

# Using Data to Predict Upcoming Popular Video Game Releases

A Practice Case Study by Alysha Kim

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# Agenda

1. Introduction
2. Project Overview and Goals
3. Data Analysis
4. Recommendation
5. Actionable Steps
6. Comparing the Predicted Results to Reality



# Introduction





# Introduction

- This Capstone Project was completed as part of the [Google Data Analytics Professional Certificate by coursera](#)
- The purpose is to use the skills acquired from the Data Analytics course to gain practice experience in analyzing real-life data
- I chose to explore a personal interest of mine: Video Games
- **The Problem Statement is a hypothetical scenario created for the purpose of this practice project**



# **Project Overview and Goals**



# Problem Statement

A merchandising company wants to collaborate with a video game company to create merchandise for a future video game release.

They want the upcoming video game they create merchandise for to be popular and well-received in North America and Europe, as this is where their business is based.





## Business Use Case

- Which **gaming developers** have sold the most number of game units?
- Which **associated platforms** have the most number of game units sold?
- Which gaming developers have the **highest average critic scores**?
- Which **ESRB Rating** has sold the most number of game units?
- Which **Genres** have sold the most number of game units?

# Goal

To analyze video game release data and identify potential criteria that would comprise an upcoming video game release that is predicted to perform well and be received positively





