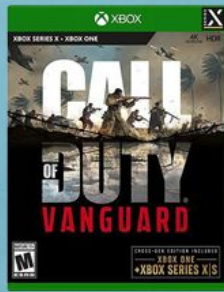


# Nintendo

**The up-and-coming video game studio motivated to  
produce best games on the market**

Group 2 - Anastasia Anichenko, Manuel Bradicic, Felix Olesen, Matthew Samm, Michal Sitarz, Alex Williams



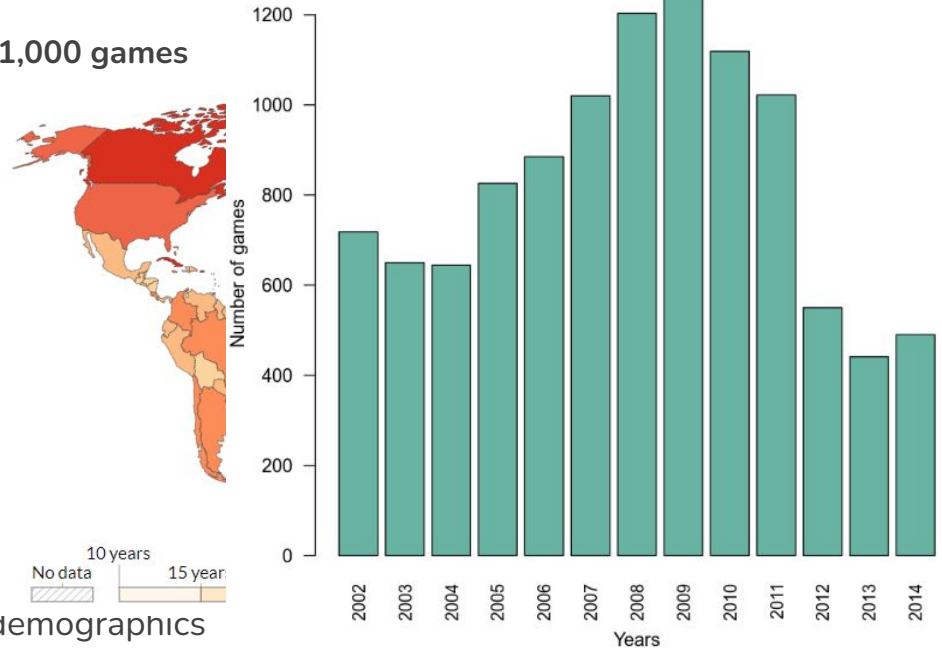
game

# Data

- Video game dataset from Kaggle with over **11,000 games**
- Contains:
  - Names
  - Years
  - Genres
  - Global and Regional Sales
  - Reviews
  - Ratings
  - Platforms

- Derived inFranchise from the dataset

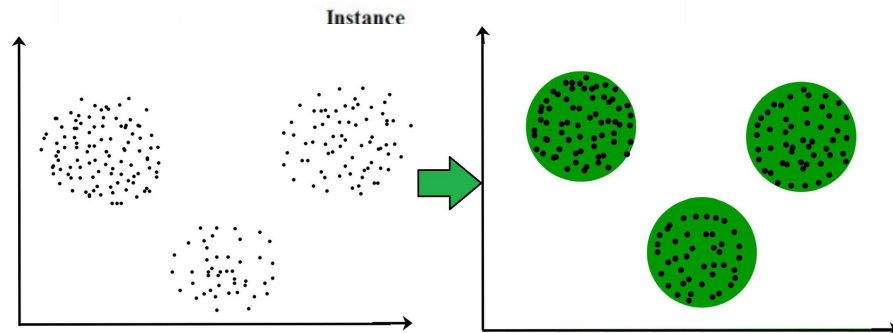
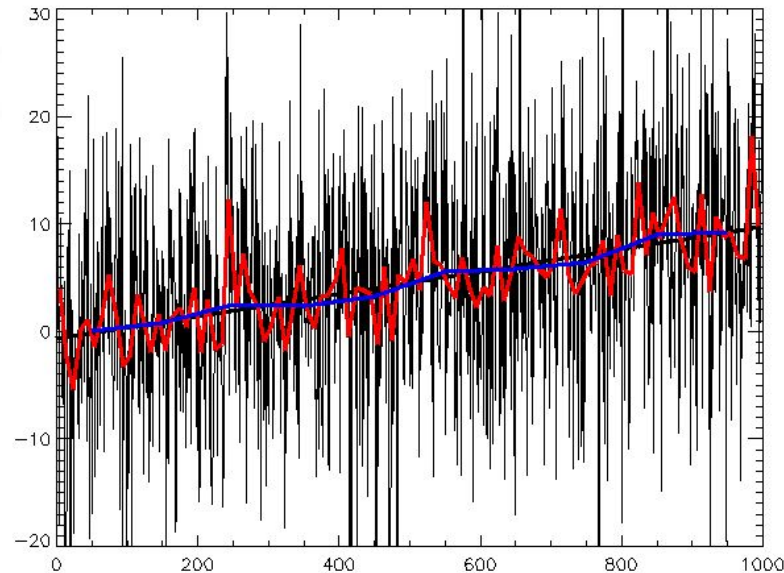
- Joined with median **age** and **gender** ratio demographics





