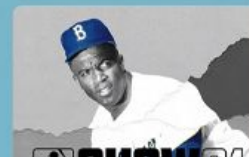


# Game Sales Analysis



Adeliia Salieva



# Data Set and Variables

Data set is about Video Game Sales.

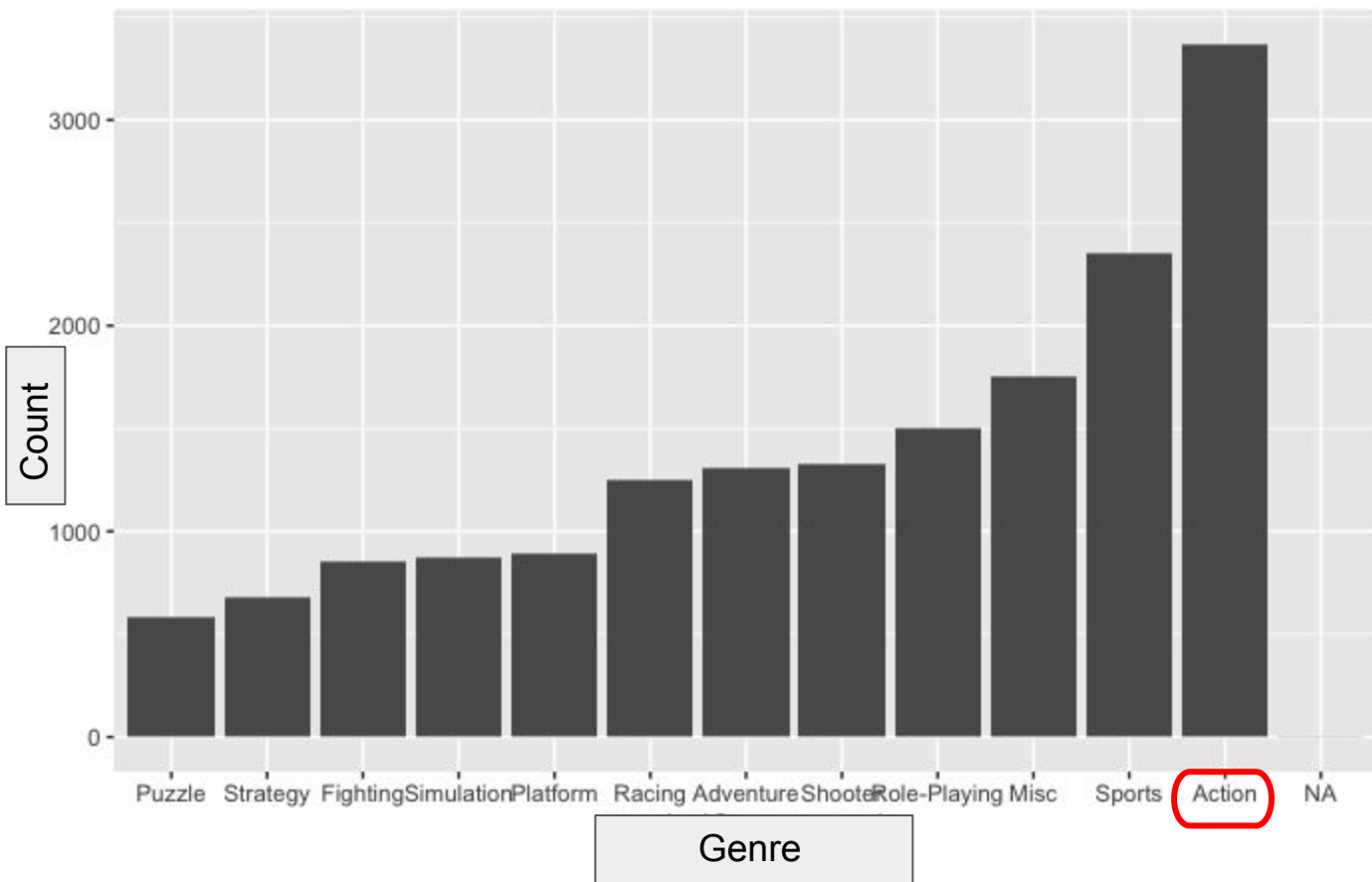
There are 16,719 observations:

- Each observation is Video Game Sales from Vgchartz and corresponding ratings from Metacritic.