# Data and Analysis

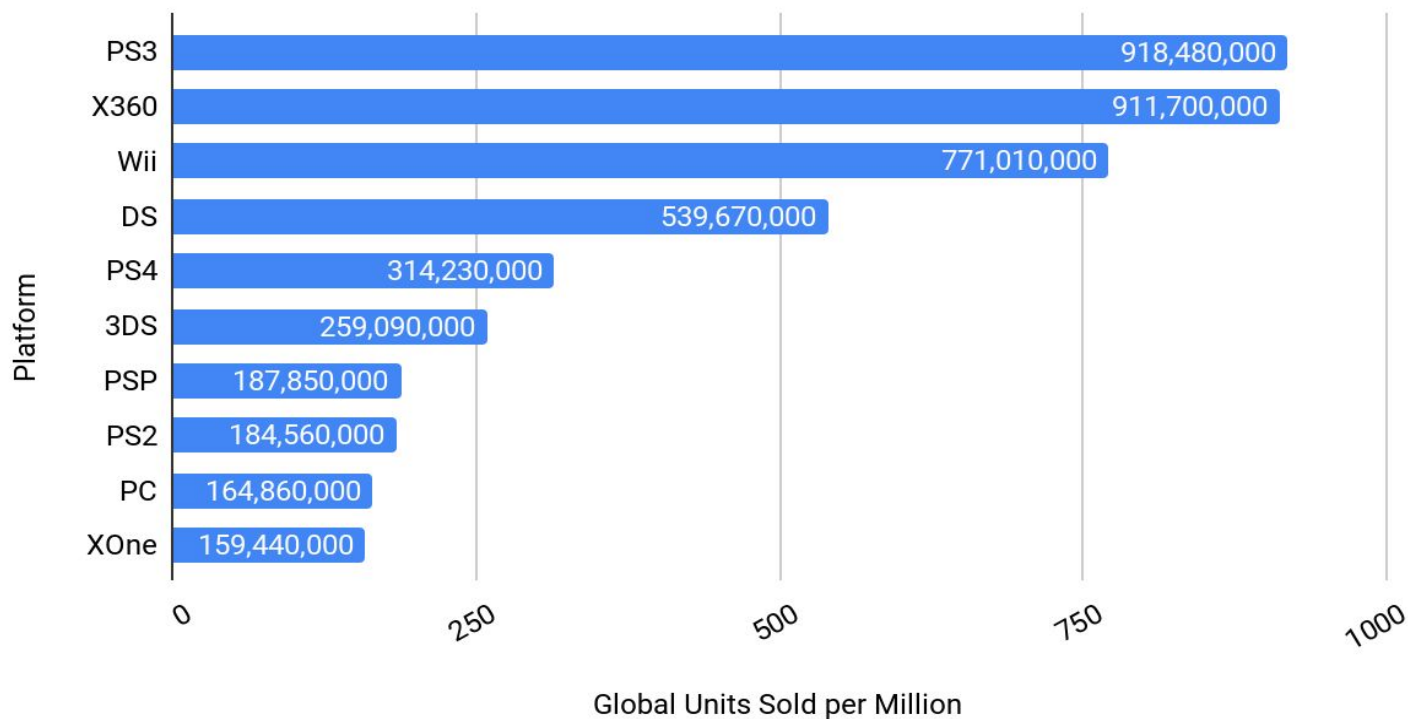




# Dataset

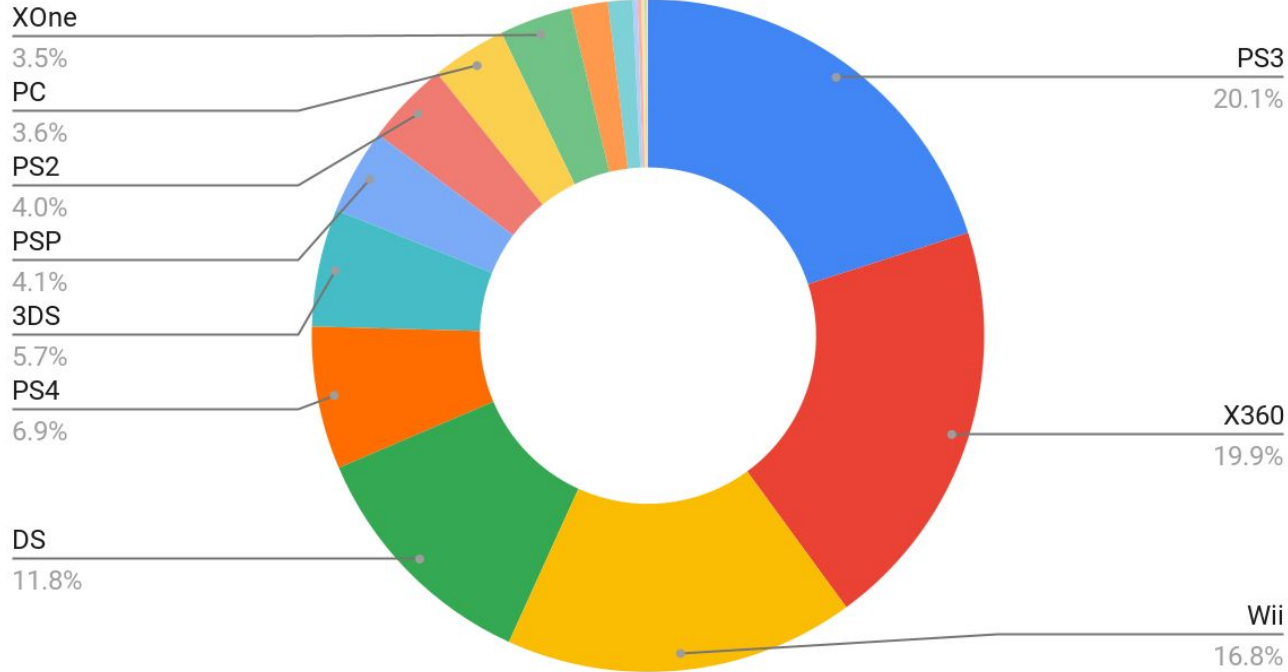
- The source of the data used for this analysis is from [SID\\_TWR on Kaggle](#)
  - Using outdated third-party data for practice purposes
- Full dataset includes releases from 1980 to 2017
- This analysis used a subset of data: 2007 to 2017
- Data does not include free games or mobile games

