Question 3

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Abstract

The two longest Bands of all time Coldplay and Metallica. Comparing these two bands on longevity and musical progression

Keywords: music\

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1. Introduction

In this report i will be looking at the two most famous bands of all time that being coldplay and Metallica. i will be looking at a variety of analysis to come the two bands. First i will be looking at Coldplay then Metallica.

Coldplay

The first thing is i will be looking at when coldplay become popular.

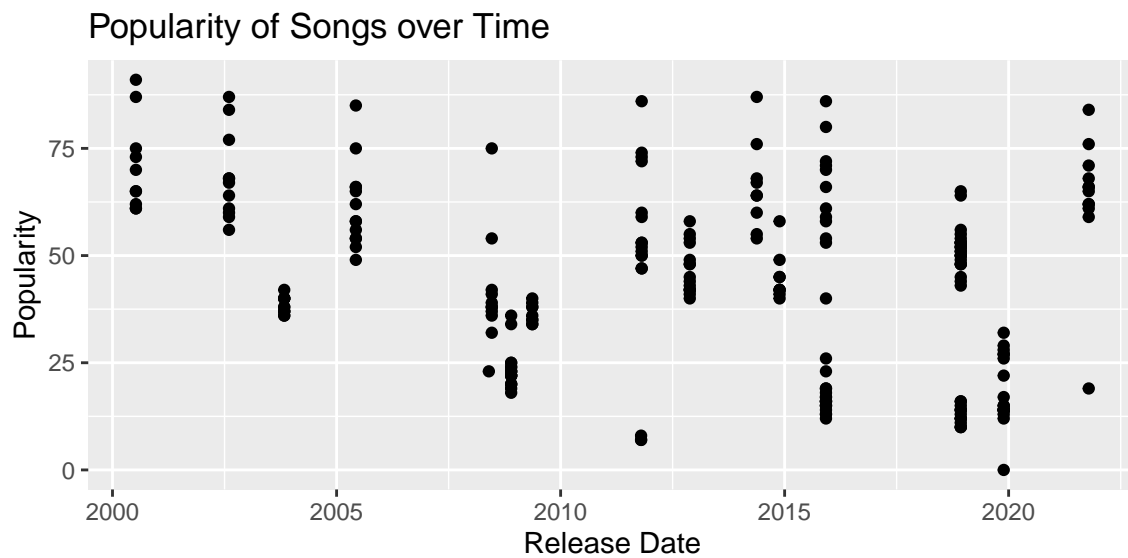*Email address:* `21075492@sun.ac.za` (Sahil Bhugwan)

Figure 1.1: Popularity of Songs

It is clear from this that from the time coldplay came into the scene they where popular already, however during the early 2010s that is when there popularity became prominant this could be because of certain songs they released.