# Methods

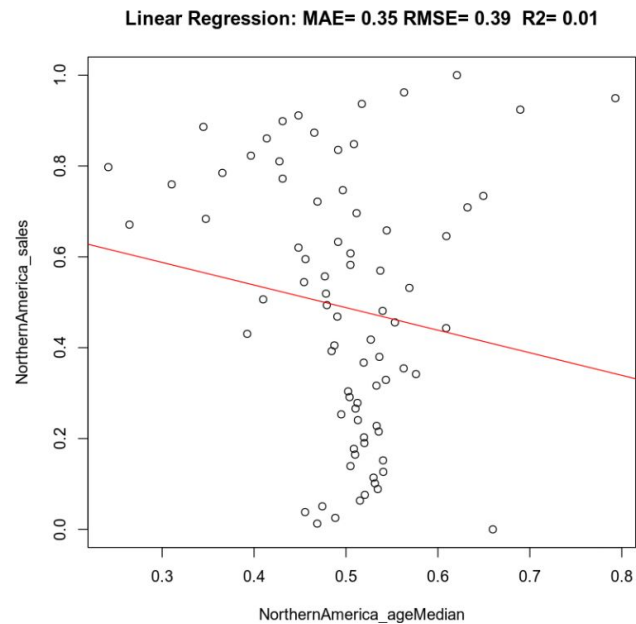
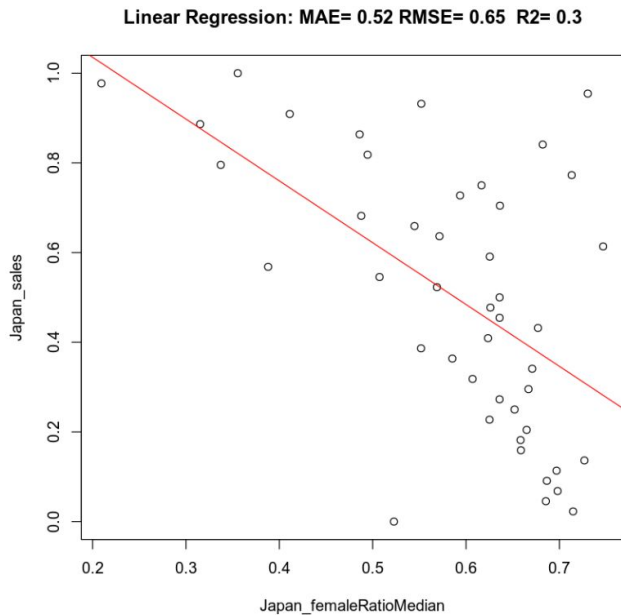
- Linear Regression
- Neural Nets
- Random Forests
- Time Series Classification
- Clustering



