

Music Insights

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First, we need tidyverse to handle data importing and wrangling...

```
library(tidyverse)
```

```
## -- Attaching packages -----
## v ggplot2 3.2.1      v purrr  0.3.2
## v tibble  2.1.3      v dplyr  0.8.3
## v tidyr   0.8.3      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0

## -- Conflicts -----
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
```

```
library(tidyr)
library(sjPlot)
library(ggplot2)
library(dplyr)
survey <- read_csv("https://raw.githubusercontent.com/introdsci/MusicSurvey/master/music-survey.csv")
```

```
## Parsed with column specification:
## cols(
##   Timestamp = col_character(),
##   `First, we are going to create a pseudonym for you to keep this survey anonymous (more or less). What is your pseudonym?` = col_character(),
##   `What is your pseudonym?` = col_character(),
##   Sex = col_character(),
##   Major = col_character(),
##   `Academic Year` = col_character(),
##   `Year you were born (YYYY)` = col_double(),
##   `Which musical instruments/talents do you play? (Select all that apply)` = col_character(),
##   Artist = col_character(),
##   Song = col_character(),
##   `Link to song (on Youtube or Vimeo)` = col_character()
## )
```

```
preferences <- read_csv("https://raw.githubusercontent.com/introdsci/MusicSurvey/master/preferences-survey.csv")
```

```
## Parsed with column specification:
## cols(
##   .default = col_double(),
##   Timestamp = col_character(),
##   `What was your pseudonym?` = col_character()
## )
```

```
## See spec(...) for full column specifications.
```

```
#Useful Functions for Data Exploration
```

```
#nrow(df)
#colnames(df)
#levels(df)
```

```
#gather()
#spread()
```

Cleaning Data Frame Column Names to Consistent Format

```
colnames(survey)[colnames(survey) == "First, we are going to create a pseudonym for you to keep this survey anonymous"] <- "pseudonym"
colnames(survey)[colnames(survey) == "What is your pseudonym?" ] <- "pseudonym"
colnames(survey)[colnames(survey) == "Academic Year" ] <- "academic_level"
colnames(survey)[colnames(survey) == "Sex"] <- "sex"
colnames(survey)[colnames(survey) == "Major"] <- "academic_major"
colnames(survey)[colnames(survey) == "Year you were born (YYYY)"] <- "year_born"
colnames(survey)[colnames(survey) == "Which musical instruments/talents do you play? (Select all that apply)"] <- "instruments"
colnames(survey)[colnames(survey) == "Timestamp"] <- "time_submitted"
colnames(survey)[colnames(survey) == "Artist"] <- "favorite_song_artist"
colnames(survey)[colnames(survey) == "Song"] <- "favorite_song"
colnames(survey)[colnames(survey) == "Link to song (on Youtube or Vimeo)"] <- "favorite_song_link"
colnames(preferences)[colnames(preferences) == "Timestamp"] <- "timestamp"
colnames(preferences)[colnames(preferences) == "What was your pseudonym"] <- "pseudonym"
```

Creating New Data Frames to Tidy Up Data

First Let's Make a Data Frame Called "person"

tibble() creates data frames with more constraints.

```
person <- tibble(time_submitted = survey$time_submitted,
                 pseudonym = survey$pseudonym,
                 pseudonym_generator = survey$pseudonym_generator,
                 sex = survey$sex,
                 academic_major = survey$academic_major,
                 academic_level = survey$academic_level,
                 year_born = survey$year_born)
```

Next Let's Make a Data Frame Called "favoritesong"

```
favorite_song <- tibble(
  pseudonym = survey$pseudonym,
  fav_song = survey$favorite_song,
  fav_song_artist = survey$favorite_song_artist,
  fav_song_link = survey$favorite_song_link)
```

```
person$time_submitted <- as.POSIXlt(parse_datetime(x = person$time_submitted, format = "%m/%d/%y %H:%M"))
```

