# Case Study Project - Video Game Categories

Congratulations, you have just landed your first job as a data scientist at Snow Cone Games! Snow Cone Games are a digital retailer for video games. For your first assignment, you will be working with the product manager to find new ways to categorize games on their homepage.

She has recently learned that only 23% of buyers search for games using the genre filter (e.g., action, sports, etc). 71% of buyers use advanced filters to find the types of games that appeal to them. She hopes that creative new categories based on different game attributes can help players find what they are looking for faster.

You have a dataset containing the Snow Cone Games' library of over 40,000 video games. The product manager would like to see if you can group the data into categories that make sense. She has also told you that she wants to avoid more than five categories if possible, as any more would be difficult to fit into the platform homepage.

You will need to present your findings in two formats:
1. You must submit a written report summarising your analysis to your manager. As a data science manager, your manager has a strong technical background and wants to understand what you have done and why.
2. You will then need to share your findings with the product manager in a 10 minute presentation. The product manager has no data science background but is familiar with basic data related terminology.

For details on how your report and presentation will be graded, you can refer to the grading rubric.

## Data

The data is available in a DataCamp Workspace, which you can find from the certification dashboard. The data set has the following columns:

| Column Name | Details |
|---|---|
| name | Character, name of the game title. |
| release_date | Character, release day of the video game. |
| developer | Character, name of the developer that created the video game. |
| achievement | Numeric, number of 'achievements' players can earn in the game. |
| original_price | Character, the price of the video game (or "Free" for free titles). |
| percent_positive | Character, the percentage of players who review the game positively. |
| num_reviews | Numeric, the total number of players who reviewed the game. |
| multiplayer | Character, whether or not the game has multiplayer (True) or not (False). |
| mature | Character, whether or not the game has mature content unsuitable for younger players (True) or not (False). |