# Results



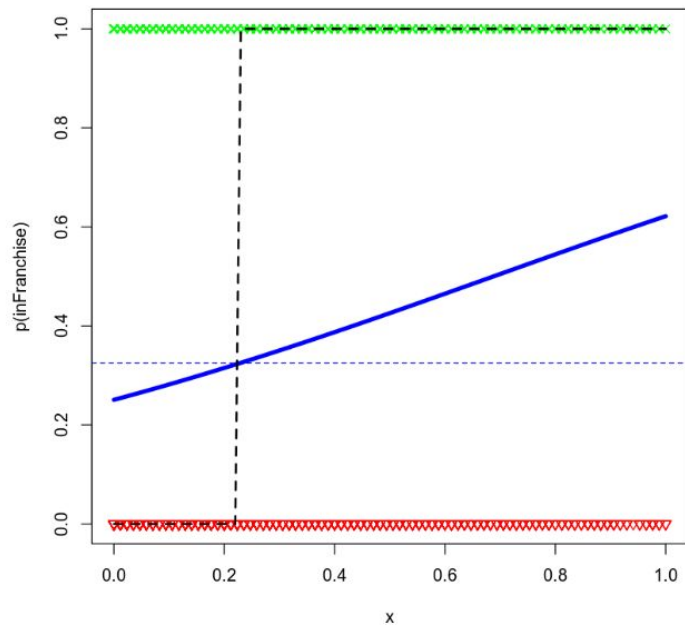
# Linear Regression



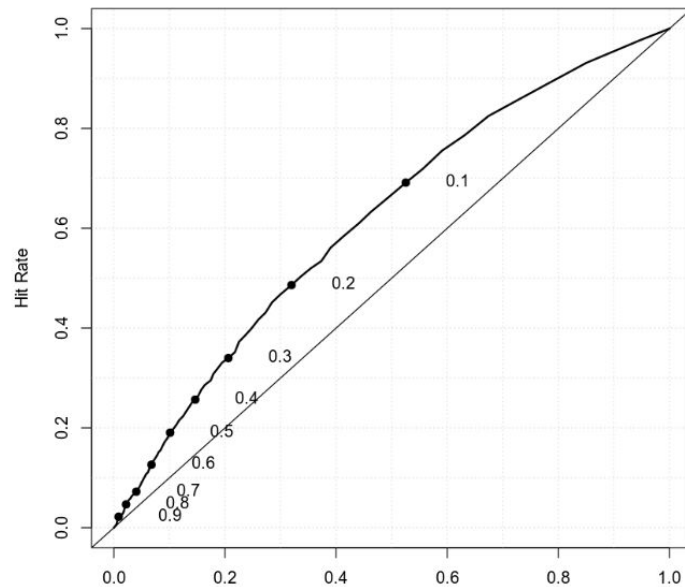


# Logistic Regression

Logistic Classifier  $p(\text{inFranchise})$

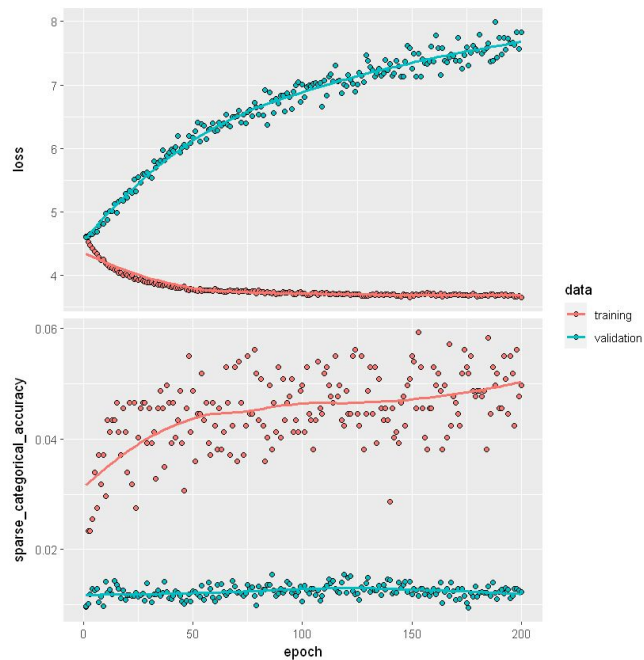
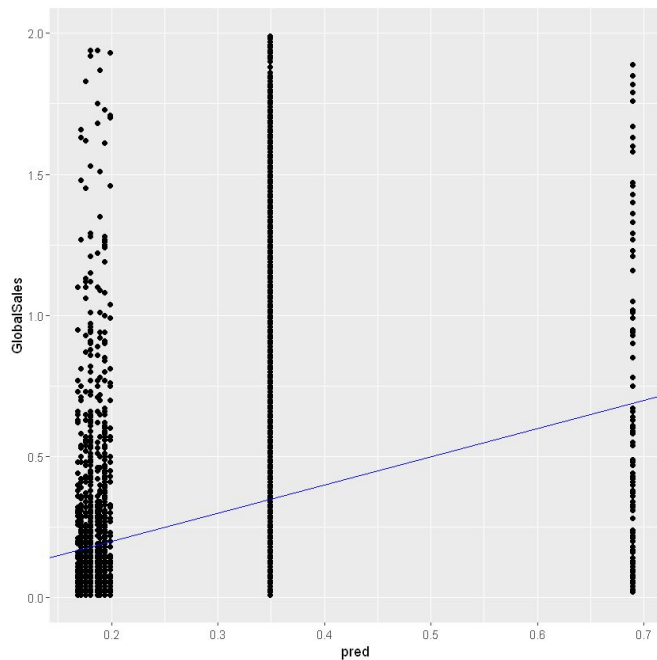


