

# Question 4

Liam Andrew Beattie

## Purpose

Purpose of this work folder.

Ideally store a minimum working example data set in data folder.

Add binary files in bin, and closed R functions in code. Human Readable settings files (e.g. csv) should be placed in settings/

```
knitr::opts_chunk$set(echo = FALSE)
rm(list = ls()) # Clean your environment:
gc() # garbage collection - It can be useful to call gc after a large object has been removed, as this
```

```
##          used (Mb) gc trigger (Mb) max used (Mb)
## Ncells 480025 25.7   1041298 55.7   660402 35.3
## Vcells 889777  6.8    8388608 64.0   1770105 13.6
```

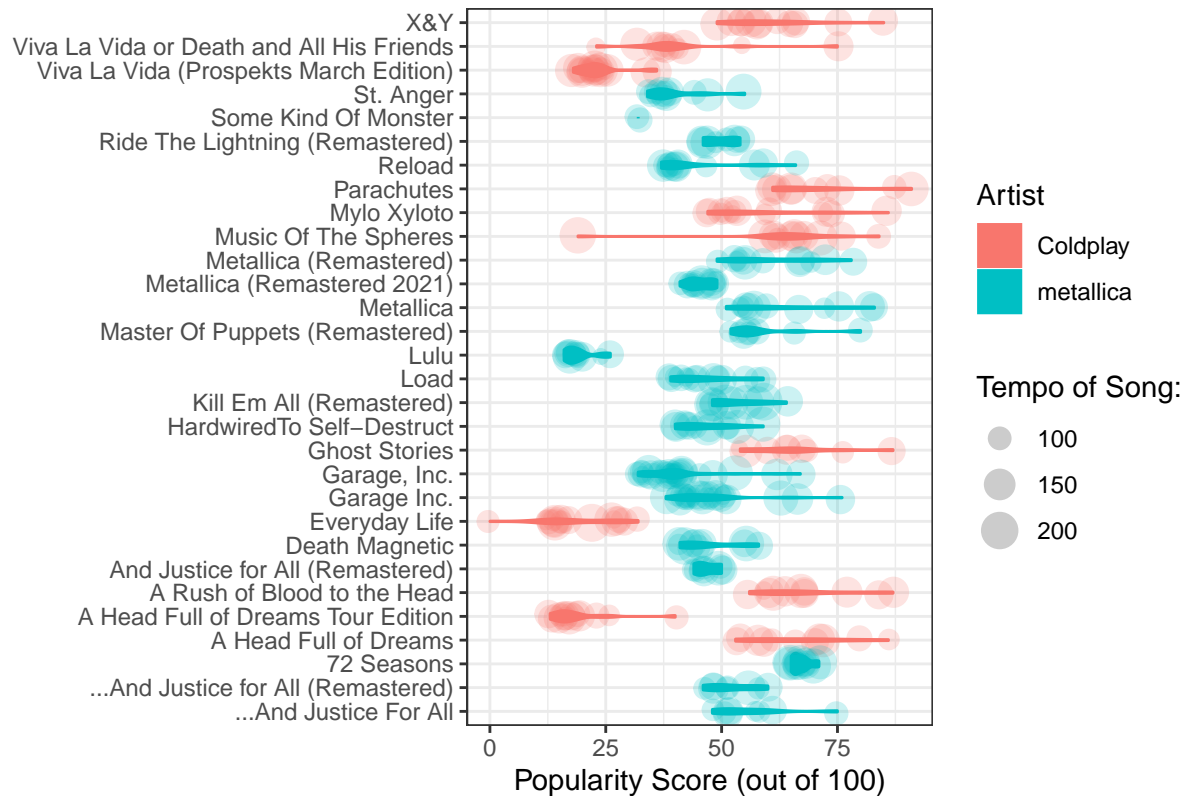
```
library(tidyverse)
```

```
## Warning: package 'ggplot2' was built under R version 4.3.3
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.4      v readr      2.1.5
## v forcats    1.0.0      v stringr    1.5.1
## v ggplot2    3.5.1      v tibble     3.2.1
## v lubridate  1.9.3      v tidyr      1.3.1
## v purrr      1.0.