Exercise 5: Base R vs. Tidyverse

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Prerequisites

1. Open you `ps811-exercises` folder.
2. Go to File > New File > R Script.
3. Save file as `exercise-5-code.R`.
4. Load R packages installed in Lecture 5.

Base R tasks

1. Download the food_coded.csv file from Kaggle.
2. Load the CSV file into your R environment.

   Open the `codebook_food.docx` file for guidance.
3. Extract the first 95 rows.
4. Look at the following variables using both name and column index/number.
   - GPA
   - calories_chicken
   - drink
   - fav_cuisine
   - father_profession
   - mother_profession
5. Create a new variable for how healthy each person feels but convert the scale from 1 to 10 to 1 to 100.
6. Filter to students who are female and have GPAs that are above 3.0.
7. Arrange their favorite cuisine in alphabetical order.
8. Find the mean and standard deviation for the following variables, and summarize them in a data frame.
   - chicken_calories
   - tortilla_calories
   - turkey_calories
   - waffle_calories
9. Summarize GPA and weight within the gender and cuisine variables.

Tidyverse tasks

1. Download the facebook-fact-check.csv file from Kaggle.
2. Load the CSV file into your R environment.
3. Extract the last 500 rows.

   Hint: Check out the top_n() page to figure out how to extract the lasst 500 rows instead of the firsst 500 rows.
4. Look at the even-numbered column indices only. Identify them by name.
5. Using `mutate`, create a new variable called `post_type_coded` that renames each post type to the following:

   - link = 1
   - photo = 2
   - text = 3
   - video = 4

   Hint: You want to make sure that these text categories are *equal* to these numeric values.
6. Arrange page names in reverse order.
7. Find the mean and standard deviation for the following variables, and summarize them.

   - share_count
   - reaction_count
   - comment_count
8. Summarize the mean and standard deviations in Question 7 with the mainstream variables.

Submit

Email me (mshieh2@wisc.edu) the link to your `ps811-exercises` repository when you are done.