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# VIDEO GAME SALES ANALYSIS

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PRESENTED BY  
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# INTRODUCTIONS

This report presents an in-depth analysis of video game sales data from the 'GAMES SALES-2024' dataset. The objective is to uncover patterns and insights into sales performance, genre popularity, regional sales distribution, and the impact of critic scores on total sales.

# TOOL USED

- PYTHON: FOR DATA ANALYSIS AND VISUALIZATION.
- JUPYTER NOTEBOOK: TO EXECUTE AND VISUALIZE THE CODE OUTPUTS.

## LIBRARIES:

- PANDAS: DATA CLEANING, MANIPULATION, AND AGGREGATION.
- NUMPY: NUMERICAL COMPUTATIONS AND HANDLING MISSING VALUES.
- MATPLOTLIB: BASIC PLOTTING AND VISUALIZATIONS.
- SEABORN: ADVANCED VISUALIZATIONS WITH BETTER AESTHETICS.
- DATETIME: HANDLING AND TRANSFORMING DATE AND TIME DATA.

# DATA CLEANING

The dataset was cleaned using the following steps:

- Dropped the 'img' column as it was irrelevant for analysis.
- Converted 'release\_date' and 'last\_update' to datetime format.
- Filled missing 'critic\_score' values with the average score.
- Dropped rows with remaining NaN values.
- Removed duplicate entries.

# VISUALIZATIONS

- 1: Top 10 Games by Total Sales
- 2: Sales Distribution by Genre
- 3: Average Critic Score by Console
- 4: Sales Trend Over Time
- 5: Sales Breakdown by Region and Genre
- 6: Top Publishers and Developers by Sales
- 7: Correlation Analysis: Critic Scores vs. Sales
- 8: Genre Popularity Over Time