There are 16 variables. In this analysis we focus on the following ones:

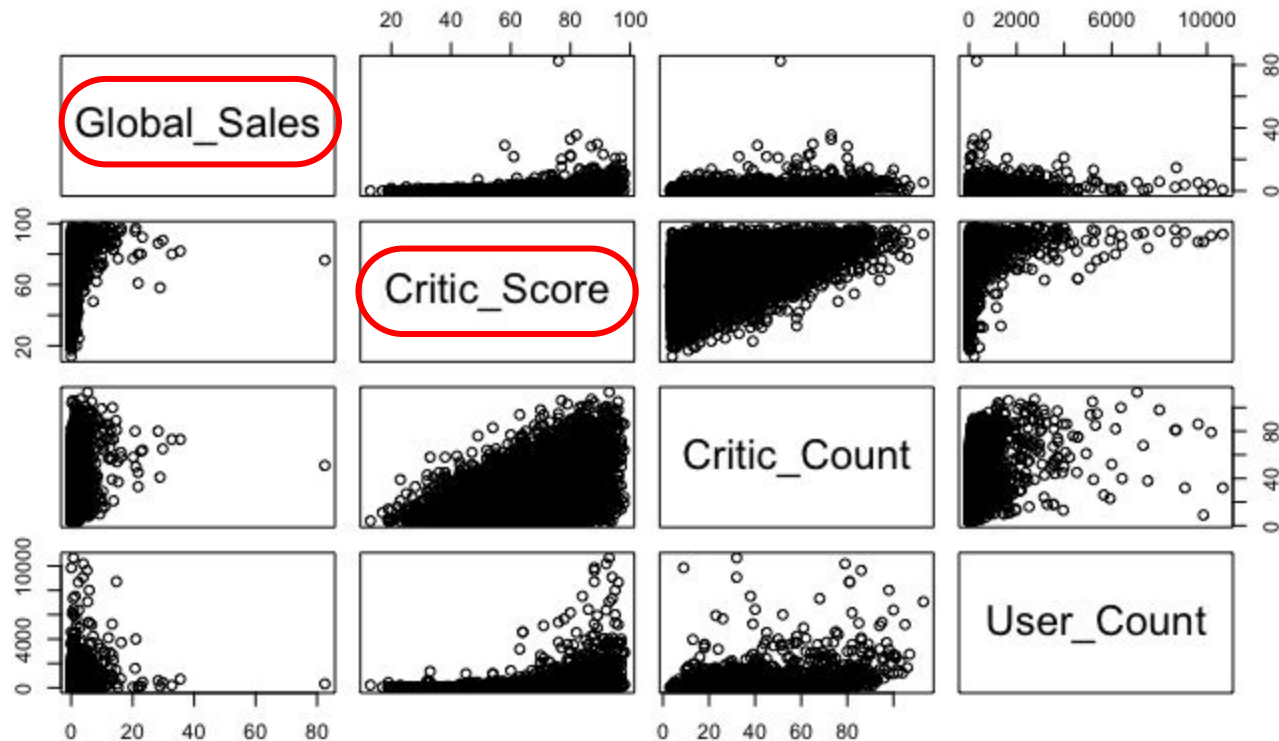
- **Genre** - games' category (Ex: Action, Sports, Puzzle etc.)
- **Global Sales** - total sales in the world (in millions of units)
- **Critic Score** - aggregate score compiled by Metacritic staff (numeric: 0-100)