Top Songs Popularity Over Time

Figure 1.2: Songs over time
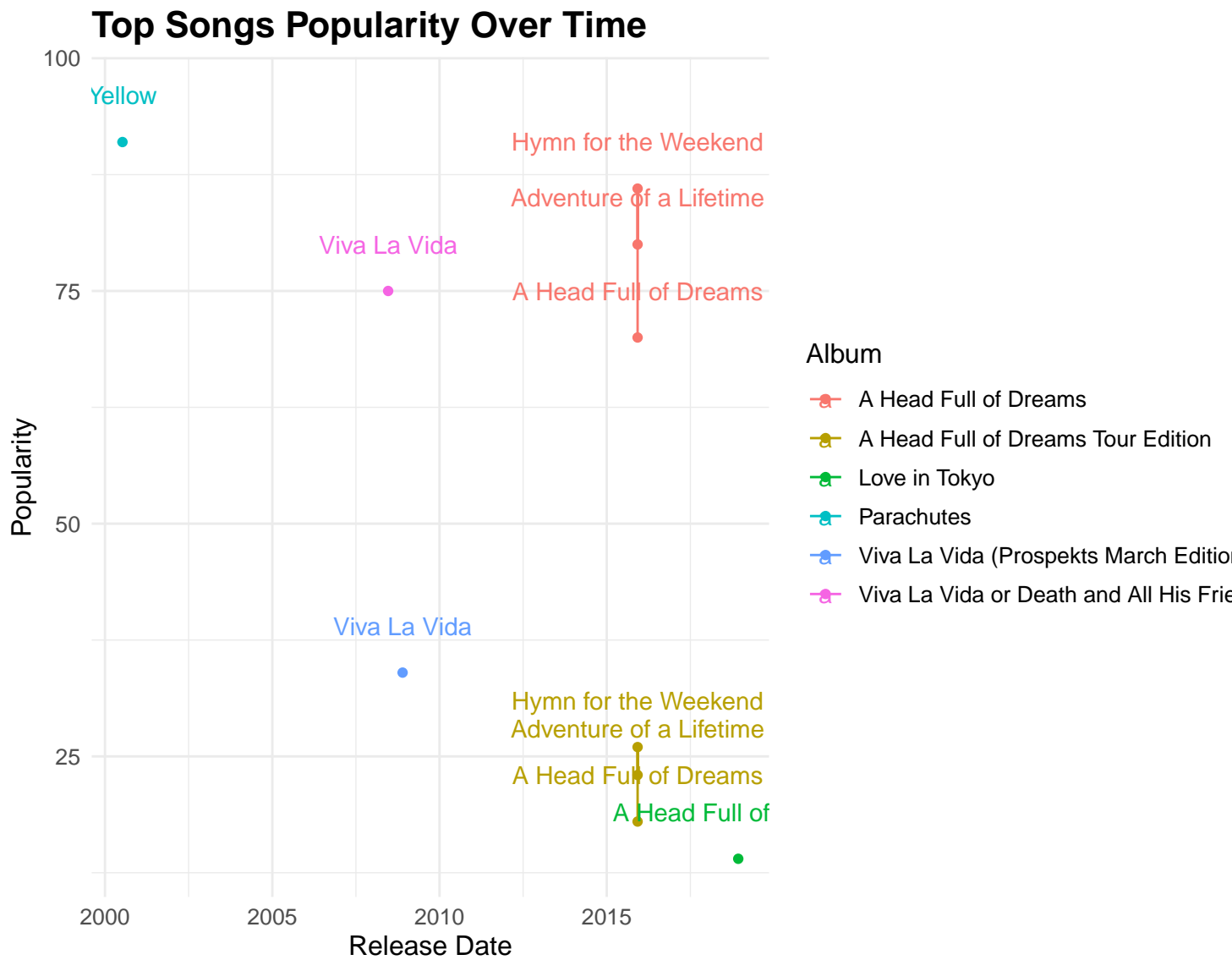
```
## $cold_pop

## # A tibble: 10 x 16

##    name       durat~1 release_~2 album~3 expli~4 popul~5 acous~6 dance~7 energy

##    <chr>        <dbl> <date>     <chr>   <lgl>    <dbl>   <dbl>   <dbl>  <dbl>

##  1 A Head Ful~   294. 2018-12-07 Love i~ FALSE      14  0.0948   0.307  0.92

##  2 A Head Ful~   224. 2015-12-04 A Head~ FALSE      70  0.0021   0.449  0.92

##  3 Hymn for t~   258. 2015-12-04 A Head~ FALSE      86  0.211    0.491  0.693
```

```
##  4 Adventure ~      264. 2015-12-04 A Head~ FALSE      80 0.00205   0.638  0.924
##  5 A Head Ful~      224. 2015-12-04 A Head~ FALSE      18 0.0021    0.449  0.92
##  6 Hymn for t~      258. 2015-12-04 A Head~ FALSE      26 0.211     0.491  0.693
##  7 Adventure ~      264. 2015-12-04 A Head~ FALSE      23 0.00205   0.638  0.924
##  8 Viva La Vi~      242. 2008-11-24 Viva L~ FALSE      34 0.0954    0.486  0.617
##  9 Viva La Vi~      242. 2008-06-19 Viva L~ FALSE      75 0.0954    0.486  0.617
## 10 Yellow           267. 2000-07-10 Parach~ FALSE      91 0.00239   0.429  0.661
## # ... with 7 more variables: instrumentalness <dbl>, liveness <dbl>,
## #   loudness <dbl>, speechiness <dbl>, tempo <dbl>, valence <dbl>,
## #   album_release <date>, and abbreviated variable names 1: duration,
## #   2: release_date, 3: album_name, 4: explicit, 5: popularity,
## #   6: acousticness, 7: danceability
##
## $order
##  [1] "Parachutes"
##  [2] "A Rush of Blood to the Head"
##  [3] "A Head Full of Dreams"
##  [4] "Ghost Stories"
##  [5] "Music Of The Spheres"
##  [6] "X&Y"
##  [7] "Live in Buenos Aires"
##  [8] "Mylo Xyloto"
##  [9] "Live 2012"
## [10] "Ghost Stories Live 2014"
## [11] "Viva La Vida or Death and All His Friends"
## [12] "Live 2003"
## [13] "LeftRightLeftRightLeft (Live)"
## [14] "Viva La Vida (Prospekts March Edition)"
## [15] "Everyday Life"
```

```
## [16] "A Head Full of Dreams Tour Edition"
## [17] "Love in Tokyo"
```

