



VIDEO GAMES SALES ANALYSIS



INTRODUCTION

The dataset video games sales contains the detailed information of large number of games and mainly the sales of the various game around North America , Europe , Japan and globally in millions(dollars). The dataset also provides the critic score the score provided by critics for various games , user score like the score provided by the users of the game.And also Platform in which the games are played the developers of the game the publisher and the suitable rating like E(everyone) T(teenagers) etc.

Objective

The main objective of Analysing this dataset is to compare the global sales and sales across some regions according to the year .

And finding out the games which is most most loved by the users , Suggesting some games which is worth buying

Knowing the platform mostly preferred by the users , more like that.

DATA OVERVIEW

- Table name: video_game_sales
- Purpose: Table records all sales data of video games
- Total No of Rows: 6938
- Total No of columns: 17
- Column name and their description:

Field	Type	Null	Key	Default
index	int	YES		NULL
Name	text	YES		NULL
Platform	text	YES		NULL
Year_of_Release	double	YES		NULL
Genre	text	YES		NULL
Publisher	text	YES		NULL
NA_Sales	double	YES		NULL
EU_Sales	double	YES		NULL
JP_Sales	double	YES		NULL
Other_Sales	double	YES		NULL
Global_Sales	double	YES		NULL
Critic_Score	double	YES		NULL
Critic_Count	double	YES		NULL
User_Score	double	YES		NULL
User_Count	double	YES		NULL
Developer	text	YES		NULL
Rating	text	YES		NULL

- **Data Cleaning**

1. Missing value: Missing values from the table are removed
2. Duplicate values: No duplicate values are found on the dataset

- No Feature Engineering is done to the table

ANALYSIS

1. Genre Count Analysis

```
SELECT Genre,count(*) from video_game_sales  
GROUP BY Genre ORDER BY count(*) DESC;
```

Result:

Genre	count(*)
Action	1652
Sports	964
Shooter	884
Role-Playing	722
Racing	591
Platform	411
Misc	392
Fighting	387
Simulation	300
Strategy	268
Adventure	249
Puzzle	118

From this data Action games are more in number and puzzle games are least in number.

2. Year of Release Analysis

```
SELECT year_of_release,count(*) from video_game_sales  
GROUP BY Year_of_Release ORDER BY count(*)  
DESC;
```

Result:

year_of_release	count(*)
2008	600
2007	595
2005	570
2009	564
2006	534
2003	504
2004	484
2011	464
2002	462
2010	439
2012	319
2013	270
2001	262
2014	259
2015	214
2016	213
2000	104
1999	30
1998	27
1997	13
1996	7
1994	1
1985	1
1992	1
1988	1

The table shows that in the year 2008,2007 more number of games are developed and saled . The least number of games was saled at years 1994,1985,1992,1988.

3.Max sales Analysis

Max NA sales:

```
SELECT max(NA_sales) from video_game_sales;
```

```
SELECT Name,platform,Year_of_Release from  
video_game_sales where NA_Sales=41.36;
```

Result:

Name	Platform	Year of Release
Wii sports	Wii	2006

Max Eu Sales:

```
select max(EU_Sales) from video_game_sales;
```

```
select Name,platform,Year_of_Release from  
video_game_sales where EU_Sales=28.96;
```

Result:

Name	Platform	Year of Release
Wii sports	Wii	2006

Max Jp sales:

```
select max(jp_sales) from video_game_sales;
```

```
select * from video_game_sales where JP_Sales=6.5;
```

Result:

Name	Platform	Year of Release
New Super Mario Bros.	DS	2006

4.Top 5 games according to the Sales

```
select Name,platform,Year_of_Release from  
video_game_sales
```

```
order by Global_Sales desc limit 5;
```

Result:

Name	Platform	Year of Release
Wii sports	Wii	2006
Mario cart Wii	Wii	2008
Wii sports resort	Wii	2009
New super mario bros	DS	2006
Wii play	Wii	2006