# Exploratory analysis: Categorical variables



**Note:**  
Most number of games  
are in **Action Genre**

# Exploratory analysis: Quantitative variables



**Note:**

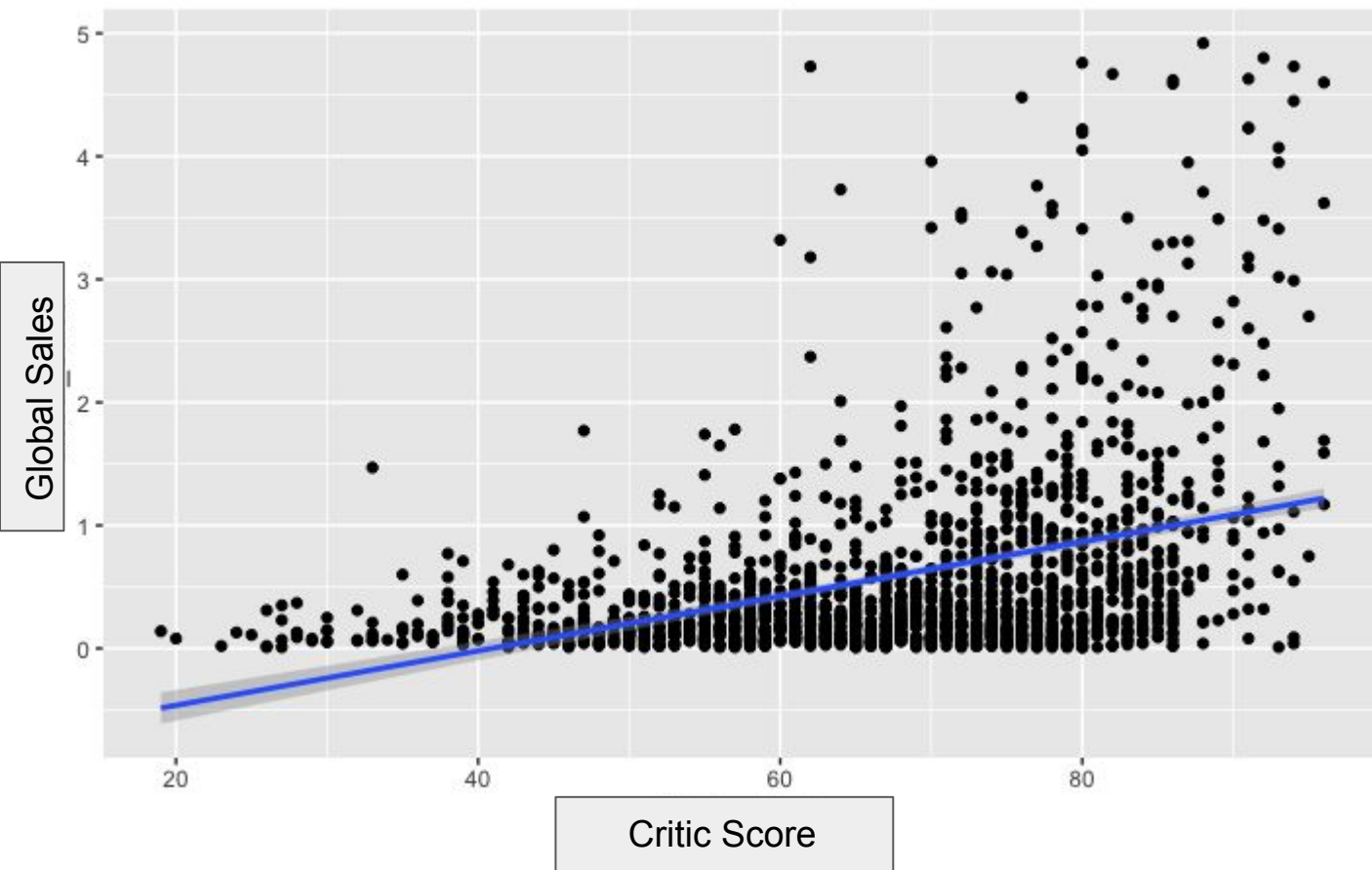
Global Sales vs Critics Score

