

First-time Directions:

In addition to completing the tasks given below, all programming assignments should include the following elements. These will not be repeated on future assignments, unless changes are necessary.

- Every program you submit for grading must include a header section that includes your full name, course and section number, last date you edited the program, and a brief description of the intent of the program. (It may be easiest to copy from *000 - README - Header and path template for students.sas* and make the necessary updates.)
- Your program must include clear and concise comments to explain the intent of your code. Keep in mind that comments are not just for you - they are also for your colleagues and clients (and TA). There are typically multiple ways to achieve the same result, so use brief comments to explain your reasoning.
- The only file you need to submit is your SAS code. The file must be saved as a .SAS file in the format *HWXXLast-NameFirstInitial.sas*. For example, my submissions would be named *HW00DugginsJ.sas* for the first assignment. No other submission types will be graded (i.e., you will get a zero on the assignment.) The TA can submit your code to see your output and log. For this reason it is important that you use libraries with the specified names.
- When you submit your file to Gradescope, ensure that it is viewable – by that I mean make sure you don’t get a message stating that your submission cannot be read by Gradescope. The only reason I’ve ever seen this happen is when students copy and paste information from rich text sources into their code. As such, I strongly advise you to never copy and paste into your code from a rich text source.
- Files you produce should also include your name. If I produce a report called **HW6 Duggins Superfund Report.pdf** then a student named Tony Stark should be producing a file called **HW6 Stark Superfund Report.pdf** - this makes comparing our results very simple because you cannot confuse when you are looking at my work or yours!
- Assignments are graded based on the rubric provided on the Moodle page. Please read through the rubric and make sure you understand it. Because the same rubric is used for every assignment you will always know what is expected of each program.
- Finally, while I can’t require you to do the following - I strongly suggest that:
 - Before submitting your code, delete any data sets you were using, close SAS, reopen SAS, and then run your entire program. Doing so ensures that no forgotten options or data sets are affecting your output. This should create a scenario in which you and the TA are looking at the same output.
 - Even after submission (or before, if you prefer) you should take time to experiment with the code. Each assignment will be asking you for a specific task, but that does not mean it requires mastery of every programming technique we’ve seen so far. Try changing variables, or formats, or programming the same output a different way and see how it affects your results. Then figure out why! As an example, I won’t ask you about the IB and PDV contents or the location of pointers on every assignment, but you should always know what is going on behind the scenes!

- You are allowed at most zero DATA steps and five PROC steps to complete this assignment.

Specifications:

- Create a library that points to the provided data sets and name this library InputDS. Be sure any LIBNAME statements only use relative paths. You are not creating any SAS files in this assignment, so you do not need to create a library for your work but you do need to make sure that any non-SAS output (like a PDF!) goes to the location of your choice!
- I've created a report called *HW0 Duggins Partial Weather Listing.pdf* and your task is to create an identical report. (Remember, from above that means your file name should be *HW0 **your-last-name** Partial Weather Listing.pdf*) There are a few elements you'll need that cannot be inferred from the provided report, or which I want you to pay special attention to but could be easily missed – for those I've provided these pointers!
 - The PDF uses the Festival style. Otherwise, all fonts, font sizes, colors, and other aesthetic settings are the default for a pdf using this style.
 - Note that only the first CONTENTS uses the unsorted data set (RaleighTempPrecip). The remaining PROC steps use the sorted data (RTPsorted).
 - * Unlike RTF, the PDF destination has an automatic table of contents. Use it to quickly navigate through the output objects in a long file like this!
 - Note that the second CONTENTS does not reproduce the variable-level metadata because this report is already pretty long.
 - To produce the table of variable attributes in column order instead of the default (alphabetical order), you'll need a specific option that we covered.
 - As with most reports, the titles and footnotes (when present) give important information about what you are being asked to produce. To earn full credit on the PRINT steps in this assignment, you must use variable lists when selecting variables to print. (If you don't remember variable lists, then make sure you've finished your reading...) In this case, note the following:
 - * In the first listing, our subset to be printed is the records from the most recent five years of data and the variables containing maximum temperature in January (so, Day 1 through Day 31 of TempMax).
 - * In the second listing, we are looking at the same years but now focusing on minimum and maximum temperatures in the first week of January (so, Day 1 through Day 7 of both TempMin and TempMax.)
 - * In the third listing, we're looking at 10 years worth of data and looking at all the precipitation values. When selecting variables here, make sure you grab all precipitation variables without worrying about the Day. (So, avoid saying things like Prcp1 or Prcp366 here).
 - Since this is your first assignment, make sure you pay attention to details like the order of variables in a report, which tables are printed from a PROC step, the names and labels of variables, and so on. The goal is for your report to be identical to mine.
- When creating the report, place the resulting output only in the PDF. No results should appear in any other destination.