5.BOX PLOTS

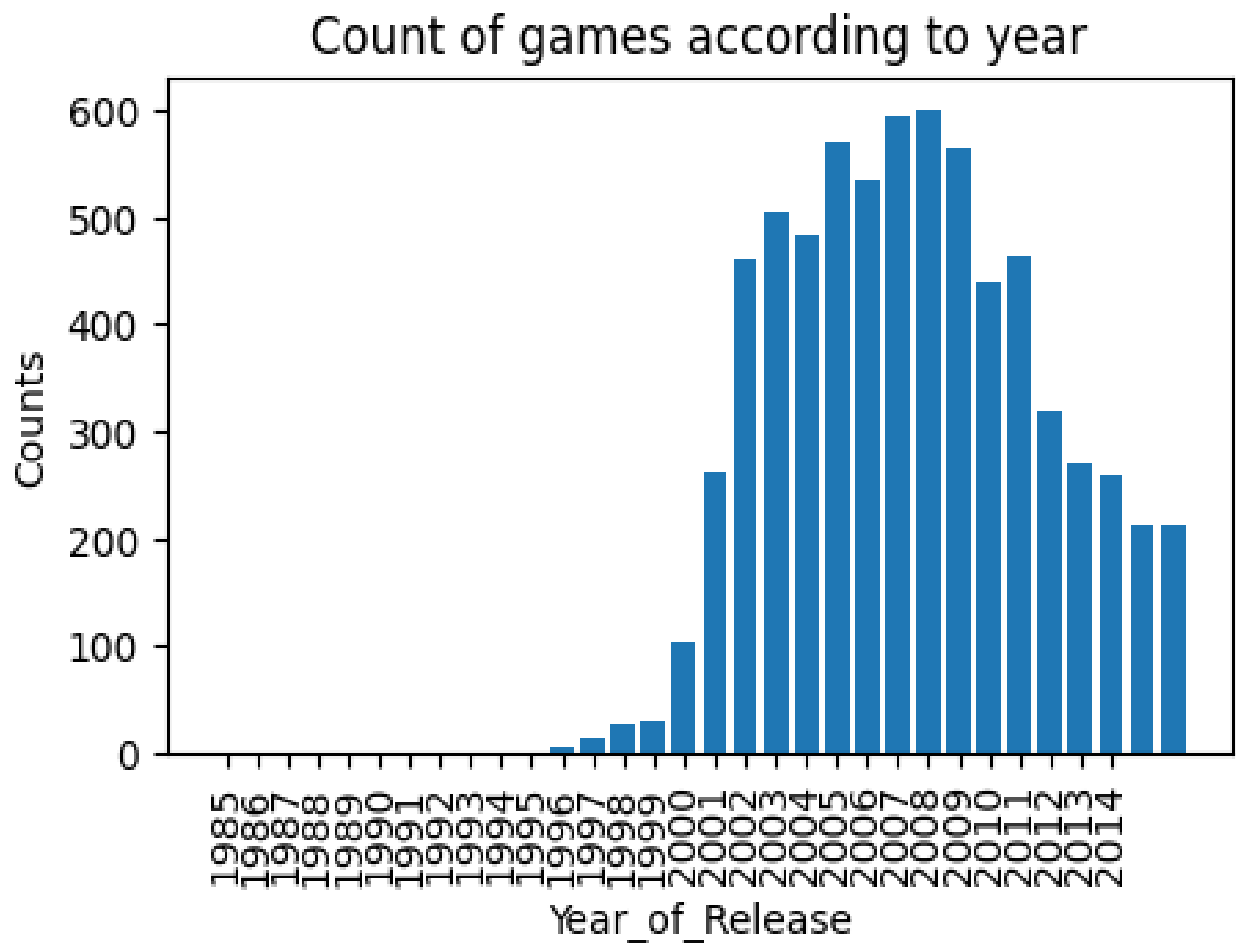


Fig 1 ; Box plot of year and their game sales counts

Insights:

In the year 2008 and 2007 more number of games are saled and also means in these years more games are developed.