## Top 10 Global Units Sold per Platform from 2007 to 2017



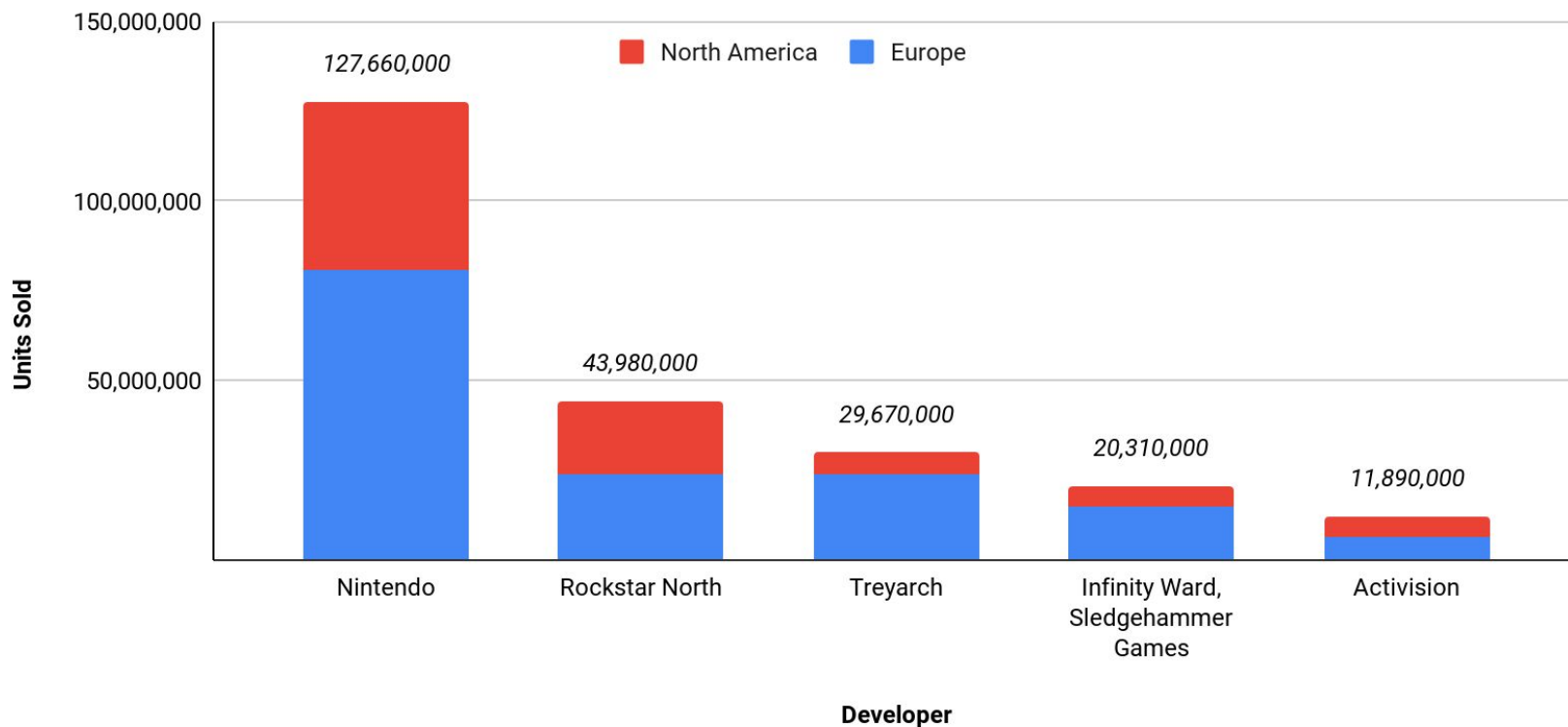
Video Games for the PS3, XBox 360, Wii and DS sold the most Global Units from 2007 to 2017

