

midterm project

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R Markdown

Reading in data

```
top100 <- read.csv("/Users/dz/Downloads/archive (1)/Spotify 2010 - 2019 Top 100.csv")
top100 <- top100[-c(1001:1003), ] #last 3 rows NA
```

Cleaning data

```
subgenre_df <- as.data.frame(table(top100$subgenre))
# rename top.genre column to subgenre
names(top100)[names(top100) == "top.genre"] <- "subgenre"

# divide into 10 general categories
pop_rows <- grep(paste(c("pop", "neo mellow", "talent show", "indietronica",
  "adult standards", "boy band", "bubblegum", "idol"), collapse = "|"),
  top100$subgenre, ignore.case = TRUE)
hiphop_rows <- grep(paste(c("hip hop", "rap", "trap", "g funk", "uk drill"),
  collapse = "|"), top100$subgenre, ignore.case = TRUE)
rock_rows <- grep(paste(c("rock", "permanent wave", "icelandic indie", "emo"),
  collapse = "|"), top100$subgenre, ignore.case = TRUE)
country_rows <- grep("country", top100$subgenre, ignore.case = TRUE)
latin_rows <- grep(paste(c("latin", "reggae"), collapse = "|"), top100$subgenre,
  ignore.case = TRUE)
randb_rows <- grep(paste(c("soul", "r&b"), collapse = "|"), top100$subgenre,
  ignore.case = TRUE)
edm_rows <- grep(paste(c("house", "grime", "edm", "australian dance", "tronica",
  "dancefloor dnb", "french shoegaze", "big room", "techno", "electro",
  "brostep", "complextro", "alternative dance"), collapse = "|"), top100$subgenre,
  ignore.case = TRUE)
metal_rows <- grep("metal", top100$subgenre, ignore.case = TRUE)

# make new column for parent genre 10 genres
top100$genre <- ""
top100 <- top100[, c(1, 2, 18, 3:17)]
top100[pop_rows, 3] <- "pop"
top100[hiphop_rows, 3] <- "hip hop"
top100[rock_rows, 3] <- "rock"
top100[country_rows, 3] <- "country"
top100[latin_rows, 3] <- "latin"
```

```

top100[c(21, 177, 111), 3] <- "folk"
top100[randb_rows, 3] <- "r&b"
top100[edm_rows, 3] <- "edm"
top100[metal_rows, 3] <- "metal"
top100$genre <- sub("^$", "other", top100$genre)

library(lme4)

## Loading required package: Matrix
library(arm)

## Loading required package: MASS
##
## arm (Version 1.13-1, built: 2022-8-25)
## Working directory is /Users/dz/Documents/MSSP/GitHub/MA678 miderm project/Midterm-project
attach(top100)
M1 <- lmer(pop ~ nrgy + dnce + bpm + (1 | genre))

```