It is clear from 1.2 that they really hit there stride in the late 2010s as twice in in one album they had 3 top songs

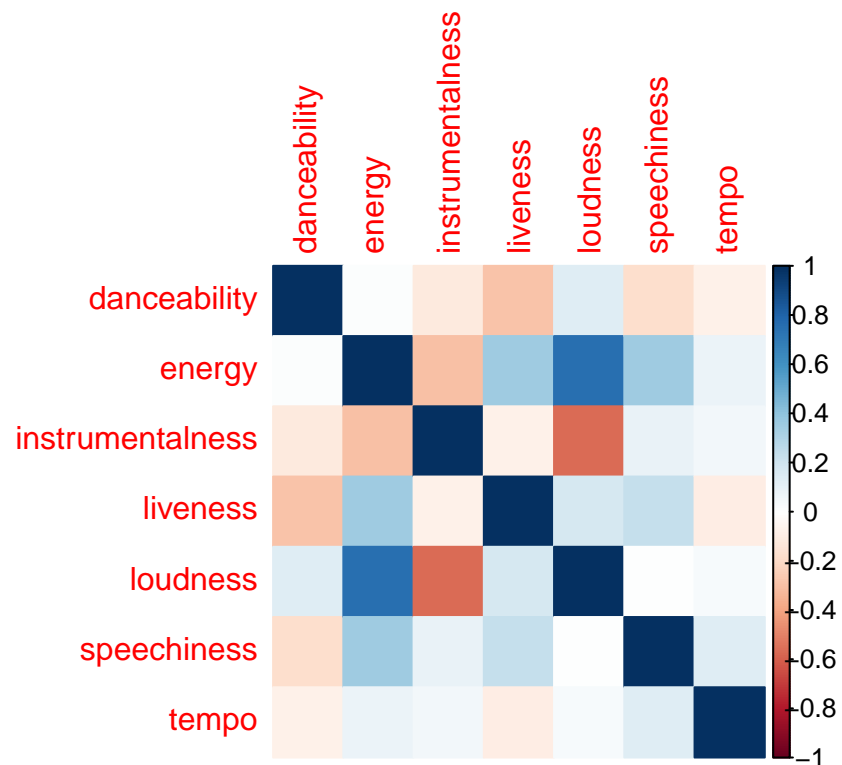Next looking at there correlation matrix to assess certain apsects of there music

Figure 1.3: Correlation matrix

2. Mettallica

Next i will be looking at Mettallica. they also have been a very long perfroming band. Though it must be noted that they do perform different music to that of coldplay.

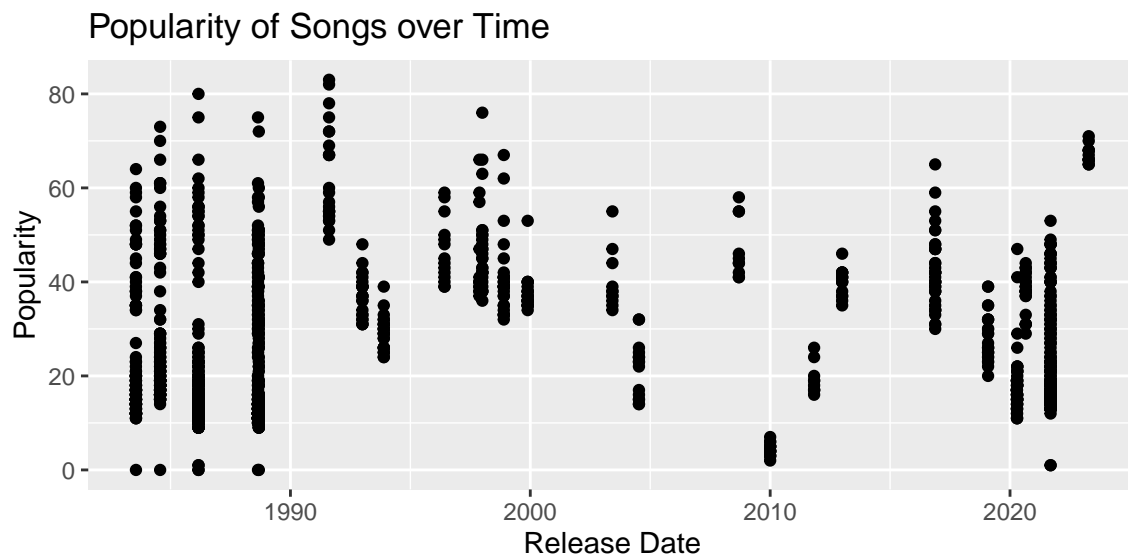I once again will be looking at the scatter plot to see there popularity

