

Tableau Project Report

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1. Introduction

This project is a hands-on exploration of Tableau, focusing on data visualization techniques. The analysis is based on the 'Video Game Sales' dataset retrieved from Kaggle (<https://www.kaggle.com/datasets/gregorut/videogamesales/>), with guidance from the tutorial 'How to Create Sales Dashboard in Tableau in 30 minutes' on YouTube (<https://www.youtube.com/watch?v=sWWLMb1Dcy4&t=1604s>).

2. Scenario and Questions

The dataset provides insights into game sales across different dimensions such as year, genre, publisher, and regions. The primary business goal is to comprehend the trend in game sales from 1980 to the present. The key questions addressed are:

- **Genre Trend:** Examining the evolution of game genres over time.
- **Sales by Zones:** Analysing sales trends across different regions.
- **Game Trends:** Identifying trends in specific games.
- **Platform Trends:** Understanding the popularity of gaming platforms.
- **Publisher Trends:** Investigating the performance of game publishers.

3. Tableau Mastery: Techniques and Notes

Task:

In this section, I will outline the key Tableau techniques employed during the project, including the creation of various charts and text sheets, as well as the development of parameters for effective data organization.

Charts Created:

1. **Total Sales by Genre:**
 - Chart Type: Bar Chart
 - Purpose: Visualizing the overall sales distribution across different game genres.
2. **Sales by Years and Genre:**
 - Chart Type: Area Chart
 - Purpose: Analysing sales trends over the years within each genre.
3. **Top 10 Names by Sales:**
 - Chart Type: Horizontal Bar Chart
 - Purpose: Identifying the top-performing games based on sales.
4. **Top 10 Platforms by Sales:**
 - Chart Type: Bubble Chart
 - Purpose: Highlighting the top gaming platforms based on sales.
5. **Top 10 Publishers by Sales:**
 - Chart Type: Area Chart
 - Purpose: Visualizing the top publishers in terms of game sales.

Text Sheets Created:

1. **Total Names in the Dataset:**
 - Purpose: Displaying the total number of unique game names in the dataset.
2. **Total Platforms in the Dataset:**
 - Purpose: Showing the total number of unique gaming platforms in the dataset.
3. **Total Publishers in the Dataset:**
 - Purpose: Indicating the total number of unique game publishers in the dataset.
4. **Total Genres in the Dataset:**
 - Purpose: Highlighting the total number of unique game genres in the dataset.

Parameters Created:

1. **Zone Sales:**
 - Purpose: Organizing data based on sales zones (EU, Global, JP, NA, Other).
 - Calculated Field Code:

```
CASE [Zone sales]
WHEN "EU Sales" THEN [EU Sales]
WHEN "Global Sales" THEN [Global Sales]
WHEN "JP Sales" THEN [JP Sales]
WHEN "NA Sales" THEN [NA Sales]
WHEN "Other Sales" THEN [Other Sales]
END
```

2. **Study Period:**
 - Purpose: Controlling the analysis period by creating a start date and end date.
 - Calculated Field Code:

```
IF [Year] >= [Start date] AND [Year] <= [End date] THEN 1
ELSE 0
END
```

- This field is converted to a dimension, added to 'Filters,' and set to select only values where the result is 1.

4. Findings from Data Analysis and Insights

1. Genre Trend:

Examining the evolution of game genres over time reveals that "Action" maintains consistent popularity across the years. Interestingly, in Japan, "Role-Playing Games" emerge as the most favoured genre, demonstrating a unique preference compared to global trends.

2. Sales by Zones:

Sales trends across different regions indicate a distinctive pattern in Japan. Remarkably, Japanese sales show two peaks, notably in 1996 and 2006. While all other regions experienced continuous growth until 2008, reaching a peak around that time, Japanese sales demonstrated a different trajectory, declining after 2008.

3. Game Trends:

Identifying trends in specific games highlights the temporal popularity of iconic titles:

- In the 80s, "Super Mario Bros." dominated the gaming landscape.
- The 90s saw significant success for "Tetris" and "Pokemon."
- The 2000s marked the era of "Wii Sports," achieving massive global sales.
- Since 2010, "Grand Theft Auto" has consistently captured a large audience.

4. Platform Trends:

Understanding the popularity of gaming platforms reveals shifting market shares:

- In the 80s, the majority belonged to NES.
- The 90s saw a rise in popularity for platforms like GB (Game Boy) and PC.
- Platforms such as Wii, X360, and PS3 shared the market since the 2000s.

5. Publisher Trends:

Investigating the performance of game publishers showcases a dynamic landscape:

- In the 80s, Nintendo dominated the market.
- Since the 90s, other publishers have gained prominence, with Sony Computer Entertainment, Activision, and Electronic Arts now sharing the sales landscape in a highly competitive environment.