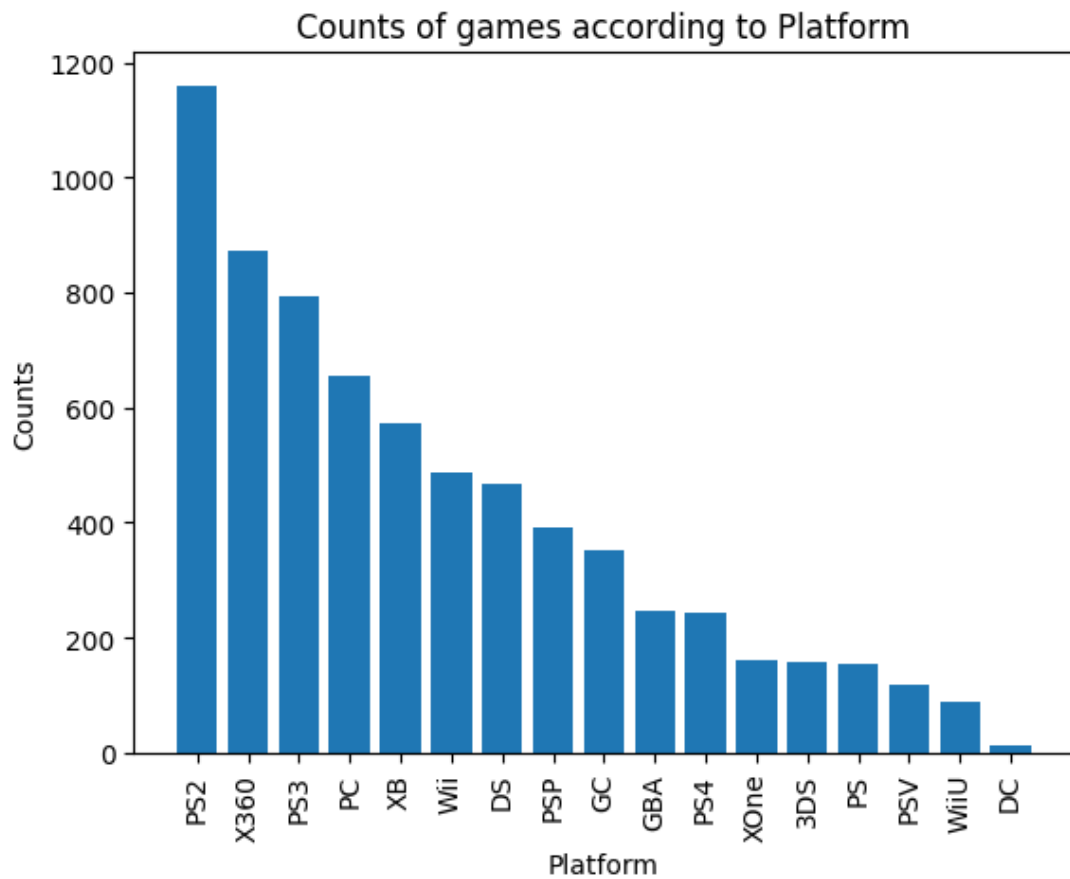


Fig 2: Box plot of platform and their counts of games

Insights:

More number of games are played in the platform PS2 then X360,PS3 and PC etc

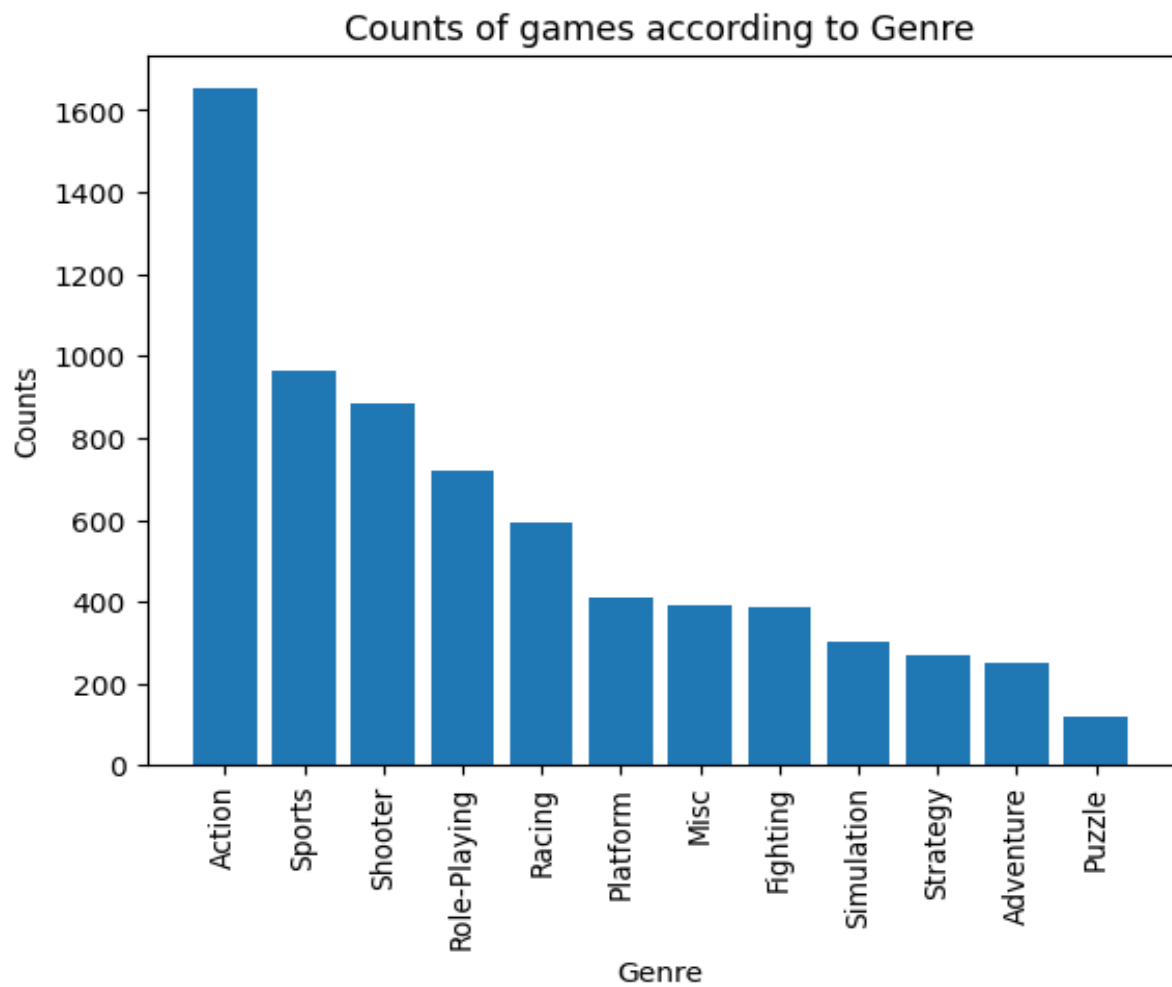


Fig 3: Bar plot of Genre and the counts of games

Insights:

Action games and sports games are more in number

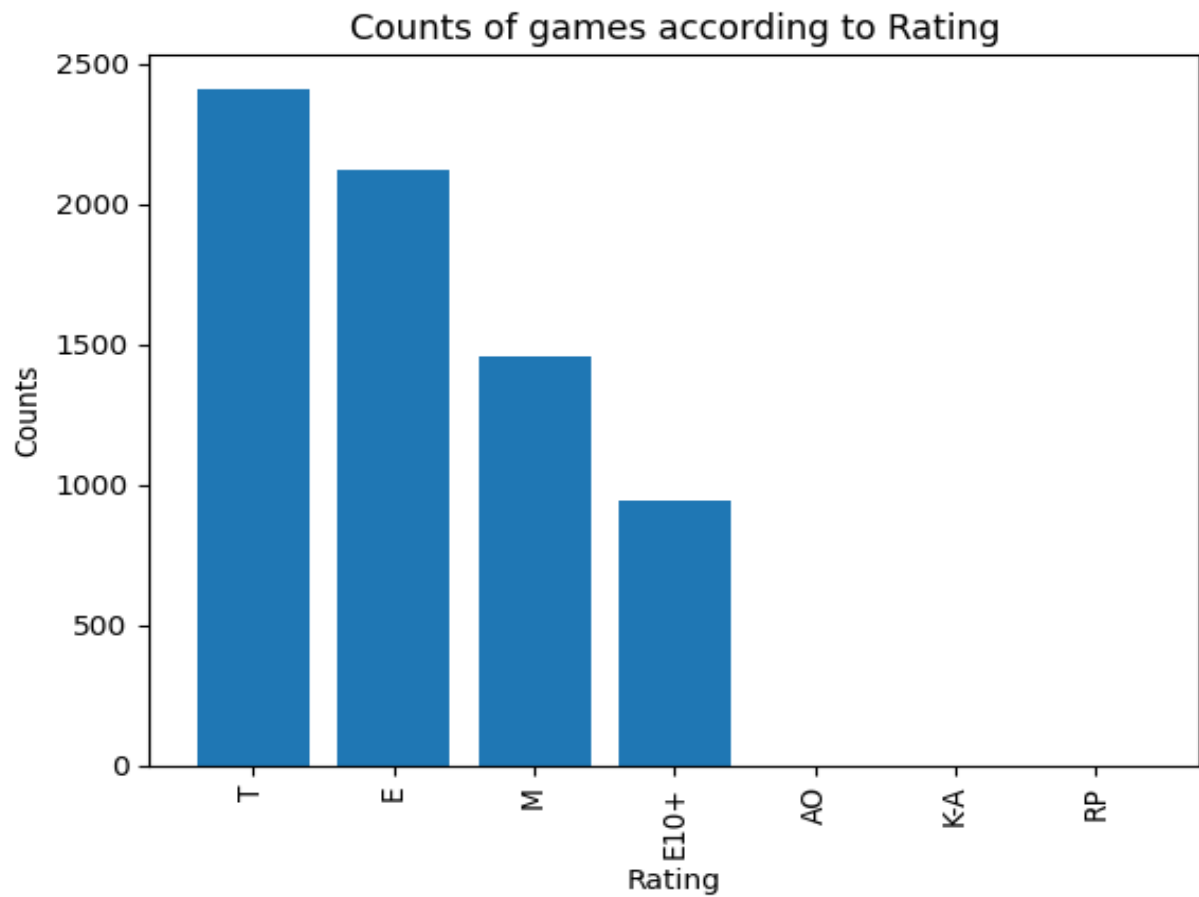


Fig 4: Bar plot of Rating and counts of games

Insights:

The Maximum number of games are for Teenagers then the game which can be played by Everyone .