## Global Units Sold per Associated Platform from 2007 to 2017



The **associated platform cannot be used** to determine criteria for popular future release, as video games are no longer being created to run on most of these older platforms

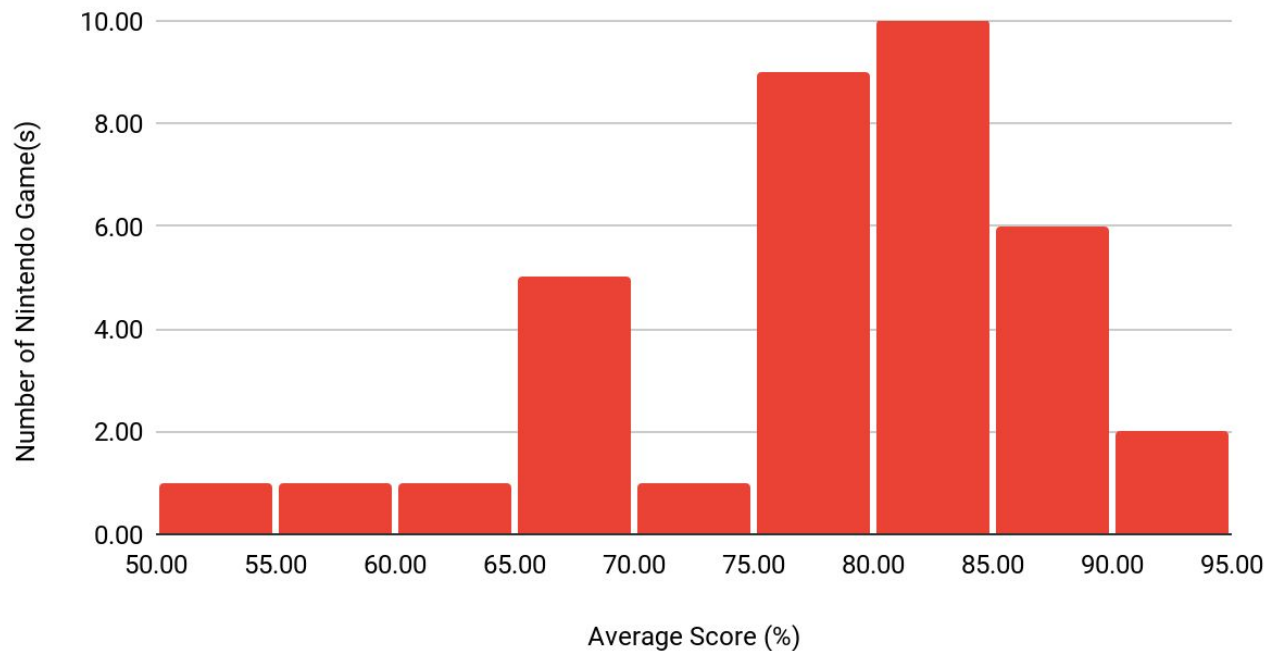
## Total Video Game Units Sold in both North America and Europe from 2007 to 2017



**Nintendo** is the leading video game developer.

For the 13 popular releases in North America and Europe included in the subset of data, it averages to 9.8 million units sold per video game release

