

Project 01 Fully Explore by Python

Objective for PS4 Games Sales Analysis:

The primary goal of this analysis is to explore and extract valuable insights from the sales data of PS4 games. This includes understanding global and regional sales trends, identifying top-performing games, genres, and publishers, and visualizing key patterns in the data. Specifically, the objectives are:

1. Identify the top 5 best-selling games globally.
2. Compare regional sales (North America, Europe, Japan, and Rest of the World) for each genre to understand market preferences.
3. Find the publisher with the highest total global sales.
4. Analyze the year with the highest number of game releases.
5. Determine the most popular genre globally based on total sales.
6. Identify the game with the highest sales in Japan compared to other regions.
7. Examine if there is a correlation between sales in North America and Europe.
8. Compare the sales growth trend for "Action" and "Shooter" genres over the years.
9. Identify the top publisher in terms of sales for each region.
10. Visualize the distribution of global sales to identify patterns and outliers.
11. Create visualizations to better understand and communicate data insights:
 - Distribution of global sales (histogram).
 - Total sales comparison for regions (bar chart).
 - Share of total global sales by genre (pie chart).
 - Trend of global sales over the years (line chart).
 - Top 10 best-selling games globally (horizontal bar chart).
 - Correlation between regional sales (heatmap).
 - Contribution of each genre to regional sales (stacked bar chart).

These objectives provide a roadmap to explore the data, extract actionable insights, and present the findings effectively. This comprehensive analysis helps understand market dynamics, predict future trends, and devise effective strategies for game development and marketing. The insights derived from this project can guide publishers and developers in making data-driven decisions.

What Did You Learn from Analyzing the Data?

Please write about the following answer after complete this project:

1. What insights or patterns did you discover during your analysis?
2. Did anything in the data surprise you? If yes, what was it?
3. What challenges did you face, and how did you overcome them?
4. How do you think data analysis can help in making real-world decisions?
5. What skills or knowledge do you feel you have improved during this project?"