ROC Curve





# Neural Nets

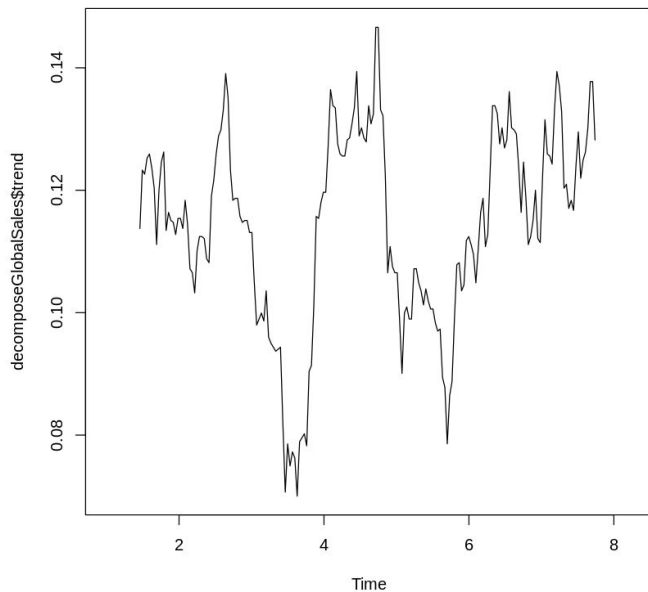




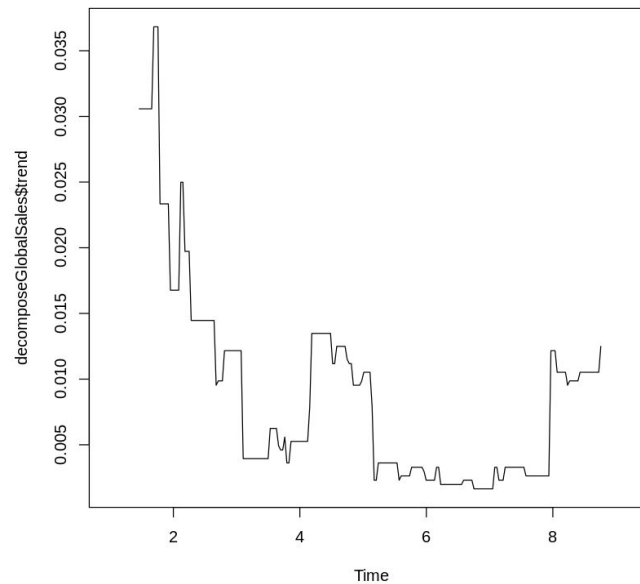


# Time Series Classification

Global Sales trend for Strategy

