

# Lab 2 – MATH 240 – Computational Statistics

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## 1 Introduction

This lab introduced us to new places to explore in R including different types of files and functions. We are introduced to two new packages, stringr and jsonlite. Additionally this lab focuses on working directories and importing files and extracting data.

## 2 Methods

For this lab we were given a folder to download, called MUSIC containing sub folders and .wav audio files. This part of the Lab consisted of two parts, Task 1 and Task 2.

### 2.1 Methods for Task 1

The overall goal for this task was to work on directory skills, building a batch file for data processing. Through accessing a downloaded folder called MUSIC you could work with the .wav files inside.

- After downloading the music files and installing the stringr package, I used some of the functions to help

work through the data and sort what we were looking for.

- After completing a sample for one song getting the album, artist, and track name in a desired format, a for loop was implemented with some tweaks to get a desired vector of all the files in MUSIC.
- After the vector was made for all the files, we converted it into a txt file called batfile.txt

### 2.2 Methods for Task 2

The overall goal for Task 2 was to Process JSON Output and extract some information from the JSON file.

- After installing the jsonlite package, I used the strsplit() to extract the artist, album, and tracks from the code.to.process found in Task 1.
- After loading in the file given using the fromJSON() a large list of a variety of data was returned.
- Using the data we found some categories such as average loudness, using the dollar sign to help find column names