**Data Science**

**Class Activity 2**

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**Data Set**

**.Mp3**

# About Data Set:

We’ve selected a music dataset from kaggle the data set includes 18 music files from the star wars. Most of the music files are about 30 to 60 seconds long.

Dataset Link:

<https://www.kaggle.com/hyperbeam/starwars-sounds-data>

Extracting mp3 data in R studio is done by some packages that we need to install before opening file in the R studio. We downloaded the file and opened it in Zip Format.

# Package we used:

1. AV
2. Mp3.reader

# About Av:

The simplest use of  Av is converting an audio file into another format. The av\_audio\_convert function will convert any sound input (even from a video file) into another output format, optionally adjusting the number of channels, sampling rate, and start/end time.

# About Mp3.reader

This function will load the specified MP3 file into memory using the tuneR package. This is useful for working with music files as a data set.

[mp3.reader](https://rdrr.io/github/KentonWhite/rsangole-201-rstudio/man/mp3.reader.html)(data.file, filename, variable.name)

# Script:

|  |
| --- |
| > library(av)  > # Our example data  > wonderland <- system.file('SaberOn.mp3', package='av')  >  > wonderland <- system.file('samples/Synapsis-Wonderland.mp3', package='av')  > av\_media\_info(wonderland) |

# Results:

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| --- |
|  |

The Result Shows us the Duration, Video Format and Audio Channels of the data.

# Reading Audio Bin:

The function read\_audio\_bin reads audio files (in any format) into binary samples. By setting end\_time = 2 we only read the first two seconds (approximately), keeping the data relatively small.

# Script:

|  |
| --- |
| pcm\_data <- read\_audio\_bin(wonderland, channels = 1, end\_time = 2.0)  > plot(pcm\_data, type = 'l') |

Output:

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Console:

