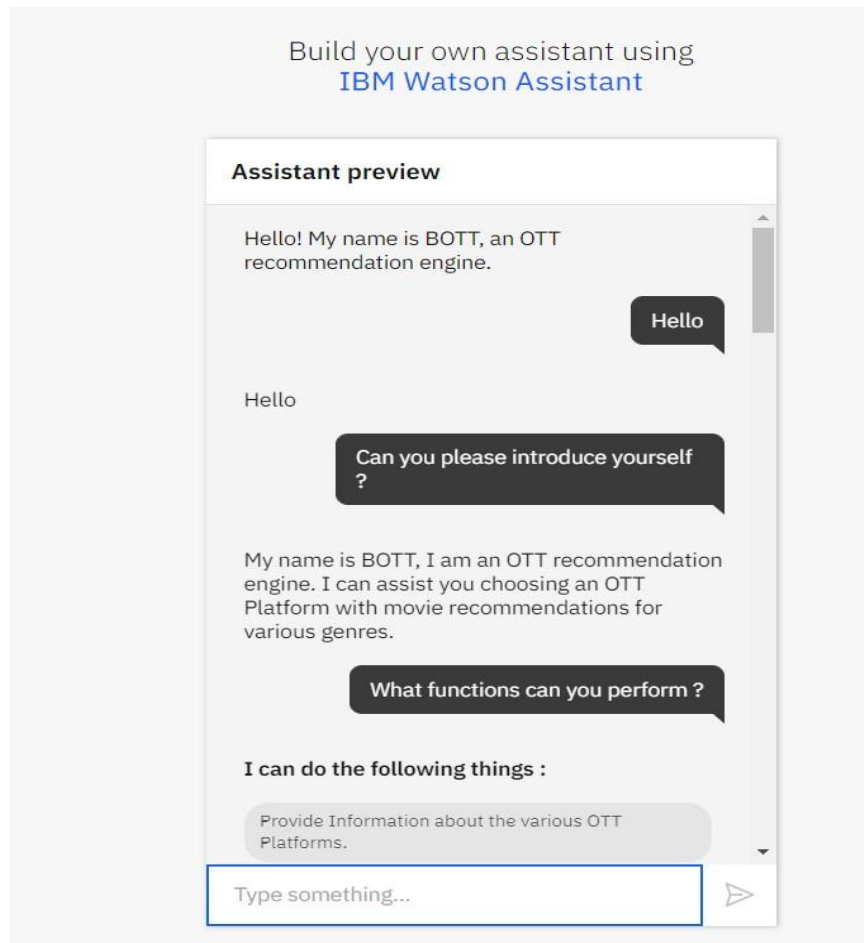


### Findings :-

1. The highest number of movies whose count was 135 had the duration count of 90 minutes and minimum were around 50 movies whose running time was 118 minutes on Netflix.
2. On Amazon Prime Video the movies which had running time around 90 minutes scored IMDb rating around 8.0, movies with less duration scored larger ratings.
3. On Disney+Hotstar, the series scored an average IMDb rating of 6.91 with episode rating of 7.01, while movies attained rating around 6.58

## 5.4 OTT Platform recommendation Chatbot

Here are some of the screenshots of the OTT platform recommendation chatbot we made using IBM Watson Assistant using functionalities such as entity, intent, dialogs.



Build your own assistant using  
**IBM Watson Assistant**

**Assistant preview**

Recommend shows & Movies from various OTT Platforms based on your interest.

I can provide you the list of top movies and shows across various OTT Platforms for various genres.

What types of ott platform are available with you ?

**We have the following OTT Platforms**

Netflix

Amazon Prime Video

Disney + Hotstar



|Type something...



Build your own assistant using  
**IBM Watson Assistant**

**Assistant preview**

Please recommend me some movies

**Please select the OTT Platform you want to choose**

Netflix

Amazon Prime Video

Disney + Hotstar

Netflix

**Please select the genre you like**

- 1) Action
- 2) Romance
- 3) Thriller
- 4) Comedy
- 5) Horror
- 6) Science Fiction

Thriller

|Type something...