Figure 2.1: Popularity of Songs

It is clear that mettalica where he most popular during the late 1980s. However they appeared to be less popular between 2000 and 2010 however they started gaining moment in early 2020s.

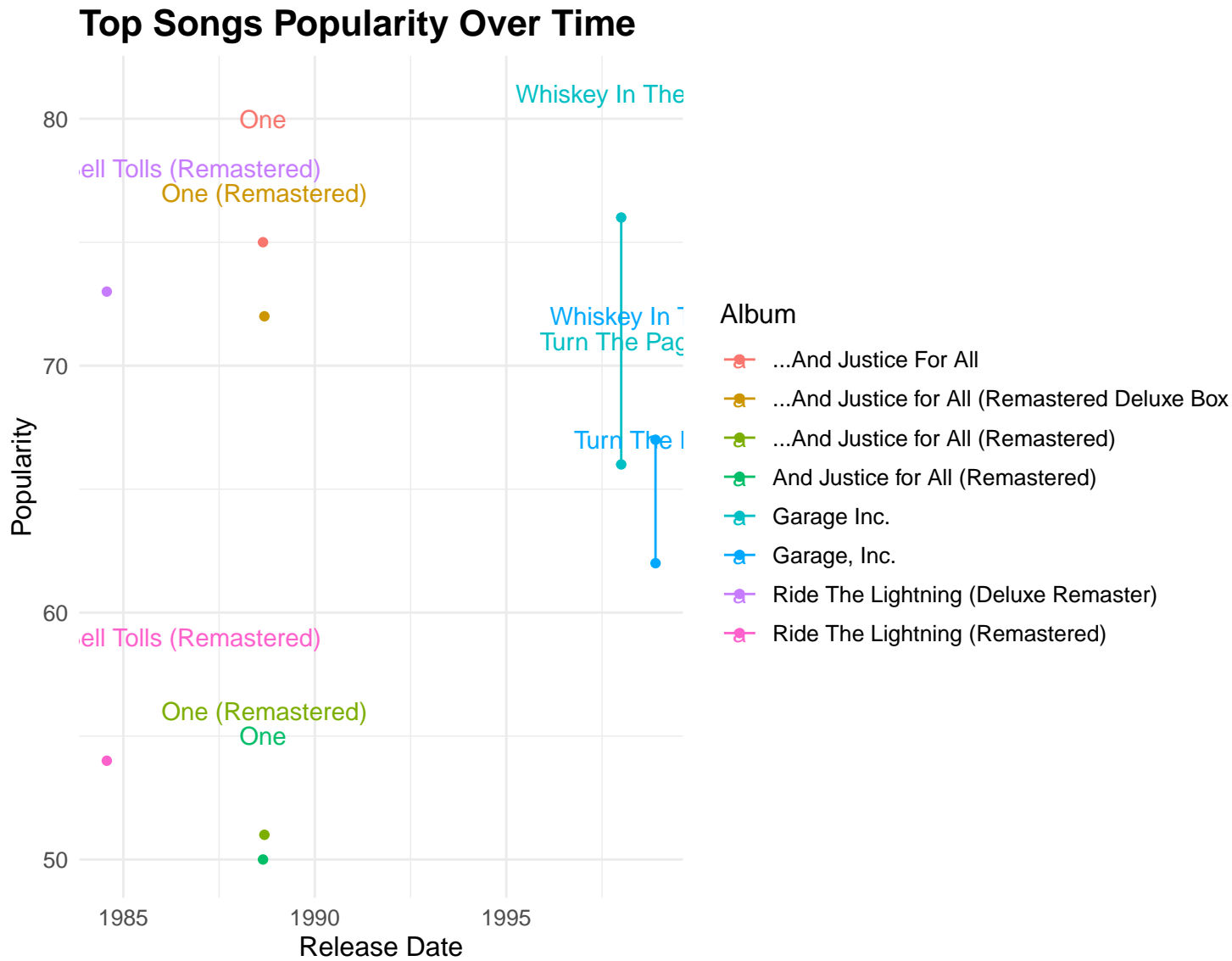Next i will also be looking at the most popular songs