## Average Score for Nintendo Games from 2007 to 2017



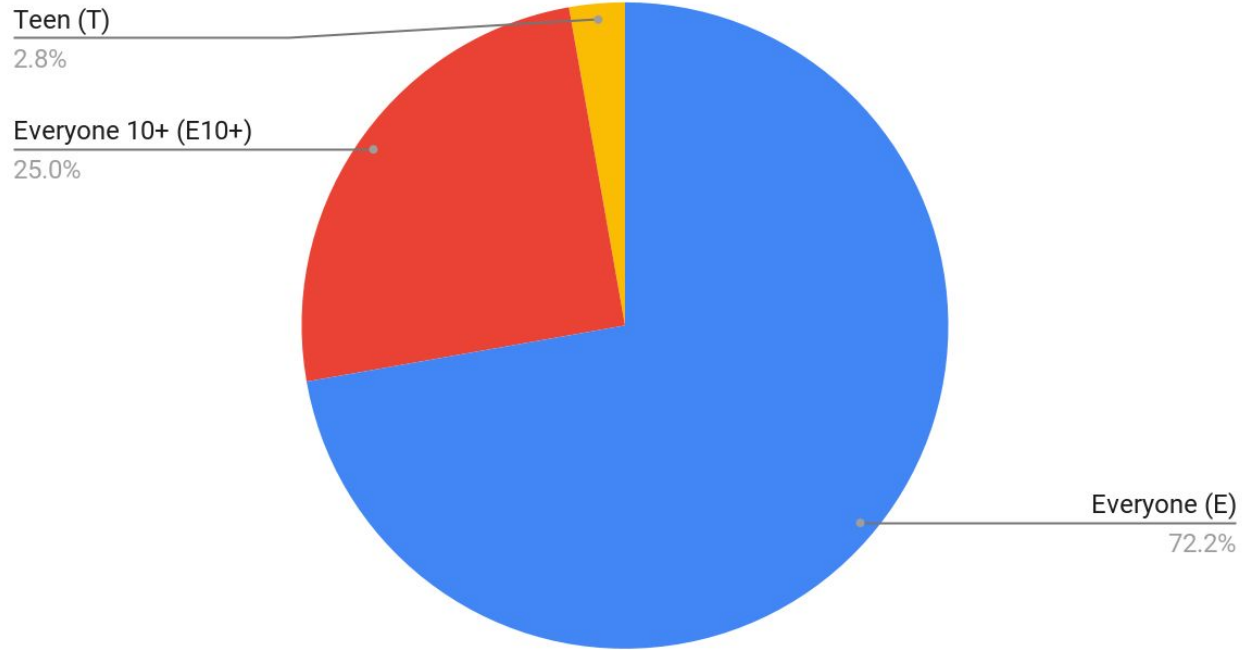
All Nintendo games released from 2007 to 2017 scored above 50% on Metacritic



Half of the Nintendo games released from 2007 to 2017 scored above 80% on Metacritic

Nintendo games with a score of 80% or more account for 66.04% of the Total Units Sold in NA and EU

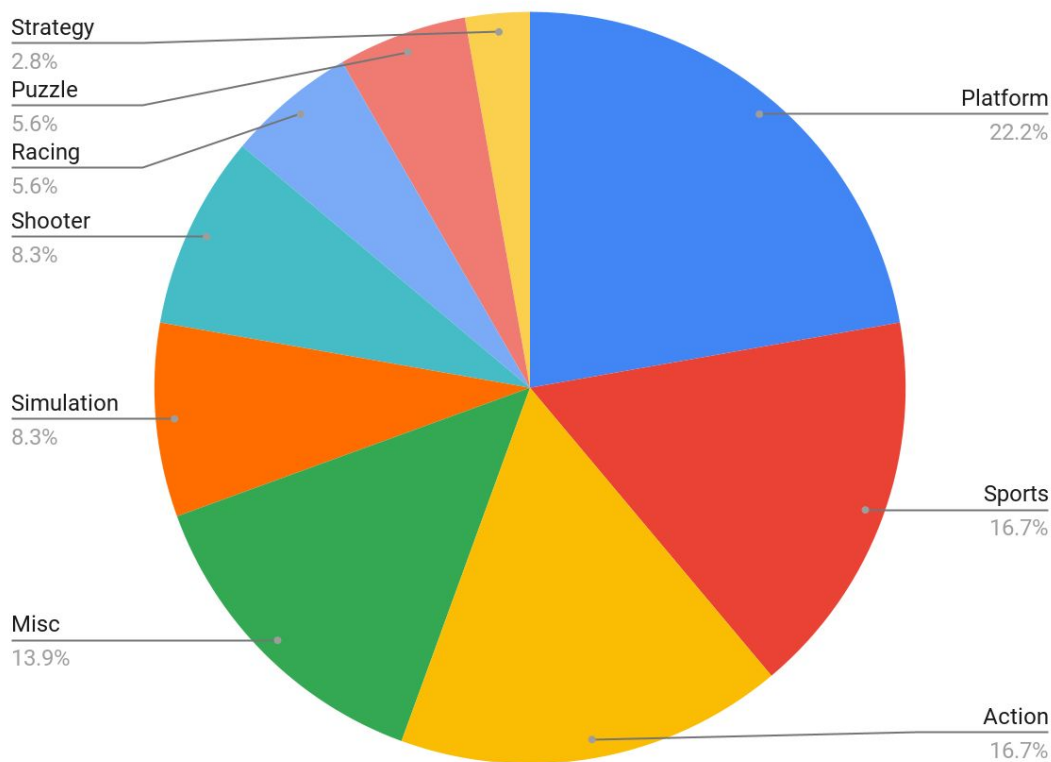
## ESRB Ratings of Nintendo Games from 2007 to 2017