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

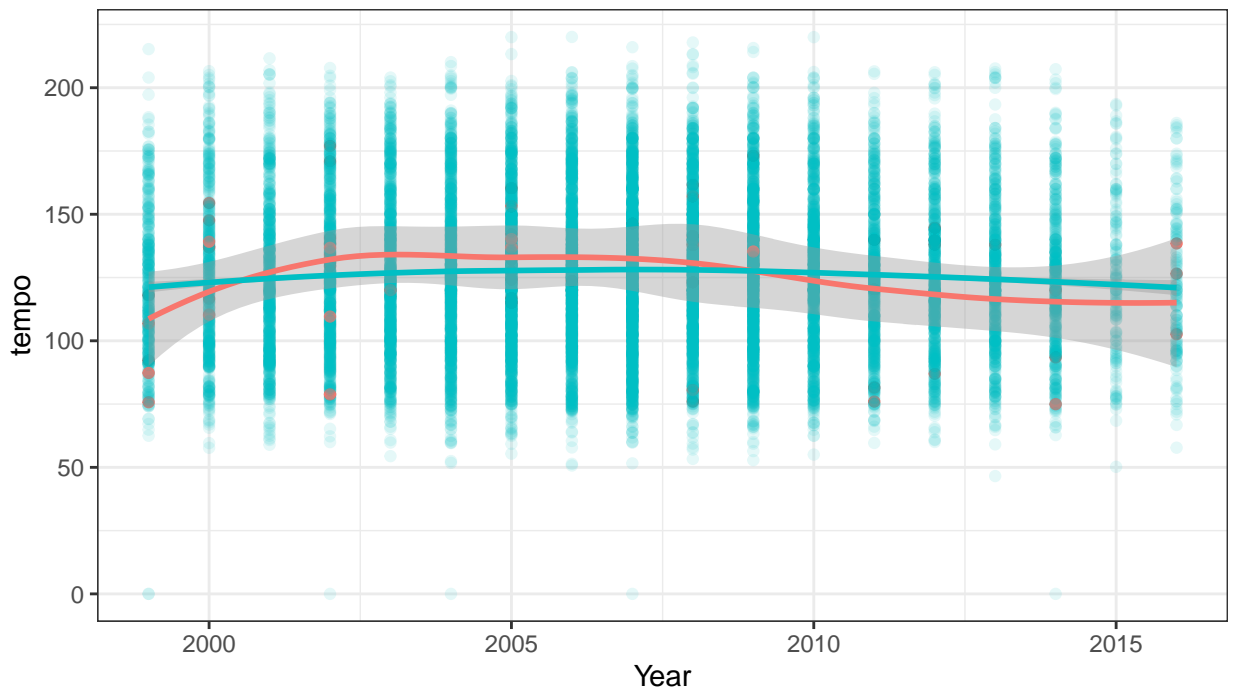
```
list.files('code/', full.names = T, recursive = T) %>% .[grepl('.R', .)] %>% as.list() %>% walk(~source(
import_multiple_rds("data/Coldplay_vs_Metallica") #brings additional databases in
```

## Song Popularity by Album for Coldplay and Metallica



speechiness , acousticness , instrumentalness , liveness , valence , tempo, duration\_ms danceability energy key