Top Songs Popularity Over Time

Figure 2.2: Songs over time

```
## $cold_pop

## # A tibble: 10 x 15

##    name        album~1 durat~2 popul~3 release_~4 dance~5 energy loudn~6 speec~7

##    <chr>       <chr>    <dbl>   <dbl> <date>       <dbl>  <dbl>   <dbl>   <dbl>

## 1 Turn The P~ Garage~  366400      62 1998-11-24  0.422  0.818   -3.94  0.0319

## 2 Whiskey In~ Garage~  304893      67 1998-11-24  0.511  0.972   -3.75  0.0413

## 3 Turn The P~ Garage~  366467      66 1998-01-01  0.426  0.813   -3.96  0.0318
```

```
##  4 Whiskey In~ Garage~   304693       76 1998-01-01   0.511 0.97    -3.72  0.0414
##  5 One (Remas~ ...And~   446146       51 1988-09-07   0.438 0.687   -9.15  0.0619
##  6 One (Remas~ ...And~   446146       72 1988-09-07   0.438 0.687   -9.15  0.0619
##  7 One         And Ju~   446146       50 1988-08-25   0.439 0.691   -9.16  0.0608
##  8 One         ...And~   447440       75 1988-08-25   0.437 0.695   -9.45  0.0617
##  9 For Whom T~ Ride T~   309973       73 1984-07-27   0.512 0.86    -6.14  0.0703
## 10 For Whom T~ Ride T~   309973       54 1984-07-27   0.512 0.86    -6.14  0.0703
## # ... with 6 more variables: acousticness <dbl>, instrumentalness <dbl>,
## #   liveness <dbl>, valence <dbl>, tempo <dbl>, album_release <date>, and
## #   abbreviated variable names 1: album_name, 2: duration_ms, 3: popularity,
## #   4: release_date, 5: danceability, 6: loudness, 7: speechiness
##
## $order
##  [1] "72 Seasons"
##  [2] "Metallica"
##  [3] "Metallica (Remastered)"
##  [4] "Master Of Puppets (Remastered)"
##  [5] "...And Justice For All"
##  [6] "Kill Em All (Remastered)"
##  [7] "...And Justice for All (Remastered)"
##  [8] "Ride The Lightning (Remastered)"
##  [9] "Death Magnetic"
## [10] "Garage Inc."
## [11] "HardwiredTo Self-Destruct"
## [12] "Load"
## [13] "And Justice for All (Remastered)"
## [14] "Metallica (Remastered 2021)"
## [15] "Reload"
## [16] "Garage, Inc."
```

```
## [17] "HardwiredTo Self-Destruct (Deluxe)"
## [18] "Metallica Through The Never (Music From The Motion Picture)"
## [19] "St. Anger"
## [20] "S&M2"
## [21] "S&M"
## [22] "Live Sh*t: Binge & Purge (Live In Mexico City)"
## [23] "Helping HandsLive & Acoustic At The Masonic"
## [24] "Live S**t: Binge & Purge"
## [25] "Ride The Lightning (Deluxe Remaster)"
## [26] "Some Kind Of Monster"
## [27] "Ride The Lightning (Deluxe / Remastered)"
## [28] "Helping Hands...Live & Acoustic at The Masonic"
## [29] "Live In Brazil (1993 \x93 2017)"
## [30] "Kill Em All (Deluxe / Remastered)"
## [31] "Metallica (Remastered Deluxe Box Set)"
## [32] "Lulu"
## [33] "Kill Em All (Deluxe Remaster)"
## [34] "Master of Puppets (Remastered Deluxe Box Set)"
## [35] "And Justice for All (Remastered Deluxe Box Set)"
## [36] "...And Justice for All (Remastered Deluxe Box Set)"
## [37] "Some Kind Of Monster (Live)"
## [38] "Live In Chile (1993 \x93 2017)"
## [39] "Master Of Puppets (Deluxe Box Set / Remastered)"
## [40] "Live In Argentina (1993 \x93 2017)"
## [41] "Six Feet Down Under Part 2"
## [42] "Six Feet Down Under"
```

