

Daylio Analysis

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Daylio Data Wrangling

```
# Useful Libraries
library(tidyverse)
library(clock)
library(stringr)
library(purrr)
library(glue)
```

Daylio was my initial diary app that I used for quite a while last year, I've since stopped using it but I've still been pretty interested in what I can learn from it. In this short document I'll go through the 450 observations over about a 2 year period and see what I can gather.

First to obtain the data, I went into Daylio and exported a backup as a CSV file.

```
daylio_export_2023_05_12 <- read.csv("daylio_export_2023_05_12.csv")

daylio <- daylio_export_2023_05_12 %>%
  mutate(date_time = date_time_parse(paste(full_date, time),
    zone = "GMT", format = "%Y-%m-%d %H:%M"), weekday = as.factor(weekday),
    mood = as.factor(mood), activ_str = activities, note_title = note_title,
    note = note)
```

Create Activity Table

In order to create a table of activities from each day, notice that the activities column comes in the following form **Sleeping | Exercise | Reading**, to create a data frame out of this we first split the string into a character vectors for each day. We use the regex pattern `\s|\s` to split up the string. To get a vector of all activities we use the `union` function.

```

# Get each day of activities as a character vector
activ_list <- map(daylio$activ_str, ~str_split_1(.x, pattern = regex("\\s\\|\\s")))

# Find all activities
activ_all <- reduce(activ_list, union)
activ_all[activ_all == ""] <- "unknown"

num_activs <- length(activ_all)

activ_all_list <- map(activ_list, ~activ_all %in% .x) %>%
  map(set_names, activ_all)

activ_tibble <- bind_rows(activ_all_list)

```

Creating Markdown Files

To create tags for each mood or activity, a bit of regex is used. After that using the glue package I form a document string for each entry.

```

activ_str_tags <- map_chr(activ_list, ~str_replace_all(.x, pattern = regex("\\s"),
  "-") %>%
  str_replace_all(pattern = regex("^"), "#") %>%
  str_flatten(collapse = " "))

daylio$activ_str_tags <- activ_str_tags

daylio <- daylio %>%
  mutate(document = glue("Created: {date_time}", "Mood: #{mood}",
    "Tags: {activ_str_tags}", "Note:", "{note}", .sep = "\n"),
    date_file_formatted = date_format(date_time, format = "%d-%m-%Y %H-%M"),
    filename = glue("Daylio/Daylio {date_file_formatted}.md"))

```

Using the cat function all the daylio files are saved in markdown format.

```

folder <- "Daylio"
if (file.exists(folder)) {
  stop("The Daylio folder already exists.")
} else {
  dir.create(folder)
}

```

```
walk2(daylio$filename, daylio$document, ~cat(.y, file = .x))
```