7. LINE PLOTS

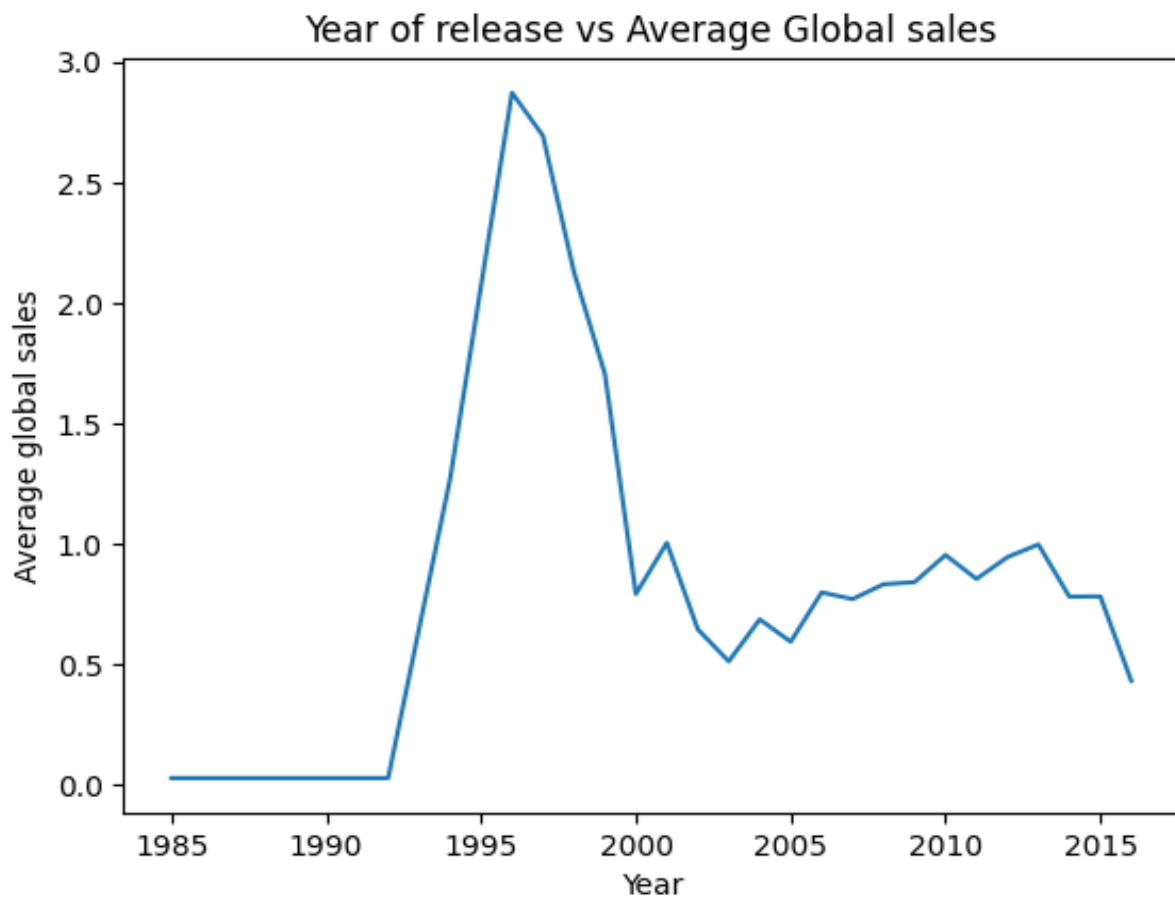


Fig 5: Line plot of year vs average global sales

Insights:

In the Year after 1990 there is a huge increase in the sales of game .And at 2000 the sales had dropped and it is now going in a balanced way.

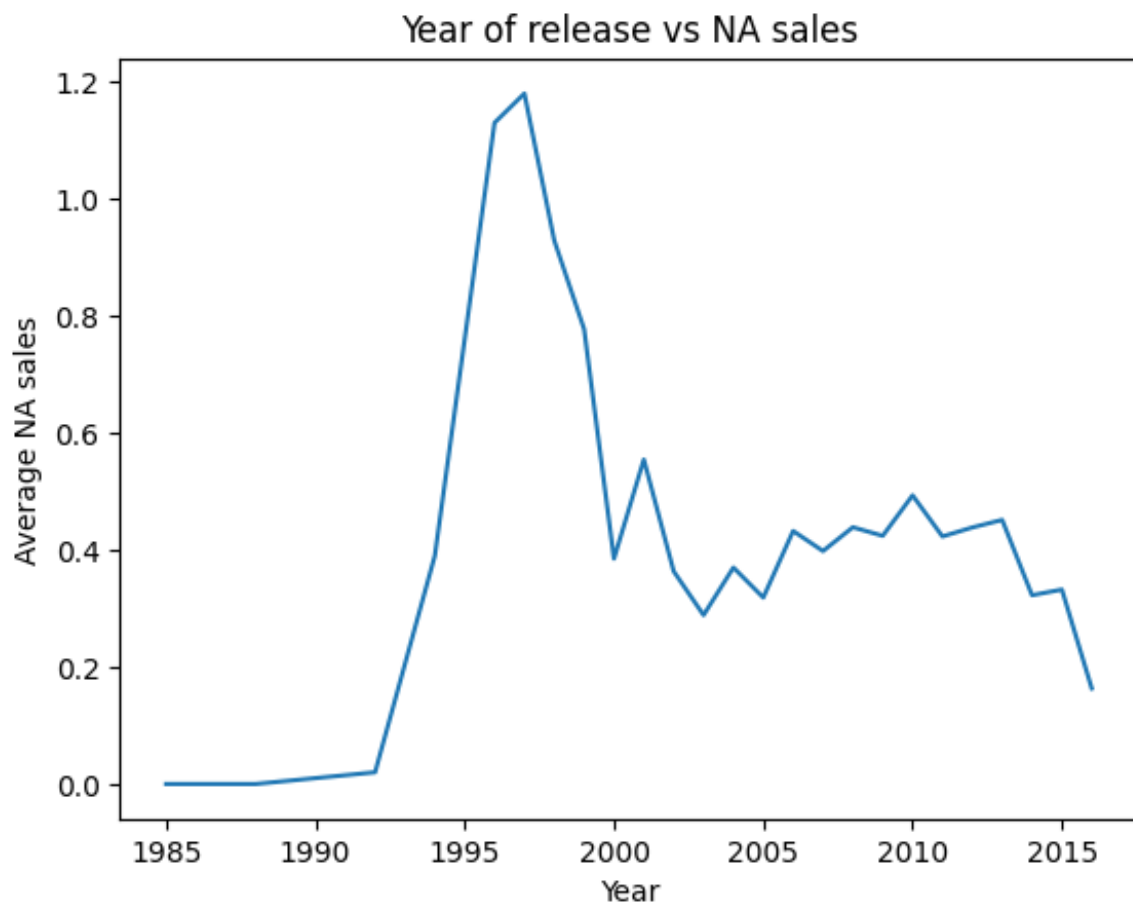


Fig 6: Line plot of year vs average NA sales

Insights:

Huge increase in sales after 1990 upto 2000 and then in a balanced way.