# Hypothesis 1

**Null:** There **is no correlation** between Global Sales and Critic Score in Action Genre

**Alternative:** There **is correlation** between Global Sales and Critic Score in Action Genre

# Global Sales vs Critics Score in Action Genre



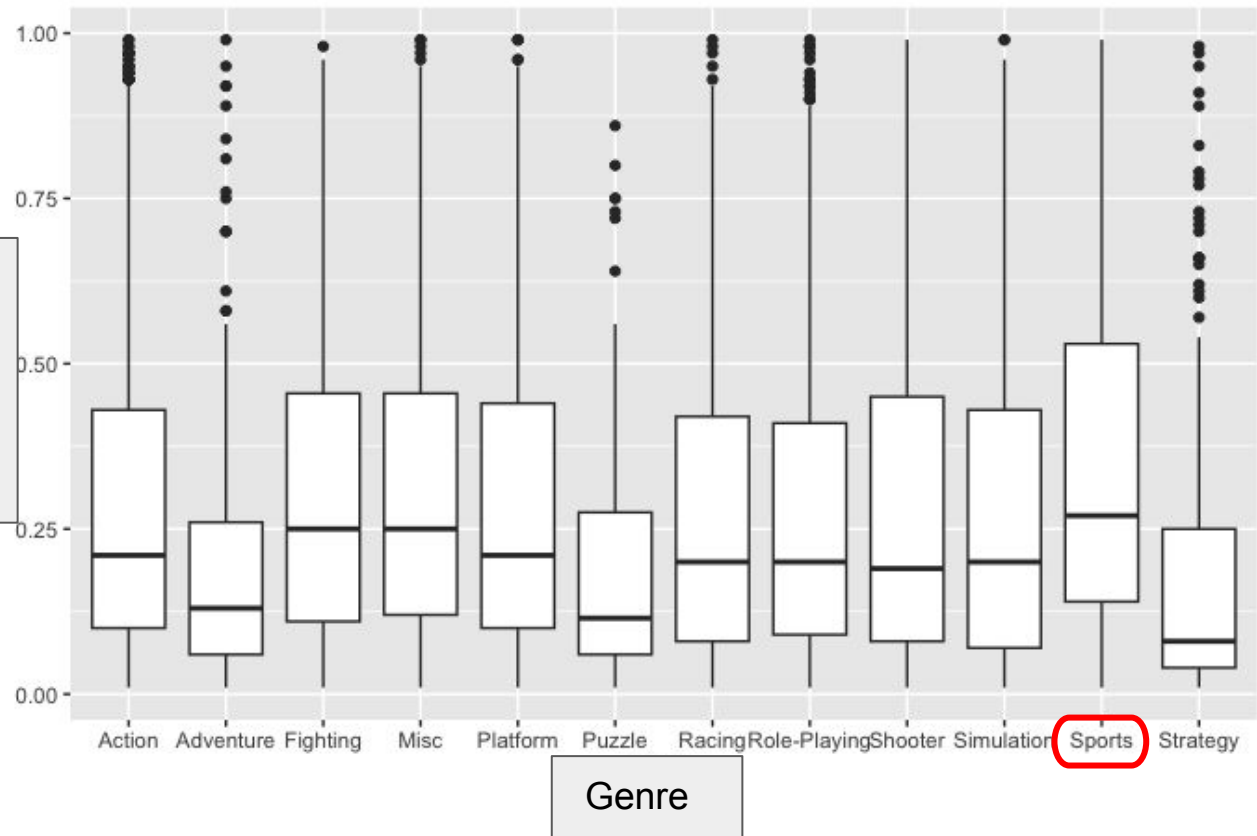
## Correlations:

