Directions:

Please submit an .rmd file with the text responses and code (if applicable to the question) on Canvas (under Assignment #1) by 1/25 at 11:59p.

FPP3:

**“Forecasting: Principles and Practice”** [**https://otexts.com/fpp3/**](https://otexts.com/fpp3/)

**PBF2e:**

Principles of Business Forecasting2nd ed., Keith Ord, Robert Fildes & Nikolaos Kouremtzes, Wessex Press Publishing Co. (2017), ISBN978-0-990649.

<https://wessexlearning.com/products/principles-of-business-forecasting-2nd-ed-part-i>

[Download Part I here](https://cdn.shopify.com/s/files/1/0859/4364/files/Part_I_POBF-_A_First_Course_in_Forecasting_1.pdf?612)

1. (FPP3 1.8- Exercises, #1)
2. (FPP3 1.8- Exercises, #2)
3. PBF2e Minicase 1.3

R code with solution

1. (FPP3 2.10- Exercises, #1)
2. (FPP3 2.10- Exercises, #8)
3. (FPP3 2.10- Exercises #9)
4. (FPP3 2.10- Exercises, #11)
5. **Tsibble and mutate practice:** Import a year of stock (of your choosing) closing price data (feel free to use gafa\_stock within FPP3 or quantmod package. Convert this data to a tsibble. Plot differences and correlogram of the differences and comment on whether the differences resemble white noise (reference FPP3 2.10, #12 for code help).
6. **Reindexing and plotting practice:** Vic\_elec dataset
   1. Plot daily demand year over year for vic\_elec dataset (within FPP3)
   2. Is temperature correlated to demand?
   3. Is previous day demand correlated with current demand?

***For below problems please reference*** [***https://r4ds.had.co.nz/dates-and-times.html***](https://r4ds.had.co.nz/dates-and-times.html) ***(covered in lecture 2)***

1. Datetime components: nycflights13
   1. Load the flights table from the nycflights13 package
   2. What day of the week has the highest average delay?
2. Time zones: Reindex vic\_elec to the US Eastern timezone using the with\_tz function
3. Durations and periods
   1. Create a duration for your age at the start of our first lecture and print this duration.
   2. Calculate your age at the end of the semester (4/27/22 8:50p) using periods