## Trend of tempo for Coldplay and similar artists



loudness

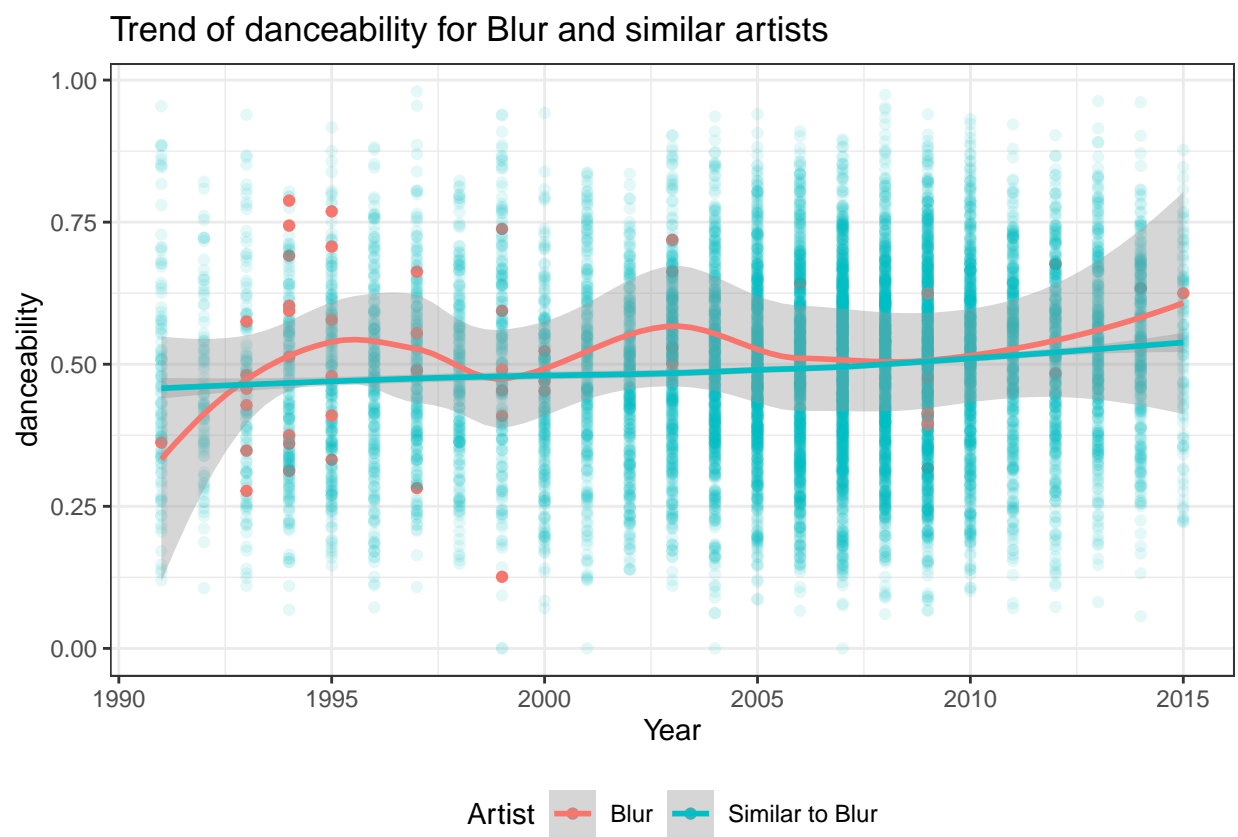


Figure 1: Time trend of danceability for Blur and similar artists

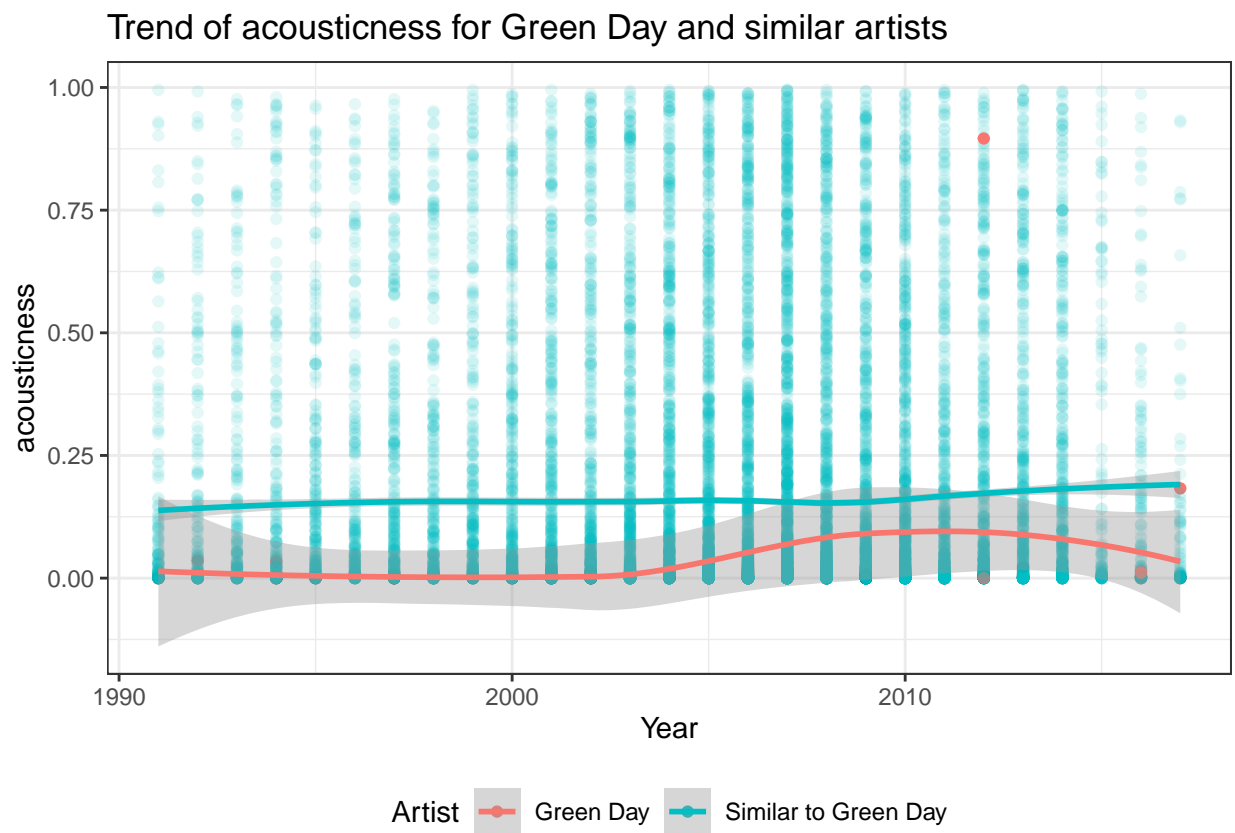


Figure 2: Time trend of acoustiness for Green Day and similar artists

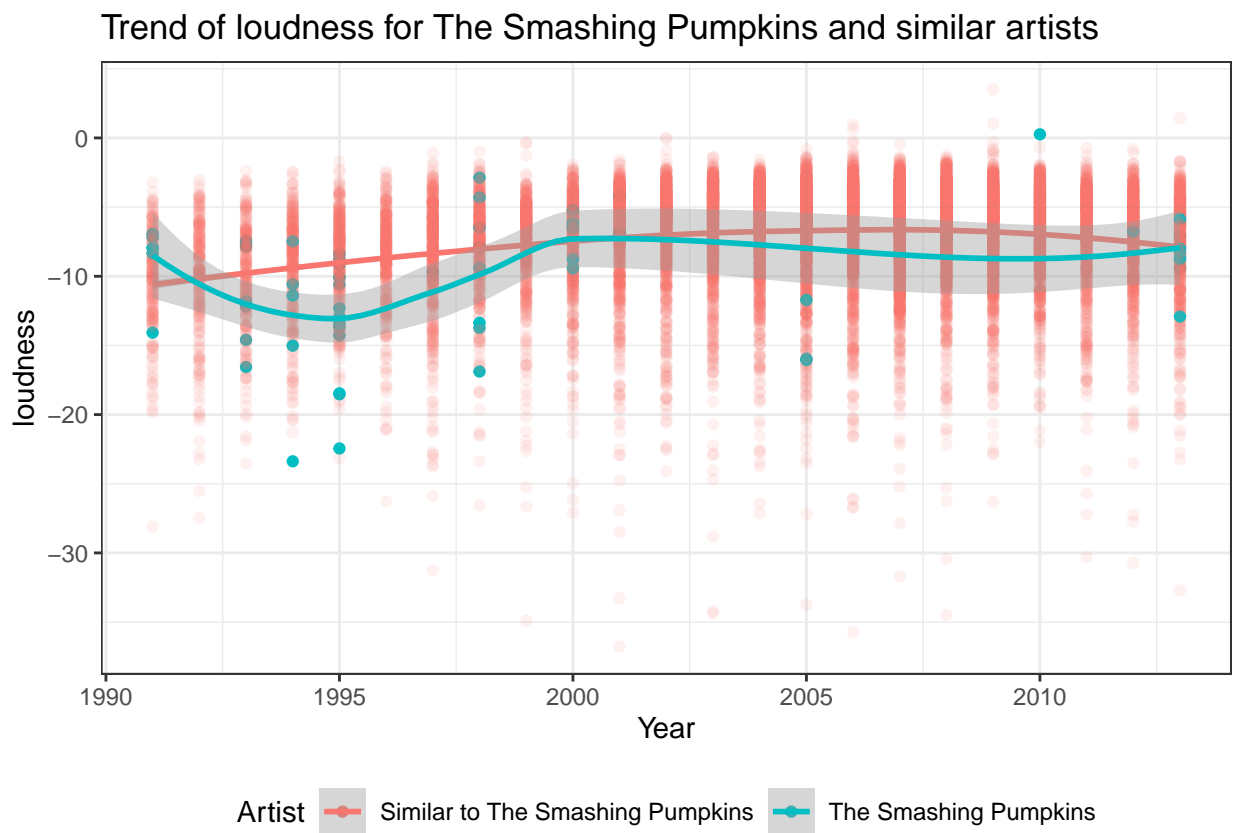


Figure 3: Time trend of loudness for The Smashing Pumpkins and similar artists