- Pearson: 0.23
- Spearman: 0.38

## Linear regression:

- P-value:  $2.2e-16 < 0.05$
- R-squared: 0.06
- Residual standard error: 1.7

# Global Sales between Genres



**Note:**

**Sports Genre** seems to have the largest average in **Global Sales**

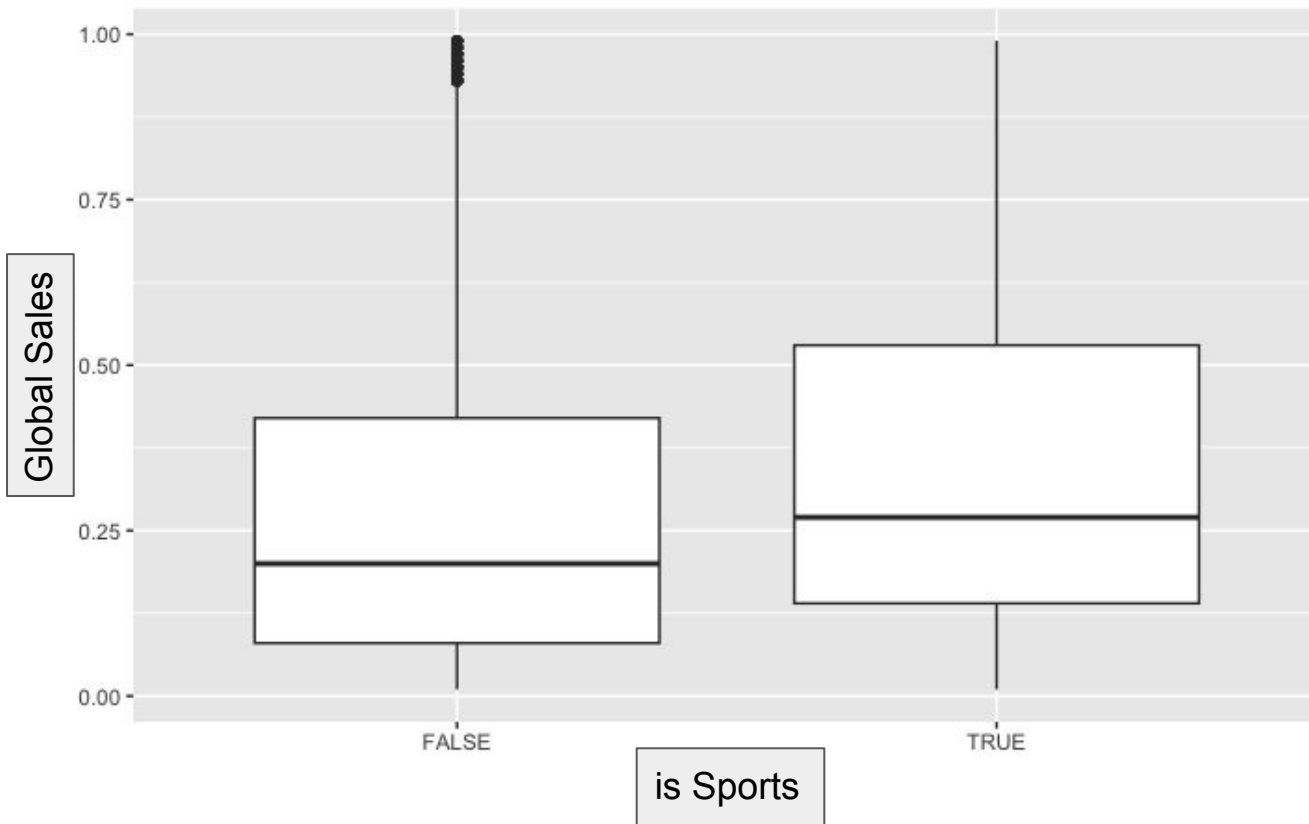
# Hypothesis 2

**Null:** There **is no difference in means** of Global Sales between Sports Genre and Other Genres

**Alternative:** There **is a difference in means** of Global Sales between Sports Genre and Other Genres



# T-test: Sports vs Other Genres Global Sales



## T-test:

- P-value:  $5.314e-12 < 0.05$
- Mean in Sports Genre: 0.34
- Mean in Other Genres: 0.27
- 95 percent confidence interval: -0.08 -0.05

# Conclusions

1. There **is a positive correlation** between Global Sales and Critic Score. But **not a strong** one. Linear formula **is not very good** at predicting Global Sales based on Critic Score.
2. Sports Genre has the **larger average in Global Sales** compared to Other Genres.

