Video Game Sales

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Question

- "What are the trends in video games sales across different platforms and genres from 2010 to 2020, and is there a correlation between critical acclaim (such as ratings) and commercial success?"
- Evolved by expanding and limiting the scope
- Video games relevancy
- Goal: To predict/estimate the factors that contribute to a video game's success the most and essentially creating a video game based off the results from the data

Getting the Data

- Factors in my data: Platforms, Genres, Sales Figures, Critic Scores/Count,
 User Scores/Count, Developer, and Age Rating
- 2 main factors are sales figures and Critic/User Scores
- Other factors are important and will be looked at
- Dataset is pulled from Kaggle, 11,563 unique values (aka games that were entered)

Data Wrangling

- Reduced dataset to remove null values
- Expanded scope to include all factors, and also limited it as well.
- Ex: Timeframe (2010-2020) and used specific factors

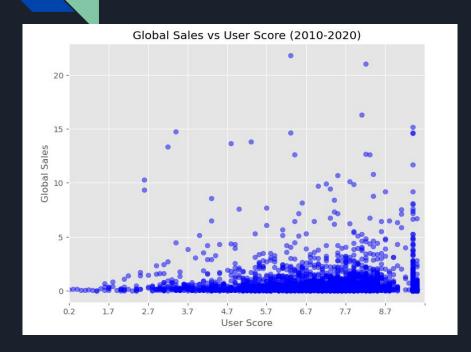
Name	Platform	Year of Release	Genre	Publisher	NA Sales	EU_Sales	JP_Sales	Other_Sales	Global_Sales	Critic_Score	Critic_Count	User_Score	User_Count	Developer	Ratin
ii Sports	Wii	2006	Sports	Nintendo	41.36	28.96	3.77	8.45	82.53	76	51		322	Nintendo	E
uper Mario Bros.	NES	1985	Platform	Nintendo	29.08	3.58	6.81	0.77	40.24						
Mario Kart Wii	Wii	2008	Racing	Nintendo	15.68	12.76	3.79	3.29	35.52	82	73	8.3		Nintendo	E
ii Sports Resort	Wii	2009	Sports	Nintendo	15.61	10.93	3.28	2.95	32.77		73		192	Nintendo	E
Pokemon Red/Pokemon Blue	GB	1996	Role-Playing	Nintendo	11.27	8.89	10.22		31.37						
Tetris	GB	1989	Puzzle	Nintendo	23.2	2.26	4.22	0.58	30.26						
New Super Mario Bros.	DS	2006	Platform	Nintendo	11.28	9.14	6.5	2.88	29.8	89	65	8.5	431	Nintendo	E
ii Play	Wii	2006	Misc	Nintendo	13.96	9.18	2.93	2.84	28.92	58	41	6.6	129	Nintendo	E
New Super Mario Bros. Wii		2009	Platform	Nintendo	14.44	6.94	4.7	2.24	28.32	87		8.4	594	Nintendo	E

