

Homework: lubridate and purrr

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2025-02-25

Load Packages:

```
library(tidyverse)
```

Exercise 1: Advanced date manipulation with lubridate

Question 1: Generate a sequence of dates from January 1, 2015 to December 31, 2025, spaced by every two months. Extract the year, quarter, and ISO week number for each date.

```
# Generate a sequence of dates from Jan 1, 2015, to Dec 31, 2025, every two months
dates <- seq(ymd("2015-01-01"), ymd("2025-12-31"), by = "2 months")

# Create a tibble and extract year, quarter, and ISO week number
date_tbl <- tibble(
  date = dates,
  year = year(dates),
  quarter = quarter(dates),
  iso_week = isoweek(dates)
)

print(date_tbl)
```

```
## # A tibble: 66 x 4
##   date      year quarter iso_week
##   <date>    <dbl>   <int>   <dbl>
## 1 2015-01-01  2015     1       1
## 2 2015-03-01  2015     1       9
## 3 2015-05-01  2015     2      18
## 4 2015-07-01  2015     3      27
## 5 2015-09-01  2015     3      36
## 6 2015-11-01  2015     4      44
## 7 2016-01-01  2016     1      53
## 8 2016-03-01  2016     1       9
## 9 2016-05-01  2016     2      17
## 10 2016-07-01 2016     3      26
## # i 56 more rows
```

Exercise 2: Complex Data Arithmetic

Question 2: Given the following dates, compute the difference in months and weeks between each consecutive pair.

```
# R code here
```

Exercise 3: Higher-Order Functions with purrr

Question 3:

```
# R code here
```

Exercise 4: Combining lubridate and purrr

Question 4:

```
# R code here
```