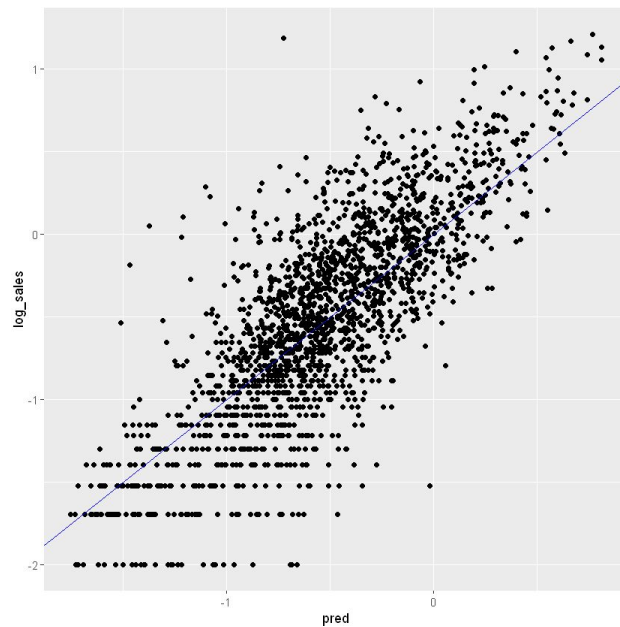


JPSales trend for Strategy





# Random Forests

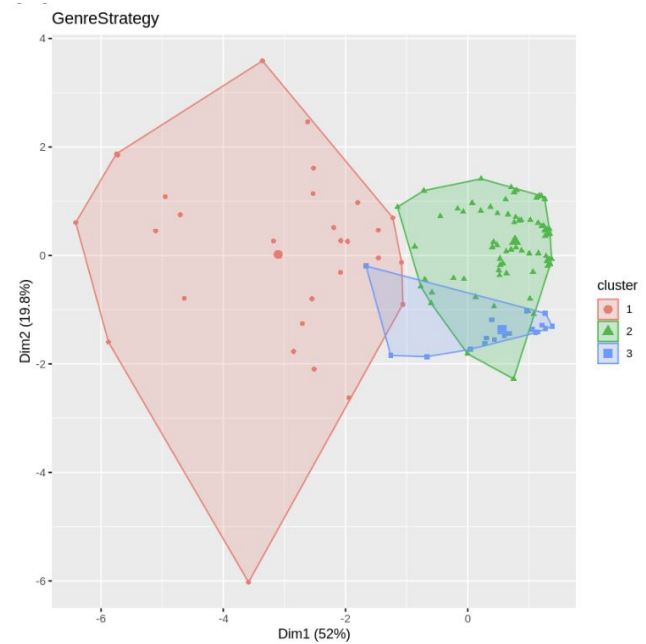
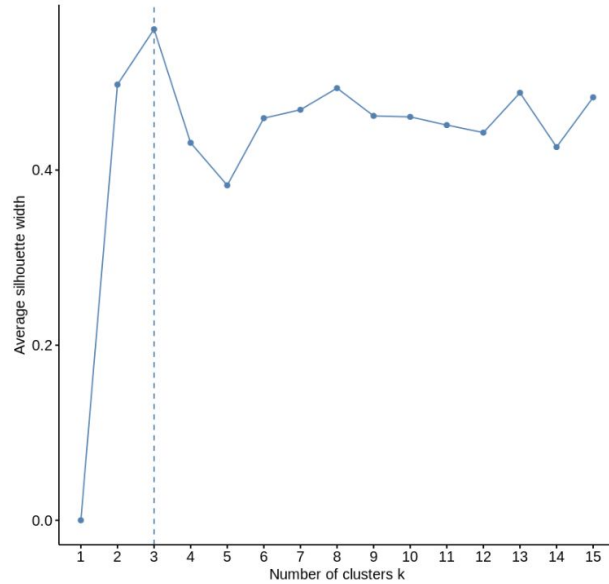




