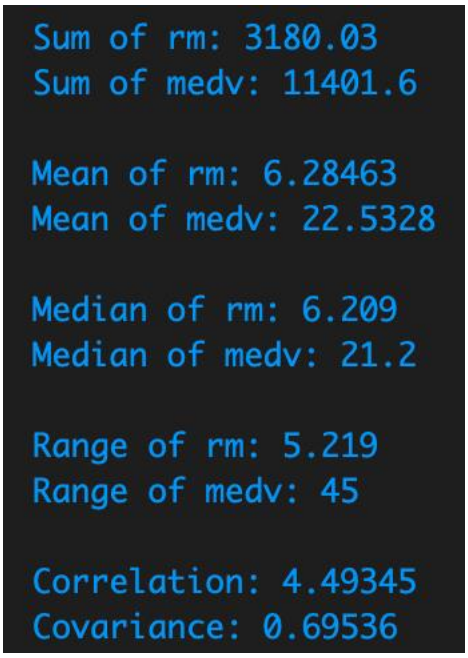
1. 

2. Using the built-in functions in R makes all these calculations so much easier. Although, C++ has many built in functions as well, it still requires so much more time and effort to write the remaining code. It took me almost 2 hours to write the C++ code for this assignment, and it took me around 20 minutes to do the same thing in R. It only took that long in R because I'm new to the language, but it can easily be done in 5 minutes.
3. Mean is the average of the data values, median is the middle value in the data, and range is how far apart the data is spread out. These measurements are useful in data collection because they give a good description of the data and what to expect. They can be used by humans as well as computers to recognize trends in the data that are useful for predicting future data.
4. Covariance is the measurement that describes how closely a change in one data set is associated with a change in a different data set. The only problem is that covariance has no limit so the measurements can be al over the place. Correlation solves this problem by scaling the covariance to be in the range of -1 to 1. It is still used to measure the same thing as covariance, it just makes the numbers easier to understand.