Project Title: Video Game Sales Data Analysis Report (not final)

<u>Members Duty (not final):</u>

- Kevin: Coding/Graphing
- Derian: Coding
- Abdullah: Coding/Graphing
- Tyler: Slide Construction
- Labeeb: Slide Construction

<u>Data Description:</u>

- We will work on the "Video Game Sales" dataset, which contains information about video game sales across different regions of the world.
- The dataset holds around 16.6k entries and has 11 columns. They include:
  Variables:
  - **Time Period:** Games released from 1980 to 2020
  - **Rank:** Ranking based on global sales
  - **Name:** Title of the game
  - **Platform:** 31 different platforms (PlayStation, Xbox, Nintendo, …)
  - **Year:** Year of the game's release
  - **Genre:** Category of the game (e.g., Action, Sports, RPG).
  - **Publisher:** The company that published the game.
  - **Sales Data:**
    - **NA_Sales**
    - **EU_Sales**
    - **Other_Sales**
    - **Global_Sales**

<u>Goals:</u>

- **Sales Trends Over Time**: How have video game sales evolved over the years? Are there certain periods of peak sales?
  - Use variables like Genre, Year, Global_Sales

- **Regional Market Differences**: How do sales trends vary across North America, Europe, Japan, and other regions?
    - Variables to use: Genre, Platform, NA_Sales, ..., Other_Sales
- **Top Publishers**: Which game publishers have the highest sales figures?
    - Variables to use: Plublisher, Year, Global_Sales, regional sales variables
- **(Potentially) Top-Selling Genres**: Which genres have been the most successful globally?
- **(Potentially) Platform Popularity**: Which gaming platforms have dominated the market?

Potential Visualization of the Data:

- **Genre Evolution Timeline?**
    - Show how different genres have changed over time. Learn how trends and industry shifts.
        - Line chart?
- **Regional Preference Heatmap?**
    - Showing which genres and platforms perform better in different regions
        - Heat map?
- **Platform Lifecycle Analysis?**
    - Show which platforms rise and fall in popularity. How long their market lifecycle lasts.
        - Scatter plot with lines to show sales
        - Violin plot or box plot to show platform lifecycles
- **Publisher Market Share Analysis?**
- **Sales Distribution (Histogram?)**
    - Show the video game to sales ratio