# Random Forests

Condition	Prediction (Global Sales)
Other_femaleRatioMedian <= 50.18 & GenreShooter <= 0.5 & GenreStrategy > 0.5 & PlatformPS2 > 0.5 & RatingM <= 0.5 & inFranchise > 0.5	4.68
NorthernAmerican_ageMedian > 37.75 & Other_ageMedian > 20.85 & GenreStrategy > 0.5 & PlatformPS2 > 0.5 & PlatformPS3 <= 0.5 & inFranchise > 0.5	4.68
Other_femaleRatioMedian <= 50.1832752227783 & Other_femaleRatioMedian <= 50.137134552002 & GenreMisc > 0.5 & PlatformPS2 > 0.5 & RatingM <= 0.5 & inFranchise > 0.5	2.4675

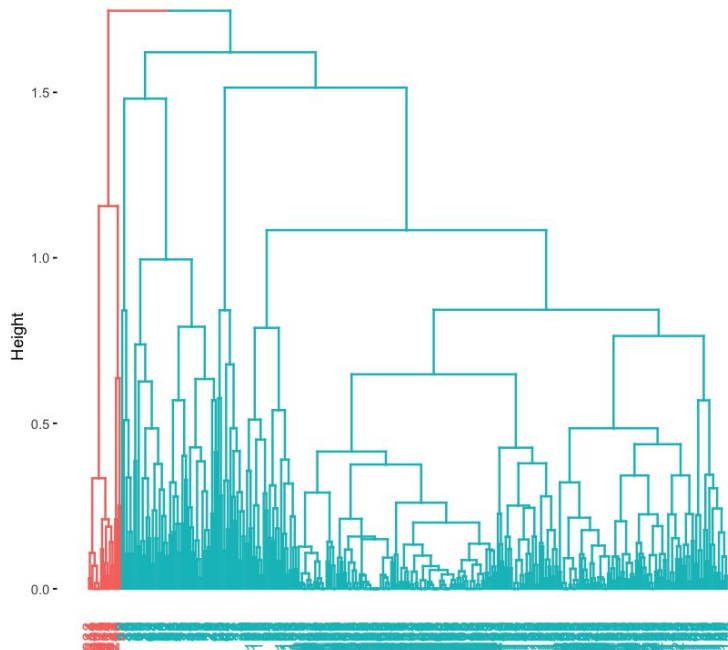
# Clustering : Kmeans





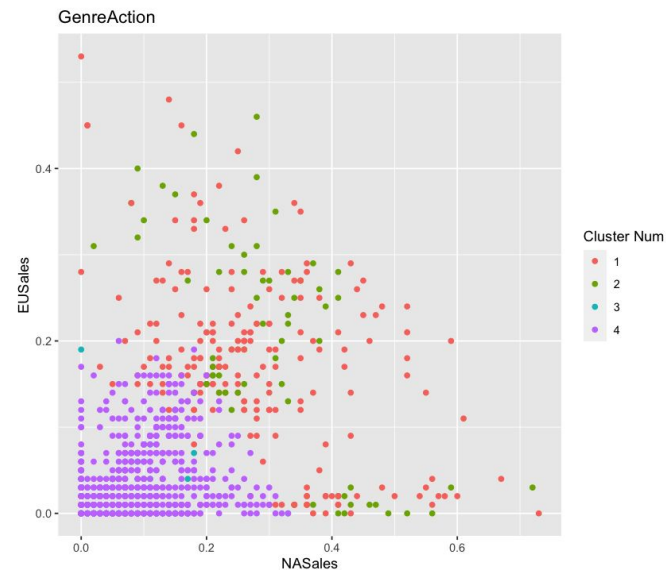
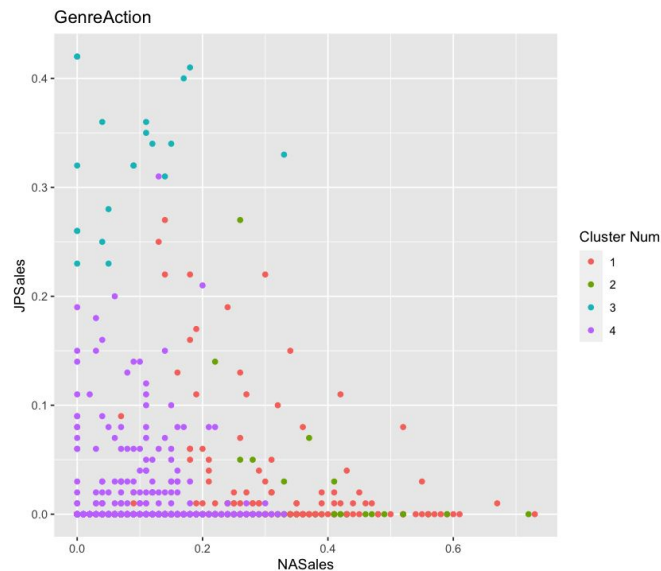
# Clustering: Hierarchical