It can be seen they they clearly peaked in the late 1990s

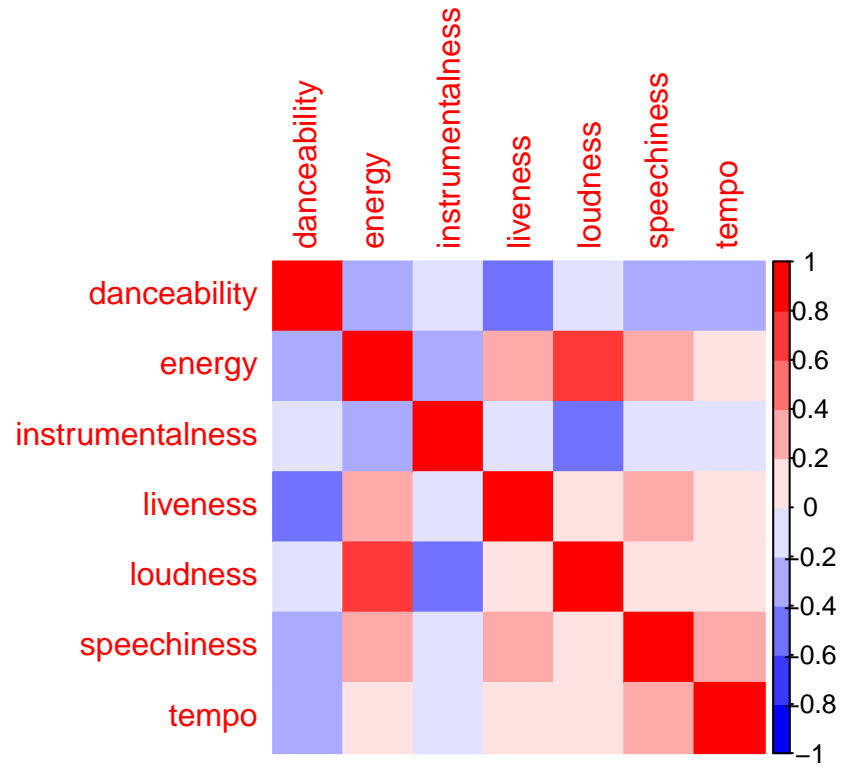lastly i will be looking at the correlation matrix for metallica

Figure 2.3: Correlation matrix

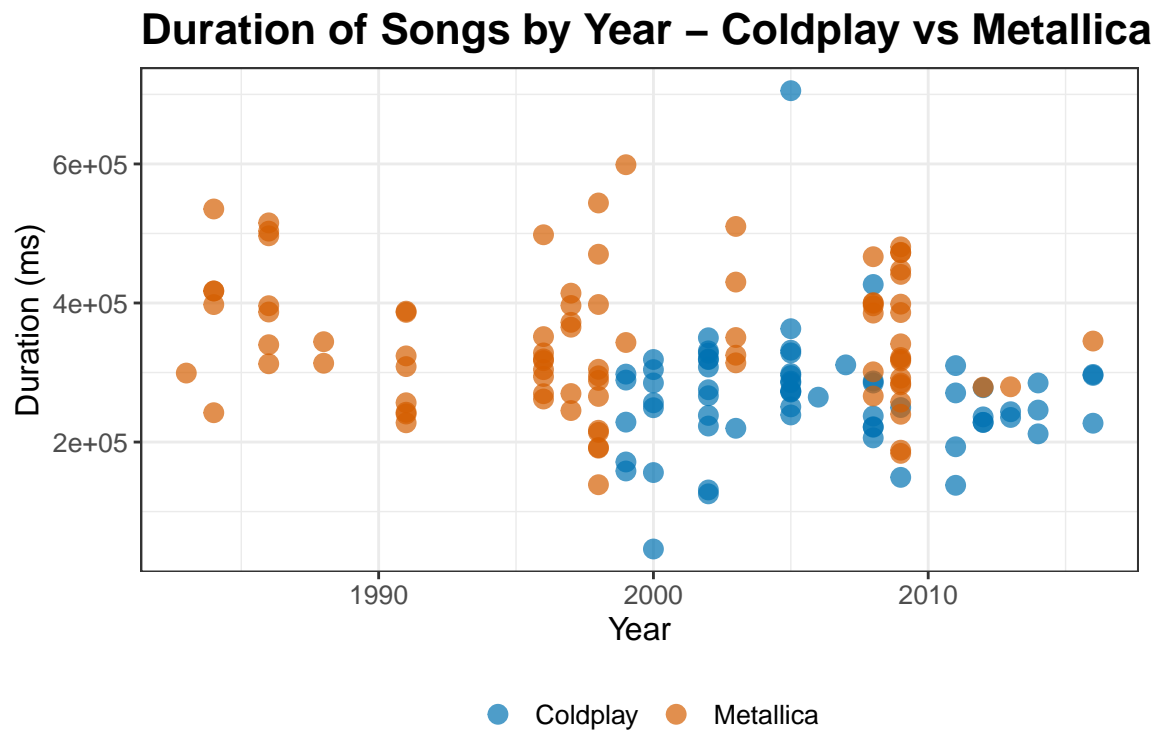Now if we had to look at the song duration between coldplay and mettallica