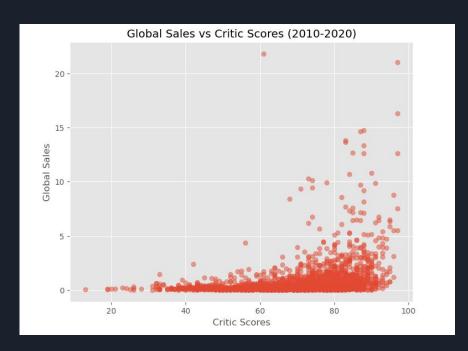
io]\$ awk -	F',' '{complete_r	ow = 1; fo	or (i=1; i<=NF; i++) { if	(\$i == ""	() {complet	e_row = 0;	break; } } i	f(complete_row	== 1) { print	\$0; } }' Vide	o_game_data.	csv head -	-n 10 column -s, -t	
Platform	Year of Release	Genre	Publisher	NA Sales	EU_Sales	JP_Sales	Other Sales	Global Sales	Critic_Score	Critic Count	User Score	User_Count	Developer	Rating
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DS	2005	Racing	Nintendo		7.47	4.13		23.21		64	8.6	464	Nintendo	
Wii	2007	Sports	Nintendo	8.92	8.03	3.6	2.15	22.7				146	Nintendo	
X360		Misc	Microsoft Game Studios		4.89	0.24	1.69	21.81	61		6.3	106	Good Science Studio	
	Platform Wii Wii DS Wii Wii DS Wii Wii DS Wii Wii DS	Platform Year_of_Release Wii 2008 Wii 2009 DS 2006 Wii 2009 DS 2006 Wii 2009 DS 2005 Wii 2007 Wii	Platform Year_of_Release Genre Wi1 2006 Sports Wi1 2008 Racing Wi1 2009 Sports DS 2006 Platform Wi1 2006 Misc Wi1 2009 Platform DS 2005 Racing Wi1 2007 Sports	Platform Year_of_Release Genre Publisher Wii 2006 Sports Nintendo Wii 2009 Racing Nintendo Wii 2006 Platform Nintendo Wii 2006 Misc Nintendo Wii 2009 Platform Nintendo DS 2005 Racing Nintendo Wii 2007 Sports Nintendo	Platform Year_of_Release Genre Publisher NA_Sales Wii 2006 Sports Nintendo 41.68 Wii 2008 Racing Nintendo 15.68 Wii 2009 Sports Nintendo 15.61 DS 2006 Platform Nintendo 13.96 Wii 2009 Platform Nintendo 14.44 DS 2005 Racing Nintendo 9.71 Wii 2007 Sports Nintendo 8.92	Platform Year of Release Genre Publisher NA_Sales EU_Sales Wii 2006 Sports Nintendo 15.68 12.76 Wii 2009 Sports Nintendo 15.61 10.93 DS 2006 Platform Nintendo 11.28 9.14 Wii 2006 Misc Nintendo 13.96 9.18 Wii 2009 Platform Nintendo 14.44 6.94 DS 2005 Racing Nintendo 9.71 7.47 Wii 2007 Sports Nintendo 8.92 8.03	Platform Year of Release Genre Publisher NA_Sales EU_Sales JP_Sales Wii 2006 Sports Nintendo 15.68 12.76 3.77 Wii 2009 Sports Nintendo 15.61 10.93 3.28 DS 2006 Platform Nintendo 15.61 10.93 3.28 Wii 2006 Misc Nintendo 13.96 9.14 6.5 Wii 2009 Platform Nintendo 14.44 6.94 4.7 DS 2005 Racing Nintendo 9.71 7.47 4.13 Wii 2007 Sports Nintendo 8.92 8.03 3.6	Platform Year of Release Genre Publisher NA_Sales EU_Sales JP_Sales Other_Sales Wii 2006 Sports Nintendo 41.36 22.96 3.77 8.45 Wii 2008 Racing Nintendo 15.68 12.76 3.79 3.29 Wii 2009 Sports Nintendo 15.61 10.93 3.28 2.95 DS 2006 Platform Nintendo 13.96 9.18 2.93 2.84 Wii 2009 Platform Nintendo 14.44 6.94 4.7 2.24 DS 2005 Racing Nintendo 9.71 7.47 4.13 1.9 Wii 2007 Sports Nintendo 8.92 8.03 3.6 2.15	Platform Year of Release Genre Publisher NA Sales EU Sales JP Sales Other Sales Global Sales Wii 2006 Racing Nintendo 41.36 28.96 3.77 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Sales Global_Sales Critic_Score Critic_Count Jest Score Wii 2006 Racing Nintendo 41.36 28.96 3.77 8.45 82.53 76 51 8.3 Wii 2009 Sports Nintendo 15.68 10.93 3.29 35.52 82 73 8.3 DS 2006 Platform Nintendo 15.61 10.93 3.28 2.95 32.77 80 73 8 Wii 2006 Misc Nintendo 13.96 9.14 6.5 2.88 29.8 89 65 65 66 Wii 2009 Platform Nintendo 14.94 6.94 4.7 2.24 28.92 87 80 8.4 DS 2005 Racing Nintendo 14.44 6.94 4.7 2.24 28.32 87 80 8.4 <td>Platform Year of Release Genre Publisher NA_Sales EU_Sales JP_Sales Offer Sales Global_Sales Critic_Score Critic_Count User_Score User_Count Wii 2006 Sports Nintendo 41.36 28.96 3.79 8.45 82.53 76 51 8.2 322 Wii 2009 Sports Nintendo 15.61 10.93 3.28 2.95 32.77 80 73 8.5 192 DS 2006 Platform Nintendo 11.96 9.14 6.5 2.88 29.8 89 65 8.5 431 Wii 2006 Misc Nintendo 13.96 9.18 2.93 2.84 29.92 58 41 6.6 12.9 Wii 2009 Platform Nintendo 14.94 6.94 4.7 2.24 28.32 87 80 8.4 594 DS 2005 Racing Nintendo 14.94</td> <td>Wii 2006 Sports Nintendo 41.36 28.96 3.77 8.45 82.53 76 51 8 322 Nintendo Wii 2008 Racing Nintendo 15.68 12.76 3.79 3.29 35.52 82 73 8.3 709 Nintendo DS 2006 Platform Nintendo 11.28 9.14 6.5 2.88 29.8 89 65 8.5 431 Nintendo Wii 2009 Platform Nintendo 13.96 9.18 2.93 2.84 28.92 58 41 6.6 129 Nintendo Wii 2009 Platform Nintendo 14.44 6.94 4.7 2.24 28.32 87 80 8.4 594 Nintendo DS 2005 Racing Nintendo 9.71 7.47 4.13 1.9 23.21 91 64 8.6 464 Nintendo Wii 2007 Sports Nintendo 8.92 8.03 3.6 2.15 22.7 80 63 7.7 146 Nintendo</td>	Platform Year of Release Genre Publisher NA_Sales EU_Sales JP_Sales Offer Sales Global_Sales Critic_Score Critic_Count User_Score User_Count Wii 2006 Sports Nintendo 41.36 28.96 3.79 8.45 82.53 76 51 8.2 322 Wii 2009 Sports Nintendo 15.61 10.93 3.28 2.95 32.77 80 73 8.5 192 DS 2006 Platform Nintendo 11.96 9.14 6.5 2.88 29.8 89 65 8.5 431 Wii 2006 Misc Nintendo 13.96 9.18 2.93 2.84 29.92 58 41 6.6 12.9 Wii 2009 Platform Nintendo 14.94 6.94 4.7 2.24 28.32 87 80 8.4 594 DS 2005 Racing Nintendo 14.94	Wii 2006 Sports Nintendo 41.36 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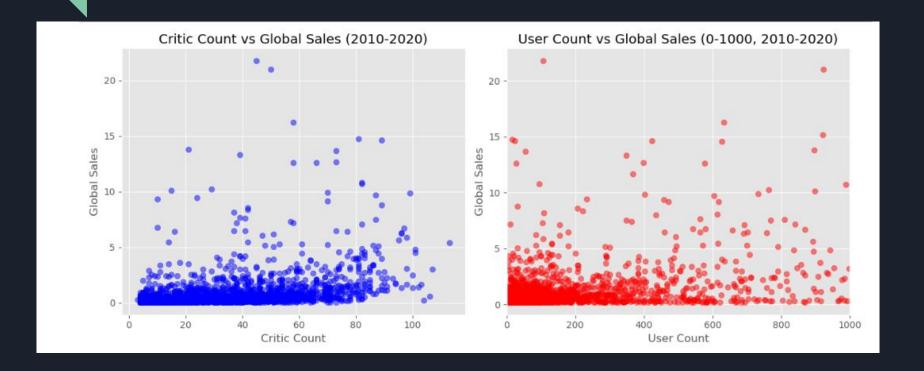
Exploring the Data