Genre: GenreRole.Playing





# Clustering: Hierarchical



# Insights

# Which game to make?



**Strategy**

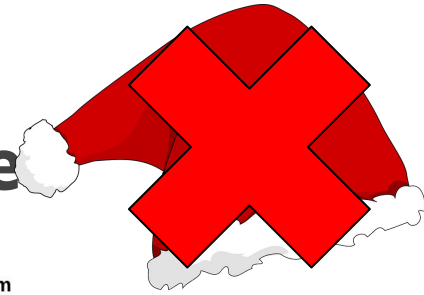




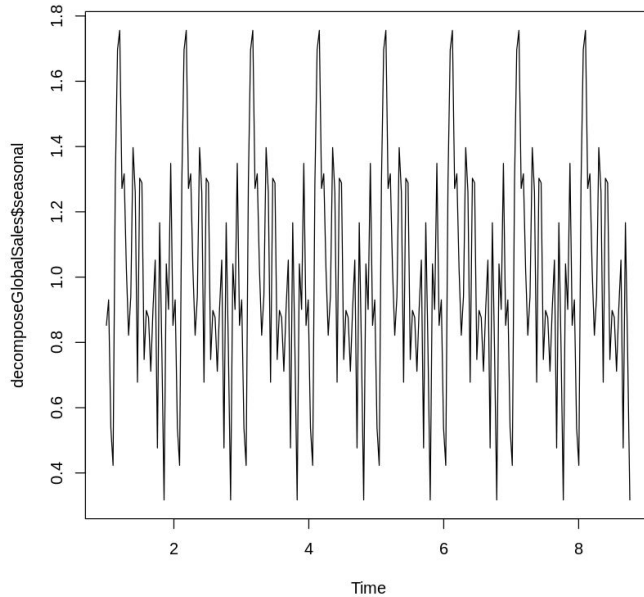
# Do franchises affect sales?



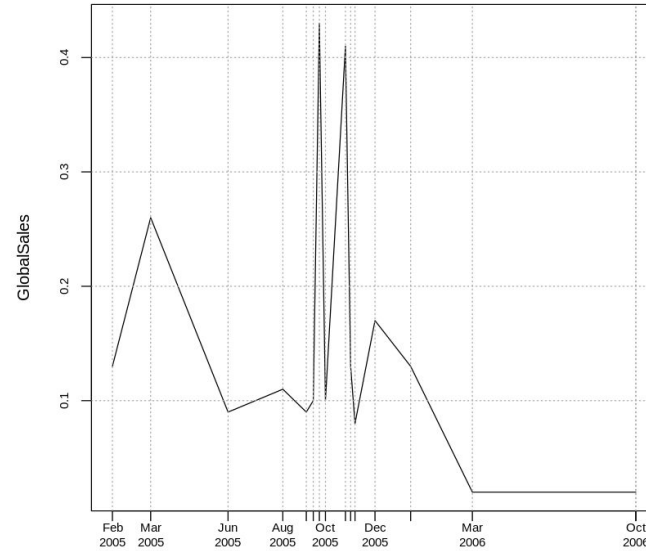
# When should the game be release



Global Sales seasonal trend for Simulation



Year 2005 Plot of Platform



# Do regions affect sales?



# Conclusion

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