Video Game Market and Ratings Analysis

Executive Summary

This project analyzes video game industry data, focusing on **critic/user scores** and **sales trends** for the top 400 video games released since 1977. By integrating review scores and sales, we explore whether there has been a "golden age" of high-quality video games and identify business patterns driving the industry's explosive growth. The analysis is designed for both recruiters and technical reviewers, combining SQL querying skills, data aggregation, and business insight.

1. Business Context

The global video game industry is projected to exceed $300 billion in value by 2027. Major publishers seek to engineer the next blockbuster hit, but the key question remains: **Are games truly getting better, or has their golden age already passed?** Stakeholders want to know which years, platforms, and titles performed best both in terms of critical acclaim and commercial success, enabling smarter future investments in content and technology.

2. Data Overview

Two main tables, capped at 400 top games, provide:

- **game_sales**: Game name, platform, publisher, developer, worldwide sales (millions), and release year.

- **reviews**: Game name, Metacritic critic/user scores.

- Supplementary summary tables show average critic (`critics_avg_year_rating`) and user (`users_avg_year_rating`) scores per year.

This rich dataset enables multi-faceted trend analysis.

3. Methodology

- **Data Exploration**: Used SQL to identify top-selling games, highest-rated years by critics/users, and compare critical and commercial hits.

- **Aggregations**: Calculated average scores and sales trends per year, grouped by platforms and publishers.

- **Comparative Review**: Merged sales and review tables to examine whether the most beloved games are also the best-sellers.

- **Visual Display**: (Optional) Generated tables and charts to illustrate top games, golden years, and rating trends.

4. Key Findings

A. Top 10 Best-Selling Games

Rank	Game	Platform	Publisher	Sales (M)	Year
1	Wii Sports for Wii	Wii	Nintendo	82.90	2006
2	Super Mario Bros. for NES	NES	Nintendo	40.24	1985
3	Counter-Strike: Global Offensive PC	PC	Valve	40.00	2012
4	Mario Kart Wii for Wii	Wii	Nintendo	37.32	2008
5	PLAYERUNKNOWN'S BATTLEGROUNDS for PC	PC	PUBG Corp.	36.60	2017
6	Minecraft for PC	PC	Mojang	33.15	2010
7	Wii Sports Resort for Wii	Wii	Nintendo	33.13	2009
8	Pokémon Red/Green/Blue for GB	GB	Nintendo	31.38	1998
9	New Super Mario Bros. for DS	DS	Nintendo	30.80	2006
10	New Super Mario Bros. Wii for Wii	Wii	Nintendo	30.30	2009

- **Key Insight:** Nintendo dominates with 7 out of top 10 titles, especially from the Wii era.

B. Golden Age of Video Games — Critic and User Scores by Year

Year	#Games	Avg Critic Score	Avg User Score	Score Gap
1997	8	7.93	9.50	1.57
1998	10	9.32	9.40	0.08
2004	11	9.03	8.55	0.48
2008	20	8.63	9.03	0.40
2009	20	8.55	9.18	0.63
2010	23	8.41	9.24	0.83
2011	26	8.76	—	—
2016	13	8.67	—	—
2017	13	8.62	—	—

- **Peak Years:** 1998 and 2004-2010 saw the highest average critic and user scores, with 1998 being nearly unanimous between critics/users.

- **Critic-User Gap:** Some years (e.g., 1997, 2010) show notable differences, but often the audience and critics agree on the best years.

5. Business & Technical Impact

Business Impact:

- Identifies the platforms, publishers, and years most associated with hit games—informing portfolio and investment decisions.

- Shows the strong historical influence of beloved Nintendo franchises on both critical acclaim and sales metrics.

- Reveals that the industry's most productive "golden years" (late 1990s, late 2000s) remain major cultural reference points.

Technical Impact:

- Demonstrates advanced SQL query construction for aggregation, ranking, and trend analysis.

- Integrates data from multiple tables (via JOINs, aggregations) in a normalized schema.

- Proves ability to quickly extract business value from large, real-world gaming datasets.

6. Recommendations

- For publishers: Study the formula of success from "golden era" titles; revive or refresh dormant IPs from peak years.

- For investors: Focus attention on platforms and developers with proven, repeatable hit production records.

- For analysts: Further segment data by genre, console generation, or developer to refine insights.

- For future work: Use larger, non-capped datasets to validate trends at scale and across indie titles.

7. Conclusion

This project delivers a thorough review of the video game industry's best sellers and beloved years, bridging the gap between review scores and market performance. Skills demonstrated—SQL querying, data integration, and insightful business storytelling—make this work valuable for both an analytics portfolio and real-world decision-making.