Figure 2.4: Song Duration

3. Extra

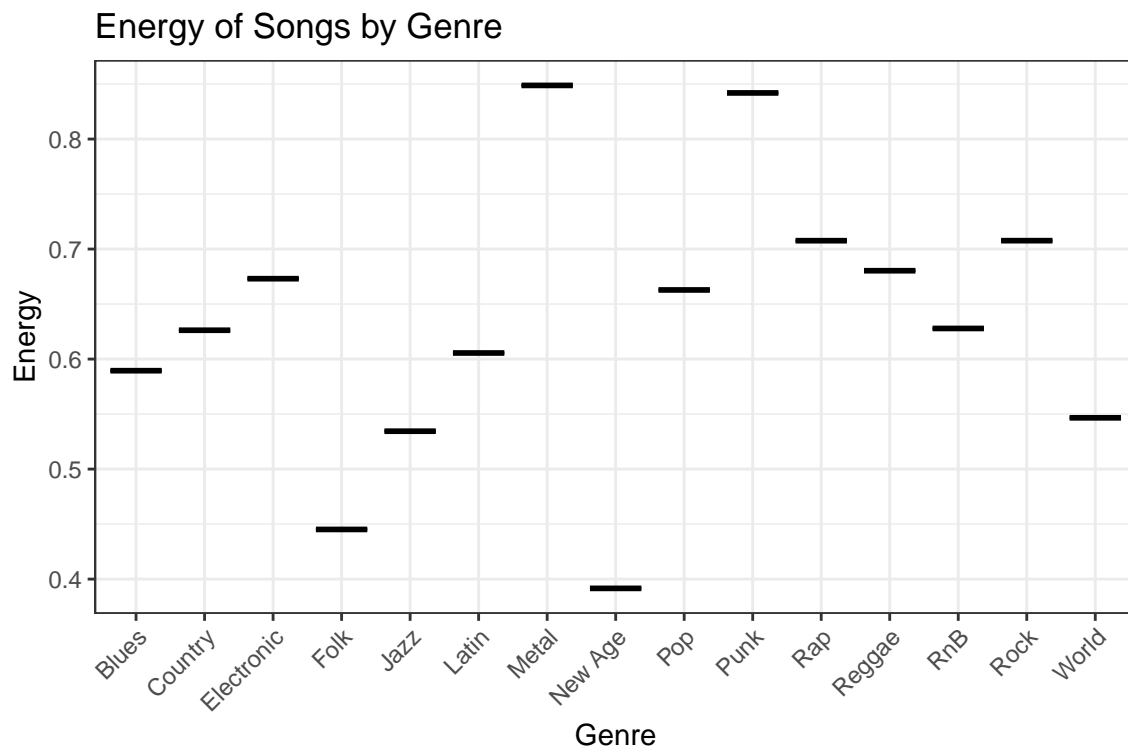Next I want to analyse the different genres i how much energy the produce

Figure 3.1: Engergy per Genre

It is clear from this that metal and punk will give you the most energy

4. Conclusion

Coldplay and Metallica are two great bands but obviously they have different target audiences. These will depend on an individuals tastes which will affect there popularity.