Build your own assistant using  
**IBM Watson Assistant**

**Assistant preview**

- 5) Horror
- 6) Science Fiction

Thriller

1) Shutter Island (2010)

**IMDb Rating :** 8.2/10  
**Directed By :** Martin Scorsese  
**Star Cast :** Leonardo Di Caprio, Ben Kingsley, Mark Ruffalo, Michelle Williams

2) The Pelican Brief (1993)

**IMDb Rating :** 6.6/10  
**Directed By :** Alan J Pakula  
**Star Cast :** Julia Roberts, Denzel Washington, Sam Shepard, Tony Goldwyn

3) Nightcrawler (2014)

**IMDb Rating :** 7.8/10  
**Directed By :** Dan Gilroy

Type something...



Build your own assistant using  
**IBM Watson Assistant**

**Assistant preview**

**Directed By :** Dan Gilroy  
**Star Cast :** Jake Gyllenhaal, Rene Russo, Riz Ahmed, Bill Paxton

4) Uncut Gems (2019)

**IMDb Rating :** 7.4/10  
**Directed By :** Josh Safdie, Benny Safdie  
**Star Cast :** Adam Sandler, Julia Fox, Kevin Garnett, Idina Menzel

5) Good Time (2017)

**IMDb Rating :** 7.4/10  
**Directed By :** Benny Safdie, Josh Safdie  
**Star Cast :** Robert Pattinson, Benny Safdie, Jennifer Jason Leigh, Barkhad Abdi

Goodbye

Goodbye, Hope I cleared all your doubts

Type something...



## **6. ADVANTAGES**

- Better prediction on the basis of user's choices through deep data analysis.
- Will also work smoothly for bigger data sets.
- Much more effective and user friendly.
- Improved Recommendation system.

## **7. APPLICATIONS**

### **Business Impact**

- It will give producers of movies/shows a rough idea on what to produce on the basis of user's choice.
- They can examine their budget of the movie or show that they are going to make based on the prediction by our model.
- They can understand what movie or show to produce on the basis of ongoing Trends by our analysis.

### **Social Impact**

- The movies or shows of the particular OTT Platform can change society's stereotype towards various sensitive topics like women empowerment.
- The movies or shows of the respective OTT Platform can help influence youth and young minds which will benefit the society and our nation.

## 9. CONCLUSION

Through our investigation and analysis, we found notable characteristics of each OTT platform. Netflix had more movies rated TV-MA ( mature audience ) than the other two platforms. While disney+hotstar mostly had movies meant for the general audience. Data distribution among netflix and amazon prime video had many similar patterns in terms of movies, genres, languages etc. Netflix had the most mixed and diverse content among all the ott platforms, while disney+hotstar had family and adventure and animation focussed content. Amazon Prime had almost even distribution of different maturity rating films and had an uniform amount of language focussed regional movies. From all the different factors mentioned, users can see and choose the best OTT platform based on their requirements.

## 10. Dataset Links –

- Netflix data : <https://www.kaggle.com/shivamb/netflix-shows>
- Netflix data : <https://www.kaggle.com/swapnilbhangne/netflix-original-movies>
- Amazon prime data : <https://www.kaggle.com/padhmam/amazon-prime-movies>
- Scrap Amazon prime data form : [https://en.m.wikipedia.org/wiki/List\\_of\\_Amazon\\_Studios\\_films](https://en.m.wikipedia.org/wiki/List_of_Amazon_Studios_films)
- Hotstar : <https://www.kaggle.com/unanimad/disney-plus-shows>
- Scrap hotstar data : [https://en.m.wikipedia.org/wiki/List\\_of\\_Disney%2B\\_original\\_films](https://en.m.wikipedia.org/wiki/List_of_Disney%2B_original_films)