All Nintendo Games were rated either E, E10+ or T by ESRB

Most Nintendo Games were rated E

# Genres of Nintendo Games from 2007 to 2017



- Games belonging to the **Platform** (8), **Sports** (6) and **Action** (6) genres represent the types of the games most frequently developed by Nintendo for **North America** and **Europe**
- All games in the **Platform** Genre sold over 1,000,000 units
  - New Super Mario Bros. Wii sold 21,380,000 units
- In the **Sports** Genre: Wii Sports Resort, Wii Fit, and Wii Fit Plus all sold over 17,000,000 units
- 4 Games for the Legend of Zelda series in the **Action** Genre sold over 2,000,000 units each





# Recommendation





# Actionable Steps for Hypothetical Merchandising Company

- Should aim to partner with **Nintendo**
- According to the Average Scores by Metacritic, **Nintendo** games are generally well-received by their players
- The **ERSB Rating** of future games by Nintendo will likely be E (Everyone), but could possibly be E10+ (Everyone 10+) or T (Teen)
  - The designed merchandise should be appropriate for target audience
- The **Genres** of future Nintendo games that may perform well are **Platform**, **Sports**, and **Action**
  - Should aim for the collaboration to feature a game fitting into these genres
- The **Platform** of an upcoming popular game could not be determined by using the outdated dataset
  - As of October 2024, **Nintendo** only creates games for the **Nintendo Switch** and **Mobile iOS/Android Devices**



# Comparing the Predicted Results to Reality

As of October 2024





# Checking the Successes of Nintendo Games since 2017

## Super Mario Bros. Wonder (2023)

- Genre of the video game: **Platformer**
- ESRB Rating: **E**
- Has a Metascore of **92** and User Score of **9.0** on [Metacritic](#)
- Sold **13.4 Million** units as of March 2024 ([source](#))

## Nintendo Switch Sports (2022)

- Genre of the video game: **Sports**
- ESRB Rating: **E10+**
- Has a Metascore of **72** and User Score of **5.9** on [Metacritic](#)
- Sold **13.11 Million** units as of March 2024 ([source](#))

## The Legend of Zelda: Breath of the Wild (2017)

- Genre of the video game: **Action**
- ESRB Rating: **E10+**
- Has a Metascore of **97** and User Score of **8.8** on [Metacritic](#)
- Sold **32.05 Million** units as of June 2024 ([source](#))

## The Legend of Zelda: Tears of the Kingdom (2023)

- Genre of the video game: **Action**
- ESRB Rating: **E10+**
- Has a Metascore of **96** and User Score of **8.7** on [Metacritic](#)
- Sold **20.61 Million** units as of March 2024 ([source](#))