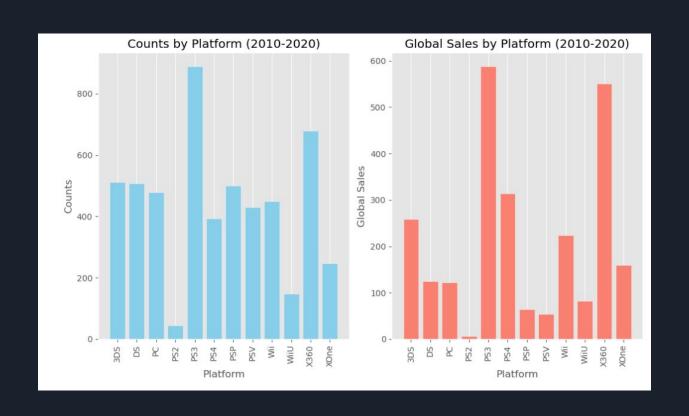
- Data from dataset is from MetaCritic
- Reviews were made for the most popular developers (Ex: Nintendo, Ubisoft, EA, etc.)
- Hypothesis was the higher the review the more money it would make globally in sales
- Reviews were based off this index:

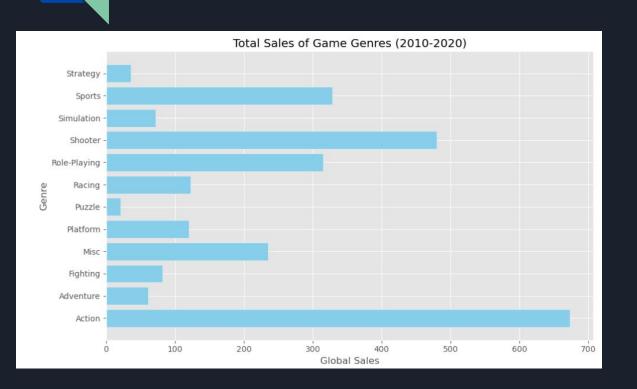
	Score index[18]				
Indication \$	Video games ♦	Films/television/music 4			
Universal acclaim	90–100	81–100			
Generally favorable	75–89	61–80			
Mixed or average	50–74	40–60			
Generally unfavorable	20–49	20–39			
Overwhelming dislike		0–19			



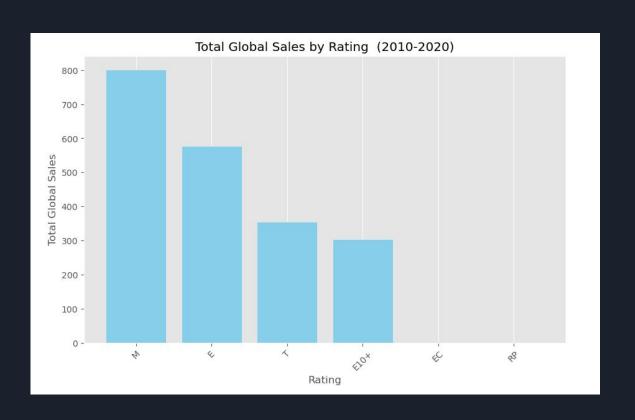








Genre	Count
Action	1496
Misc	576
Sports	575
Role-Playing	570
Adventure	563
Shooter	410
Racing	237
Simulation	218
Fighting	199
Strategy	170
Platform	153
Puzzle	114



Conclusion

- Hypothesis
- Quality and Reviews
- The ideal video game
- Future





