Final Grade Reflection

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After looking over my work and considering how the first half of this class has gone I believe I have earned an A-. Starting by looking at learning targets for the class I believe I have shown proficiency in most if not all to this point. In the lab 4 challenge I showed that I could import data from multiple file types, both .csv and .xls. In that same challenge, looking at house prices and avocado sales, I also showed I could select columns, filter rows or observations across numeric data and in lab 3 I demonstrated the ability to filter across character data types. Additionally in Lab 3 I was able to use mutate to modify variables and create new ones, using if_else to simplify a variable from many groups to two. I was also able to use pivot_longer() in Lab 4's challenge to create variables for city and move column names to be observations. In that same challenge I used a mutating join (left_join()) to put a housing data set together with a data set that looked at avocado prices and sales to explore the relationship between the two. In that lab I also used a filtering join (semi_join()) to filter the data to include only the observations of cities that I was interested in. In lab 4 I used a similar operation, an anti_join() to create data sets that held only certain cities or regions for further exploration. I have been working on creating more professional appearing labs and I believe my rendered documents have recently been appearing much better than previously. Originally I had included output from reading in data and calling packages. I have since learned to use "#| output: FALSE" properly to clean up the appearance of my end product as can be seen in all my labs and challenges since lab 2, and in the revised versions of the early ones as well. I attempt to write well documented code and name many of my arguments so that each line is easily understood and the goal of each input in a line is understood. This can be seen in lab 4 challenge where I included things like ".cols" in my separate function, "by =" in my filtering and mutating join, or "mapping =" and "x =" in my ggplots to make them easily read and understood. I also make my programs fairly dynamic by using filtering joins such as in lab 4, or by using dynamic inputs that can easily be changed without damage to the code itself. I have worked on making visualizations for many data types. One example is lab where I was able to recreate a bar chart, classified by region, a character variable, using a proportion created from two numeric variables, and colored by size, another character variable. In lab 2 I was able to use character variables to create side by side box plots, overlaid with jittered points. I was also able to color them by type and annotate the graph itself making it easy to visually distinguish

specific species. This showed some creativity as well as demonstrating continued learning by attempting a more difficult challenge successfully. I can also summarize variables individually and across groups as seen in lab 3 where I was able to create summaries of both factor as well as numerical variables about various demographic variables. Finally, I was able to grow the efficiency of my code greatly by using the tidyverse and its many related packages in every lab. I have become much more adept at using pipelines, at pivoting data wide and long as seen in lab 4's challenge, and at using modern filter and mutate techniques. My code rarely repeats itself anymore. For example, I did a very poor job originally in my lab 3 challenge, using about 8 statements where 1 was needed, but I was able to fix the problem by including an across statement and eliminating the excess statements. This shows the increasing efficiency in my code, that I am attempting to maintain an open mind by fixing and learning from my many errors, and that I can use modern tools to iterate across columns and rows to reduce the repetition and number of lines in my code. I have attempted to be an active and helpful teammate throughout the quarter, asking for help when I need it and offering it when others do and have really enjoyed working in my group so far. I have also improved my peer review skills in helping others make their code tidier, with proper line breaks and easy readability as well as eliminating or reducing inefficient code and replacing it with more modern techniques. I am trying to find the balance between helpful feedback and building others up for their good work. For instance, In a lab 4 peer review I recommended use of filtering joins rather than the %in% operator, but mentioned that using that was creative. Overall I would argue that I have put effort into demonstrating proficiency and continued understanding in this class. I have not always been perfect and there are many areas for improvement, but on the whole I believe I have earned an A-.