Downloaded the work done by Frederick via SSH

Frederick Cain
To: ⊗ Ben Austin

Here is the SSH
git@github.com:fccain89/HW_Cain.git

Name	Date modified	Type	Size
Cain_hw	2/25/2025 2:25 PM	R Source File	1 KB
Date_Map_HW_Freddie_Ben	2/25/2025 2:25 PM	RMD File	2 KB
DateMap_HW_Freddie_Ben	2/25/2025 2:25 PM	RMD File	3 KB
GitHub_Assignment_1	2/25/2025 2:25 PM	Firefox PDF Docu...	2,714 KB
README	2/25/2025 2:25 PM	Markdown Source ...	1 KB
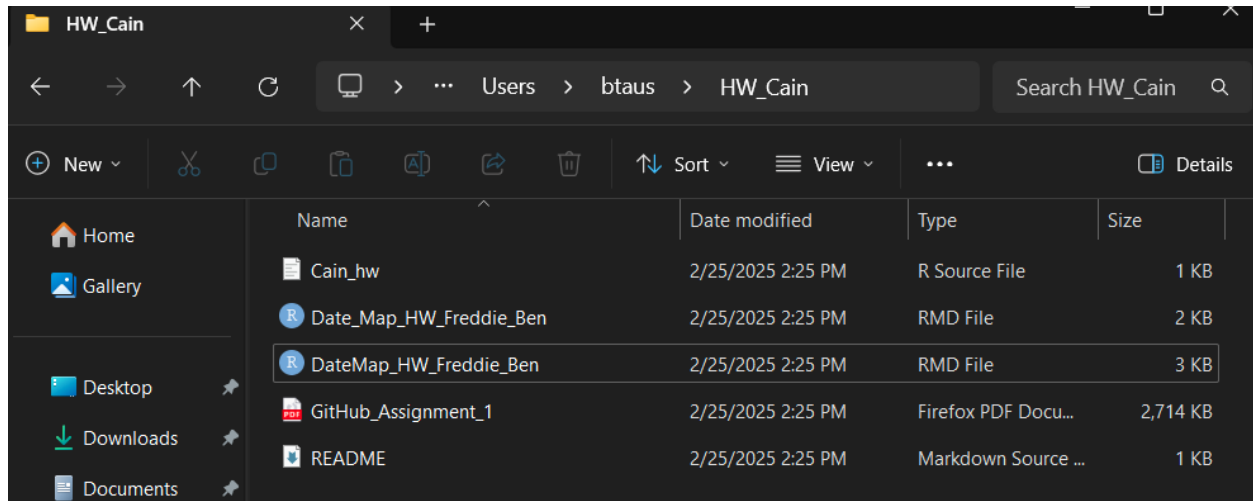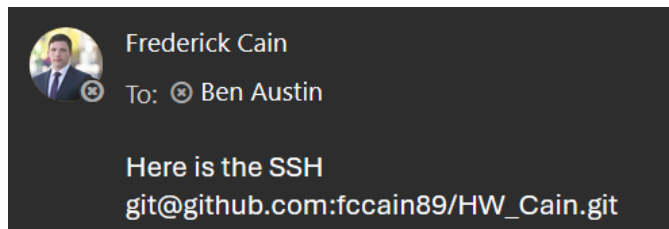
We split the work between the two of us. Frederick did problems 1&2, I did problems 3&4.

```r
# Load libraries
```{r}
library(lubridate)
library(tibble)
```

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.
```{r}
date_seq <- seq(ymd("2015-01-01"), ymd("2025-12-31"), by = "2 months")

# Extract year, quarter, and ISO week
date_info <- tibble(
  date = date_seq,
  year = year(date_seq),
  quarter = quarter(date_seq),
  iso_week = isoweek(date_seq)
)

# Print the first few rows
print(head(date_info))
```

2) Given the following dates, compute the difference in months and weeks between each
consecutive pair.
sample_dates <- c("2018-03-15", "2020-07-20", "2023-01-10", "2025-09-05")
```{r}
# Convert sample_dates to Date format
sample_dates <- ymd(c("2018-03-15", "2020-07-20", "2023-01-10", "2025-09-05"))

# Compute differences in months and weeks
month_diffs <- diff(sample_dates) / dmonths(1)   # Convert to months
week_diffs <- diff(sample_dates) / dweeks(1)     # Convert to weeks

# Combine results into a tibble
date_diffs <- tibble(
  start_date = sample_dates[-length(sample_dates)],
  end_date = sample_dates[-1],
  months_diff = round(month_diffs, 2),
  weeks_diff = round(week_diffs, 2)
)

# Print output
print(date_diffs)
```
```

I uploaded Frederick's work to my own repo

```
btaus@hal-5 MINGW64 ~
$ cd hw_date_map_Ben_Frederick

btaus@hal-5 MINGW64 ~/hw_date_map_Ben_Frederick (main)
$ git add Date_Map_HW_Freddie_Ben.Rmd

btaus@hal-5 MINGW64 ~/hw_date_map_Ben_Frederick (main)
$ git commit -m "Frederick's solutions for problems 1&2"
[main (root-commit) 0f567e4] Frederick's solutions for problems 1&2
 1 file changed, 56 insertions(+)
 create mode 100644 Date_Map_HW_Freddie_Ben.Rmd

btaus@hal-5 MINGW64 ~/hw_date_map_Ben_Frederick (main)
$ git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 942 bytes | 314.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:benaustin314/hw_date_map_Ben_Frederick.git
 * [new branch]      main -> main
```

Then I solved problems 3&4 and pushed them individually.

Commits on Feb 25, 2025		
Ben's solution for problem 4		
benaustin314 committed 1 minute ago	b13d3f6	<>
Ben's solution for problem 3		
benaustin314 committed 33 minutes ago	9b7ba74	<>
Frederick's solutions for problems 1&2		
benaustin314 committed 40 minutes ago	0f567e4	<>