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# Project Proposal

## (Video Game Sales Predictions)

- This project describes video game sales around the world and what games are most popular, we learn about the most powerful video games, and game developers across emerging economies are constantly striving to enhance the player experience, release and rewrite it. Various console/platforms, such as PlayStation, Xbox and Windows PC, which are combined into a single product that is provided to players through the cloud platform. The world is currently going through a horrific and unprecedented event: the COVID-19 pandemic. During these trying times, games have become a way to escape and fill time for many.

### 1.Question/need:

### Task 1: Analysis and Visualization

- Exploring datasets using EDA analysis and some statistical techniques.
- Doing some visualization for the data for better understanding.
- Answering some questions about data such as:
    - o What is the most sold game genre?
    - o What is the most sold game platform?
    - o What is the best-selling game of all time?
    - o Which region plays the most game?

### Task 2 : Machine Learning Modeling

- Building a machine learning model by using linear regression algorithm.

### 2.Data Description:

- The data contains of more than 16,500 games and their sales ,It was generated by vgchartz.com.
- The data includes the following features:

- **Rank:** Ranking of overall sales.
- **Name:** Games names.
- **Platform:** Platform of the games release(i.e PC,PS4….etc.)
- **Year:** Year of the game's release.
- **Genre:** Genre of the game.
- **Publisher:** Publisher of the game.
- **NA_Sales:** Sales in North America (in millions).
- **EU_Sales:** Sales in Europe (in millions).
- **JP_Sales:** Sales in Japan (in millions).
- **Other_Sales:** Sales in the rest of the world (in millions).
- **Global_Sales:** Total in the worldwide sales.

- The data contains 16324 instances (datapoints) and 11 features.

## 3.Tools:

- The work will be done through Jupyter notebook. There are tools that will be used , such as: Numpy , pandas , matplotlib, Seaborn , SciKit-Learn, LinearRegression, accuracy_score for discovering the data and train a model.

## 4.MVP Goal :

- Creating a machine learning model for predicting video game sales with Python.