

All I want for Christmas is...

Spotify Data!

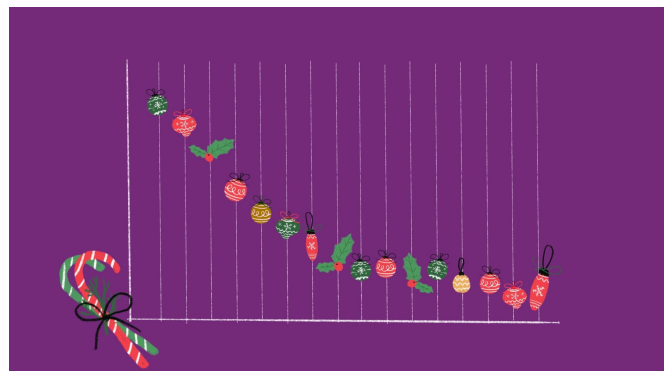
Background

Twenty-five years after its debut release, Mariah Carey's holiday hit "All I want for Christmas is You" has reached #1 on the Billboard Hot 100 for the first time this month (December 2019). The Hot 100 is the U.S. music industry's standard for chart rankings based on sales, radio play and online streaming. "All I Want for Christmas is You" has completed the longest trip to the top of the charts thanks to dedicated marketing efforts and increased usage of music streaming services like Spotify, which report that the song regularly achieves a 2,000% increase in global streams from November 1 until the end of December. AIWFCIY has clearly earned its reputation as an international holiday hit, but in which country is it the most popular?



Dataset

Check out this dataset from [Spotify Charts](#) that contains the number of Spotify streams of AIWFCIY by country on the 48 hours of Christmas Eve and Christmas Day as well as the song's country-specific mean rank among all songs over the holiday season (11/25 to 1/1).



Variables

Country - this categorical variable describes the country where data are taken.

Streams on Xmas Holiday (per 10,000 people) - this numerical variable describes the amount of times people played this song. It is turned into a rate (how many times per every 10,000 people) and is not a raw number.

Seasonal Rank of AIWFCIY - this numerical variable is based on the number of streams on Xmas Holiday. It lists the highest number from that column as 1. The higher this value, the less streams it had.

Region - this categorical variable describes the region the country is located within.

Activity

First start by making a scatter plot with Country on the X-axis. From there try different variables on the Y-axis to help you answer the first two questions below.

- 1) In which seven countries does AIWFCIY have the highest ranking during the Christmas season? Remember that lower numbers are higher rankings (i.e. #1 is the best).
- 2) Which seven countries listen to AIWFCIY most intensely on the Christmas holiday (Christmas Eve and Christmas day)? Is this list of countries the exact same as the answer to question #1?
- 3) How do you best answer the question of where is AIWFCIY the most popular?
- 4) Try plotting Streams on Xmas Holiday on the Y-axis and Seasonal Rank of AIWFCIY on the X-axis. What does this tell you about the relationship between these two measures of listening?
- 5) Now try adding Region as a Z variable (color coding) on your plot. What does the third variable reveal to you. Do you see any patterns that are shared by countries in the same region?