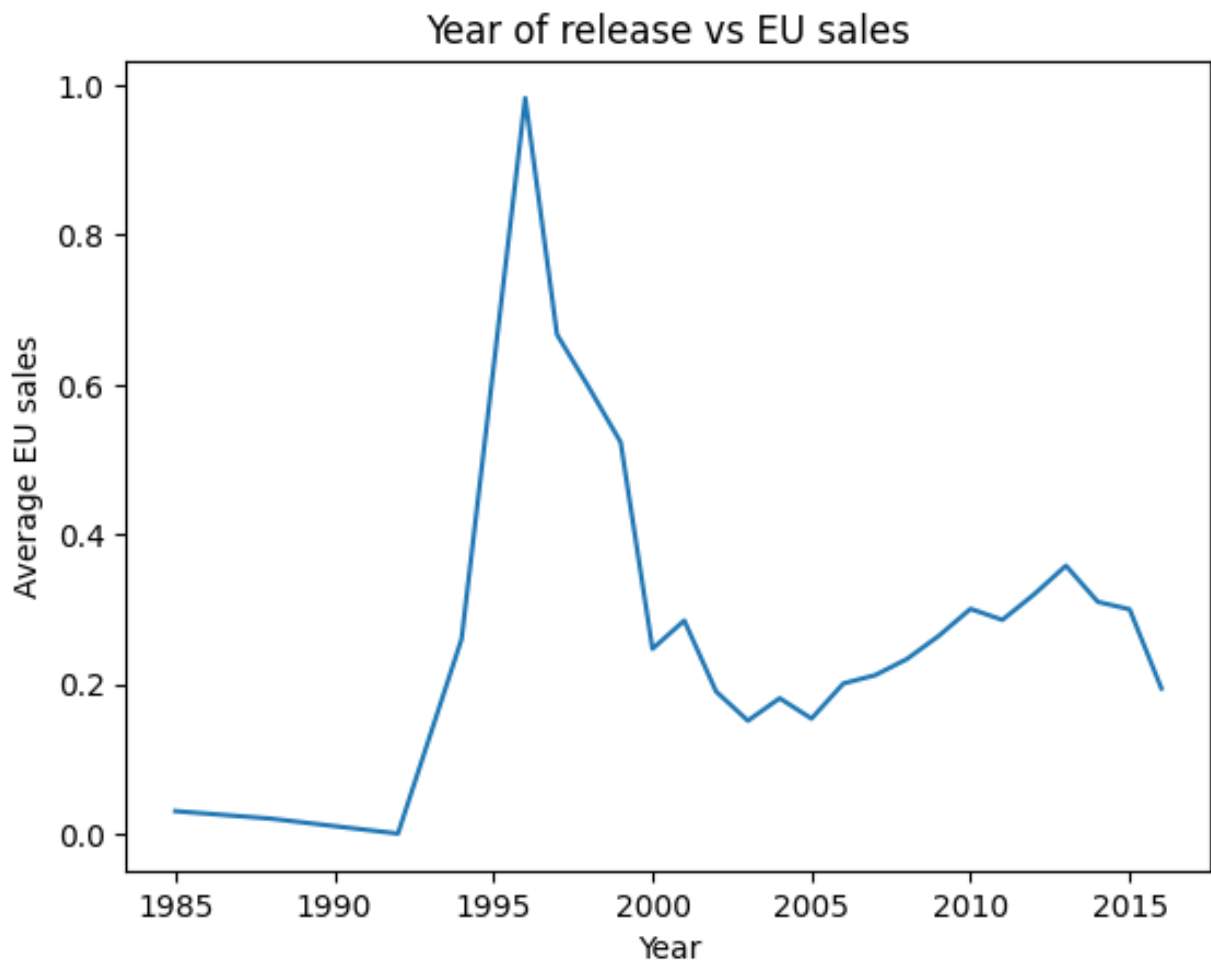
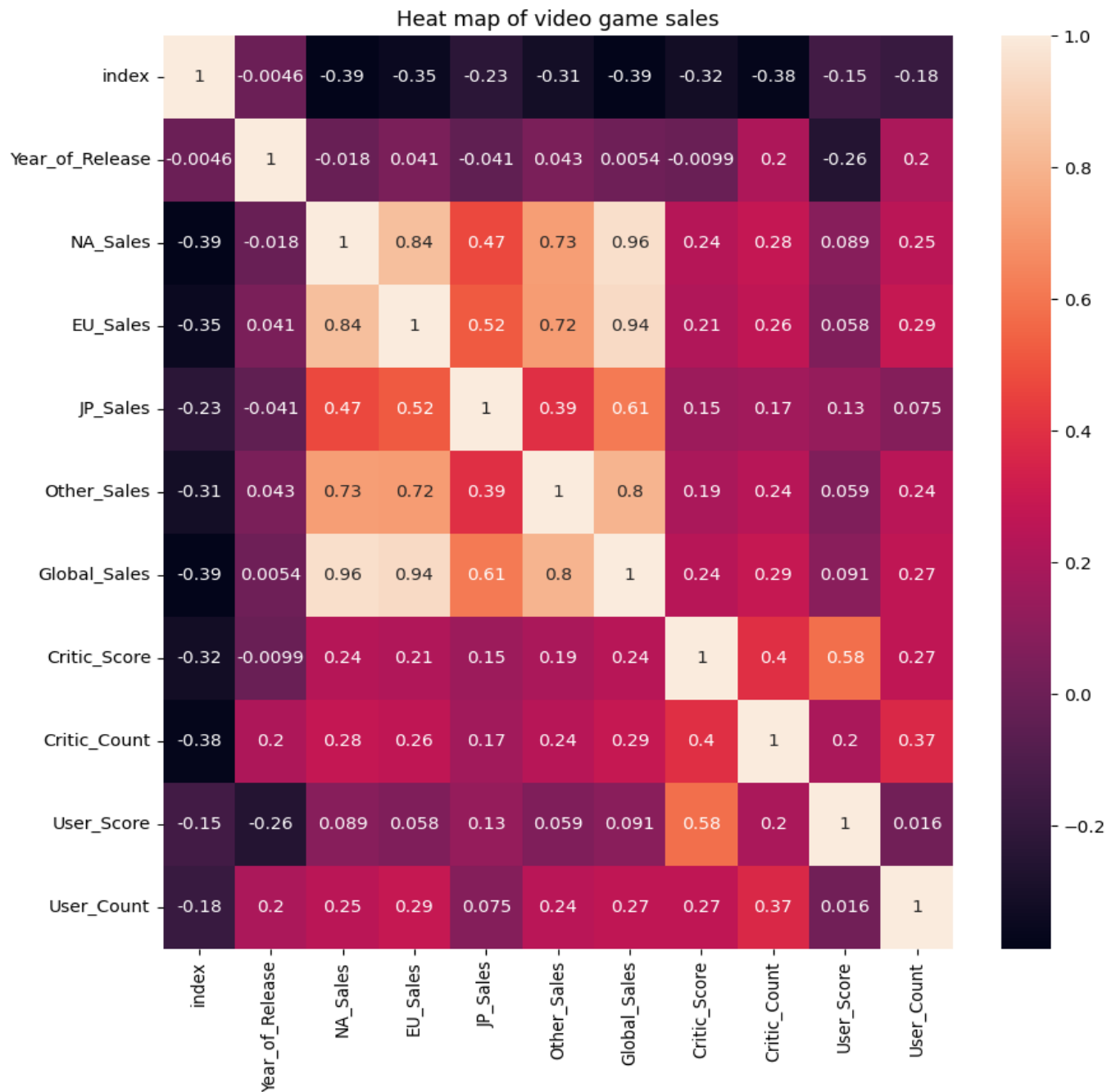


Fig7: Line plot of year vs average EU sales

Insights:

Huge increase after year 1990 upto 2000

6.HEAT MAP



Insights:

Jp sales and NA sales is negative correlation compared to year.

The overall global sale is also little bit positive that conveys that the sales are little bit down when compared to the year

CONCLUSION

1. Even if total no of games are high in the years 2008 and 2007 the sales are not high at that years

2. The Global sales are high at the year from 1990 upto 2000

These sales are same for the NA and EU sales also.

3. The maximum number of game are mainly suitable for Teenagers.

4. The game with high sales globally ,In North America and Europe is Wii sports published by Nintendo at the year 2006

5. The game with high sales in Japan is New super mario bros Published by Nintendo at the year 2006

6. The top 5 games which had highest sales around globally are Wii sports, Mario cart Wii, Wii sports resort, New super mario bros and Wii play.