

Lab 10

David Stenning

```
library(tidyverse)
```

The folder `Lab10Data` contains several CSV files. Each file contains an ID variable and a variable `res` that holds results of an experiment on the study subjects. You can obtain a vector with the file path and names with

```
dfiles <- dir("Lab10Data",full.names=TRUE)
dfiles
```

```
## [1] "Lab10Data/exper1.csv" "Lab10Data/exper2.csv" "Lab10Data/exper3.csv"
## [4] "Lab10Data/exper4.csv" "Lab10Data/exper5.csv" "Lab10Data/exper6.csv"
## [7] "Lab10Data/exper7.csv" "Lab10Data/exper8.csv" "Lab10Data/exper9.csv"
```

1. Read the first datafile into a tibble named `ex_data`. Change the name of the `res` column to `experiment1`, by manipulating the `names` attribute of `ex_data`. That is, use `names(ex_data)[2] <- "experiment1"`.
2. Write a function `read_ex()` that takes `dfiles` and an experiment number `i` as arguments and returns a tibble with the name of the `res` column changed to the experiment number. That is, `read_ex(dfiles,1)` should return the same tibble as in question 1.
3. Use your function from question 2 to read in the second data file. Join this second file to `ex_data` by 'ID'.
4. Write a function called `read_ex_data()` that takes a folder name as its argument and
 1. reads in the data filenames from that folder,
 2. calls `read_ex()` to read the first datafile into `ex_data`,
 3. loops through the remaining data files, successively joining them to `ex_data`, and
 4. returns `ex_data`.