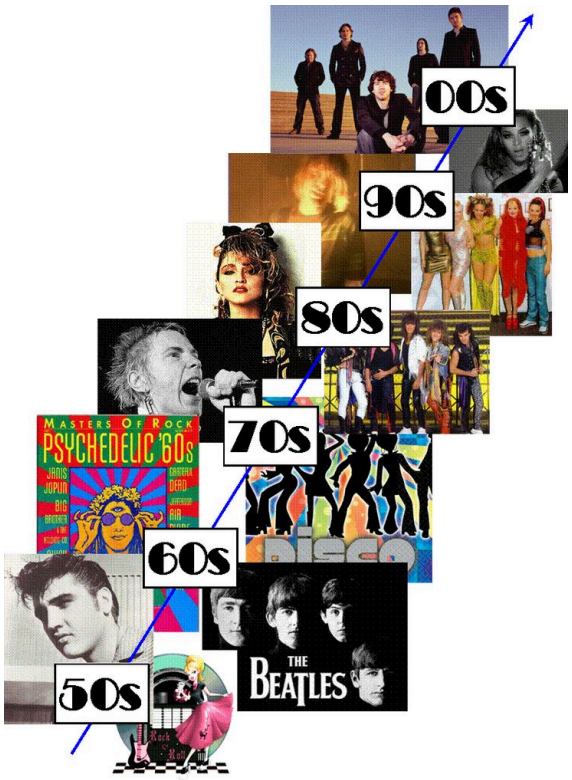
Music Genre Trends Over Time

A DS 4002 Case Study by Sophie Phillips



Imagine you've just been selected by a fast-growing music streaming company to consult on a forward-looking analytics initiative. The company is seeking insights that will shape its future recommendation algorithm. To do this, it needs a comprehensive, data-driven understanding of how music genre preferences have evolved—and more importantly, where they're heading next. You've been tasked with producing an analytical deliverable that investigates this cultural and computational challenge.

Context

Music is a powerful cultural force, reflecting societal values, movements, and identities over time. With the advent of streaming platforms, the way people consume music has shifted dramatically. While scholars have explored musical trends qualitatively, modern data science allows us to quantify genre evolution using large-scale listening datasets and advanced time series modeling.[3] This project seeks to bridge that gap: integrating sociocultural inquiry with predictive modeling to uncover genre dynamics from the past century and forecast which genre may dominate the next.

Your Role

As the data scientist on this project, you will investigate trends in genre popularity over time and identify patterns that can inform a predictive model. You will work with a large dataset of historical music metadata, develop a structured analysis pipeline, and interpret your findings in a way that blends statistical rigor with cultural insight.

Your Objective

Your goal is to assess the evolution of musical genres from 1896 to 2017 and build a model to predict which genre is most likely to become dominant in the upcoming year. The data and tools are provided—how you interpret and present your insights is up to you.

The final deliverable will synthesize your data analysis, modeling, and cultural interpretation into a compelling artifact. Details of deliverable expectations and evaluation criteria will be outlined in the rubric.