Now let's make a ratings table from the preferences.

```
ratings <- tibble(time_submitted = preferences$timestamp,
                  pseudonym = preferences$`What was your pseudonym?`,
                  fortycrew_notenough = preferences$`40 crew\tNot Enough`,
                  arcticmonkeys_arabella = preferences$`Arctic Monkeys Arabella`,
                  avatar_theeaglehaslanded = preferences$`Avatar\tThe Eagle Has Landed`,
                  benfolds_still = preferences$`Ben Folds\tStill`,
                  blink_shesoutofhermind = preferences$`blink-182\tShe's Out Of Her Mind`)
```

```
,brianjonestownmassacre_seer= preferences$"brian jonestown massacre / sarabeth tucek\tSeer"
,brockhampton_nohalo= preferences$"BROCKHAMPTON\tNO HALO"
,brotherali_canttakethataway= preferences$"Brother Ali\tCan't Take That Away"
,daboii_beatinachokehold= preferences$"Daboii\tBeat in a Chokehold"
,danielcaesar_openup= preferences$"Daniel Caesar\tOpen Up"
,delasoul_pattydooke= preferences$"De La Soul\tPatty Dooke"
,deadkennedys_killthepoor= preferences$"Dead Kennedys\tKill The Poor"
,dominicfike_threenights= preferences$"Dominic Fike\t3 Nights"
,gorillaz_humility= preferences$"Gorillaz\tAny but here is Humility"
,dreamtheater_achangeofseasons= preferences$"Dream Theater\tA Change of Seasons"
,edsheeran_dive= preferences$"Ed Sheeran\tDive"
,generallevy_incredible= preferences$"General Levy\tIncredible (Remix)"
,hiroyuki_sawano= preferences$"Hiroyuki Sawano\tS-ave"
,jaipaul_doyoulovehernow= preferences$"Jai Paul\tDo You Love Her Now"
,johnnycash_wellmeetagain= preferences$"Johnny Cash\tWe'll Meet Again"
,kanebrown_whatsmineisyours= preferences$"Kane Brown\tWhat's Mine is Yours"
,kimpetras_idontwantitall= preferences$"Kim Petras\tI dont want it at all"
,ledzeppelin_heywhatcanido= preferences$"Led Zeppelin\tHey Hey What Can I Do"
,marshmello_onethingright= preferences$"Marshmello\tOne Thing Right"
,matisyahu_oneday= preferences$"Matisyahu\tOne Day"
,mfdoom_potholderz= preferences$"MF DOOM\tPotholderz"
,mozzy_bladadah= preferences$"mozzy\tbladadah"
,olivertree_hurt= preferences$"Oliver Tree\tHurt"
,radiohead_weirdfishesarpeggi= preferences$"Radiohead\tweird fishes arpeggi"
,rainbowkittensurprise_cocainejesus= preferences$"Rainbow Kitten Surprise\tCocaine Jesus"
,rickastley_nevergoingtogiveyouup= preferences$"Rick Astley\tNever Going to Give You Up"
,sia_elasticheart= preferences$"Sia\tElastic Heart"
,sixtoo_jackals= preferences$"Sixtoo\tJackals and Vipers in Envy of Man [Album]"
,snakehips_eitherway= preferences$"Snakehips\tEither Way"
,sufjanstevens_shouldhaveknownbetter= preferences$"Sufjan Stevens\tShould Have Known Better"
,tameimpala_patience= preferences$"Tame Impala\tPatience"
,theblackkeys_unknownbrother= preferences$"The Black Keys\tUnknown Brother"
,thebyrds_mrspaceman= preferences$"The Byrds\tMr. Spaceman"
,tool_fearinoculum= preferences$"Tool\tFear Inoculum"
,traffic_dear= preferences$"Traffic\tDear Mr. Fantasy"
,travisscott_astrothunder= preferences$"Travis Scott\tAstrothunder"
,virtualself_angelicvoices= preferences$"Virtual Self\tAngel Voices"
,weezer_buddyholly= preferences$"Wheezer\tBuddy Holly" )
```